

CLEAR STORAGE 1 \*008015,022026,030037,044,049,053053N0000000001026 1  
 CLEAR STORAGE 2 L068116,105106,1101178101/192#071029C0290568026/8001/0991,001/00111710E 2  
 900TSTRAP \*008015,022029,036040,047054,061068,072/061039 \*0010011040 3

1401 FORTRAN SYSTEM VERSION THREE 50003 PAGE 1

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
101	1 01	273	JOB	1401 FORTRAN SYSTEM				
102	1 02		CTL	VERSION THREE				
103	1 03		ORG	645 11			0111	
104	1 04	XDOAD1	DCW	#1	1	0111		4
105	1 05	XDOAD2	DCW	#1	1	0112		4
106	1 06	XDOAD3	DCW	#1	1	0113		4
107	1 07	XDOINI	DCW	#1	1	0114		4
108	1 08	XOBLST	DCW	#1	1	0115		4
109	1 09	XDOSRS	DCW	#1	1	0116		4
110	1 10	XCOMF1	DCW	#1	1	0117		4
111	1 11	XSTNFU	DCW	#1	1	0118		4
112	1 12	XLOGFN	DCW	#1	1	0119		5
113	1 13	XXPNTL	DCW	#1	1	0120		5
114	1 14	XATANF	DCW	#1	1	0121		5
115	1 15	XABSV4	DCW	#1	1	0122		5
116	1 16	XNEGTF	DCW	#1	1	0123		5
117	1 17	XFIXFU	DCW	#1	1	0124		5
118	1 18	XFLTFU	DCW	#1	1	0125		6
119	1 19	XSQRTF	DCW	#1	1	0126		6
120	1 20	XUSER1	DCW	#1	1	0127		6
121	1 21	XUSER2	DCW	#1	1	0128		6
122	1 22	XUSER3	DCW	#1	1	0129		6
123	1 23	XUSER4	DCW	#1	1	0130		6
124	1 24	XUSER5	DCW	#1	1	0131		6
125	1 25	XUSER6	DCW	#1	1	0132		7
126	1 26	XUSER7	DCW	#1	1	0133		7
127	1 27	XUSER8	DCW	#1	1	0134		7
128	1 28	XUSER9	DCW	#1	1	0135		7
129	1 29	XUSR10	DCW	#1	1	0136		7
130	1 30	XUSR11	DCW	#1	1	0137		7
131	1 31	XUSR12	DCW	#1	1	0138		7
132	1 32	XLINKF	DCW	#1	1	0139		8
133	1 33	NOTABL	EQU	*E1	1	0140		
134	1 34	ONEADR	DCW	#3	3	0142		8
135	1 35	ADTBLL	DCW	#3	3	0145		8
136	1 36	SSAUCE	DCW	#3	3	0148		8
137	1 37	GNSTMZ	DCW	#3	3	0151		8
138	1 38	PERIOD	DCW	#3	3	0154		8
139	1 39	XEXPON	DCW	#3	3	0157		8
140	1 40	PLUSDF	DCW	#3	3	0160		9
141	1 41	MACFLS	DCW	#3	3	0163		9
142	1 42		ORG	181			0181	
143	1 43	INTSTZ	DCW	#3	3	0183		10
144	1 44	GOGOGO	EQU	*				
145	1 45	FAILSW	DC	#1	1	0184		10
146	1 46	XLINKW	DCW	#1	1	0185		10
147	1 47	GOTOFN	DCW	#3	3	0188		10

ADDRESS OF CONSTANT ONE  
 NXBTM FOR STNUM TWO & RESORT 4  
 BOTTOM OF OBJECT FOR RESORT  
 TOTAL NO OF DG-GENERATED STMTS  
 ADDRESS OF PERIOD %NO LISTA  
 ADDR OF CONSTANT .1  
 %PARAMAE2B-CONSLT#160005 COMP. OF MACFLS  
 COMPILE TIME ADDR.&MACFLS#08J. TIME ADDR.  
 1  
 TOTAL NUMBER OF INPUT STATEMENTS  
 ADDRESS OF FIRST EXECUTABLE STMT  
 CRIPPLE GO CONDITION SWITCH  
 LOAD XLINK SWITCH  
 ADDR. OF FUNC SELECT ROUTINE

SEQ PG LIN	LABEL	OP	OPERANDS	OBJT TIME ADDR OF DOSBS FUNC ADR. OF POS. IMM. BEFORE ARRAYS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
148	1 48	SUBSCR	DCW #3		3	0191		10
149	1 49	CONLST	DCW #3		3	0194		10
150	1 50	FUNC SW	DC #1		1	0195		10
151	1 51		ORG 196				0196	
152	1 52		<del>DCW</del>		4	0199		10

*@V3M#*

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
153	1	53	JOB							
154	1	54	SFX	1401 FORTRAN						
155	1	55	EQU	0						
156	1	56	EQU	089						
157	1	57	DCW	000						
158	1	58	EQU	099						
159	1	59	DCW	000						
160	1	60	ORG	333						
161	1	61	SBR	PRTXT&3						
162	1	62	SBR	HLDXT&6						
163	1	63	MCW	0000&,LINCT-2						
164	1	64	MCW	XL3, HLD3&6						
165	1	65	MCW	XL1, HLD31&6						
166	1	66	SBR	XL1, 1						
167	1	67	SBR	XL3, 202						
168	1	68	CS	332						
169	1	69	CS							
170	1	70	MCW	110,210						
171	1	71	ASS	ONLY,F						
172	1	72	CC	1						
173	1	73	MCW	094,250						
174	1	74	HLDXT	SBR						
175	1	75	HLD32	SBR						
176	1	76	HLD31	SBR						
177	1	77	W	244,XXX						
178	1	78	CC							
179	1	79	ZA	K						
180	1	80	CS	&2,PGCTR#2						
181	1	81	CS	332						
182	1	82	CC							
183	1	83	MCW	J						
184	1	84	MCW	LINCT, 306						
185	1	85	SBR	MVHED&6						
186	1	86	MCW	090, CTR-1						
187	1	87	MCW	CTR-1,XXX						
188	1	88	MCW	HEAD						
189	1	89	SBR	MVHED&6						
190	1	90	A	010, CTR#2						
191	1	91	A	MVHED, CTR-1, 2						
192	1	92	A	&1,LINCT-2						
193	1	93	W							
194	1	94	SW	0&X3						
195	1	95	MCW	0&X1,0&X3						
196	1	96	BW	CMPAB,0&X1						
197	1	97	CW	0&X3						
198	1	98	C	XL1,PARAM&2						
199	1	99	BU	CPL						
200	2	00	W							
201	2	01	WM							
202	2	02	MCH	HLD31&6,XL1						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
203	2	03		MCW	HLD3266, XL3	7	7	0542	M 415 099		19
204	2	04		CS	332	7	4	0549	/ 332		19
205	2	05		CS		7	1	0553	/		19
206	2	06		BSS	*65,G	7	5	0554	B 563 6		19
207	2	07		B	PRTXT	7	4	0559	B 564		19
208	2	08		H		7	1	0563	.		19
209	2	09	PRTXT	B	0	7	4	0564	B 000		20
210	2	10	CPL	SBR	XL1, 16X1	7	7	0568	H 089 0#1		20
211	2	11		BCE	INC, XL3-2, 2	7	8	0575	B 632 097 2		20
212	2	12		SBR	XL3, 201	7	7	0583	H 099 201		20
213	2	13		W		7	1	0590	2		20
214	2	14		WM		7	2	0591	2		20
215	2	15		A	61,PGCTR	7	7	0593	A 670 664		20
216	2	16		C	PGCTR,615	7	7	0600	C 664 672		21
217	2	17		BU	NULINE	7	5	0607	B 433 /		21
218	2	18		S	PGCTR	7	4	0612	S 664		21
219	2	19		CCB	NULINE,1	7	5	0616	F 434 1		21
220	2	20	ONLY	MCW	EXECUTED,220	7	7	0621	M 680 220		21
221	2	21		W	RSTRX	7	4	0628	2 535		21
222	2	22	INC	A	61, XL3	7	7	0632	A 670 099		21
223	2	23		B	LOOP	7	4	0639	B 491		22
224	2	24	HEAD	DCW	69.....a	7	9	0651			22
225	2	25		DCW	69-a	7	2	0653			22
226	2	26	LINCT	DCW	00000	7	5	0658			22
227	2	27		LTORG	*	7	7		0659		22
				DCW	0000a	7	3	0661		LIT	22
				62		7	1	0662		LIT	22
179			PGCTR		#02	7	2	0664		AREA	22
					69a	7	1	0665		LIT	23
					610a	7	1	0667		LIT	23
190			CTR		#02	7	2	0669		AREA	23
					61	7	1	0670		LIT	23
					615	7	2	0672		LIT	23
220					EXECUTEDa	7	8	0680		LIT	23

1401 FORTRAN SYSTEM MONITOR AND PARAMETER CARD

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
228	2 28		JOB	1401 FORTRAN SYSTEM MONITOR AND PARAMETER CARD						
229	2 29		SFX	A						
230	2 30	PRMCD	DA	1X19						
231	2 31	PARAM								
232	2 32	MONTER	MCH	BCLEAR-2,CCLEAR-2						
233	2 33	ACLEAR	CS	0						
234	2 34		SBR	TCLEAR			0681	0699	SBFLD	24
235	2 35		C	TCLEAR,CCLEAR			0686	M 831 828		24
236	2 36		9U	ACLEAR			0700	/ 000		24
237	2 37		SW	LOD&4			0711	H 710		24
238	2 38		MCW	TCLEAR,LOD&6			0715	C 710 830		24
239	2 39		CW	LOD&4			0722	9 707 /		24
240	2 40		C	LOD&6,BCLEAR#3			0727	, 75R		24
241	2 41		BE	MONTOR			0731	M 710 760		25
242	2 42		LCA	a 3.0			0738	758		25
243	2 43		SBR	LOD&6			0742	C 760 833		25
244	2 44		B	CK			0749	8 769 S		25
245	2 45	TCLEAR EQU	ACLEAR&3				0754	L 834 000		25
246	2 46	*RESTRICTIONS ON CLEAR ROUTINE					0761	H 760		25
247	2 47	* 1. MUST CLEAR AT LEAST ONE CENTURY					0765	B 742		25
248	2 48	* 2. CANNOT CLEAR ABOVE 4K					0710			25
249	2 49	MONITOR R								
250	2 50	NINE	MCH	040			0769	1 040		26
251	2 51	INITAP	RTW	69,RDCNT			0773	M 835 837		26
252	2 52	ERRTP	BER	1,XBEGIN			0780	L 701 838 R		26
253	2 53	INITXT	B	ERRTP			0788	9 797 L		26
254	2 54	ERRTP	BSP	XBEGIN			0793	8 83R		26
255	2 55		S	61,RDCNT#1			0797	U 701 B		26
256	2 56	BWZ	H	INITAP,RDCNT,B			0802	S 836 837		27
257	2 57		B	3333,3333			0809	V 780 837 B		27
258	2 58		B	NINE			0817	. C33 C33		27
259	2 59	CCLEAR	DCW	999			0824	B 773		27
260	2 60		LTORG	*			0830			27
261	2 61		DCW	#03				0831		27
262	2 62		DCW	a 3			0833		AREA	27
263	2 63			69			0834		LIT	27
264	2 64			61			0835		LIT	28
265	2 65	RDCNT		#01			0836		LIT	28
266	2 66	XBEGIN	EQU	*61			0837		AREA	28
267	2 67						0838			28

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
262	2 62		JOB	1401 FORTRAN LOADER PHASE						
263	2 63		FBEGN	LOADER,XL1,R,XL2,R,XL3,R,A						
264			SFX	A	A	6	0110		MACRO	29
265		110	DCM	@LOADER@					GEN	
266		XL1	EQU	0A9			0089		GEN	
267		089	DCW	000			0089		GEN	30
268		091	DC	00			0091		GEN	30
269		XL2	EQU	094			0094		GEN	
270		094	DCW	000			0094		GEN	30
271		096	DC	00			0096		GEN	30
272		XL3	EQU	099			0099		GEN	
273		099	DCW	000			0099		GEN	30
274		100	DC	0			0100		GEN	30
275	2 64	START	BCE	#68,1,			0838	B 853 001		
276	2 65		MCM	@M@,MONITOR			0846	M N49 769		
277	2 66		CS	080			0853	/ 080		
278	2 67		SW	1,GM			0857	, 001 N29		
279	2 68		SW	81,84			0864	, 081 084		
280	2 69		CS	332			0871	/ 332		
281	2 70		CS				0875	/		
282	2 71		R				0876	L		
283	2 72		LCA	19,PRMCD&18			0877	L 019 699		
284	2 73		C	PRMCD&4,@PARAM@			0884	C 685 N54		
285	2 74		BU	NOPRM			0891	B L24 /		
286	2 75		SW	073			0896	, 073		
287	2 76		SW	006,007			0900	, 006 007		
288	2 77		SW	PARAM			0907	, 686		
289	2 78		MCM	80,PARAM-1			0911	M 080 685		
290	2 79		CS	0			0918	/ 000		
291	2 80		SBR	LARRY#3			0922	M N57		
292	2 81		MCM	PARAM&2,DUM#3			0926	M 688 N60		
293	2 82		R	UNPAK			0933	B Y76		
294	2 83		MCM	DUM#5,WK5			0937	M N65 053		
295	2 84		MCM	LARRY,DUM3			0944	M N57 N60		
296	2 85		R	UNPAK			0951	B Y76		
297	2 86		MCM	DUM5,WK51			0955	M N65 048		
298	2 87		A	61,WK5			0962	A N66 053		
299	2 88		A	61,WK51			0969	A N66 048		
300	2 89		CS	332			0976	/ 332		
301	2 90		CS				0980	/		
302	2 91		MESSG	@START OF FORTRAN COMPILATION@,28,1,J			0981	F 1	MACRO	35
303			CC	1			0983	/ 332	GEN	
304			CS	332			0987	/	GEN	35
305			CS				0988	M N94 228	GEN	35
306			MCM	@START OF FORTRAN COMPILATION@,28&200			0995	2	GEN	35
307			W				0996	F J	GEN	35
308			CC	J			0998	M 053 231	GEN	35
309	2 92		MCM	WK5,231			1005	M 020	GEN	36
310	2 93		MCM	@MACHINE SIZE SPECIFIED IS @			1009	2	GEN	36
311	2 94		W							

BLANK

DETERMINE TOP OF MACHINE

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
312	2 95		CS	235	A	4	1010	/ 235		36
313	2 96		MCW	WK51,228	A	7	1014	M D48 228		36
314	2 97		MCW	@ACTUAL MACHINE SIZE IS @	A	4	1021	M D43		36
315	2 98		BCE	EXIT,PARAM@9,T	A	8	1025	B #96 695 T		36
316	2 99		W		A	1	1033	2		36
317	3 00		C	WK51#5,WK5#5	A	7	1034	C D48 053		37
318	3 01		BH	MSERR	A	5	1041	B #77 U		37
319	3 02		C	WK5,@03900@	A	7	1046	C D53 058		37
320	3 03		BL	EXIT	A	7	1046	C D53 058		37
321	3 04		MESSG	@MACHINE SIZE ERROR@,18,J	A	5	1053	B #96 T		37
322			CC	J					MACRO	
323			CS	332	A	2	1058	F J	GEN	37
324			CS		A	4	1060	/ 332	GEN	37
325			CS		A	1	1064	/	GEN	37
326			MCW	@MACHINE SIZE ERROR@,18&200	A	7	1065	M 076 218	GEN	38
327	3 05		W		A	1	1072	2	GEN	38
328	3 06	MSERR	B	L2PRM	A	4	1073	B #89		38
329	3 07		MCW	@SPECIFIED IS GREATER THAN ACTUAL MACHINE SIZE.@,267	A	7	1077	M P22 267		38
330	3 08		W	@ERROR - MACHINE SIZE @	A	4	1084	M P43		38
331	3 09		MCW	LARRY,PARAM@2	A	1	1088	2		38
332	3 10	L2PRM	MCW	PARAM@2,CLR@3	A	7	1089	M N57 688		38
333	3 11	EXIT	CS	0	A	7	1096	M 688 /06		39
334	3 12	CLR	SBR	CLR@3	A	4	1103	/ 000		39
335	3 13		C	CLR@3,ESYSGM	A	4	1107	H /06		39
336	3 14		BU	CLR	A	7	1111	C /06 P46		39
337	3 15		R		A	5	1118	B /03 /		39
338	3 16		MZ	*-006,WORK@076	A	1	1123	1		39
339	3 17		MZ	*-006,ABIT@007	A	7	1124	Y /24 N01		39
340	3 18		MZ	*-6,ABIT@2@7	A	7	1131	Y /31 X07		40
341	3 19		MZ	*-6,CHAR-1	A	7	1138	Y /38 Z80		40
342	3 20		MCW	NUMBER,WORK@003	A	7	1145	Y /45 L87		40
343	3 21		MCW	PARAM@002,DUMMY@003	A	7	1152	M N33 M28		40
344	3 22	DUMMY	CV	0000	A	7	1159	M 688 /69		40
345	3 23		SBR	STORE@006	A	4	1166	D 000		40
346	3 24	MOVE	RW	MVIPT,ENDSW	A	4	1170	H T70		41
347	3 25		BCE	SCANR,001,	A	8	1174	V \$11 Q28 1		41
348	3 26	PRMSG	CC	@MESSAGE 1-SYSTEM DOES NOT FOLLOW END CARD@,70,1,1	A	8	1182	B -70 001		41
349			CC	1					MACRO	
350			CS	332	A	2	1190	F 1	GEN	41
351			CS		A	4	1192	/ 332	GEN	41
352			MCW	@MESSAGE 1-SYSTEM DOES NOT FOLLOW END CARD@,70&200	A	1	1196	/	GEN	41
353			W		A	7	1197	M P87 270	GEN	41
354			CC	1	A	1	1204	2	GEN	42
355	3 27		H	*-3	A	2	1205	F 1	GEN	42
356	3 28	MVIPT	MCW	0072,WORK@075	A	4	1207	- S07		42
357	3 29		MCW		A	7	1211	M 072 N00		42
358	3 30		MCW		A	1	1218	M		42
359	3 31		BCE	SCANR,WORK@004,	A	1	1219	M		42
360	3 32	TOVL	BIN	PRTHD, CARRIAGE OVERFLOW TEST - INITIALIZED	A	8	1220	B -70 M29		42
361	3 33	M2PRT	CS	300	A	5	1228	B K67		43
					A	4	1233	/ 300		43

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
362	3 34		CS		A	1	1237	/		43
363	3 35		MCM	0072,0283	A	7	1238	M 072 283		43
364	3 36		MCM	006,215	A	7	1245	M 006 215		43
365	3 37		BCE	CMNT,WORK&4,C	A	8	1252	B L58 M29 C		43
366	3 38	FSTNU	B	NEW,WORK&009,0	A	4	1260	B V46		43
367	3 39		BCE	NEW,WORK&009,0	A	8	1264	B V46 M34 0		44
368	3 40		BCE	NEW,WORK&009,	A	8	1272	B V46 M34		44
369	3 41		A	51,CTUCD	A	7	1280	A N66 Q24		44
370	3 42		BCE	*68,CTUCD-1,0	A	8	1287	B T02 Q23 0		44
371	3 43		MCM	@CONTINUE CD ERRA,300	A	7	1295	M Q02 300		44
372	3 44		W		A	1	1302	Z		44
373	3 45		MCM	INILZ1,SEL&003	A	7	1303	M N06 T13		45
374	3 46	SEL	MCM	0000,FIXED	A	7	1310	M 000 Q31		45
375	3 47		SW	SEL&001	A	4	1317	, T11		45
376	3 48		A	ONE,SEL&003	A	7	1321	A N10 T13		45
377	3 49		SW	SEL&001	A	4	1328	R T11		45
378	3 50	SW1	NOP	CKLHC	A	4	1332	N Z73		45
379	3 51		BCE	SEL,FIXED,	A	8	1336	B T10 Q31		46
380	3 52		MCM	FIXED,*68	A	7	1344	M Q31 T58		46
381	3 53		BCE	ABIT,CHAR,0	A	8	1351	B X00 L88 0		46
382	3 54		CHAIN	5					MACRO	
383			BCE		A	1	1359	B	GFN	46
384			BCE		A	1	1360	B	GFN	46
385			BCE		A	1	1361	B	GFN	46
386			BCE		A	1	1362	B	GFN	46
387			BCE		A	1	1363	B	GFN	47
388			BCE		A	7	1364	M Q31 000		47
389	3 55	STORE	MCM	FIXED,0000	A	4	1371	H T70		47
390	3 56		SBR	STORE&006	A	7	1375	A N66 Q07		47
391	3 57	INCTO	A	61,TOTAL#5	A	7	1382	C T70 Q10		47
392	3 58		C	STORE&6,&ELDRND	A	5	1389	B K33 S		47
393	3 59		BE	QUIT	A	8	1394	B X51 Q31 M		47
394	3 60	HSW	BCE	HOLLR,FIXED,H	A	7	1402	N Q11 T94		48
395	3 61	HSW2	NOP	@B@,HSW	A	7	1409	C T13 N06		48
396	3 62	CMPAR	C	SEL&003,INILZ1	A	5	1416	B T10 /		48
397	3 63	SWTCH2	BIN	SEL,/	A	4	1421	, T68		48
398	3 64	JUMP	SW	STORE&004	A	7	1425	M T70 094		48
399	3 65		MCM	STORE&006,XL2	A	4	1432	B T68		48
400	3 66		CM	STORE&004	A	7	1436	M N28 U25		49
401	3 67		MCM	N,JUMP	A	7	1443	M N28 U16		49
402	3 68		MCM	N,SWTCH2	A	7	1450	A N36 N03		49
403	3 69		A	TEN,COUNT	A	8	1457	B W69 N02 5		49
404	3 70		BCE	TSTND,COUNT-1,5	A	4	1465	, Q28		49
405	3 71		SW	ENDSW	A	8	1469	V T10 N02 2		50
406	3 72		BWZ	SEL,COUNT-001,2	A	7	1477	M N11 U16		50
407	3 73		MCM	B,SWTCH2	A	7	1484	M 0-0 N20		50
408	3 74	REMOVE	MCM	06X2,OUT	A	7	1491	C N27 N20		50
409	3 75		C	FORMAT,OUT	A	5	1498	B T10 /		50
410	3 76		BU	SEL	A	7	1503	M Q11 T94		51
411	3 77		MCM	@B@,HSW	A	7	1510	M 060 Q17		51
412	3 78		MCM	06X3,WORK#6	A	7				51

BLANK



SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
412	3 79	MCW	AF@,WORK6-3	A	7 1517	M Q18 Q14	51
413	3 80	MCW	WORK6,06X3	A	7 1524	M Q17 060	51
414	3 81	B	SEL	A	4 1531	B T10	51
415	3 82	MCW	@@@,FIXED	A	7 1535	M Q19 Q31	51
416	3 83	B	STORE	A	4 1542	B T64	52
417	3 84	MCW	@N@,FSTNU	A	7 1546	M N49 S60	52
418	3 85	A	E1,STMNO#3	A	7 1553	A N66 Q22	52
419	3 86	MCW	@N@,HSW	A	7 1560	M N49 T94	52
420	3 87	MCW	@N@,HSW2	A	7 1567	M N49 U02	52
421	3 88	MCW	5,211	A	7 1574	M 005 211	52
422	3 89	S	CTUCD#2	A	4 1581	S Q24	53
423	3 90	MCW	@N@,SW1	A	7 1585	M N49 T32	53
424	3 91	MCS	STMNO,203	A	7 1592	Z Q22 203	53
425	3 92	W		A	1 1599	Z	53
426	3 93	SW	STORE@004	A	4 1600	, T68	53
427	3 94	MCW	STORE@006,LOADGM@006	A	7 1604	M T70 W28	53
428	3 95	CH	STORE@4	A	4 1611	B T69	53
429	3 96	MCW	M,JUMP	A	7 1615	M N37 U25	54
430	3 97	LCA	GM,0000	A	7 1622	L N29 000	54
431	3 98	SBR	XL3	A	4 1629	H 099	54
432	3 99	SBR	STORE@006	A	4 1633	H T70	54
433	4 00	MCW	MARK,WORK@009	A	7 1637	M N34 W34	54
434	4 01	MCW	B,SWTCH2	A	7 1644	M N11 U16	54
435	4 02	MCW	TWO,COUNT	A	7 1651	M N13 W03	55
436	4 03	MCW	INILZ2,SEL@003	A	7 1658	M N09 T13	55
437	4 04	B	SEL	A	4 1665	S T10	55
438	4 05	C	0&X2,@DNE@	A	7 1669	C 0-0 Q27	55
439	4 06	BU	SEL	A	5 1676	B T10 /	55
440	4 07	CH	ENDSW#1	A	4 1681	B Q28	55
441	4 08	B	SEL	A	4 1685	B T10	55
442	4 09	MCW	@-@,FIXED	A	7 1689	M Q29 Q31	55
443	4 10	B	STORE	A	4 1696	S T64	56
444	4 11	SCE	INPUT,FIXED,	A	8 1700	B L73 Q31	56
445	4 12	RCE	INPUT,FIXED,#	A	8 1708	B L73 Q31 #	56
446	4 13	BCE	SLASH,FIXED,/	A	8 1716	B V35 Q31 /	56
447	4 14	BCE	ATSGN,FIXED,@	A	8 1724	B W89 Q31 @	57
448	4 15	MCW	@*@,300	A	7 1732	M Q30 300	57
449	4 16	MCW	KPROC	A	4 1739	M N48	57
450	4 17	MCW	FIXED#1	A	4 1743	M Q31	57
451	4 18	B	STORE	A	4 1747	B T64	57
452	4 19	MCW	STORE@6,XL1	A	7 1751	M T70 089	57
453	4 20	MCW	@N@,HSW	A	7 1758	M N49 T94	58
454	4 21	MCW	@N@,HSW2	A	7 1765	M N49 U02	58
455	4 22	MCW	@@,SW1	A	7 1772	M Q11 T32	58
456	4 23	MCW	@X1,WOR K3#3	A	7 1779	M 0#4 Q34	58
457	4 24	BCE	*@9,WOR K3-1,@	A	8 1786	B Y02 Q33 @	58
458	4 25	BWZ	MY82,WOR K3-1,2	A	8 1794	V Y17 Q33 2	59
459	4 26	MCW	WORK3-2,WOR K3	A	7 1802	M Q32 Q34	59
460	4 27	MCW	@00@	A	4 1809	M Q36	59
461	4 28	B	CMPAR	A	4 1813	B U09	59

ABIT

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
462	4 29	MYB2	BCE	*69,WORK3,@	A	8	1817	B Y33 Q34 @		59
463	4 30		BWZ	ISTR1,WORK3,2	A	8	1825	V Y51 Q34 2		59
464	4 31		MCH	WORK3-2,WORK3	A	7	1833	M Q32 Q34		60
465	4 32		MCH	@@,WORK3-2	A	7	1840	M Q37 Q32		60
466	4 33		B	CMPAR	A	4	1847	B U09		60
467	4 34	ISTR1	MCH	WORK3,SAV1#1	A	7	1851	M Q34 Q38		60
468	4 35		MCH	WORK3-2,WORK3	A	7	1858	M Q32 Q34		60
469	4 36		MCH	SAV1,WORK3-2	A	7	1865	M Q38 Q32		60
470	4 37		B	CMPAR	A	4	1872	B U09		61
471	4 38	UNPAK	SBR	PKXT&3	A	4	1876	H Z72		61
472	4 39		UNPAK	DUM3,DUM5					MACRO	
473		S	S	DUM005#2	A	4	1880	S Q40	GEN	61
474		S	S	@OLO05#2	A	4	1884	S Q42	GEN	61
475		MZ	MZ	DUM3,DUM005-1	A	7	1888	Y N60 Q39	GEN	61
476		MZ	MZ	DUM3-2,@OLO05-1	A	7	1895	Y N58 Q41	GEN	61
477		@OJ005	BWZ	@OK005,@OLO05-1, 2	A	8	1902	V Z21 Q41 2	GEN	61
478		A	A	@A@,@OLO05	A	7	1910	A Q44 Q42	GEN	62
479		B	B	@OJ005	A	4	1917	B Z02	GEN	62
480		@OK005	BWZ	@OP005,@OM005-1, 2	A	8	1921	V Z40 Q39 2	GEN	62
481		A	A	@&@,@OM005	A	7	1929	A Q46 Q40	GEN	62
482		B	B	@OK005	A	4	1936	B Z21	GEN	62
483		@OP005	A	@OLO05-1,@OM005	A	7	1940	A Q41 Q40	GEN	62
484		MCH	MCH	DUM3, DUM5	A	7	1947	M N60 N65	GEN	63
485		MCH	MCH	@OM005	A	4	1954	M N60	GEN	63
486		ZA	ZA	DUM5	A	4	1958	E N65	GEN	63
487		MZ	MZ	*-4, DUM5	A	7	1962	Y Z64 N65	GEN	63
488	4 40	PKXT	B	000	A	4	1969	B 000	GEN	63
489	4 41	ABIT2	EQU	*&1	A	8	1973	B L73 Q31		63
490	4 42	CKLHC	BCE	INPUT, FIXED,	A	7	1981	S N66 Q34		64
491	4 43		S	&1,WORK3	A	7	1988	C Q34 Q49		64
492	4 44		C	WORK3,@000	A	5	1995	B T64 /		64
493	4 45		BU	STORE	A	7	2000	M Q50 U02		64
494	4 46		MCH	@M@,HSW2	A	7	2007	M N28 T32		64
495	4 47		MCH	N,SW1	A	7	2014	M T13 089		65
496	4 48		MCH	SEL&3,XL1	A	7	2021	C @0 Q51		65
497	4 49		C	@X1,@,@	A	5	2028	B T64 S		65
498	4 50		BE	STORE	A	7	2033	M T70 -46		65
499	4 51		MCH	STORE&6,*&7	A	7	2040	M 000 000		65
500	4 52		MCH	0,0	A	7	2047	M Q51		65
501	4 53		MCH	@,@	A	4	2051	H T70		65
502	4 54		SBR	STORE&6	A	7	2055	A N66 Q07		66
503	4 55		A	&1,TOTAL	A	4	2062	B T75		66
504	4 56		B	INCTO	A	4	2066	B T64		66
505	4 57		B	STORE	A	4	2070	M T70 089		66
506	4 58	SCANR	MCH	STORE&6,XL1	A	7	2077	L N29 @@0		66
507	4 59		LCA	GM,@&X1	A	4	2084	H 089		66
508	4 60		SBR	XL1	A	4	2088	F 1		67
509	4 61		CC	1	A	2	2090	/ 332		67
510	4 62		CS	332	A	4	2094	/		67
511	4 63		CS		A	1				67

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
512	4 64		MCS	TOTAL,205	A	7	2095	Z Q07 205		67
513	4 65		MCW	@INPUT CHARACTERS@,222	A	7	2102	M Q67 222		67
514	4 66		W		A	1	2109	Z		67
515	4 67		CC	J	A	2	2110	F J		67
516	4 68		MCW	STMND,INTSTZ	A	7	2112	M Q22 183		68
517	4 69		LCA	@ POTS R000@,06X1	A	7	2119	L Q78 0+0		68
518	4 70		SBR	XLI	A	4	2126	H 089		68
519	4 71		SW	26X1	A	4	2130	, 0+2		68
520	4 72		A	61,INTSTZ	A	7	2134	A N66 183		68
521	4 73		BCE	*65,LDNRD,	A	8	2141	B J53 600		68
522	4 74		B	QUIT	A	4	2149	B K33		69
523	4 75		SBR	ICLEAR,SYSGM	A	7	2153	H 710 R99		69
524	4 76		SBR	BCLEAR,XBEGIN	A	7	2160	H 833 838		69
525	4 77		BSS	333,C	A	5	2167	B 333 C		69
526	4 78		LCA	@SCANNER@,110	A	7	2172	L Q85 110		69
527	4 79		CS	080	A	4	2179	/ 080		69
528	4 80		SW	1,40	A	7	2183	, 001 040		70
529	4 81		SW	47,54	A	7	2190	, 047 054		70
530	4 82		SW	61,58	A	7	2197	, 061 068		70
531	4 83		SW	72	A	4	2204	, 072		70
532	4 84		BCE	MONTER,MONTOR,N	A	8	2208	B 700 769 N		70
533	4 85		R		A	1	2216	I		70
534	4 86		C	7,@SCANNER@	A	7	2217	C 007 Q92		71
535	4 87		BE	MONTER	A	5	2224	B 700 S		71
536	4 88		B	PRMSG	A	4	2229	B /90		71
537	4 89	QUIT	FQUIT		A	4	2233	/ 332	MACRO	71
538		QUIT	CS	332	A	1	2237	/	GEN	71
539			CS		A	2	2238	F 1	GEN	71
540			CC	1	A	7	2240	M R28 270	GEN	71
541			MCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270	A	1	2247	Z	GEN	72
542			W		A	2	2248	F 1	GEN	72
543			CC	1	A	8	2250	B K63 769 1	GEN	72
544			BCE	*66,MONTOR,1	A	5	2258	U 801 R	GEN	72
545			RWD	1	A	4	2263	, K63	GEN	72
546			H	*-3	A	2	2267	F 1	GEN	72
547	4 90	PRTHD	CC	1	A	7	2269	M Q19 S32		72
548	4 91		MCW	aaa,TOVL&4	A	4	2276	/ 299		72
549	4 92		CS	299	A	7	2280	A N10 R31		73
550	4 93		A	ONE,PGNO#003	A	7	2287	Z R31 299		73
551	4 94		MCS	PGNO,299	A	7	2294	M R39 295		73
552	4 95		MCW	@ PAGE @,295	A	4	2301	M 080		73
553	4 96		MCW	080	A	1	2305	Z		73
554	4 97		W		A	4	2306	/ 299		73
555	4 98		CS	299	A	7	2310	M M23 234		74
556	4 99		MCW	KFSM,234	A	1	2317	Z		74
557	5 00		W		A	2	2318	F J		74
558	5 01		CC	J	A	4	2320	B S33		74
559	5 02		B	MZPRT	A	2	2324	F 1	MACRO	74
560	5 03	NOPRM	MESSG	@MESSAGE 3 - NO PARAMETER CARD@,70,1,1	A	2	2324	F 1	GEN	74
561		NOPRM	CC	1	A	2	2324	F 1	MACRO	74

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
562			CS	332	A	4	2325	/ 332	GEN	74
563			CS		A	1	2330	/	GEN	74
564			MCW	@MESSAGE 3 - NO PARAMETER CARDS,70&200	A	7	2331	M R68 270	GEN	75
565			W		A	1	2338	2	GEN	75
566			CC	1	A	2	2339	F 1	GEN	75
567	5 04		SCE	*66, MONTOR, I	A	8	2341	B L54 769 I		75
568	5 05		RWD	1	A	5	2349	U R1		75
569	5 06		H	*-3	A	4	2354	- L54		75
570	5 07	CMNT	MCW	BLNK3#3,203	A	7	2358	M R71 203		75
571	5 08		MCW	005,211	A	7	2365	M 005 211		76
572	5 09		W		A	1	2372	2		76
573	5 10	INPUT	BLC	.SCANR	A	5	2373	8 -70 A		76
574	5 11		R		A	1	2378	1		76
575	5 12		B	MOVE	A	4	2379	B /74		76
576	5 13	CHAR	DCW	@@/* @	A	6	2388			76
577	5 14	KFSM	DCW	@ SEQ STMNT	A	35	2423			76
578	5 15		DCW	@ @	A	1	2424			77
579	5 16	WORK	DS	01	A	1	2425			77
580	5 17		DS	76	A	2	2501			77
581	5 18	COUNT	DCW	#2	A	3	2503			78
582	5 19	INILZ1	DSA	@WORK&010	A	3	2506	M35		78
583	5 20	INILZ2	DSA	@WORK	A	3	2509	M25		78
584	5 21	ONE	DCW	@1@	A	1	2510			78
585	5 22	B	DC	@8@	A	2	2511			78
586	5 23	TWO	DC	@20@	A	7	2520			78
587	5 24	OUT	DCW	@	A	1	2527			78
588	5 25	FORMAT	DCW	@TAMROF@	A	7	2527			78
589	5 26	N	DC	@N@	A	1	2528			78
590	5 27	GM	DC	@ @	A	1	2529			78
591	5 28	NUMBER	DCW	@000R@	A	4	2533			78
592	5 29	MARK	DCW	@ @	A	1	2534			78
593	5 30	TEN	DCW	@10@	A	2	2536			79
594	5 31	M	DC	@M@	A	1	2537			79
595	5 32	KPROC	DCW	@ PROCESSED @	A	11	2548			79
596	5 33	LTORG	*		A	1	2549	2549		79
			DCW	@N@	A	1	2549		LIT	79
284		LARRY		@PARAM@	A	5	2554		LIT	79
291		DUM3		#03	A	3	2557		AREA	79
292		DUM3		#03	A	3	2560		AREA	79
294		DUM5		#05	A	5	2565		AREA	80
				61	A	1	2566		LIT	80
306				@START OF FORTRAN COMPILATION@	A	28	2594		LIT	80
310				@MACHINE SIZE SPECIFIED IS @	A	26	2620		LIT	81
314				@ACTUAL MACHINE SIZE IS @	A	23	2643		LIT	81
317		WK51		#05	A	5	2648		AREA	82
317		WK5		#05	A	5	2653		AREA	82
319				@03900@	A	5	2658		LIT	82
325				@MACHINE SIZE ERROR@	A	18	2676		LIT	83
328				@SPECIFIED IS GREATER THAN ACTUAL MACHINE SIZE.@	A	46	2722		LIT	85
329				@ERROR - MACHINE SIZE @	A	21	2743		LIT	85

LAST TWO A-8BIT, BLANK  
FORTRAN STATEMENT@

GROUP MARK  
5-8

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
335				SYSGM	A	3	2746	ADCON		85
352				MESSAGE 1-SYSTEM DOES NOT FOLLOW END CARDA	A	41	2787	LIT		87
371				CONTINUE CD ERRA	A	15	2802	LIT		87
390		TOTAL		#05	A	5	2807	AREA		87
391				CLDRND	A	3	2810	ADCON		87
411		WORK6		#B	A	1	2811	LIT		87
				#06	A	6	2817	AREA		88
				FA	A	1	2818	LIT		88
					A	1	2819	LIT		88
418		STMND		#03	A	3	2822	AREA		88
422		CTUCD		#02	A	2	2824	AREA		88
				ADNEA	A	3	2827	LIT		88
440		ENDSW		#01	A	1	2828	AREA		88
				-	A	1	2829	LIT		89
				*	A	1	2830	LIT		89
450		FIXED		#01	A	1	2831	AREA		89
456		WORK3		#03	A	3	2834	AREA		89
				003	A	2	2836	LIT		89
				0	A	1	2837	LIT		89
467		SAVI		#01	A	1	2838	AREA		89
473		DOM005		#02	A	2	2840	AREA		90
474		OL005		#02	A	2	2842	AREA		90
				A0	A	2	2844	LIT		90
				E4	A	2	2846	LIT		90
				000	A	3	2849	LIT		90
				A	A	1	2850	LIT		90
				* </td <td>A</td> <td>1</td> <td>2851</td> <td>LIT</td> <td></td> <td>90</td>	A	1	2851	LIT		90
513				INPUT CHARACTER	A	16	2867	LIT		91
517				POTS R000	A	11	2878	LIT		91
526				SCANNER	A	7	2885	LIT		91
534				SCANNER	A	7	2892	LIT		92
541				MESSAGE 2 - OBJECT PROGRAM TOO LARGE	A	36	2928	LIT		93
550		PGNO		#03	A	3	2931	AREA		93
552				PAGE	A	8	2939	LIT		94
564				MESSAGE 3 - NO PARAMETER CARDA	A	29	2968	LIT		94
570		BLNK3		#03	A	3	2971	AREA		95
597	5	34	ORG	*EX00	A			3000		
598	5	35	ORG	*-1	A			2999		
599	5	36	SYSGM	*	A	1	2999			96
600	5	37	EQU	CL	A		3000			
601	5	38	XFR	START	A			B 838		97
				WORK AND SYSTEM GROUP MARK						

SEQ PG LIN	LABEL	OP	OPERANDS	5-8 FIRST CARD	SFX CT	LOCN	INSTRUCTION TYPE	CARD
602	5 39	JOB	1401 FORTRAN SCANNER PHASE		A	1 0110		100
603	5 40	DCW	a a				MACRO	
604	5 41	FBEGN	SCANNER,X1,R,,,,,B				GEN	
605		SFX	B				GEN	101
606		DCW	SCANNERa		B	7 0110		
607	X1	EQU	099		B	3 0089		102
608	089	DCW	000		B	2 0091		102
609	091	DC	00		B			
610	5 42	ORG	XBEGIN		B		0838	
611	5 43	MCW	PARAMa2,DUMMya5		B	7 0838	M 689 985	103
612	5 44	SW	PARAMa3,PARAMa5		B	7 0845	, 689 691	103
613	5 45	BCE	*a5,PARAMa4,	BLANK	B	8 0852	B 864 690	103
614	5 46	B	*a8		B	4 0860	B 871	103
615	5 47	MCW	a5a,PARAMa4		B	7 0864	M M42 690	103
616	5 48	BCE	*a5,PARAMa5,	BLANK	B	8 0871	B 883 692	104
617	5 49	B	*a8		B	4 0879	B 890	104
618	5 50	MCW	a8a,PARAMa5		B	7 0883	M M44 692	104
619	5 51	C	PARAMa4,a01a		B	7 0890	C 690 M46	104
620	5 52	BH	RDXER		B	5 0897	B U69 U	104
621	5 53	C	PARAMa4,a20a		B	7 0902	C 690 M48	104
622	5 54	BL	RDXER		B	5 0909	B U69 Y	105
623	5 55	C	PARAMa6,a20a		B	7 0914	C 692 M48	105
624	5 56	BL	MNTER		B	5 0921	B U95 T	105
625	5 57	C	PARAMa6,a02a		B	7 0926	C 692 M50	105
626	5 58	BH	MNTER		B	5 0933	B U95 U	105
627	5 59	CS	332		B	4 0938	/ 332	105
628	5 60	CS			B	1 0942	/	105
629	5 61	MCW	aMODULUS ISa,210		B	7 0943	M M60 210	106
630	5 62	MCS	PARAMa4,213		B	7 0950	Z 690 213	106
631	5 63	W			B	1 0957	Z	106
632	5 64	CS	299		B	4 0958	/ 299	106
633	5 65	MCW	aMANTISSA ISa,211		B	7 0962	M M71 211	106
634	5 66	MCS	PARAMa6,214		B	7 0969	Z 692 214	106
635	5 67	W			B	1 0976	Z	106
636	5 68	CC			B	2 0977	F J	107
637	5 69	BCE	DUMMy,0000,0		B	8 0979	B 979 000 0	107
638	5 70	BCE			B	1 0987	B	107
639	5 71	SBR	MARTYa006		B	4 0988	H T24	107
640	5 72	SBR	REMYa003		B	4 0992	H 999	107
641	5 73	LCA	000,WORK		B	7 0996	L 000 L97	107
642	5 74	SAR	REMYa003		B	4 1003	Q 999	107
643	5 75	MCW	NMBR,WORK		B	7 1007	M M00 L97	108
644	5 76	A	ONE,NMBR		B	7 1014	A M01 M00	108
645	5 77	BCE	REPLCE,WORK-3,F		B	8 1021	B T14 L94 F	108
646	5 78	SBR	TMLV58a6,WORK-4		B	7 1029	H #49 L93	108
647	5 79	SBR	FIRST,WORK-5		B	7 1036	H M04 L92	108
648	5 80	BCE	ARITH1,WORK-4,		B	8 1043	B #75 L93	109
649	5 81	SBR	TMLV58a006	5-8 UNDEFINED CHAR..	B	4 1051	H #49	109
650	5 82	SBR	LENNYa006		B	4 1055	H #65	109
651	5 83	BCE	LENNY,0000,	1 4	B	8 1059	B #59 000	109

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
652	5 84		SBR	FIRST	B	4	1067	H M04		109
653	5 85		B	TMLV58	B	4	1071	B #43		109
654	5 86	ARITH1	MCW	FIRST,TEST1&006	B	7	1075	M M04 #95		110
655	5 87		MCW	FIRST,TEST2&006	B	7	1082	M M04 /08		110
656	5 88	TEST1	BCE	ENCODE,0000,	B	8	1089	B /73 000		110
657	5 89		BCE		B	8	1097	B		110
658	5 90		SBR	TEST1&006	B	4	1098	H #95		110
659	5 91	TEST2	BCE	ARITH2,0000,#	B	8	1102	B /19 000 #		110
660	5 92		BCE		B	1	1110	B		110
661	5 93		SBR	TEST2&006	B	4	1111	H /08		110
662	5 94		B	TEST1	B	4	1115	B #89		111
663	5 95	ARITH2	SW	TEST1&004	B	4	1119	, #93		111
664	5 96		MCW	TEST1&006,SEL&003	B	7	1123	M #95 /37		111
665	5 97		CW	TEST1&004	B	4	1130	B #93		111
666	5 98		MCW	0000,FIXED	B	7	1134	M 000 M05		111
667	5 99	SEL	SAR	SEL&003	B	4	1141	Q /37		111
668	6 00		BCE	CKFUN, FIXED, 2	B	8	1145	B T49 M05 %		111
669	6 01		BCE	CKFUN, FIXED,	B	8	1153	B T49 M05		111
670	6 02		BCE	ENCODE,FIXED,,	B	8	1161	B /73 M05 ,		112
671	6 03		B	SEL	B	4	1169	B /34		112
672	6 04	ENCODE	MCW	FIRST,GRAB10&003	B	7	1173	M M04 /83		112
673	6 05	GRAB10	MCW	0000,FRONT	B	7	1180	M 000 M15		112
674	6 06		SW	FRONT	B	4	1187	, M15		112
675	6 07		SW		B	1	1191	, M15 S06		112
676	6 08		MCW	FRONT,SCF8&007	B	7	1192	M M15 S06		113
677	6 09	SCFB	BCE	STORE1,CODE,	B	8	1199	B S37 M24		113
678	6 10		CHAIN 3		B	1	1207	B	MACRO	113
679			BCE		B	1	1208	B	GEN	113
680			BCE		B	1	1209	B	GEN	113
681			BCE		B	1	1210	B	GEN	113
682	6 11		MCW	FRONT-001,AUNIQ&007	B	7	1210	M M14 S24		113
683	6 12	AUNIQ	BCE	STORE2,CODE-004,	B	9	1217	B S71 M20		113
684	6 13		CHAIN 4		B	1	1225	B	MACRO	114
685			RCE		B	1	1226	B	GEN	114
686			BCE		B	1	1227	B	GEN	114
687			BCE		B	1	1228	B	GEN	114
688			BCE		B	1	1229	, L94		114
689	6 14		SW	WORK-003	B	4	1233	B U22		114
690	6 15		B	EASY	B	4	1237	C M13 M74		114
691	6 16	STORE1	C	FRONT-2, @ESN@	B	7	1244	9 S60 S		115
692	6 17		BE	SENSE	B	5	1249	M M15 L94		115
693	6 18		MCW	FRONT, WORK-003	B	7	1256	B T09		115
694	6 19		B	CLEAR	B	4	1260	M M75 L94		115
695	6 20	SENSE	MCW	@J@,WORK-3	B	7	1267	B T09		115
696	6 21		B	CLEAR	B	4	1271	M M14 L94		115
697	6 22	STORE2	MCW	FRONT-001,WORK-003	B	7	1278	B S90 S24 N		116
698	6 23		BCE	*@5,AUNIQ&7,N	B	8	1286	B T09		116
699	6 24		B	CLEAR	B	4	1290	C M13 M80		116
700	6 25		C	FRONT-2,@ELLF@a	B	7	1297	B T09 S		116
701	6 26		BE	CLEAR	B	5				116

SENSE LIGHT

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
702	6 27	MCW	@/a,WORK-3	8	7 1302	M M81 L94		116
703	6 28	CLEAR	FRONT	8	4 1309	M M15		116
704	6 29	CH		8	1 1313			116
705	6 30	REPLACE	WORK-003	8	4 1314	L L94		117
706	6 31	MARTY	WORK,0000	8	7 1318	L L97 000		117
707	6 32	SBR	MARTY&006	8	4 1325	H T24		117
708	6 33	SBR	END&006	8	4 1329	H T43		117
709	6 34	SBR	083	8	4 1333	H 083		117
710	6 35	BCE	RELOKT,0000,	8	8 1337	B W72 000		117
711	6 36	B	REMV	8	4 1345	B 996		117
712	6 37	CKFUN	TEST2&6,X1	8	7 1349	M /08 089		118
713	6 38	BCE	MAYFN,1&X1,@	8	8 1356	B T69 0*1		118
714	6 39	BCE		8	1 1364	B T14		118
715	6 40	B	REPLACE	8	4 1365	B T14		118
716	6 41	BCE	NDFND,2&X1,2	8	8 1369	B T85 0*2 2		118
717	6 42	SBR	X1	8	4 1377	H 089		118
718	6 43	B	MAYFN	8	4 1381	B T69		118
719	6 44	BCE	PROBF,3&X1,F	8	8 1385	B T97 0*3 F		119
720	6 45	B	REPLACE	8	4 1393	B T14		119
721	6 46	BCE	REPLACE,6&X1,	8	8 1397	B T14 0*6		119
722	6 47	9CE		8	1 1405	B		119
723	6 48	BCE		8	1 1406	B		119
724	6 49	MCW	@R@,WORK-3	8	7 1407	M M82 L94		119
725	6 50	SW	FUNCSW	8	4 1414	, I95		119
726	6 51	B	REPLACE	8	4 1418	B T14		120
727	6 52	CH	FRONT	8	4 1422	B M15		120
728	6 53	CW		8	1 1426			120
729	6 54	C	FRONT,SNSE	8	7 1427	C M15 M32		120
730	6 55	BIN	DO, /	8	5 1434	B V21 /		120
731	6 56	BCE	LIGHT,FRONT-8,L	8	8 1439	B U58 M07 L		120
732	6 57	MCW	CONST,WORK-003	8	7 1447	M M40 L94		120
733	6 58	B	REPLACE	8	4 1454	B T14		121
734	6 59	MCW	@R@,WORK-3	8	7 1458	M M83 L94		121
735	6 60	B	REPLACE	8	4 1465	B T14		121
736	6 61	MESSG	ERROR 42 - MODULUSA,18,,J	8	4 1469	/ 332	MACRO	121
737		RDXER	332	8	1 1473	/	GEN	121
738		CS		8	7 1474	M N01 218	GEN	121
739		MCW	ERROR 42 - MODULUSA,18&200	8	1 1481	2	GEN	121
740		W		8	2 1482	F J	GEN	122
741		CC	J	8	7 1484	M M42 690	GEN	122
742	6 62	MCW	@05@,PARAM&4	8	4 1491	B 914		122
743	6 63	B	CKMNT	8	4 1495	/ 332	MACRO	122
744	6 64	MESSG	ERROR 43 - MANTISSA@,19,,J	8	1 1499	/	GEN	122
745		MNTER	332	8	7 1500	M N20 219	GEN	122
746		CS		8	1 1507	2	GEN	122
747		MCW	ERROR 43 - MANTISSA@,19&200	8	2 1508	F J	GEN	123
748		W		8	7 1510	M M44 692	GEN	123
749		CC	J	8	4 1517	B 938		123
750	6 65	MCW	@08@,PARAM&6	8				123
751	6 66	B	PROX	8				123

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IF SENSE SWITCH



SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
752	6 67	DO	BCE	PUT1,FRONT,D	B	8	1521	9 V95 M15	D	123
753	6 68		BCE	PUT2,FRONT-002,Z	B	8	1529	8 W06 M13	Z	123
754	6 69		BCE	PUT3,FRONT-004,Z	B	8	1537	8 W17 M11	Z	123
755	6 70		BCE	PUT4,FRONT,G	B	8	1545	8 W28 M15	G	124
756	6 71		BCE	PUT5,FRONT,P	B	8	1553	8 W39 M15	P	124
757	6 72		BWZ	PUT6,FRONT-004,2	B	8	1561	V W50 M11	2	124
758	6 73		BCE	PUT7,FRONT-005,D	B	8	1569	8 W61 M10	D	124
759	6 74		MCW	ONE,WORK-003	B	8	1577	8 W01 L94		124
760	6 75		MN	FRONT-005,WORK-003	B	7	1584	D M10 L94		124
761	6 76		B	REPLACE	B	7	1591	8 T14		125
762	6 77	PUT1	MCW	CONST-001,WORK-003	B	4	1591	8 T14		125
763	6 78		B	REPLACE	B	7	1595	M M39 L94		125
764	6 79	PUT2	MCW	CONST-002,WORK-003	B	4	1602	9 T14		125
765	6 80		B	REPLACE	B	7	1606	M M38 L94		125
766	6 81	PUT3	MCW	CONST-003,WORK-003	B	4	1613	9 T14		125
767	6 82		B	REPLACE	B	7	1617	M M37 L94		126
768	6 83	PUT4	MCW	CONST-004,WORK-003	B	4	1624	8 T14		126
769	6 84		B	REPLCF	B	7	1628	M M36 L94		126
770	6 85	PUT5	MCW	CONST-005,WORK-003	B	4	1635	9 T14		126
771	6 86		B	REPLACE	B	7	1639	M M35 L94		126
772	6 87	PUT6	MCW	CONST-006,WORK-003	B	4	1646	8 T14		126
773	6 88		B	REPLACE	B	7	1650	M M34 L94		127
774	6 89	PUT7	MCW	CONST-007,WORK-003	B	4	1657	8 T14		127
775	6 90		B	REPLACE	B	7	1661	M M33 L94		127
776	6 91	RELOKT	FENDX	C,,,BEGINC,CLRFRCT,ORTER ONE	B	4	1668	9 T14		127
777		RELOKT	BSS	333,C	B	5	1672	8 333 C	MACRO	127
778		SBR	INITX	T&3,BEGINC	B	7	1677	H 796 #10	GEN	127
779		SBR	TCLEAR,CLRFRCT		B	7	1684	H 710 N99	GEN	128
780		LCA	ASORTER	ONE&,110	B	7	1691	L N30 110	GEN	128
781		B	MONTER		B	4	1698	8 700	GEN	128
782	6 92	DCW	Z	Z	B	1	1702			128
783	6 93	DCW	Z	Z	B	1	1703			128
784	6 94	ORG	*E693		B	1				
785	6 95	DS	01		B	1				
786	6 96	DCW	0001a		B	3	2397		2397	
787	6 97	ONE	01a		B	3	2400			129
788	6 98	FIRST	DCW	#3	B	1	2401			129
789	6 99	FIXED	DCW	#1	B	3	2404			129
790	7 00	FRONT	DCW	#10	B	10	2405			129
791	7 01	CODE	DC	@QINUABFC&	B	9	2415			129
792	7 02	SNSE	DCW	@ESNES&F1a	B	8	2424			129
793	7 03	CONST	DC	@ZLPGTED&a	B	8	2432			129
794	7 04	LTO&G	*		B	8	2440			130
		DCW	@05a		B	2	2442			130
			@08a		B	2	2444			130
			@01a		B	2	2446			130
			@20a		B	2	2448			130
			@02a		B	2	2450			131
			@MODULUS 15a		B	10	2460			131
			@MANTISSA 15a		B	11	2471			131
629					B	8	2441			LIT
633					B	8	2442			LIT
					B	2	2444			LIT
					B	2	2446			LIT
					B	2	2448			LIT
					B	2	2450			LIT
					B	10	2460			LIT
					B	11	2471			LIT

D FOR DO  
 3RD PAREN IF  
 5TH PAREN GO TO  
 G FOR GO  
 P FOR PRINT  
 5TH NUMERL READN  
 6TH D REHUND

MN FRONT-S, TNMBR47  
 BLE REPLCE, @65310, a  
 CHAIN 3  
 MN @9@, WORK-3

BLANK  
 BLANK

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
	700			@ESN@	B	3	2474		LIT	131
				@J@	B	1	2475		LIT	131
				@ELIFD@	B	5	2480		LIT	131
				@/@	B	1	2481		LIT	131
				@R@	B	1	2482		LIT	132
				@K@	B	1	2483		LIT	132
	739			@ERROR 42 - MODULUS@	B	18	2501		LIT	132
	747			@ERROR 43 - MANTISSA@	B	19	2520		LIT	132
	780			@SORTER ONE@	B	10	2530		LIT	133
	795		ORG	*@X00	B			2600		
	796		CLRFCT	@	B		2599			
	797		DCW	@	B	1	2600			
	798		XFR	START	B			B 838		134
										135

SYSTEM GROUP MARK

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
799	7	09		JOB	1401 FORTRAN SORTER PHASE ONE						
800	7	10		FBEGN	SORTER ONE,XL1,R,XL2,R,XL3,R,C,XXXX						
801				SFX	C						
802			XXXX	EQU	0			0000		MACRO	
803			110	DCW	@SORTER ONE@			0110		GEN	138
804			XL1	EQU	089			0089		GEN	
805			089	DCW	000			0089		GEN	139
806			091	DC	00			0091		GEN	139
807			XL2	EQU	094			0094		GEN	
808			094	DCW	000			0094		GEN	139
809			096	DC	00			0096		GEN	139
810			XL3	EQU	099			0099		GEN	
811			099	DCW	000			0099		GEN	139
812			100	DC	0			0100		GEN	139
813	7	11		ORG	XBEGIN				0838		
814	7	12	TABLE	DA	40X3,C			0839	0957		149
815	7	13		ORG	*EX00				1000		
816	7	14		DS	6			1005			
817	7	15	ZONE	DCW	3ZSKB@			1009			150
818	7	16	BEGIN	CS	CLRFCT			1010	/ N99		150
819	7	17		CHAIN	8						
820				CS						MACRO	
821				CS				1014	/	GEN	150
822				CS				1015	/	GEN	150
823				CS				1016	/	GEN	150
824				CS				1017	/	GEN	150
825				CS				1019	/	GEN	150
826				CS				1019	/	GEN	151
827				CS				1020	/	GEN	151
828	7	18	START	MCW	083,XL3			1021	/	GEN	151
829	7	19		MCW	2EX3			1022	M 083 099		151
830	7	20		MCW				1029	P 0E2		151
831	7	21		SBR	XL3			1033	M		151
832	7	22		MCW	0EX3,WORX3#3			1034	H 099		151
833	7	23		ZA	WORX3,HOLD5#5			1038	M 0E0 T52		152
834	7	24		A	HOLD5			1045	E T52 T57		152
835	7	25		A	WORX3,HOLD5			1052	A T57		152
836	7	26		S	E2,HOLD5			1056	A T52 T57		152
837	7	27		MCW	HOLD5,HLD5A#5			1063	S T58 T57		152
838	7	28		MCW	31600@,HOLD5			1070	M T57 T63		152
839	7	29		S	HLD5A,HOLD5			1077	M T68 T57		153
840	7	30		RAV	*E1			1084	S T63 T57		153
841	7	31	SUB	A	E96,HOLD5-3			1091	B #96 Z		153
842	7	32		BAV	SUB			1096	A T70 T54		153
843	7	33		MN	HOLD5-3,*E4			1103	R #96 Z		153
844	7	34		MZ	ZONE,HOLD5-2			1108	D T54 /18		153
845	7	35		MCW	083,XL1			1115	Y #09 T55		154
846	7	36		MCW	XL1,NOPE3			1122	M 083 089		154
847	7	37		MCW	HOLD5,XL2			1129	M 089 /53		154
848	7	38		MZ	3JA,NOPE2			1136	M T57 094		154
								1143	Y T71 /52		154

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
849	7 39	NOP	NOP	XXXX	C	4	1150	N 000		154
850	7 40		SAR	XL2	C	4	1154	Q 094		155
851	7 41		UNPAK	XL2,HOLD5					MACRO	
852			S	OM013#2	C	4	1158	S T73	GEN	155
853			S	OM013#2	C	4	1162	S T75	GEN	155
854			MZ	XL2,OM013-1	C	7	1166	Y 094 T72	GEN	155
855			MZ	XL2-2,OM013-1	C	7	1173	Y 092 T74	GEN	155
856		OM013	BWZ	OM013, OM013-1, 2	C	8	1180	V /99 T74 2	GEN	155
857			A	OM013	C	7	1188	A T77 T75	GEN	156
858			B	OM013	C	4	1195	B /80	GEN	156
859		OM013	BWZ	OM013, OM013-1, 2	C	8	1199	V S18 T72 2	GEN	156
860			A	OM013	C	7	1207	A T79 T73	GEN	156
861			B	OM013	C	4	1214	B /99	GEN	156
862		OM013	A	OM013-1,OM013	C	7	1218	A T74 T73	GEN	156
863			MCH	XL2, HOLD5	C	7	1225	M 094 T57	GEN	157
864			MCH	OM013	C	4	1232	M T73	GEN	157
865			ZA	HOLD5	C	4	1236	E T57	GEN	157
866			MZ	*-4, HOLD5	C	7	1240	Y S42 T57	GEN	157
867	7 42		C	HOLD5,OM2900a	C	7	1247	C T57 T84		157
868	7 43		BL	MOVE	C	7	1247	C T57 T84		157
869	7 44		FQUIT		C	5	1254	B S93 T		157
870			CS	332	C	4	1259	/ 332	MACRO	
871			CS	1	C	1	1263	/	GEN	157
872			CC	OMESSAGE 2 - OBJECT PROGRAM TOO LARGE,270	C	2	1264	F 1	GEN	158
873			MCH		C	7	1266	M U20 270	GEN	158
874			W		C	1	1273	2	GEN	158
875			CC	1	C	2	1274	F 1	GEN	158
876			8CE	*86,MONTOR,1	C	8	1276	B S89 T69 1	GEN	158
877			RWD	1	C	5	1284	U %U1 R	GEN	158
878			H	*-3	C	4	1289	* S89	GEN	159
879	7 45	MOVE	MCH	XL2,083	C	7	1293	M 094 083		159
880	7 46		MCM	OEX1	C	4	1300	P 0#0		159
881	7 47		SAR	XL1	C	4	1300	P 0#0		159
882	7 48		FENDX	C,, START,NUSTM,START,SYSMK, SORT 2	C	4	1304	Q 089		159
883			BSS	333,C	C	4	1308	B 333 C	MACRO	
884			SBR	INITAP66,START	C	5	1308	B 333 C	GEN	159
885			SBR	BCLEAR	C	7	1313	H 786 #22	GEN	159
886			SBR	INITXT63,NUSTM	C	4	1320	H 833	GEN	159
887			SBR	TCLEAR,SYSMK	C	7	1324	H 796 #22	GEN	160
888			LCA	ASORT 2a,110	C	7	1331	H 710 U27	GEN	160
889			B	MONTER	C	7	1338	L U26 110	GEN	160
890	7 49		DCW	0	C	4	1345	B 700	GEN	160
891	7 50		LTORG *		C	1	1349	1350		160
892		WORK3	DCW	#03	C	3	1352		AREA	160
893		HOLD5	DCW	#05	C	5	1357		AREA	160
894				82	C	1	1358		LIT	161
895				#05	C	5	1363		AREA	161
896		HLD5A		OM6000a	C	5	1368		LIT	161
897				896	C	2	1370		LIT	161
898				8Ja	C	1	1371		LIT	161

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
852		HOM013		#02	C	2	1373	AREA	AREA	161
853		HOL013		#02	C	2	1375	AREA	AREA	161
				2A02	C	2	1377	LIT	LIT	162
				2E42	C	2	1379	LIT	LIT	162
				2029002	C	5	1384	LIT	LIT	162
				2MESSAGE 2 - OBJECT PROGRAM TOO LARGE2	C	36	1420	LIT	LIT	163
				2SORT 22	C	6	1426	LIT	LIT	164
892	7	51	SYSMK	2	C	1	1427			164
893	7	52	XFR	BEGIN	C			B #10		165

SEQ PG	LINE	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
894	7 53		JOB	1401 FORTRAN SORTER PHASE TWO						
895	7 54	110	DCW	ASORT 2@	C	6	0110			168
896	7 55		ORG	START	C	7	1022	M 089 099		169
897	7 56	NUSTM	MCW	XL1,XL3	C	4	1029	, S19		169
898	7 57		SW	GM2	C	4	1033	P 0#0		169
899	7 58		MCM	0EX1	C	1	1037	D		169
900	7 59		MN		C	1	1038	D		169
901	7 60		MN		C	4	1039	Q 089		169
902	7 61		SAR	XL1	C	7	1043	L 0#0 Z19		169
903	7 62		LCA	0EX1, HOLD-3	C	4	1050	P 0#0		170
904	7 63		MCM	0EX1	C	4	1054	Q 089		170
905	7 64		SAR	XL1	C	4	1054	Q 089		170
906	7 65		MCM	0EX3,0EX2	C	7	1058	P 060 0-0		170
907	7 66		SBR	XL2	C	4	1065	H 094		170
908	7 67		LCA	HOLD,1EX2	C	7	1069	L Z22 0-1		170
909	7 68		S	XL3E1	C	4	1076	S 100		170
910	7 69		MCH	0EX2,HOLD6#6	C	7	1080	M 0-0 -05		170
911	7 70		MN	HOLD6-5, XL3	C	7	1087	D -00 099		171
912	7 71		MCH	XL3,SAVE3	C	7	1094	M 099 -03		171
913	7 72		A	XL3	C	4	1101	A 099		171
914	7 73		A	SAVE3,XL3	C	7	1105	A -03 099		171
915	7 74		BWZ	CNTU,HOLD6-5, 2	C	8	1112	V /57 -00 2		171
916	7 75		A	E30,XL3	C	7	1120	A -07 099		172
917	7 76		BWZ	CNTU,HOLD6-5, S	C	8	1127	V /57 -00 5		172
918	7 77		A	E30,XL3	C	7	1135	A -07 099		172
919	7 78		BWZ	CNTU,HOLD6-5, K	C	8	1142	V /57 -00 K		172
920	7 79		A	E30,XL3	C	7	1150	A -07 099		172
921	7 80	CNTU	MCM	TABLE&2EX3,1&X2	C	7	1157	M 8D0 0-1		173
922	7 81		LCA	GM2,2&X2	C	7	1164	L S19 0-2		173
923	7 82		SBR	TABLE&2&X3	C	4	1171	H 800		173
924	7 83		MCM	2&X2	C	4	1175	P 0-2		173
925	7 84		SAR	XL2	C	4	1179	Q 094		173
926	7 85		C	XL2,PARAM&2	C	7	1183	C 094 688		173
927	7 86		BU	NUSTM	C	5	1190	B #22 /		173
928	7 87		FENDX	C,GM2,,,,,END-1,SORT 3					MACRO	
929			BSS	333,C	C	5	1195	B 333 C	GEN	174
930			SBR	TCLEAR,END-1	C	7	1200	H 710 Q99	GEN	174
931			LCA	ASORT 3@,110	C	7	1207	L -13 110	GEN	174
932			B	MONTER	C	4	1214	B 700	GEN	174
933	7 88		DCW	0	C	1	1218			174
934	7 89	GM2	DC	@ @	C	1	1219			174
935	7 90		ORG	#E700	C	3	1922	1920		175
936	7 91	HOLD	DC	#3	C			2000		
937	7 92		ORG	#EX00	C			2000		
938	7 93	EOTWO	ORG	#E1	C			2000		
939	7 94		EQU	#E1	C			2000		
			LTORG	*	C					
			DCW	#06	C					
				E30	C					
				ASORT 3@	C					
				@ @	C					
940	7 95		DCW		C	1	2014		AREA	176
					C	2	2007		LIT	176
					C	6	2013		LIT	176
					C	1	2014			176

INSERT TABLE ENTRY

G-M

SYSTEM GROUP MARK

22

SEQ PG LIN LABEL OP OPERANDS  
941 7 96 XFR NUSTM

SFX CT LDCN INSTRUCTION TYPE CARD  
C B #22 177

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
942	7	97		JOB	1401 FORTRAN SORTER PHASE THREE	C	6	0110			180
943	7	98	110	DCW	ASORT 3#	C		0089			
944	7	99	X1	EQU	089	C		0094			
945	8	00	X2	EQU	094	C					
946	8	01		ORG	START	C					
947	8	02	AGAIN	MCM	083,XL3	C			1022		
948	8	03		SW	GM	C	7	1022	M 083 099		181
949	8	04		SBR	XL1,END-1	C	4	1029	, Y06		181
950	8	05		SW	END	C	7	1033	H 089 099		181
951	8	06		MN	06X3	C	4	1040	, R00		181
952	8	07		LCA	GM	C	4	1048	D 060		181
953	8	08		SBR	PICK&6	C	4	1052	L Y06		181
954	8	09		SBR	TBEGIN#3,LIST	C	4	1056	H /10		181
955	8	10		MCM	TBEGIN,XL3	C	7	1063	M Y10 099		182
956	8	11	NUTYP	MCM	06X3,XL3	C	7	1070	M 060 099		182
957	8	12		SAR	TBEGIN	C	4	1077	Q Y10		182
958	8	13		BCE	EQU,XL3,X	C	8	1081	B W47 099 X		182
959	8	14		MCM	TABLE&2&X3,XL3	C	7	1089	M 800 099		183
960	8	15		BCE	NUTYP,XL3,	C	8	1096	B #63 099		183
961	8	16	PICK	MCM	06X3, XXXX	C	7	1104	M 060 000		183
962	8	17		SAR	XL2	C	4	1111	Q 094		183
963	8	18		BCE	ADK1,1&X2,	C	8	1115	B /27 0-1		183
964	8	19		B	PACK	C	4	1123	B 595		183
965	8	20	ADK1	SBR	XL2,2&X2	C	4	1127	H 094 0-2		184
966	8	21	BACK5	MCM	0&X2	C	4	1134	P 0-0		184
967	8	22		SBR	SBR&6&6	C	4	1138	H /67		184
968	8	23		MCM	06X2,1&X1	C	7	1142	P 0-0 0#1		184
969	8	24		SBR	X1	C	4	1149	H 089		184
970	8	25		MN	06X1	C	4	1153	D 0#0		184
971	8	26		SBR	X1	C	4	1157	H 089		184
972	8	27		SBR	X2,0	C	4	1161	H 094 000		185
973	8	28	SBR6	BCE	BACK5,0&X1,#	C	7	1168	B /34 0#0 #		185
974	8	29		SBR	X1,1&X1	C	8	1176	H 089 0#1		185
975	8	30		CW	PAKSM	C	7	1176	H 089 0#1		185
976	8	31		MN	0&X1	C	4	1183	D Y07		185
977	8	32		CHAIN	3	C	4	1187	D 0#0		185
978				MN		C	1	1191	D	MACRO	185
979				MN		C	1	1192	D	GEN	185
980				MN		C	1	1193	D	GEN	186
981	8	33		SAR	XL1	C	4	1194	Q 089		186
982	8	34		LCA	GM,0&X1	C	7	1198	L Y06 0#0		186
983	8	35		SBR	083	C	4	1205	H 083		186
984	8	36		SBR	XL1	C	4	1209	H 089		186
985	8	37		MCM	1&X1	C	4	1213	P 0#1		186
986	8	38		MN		C	1	1217	D		186
987	8	39		SAR	XL1	C	4	1218	Q 089		186
988	8	40		RCE	PMOV1,0&X1,#	C	8	1222	B S13 0#0 #		187
989	8	41		MN	0&X3	C	4	1230	D 060		187
990	8	42		CHAIN	5	C	4	1234	D	MACRO	187
991				MN		C	1	1234	D	GEN	187

GET LIST ENTRY

GET TABLE ENTRY  
ANY OF THIS TYPE  
PICKUP STATEMENT

CAN IT FIT G-M



SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
992			MN		C	I	1235	D	GEN	187
993			MN		C	I	1236	D	GEN	187
994			MN		C	I	1237	D	GEN	187
995			MN		C	I	1238	D	GEN	188
996	8 43		SAR	XL3	C	4	1239	Q 099		188
997	8 44		MN	0EX1	C	4	1243	D 0#0		188
998	8 45		LCA	3EX3	C	4	1247	L 0E3		188
999	8 46		MCW	2#0,0EX3	C	7	1251	M Y11 0E0		188
1000	8 47	PHOV2	MCH	2EX3	C	4	1258	P 0E2		188
1001	8 48		MN		C	I	1262	D		188
1002	8 49		MN		C	I	1263	D		188
1003	8 50		SAR	XL3	C	4	1264	Q 099		189
1004	8 51		BCE	PMOV2,1EX3,#	C	8	1268	B S58 0E1 #		189
1005	8 52		BCE	NUTYP,0EX3,	C	8	1276	B #63 0E0		189
1006	8 53		MCH	0EX3,XL3	C	7	1284	M 0E0 099		189
1007	8 54		B	PICK	C	4	1291	B /04		189
1008	8 55	PACK	BW	CERR,PAKSW	C	8	1295	V W88 Y07 I		190
1009	8 56		SW	PAKSW	C	4	1303	Y 07		190
1010	8 57		MCH	PARAM62,XL2	C	7	1307	M 688 094		190
1011	8 58		MN	0EX2	C	4	1314	D 0-0		190
1012	8 59		SAR	XL2	C	4	1318	Q 094		190
1013	8 60		MCW	XL2,XL3	C	7	1322	M 094 099		190
1014	8 61	LOOP1	LCA	0EX2,0EX3	C	7	1329	L 0-0 0E0		191
1015	8 62		SAR	XL2	C	4	1336	Q 094		191
1016	8 63		MCH	0EX3,WORX9#9	C	7	1340	M 0E0 Y20		191
1017	8 64		BCE	DONE,WORX9-6,#	C	8	1347	B T66 Y14 #		191
1018	8 65		LCA	0EX3,0EX3	C	7	1355	L 0E0 0E0		191
1019	8 66		SAR	XL3	C	4	1362	Q 099		191
1020	8 67	DONE	C	PICK66,XL2	C	7	1366	C /10 094		192
1021	8 68		BU	LOOP1	C	5	1373	B T29 /		192
1022	8 69		MCW	XL3,PICK66	C	7	1378	M 099 /10		192
1023	8 70		MCW	XL3,XL2	C	7	1385	M 099 094		192
1024	8 71		MZ	XL3,ALL92	C	7	1392	Y 099 Y05		192
1025	8 72		MZ		C	I	1399	Y		192
1026	8 73		MCW		C	I	1400	M		192
1027	8 74		MZ	XL1,ALL9	C	7	1401	Y 089 Y02		193
1028	8 75		MZ		C	I	1408	Y		193
1029	8 76		MCW		C	I	1409	M		193
1030	8 77		C	ALL9,ALL92	C	7	1410	C Y02 Y05		193
1031	8 78		BE	ZADD	C	5	1417	B U42 S		193
1032	8 79		CS	0EX3	C	4	1422	/ 0E0		193
1033	8 80		SBR	XL3	C	4	1426	H 099		193
1034	8 81		C	XL3,ALL9	C	7	1430	C 099 Y02		194
1035	8 82		BU	CLEER	C	5	1437	B U22 /		194
1036	8 83		ZA	639,SAVE3	C	7	1442	E Y22 -03		194
1037	8 84		S	XL3E1	C	4	1449	S 100		194
1038	8 85	MUVE	MCW	BLNK#3,TABLE&2EX3	C	7	1453	M Y25 800		194
1039	8 86		S	61,SAVE3	C	7	1460	S Y26 -03		194
1040	8 87		BM	EXIT,SAVE3	C	8	1467	Y U86 -03 K		195
1041	8 88		A	63,XL3	C	7	1475	A Y27 099		195

MLZS ACC41+X3, NSIGN

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
1042	8 89	B	MUVE	4	1482	B U53		195
1043	8 90	MCM	1&X2	4	1486	P 0-1		195
1044	8 91	MN		1	1490	D		195
1045	8 92	SAR	XL2	4	1491	Q 094		195
1046	8 93	BCE	EXIT,0&X2,+	8	1495	B U86 0-0 *		195
1047	8 94	SBR	XL2,1&X2	7	1503	H 094 0-1		196
1048	8 95	S	XL3&1	4	1510	S 100		196
1049	8 96	C	0&X2	4	1514	C 0-0		196
1050	8 97	SAR	*E4	4	1518	Q V25		196
1051	8 98	MCH	0,WORK9	7	1522	M 000 Y20		196
1052	8 99	MN	WORK9-6,XL3	7	1529	D Y14 099		196
1053	9 00	MCH	XL3,SAVE3	7	1536	M 099 -03		197
1054	9 01	A	XL3	4	1543	A 099		197
1055	9 02	A	SAVE3, XL3	7	1547	A -03 099		197
1056	9 03	BWZ	CNT,WORK9-6,2	8	1554	V V99 Y14 2		197
1057	9 04	A	E30, XL3	7	1562	A Y29 099		197
1058	9 05	BWZ	CNT,WORK9-6,S	8	1569	V V99 Y14 S		198
1059	9 06	A	E30, XL3	7	1577	A Y29 099		198
1060	9 07	BWZ	CNT,WORK9-6,K	8	1584	V V99 Y14 K		198
1061	9 08	A	E30, XL3	7	1592	A Y29 099		198
1062	9 09	MN	0&X2	4	1599	D 0-0		198
1063	9 10	MN		1	1603	D		198
1064	9 11	MCH	TABLE&2&X3	4	1604	M 8D0		198
1065	9 12	C	0&X2	4	1608	C 0-0		199
1066	9 13	SAR	TABLE&2&X3	4	1612	Q 8D0		199
1067	9 14	C	XL2,PARAM&2	7	1616	C 094 688		199
1068	9 15	BU	EXIT	5	1623	B U86 /		199
1069	9 16	MCH	TBEGIN, XL3	7	1628	M Y10 099		199
1070	9 17	NOP	3&X3	4	1635	N 0&3		199
1071	9 18	SAR	TBEGIN	4	1639	Q Y10		199
1072	9 19	B	NU1YP	4	1643	B #63		200
1073	9 20	EOJ	FENDX C,GM,,XBEGIN,XBEGIN,XBEGIN,SAVE3,GROUP MARK				MACRO	
1074		EOJ	BSS 333,C	5	1647	B 333 C	GEN	200
1075		SBR	INITAP&6,XBEGIN	7	1652	H 786 838	GEN	200
1076		SBR	BCLEAR	4	1659	H 833	GEN	200
1077		SBR	INITXT&3,XBEGIN	7	1663	H 796 838	GEN	200
1078		SBR	TCLEAR,SAVE3	7	1670	H 710 -03	GEN	200
1079		LCA	@GROUP MARK&,110	7	1677	L Y39 110	GEN	201
1080		B	MONTER	4	1684	B 700	GEN	201
1081	9 21	CERR	FQUIT				MACRO	
1082		CERR	332	4	1688	/ 332	GEN	201
1083		CS		1	1692	/	GEN	201
1084		CC	1	2	1693	F 1	GEN	201
1085		MCH	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270	7	1695	M Y75 270	GEN	201
1086		W		1	1702	2	GEN	201
1087		CC	1	2	1703	F 1	GEN	202
1088		BCE	#66,MONTOR,1	8	1705	B X18 769 1	GEN	202
1089		RWD	1	5	1713	U ZUI R	GEN	202
1090		H	*-3	4	1718	. X18	GEN	202
1091	9 22	DCW	@XXX&	3	1724		GEN	202

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	L.OCN	INSTRUCTION TYPE	CARD
1092	9 23	DCW	117	C	3	1727	I DIMENSION	202
1093	9 24	DCW	084	C	3	1730	Q EQUIVALENCE	202
1094	9 25	DCW	108	C	3	1733	F FORMAT	203
1095	9 26	DCW	009	C	3	1736	3 WRITE TAPE	203
1096	9 27	DCW	003	C	3	1739	1 READ TAPE	203
1097	9 28	DCW	018	C	3	1742	6 WRITE OUTPUT TAPE	203
1098	9 29	DCW	081	C	3	1745	P PRINT	203
1099	9 30	DCW	042	C	3	1748	U PNCH	203
1100	9 31	DCW	015	C	3	1751	5 READ INPUT TAPE	203
1101	9 32	DCW	069	C	3	1754	L READ	204
1102	9 33	DCW	087	C	3	1757	R ARITH	204
1103	9 34	DCW	105	C	3	1760	E IF	204
1104	9 35	DCW	027	C	3	1763	9 FUNCTION STMTS	204
1105	9 36	DCW	096	C	3	1766	B BACKSPACE	204
1106	9 37	DCW	057	C	3	1769	Z REWIND	204
1107	9 38	DCW	075	C	3	1772	N END FILE	204
1108	9 39	DCW	039	C	3	1775	Y COMPUTED GO TO	205
1109	9 40	DCW	111	C	3	1778	G GO TO	205
1110	9 41	DCW	036	C	3	1781	S STOP	205
1111	9 42	DCW	093	C	3	1784	A PAUSE	205
1112	9 43	DCW	063	C	3	1787	J SENSE LIGHT	205
1113	9 44	DCW	066	C	3	1790	K IF SENSE LIGHT	205
1114	9 45	DCW	048	C	3	1793	W IF SENSE SWITCH	205
1115	9 46	DCW	099	C	3	1796	C CONTINUE	205
1116	9 47	DCW	102	C	3	1799	D DO	206
1117	9 48	DCW	999	C	3	1802		206
1118	9 49	DCW	999	C	3	1805		206
1119	9 50	DC	@ @	C	3	1806	GROUP MARK	206
1120	9 51	DC	0	C	1	1806		206
1121	9 52	LTORG	*	C	1	1807		206
	954	TBEGIN	DCW	C			1809	
	1016	WORK9	#03	C	3	1810		206
			@#0	C	1	1811	AREA	206
			#09	C	9	1820	LIT	206
			£39	C	2	1822	AREA	207
			#03	C	3	1825	LIT	207
			£1	C	1	1826	AREA	207
			£3	C	1	1827	LIT	207
			£30	C	2	1829	LIT	207
			@GROUP MARK@	C	10	1839	LIT	207
			@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	C	36	1875	LIT	208
			@EOTMOE1	C				
1122	9 53	ORG	#3	C	3	2003		209
1123	9 54	DCW	SAVE3	C				
1124	9 55	ORG	ORGV81&X00	C				
1125	9 56	EQU	#£1	C				
1126	9 57	DCW	@ @	C	1	2900		210
1127	9 58	XFR	AGAIN	C				
			VARBL ONE LONGEST	C				
			SYSTEM GROUP MARK	C				
				C			B #22	211

SEQ PG	LINE	LABEL	OP	OPERANDS	INSERT GROUP PHASE	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1128	9 59		JOB	1401 FORTRAN							
1129	9 60		FBEGN	GROUP MARK,X1,R,X2,R,D							
1130			SFX	D							
1131		110	DCM	AGROUP MARK@							
1132		X1	EQU	089				0110		GEN	214
1133		089	DCM	000				0089		GEN	
1134		091	DCM	00				0089		GEN	215
1135		X2	EQU	094				0091		GEN	215
1136		094	DCW	000				0094		GEN	
1137		096	DC	00				0094		GEN	215
1138	9 61		ORG	XBEGIN				0096		GEN	215
1139	9 62	START	MCW	083,X1					0838		
1140	9 63		SW	GM				0838	M 083 089		
1141	9 64	LOOP1	BCE	RPLCE,0&X1,	5-8			0845	, #91		
1142	9 65	BTEST	BCE	EOJ,0&X1,	BLANK			0849	B 881 0#0		
1143	9 66		BCE	CKFMT,0&X1,	GROUP MARK			0857	B 949 0#0		
1144	9 67		SBR	X1				0865	B 904 0#0		
1145	9 68		B	LOOP1				0873	H 089		
1146	9 69	RPLCE	LCA	GM, 0&X1				0877	B 849		
1147	9 70		SBR	X1				0881	L #91 0#0		
1148	9 71		C	0&X1				0888	H 089		
1149	9 72		SAR	X1				0892	C 0#0		
1150	9 73		B	LOOP1				0896	Q 089		
1151	9 74	CKFMT	MCW	0&X1,HOLD5#5				0900	B 849		
1152	9 75		BCE	ISFMT,HOLD5-4,F				0904	M 0#0 #96		
1153	9 76		MCW	0&X1,BTEST				0911	B 938 #92 F		
1154	9 77	BUMP	MN	0&X1				0919	M #97 857		
1155	9 78		SBR	X1				0926	D 0#0		
1156	9 79		B	LOOP1				0930	H 089		
1157	9 80	ISFMT	MCW	0&X1,BTEST				0934	H 849		
1158	9 81		B	BUMP				0938	M #98 857		
1159	9 82	EOJ	MCW	PARAM&2,X2				0945	B 926		
1160	9 83		MZ	083,ALL9				0949	M 688 094		
1161	9 84		MZ					0956	Y 083 #90		
1162	9 85		MCW					0963	Y		
1163	9 86	CLEAR	CS	0&X2				0964	M		
1164	9 87		SBR	X2				0965	/ 0-0		
1165	9 88		C	X2,ALL9				0969	H 094		
1166	9 89		BU	CLEAR				0973	C 094 #90		
1167	9 90	CMPAR	C	083,X2				0980	B 965 /		
1168	9 91		BE	FXPRM				0985	C 083 094		
1169	9 92		MCW	BLANK#1,0&X2				0992	B #16 S		
1170	9 93		CW	0&X2				0997	M #99 0-0		
1171	9 94		SBR	X2				1004	D 0-0		
1172	9 95		B	CMPAR				1008	H 094		
1173	9 96	FXPRM	SW	PARAM&3				1012	B 985		
1174	9 97		A	BLANK,PARAM&6				1016	, 689		
1175	9 98		C	PARAM&4,000@				1020	A #99 692		
1176	9 99		BU	PARAM&4,000@				1027	C 690 /01		
1177	10 00		MCW	#68				1034	B #46 /		
				050@,PARAM&4				1039	M /03 690		

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
1178 10 01		C	PARAMA66,2002	D	7 1046	C 692 /01		221
1179 10 02		BU	EDPHS	D	5 1053	B #65 /		222
1180 10 03		MCH	2082,PARAMA66	D	7 1058	M /05 692		222
1181 10 04	EDPHS	FENDX	C,GM,SYSL,SQUOZE				MACRO	
1182	EDPHS	BSS	333,C					
1183		SBR	TCLEAR,SYSL	D	5 1065	B 333 C	GEN	222
1184		LCA	SQUOZE,110	D	7 1070	H 710 /12	GEN	222
1185		B	MONTER	D	7 1077	L /11 110	GEN	222
1186 10 05	ALL 9	DCW	999	D	4 1084	B 700	GEN	222
1187 10 06	GM	DC	@ @	D	3 1090			222
1188 10 07		LTORG *		D	1 1091			223
	1151	HOLD5				1092		
							AREA	223
			#05	D	5 1096		LIT	223
			2B2	D	1 1097		LIT	223
			2N2	D	1 1098		LIT	223
	1169	BLANK		D	1 1099		AREA	223
			#01	D	2 1101		LIT	224
			2002	D	2 1103		LIT	224
			2052	D	2 1105		LIT	224
			2082	D	2 1111		LIT	224
			SQUOZE2	D	6 1111		LIT	224
1189 10 08	SYSL	DCW	@ @	D	1 1112			224
1190 10 09		XFR	START	D				225
						B 838		

GROUP MARK

SYSTEM GROUP MARK

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1191 10 10		JOB	1401 FORTRAN SQUOZE PHASE						
1192 10 11		FBEGN	SQUOZE,XL1,R,XL2,R,XL3,R,E,XXXX						
1193		SFX	E					MACRO	
1194	XXXX	EQU	0	E	6	0000		GEN	228
1195	110	DCW	3SQUOZE3	E	3	0110		GEN	229
1196	XL1	EQU	089	E	2	0089		GEN	229
1197	089	DCW	000	E	3	0089		GEN	229
1198	091	DC	00	E	2	0091		GEN	229
1199	XL2	EQU	094	E	3	0094		GEN	229
1200	094	DCW	000	E	2	0094		GEN	229
1201	096	DC	00	E	3	0096		GEN	229
1202	XL3	EQU	099	E	2	0099		GEN	229
1203	099	DCW	000	E	3	0099		GEN	229
1204	100	DC	0	E	1	0100		GEN	229
1205 10 12	X1	EQU	XL1	E		0089			
1206 10 13	X2	EQU	XL2	E		0094			
1207 10 14	STLOC	EQU	083	E		0083			
1208 10 15		ORG	XBEGIN	E					
1209 10 16	BEGIN	MCW	STLOC,XL2	E	7	0838	0838		230
1210 10 17		MCW	STLOC,XL1	E	7	0845	M 083 094		230
1211 10 18	NUSTM	MCW	0&X1,STMNO#3	E	7	0852	M 0#0 U94		230
1212 10 19		MCW	0&X1,HOLD4#4	E	7	0859	M 0#0 U98		230
1213 10 20		BCE	ARITH,HOLD4-3,R	E	8	0866	B /56 U95 R		230
1214 10 21		BCE	ENDCD,HOLD4-3,/	E	8	0874	B /87 U95 /		231
1215 10 22	BYP	BCE	LOD,HOLD4-3,X	E	8	0882	B 991 U95 X		231
1216 10 23		MZ	HOLD4-3,BYPE7	E	7	0890	Y U95 889		231
1217 10 24		MN	HOLD4-3,BYPE7	E	7	0897	D U95 889		231
1218 10 25		MN	HOLD4-3,HOLD1#1	E	7	0904	D U95 U99		231
1219 10 26		ZA	HOLD1,HOLD3#3	E	7	0911	E U99 V02		232
1220 10 27		A	HOLD3	E	4	0918	A V02		232
1221 10 28		A	HOLD1,HOLD3	E	7	0922	A U99 V02		232
1222 10 29		MZ	BLANK#1,HOLD3	E	7	0929	Y V03 V72		232
1223 10 30		LCA	TABLE-3,RTREV63	E	7	0936	L V06 979		232
1224 10 31		A	HOLD3,RTREV63	E	7	0943	A V02 979		232
1225 10 32		MZ	HOLD4-3,RTREV62	E	7	0950	Y U95 978		233
1226 10 33		CW	RTREV61	E	4	0957	D 977		233
1227 10 34		MCW	XL2,HOLDX#8	E	7	0961	M 094 V14		233
1228 10 35		MCW		E	1	0968	M		233
1229 10 36		MCW	DATA,XL1-2	E	7	0969	P U78 087		233
1230 10 37	RTREV	MCW	XXXX,XL3	E	7	0976	M 000 099		233
1231 10 38		MCW	HOLDX,XL2	E	7	0983	M V14 094		234
1232 10 39		MCW		E	1	0990	M		234
1233 10 40	LOD	MVDWN	X1,X2	E	7	0991	L 0#0 0-0	MACRO	234
1234	LOD	LCA	0&X1, 0&X2	E	4	0998	Q 089	GEN	234
1235		SAR	X1	E	4	1002	C 0-0	GEN	234
1236		C	0&X2	E	4	1006	Q 094	GEN	234
1237		SAR	X2	E	4	1010	C 0#0 0&0		234
1238 10 41		C	0&X1,0&X3	E	4	1017	Q 089		234
1239 10 42		SAR	XL1	E	4	1021	B #92 /		235
1240 10 43		BU	ERROR	E	5	1021	B #92 /		235

3 #

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1241	10 44	SHIFT	MVDWN	X1,X2	E	7	1026	L 0+0 0-0	MACRO	235
1242		SHIFT	LCA	0&X1, 0&X2	E	4	1033	Q 089	GEN	235
1243			SAR	X1	E	4	1037	C 0-0	GEN	235
1244			C	0&X2	E	4	1041	Q 094	GEN	235
1245			SAR	X2	E	8	1045	B #57 0+0	GEN	235
1246	10 45	CKDON	BCE	DONE,0&X1,	E	4	1053	B #52	GEN	236
1247	10 46		B	NUJSTM	E	4	1057	/ 0-0	GEN	236
1248	10 47	DONE	CS	0&X2	E	4	1061	/	GEN	236
1249	10 48		CS		E	1			MACRO	236
1250	10 49		FENDX	C,,,INITLF,,SYSL,DIMENI						
1251			BSS	333,C	E	5	1062	B 333 C	GEN	236
1252			SBR	INITXTE3,INITLF	E	7	1067	H 796 839	GEN	236
1253			SBR	TCLEAR,SYSL	E	7	1074	H 710 V67	GEN	236
1254			LCA	ADIMENI@,110	E	7	1081	L V20 110	GEN	236
1255			B	MONTER	E	4	1088	B 700	GEN	237
1256	10 50	ERROR	FTMSG	1,UNDETERMINABLE STATEMENT,STMNO,25	E	4	1092	/ 332	MACRO	237
1257		ERROR	CS	332	E	1	1096	/	GEN	237
1258			SW	FAILSW	E	4	1097	/ 184	GEN	237
1259			MN	STMNO,224&25	E	7	1101	D U94 249	GEN	237
1260			MN		E	1	1108	D	GEN	237
1261			MN		E	1	1109	D	GEN	237
1262			MCH		E	4	1110	M V66	GEN	238
1263			N	ERROR 1 - UNDETERMINABLE STATEMENT, STATEMENT @	E	1	1114	2	GEN	238
1264			BCV	#E5	E	5	1115	B /24 @	GEN	238
1265			B	#E3	E	4	1120	B /26	GEN	238
1266			CC	1	E	2	1124	F 1	GEN	238
1267			MCM	2&X2	E	4	1126	P 0-2	GEN	238
1268	10 51	PMOV3	MN		E	1	1130	D	GEN	238
1269	10 52		MN		E	1	1131	D	GEN	238
1270	10 53		SAR	XL2	E	4	1132	Q 094	GEN	239
1271	10 54		BCE	PMOV3,1&X2,*	E	8	1136	B /26 0-1 *	GEN	239
1272	10 55		C	0&X1	E	4	1144	C 0+0	GEN	239
1273	10 56		SAR	XL1	E	4	1148	Q 089	GEN	239
1274	10 57		B	CKDON	E	4	1152	B #45	GEN	239
1275	10 58		LCA	0&X1,0&X2	E	7	1156	L 0+0 0-0	GEN	239
1276	10 59	ARITH	SAR	XL1	E	4	1163	Q 089	GEN	240
1277	10 60		LCA	0&X2,0&X2	E	7	1167	L 0-0 0-0	GEN	240
1278	10 61		SBR	XL2	E	4	1174	H 094	GEN	240
1279	10 62		B	SHIFT	E	4	1178	B #26	GEN	240
1280	10 63		C	0&X1	E	4	1182	C 0+0	GEN	240
1281	10 64	ENDDC	C		E	1	1186	C	GEN	240
1282	10 65		SAR	XL1	E	4	1187	Q 089	GEN	240
1283	10 66		B	CKDON	E	4	1191	B #45	GEN	241
1284	10 67	TABLE	DCW	RDTAP	E	3	1197	U03	GEN	241
1285	10 68		DCW	XXX	E	3	1200	000	GEN	241
1286	10 69		DCW	WRTAP	E	3	1203	U12	GEN	241
1287	10 70		DCW	XXX	E	3	1206	000	GEN	241
1288	10 71		DCW	RDTAP	E	3	1209	T70	GEN	241
1289	10 72		DCW	WRTAP	E	3	1212	T95	GEN	241
1290	10 73		DCW	WRTAP	E	3			GEN	241

BLANK CHECK FOR EOJ

/ END  
 1 READ TAPE  
 2  
 3 WRITE TAPE  
 4  
 5 READ INPUT TAPE  
 6 WRITE OUTPUT TAPE

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1291	10	74		DCW	XXXX:	E	3	1215	000		242
1292	10	75		DCW	XXXX	E	3	1218	000		242
1293	10	76		DCW	BLANK	E	3	1221	V03		242
1294	10	77		DCW	XXXX	E	3	1224	000		242
1295	10	78		DCW	STOP	E	3	1227	T36		242
1296	10	79		DCW	CGOTO	E	3	1230	T11		242
1297	10	80		DCW	PUNCH	E	3	1233	T75		242
1298	10	81		DCW	XXXX	E	3	1236	000		243
1299	10	82		DCW	IFSSW	E	3	1239	T27		243
1300	10	83		DCW	XXXX	E	3	1242	000		243
1301	10	84		DCW	XXXX	E	3	1245	000		243
1302	10	85		DCW	RWD	E	3	1248	U25		243
1303	10	86		DCW	SENLT	E	3	1251	U77		243
1304	10	87		DCW	IFSL	E	3	1254	U67		243
1305	10	88		DCW	READ	E	3	1257	Y57		244
1306	10	89		DCW	XXXX	E	3	1260	000		244
1307	10	90		DCW	EOF	E	3	1263	U19		244
1308	10	91		DCW	XXXX	E	3	1266	000		244
1309	10	92		DCW	PRINT	E	3	1269	T80		244
1310	10	93		DCW	EQUIV	E	3	1272	U54		244
1311	10	94		DCW	XXXX	E	3	1275	000		244
1312	10	95		DCW	PAUSE	E	3	1278	T32		245
1313	10	96		DCW	BSP	E	3	1281	U34		245
1314	10	97		DCW	CNTU	E	3	1284	T46		245
1315	10	98		DCW	DO	E	3	1287	T38		245
1316	10	99		DCW	IF	E	3	1290	T13		245
1317	11	00		DCW	FRMAT	E	3	1293	T53		245
1318	11	01		DCW	GOTO	E	3	1296	T06		245
1319	11	02		DCW	XXXX	E	3	1299	000		246
1320	11	03		DCW	DMSN	E	3	1302	U43		246
1321	11	04	GOTO	DCW	@T0G@	E	4	1306			246
1322	11	05	CGOTO	DCW	@%0T0G@	E	5	1311			246
1323	11	06	IF	DCW	@FI@	E	2	1313			246
1324	11	07	IFSSW	DCW	@HCTIHWSESNESSFIA@	E	14	1327			246
1325	11	08	PAUSE	DCW	@ESUAP@	E	5	1332			246
1326	11	09	STOP	DCW	@P0T@	E	4	1336			247
1327	11	10	DO	DCW	@D@	E	2	1338			247
1328	11	11	CNTU	DCW	@EUNITNO@	E	8	1346			247
1329	11	12	FRMAT	DCW	@XTAMR0F@	E	7	1353			247
1330	11	13	READ	DCW	@DAER@	E	4	1357			247
1331	11	14	ROITP	DCW	@EPATTUPNIDAER@	E	13	1370			247
1332	11	15	PUNCH	DCW	@HCNUP@	E	5	1375			248
1333	11	16	PRINT	DCW	@TNIRP@	E	5	1380			248
1334	11	17	WTOTP	DCW	@EPATTUPTUDETIRW@	E	15	1395			248
1335	11	18	ROITAP	DCW	@EPATDAER@	E	8	1403			248
1336	11	19	WRTAP	DCW	@EPATETIRW@	E	9	1412			249
1337	11	20	EOF	DCW	@ELIFDNE@	E	7	1419			249
1338	11	21	RWD	DCW	@DNIVER@	E	6	1425			249
1339	11	22	BSP	DCW	@ECAPSKCAB@	E	9	1434			249
1340	11	23	DMSN	DCW	@NOISNEMIDA@	E	9	1443			250



SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1341	11 24	EQUIV	DCW	@ECNELAVIUQEA	E	11	1454			250
1342	11 25	IFSL	DCW	@THGILESNE\$F1a	E	13	1467			250
1343	11 26	SENLT	DCW	@THGILESNE\$a	E	10	1477			251
1344	11 27	DATA	EQU	*\$1	E		1478			
1345	11 28		DCW	@270005400081+a	E	14	1491			251
1346	11 29		LTOrg *		E			1492		
	1211	STMND	DCW	#03	E	3	1494		AREA	251
	1212	HOLD4		#04	E	4	1498		AREA	251
	1218	HOLD1		#01	E	1	1499		AREA	251
	1219	HOLD3		#03	E	3	1502		AREA	251
	1222	BLANK		#01	E	1	1503		AREA	251
	1223			\$TABLE-3	E	3	1506	/94	ADCON	252
	1227	HOLDX		#08	E	8	1514		AREA	252
	1254			@DIMEN1a	E	6	1520		LIT	252
	1263			@ERROR 1 - UNDETERMINABLE STATEMENT, STATEMENT a	E	46	1566		LIT	254
1347	11 30	SYS1	DCW	a @	E	1	1567			254
1348	11 31		XFR	BEGIN	E			B 838		255

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1349	11 32		JOB	1401 FORTRAN DIMENSION PHASE ONE						
1350	11 33		FBEGN	DIMEN 1,X1,X2,R,X3,R,F						
1351			SFX	F					MACRO	
1352		110	DCW	@DIMEN 1@	F	7	0110		GEN	258
1353		X1	EQU	089	F		0089		GEN	
1354		X2	EQU	094	F		0094		GEN	
1355		094	DCW	000	F	3	0094		GEN	259
1356		096	DC	00	F	2	0096		GEN	259
1357		X3	EQU	099	F		0099		GEN	
1358		099	DCW	000	F	3	0099		GEN	259
1359		100	DC	0	F	1	0100		GEN	259
1360	11 34		ORG	XBEGIN				0838		
1361	11 35	COMPAT	DCW	0	F	1	0838			260
1362	11 36	INITL	SW	GM	F	4	0839			260
1363	11 37		MCW	83,X1	F	7	0843			260
1364	11 38		A	BLANK#1,PARAM#6	F	7	0850			260
1365	11 39		MCW	PARAM#6,HOLD#2	F	7	0857			260
1366	11 40		A	@2,HOLD	F	7	0864			260
1367	11 41		C	PARAM#4,HOLD	F	7	0871			261
1368	11 42		BU	*E5	F	5	0878			261
1369	11 43		CW	COMPAT	F	4	0883			261
1370	11 44		LCA	GM,1EX1	F	7	0887			261
1371	11 45		LCA	PARAM#2,X2	F	7	0894			261
1372	11 46		MN	000EX2	F	4	0901			261
1373	11 47		MN		F	4	0905			261
1374	11 48		MCW		F	1	0905			261
1375	11 49		SBR		F	4	0906			262
1376	11 50		MCW	BLANK,001	F	4	0910			262
1377	11 51	START	MCW	@ @,2EX1	F	7	0914			262
1378	11 52		NOP	2EX1	F	7	0921			262
1379	11 53		SAR	START@6	F	4	0928			262
1380	11 54		LCA	0EX1,WORK	F	4	0932			262
1381	11 55		SAR	X1	F	7	0936			262
1382	11 56		SBR	X3	F	4	0943			263
1383	11 57		BCE	CKNOD,WORK,	F	4	0947			263
1384	11 58		BCE	DIMEN,WORK-3,I	F	8	0951			263
1385	11 59		BCE	BYP,WORK-3,I	F	8	0959			263
1386	11 60		B	CKNOD	F	8	0967			263
1387	11 61		BCE	NAME,000EX1,@	F	4	0975			263
1388	11 62	DIMEN	FBCEQ	SYNER,0EX1,@,@,	F	8	0979			264
1389			BCE	SYNER,0EX1,@,	F	8	0987			264
1390			BCE	SYNER,0EX1,@	F	8	0995			264
1391			BCE	SYNER,0EX1,@	F	8	1003			264
1392	11 63		SBR	X1	F	4	1011			264
1393	11 64		B	DIMEN	F	4	1015			265
1394	11 65	NAME	SW	DIMSW	F	4	1019			265
1395	11 66		MN	0EX1	F	4	1023			265
1396	11 67		SAR	X1	F	4	1027			265
1397	11 68		SW	002EX1	F	4	1031			265
1398	11 69		MCW	X2,HEX2#3	F	7	1035			265

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1399	11 70	*		TEST TO SEE IF ARRAY WAS PREVIOUSLY DEFINED						
1400	11 71		BW	OK,DSW#1	F	8	1042	V /12 X10 I	GEN	265
1401	11 72	UNIQ	MCM	16X2	F	4	1050	P 0-1	GEN	266
1402	11 73		SAR	X2	F	4	1054	Q 094	GEN	266
1403	11 74		BCE	OK,06X2, BLANK	F	8	1058	B /12 0-0	GEN	266
1404	11 75	GET	MCM	26X2	F	4	1066	P 0-2	GEN	266
1405	11 76		MN		F	1	1070	D	GEN	266
1406	11 77		MN		F	1	1071	D	GEN	266
1407	11 78		SBR	X2	F	4	1072	H 094	GEN	266
1408	11 79		BCE	GET,16X2, #	F	8	1076	B #66 0-1 #	GEN	267
1409	11 80	COMP	C	06X2,06X3 REST V. NEW	F	7	1084	C 0-0 0E0	GEN	267
1410	11 81		SAR	X2	F	4	1091	Q 094	GEN	267
1411	11 82		BU	UNIQ	F	5	1095	B #50 /	GEN	267
1412	11 83	*		CAN GET EQUAL COMPARE IF A FIELD LONGER THAN B FIELD						
1413	11 84		BWZ	MULTY,16X2,1	F	8	1100	V T56 0-1 1	GEN	267
1414	11 85		B	UNIQ	F	4	1109	B #50	GEN	267
1415	11 86	OK	MCW	HEX2,X2	F	7	1112	M X09 094	GEN	268
1416	11 87		LCA	GM,0006X2	F	7	1119	L W91 0-0	GEN	268
1417	11 88		LCA	0006X3	F	4	1126	L 0E0	GEN	268
1418	11 89		LCA	PRED	F	4	1130	L W94	GEN	268
1419	11 90		SBR	X2	F	4	1134	H 094	GEN	268
1420	11 91		MCW	PRED,X3	F	7	1138	M W94 099	GEN	268
1421	11 92		BCE	#65,X3, PRED INITIALLY BLANK	F	8	1145	B /57 099	GEN	269
1422	11 93		B	#68	F	4	1153	B /64	GEN	269
1423	11 94		A	BLANK,X3	F	7	1157	A X01 099	GEN	269
1424	11 95		LCA	@ @,0006X2	F	7	1164	L X13 0-0	GEN	269
1425	11 96		LCA	@ @	F	4	1171	L X13	GEN	269
1426	11 97		SBR	0066X3	F	4	1175	H 0E6	GEN	269
1427	11 98		SBR	PRED	F	4	1179	H W94	GEN	269
1428	11 99		LCA	@ @	F	4	1183	L X18	GEN	270
1429	12 00		SBR	X2	F	4	1187	H 094	GEN	270
1430	12 01	RESET	FFLIP	06X1,MN,X1,X3,,,,, #, GROUP MARK					MACRO	
1431		RESET	MN		F	4	1191	D W95	GEN	270
1432			MN		F	1	1195	D	GEN	270
1433			SAR	X3	F	4	1196	Q 099	GEN	270
1434			SBR	X1, 06X1	F	7	1200	H 089 0#0	GEN	270
1435		00K028	MCW	06X1,00L028#1	F	7	1207	M 0#0 X19	GEN	270
1436			SAR	X1	F	4	1214	Q 089	GEN	271
1437			BCE	00M028, 00L028, #	F	8	1218	B S57 X19 #	GEN	271
1438			BCE	00M028, 00L028, #	F	8	1226	B S57 X19	GEN	271
1439			BCE	00M028, 00L028, #	F	8	1234	B S57 X19	GEN	271
1440			MCW	00L028, 26X3	F	7	1242	M X19 0E2	GEN	271
1441			SBR	X3	F	4	1249	H 099	GEN	271
1442			B	00K028	F	4	1253	B S07	GEN	272
1443		00M028	EQU	#61	F	4	1257	B U84 0#1	GEN	272
1444	12 02		BCE	SYNER,16X1, 12-7-8	F	8	1265	L 0E1 0-0	GEN	272
1445	12 03		LCA	0016X3,0006X2	F	4	1272	M 094	GEN	272
1446	12 04		SBR	X2	F	4	1276	B /91 0#1	GEN	272
1447	12 05		BCE	RESET,16X1, #	F	8	1276	B /91 0#1	GEN	272
1448	12 06		MCW	START66,X3, #	F	7	1284	M 920 099	GEN	272

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
1449	12 07		BCE	*E5,0EX3,	F	8	1291	B T03 060	273
1450	12 08		B	FAIL	F	4	1299	B M46	273
1451	12 09		CM	DSW	F	4	1303	B X10	273
1452	12 10	CKGM	BCE	NEXT,0EX1,	F	8	1307	B T44 0#0	273
1453	12 11		B		F	1	1315	B	273
1454	12 12		BCE	*E5,0EX1,,	F	8	1316	B T28 0#0	273
1455	12 13		B	SYNER	F	4	1324	B U84	273
1456	12 14		MN	000EX1	F	4	1328	D 0#0	274
1457	12 15		SAR	X1	F	4	1332	Q 089	274
1458	12 16		SBR	X3	F	4	1336	H 099	274
1459	12 17		B	DIMEN	F	4	1340	B 979	274
1460	12 18	NEXT	C	0EX1	F	4	1344	C 0#0	274
1461	12 19		SAR	X1	F	4	1348	Q 089	274
1462	12 20		B	START	F	4	1352	B 914	274
1463	12 21	MULTY	CS	332	F	4	1356	/ 332	275
1464	12 22		CS		F	1	1360	/	275
1465	12 23		SW	FAILSW	F	4	1361	/ 184	275
1466	12 24		MCH	ERROR 2 - DOUBLY DEFINED ARRAY2,230	F	7	1365	M X49 230	275
1467	12 25		MCH	COMP66,X2	F	7	1365	M X49 230	275
1468	12 26		FFLIP	0EX3,232,X3,X2,INCL,WM	F	7	1372	M #90 094	275
1469			MN	232	F	4	1379	D 232	275
1470			MN		F	1	1383	D	275
1471			SAR	X2	F	4	1384	Q 094	276
1472			SBR	X3, 0EX3	F	7	1388	H 099 080	276
1473		DOM029	MCH	0EX3,DOM029#1	F	7	1395	M 080 X50	276
1474			SAR	X3	F	4	1402	Q 099	276
1475			MCH	DOM029, 2EX2	F	7	1406	M X50 0-2	276
1476			SBR	X2	F	4	1413	H 094	276
1477			BW	DOM029, 1EX3	F	8	1417	V U29 0E1 1	277
1478			B	DOM029	F	4	1425	B T95	277
1479		DOM029	EQU	*E1	F	4	1429		277
1480	12 27		M		F	1	1429	2	277
1481	12 28		FORMS		F	1	1429		277
1482			BCV	*E5	F	5	1430	B U39 2	277
1483			B	*E3	F	4	1435	B U41	277
1484			CC	1	F	2	1439	F 1	277
1485	12 29	LOZSC	BCE	CTUL,0EX1,0	F	8	1441	B U65 0#0 0	277
1486	12 30		SBR	X1	F	4	1449	H 089	278
1487	12 31		BCE	SYNER,1EX1,	F	8	1453	B U84 0#1	278
1488	12 32		B	LOZSC	F	4	1461	B U41	278
1489	12 33	CTUL	MN	0EX1	F	4	1465	D 0#0	278
1490	12 34		SAR	X1	F	4	1469	Q 089	278
1491	12 35		MCH	HEX2,X2	F	4	1473	M X09 094	278
1492	12 36		B	CKGM	F	7	1473	M X09 094	278
1493	12 37	SYNER	FTMSG	3,DIMENSION SYNTAX,WORK,17	F	4	1480	B T07	278
1494		SYNER	CS	332	F	4	1484	/ 332	278
1495			CS		F	1	1488	/	279
1496			SW	FAILSW	F	4	1489	/ 184	279
1497			MN	WORK,224E17	F	7	1493	D W90 241	279
1498			MN		F	1	1500	D	279

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1499				MN		F	1	1501	D	GEN	279
1500				MCW	ERROR 3 - DIMENSION SYNTAX, STATEMENT 2	F	4	1502	M X88	GEN	279
1501				W		F	1	1506	2	GEN	280
1502				BCV		F	5	1507	B V16 a	GEN	280
1503				B		F	4	1512	B V18	GEN	280
1504				CC		F	2	1516	F 1	GEN	280
1505	12	38		MCW	HE X2,X2	F	7	1518	M X09 094	GEN	280
1506	12	39		BCE	START,1&X1,	F	8	1525	C 0+0	GEN	280
1507	12	40	BYP	C	START,1&X1,	F	4	1533	B 914 0#1	GEN	280
1508	12	41		SAR	X1	F	4	1537	Q 089	GEN	281
1509	12	42		B	START	F	4	1541	B 914	GEN	281
1510	12	43	CKNOD	BW	OUT,DIMSW	F	8	1545	V V88 X00 1	GEN	281
1511	12	44		LCA	GM,0&X2	F	7	1553	L W91 0-0	GEN	281
1512	12	45		LCA	a a	F	4	1560	L X89	GEN	281
1513	12	46		LCA	BLNK3#3	F	4	1564	L X92	GEN	281
1514	12	47		LCA	BLNK3	F	4	1568	L X92	GEN	281
1515	12	48		LCA	BLNK3	F	4	1572	L X92	GEN	282
1516	12	49		LCA	BLANK5#5	F	4	1576	L X97	GEN	282
1517	12	50		LCA	a10a	F	4	1580	L X99	GEN	282
1518	12	51		SBR	X2	F	4	1584	H 094	GEN	282
1519	12	52	OUT	NOP	002&X1	F	4	1588	N 0*2	GEN	282
1520	12	53		MCM		F	1	1592	P	GEN	282
1521	12	54		MCW		F	1	1593	M	GEN	282
1522	12	55		SAR	X1	F	4	1594	Q 089	GEN	283
1523	12	56		MCW	006,086	F	7	1598	M 006 086	GEN	283
1524	12	57		FENDX	C,GM,,XBEGIN&1,INITLG,XBEGIN&1,SYS1,EQUIV ONE	F	5	1605	B 333 C	MACRO	283
1525				BSS	333,C	F	7	1610	H 786 839	GEN	283
1526				SBR	INITAP&6,XBEGIN&1	F	4	1617	H 833	GEN	283
1527				SBR	BCLEAR	F	7	1621	H 796 #34	GEN	283
1528				SBR	INIT&3,INITLG	F	7	1628	H 710 Y45	GEN	284
1529				SBR	TCLEAR,SYS1	F	7	1635	L Y08 110	GEN	284
1530				LCA	aEQUIV ONE&,110	F	7	1642	B 700	GEN	284
1531				B	MONTER	F	4	1646	/ 332	MACRO	284
1532	12	58	FAIL	FQUIT		F	4	1650	/	GEN	284
1533			FAIL	CS	332	F	1	1651	F 1	GEN	284
1534				CS		F	2	1653	M Y44 270	GEN	284
1535				CC	1	F	7	1660	2	GEN	285
1536				MCW	MESSAGE 2 - OBJECT PROGRAM TOO LARGE&,270	F	1	1661	F 1	GEN	285
1537				W		F	2	1663	B W76 769 1	GEN	285
1538				CC	1	F	5	1671	U XUI R	GEN	285
1539				BCE	*&6,MONTOR,1	F	4	1676	. W76	GEN	285
1540				RWD	1	F	1	1680		GEN	285
1541				H	*-3	F	10	1690		GEN	285
1542	12	59		DCW	0	F	1	1691		GEN	285
1543	12	60	WORK	DC	#10	F	3	1694		GEN	285
1544	12	61	GM	DC	a a	F	1	1695		GEN	286
1545	12	62	PRED	DCW	#3	F	4	1699		GEN	286
1546	12	63	MN	DCW	#1	F	1	1700		GEN	286
1547	12	64		DC	#4	F	4			GEN	286
1548	12	65	DIMSW	DC	#1	F	1			GEN	286

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LDCN	INSTRUCTION TYPE	CARD
1549 12 66		LIORG *					
1364	BLANK	DCW	#01	1	1701	AREA	286
1365	HOLD		#02	2	1703	AREA	286
			62	1	1704	LIT	286
			a a	1	1705	LIT	286
			a a	1	1706	LIT	286
1398	HEX2		#03	3	1709	AREA	286
1400	DSW		#01	1	1710	AREA	287
			a a	3	1713	LIT	287
			a	5	1718	LIT	287
1428			a	1	1719	AREA	287
1435	DOL028		#01	30	1749	LIT	288
1466			ERROR 2 - DOUBLY DEFINED ARRAY	1	1750	AREA	288
1473	DOL029		#01	38	1788	LIT	289
1500			ERROR 3 - DIMENSION SYNTAX, STATEMENT a	1	1789	LIT	289
			a a	3	1792	AREA	290
1513	BLNK3		#03	5	1797	AREA	290
1516	BLANK5		#05	2	1799	LIT	290
			a10a	9	1808	LIT	290
1530			EQUIV ONE	36	1844	LIT	291
1536			MESSAGE 2 -- OBJECT PROGRAM TOO LARGE	1	1845	LIT	291
1550 12 67	SYS1	DCW	a a				
1551 12 68		XFR	INITL				

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1552	12 69		JOB	1401 FORTRAN EQUIVALENCE PHASE ONE						
1553	12 70		FBEGN	EQUIV ONE,X1,X2,X3,R,G						
1554			SFX	G					MACRO	
1555		L10	DCM	AEQUIV ONE	G	9	0110		GEN	295
1556		X1	EQU	089	G				GEN	
1557		X2	EQU	094	G		0094		GEN	
1558		X3	EQU	099	G		0099		GEN	
1559		099	DCM	000	G	3	0099		GEN	296
1560		100	DC	0	G	1	0100		GEN	296
1561	12 71		ORG	XBEGIN&1	G			0839		
1562	12 72	FIRST	EQU	086	G		0086			297
1563	12 73	GM	DC	a,a	G	1	0839			297
1564	12 74	WORK	DC	#10	G	10	0849			297
1565	12 75	DRESS	DCM	#3	G	3	0852			297
1566	12 76	CHAMP	DCM	#5	G	5	0857			297
1567	12 77		DC	#3	G	3	0860			297
1568	12 78	TALLY	DCM	#5	G	5	0865			297
1569	12 79		DC	#3	G	3	0868			297
1570	12 80	ACCUM	DCM	#5	G	5	0873			297
1571	12 81	HEX3	DC	#3	G	3	0876			298
1572	12 82		DC	#1	G	1	0877			298
1573	12 83	SPACE	DCM	#1	G	1	0878			298
1574	12 84		DC	#4	G	4	0882			298
1575	12 85	SYNER	FTMSG	4,EQUIVALENCE SYNTAX,WORK,19					MACRO	
1576		SYNER	CS	332	G	4	0883	/ 332	GEN	298
1577			CS		G	1	0887	/	GEN	298
1578			SW	FAILSW	G	4	0888	, 184	GEN	298
1579			MN	WORK,224&19	G	7	0892	D 849 243	GEN	299
1580			MN		G	1	0899	D	GEN	299
1581			MN		G	1	0900	D	GEN	299
1582			MN	ERROR 4 - EQUIVALENCE SYNTAX, STATEMENT a	G	4	0901	M Y21	GEN	299
1583			W		G	1	0905	2	GEN	299
1584			BCV	#E5	G	5	0906	B 915 a	GEN	299
1585			B	#E3	G	4	0911	B 917	GEN	299
1586			CC	1	G	2	0915	F 1	GEN	300
1587	12 86		C	0&X1	G	4	0917	C 0#0	GEN	300
1588	12 87		SAR	X1	G	4	0921	Q 089	GEN	300
1589	12 88		B	START	G	4	0925	B /15	GEN	300
1590	12 89	LOOP	FBCEQ	NAME,0&X1,,,Z,0					MACRO	
1591		LOOP	BCE	NAME,0&X1,,	G	8	0929	R 969 0#0 ,	GEN	300
1592			BCE	NAME,0&X1,%	G	8	0937	B 969 0#0 %	GEN	300
1593			BCE	NAME,0&X1,0	G	8	0945	B 969 0#0 0	GEN	300
1594	12 90		BCE	SYNER,0&X1,	G	8	0953	B 883 0#0	GEN	301
1595	12 91		SBR	X1	G	4	0961	H 089	GEN	301
1596	12 92		B	LOOP	G	4	0965	B 929	GEN	301
1597	12 93	NAME	SW	001&X1	G	4	0969	, 0#1	GEN	301
1598	12 94		MW	DRESS,X2	G	7	0973	M 852 094	GEN	301
1599	12 95	FIND	BCE	CKSIM,2&X2,	G	8	0980	B 574 0-2	GEN	301
1600	12 96	GET	MCM	2&X2	G	4	0988	P 0-2	GEN	301
1601	12 97		MN		G	6	0992	D	GEN	302

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCM	INSTRUCTION	TYPE	CARD
1602	12		MN		G	1	0993	D		302
1603	12		SAR	X2	G	4	0994	Q 094		302
1604	13		BCE	GET, 1&X2, *	G	8	0998	B 988 0-1 *		302
1605	13	COMP	C	000,000&X2	G	7	1006	C 000 0-0		302
1606	13		SAR	X3	G	4	1013	Q 099		302
1607	13		BU	FIN	G	5	1017	B 980 /		302
1608	13	A3	BWZ	ISIN, 1&X3, 1	G	8	1022	V W73 0&1 1		303
1609	13		B	FIN	G	4	1030	B 980		303
1610	13	INITL	MN	000&X2	G	4	1034	D 0-0		303
1611	13		SAR	DRESS	G	4	1038	Q 852		303
1612	13		SBR	HEX3	G	4	1042	H 876		303
1613	13		SW	GM	G	4	1046	V 839		303
1614	13		BW	*&8, COMPAT	G	8	1050	V #65 838 1		303
1615	13		MCH	@B@, CMPSW	G	7	1058	M Y22 /77		304
1616	13		MCH	X1, SAVE1	G	7	1065	M 089 Z68		304
1617	13		MCH	@ @, 2&X1	G	7	1072	M Y23 0*2		304
1618	13		SBR	KLOBR&6, 2&X1	G	7	1079	H T99 0*2		304
1619	13		MCM	2&X2	G	4	1086	P 0-2		304
1620	13	GET2	MN		G	1	1090	D		304
1621	13		MN		G	1	1091	D		304
1622	13		SAR	X2	G	4	1092	Q 094		305
1623	13		BCE	GET2, 1&X2, *	G	8	1096	B #86 0-1 *		305
1624	13		C	0&X2	G	8	1096	B #86 0-1 *		305
1625	13		C	CHAIN 3	G	4	1104	C 0-0		305
1626			C						MACRO	
1627			C						GEN	305
1628			C						GEN	305
1629	13		SAR	PRED#3	G	1	1108	C		305
1630	13	START	LCA	000&X1, WORK	G	1	1110	C		305
1631	13		SAR	X1	G	4	1111	Q Y26		305
1632	13	A1	BCE	OUT1, WORK,	G	7	1115	L 0#0 849		306
1633	13		BCE	CKPRN, WORK-3, 0	G	4	1122	Q 089		306
1634	13	A2	B	OUT1	G	8	1126	B W85 849		306
1635	13	CKPRN	BCE	ISEQU, 0&X1, *	G	8	1134	B /46 846 Q		306
1636	13		B	SYNER	G	4	1142	B W85 0#0 *		306
1637	13	I SEQU	SW	FXSW#1, FLTSW#1	G	8	1146	B /58 0#0 *		306
1638	13	EQUIV	MN	000&X1	G	4	1154	B 883		307
1639	13		SAR	X1	G	7	1158	V Y27 Y28		307
1640	13	CHPSW	SBR	COMP&3	G	4	1165	D 0#0		307
1641	13	SVORG	NOP	LOOP	G	4	1169	Q 089		307
1642	13		EQ	*&1	G	4	1173	H #09		307
1643	13		MN	0&X1, TST1&7	G	4	1177	N 929		307
1644	13		MZ	0&X1, TST1&7	G	7	1181	D 0#0 S02		307
1645	13	TST1	BCE	FIXED, @JKL MNA, X	G	7	1188	Y 0#0 S02		308
1646	13		CHAIN 5		G	8	1195	B S16 Y34 X		308
1647			BCE						MACRO	
1648			BCE						GEN	308
1649			BCE						GEN	308
1650			BCE						GEN	308
1651			BCE						GEN	308

EQUIV V. TABLE

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BLANK

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1652 13 40		CH	FLTSM	G	4	1208	Y28	GEN	309
1653 13 41		B	*65	G	4	1212	B S20	GEN	309
1654 13 42	FIXED	CH	FXSM	G	4	1216	Y27	GEN	309
1655 13 43		BW	LOOP,FLTSM	G	8	1220	V 929 Y28 1	GEN	309
1656 13 44		BW		G	1	1228	V	GEN	309
1657 13 45		FTMSG	5, ILLEGAL EQUIVALENCE MIXING, WORK, 27						
1658		CS	332	G	4	1229	/ 332	MACRO	
1659		CS		G	1	1233	/	GEN	309
1660		SW	FAILSW	G	4	1234	184	GEN	310
1661		MN	WORK, 224627	G	7	1238	D 849 251	GEN	310
1662		MN		G	1	1245	D	GEN	310
1663		MN		G	1	1246	D	GEN	310
1664		MCH		G	4	1247	M Y82	GEN	310
1665		W		G	1	1251	2	GEN	310
1666		BCV	*65	G	5	1252	B S61 a	GEN	310
1667		B	*63	G	4	1257	B S63	GEN	311
1668		CC	1	G	2	1261	F 1	GEN	311
1669 13 46		SW	FXSM, FLTSM	G	7	1263	Y27 Y28	GEN	311
1670 13 47		B	LOOP	G	4	1270	B 929	GEN	311
1671 13 48	CKSJM	MCH	X1, X3	G	7	1274	M 089 099	GEN	311
1672 13 49		BCE	ERR, 06X1, 2	G	8	1281	B V05 0#0 *	GEN	311
1673 13 50		MCH	DRESS, X2	G	7	1289	M 852 094	GEN	311
1674 13 51		LCA	GM, 16X2	G	7	1296	L 839 0-1	GEN	312
1675 13 52		SBR	X2	G	4	1303	H 094	GEN	312
1676 13 53		MCH	COMP63, X3	G	7	1307	M #09 099	GEN	312
1677 13 54		LCA	06X3, 06X2	G	7	1314	L 060 0-0	GEN	312
1678 13 55		SBR	X2	G	4	1321	H 094	GEN	312
1679 13 56		MCH	PRED, X3	G	4	1325	M Y26 099	GEN	312
1680 13 57		LCA	PRED, 06X2	G	7	1332	L Y26 0-0	GEN	313
1681 13 58		LCA	BLNK5-2	G	4	1339	L Y85	GEN	313
1682 13 59		LCA	BLNK5-2	G	4	1343	L Y85	GEN	313
1683 13 60		SBR	PRED	G	4	1347	H Y26	GEN	313
1684 13 61		SBR	X2	G	4	1351	H 094	GEN	313
1685 13 62		LCA	BLNK5#5, 06X2	G	7	1355	L Y87 0-0	GEN	313
1686 13 63		LCA	a1a	G	4	1362	L Y88	GEN	313
1687 13 64		SBR	X2	G	4	1366	H 094	GEN	314
1688 13 65		MCH	PRED, 6CX3	G	7	1370	M Y26 066	GEN	314
1689 13 66		BCE	NEWCD, 086,	G	8	1377	B U35 086	GEN	314
1690 13 67	OLD CD	MN	06X2	G	4	1385	D 0-0	GEN	314
1691 13 68		SAR	DRESS	G	4	1389	Q 852	GEN	314
1692 13 69	KLOBR	BCE	BSTAR, 0,	G	8	1393	B U46 000	MACRO	
1693 13 70		FQUIT							
1694		CS	332	G	4	1401	/ 332	GEN	314
1695		CS		G	1	1405	/	GEN	315
1696		CC	1	G	2	1406	F 1	GEN	315
1697		MCH	MESSAGE 2 - OBJECT PROGRAM TOO LARGES, 270	G	7	1408	M Z24 270	GEN	315
1698		W		G	1	1415	2	GEN	315
1699		CC	1	G	2	1416	F 1	GEN	315
1700		BCE	*66, MONITOR, 1	G	8	1418	B U31 769 1	GEN	315
1701		RWD	1	G	5	1426	U 8UI R	GEN	315

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SEQ PG	LIN	LABEL	OP	OPERANDS	EQUIV WITH NO DIMEN SYMT	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
1702	13 71		H	*-3		G	1431	. U31	GFN	316
1703	13 72	NEWCD	MCW	PRED,086		G	1435	M Y26 086		316
1704	13 73	BSTAR	B	OLD CD		G	1442	B T85		316
1705	13 74		BCE	*E5,0EX1,□		G	1446	B U58 0+0 □		316
1706	13 75		B	EQBX1		G	1454	B U65		316
1707	13 76		SW	FXSW,FLTSW		G	1458	Y27 Y28		316
1708	13 77	EQBX1	MN	0EX1		G	1465	D 0+0		316
1709	13 78		SBR	X1		G	1469	H 089		317
1710	13 79		SBR	COMP&3		G	1473	H #09		317
1711	13 80		BCE	CTU4,0EX1,□		G	1477	B W61 0+0		317
1712	13 81		BCE	BSTAR,0EX1,□		G	1485	B U46 0+0		317
1713	13 82		BCE	START,16X1,□		G	1493	B /15 0+1		317
1714	13 83		B	CMPSW		G	1501	B /77		317
1715	13 84	ERR	CS	299		G	1505	/ 299		318
1716	13 85		MCW	X3,X1		G	1509	M 099 089		318
1717	13 86		MCW	X2,HEX2#3		G	1516	M 094 Z27		318
1718	13 87		FFLIP	0EX1,248,X1,X2,,,Z		G	1523	D 248	MACRO	318
1719	13 88		MN	248		G	1527	D	GEN	318
1720	13 89		SAR	X2		G	1528	Q 094	GEN	318
1721	13 90		SBR	X1, 0EX1		G	1532	H 089 0+0	GEN	318
1722	13 91	□OK039	MCW	0EX1,□OL039#1		G	1539	M 0+0 Z28	GEN	319
1723	13 92		SAR	X1		G	1546	Q 089	GEN	319
1724	13 93		BCE	□OM039, □OL039, Z		G	1550	B V73 Z28 Z	GEN	319
1725	13 94		MCW	□OL039, 2&X2		G	1558	M Z28 0-2	GEN	319
1726	13 95		MCW	X2		G	1565	H 094	GEN	319
1727	13 96		SBR	□OK039		G	1569	B V39	GEN	319
1728	13 97		B	*E1		G	1573	M Z27 094	GFN	320
1729	13 98	□OM039	MCW	HEX2,X2		G	1580	/ 184		320
1730	13 99		SW	FAILSW		G	1584	D 849 240		320
1731	13 100		MN	WORK,240		G	1591	D	MACRO	320
1732	13 101		CHAIN 2			G	1592	D	GEN	320
1733	13 102		MN	□ERROR 6 - UNDEFINED ARRAY, STATEMENT 2		G	1593	M Z65	GEN	320
1734	13 103		BCV	*E5		G	1597	B W06 a	MACRO	320
1735	13 104		B	*E3		G	1602	B W08	GEN	321
1736	13 105		CC	1		G	1606	F 1	GEN	321
1737	13 106		W	0EX1		G	1608	Z		321
1738	13 107	SCAN2	MN	X1		G	1609	D 0+0		321
1739	13 108		SAR	CTU4,0EX1,□		G	1613	Q 089		321
1740	13 109		BCE	SYNER,0EX1,Z		G	1617	B W61 0+0 □		321
1741	13 110		BCE	SYNER,0EX1,Z		G	1625	B 883 0+0 Z	MACRO	321
1742	13 111		BCE	SYNER,0EX1,□		G	1633	B 883 0+0	GEN	322
1743	13 112		BCE	SCAN2,0EX1,□		G	1641	B W09 0+0	GEN	322
1744	13 113		BWZ	SCAN2,0EX1,Z		G	1649	V W09 0+0 2		322
1745	13 114		B	SYNER		G	1657	B 883		322
1746	13 115	CTU4	MN	0EX1		G	1661	D 0+0		322

CLOSE PAREN, GM

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
1752 14 02		SAR	X1	G 4	1665	Q 089		322
1753 14 03		B	BSTAR	G 4	1669	B U46		323
1754 14 04	ISIN	BCE	SCAN2, OEX1, *	G 8	1673	B W09 O#0 *		323
1755 14 05		B	BSTAR	G 4	1681	B U46		323
1756 14 06	OUT1	SBR	A1E3, OUT	G 7	1685	H /29 X35		323
1757 14 07		SBR	A2E3, OUT	G 7	1692	H /45 X35		323
1758 14 08		SBR	FINDE3, NOTIN	G 7	1699	H 983 Y00		323
1759 14 09		SBR	A3E3, FOUND	G 7	1706	H #25 /81		324
1760 14 10		MCW	DRESS, HEX3	G 7	1713	M 852 876		324
1761 14 11		MCW	SAVE1#3, X1	G 7	1720	M Z68 089		324
1762 14 12		MCW	AB#, CMPSW	G 7	1727	M Y22 /77		324
1763 14 13		MCW	AN#, ISEQU	G 7	1734	M Z69 /58		324
1764 14 14		FENDX	C, , SVORG, START, SVORG, SYS1, EQUIV TWO	G 7	1734	M Z69 /58		324
1765		BSS	333.C	G 5	1741	B 333 C	MACRO	325
1766		SBR	INITAP&&, SVORG	G 7	1746	H 786 /91	GEN	325
1767		SBR	BCLEAR	G 4	1753	H 833	GEN	325
1768		SBR	INITXT&3, START	G 7	1757	H 796 /15	GEN	325
1769		SBR	TCLEAR, SYS1	G 7	1764	H 710 279	GEN	325
1770		LCA	EQUIV TWO#, 110	G 7	1771	L 278 110	GEN	325
1771		B	MONTER	G 4	1778	B 700	GEN	326
1772 14 15		LTOrg	*	G 4	1778	B 700	GEN	326
1582		DCH	ERROR 4 - EQUIVALENCE SYNTAX, STATEMENT a	G 40	1821		LIT	328
		a a		G 1	1822		LIT	328
		a a		G 1	1823		LIT	328
1629	PRED			G 3	1826		AREA	328
1637	FXSW			G 1	1827		AREA	328
1637	FLTSW			G 1	1828		AREA	329
1645				G 6	1834		LIT	329
1664				G 48	1882		LIT	331
1685	BLNK5			G 5	1887		AREA	331
1697				G 1	1888		LIT	331
1717	HEX2			G 36	1924		LIT	332
1723	COL039			G 3	1927		AREA	332
1736				G 1	1928		AREA	333
1761	SAVE1			G 37	1965		LIT	333
1770				G 3	1968		AREA	334
1773 14 16	SYS1	DCW	EQUIV TWO#	G 1	1969		LIT	334
1774 14 17		XFR	a a	G 9	1978		LIT	334
			INITL	G 1	1979		LIT	334
			SYSTEM GROUP MARK	G 1	1979		LIT	335
				G		B #34		

SEQ PG	LIN	LABEL	OP	OPERANDS	INSTRUCTION TYPE	LOCN	SFX	CT	CARD
1775	14	18	JOB	1401 FORTRAN EQUIVALENCE PHASE 2		0110	9		338
1776	14	19	DCM	AEQUIV TMO9					
1777	14	20	ORG	SVORG					
1778	14	21	LCA	000000a, TALLY		1181	7		339
1779	14	22	NOP	0006X2		L 291	4		339
1780	14	23	MCW			M 0-0	1		339
1781	14	24	MCW				1		339
1782	14	25	MCW				1		339
1783	14	26	MCW				1		339
1784	14	27	SAR				1		339
1785	14	28	BAV				4		339
1786	14	29	S	X2		Q 094	5		340
1787	14	30	BCE	*61		B S05 Z	4		340
1788	14	31	A	ERCTR#3		S Z94	4		340
1789	14	32	MCW	NOMD,001EX2, BLANK		B S47 0-1	8		340
1790	14	33	A	000EX2, TALLY		A 0-0 865	7		340
1791	14	34	BAV	0036X2, X2		M 0-3 094	7		340
1792	14	35	B	E1, ERCTR		A Z95 Z94	5		341
1793	14	36	MCW	MSG		B Z51 Z	4		341
1794	14	37	BCE	NEST		B S09	7		341
1795	14	38	A	X2, TALLY63		M 094 868	8		341
1796	14	39	LCA	TURN,000EX1, Z		B V92 0#0 %	7		341
1797	14	40	MCW	01a, TALLY		A Z96 865	7		341
1798	14	41	S	HEX3, X3		M 876 099	7		342
1799	14	42	BWZ	CHAMP, ACCUM		L 857 873	7		342
1800	14	43	LCA	TALLY, ACCUM		S 865 873 K	8		342
1801	14	44	SBR	CHUMP, ACCUM, K		V W53 873 K	7		342
1802	14	45	BCE	TALLY63, 000EX3		L 868 060	4		342
1803	14	46	BCE	HEX3		H 876	8		343
1804	14	47	B	EQUIV, 000EX1, , COMMA		B /65 0#0 ,	8		343
1805	14	48	MN	BPDMN, 0EX1, B		B T29 0#0 B	8		343
1806	14	49	MN	0EX1		B 883	4		343
1807	14	50	SAR	SYNER		D 0#0	4		343
1808	14	51	MCW	HEX1#3		Q Z99	1		343
1809	14	52	LCA	HEX3, X3		Q Z99	4		343
1810	14	53	MCW	00a, 0006 X3		M 876 099	7		344
1811	14	54	BCE	DRESS, X3		L -00 060	7		344
1812	14	55	MCW	DONE, 000EX3, \$		M 852 099	7		344
1813	14	56	C	0EX3, HOLD3#3		B W83 060 \$	8		344
1814	14	57	BE	CHAMP63, HOLD3		M 0E0 -03	7		344
1815	14	58	MCW	00PS1		C 860 -03	7		345
1816	14	59	SAR	0EX3, X2		B Y28 S	5		345
1817	14	60	BCE	HEX3		M 0E0 094	7		345
1818	14	61	B	*65, 0EX2, BLANK		Q 876	4		345
1819	14	62	MCW	00PS2		B U09 0-0	8		345
1820	14	63	LOWER	9EX2, X1		B Z72	4		345
1821	14	64	BCE	006EX2, X3		M 0-9 089	7		346
1822	14	65	BCE	LAST, X3, AFTER TAIL OF NEW FOLLOWER		M 0-6 099	8		346
1823	14	66	SBR	LAST, 001EX3, BLANK		B U47 099	8		346
1824	14	67	B	X2, TAIL OF NEW FOLLOWER		B U47 0E1	4		346
				LOWER		H 094	4		346
						B U16	4		346

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
1825 14 68	LAST	BCE	*68,X3, BLANK	G	1447	B U62 099	346
1826 14 69		MCW	X1,96X3	G	1455	M 089 089	347
1827 14 70		BCE	INISH,X1, BLANK	G	1462	B X24 089	347
1828 14 71		MCW	X3,66X1	G	1470	M 099 0+6	347
1829 14 72	LINK	MCW	CHAMP&3,X1 HEAD OF LEADER	G	1477	M 860 099	347
1830 14 73		MCW	0066X1,0066X2	G	1484	M 0+6 0-6	347
1831 14 74		MCW	66X1,X3	G	1491	M 0+6 099	348
1832 14 75		MCW	X2,96X3	G	1498	M 094 089	348
1833 14 76		MCW	HEX3,X3	G	1505	M 876 099	348
1834 14 77		MCW	0036X3,X2 HEAD OF NEW FOLLOWER	G	1512	M 083 094	348
1835 14 78		MCW	X2,0066X1	G	1519	M 094 0+6	348
1836 14 79		MCW	X1,96X2	G	1526	M 089 0-9	349
1837 14 80		MCW	CHAMP&3,0036X2	G	1533	M 860 0-3	349
1838 14 81		MCW		G	1540	M	349
1839 14 82		S	0006X3,0006X2	G	1541	S 080 0-0	349
1840 14 83		SAR	X3	G	1548	Q 099	349
1841 14 84		BW	MAIN,ERRSW	G	1552	V T59 J44 1	349
1842 14 85		SW	ERRSW	G	1560	, J44	349
1843 14 86		C	06X2, SAVES5	G	1564	C 0-0 J43	350
1844 14 87		BE	ISRED	G	1571	B V84 S	350
1845 14 88		B	QVERR	G	1576	B Y67	350
1846 14 89		B	MAIN	G	1580	B T59	350
1847 14 90	ISRED	B	RDMSG	G	1584	B Z09	350
1848 14 91		B	MAIN	G	1588	B T59	350
1849 14 92	TURN	FFLIP	06X1,SPACE-1,X1,X3,,	G	1592	D 877	MACRO
1850	TURN	MN	SPACE-1	G	1596	D	GEN
1851		MN		G	1597	Q 099	GEN
1852		SAR	X3	G	1601	H 089 0+0	GEN
1853		SBR	X1, 06X1	G	1608	M 0+0 -04	GEN
1854		MCW	06X1,00L043#1	G	1615	Q 089	GEN
1855		SAR	X1	G	1619	B W42 -04	GEN
1856		BCE	00M043, 00L043, 0	G	1627	M -04 062	GEN
1857		MCW	00L043, 26X3	G	1634	H 099	GEN
1858		SBR	X3	G	1638	B W08	GFN
1859		B	00K043	G	1642		GEN
1860		00M043	EQU	G	1642		GEN
1861 14 93		A	0016X3,TALLY	G	1642	A 061 865	352
1862 14 94		B	FIGHT	G	1649	B S69	352
1863 14 95	CHUMP	BCE	CINCH,CHAMP, BLANK	G	1653	B W72 857	352
1864 14 96		LCA	CHAMP&3,0006X3	G	1661	L 860 060	352
1865 14 97		SBR	HEX3	G	1668	H 876	352
1866 14 98	CINCH	MCW	TALLY&3,CHAMP&3	G	1672	M 868 860	353
1867 14 99		B	ANYMO	G	1679	B T09	353
1868 15 00	DONE	MCW	HEX1,X1	G	1683	M Z99 089	353
1869 15 01		LCA	0,CHAMP	G	1690	L -09 857	353
1870 15 02		MCW	DRESS,HEX3	G	1697	M 852 876	353
1871 15 03		BCE	ISEQU,16X1,,	G	1704	B /58 0+1	354
1872 15 04		BCE	START,16X1,,	G	1712	B /15 0+1	354
1873 15 05		B	SYNER	G	1720	B 883	354
1874 15 06	INISH	MCW	X3,FIRST	G	1724	M 099 086	354

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1875	15 07		B	LINK	G	4	1731	B U77		354
1876	15 08	OUT	MCW	DRESS,X3	G	7	1735	M 852 099		354
1877	15 09		MCW	GM, 001&X3	G	7	1742	M 839 0&1		355
1878	15 10		MCH	5&X1	G	4	1749	P 0#5		355
1879	15 11		MN		G	1	1753	D		355
1880	15 12		MN		G	1	1754	D		355
1881	15 13		SAR	X1	G	4	1755	Q 089		355
1882	15 14		FENDX	C,GM,,XBEGIN,XBEGIN,XBEGIN,SYS2,DIMEN TWO					MACRO	
1883			BSS	333,C	G	5	1759	B 333 C	GEN	355
1884			SBR	INITAPE6,XBEGIN	G	7	1764	H 786 838	GEN	355
1885			SBR	BCLEAR	G	4	1771	H 833	GEN	356
1886			SBR	INITXT&3,XBEGIN	G	7	1775	H 796 838	GEN	356
1887			SBR	TCLEAR,SYS2	G	7	1782	H 710 J45	GEN	356
1888			LCA	@DIMEN TWO@,110	G	7	1789	L -18 110	GEN	356
1889			B	MONTER	G	4	1796	B 700	GEN	356
1890	15 15	NOTIN	BCE	CTU3,0&X1,@	G	6	1800	B Y16 0#0 @	GEN	356
1891	15 16		SBR	X1	G	4	1808	M 089		357
1892	15 17		B	NOTIN	G	4	1812	B Y00		357
1893	15 18	CTU3	MN	0&X1	G	4	1816	D 0#0		357
1894	15 19		SAR	X1	G	4	1820	Q 089		357
1895	15 20	00PS1	B	EQUIV	G	4	1824	B /65		357
1896	15 21		MCW	0&X3, X2	G	7	1828	M 0&0 094		357
1897	15 22		SAR	X2	G	4	1835	Q 094		357
1898	15 23		C	0&X2, CHAMP	G	7	1839	C 0-0 857		358
1899	15 24		BE	REDUN	G	5	1846	B Y59 S		358
1900	15 25		B	QVERR	G	4	1851	B Y67		358
1901	15 26		B	GT1	G	4	1855	B T86		358
1902	15 27	REDUN	B	RDMSG	G	4	1859	B Z09		358
1903	15 28		B	GT1	G	4	1863	B T86		358
1904	15 29	QVERR	SBR	QVXT&3	G	4	1867	H Z0R		358
1905	15 30		FTMSG	7,ILLEGAL EQUIVALENCE,WORK,20					MACRO	
1906			CS	332	G	4	1871	/ 332	GEN	359
1907			CS		G	1	1875	/	GEN	359
1908			SW	FAILSW	G	4	1876	, 184	GEN	359
1909			MN	WORK,22&&20	G	7	1880	D 849 244	GEN	359
1910			MN		G	1	1887	D	GEN	359
1911			MN		G	1	1888	D	GEN	359
1912			MCW	@ERROR 7 - ILLEGAL EQUIVALENCE, STATEMENT @					GEN	359
1913			W		G	4	1889	M -59	GEN	359
1914			BCV	*&5	G	1	1893	2	GEN	360
1915			B	*&3	G	5	1894	B Z03 @	GEN	360
1916			CC	1	G	4	1899	B Z05	GEN	360
1917	15 31	QVXT	B	0	G	2	1903	F 1	GEN	360
1918	15 32	RDMSG	SBR	RDXTE&3	G	4	1905	B 000	GEN	360
1919	15 33		FTMSG	8,REDUNDANT EQUIVALENCE,WORK,22					MACRO	
1920			CS	332	G	4	1909	H 250	GEN	360
1921			CS		G	4	1913	/ 332	GEN	360
1922			SW	FAILSW	G	1	1917	/	GEN	361
1923			MN	WORK,22&&22	G	4	1918	, 184	GEN	361
1924			MN		G	7	1922	D 849 246	GEN	361
					G	1	1929	D	GEN	361

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1925			MN		G	1	1930	D	GEN	361
1926			MCW	@ERROR 8 - REDUNDANT EQUIVALENCE, STATEMENT @	G	4	1931	M J02	GEN	361
1927			W		G	1	1935	2	GEN	361
1928			BCV	*E5	G	5	1936	B Z45 @	GEN	362
1929			B	*E3	G	4	1941	B Z47	GEN	362
1930			CC	1	G	2	1945	F 1	GEN	362
1931	15	RDXT	B	0	G	4	1947	B 000	MACRO	362
1932	15	MSG	MESSG	@CORRECT ERRORS INDICATED AND RESTART@,70,L,1	G	2	1951	F L	GEN	362
1933		MSG	CC	L	G	4	1953	/ 332	GEN	362
1934			CS	332	G	1	1957	/	GEN	362
1935			CS		G	7	1958	M J38 270	GEN	363
1936			MCW	@CORRECT ERRORS INDICATED AND RESTART@,70&200	G	1	1965	2	GEN	363
1937			W		G	2	1966	F 1	GEN	363
1938			CC	1	G	4	1968	. Z68	GEN	363
1939	15	36	H	*-3	G	7	1972	M 0-0 J43	GEN	363
1940	15	37	MCW	O&X2, SAVES#5	G	4	1979	B J44	GEN	363
1941	15	38	CH	ERRSW#1	G	4	1983	B U09	GEN	363
1942	15	39	B	PULL1	G	4	1987	1987	GEN	363
1943	15	40	LTOrg	*	G	5	1991		LIT	364
	1778		DCW	@00000@	G	3	1994		AREA	364
	1786	ERC TR		#03	G	1	1995		LIT	364
				E1	G	1	1996		LIT	364
				@1@	G	3	1999		AREA	364
				#03	G	1	2000		LIT	364
				@@	G	3	2003		AREA	364
				#01	G	1	2004		AREA	365
				@	G	5	2009		LIT	365
				@DIMEN TWO@	G	9	2018		LIT	365
				@ERROR 7 - ILLEGAL EQUIVALENCE, STATEMENT @	G	41	2059		LIT	367
				@ERROR 8 - REDUNDANT EQUIVALENCE, STATEMENT @	G	43	2102		LIT	369
				@CORRECT ERRORS INDICATED AND RESTART@	G	36	2138		LIT	370
				#05	G	5	2143		AREA	371
				#01	G	1	2144		AREA	371
				@ @	G	1	2145		AREA	371
1944	15	41	DCW	START	G	1				
1945	15	42	XFR	SYSTEM GROUP MARK	G	1		B /15		

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1946	15 43	JOB	1401 FORTRAN DIMENSION PHASE TWO						
1947	15 44	FBEGN	DIMEN TWO,X1,,X2,R,X3,,H						
1948		SFX	H					MACRO	
1949		DCW	2DIMEN TWO2	H	9	0110		GEN	375
1950		EQU	089	H		0089		GEN	
1951		EQU	094	H		0094		GEN	
1952		DCW	000	H	3	0094		GEN	376
1953		DC	00	H	2	0096		GEN	376
1954		EQU	099	H		0099		GEN	
1955	15 45	EQU	PARAM	H		0686		GEN	
1956	15 46	EQU	XBEGIN	H					
1957	15 47	ORG	INITL,PARAM10, BLANK	H	8	0838	0838		
1958	15 48	BCE	X2,AFORM	H	7	0846	B 891 696		377
1959	15 49	BCE	MOVE,PARAM10,A	H	8	0853	H 094 -60		377
1960	15 50	SBR	X2,LIMIO	H	7	0861	B -33 696 A		377
1961	15 51	BCE	MOVE,PARAM10,L	H	8	0868	H 094 -68		377
1962	15 52	SBR	X2,NOIO	H	7	0876	B -33 696 L		378
1963	15 53	BCE	MOVE,PARAM10,X	H	8	0883	H 094 -76		378
1964	15 54	MCW	X3,083 ADDRESS OF TABLE-1	H	7	0891	B -33 696 X		378
1965	15 55	A	2,PARAM66	H	7	0898	M 099 083		378
1966	15 56	SW	GM,001EX3	H	4	0905	A J30 692		378
1967	15 57	LCA	NIX,086,	H	7	0909	, -85		378
1968	15 58	BCE	086,X3 ADDRESS OF LOWEST ARRAY	H	8	0916	L -85 081		379
1969	15 59	MCW	ACCUM#6	H	7	0924	B V9R 086		379
1970	15 60	S	006EX3,LINK#3	H	4	0931	M 086 099		379
1971	15 61	BCE	LEADR,001EX3, BLANK	H	7	0935	S J36		379
1972	15 62	MCW	003EX3,X2 ADDRESS OF LEADER IN X2	H	8	0942	M 066 J39		379
1973	15 63	ZA	000EX3,PROD	H	7	0950	B T43 081		380
1974	15 64	M	005EX2,PRODE3	H	7	0957	M 063 094		380
1975	15 65	A	000EX2,PRODE3	H	7	0964	E 080 -91		380
1976	15 66	MCW	PRODE3,000EX3	H	7	0971	@ 0-5 -94		380
1977	15 67	MCW	000EX3,ACCUM	H	7	0978	A 0-0 -94		380
1978	15 68	SAR	61,ACCUM	H	7	0985	M -94 080		381
1979	15 69	S	X3,X2	H	4	0992	M 080 J36		381
1980	15 70	MCM	26X2	H	7	0996	Q 099		381
1981	15 71	MN		H	7	1003	S J40 J36		381
1982	15 72	MN		H	7	1003	M 099 094		381
1983	15 73	SAR		H	4	1010	P 0-2		381
1984	15 74	SAR		H	1	1014	D		381
1985	15 75	BCE	X2	H	1	1015	D		382
1986	15 76	MCW	LOOP3,1EX2, #	H	4	1016	Q 094		382
1987	15 77	MCW	0EX2,BOX#1	H	8	1020	B #10 0-1 #		382
1988	15 78	MCW	BOX,#E8	H	7	1028	M 0-0 J41		382
1989	15 79	BCE	FIX1,@IJKLMN@,0	H	7	1035	M J41 #49		382
1990	15 80	CHAIN	5	H	8	1042	B T32 J47 0	MACRO	382
1991		BCE		H	1	1050	B	GEN	382
1992		BCE		H	1	1051	B	GEN	383
1993		BCE		H	1	1052	B	GEN	383
1994		BCE		H	1	1053	B	GEN	383
1995		BCE		H	1	1054	B	GEN	383



SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1996	15 81		A	PARAM66, ACCUM	H	7	1055	A 692 J36		383
1997	15 82	CTU3	MCW	ACCUM, 14EX3	H	7	1062	M J36 OA4		383
1998	15 83		MCW	ACCUM-3, X2	H	7	1069	M J33 094		383
1999	15 84		A	X2	H	4	1076	A 094		384
2000	15 85		MZ	ZONES&X2, 012&X3	H	7	1080	Y -R8 OA2		384
2001	15 86		MZ	ZONES&1&X2, 014&X3	H	7	1087	Y -R9 OA4		384
2002	15 87		ZA	@@, PROD	H	7	1094	E J48 -91		384
2003	15 88		MCW	000&X3, PROD	H	7	1101	M 0&0 -91		384
2004	15 89		MCW	BLANK	H	4	1108	M -96		384
2005	15 90		SBR	MPLR&6	H	4	1112	H /39		385
2006	15 91		NOP	000&X3	H	4	1116	N 0&0		385
2007	15 92		MCW	X2	H	4	1120	M		385
2008	15 93		SAR		H	4	1121	Q 094		385
2009	15 94		BCE	NOCOL, 000&X2,	H	8	1125	B /47 0-0		385
2010	15 95	MPLR	MCW	000&X2, 000	H	7	1133	M 0-0 000		385
2011	15 96		M	000&X3, PROD	H	7	1140	R 0&0 -91		385
2012	15 97	NOCOL	LCA	@, 008&X3	H	7	1147	L J51 0&8		386
2013	15 98		MCW	X1, HOLD1#3	H	7	1154	M 089 J54		386
2014	15 99		MCW	14&X3, X1	H	7	1161	M 0A4 089		386
2015	16 00		MCW	BOX, *E8	H	7	1168	M J41 /82		386
2016	16 01		BCE	FIXED, @IJKLMN@, 0	H	8	1175	B T65 J60 0		386
2017	16 02		CHAIN	5						
2018			BCE		H	1	1183	B	MACRO	386
2019			BCE		H	1	1184	B	GFN	386
2020			BCE		H	1	1185	B	GEN	387
2021			BCE		H	1	1186	B	GEN	387
2022			BCE		H	1	1187	B	GEN	387
2023	16 03		M	PARAM66, PRODE3	H	7	1188	@ 692 -94		387
2024	16 04		MZ	@A@, 007&X3	H	7	1195	Y J61 0&7		387
2025	16 05		MCW	PARAM66, 010&X3	H	7	1202	M 692 OA0		387
2026	16 06		MZ	7&X3, 13&X3	H	7	1209	Y 0&7 OA3		387
2027	16 07	BUMP	MCW	HOLD1, X1	H	7	1216	M J54 089		388
2028	16 08		S	10&X3, ACCUM	H	7	1223	S OA0 J36		388
2029	16 09		A	PRODE3, ACCUM	H	7	1223	S OA0 J36		388
2030	16 10		FPACK	ACCUM, 8&X3, X2	H	7	1230	A -94 J36		388
2031			INCLD	ZONES					MACRO	
2032			MN	ACCUM, 8&X3	H	7	1237	D J36 0&8		388
2033			MN		H	1	1244	D	GEN	388
2034			MN		H	1	1245	D	GEN	388
2035			SAR	*E4	H	4	1246	Q S53		388
2036			MCW	0, X2	H	7	1250	M 000 094		389
2037			MCW	@@	H	4	1257	M J48		389
2038			A	X2	H	4	1261	A 094		389
2039			MZ	ZONES&16X2, 8&X3	H	7	1265	Y -R9 0&8		389
2040			CH		H	1	1272	D	GEN	389
2041			SBR	*E7	H	4	1273	H S83		389
2042			MZ	ZONES&X2, 0	H	7	1277	Y -R8 000		389
2043	16 11		A	61, ACCUM	H	7	1284	A J40 J36		390
2044	16 12		S	ACCUM, COUNT	H	7	1291	S J36 -49		390
2045	16 13		BWZ	ALTER, COUNT, K	H	8	1298	V T54 -49 K		390

12-7-8, INITL SETS IN DRESS&1

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2046	16 14		A	ACCUM,COUNT	H	7	1306	A J36 -49		390
2047	16 15	TEST	BCE	OUT,LINK,	H	8	1313	B T90 J39		390
2048	16 16		MCW	LINK,X3	H	7	1321	M J39 099		391
2049	16 17		B	START	H	4	1328	B 931		391
2050	16 18	FIX1	A	PARAM&4,ACCUM	H	7	1332	A 690 J36		391
2051	16 19		B	CTU3	H	4	1339	B #62		391
2052	16 20	LEADR	MCW	COUNT,000&X3	H	7	1343	M -49 0&D		391
2053	16 21		B	PACK	H	4	1350	B 985		391
2054	16 22	ALTER	MCW	ACCUM,COUNT	H	7	1354	M J35 -49		392
2055	16 23		B	TEST	H	4	1361	B T13		392
2056	16 24	FIXED	M	PARAM&4,PRODEF3	H	7	1365	@ 690 -94		392
2057	16 25		MZ	@J@,007&X3	H	7	1372	Y J62 0&7		392
2058	16 26		MCW	PARAM&4,010&X3	H	7	1379	M 690 0A0		392
2059	16 27		B	BUMP	H	4	1386	B S09		392
2060	16 28	OUT	UNPAK	PARAM&2,RELOC						
2061		OUT	S	@M050#2	H	4	1390	S J64	MACRO	393
2062			S	@L050#2	H	4	1394	S J66	GEN	393
2063			MZ	PARAM&2,@M050-1	H	7	1398	Y 688 J63	GEN	393
2064			MZ	PARAM&2-2,@L050-1	H	7	1405	Y 686 J65	GEN	393
2065		@J050 BWZ	A	@K050,@L050-1, 2	H	8	1412	V U31 J65 2	GEN	393
2066			A	@A@, @L050	H	7	1420	A J68 J66	GEN	393
2067			B	@J050	H	4	1427	B U12	GEN	394
2068		@K050 BWZ	B	@P050, @M050-1, 2	H	8	1431	V U50 J63 2	GEN	394
2069			A	@&@, @M050	H	7	1439	A J70 J64	GEN	394
2070			B	@K050	H	4	1446	B U31	GEN	394
2071		@P050 A	A	@L050-1,@M050	H	7	1450	A J65 J64	GEN	394
2072			MCW	PARAM&2, RELOC	H	7	1457	M 688 -81	GEN	394
2073			MCW	@M050	H	4	1464	M J64	GEN	395
2074			ZA	RELOC	H	4	1468	@ -81	GEN	395
2075			MZ	*-4, RELOC	H	7	1472	Y U74 -81	GEN	395
2076	16 29		S	COUNT,RELOC	H	7	1479	S -49 -81	GEN	395
2077	16 30		S	@1,RELOC	H	7	1479	S -49 -81	GEN	395
2078	16 31		BWZ	TUBIG,RELOC,K	H	7	1486	S J40 -81	GEN	395
2079	16 32		FPAK	RELOC,ADJUST,X2	H	8	1493	Y V66 -81 K	MACRO	395
2080				INCLD ZONES						
2081			MN	RELOC,ADJUST	H	7	1501	D -81 -84	GEN	396
2082			MN		H	1	1508	D	GEN	396
2083			MN		H	1	1509	D	GEN	396
2084			SAR	*&4	H	4	1510	Q V17	GEN	396
2085			MCW	O,X2	H	7	1514	M 000 094	GEN	396
2086			MCW	@@	H	4	1521	M J48	GEN	396
2087			A	X2	H	4	1525	A 094	GEN	396
2088			MZ	ZONES&1&X2,ADJUST	H	7	1529	Y -R9 -84	GEN	397
2089			CW		H	1	1536	@	GEN	397
2090			SBR	*&7	H	4	1537	H V47	GEN	397
2091			MZ	ZONES&X2, 0	H	7	1541	Y -R8 000	GEN	397
2092	16 33		MCW	NXTOP,CONLST	H	7	1548	M -52 194	GEN	397
2093	16 34		MA	ADJUST,CONLST	H	7	1555	# -84 194	GEN	397
2094	16 35		B	SKIPF	H	4	1562	R W05	GEN	397
2095	16 36	TUBIG	BW	SKIPF,LGSM	H	8	1566	Y W05 -95 I	GEN	398

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2096	16	37		CS	332	H	4	1574	/ 332		398
2097	16	38		CS		H	1	1578	/		398
2098	16	39		MIC	MESSAGE 2 - OBJECT PROGRAM TOO LARGE,270	H	7	1579	M K06 270		398
2099	16	40		W		H	1	1586	2		398
2100	16	41		SW	FAILSW,LGSH	H	7	1587	, 184 -95		398
2101	16	42		S	RELOC	H	4	1594	S -81		398
2102	16	43	NIX	MCM	PARAM2,CONLST	H	7	1598	M 688 194		399
2103	16	44	SKIPF	MCM	NXTOP,086	H	7	1605	M -52 086		399
2104	16	45	*DUMP	ARRAY	TABLE	H	7	1605	M -52 086		399
2105	16	46		CC	L	H	2	1612	F L		399
2106	16	47		FORMS		H	2	1612	F L	MACRO	399
2107				BCV	*E5	H	5	1614	B W23 2	GEN	399
2108				B	*E3	H	4	1619	B W25	GEN	399
2109				CC	I	H	2	1623	F I	GEN	399
2110	16	48		CS	332	H	4	1625	/ 332		399
2111	16	49		CS		H	1	1629	/		400
2112	16	50		MCM	STORAGE ASSIGNMENT-ARRAYS & EQUATED VARIABLES,247	H	7	1630	M K51 247		400
2113	16	51		W		H	1	1637	2		400
2114	16	52		CC	J	H	2	1638	F J		400
2115	16	53		MCM	083,X3	H	7	1640	M 083 099		400
2116	16	54	LOOPA	MOP	10EX3	H	4	1647	N 0A0		400
2117	16	55		MCM		H	1	1651	P		400
2118	16	56		SAR	X3	H	4	1652	Q 099		401
2119	16	57		CS	299	H	4	1656	/ 299		401
2120	16	58	TSOUN	BCE	MODUN,0EX3,*	H	8	1660	B 272 0E0 *		401
2121	16	59		BCE		H	1	1668	B		401
2122	16	60		MN	0EX3	H	4	1669	D 0E0		401
2123	16	61		MN		H	1	1673	D		401
2124	16	62		SAR	X3	H	4	1674	Q 099		401
2125	16	63		BCE	NORAY,0EX3,	H	4	1678	B 284 0E0		401
2126	16	64		FFLIP	0EX3,201,X3,X2,INC,WM	H	8	1678	B 284 0E0		402
2127				MN	201	H	4	1686	D 201	MACRO	402
2128				MN		H	1	1690	D	GEN	402
2129				SAR	X2	H	4	1691	Q 094	GEN	402
2130				SBR	X3, 0EX3	H	7	1695	H 099 0E0	GEN	402
2131			BOOK053	MCM	0EX3,BOOK053#1	H	7	1702	M 0E0 K52	GEN	402
2132				SAR	X3	H	4	1709	Q 099	GEN	402
2133				MCM	BOOK053, 2EX2	H	7	1713	M K52 0-2	GEN	403
2134				SBR	X2	H	4	1720	H 094	GEN	403
2135				BW	BOOK053, 1EX3	H	8	1724	V X36 0E1 1	GEN	403
2136				B	BOOK053	H	4	1732	B X02	GEN	403
2137			BOOK053	EQU	*E1	H	4	1736	C 0E0	GEN	403
2138	16	65		C	0EX3	H	4	1736	C 0E0	MACRO	403
2139	16	66		CHAIN	3	H	4	1736	C 0E0	MACRO	403
2140				C		H	1	1740	C	GEN	403
2141				C		H	1	1741	C	GEN	403
2142				C		H	1	1742	C	GEN	404
2143	16	67		SAR	X2	H	4	1743	Q 094	GEN	404
2144	16	68		A	RELOC,5EX2	H	7	1747	A -81 0-5		434
2145	16	69		MA	ADJUST,8EX2	H	7	1754	# -84 0-8		404

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2146	16 70		MA	ADJUST,14&X2	H	7	1761	# -84 0J4	MACRO	404
2147	16 71		MCS	5&X2,218	H	7	1768	Z 0-5 218	GEN	404
2148	16 72		MCW	8&X2,234	H	7	1775	M 0-8 234	GEN	405
2149	16 73		MZ	BLANK,233	H	7	1782	Y -96 233	GEN	405
2150	16 74		SW	220	H	4	1789	Y 220	GEN	405
2151	16 75		UNPAK	8&X2,224	H	4	1793	S K54	MACRO	405
2152			S	80M054#2	H	4	1797	S K56	GEN	405
2153			S	80L054#2	H	4	1797	S K56	GEN	405
2154			MZ	8&X2,80M054-1	H	7	1801	Y 0-8 K53	GFN	405
2155			MZ	8&X2-2,80L054-1	H	7	1808	Y 0-6 K55	GEN	406
2156			80J054	80K054, 80L054-1, 2	H	8	1815	Y Y34 K55 2	GEN	406
2157			A	8A08, 80L054	H	7	1823	A J6R K56	GEN	406
2158			B	80J054	H	4	1830	B Y15	GEN	406
2159			80P054	80P054, 80M054-1, 2	H	8	1834	V Y53 K53 2	GEN	406
2160			A	8E48, 80M054	H	7	1842	A J70 K54	GEN	407
2161			B	80K054	H	4	1849	B Y34	GEN	407
2162			80P054	80L054-1, 80M054	H	7	1853	A K55 K54	GEN	407
2163			MCW	8&X2, 224	H	7	1860	M 0-8 224	GEN	407
2164			MCW	80M054	H	4	1867	M K54	GEN	407
2165			ZA	224	H	4	1871	L 224	GEN	407
2166			MZ	#-4, 224	H	7	1875	Y Y77 224	GEN	408
2167	16 76		MCW	8-8,219	H	7	1875	Y Y77 224	GEN	408
2168	16 77		FPACK	5&X2,230,X2	H	7	1882	M K57 219	MACRO	408
2169			INCLD	ZONES	H	7	1882	M K57 219	MACRO	408
2170			MN	5&X2,230	H	7	1889	D 0-5 230	GEN	408
2171			MN		H	1	1896	D	GEN	408
2172			MN		H	1	1897	D	GEN	408
2173			SAR	#E4	H	4	1898	Q Z05	GEN	408
2174			MCW	0,X2	H	7	1902	M 000 094	GEN	408
2175			MCW	808	H	4	1909	M J48	GEN	409
2176			A	X2	H	4	1913	A 094	GEN	409
2177			MZ	ZONES&1&X2,230	H	7	1917	Y -R9 230	GEN	409
2178			CH		H	1	1924	□	GEN	409
2179			SBR	#E7	H	4	1925	H Z35	GEN	409
2180			MZ	ZONES&X2, 0	H	7	1929	Y -R8 000	GEN	409
2181	16 78		FORMS		H	7	1929	Y -R8 000	MACRO	409
2182			BCV	#E5	H	5	1936	B Z45 2	GEN	409
2183			B	#E3	H	4	1941	B Z47	GEN	410
2184			CC	1	H	2	1945	F 1	GEN	410
2185	16 79		W		H	1	1947	Z	GEN	410
2186	16 80		CS	299	H	4	1948	/ 299	GEN	410
2187	16 81		MCM	1&X3	H	4	1952	P 061	GEN	410
2188	16 82		SAR	X3	H	4	1956	Q 099	GEN	410
2189	16 83		BCE	EDJ,0&X3,	H	8	1960	B -08 0&0	GEN	410
2190	16 84		B	LOOPA	H	4	1968	B W47	GEN	411
2191	16 85	NODUN	MCM	0&X3	H	4	1972	P 0&0	GEN	411
2192	16 86		SBR	X3	H	4	1976	H 099	GEN	411
2193	16 87		B	TSDUN	H	4	1980	B W60	MACRO	411
2194	16 88	NORAY	MESSG	8NO ARRAYS,9	H	4	1984	/ 332	MACRO	411
2195		NORAY	CS	332	H	4	1984	/ 332	GEN	411

BLANK

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
2196			CS		H	1	1988	/	411
2197			MCW	AND ARRAYSA,9&200	H	7	1989	M K66 209	411
2198			BCV	*E5	H	1	1996	2	412
2199			B	*E3	H	5	1997	B -06 @	412
2200			CC	I	H	4	2002	B -08	412
2201			CC	L	H	2	2006	F I	412
2202	16 89	EOJ	CC	L	H	2	2008	F L	412
2203	16 90		FENDX	E,GM,,,,,SYS2,VARBL1					
2204			BSS	333,E	H	5	2010	B 333 E	412
2205			SBR	TCLEAR,SYS2	H	7	2015	H 710 K73	412
2206			LCA	@VARBL1@,110	H	7	2022	L K72 110	413
2207			B	MONTER	H	4	2029	B 700	413
2208	16 91	MOVE	MCW	O&X2,NXTOP	H	7	2033	M 0-0 -52	413
2209	16 92		MCW		H	1	2040	M	413
2210	16 93		B	INITL	H	4	2041	B 891	413
2211	16 94	COUNT	DCW	04280	H	5	2049	B	413
2212	16 95	NXTOP	DSA	4279	H	3	2052	27Z	413
2213	16 96	AFORM	DCW	04617	H	5	2057	61W	414
2214	16 97		DSA	4616	H	3	2060		414
2215	16 98	LIMID	DSA	02016	H	3	2065		414
2216	16 99		DSA	2015	H	5	2068	-15	414
2217	17 00		DCW	01697	H	3	2073		414
2218	17 01	NOID	DSA	1696	H	5	2076	W96	414
2219	17 02	RELOC	DCW	00000	H	3	2081	000	414
2220	17 03	ADJUST	DSA	000	H	5	2084		415
2221	17 04	GM	DC	@ @	H	3	2085		415
2222	17 05	PROD	DCW	#6	H	1	2091		415
2223	17 06		DC	#3	H	6	2094		415
2224	17 07	LGSW	DC	#1	H	3	2094		415
2225	17 08	BLANK	DCW	#01	H	1	2095		415
2226	17 09		ORG	*	H	1	2096		415
2227			DCW	#1	H			2097	
2228		ZONES	DC	9	H	1	2097		415
2229			DCW	@Z9R9I99ZZZRZIZ9RZRRRIR9IZIRIII@	H	1	2098		415
2230			LTDG	*	H	31	2129		416
			DCW	#2	H			2130	
1970		ACCUM	DCW	#06	H	1	2130		416
1971		LINK	DCW	#03	H	6	2136		416
1987		BOX	DCW	61	H	3	2139	AREA	417
1989			DCW	#01	H	1	2140	AREA	417
			DCW	@IJKLMA@	H	1	2141	AREA	417
			DCW	@@	H	6	2147	LIT	417
			DCW	@	H	1	2148	LIT	417
2013		HOLD1	DCW	#03	H	3	2151	LIT	417
2016			DCW	@IJKLMA@	H	3	2154	AREA	417
			DCW	@@	H	6	2160	LIT	418
			DCW	@J@	H	1	2161	LIT	418
2061		ROM050	DCW	#02	H	1	2162	LIT	418
2062		ROL050	DCW	#02	H	2	2164	AREA	418
			DCW	@A0@	H	2	2166	AREA	418
			DCW	@A0@	H	2	2168	LIT	418

CHANGE  
ON  
REASSEMBLY  
OF  
OBJECT  
TIME  
FORMAT  
PACKAGES

G-H

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2098				MESSAGE 2 - OBJECT PROGRAM TOO LARGE						
2112				STORAGE ASSIGNMENT-ARRAYS & EQUATED VARIABLES						
2131		01		#01	H	2	2170		LIT	418
2152		02		#02	H	36	2206		LIT	419
2153		03		#03	H	45	2251		LIT	421
2197				AND ARRAYS					AREA	421
2206				AND ARRAYS					AREA	421
2231				AND ARRAYS					AREA	421
2232	17 10	SYS2		SYSTEM AND WORK GROUP MARK					LIT	422
2233	17 11	XFR	TSTIO						LIT	422
									GEN	423
								2273		
								8 838		

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LDCN	INSTRUCTION	TYPE	CARD
2234 17 12		JOB	1401 FORTRAN VARIABLES PHASE ONE						
2235 17 13		FBEGN	VARBL 1,X1,X2,R,X3,R,I						
2236		SFX	I						
2237	110	DCW	@VARBL 1@	I	7	0110		MACRO	
2238	X1	EQU	089	I		0089		GEN	426
2239	X2	EQU	094	I		0094		GEN	
2240	094	DCW	000	I	3	0094		GEN	
2241	096	DC	00	I	2	0096		GEN	427
2242	X3	EQU	099	I		0099		GEN	427
2243	099	DCW	000	I	3	0099		GEN	
2244	100	DC	0	I	1	0100		GEN	427
2245 17 14		ORG	XBEGIN				0838		
2246 17 15			* REPLACE ARRAY NAMES IN SOURCE PROGRAM WITH ADDRESSES,						
2247 17 16			* PROCESS SUBSCRIPTS						
2248 17 17			* MARK SIMPLE VARIABLES WITH A DELTA FOR VARBL, PHASE 2						
2249 17 18	INITL	MCW	083,X2	I	7	0838	M 083 094		428
2250 17 19		MCW	X2,DRESS#3	I	7	0845	M 094 036		428
2251 17 20		SW	GM	I	4	0852	, N55		428
2252 17 21	START	BCE	OUT,000&X1, BLANK	I	8	0856	B J38 0+0		428
2253 17 22		LCA	000&X1,WORK#10	I	7	0864	L 0+0 046		428
2254 17 23		SAR	X1	I	4	0871	Q 089		428
2255 17 24		SBR	X3	I	4	0875	H 099		429
2256 17 25		LCA	WORK,000&X2	I	7	0879	L 046 0-0		429
2257 17 26		SBR	X2	I	4	0886	H 094		429
2258 17 27		BCE	FMT,CODE-3,F	I	8	0890	B M70 043 F		429
2259 17 28		SW	WORK-3	I	4	0898	, 043		429
2260 17 29		MCW	CODE-3,*&8	I	7	0902	M 043 916		429
2261 17 30		BCE	LIST,@3L5UP61@,0	I	8	0909	B J68 053 0		430
2262 17 31		CHAIN	6						
2263		BCE		I	1	0917	B	MACRO	
2264		BCE		I	1	0918	B	GEN	430
2265		BCE		I	1	0919	B	GEN	430
2266		BCE		I	1	0920	B	GEN	430
2267		BCE		I	1	0921	B	GEN	430
2268		BCE		I	1	0922	B	GEN	430
2269 17 32		MCW	@N@,SWCHA	I	7	0923	M 054 956		431
2270 17 33		MCW	@N@,SWCHB	I	7	0930	M 054 T32		431
2271 17 34		MCW		I	7	0937	M 0+0 055		431
2272 17 35	SEARCH FOR ALPHA CHARACTER WHICH MIGHT BE VARIABLE NAME	MCW	000&X1,BOX#1	I	4	0944	Q 089		431
2273 17 36	FIND	SAR	X1	I	8	0948	V 937 055 2		431
2274 17 37		BWZ	FIND,BOX,2	I	4	0956	N K12		431
2275 17 38	SWCHA	NOP	RTPAR	I	7	0960	M 055 974		432
2276 17 39	MDIFY	MCW	BOX,*&8	I	8	0967	B 937 063 0		432
2277 17 40		BCE	FIND,@*-&.z@,@,0	I	8	0975	B	MACRO	
2278 17 41		CHAIN	7						
2279		BCE		I	1	0976	B	GEN	432
2280		BCE		I	1	0977	B	GEN	432
2281		BCE		I	1	0978	B	GEN	432
2282		BCE		I	1	0979	B	GEN	432
2283		BCE		I	1	0979	B	GEN	432

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
2284			BCE		I	1	0980	B	433
2285			BCE		I	1	0981	B	433
2286	17 42		BCE	CKXPN,BOX,E	I	8	0982	B K99 055 E	433
2287	17 43		BCE	SW1,BOX,	I	8	0990	B /19 055	433
2288	17 44		MCH	2&X1,80X2#1	I	7	0998	M 0#2 064	433
2289	17 45		MCH	BOX2,*68	I	7	1005	M 064 #19	433
2290	17 46		BCE	SW1,MRKRS,0	I	8	1012	B /19 N01 0	434
2291	17 47		CHAIN	8					
2292			BCE		I	1	1020	8	434
2293			BCE		I	1	1021	B	434
2294			BCE		I	1	1022	B	434
2295			BCE		I	1	1023	B	434
2296			BCE		I	1	1024	B	434
2297			BCE		I	1	1025	B	434
2298			BCE		I	1	1026	B	435
2299			BCE		I	1	1027	B	435
2300	17 48		BCE	SW1,CODE-3,D	I	8	1028	B /19 043 D	435
2301	17 49	VSERR	FTMSG	9,VARIABLE SYNTAX,CODE,16					
2302		VSERR	CS	332	I	4	1036	/ 332	435
2303			CS		I	1	1040	/	435
2304			SW	FAILSW	I	4	1041	, 184	435
2305			MN	CODE,224&16	I	7	1045	D 046 240	435
2306			MN		I	1	1052	D	436
2307			MN		I	1	1053	D	436
2308			MCH	ERROR 9 - VARIABLE SYNTAX, STATEMENT @	I	4	1054	M P01	436
2309			W		I	1	1058	2	436
2310			BCV	*65	I	5	1059	B #68 @	436
2311			B	*63	I	4	1064	B #70	436
2312			CC	1	I	2	1068	F 1	436
2313	17 50		BM	SYNZR,SYN2S	I	8	1070	V Z38 N02 1	437
2314	17 51		SBR	X1,1&X1	I	7	1078	H 089 0#1	437
2315	17 52		SW	ERRSW	I	4	1085	, N04	437
2316	17 53		B	LIMIT	I	4	1089	B /71	437
2317	17 54		LCA	30&0@,0&X2	I	7	1093	L P04 0-0	437
2318	17 55		SBR	X2	I	4	1100	H 094	437
2319	17 56		SBR	X3,1&X1	I	7	1104	H 099 0#1	438
2320	17 57		SBR	X1	I	4	1111	H 089	438
2321	17 58		B	B0TH	I	4	1115	B U45	438
2322	17 59	SW1	SW	1&X1	I	4	1119	, 0#1	438
2323	17 60	*SHIFT	ALL	BUT VARIABLE					
2324	17 61		LCA	000&X3,000&X2	I	7	1123	L 0&0 0-0	438
2325	17 62		SBR	X2	I	4	1130	H 094	438
2326	17 63		CM	001&X1	I	4	1134	0 0#1	438
2327	17 64		SBR	X3,1&X1	I	7	1138	H 099 0#1	439
2328	17 65		SBR	KLOBRE&6,2&X1	I	7	1145	H U74 0#2	439
2329	17 66		MCH	@ @	I	4	1152	M P05	439
2330	17 67		BCE	NOMO,BOX,	I	8	1156	B K43 055	439
2331	17 68		ZA	E1,COUNT#2	I	7	1164	E P06 P08	439
2332	17 69		* SCAN TO	BOTTOM OF VARIABLE					
2333	17 70	LIMIT	MCH	000&X1,80X	I	7	1171	M 0#0 055	440



SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
2334 17 71		SAR	X1	I 4	1178	Q 089		440
2335 17 72		MCW	BOX,*E8	I 7	1182	M 055 /96		440
2336 17 73		BCE	LOOK,MRKRS,0	I 8	1189	B S16 N01 0		440
2337 17 74		CHAIN	8				MACRO	
2338		BCE		I 1	1197	B	GEN	440
2339		BCE		I 1	1198	B	GEN	440
2340		BCE		I 1	1199	B	GEN	440
2341		BCE		I 1	1200	B	GEN	441
2342		BCE		I 1	1201	B	GEN	441
2343		BCE		I 1	1202	B	GEN	441
2344		BCE		I 1	1203	B	GEN	441
2345		BCE		I 1	1204	B	GEN	441
2346 17 75		A	E1,COUNT	I 7	1205	A P06 P08		441
2347 17 76		B	LIMIT	I 4	1212	B /71		441
2348 17 77	LOOK	BW	RTNB,ERYBL	I 8	1216	V Z50 000 1		442
2349 17 78		BW	RTNA,ERRSW	I 8	1224	V #93 N04 1		442
2350 17 79		SW	002EX1	I 4	1232	V 0#2		442
2351 17 80		SAR	HEX1#3	I 4	1236	Q P11		442
2352 17 81	TLU	MCW	DRESS,X1	I 7	1240	M 036 089		442
2353 17 82		BCE	EQUAL,BOX,#	I 8	1247	B K54 D55 #		442
2354 17 83		*DETERMINE	IF VARIABLE IS AN ARRAY: NAME					
2355 17 84	LOOP	BCE	NOTIN,002EX1,					
2356 17 85	MCM2	MCM	2EX1					
2357 17 86		MN						
2358 17 87		MN						
2359 17 88		SAR	X1	I 8	1255	B T81 0#2		443
2360 17 89		BCE	MCM2,1EX1,*	I 4	1263	P 0#2		443
2361 17 90		C	000EX3,000EX1	I 1	1267	D		443
2362 17 91		BU	LOOP	I 1	1268	D		443
2363 17 92		C	000EX1,000EX3	I 4	1269	Q 089		443
2364 17 93		BU	LOOP	I 8	1273	B S63 0#1 #		443
2365 17 94		* MOVE X1	POINTER TO HI ADDRESS OF VARIABLE	I 5	1281	C 0#0 0#0		443
2366 17 95		C	0#X1	I 7	1293	C 0#0 0#0		444
2367 17 96		CHAIN	3	I 5	1300	B S55 /		444
2368		C		I 4	1305	C 0#0		444
2369		C					MACRO	
2370		C		I 1	1309	C	GEN	444
2371 17 97		SAR	X1	I 1	1310	C	GEN	444
2372 17 98		BW	SBRAY,SUBSW	I 1	1311	C	GEN	444
2373 17 99		BCE	SBSCR,BOX,#	I 4	1312	Q 089		445
2374 18 00		NOP	ARRAY					
2375 18 01	SWCHB	LCA	9EX1,1EX2					
2376 18 02	TUNO	SBR	X2	I 8	1316	V X43 N03 1		445
2377 18 03	RESTO	MCH	HEX1,X1	I 8	1324	B V83 055 #		445
2378 18 04		B	BTM	I 4	1332	M T58		445
2379 18 05		LCA	9EX1,1EX2	I 7	1336	L 0#9 0-1		445
2380 18 06	ARRAY	LCA	3EX1	I 4	1343	H 094		445
2381 18 07		LCA	3EX1	I 7	1347	M P11 089		446
2382 18 08		SBR	X2	I 4	1354	B U45		446
2383 18 09		CW	4EX2	I 7	1358	L 0#9 0-1		446
				I 4	1365	L 0#3		446
				I 4	1369	H 094		446
				I 4	1373	D 0-4		446

@\*E-,#\*0 AND CM

ADDRESS OF ARRAY TABLE

EQUAL

BLANK

\* CHECK TO SEE IF THERE ARE ANY SUBSCRIPTS

LEFT PAREN

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2384 18 10		B	RESTO	I	4	1377	B T47		446
2385 18 11	NOTIN	MCM	HEX1,X1	I	7	1381	M P11 089		447
2386 18 12	BW	BW	LOD2,SUBSM	I	8	1388	V X67 N03 I		447
2387 18 13	BCE	BCE	RUFN,BOX,%	I	8	1396	B U87 055 %		447
2388 18 14	LCA	LCA	@ ,1&X2	I	7	1404	L P13 0-1		447
2389 18 15	SBR	SBR	X2	I	4	1411	H 094		447
2390 18 16	SLIDE	LCA	000&X3,001&X2	I	7	1415	L 0&0 0-1		448
2391 18 17	SBR	SBR	X2	I	4	1422	H 094		448
2392 18 18	CW	CW	001&X2	I	4	1426	H 0-1		448
2393 18 19	S	S	%2,COUNT	I	7	1430	S P14 P08		448
2394 18 20	BWZ	BWZ	LOAD1,COUNT,K	I	8	1437	V K80.P08 K		448
2395 18 21	BOTM	CW	001&X1	I	4	1445	Q 0+1		448
2396 18 22	SAR	SAR	X3	I	4	1449	Q 099		448
2397 18 23	BOTM2	CW	1&X2	I	4	1453	Q 0-1		449
2398 18 24	CW	CW	FEMSW,ERRSW	I	7	1457	Q N98 N04		449
2399 18 25	CW	CW	TUSH	I	4	1464	Q N99		449
2400 18 26	BCE	BCE	FIND,0,	I	8	1468	B 937 000		449
2401 18 27	KLOBR	MCM	@&@,X1	I	7	1476	M P15 089		449
2402 18 28	B	B	OUT	I	4	1483	B J38		449
2403 18 29	* IF @SUBSCRIPTED@ VARIABLE NOT FUNCTION THEN ERROR			I	8	1487	B U15 0+1 F	MACRO	450
2404 18 30	RUFN	BCE	SLIDE,1&X1,F	I	4	1495	/ 332	GEN	450
2405 18 31	FTMSG 6,UNDEFINED ARRAY,CODE,16	C5	332	I	1	1499	/	GEN	450
2406	C5	C5	FAILSW	I	4	1500	, 184	GEN	450
2407	CW	CW	CODE,224&16	I	7	1504	D 046 240	GEN	450
2408	MN	MN		I	1	1511	D	GEN	450
2409	MN	MN		I	1	1512	D	GEN	450
2410	MN	MN		I	1	1517	2	GEN	451
2411	MCM	MCM	@ERROR 6 - UNDEFINED ARRAY, STATEMENT @	I	4	1513	M P52	GEN	451
2412	W	W		I	5	1518	B V27 @	GEN	451
2413	BCV	BCV	*%5	I	4	1523	B V29	GEN	451
2414	B	B	*%3	I	2	1527	F 1	GEN	451
2415	CC	CC	1	I	7	1529	L P56 0-1	GEN	451
2416	LCA	LCA	@%000@,1&X2	I	4	1536	H 094		451
2417 18 32	SBR	SBR	X2	I	7	1540	Y P68 0-3		452
2418 18 33	MZ	MZ	VZONE,3&X2	I	8	1547	B V71 0+0 □		452
2419 18 34	BCE	BCE	FNDLZ,0&X1,□	I	8	1555	B K35 0+0		452
2420 18 35	BCE	BCE	NOM01,0&X1,	I	4	1563	H 089		452
2421 18 36	SBR	SBR	X1	I	4	1567	B V47		452
2422 18 37	B	B	SKLOZ	I	4	1571	D 0+0		452
2423 18 38	MN	MN	0&X1	I	4	1575	Q 089		452
2424 18 39	FNDLZ	SAR	X1	I	4	1579	B U53		453
2425 18 40	SAR	SAR	X1	I	4	1583	Q 0+0 P62		453
2426 18 41	B	B	BOTM2	I	7	1590	Q 099		453
2427 18 42	* PROCESS SUBSCRIPTS	ZA	000&X1,ACCUM#6	I	4	1594	, P79		453
2428 18 43	SBSCR	ZA	X3	I	7	1598	Q 0&0 P67		453
2429 18 44	SAR	SAR	X3	I	7	1605	Q 0+5 N87		453
2430 18 45	SW	SW	VBLSW	I	7	1612	S P06 P62		454
2431 18 46	ZA	ZA	000&X3,ROWS#5	I	7				454
2432 18 47	ZA	ZA	005&X1,WORDL	I	7				454
2433 18 48	S	S	Q1,ACCUM	I	7				454

BLANK, DELTA 11-7-8

B-ZONE

11-6-8

GM

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2434	18 49		MZ	8EX1,VZONE#1	I	7	1619	Y 0#8 P68		454
2435	18 50		MCW	HEX1,X1	I	7	1626	M P11 089		454
2436	18 51		LCA	@ \$@,001EX2	I	7	1633	L P70 0-1		454
2437	18 52		SBR	X2	I	4	1640	H 094		454
2438	18 53		MN	000EX1	I	4	1644	D 0#0		454
2439	18 54		SAR	X1	I	4	1648	Q 089		455
2440	18 55		SBR	X3	I	4	1652	H 099		455
2441	18 56	SPLIT	BWZ	CONST,000EX1,2	I	8	1656	V Y51 0#0 2		455
2442	18 57	* PROCESS		VARIABLE SUBSCRIPTS						
2443	18 58		SBR	X1,2EX1	I	7	1664	H 089 0#2		455
2444	18 59		LCA	@*I@,000EX1	I	7	1671	L P72 0#0		455
2445	18 60		B	CONST	I	4	1678	B Y51		455
2446	18 61	DELTA	LCA	@ @,001EX2	I	7	1682	L P13 0-1		456
2447	18 62		SBR	X2	I	4	1689	H 094		456
2448	18 63	FEED	MCW	000EX1,BOX	I	7	1693	M 0#0 055		456
2449	18 64		SAR	X1	I	4	1700	Q 089		456
2450	18 65		MCW	BOX,*68	I	7	1704	M 055 X18		456
2451	18 66		MCW	XPAND,@-@,@,0	I	8	1711	B X26 P76 0		456
2452	18 67		BCE		I	1	1719	B		456
2453	18 68		B		I	1	1720	B		457
2454	18 69		B		I	1	1721	B		457
2455	18 70		B		I	4	1722	B W93		457
2456	18 71	XPAND	SW	FEED	I	4	1726	, 0#2		457
2457	18 72		SW	2EX1	I	4	1730	,		457
2458	18 73		SAR	HEX1	I	1	1731	Q P11		457
2459	18 74		SAR	SUBSW	I	4	1735	, N03		457
2460	18 75		B	TLU	I	4	1739	B S40		458
2461	18 76	SBRAY	LCA	9EX1,2EX2	I	4	1743	L 0#9 0-2		458
2462	18 77		SBR	X2	I	4	1750	H 094		458
2463	18 78		CW	1EX2	I	4	1754	0-1		458
2464	18 79		MN		I	1	1758	D		458
2465	18 80		SAR	X2	I	4	1759	Q 094		458
2466	18 81		B	LDCOM	I	4	1763	B X83		458
2467	18 82	L0D2	LCA	000EX3,001EX2	I	7	1767	L 060 0-1		459
2468	18 83		LCA		I	1	1774	L		459
2469	18 84		SBR	X2	I	4	1775	H 094		459
2470	18 85		CW	2EX2	I	4	1779	0-2		459
2471	18 86	LDCOM	MCW	HEX1,X1	I	7	1783	M P11 089		459
2472	18 87		CW	2EX1	I	4	1790	0#2		459
2473	18 88		BCE	LOAD2,003EX2,	I	8	1794	B K65 0-3		459
2474	18 89		LCA	@ @,1EX2	I	7	1802	L P78 0-1		460
2475	18 90		SBR	X2	I	4	1809	H 094		460
2476	18 91		CW	SUBSW	I	4	1813	0 N03		460
2477	18 92		BCE	PUTC,BOX,,	I	8	1817	B M38 055		460
2478	18 93		BCE	PHEW,BOX,@	I	8	1825	B 254 055		460
2479	18 94		MZ	BOX,WORDL	I	7	1833	Y 055 N87		460
2480	18 95	COPY	MCW	X1,X3	I	7	1840	M 089 099		461
2481	18 96		B	SPLIT	I	4	1847	B W56		461
2482	18 97	*FLIP	CONST		I	7	1851	H 099 N03		461
2483	18 98	CONST	SBR	X3,VERSE-2	I	7	1851	H 099 N03		461

DELTA 11-7-8  
BLANK COMMA

COMMA  
RT PAREN

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2484	18 99	TURN	MCW	000&X1,BOX	I	7	1858	M 0#0 055		461
2485	19 00		SAR	X1	I	4	1865	Q 089		461
2486	19 01		MCW	BOX,002&X3	I	7	1869	M 055 0&2		461
2487	19 02		SBR	X3	I	4	1876	H 099		462
2488	19 03		BWZ	TURN,000&X1,2	I	8	1880	V Y58 0#0 2		462
2489	19 04		SBR	X1	I	4	1888	H 089		462
2490	19 05		M	WORDL,007&X3	I	7	1892	Q N87 0&7		462
2491	19 06		BCE	VARBL,001&X1,*	I	8	1899	B 292 0#1 *		462
2492	19 07		A	007&X3,ACCUM	I	7	1907	A 0&7 P62		462
2493	19 08		BCE	PHEW,1&X1,□	I	8	1914	B 254 0#1 □		463
2494	19 09		BCE	PUTC,1&X1,,	I	8	1922	B M38 0#1 ,		463
2495	19 10		SW	SYN2S	I	4	1930	, N02		463
2496	19 11		B	VSERR	I	4	1934	B #36		463
2497	19 12	SYN2R	CW	SYN2S	I	4	1938	□ N02		463
2498	19 13		SW	SYN2S	I	4	1942	, 000		463
2499	19 14		B	LIMIT	I	4	1946	B /71		463
2500	19 15	RTNB	CW	ERVBL	I	4	1950	□ 000		464
2501	19 16	* END OF	NOP	PROCESS SUBSCRIPT	I	4	1954	N P55		464
2502	19 17	PHEW	SAR	ACCUM-7	I	4	1958	Q 099		464
2503	19 18		SW	X3	I	4	1962	, N98		464
2504	19 19		B	FEWSH	I	4	1966	B -29		464
2505	19 20		B	NORML	I	7	1970	L P15 0-0		464
2506	19 21	LDOLR	LCA	2&2,0&X2	I	4	1977	H 094		464
2507	19 22		SBR	X2	I	4	1977	H 094		464
2508	19 23		MZ	VZONE,3&X2	I	7	1981	Y P68 0-3		465
2509	19 24		B	BOTM	I	4	1988	B U45		465
2510	19 25	* PROCESS	CW	VARIABLE SUBSCRIPT	I	7	1992	□ 0#1 P79		465
2511	19 26	VARBL	CW	1&X1,VBLSW#1	I	4	1999	B -29		465
2512	19 27		B	NORML	I	7	2003	L P81 0-0		465
2513	19 28		LCA	2 *2,000&X2	I	4	2010	H 094		465
2514	19 29		SBR	X2	I	4	2014	□ 0-1		465
2515	19 30		CW	001&X2	I	4	2018	M 089 099		466
2516	19 31		MCW	X1,X3	I	7	2025	B W82		466
2517	19 32		B	DELTA	I	4	2029	H J37		466
2518	19 33	NORML	SBR	EXIT&3	I	4	0007	S P86 0&7		466
2519	19 34	X3AND	EQU	007&X3	I	7	2033	V -33 0&7 B		466
2520	19 35	SUBTR	S	□16000,X3AND	I	8	2040	A P86 0&7		466
2521	19 36		BWZ	SUBTR,X3AND,B	I	7	2048	V -48 0&7 K		467
2522	19 37	ADD	A	□16000,X3AND	I	8	2055	V L35 N98 1		467
2523	19 38		BWZ	ADD,X3AND,K	I	7	2063	H 099 0&1		467
2524	19 39		BW	ALCON,FEWSH	I	8	2071	B -71 0&2 0		467
2525	19 40	GET	SBR	X3,1&X3	I	8	2078	H 094 0-1		467
2526	19 41		BCE	GET,002&X3,0	I	7	2086	M 0&2 055		468
2527	19 42		SBR	X2,1&X2	I	4	2093	L P92		468
2528	19 43		LCA	BLNK6#6	I	7	2097	M 0&2 055		468
2529	19 44	THIST	MCW	002&X3,BOX	I	4	2104	Q 099		468
2530	19 45		SAR	X3	I	7	2108	M 055 0-0		468
2531	19 46		MCW	BOX,000&X2	I	7	2108	M 055 0-0		468
2532	19 47		SBR	X2	I	4	2115	H 094		468
2533	19 48		BWZ	THIST,001&X3,2	I	8	2119	V -97 0&1 2		468

NO ZONE

SWITCH C, SINCE WORDL MODIFIED  
ASTERISK

BLANK, ASTERISK

AB ZONE

B ZONE

ZERO

60

NO ZONE

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
2534 19 49		NZ	BLANK, I&X2	I	7 2127	Y P87 0-1		469
2535 19 50	EXIT	B	000	I	4 2134	B 000		469
2536 19 51	OUT	FENDX	C,,,PHSE2P,,ORGVB-1,VARBL TWO				MACRO	
2537	OUT	BSS	333,C					
2538		SBR	INITXT&3,PHSE2P	I	5 2138	B 333 C	GEN	469
2539		SBR	TCLEAR,ORGVB-1	I	7 2143	H 796 849	GEN	469
2540		LCA	@VARBL TWO@,I10	I	7 2150	M 710 Q13	GEN	469
2541		B	MONTER	I	7 2157	L Q01 I10	GEN	469
2542 19 52	LIST	MCW	@@,SWCHA	I	4 2164	B 700	GEN	470
2543 19 53		MCW	@@,SWCHB	I	7 2168	M Q02 956		470
2544 19 54		MCW	CODE-3,*&B	I	7 2175	M Q02 T32		470
2545 19 55		BCE	TU,@1356@,0	I	7 2182	M Q43 J96		470
2546 19 56		CHAIN	3	I	8 2189	B K04 Q06 0	MACRO	470
2547		BCE						
2548		BCE						
2549		BCE						
2550 19 57		B		I	1 2197	B	GEN	470
2551 19 58		B	FIND	I	1 2198	B	GEN	470
2552 19 59	TU	SW	TUSH	I	1 2199	B	GEN	471
2553 19 60	RTPAR	B	FIND	I	4 2200	B 937		471
2554 19 61		BCE	PUTB,BOX,@	I	4 2204	, N99		471
2555 19 62		B	MDIFY	I	4 2208	B 937		471
2556 19 63	PUTB	MCW	@@,SWCHB	I	8 2212	B K24 D55 @		471
2557 19 64	NOMOI	B	MDIFY	I	4 2220	B 960		471
2558 19 65		MN	O&X2	I	7 2224	M Q02 T32		471
2559 19 66		SAR	X2	I	4 2231	B 960		472
2560 19 67	NOMO	LCA	GM,OOI&X2	I	4 2235	D 0-0		472
2561 19 68	EQUAL	B	START	I	4 2239	Q 094		472
2562 19 69		MCW	@@,SWCHB	I	7 2243	L N55 0-1		472
2563 19 70	LOAD2	B	LOOP	I	4 2250	B 856		472
2564 19 71		LCA	BLNK2, I&X2	I	7 2254	M 054 T32		472
2565 19 72	LOAD1	SBR	X2	I	4 2261	B 555		472
2566 19 73		B	LDCOM	I	7 2265	L P88 0-1		473
2567 19 74		LCA	BLANK, O&X2	I	4 2272	H 094		473
2568 19 75		CH	X2	I	4 2276	B X83		473
2569 19 76		B	OOI&X2	I	7 2280	L P87 0-0		473
2570 19 77	CKXPN	B	BOTH	I	4 2287	H 094		473
2571 19 78		BCE	SW1,2&X1,#	I	4 2291	@ 0-1		473
2572 19 79		BCE	SW1,2&X1,@	I	4 2295	B U45		473
2573 19 80		BWZ	FIND,2&X1,2	I	8 2307	B /19 0#2 #		474
2574 19 81		BCE	FIND,2&X1,-	I	8 2315	V 937 0#2 2		474
2575 19 82		B	SW1	I	8 2323	B 937 0#2 .		474
2576 19 83	ALCON	MCW	7&X3,HOLD5#5	I	4 2331	B /19		474
2577		FPACK	HOLD5,WORK3,X3	I	7 2335	M 0&7 Q11	MACRO	475
2578		INCLD	ZONES					
2579		MN	HOLD5,WORK3					
2580		MN						
2581		MN						
2582		SAR	*&4	I	7 2342	D Q11 N97	GEN	475
2583		MCW	0,X3	I	1 2349	D	GEN	475
2584		MCW	@@	I	1 2350	D	GEN	475
2585		MCW		I	4 2351	Q L58	GEN	475
2586		MCW		I	7 2355	M 000 099	GEN	475
2587		MCW		I	4 2362	M Q12	GEN	475

SEQ	PG	LN	LABEL	DP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2584			A		X3	I	4	2366	A 099	GEN	476
2585			MZ		ZONES&1&X3,WORK3	I	7	2370	Y 0&3 N97	GEN	476
2586			CW			I	1	2377	D	GEN	476
2587			SBR		*E7	I	4	2378	H L88	GEN	476
2588	19	84	MZ		ZONES&X3, 0	I	7	2382	Y 0&2 000	GEN	476
2589	19	85	BCE		*E8,2&X2,1	I	8	2389	B M04 0-2 ,		476
2590	19	86	SBR		X2,1&X2	I	7	2397	H 094 0-1		476
2591	19	87	LCA		WORK3,1&X2	I	7	2404	L N97 0-1		477
2592	19	87	SBR		X2	I	4	2411	H 094		477
2593	19	88	CW		1&X2	I	4	2415	D 0-1		477
2594	19	89	MZ		VZONE,2&X2	I	7	2419	Y P68 0-2		477
2595	19	90	BW		BOTM,VBLSW	I	8	2426	V U45 P79 1		477
2596	19	91	B		LDOLR	I	4	2434	B 270		477
2597	19	92	PUTC		*-4,WORDL	I	7	2438	Y M40 N87		478
2598	19	93	M		ROWS,WORDL&6	I	7	2445	D P67 N93		478
2599	19	94	MCM		WORDL&2,WORDL-4	I	7	2452	P N89 N83		478
2600	19	95	S		WORDL,ACCUM	I	7	2459	S N87 P62		478
2601	19	96	B		COPY	I	4	2466	B Y40		478
2602	19	97	FMAT		0&X1,0&X2	I	7	2470	L 0+0 0-0		478
2603	19	98	SBR		X2	I	4	2477	H 094		479
2604	19	99	C		0&X1	I	4	2481	C 0+0		479
2605	20	00	SAR		X1	I	4	2485	Q 089		479
2606	20	01	B		START	I	4	2489	B 856		479
2607	20	02	DCM		@#, @&-3&@	I	9	2501			479
2608	20	03	DC		#1	I	1	2502			479
2609	20	04	DC		#1	I	1	2503			479
2610	20	05	DC		#1	I	1	2504			479
2611	20	06	DC		#1	I	1	2505			479
2612	20	07	DC		#49	I	49	2554			481
2613	20	08	DC		@ @	I	1	2555			481
2614	20	09	DC		@ERROR @	I	6	2561			481
2615	20	10	DC		@ VARIABLE, STATEMENT @	I	21	2582			481
2616	20	11	DC		#5	I	5	2587			482
2617	20	12	DC		#6	I	6	2593			482
2618	20	13	DC		@*@ RECORD MARK	I	1	2594			482
2619	20	14	DC		#3	I	3	2597			482
2620	20	15	DC		#1	I	1	2598			482
2621	20	16	DC		#1	I	1	2599			482
2622	20	17	DC		#1	I	1	2599			482
2623	20	18	ORG		*	I	1	2600			482
2624			DCM		#1	I	1	2601	2601	GEN	482
2625			DCM		9	I	1	2602		GEN	482
2626			DCM		@9Z9R9I99ZZZZZIZ9ZRRRIR9IZIRII@	I	31	2633		GEN	483
2627			LTORG		*	I			2634	GEN	483
2250			DCM		#03	I	3	2636		AREA	483
2253			DCM		#10	I	10	2646		AREA	484
2261			DCM		@3LSUP61@	I	7	2653		LIT	484
2272			DCM		@@	I	1	2654		LIT	484
2277			DCM		@@-@.@@,@	I	1	2655		AREA	484
			BOX			I	8	2663		LIT	484

EQUALS,COMMA,GRP MARK

G-M

ROWS\*WORDL IN WORDL &2 DIMENS@

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2288	2308	BOX2		#01	I	1	2664	AREA		484
				@ERROR 9 -- VARIABLE SYNTAX, STATEMENT @	I	37	2701	LIT		485
				@050@	I	3	2704	LIT		486
				@	I	1	2705	LIT		486
				@1	I	1	2706	LIT		486
2331	2351	COUNT		#02	I	2	2708	AREA		486
		HEX1		#03	I	3	2711	AREA		486
				@	I	2	2713	AREA		486
				@2	I	1	2714	LIT		486
				@3@	I	1	2715	LIT		487
2412				@ERROR 6 -- UNDEFINED ARRAY, STATEMENT @	I	37	2752	LIT		487
				@0000@	I	4	2756	LIT		488
2428		ACCUM		#06	I	6	2762	AREA		488
2431		ROWS		#05	I	5	2767	AREA		488
2434		VZONE		#01	I	1	2768	AREA		488
				@ \$@	I	2	2770	LIT		488
				@*1@	I	2	2772	LIT		488
				@-@,@	I	4	2776	LIT		488
				@ 1@	I	2	2778	LIT		489
2511		VBLSW		#01	I	1	2779	AREA		489
				@ *@	I	2	2781	LIT		489
2528		BLNK6		@16000	I	5	2786	LIT		489
2540				#06	I	6	2792	AREA		489
				@VARBL TWO@	I	9	2801	LIT		489
				@@	I	1	2802	LIT		489
				@1356@	I	4	2806	LIT		490
2575		HOLDS		#05	I	5	2811	AREA		490
				@@	I	1	2812	LIT		490
2628	20 19	CODE	LTORG *		I	1				
2629	20 20	BLANK	EQ	WORK	I		2646			
2630	20 20	BLNK6	EQ	BLNK6-5	I		2787			
2631	20 21	BLNK2	EQ	BLNK6-4	I		2788			
2632	20 22	DCW	EQ	@	I	1	2813			
2633	20 23	ORGVB	EQ	*@1	I	1	2814			
2634	20 24	XFR	EQ	INITL	I					
					I			2813		
					I					8 838
					I					491

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	
2635	20 25	JOB		1401 FORTRAN VARIABLES PHASE TWO							
2636	20 26	*		MOVES THE SOURCE PROGRAM UP TO SAUCE AND COMPUTES PARAMETERS FOR							
2637	20 27	*		THE RANDOMIZER IN VARBL, PHASE 3							
2638	20 28			FBEIGN VARBL TWO,X1,R,X2,,X3,R,P							
2639		SFX	P						MACRO		
2640		DCW		ZVARBL TWO9					GEN	494	
2641		EQU		089			0110		GEN	495	
2642		DCW		000			0089		GEN	495	
2643		DC		00			0091		GEN	495	
2644		EQU		094			0094		GEN		
2645		EQU		099			0099		GEN	496	
2646		DCW		000			0100		GEN	496	
2647		DC		0			2700		GEN		
2648	20 29	SAUCE	EQU	SAUCEK				0838			
2649	20 30	ORG		XBEGIN							
2650	20 31	BASE	DCW	#3			0840			497	
2651	20 32	MAX	DCW	#4			0844			497	
2652	20 33		DC	#1			0845			497	
2653	20 34	UPLIM	DCW	#3			0083				
2654	20 35	NXBTH	EQU	083			0849	M 083 099		497	
2655	20 36	PHSE2	MCM	NXBTH,X3			0856	B /97 089 \$		497	
2656	20 37		BCE	FQUIT,X1,\$			0864	H T42 0E2		497	
2657	20 38		SBR	NOMO#3,2&X3			0871	M 094 099		498	
2658	20 39		MCM	X2,X3			0878	/ 0E0		498	
2659	20 40	CLR1	CS	000&X3			0882	H 099		498	
2660	20 41		SBR	X3			0886	C 099 T45		498	
2661	20 42		C	X3,6SAUCE-1			0893	B 878 /		498	
2662	20 43	BU		CLR1			0898	H 089 099		498	
2663	20 44	SBR		XL1,SAUCE-1							
2664	20 45	* SHIFT SOURCE PROGRAM UP TO COMPILER PROGRAM									
2665	20 46	MOVUP		X2,X1,NOMO,ALL,*					MACRO		
2666		MN		0&X1			0905	D 0+0	GEN	498	
2667		SAR		X1			0909	Q 089	GEN	499	
2668		00J065	MCM	0&X2			0913	P 0-0	GEN	499	
2669		SAR		00L065&6			0917	Q 939	GEN	499	
2670		MCM		0&X2,1&X1			0921	P 0-0 0+1	GEN	499	
2671		MN					0928	D	GEN	499	
2672		SBR		X1			0929	H 089	GEN	499	
2673		SBR		X2,0			0933	H 094 000	GEN	499	
2674		BCE		00J065,0&X1,*			0940	H 913 0+0 *	GEN	500	
2675		MN		0&X2			0948	D 0-0	GEN	500	
2676		CH					0952	0	GEN	500	
2677		SW		0&X1			0953	0 0+0	GEN	500	
2678		C		X2,NOMD			0957	C 094 T42	GEN	500	
2679		BU		00J065			0964	B 913 /	GEN	500	
2680	20 47		CH	0&X2			0969	0 0-0	GEN	500	
2681	20 48		CH				0973	0	GEN	501	
2682	20 49	SBR		BASE,2&X1			0974	H 840 0+2	GEN	501	
2683	20 50	MN		TWO9,BASE			0981	D T07 840	GEN	501	
2684	20 51	MN					0988	D	GEN	501	



SEQ PG	LINE	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2685	20 52		MCH	PARAM&2,X3	P	7	0989	M 688 099		501
2686	20 53		MN	000&X3	P	4	0996	D 060		501
2687	20 54		SW		P	1	1000			501
2688	20 55		SAR	NXBTH	P	4	1001	Q 083		502
2689	20 56		SBR	X3	P	4	1005	H 099		502
2690	20 57			* CLEAR BALANCE OF CORE						
2691	20 58	CLR2	CS	000&X3	P	4	1009	/ 0&0		502
2692	20 59		SBR	X3	P	4	1013	H 099		502
2693	20 60		C	X3,BASE	P	7	1017	C 099 840		502
2694	20 61		BU	CLR2	P	5	1024	B #09 /		502
2695	20 62		MCH	@ @,0&X3	P	7	1029	M T46 0&0		502
2696	20 63			* DIVIDE REST OF CORE FOR TABLES						
2697	20 64		MCH	NXBTH,LOC	P	7	1036	M 083 T05		503
2698	20 65		B	UNPAK	P	4	1043	R S31		503
2699	20 66		MCH	NUM#5,MAX&1	P	7	1047	M T51 845		503
2700	20 67		MCH	BASE,LOC	P	7	1054	M 840 T05		503
2701	20 68		B	UNPAK	P	4	1061	B S31		503
2702	20 69		S	NUM,MAX&1	P	7	1065	S T51 845		503
2703	20 70		A	MAX,ACCUM#5	P	7	1072	A 844 T57		504
2704	20 71		A	ACCUM	P	4	1079	A T57		504
2705	20 72		A	MAX,ACCUM	P	7	1083	A 844 T57		504
2706	20 73			* 1/10 OF NXBTH-BASE IN MAX						
2707	20 74		A	ACCUM	P	7	1090	A T51 T57		504
2708	20 75		A	NUM,ACCUM	P	7	1097	M T54 099		504
2709	20 76		MCH	ACCUM-3,X3	P	4	1104	A 099		504
2710	20 77		A	X3	P	7	1108	Y T&8 T55		505
2711	20 78		MZ	ZONES&X3,ACCUM-2	P	7	1115	Y T&9 T57		505
2712	20 79		MZ	ZONES&1&X3,ACCUM	P	7	1122	M T57 099		505
2713	20 80		MCH	ACCUM,X3	P	4	1129	/ 0&2		505
2714	20 81		SW	002&X3	P	4	1133	M T46		505
2715	20 82		MCH	@ @ 12-6-8	P	4	1137	H 848		505
2716	20 83		SBR	UPLIM	P	4	1141	M 089 094		506
2717	20 84		MCH	X1,X2	P	7	1148	D 0-0		506
2718	20 85		MN	0&X2	P	4	1152	Q 089		506
2719	20 85		SAR	X1	P	4	1156	B 333 C		506
2719	20 85		FENDX	C,,WORK5J-4,PHSE3J,WORK5J,SYS2,VARBL TRI					MACRO	
2720	20 86		BSS	333,C	P	5	1161	H 786 849		506
2721	20 87		SBR	INITAP&6,WORK5J-4	P	7	1168	H 833		506
2722	20 87		SBR	BCLEAR	P	4	1172	H 796 857		506
2723	20 87		SBR	INITXT&3,PHSE3J	P	7	1179	H 710 U05		507
2724	20 87		SBR	TCLEAR,SYS2	P	7	1186	L T66 110		507
2725	20 87		LCA	@VARBL TRI@,110	P	7	1193	B 700		507
2726	20 87		B	MONTER	P	4	1197	/ 332		507
2727	20 87		FQUIT		P	4	1201	/		507
2728	20 87		FQUIT	332	P	1	1202	F 1		507
2729	20 87		CS		P	7	1204	M U02 270		507
2730	20 87		CC	1	P	1	1211	2		508
2731	20 87		MCH	@MESSAGE 2 - OBJECT PROGRAM TOD LARGE@,270	P	2	1212	F 1		508
2732	20 87		W		P	8	1214	B S27 769 1		508
2733	20 87		CC	1	P	2	1214	B S27 769 1		508
2734	20 87		BCE	*@6,MONTOR,1	P	8	1214	B S27 769 1		508

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
2735		RWD	1	P 5	1222	U %UI R	GEN	508
2736		H	*-3	P 4	1227	. S27	GEN	508
2737 20 88	UNPAK	SBR	EXIT&3	P 4	1231	H T00		508
2738 20 89		MN	LOC,NUM	P 7	1235	D T05 T51		508
2739 20 90		MN		P 1	1242	D		509
2740 20 91		MN		P 1	1243	D		509
2741 20 92		MCW		P 1	1244	M		509
2742 20 93		MZ	LOC,TW09	P 7	1245	Y T05 T07		509
2743 20 94		MZ	LOC-2,TW09-1	P 7	1252	Y T03 T06		509
2744 20 95		NOP	ZONES-3	P 4	1259	N T05		509
2745 20 96		SAR	X3	P 4	1263	Q 099		509
2746 20 97	COMP	C	004EX3,TW09	P 7	1267	C 0&4 T07		510
2747 20 98		SAR	X3	P 4	1274	Q 099		510
2748 20 99		A	E1,NUM-3	P 7	1278	A U03 T48		510
2749 21 00		BU	COMP	P 5	1305	B S67 /		510
2750 21 01		MZ	BLANK#1,NUM-3	P 7	1290	Y U04 T48		510
2751 21 02	EXIT	B	000	P 4	1297	B 000		510
2752 21 03	LOC	DCH	20J @	P 5	1307			511
2753 21 04	TW09	DCW	299@	P 2	1307			511
2754 21 05	ZONES	DC	29@	P 1	1308			511
2755 21 06		DC	29Z9R9I99ZZZRZ1Z9RZRRRIR9IZIRII@	P 31	1339			511
2756 21 07		LTORG *		P		1340		
2657	NOMO	DCW	#03	P 3	1342		AREA	511
2661			ESAUCE-1	P 3	1345	099	ADCON	512
			@ @	P 1	1346		LIT	512
2699	NUM		#05	P 5	1351		AREA	512
2703	ACCUM		#06	P 6	1357		AREA	512
2725			@VARBL TRI@	P 9	1386		LIT	512
2731			@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	P 36	1402		LIT	513
			E1	P 1	1403		LIT	513
			#01	P 1	1404		AREA	513
2750	BLANK	LTORG *		P		1405		
2757 21 08		DCW	@ @	P 1	1405			513
2758 21 09	SYS2	XFR	PHSE2	P		B 849		514
2759 21 10								

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
2760 21 11	JOB	1401 FORTRAN	VARIABLES PHASE THREE					
2761 21 12	FBEGN	VARBL TRI,X1,X2,X3,R,J						
2762	SFX J							
2763	DCM	@VARBL TRI@		J	9	0110	MACRO	
2764	X1	EQU 089		J		0089	GEN	517
2765	X2	EQU 094		J		0094	GEN	
2766	X3	EQU 099		J		0099	GEN	
2767	099	DCW 000		J	3	0099	GEN	518
2768	100	DC 0		J	1	0100	GEN	518
2769 21 13	* DEFINES VARIABLES IN SOURCE PROGRAM							
2770 21 14	ORG	XBEGIN		J				
2771 21 15	DS	3		J				
2772 21 16	DS	4		J				
2773 21 17	DS	4		J				
2774 21 18	NXTOP	EQU 086		J		0840		
2775 21 19	NXBTM	EQU 083		J		0844		
2776 21 20	WORK5	DCW #5		J		0848		
2777 21 21	SAVE2	DCW #3		J		0086		
2778 21 22	PHSE3	MESSG @STORAGE ASSIGNMENT - SIMPLE VARIABLES@,37,L,J		J	5	0083		519
2779	CC L			J	3	0856		519
2780	CS	332		J	2	0857	MACRO	
2781	CS			J	4	0859	GEN	519
2782	MCH	W	@STORAGE ASSIGNMENT - SIMPLE VARIABLES@,37&200	J	1	0863	GEN	519
2783	CC	J		J	7	0864	GEN	519
2784	MCH	@ @,SAUCEK-1		J	1	0871	GEN	519
2785 21 23	MCH	X2,SAVE2		J	2	0872	GEN	520
2786 21 24	MCH	UNPAK NXTOP,WORK5		J	7	0974	GEN	520
2787 21 25	S	@MOTO#2		J	7	0881	GEN	520
2788	S	@LO70#2		J	4	0888	MACRO	
2789	MZ	NXTOP,@MOTO-1		J	4	0892	GEN	520
2791	MZ	NXTOP-2,@LO70-1		J	7	0896	GEN	520
2792	BWZ	@KOTO,@LO70-1, 2		J	7	0903	GEN	520
2793	A	@A0@,@LO70		J	8	0910	GEN	521
2794	B	@JO70		J	7	0918	GEN	521
2795	BWZ	@PO70,@MOTO-1, 2		J	4	0925	GEN	521
2796	A	@L@,@MOTO		J	8	0929	GEN	521
2797	B	@KOTO		J	7	0937	GEN	521
2798	A	@LO70-1,@MOTO		J	4	0944	GEN	521
2799	MCH	NXTOP,WORK5		J	7	0948	GEN	521
2800	MCH	@MOTO		J	7	0955	GEN	522
2801	ZA	WORK5		J	4	0962	GEN	522
2802	MZ	@-4,WORK5		J	4	0966	GEN	522
2803 21 26	FENDX	C,,PHSE3,,PHSE3,SAUCEK-1,VARBL QUAD		J	7	0970	GEN	522
2804	BSS	333,C		J				
2805	SBR	INITAP@6,PHSE3		J	5	0977	MACRO	
2806	SBR	BCLEAR		J	7	0982	GEN	522
2807	SBR	TCLEAR,SAUCEK-1		J	4	0989	GEN	523
2808	LCA	@VARBL QUAD@,110:		J	7	0993	GEN	523
2809	B	MONTER		J	7	1000	GEN	523
				J	4	1007	GEN	523

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2810	21	27		LTORG *		J	37	1047	1011	LIT	524
		2782		DCW	STORAGE ASSIGNMENT - SIMPLE VARIABLES	J	1	1048		LIT	524
		2788	□0M070		□	J	2	1050		AREA	525
		2789	□0L070		#02	J	2	1052		AREA	525
					□A0□	J	2	1054		LIT	525
					□C4□	J	2	1056		LIT	525
		2808			□VARBL QUAD□	J	10	1066		LIT	525
2811	21	28		DCW	SYSTEM GROUP MARK	J	1	1067	B 857		525
2812	21	29		XFR	PHSE3	J					526

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2813 21 30		JOB	1401 FORTRAN	J	10	0110			529
2814 21 31	110	DCW	@VARBL QUAD@	J					
2815 21 32		ORG	PHSE3	J					
2816 21 33	BEGIN	MCW	BASE,BUMPE3	J	7	0857	0857		530
2817 21 34		MZ	@SA,BUMPE2	J	7	0864	Y K82 /88		530
2818 21 35		SW	GM	J	4	0871	, M93		530
2819 21 36		CW	ISFSW	J	4	0875	L10		530
2820 21 37	START	BCE	OUT,000EX1,	J	8	0879	B -57 0#0		530
2821 21 38		MCW	000EX1, CODE#4	J	7	0887	M 0#0 K86		530
2822 21 39		LCA	000EX1, WORK#10	J	7	0894	L 0#0 K96		531
2823 21 40		SAR	X1	J	4	0901	Q 089		531
2824 21 41		SBR	X3	J	4	0905	H 099		531
2825 21 42		LCA	WORK,000EX2	J	7	0909	L K96 0-0		531
2826 21 43		SBR	X2	J	4	0916	H 094		531
2827 21 44		BCE	PASS, CODE-3, /	J	8	0920	B J63 K83 /		531
2828 21 45		BCE	PASS, CODE-3, F	J	8	0928	B J63 K83 F		532
2829 21 46		MCW	@1@, FNCTR#2	J	7	0936	M K98 L00		532
2830 21 47	* DETERMINE	B	IF IN RUN ONE OF RUN TWO						
2831 21 48	SWCHE	B	TEST	J	4	0943	B W71		532
2832 21 49	FIND2	BCE	SEEK,000EX1,	J	8	0947	B 981 0#0		532
2833 21 50		CHAIN	5						
2834		BCE		J	1	0955	B	MACRO	532
2835		BCE		J	1	0956	B	GEN	532
2836		BCE		J	1	0957	B	GEN	532
2837		BCE		J	1	0958	B	GEN	533
2838		BCE		J	1	0959	B	GEN	533
2839 21 51		BCE	PASS,000EX1,	J	8	0960	B J63 0#0		533
2840 21 52		CHAIN	5						
2841		BCE		J	1	0968	B	MACRO	533
2842		BCE		J	1	0969	B	GEN	533
2843		BCE		J	1	0970	B	GEN	533
2844		BCE		J	1	0971	B	GEN	533
2845		BCE		J	1	0972	B	GEN	534
2846 21 53		SBR	X1	J	4	0973	H 089		534
2847 21 54		B	FIND2	J	4	0977	B 947		534
2848 21 55	SEEK	BCE	FOUND,000EX1,	J	8	0981	B 997 0#0		534
2849 21 56		SBR	X1	J	4	0989	H 089		534
2850 21 57		B	SEEK	J	4	0993	R 981		534
2851 21 58	FIND2	SW	001EX1	J	4	0997	, 0#1		534
2852 21 59		CW		J	1	1001	□		535
2853 21 60		CW		J	1	1002	□		535
2854 21 61		CW		J	1	1003	□		535
2855 21 62		SAR	X1	J	4	1004	Q 089		535
2856 21 63		BCE	COPY,004EX1,	J	8	1008	B #31 0#4		535
2857 21 64		LCA	000EX3,000EX2	J	7	1016	L 060 0-0		535
2858 21 65		SBR	X2	J	4	1023	H 094		535
2859 21 66		CW	001EX2	J	4	1027	□ 0-1		536
2860 21 67	COPY	SBR	X3,2EX1	J	7	1031	H 099 0#2		536
2861 21 68	* SCAN FOR	B	ENDING CHARACTER						
2862 21 69	LIMIT	MCW	000EX1,BDX#1	J	7	1038	M 0#0 L01		536

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
2863	21 70		SAR	X1	J	4	1045	Q 089	536
2864	21 71		MCW	BOX,*88	J	7	1049	M L01 #63	536
2865	21 72		BCE	RANDM,22 #*-Ea,2,0	J	8	1056	B #75 L09 0	536
2866	21 73		CHAIN	7				MACRO	
2867			BCE		J	1	1064	B	536
2868			BCE		J	1	1065	B	537
2869			BCE		J	1	1066	B	537
2870			BCE		J	1	1067	B	537
2871			BCE		J	1	1068	B	537
2872			BCE		J	1	1069	B	537
2873			BCE		J	1	1070	B	537
2874	21 74		B	LIMIT	J	4	1071	B #38	537
2875	21 75	RANDM	BCE	SWCHF,BOX,#	J	8	1075	B Y06 L01 #	538
2876	21 76		BCE	*65,2EX1,	J	8	1083	B #95 0#2	538
2877	21 77		B	*65	J	4	1091	B #99	538
2878	21 78		SW	TSFSW#1	J	4	1095	, L10	538
2879	21 79	SWCHA	NOP	BOTM	J	4	1099	N J93	538
2880	21 80	* RANDMIZING	VARIABLE NAME						
2881	21 81	MIXUP	SW	002EX1	J	4	1103	, 0#2	538
2882	21 82		ZA	000EX3,MOD#4	J	7	1107	£ 060 L14	538
2883	21 83		A	004EX1,MOD	J	7	1114	A 0#4 L14	539
2884	21 84		MZ	a	J	7	1121	Y L18 L14	539
2885	21 85		MZ	a,MOD	J	1	1128	Y	539
2886	21 86		MZ		J	1	1129	Y	539
2887	21 87	SUBTR	S	MAX,MOD	J	1	1130	M	539
2888	21 88		BWZ	SUBTR,MOD,B	J	7	1131	S 844 L14	539
2889	21 89		A	MAX,MOD	J	8	1138	V /31 L14 B	540
2890	21 90		MZ	a,MOD	J	7	1146	A 844 L14	540
2891	21 91		MCW	X2,HEX2#8	J	7	1153	Y L19 L14	540
2892	21 92		MCW		J	7	1160	M 094 L27	540
2893	21 93		MCW		J	1	1167	M	540
2894	21 94		MCW	MOD,X1	J	7	1168	M L14 089	540
2895	21 95		A	X1	J	4	1175	A 089	540
2896	21 96		A	MOD,X1	J	7	1179	A L14 089	541
2897	21 97	* GET TABLE	BUMP	1 ADDRESS	J	4	1186	N 000	541
2898	21 98		SAR	000	J	4	1190	Q 089	541
2899	21 99		SAR	X1	J	7	1194	M L28 Z73	541
2900	22 00		MCW	2N2,OVFLW	J	8	1201	B T02 0#0	541
2901	22 01	CHAIN	BCE	NEW,000EX1,	J	8	1209	B Z73 0#0	541
2902	22 02		BCE	OVFLW,000EX1,					
2903	22 03	* SEE IF DEFINED	ALREADY						
2904	22 04		MCW	000EX1,X2	J	7	1217	M 0#0 094	542
2905	22 05		SAR	X1	J	4	1224	Q 089	542
2906	22 06		C	000EX3,000EX2	J	7	1228	C 0E0 0-0	542
2907	22 07		BU	CHAIN	J	5	1235	B S01 /	542
2908	22 08		C	000EX2,000EX3	J	7	1240	C 0-0 0E0	542
2909	22 09		SAR	SWHC#3	J	4	1247	Q S59	542
2910	22 10		BU	CHAIN	J	5	1251	B S01 /	542
2911	22 11	SWHC	MIN	0	J	4	1256	D 000	543
2912	22 12		SAR	SENDE3	J	4	1260	Q S75	543

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2913	22 13	RESTR	MCW	HEX2,X2	J	7	1264	M L27 094		543
2914	22 14		MCW		J	1	1271	M		543
2915	22 15	SEND	LCA	000,000&X2	J	7	1272	L 000 0-0		543
2916	22 16		SBR	X2	J	4	1279	H 094		543
2917	22 17		CM	001&X2	J	4	1283	0 0-1		543
2918	22 18		SBR	X3,1&X1	J	7	1287	H 099 0#1		544
2919	22 19		SBR	X1	J	4	1294	H 089		544
2920	22 20	GOBAK	B	FIND1 OPERAND SET TO FIND2 FOR RUN 2	J	4	1298	B X23		544
2921	22 21	NEW	MCW	NX8TM,X2	J	7	1302	M 083 094		544
2922	22 22		MCW	NX8TM,000&X1	J	7	1309	M 083 0#0		544
2923	22 23		MCW	000&X3,000&X2	J	7	1316	M 0&0 0-0		544
2924	22 24		SBR	X2	J	4	1323	H 094		545
2925	22 25		BCE	* CHECK TO SEE IF THERE IS ROOM FOR ADDRESS	J	8	1327	B K11 0-0		545
2926	22 26		BCE	FULL,000&X2,					MACRO	
2927	22 27		CHAIN	4					GEN	545
2928			BCE		J	1	1335	B	GEN	545
2929			BCE		J	1	1336	B	GEN	545
2930			BCE		J	1	1337	B	GEN	545
2931			BCE		J	1	1338	B	GEN	545
2932	22 28		SM	000&X3	J	4	1339	0&0		545
2933	22 29		MCW	000&X3,*&8	J	7	1343	M 0&0 T57		546
2934	22 30		BCE	FIXED,01JKLMA,0	J	8	1350	B -31 L34 0		546
2935	22 31		CHAIN	5					MACRO	
2936			BCE		J	1	1358	B	GEN	546
2937			BCE		J	1	1359	B	GEN	546
2938			BCE		J	1	1360	B	GEN	546
2939			BCE		J	1	1361	B	GEN	546
2940			BCE		J	1	1362	B	GEN	546
2941	22 32		MZ	0A0,VZONE#1	J	7	1363	Y L35 L36		547
2942	22 33		BW	FUNST,ISFSW	J	8	1370	V W49 L10 1		547
2943	22 34		A	PARAM&6,WORK5	J	7	1378	A 692 853		547
2944	22 35		C	WORK5,&16000	J	7	1385	C 853 L41		547
2945	22 36	PACK	BH	PACK2	J	5	1392	B U25 U		547
2946	22 37		BW	PACK2,LGSW	J	8	1397	V U25 K48 1		548
2947	22 38		CS	332	J	4	1405	/ 332		548
2948	22 39		CS	MESSAGE 2 - OBJECT PROGRAM TOO LARGE,270	J	1	1409	/		548
2949	22 40		MLC		J	7	1410	M L77 270		548
2950	22 41		H		J	1	1417	2		548
2951	22 42		SM	FAILSW,LGSW	J	7	1418	, 184 K48		548
2952	22 43	PACK2	MCW	WORK5,HOLD5#5	J	7	1425	M 853 L82		548
2953	22 44		MCW	X3,HOLD8#8	J	7	1432	M 099 L90		549
2954	22 45		MCW		J	1	1439			549
2955	22 46		FPACK	HOLD5,NXTOP,X2	J	1			MACRO	
2956			INCLD	ZONES					GEN	549
2957			MN	HOLD5,NXTOP	J	7	1440	D L82 086		549
2958			MN		J	1	1447	D		549
2959			MN		J	1	1448	D		549
2960			SAR	*&4	J	4	1449	Q U56		549
2961			MCW	0,X2	J	7	1453	M 000 094		549
2962			MCW	00	J	4	1460	M L91		550

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
2963			A	X2	J	4	1464	A 094	GEN	550
2964			MZ	ZONES&1&X2,NXTOP	J	7	1468	Y KNI 086	GEN	550
2965			CW	#E7	J	1	1475	H U86	GEN	550
2966			SBR	ZONES&X2, 0	J	4	1476	Y KNO 000	GEN	550
2967			MZ	NXTDP,ADRSS#3	J	7	1480	M 086 L94	GEN	550
2968	22 47		MZ	O&X3	J	4	1494	0 0&0	GEN	551
2969	22 48	RTN2	CW	299	J	4	1498	7 299	GEN	551
2970	22 49		CS	FFLIP O&X3,201,X3,X2,INC,MM	J	4			MACRO	
2971	22 50		MN	201	J	4	1502	D 201	GEN	551
2972			MN	X2	J	1	1506	D	GEN	551
2973			SAR	X3, O&X3	J	4	1507	Q 094	GEN	551
2974			SBR	O&X3,POL073#1	J	7	1511	H 099 0&0	GEN	551
2975			MZ	X3	J	7	1518	M 0&0 L95	GEN	551
2976		00K073	MZ	00L073, 2&X2	J	4	1525	Q 099	GEN	552
2977			SAR	X2	J	7	1529	M L95 0-2	GEN	552
2978			MZ	00M073, 1&X3	J	4	1536	H 094	GEN	552
2979			SBR	00K073	J	8	1540	V V52 0&1 1	GEN	552
2980			BW	*&1	J	4	1548	B V18	GEN	552
2981			B	HOLD8,X3	J	4	1552	M L90 099	GEN	552
2982		00M073	EQU		J	7	1552	M L90 099	GEN	552
2983	22 51		MZ	NXTOP,227	J	1	1559	M	GEN	553
2984	22 52		MZ	WORK5,219	J	7	1560	M 086 227	GEN	553
2985	22 53		MZ	SW1X2,ISFSW	J	7	1567	Z 853 219	GEN	553
2986	22 54		MCS		J	7	1574	V V94 L10 1	GEN	553
2987	22 55		BW		J	8	1582	Z	GEN	553
2988	22 56		W		J	1			MACRO	
2989	22 57		FORMS		J	5	1583	B V92 @	GEN	553
2990			BCV	*&5	J	4	1588	B V94	GEN	553
2991			B	*&3	J	2	1592	F 1	GEN	553
2992			CC	1&X2	J	4	1594	0-1	GEN	554
2993	22 58	SW1X2	SW	GM	J	4	1598	L M93	GEN	554
2994	22 59		LCA	SENDE3	J	4	1602	H S75	GEN	554
2995	22 60		SBR	ADRSS	J	4	1606	L L94	GEN	554
2996	22 61		LCA	NXBTM	J	4	1610	H 083	GEN	554
2997	22 62		SBR	X2	J	4	1614	H 094	GEN	554
2998	22 63		SBR	*&5,CODE-3,D	J	4	1618	B W30 K83 D	GEN	554
2999	22 64		BCE	*&5	J	8	1626	B W34	GEN	554
3000	22 65		B	4&X2	J	4	1630	0-4	GEN	555
3001	22 66		CW	VZONE,2&X2	J	4	1634	Y L36 0-2	GEN	555
3002	22 67		MZ	ISFSW	J	7	1641	0 L10	GEN	555
3003	22 68		CW	RESTR	J	4	1645	B S64	GEN	555
3004	22 69		B	FNCTR,ADRSS	J	7	1649	M L00 L94	GEN	555
3005	22 70	FUNST	MZ	@	J	4	1656	M L96	GEN	555
3006	22 71		MZ	0 0	J	4	1660	A L97 L00	GEN	555
3007	22 72		A	01,FNCTR	J	7	1667	B U94	GEN	556
3008	22 73		B	RTN2	J	4			MACRO	
3009	22 74	TEST	F8CEQ	INPUT,CODE-3,1,5,L	J	8	1671	B X63 K83 1	GEN	556
3010		TEST	BCE	INPUT,CODE-3,1	J	8	1679	B X63 K83 5	GEN	556
3011			BCE	INPUT,CODE-3,5	J	8	1687	R X63 K83 L	GEN	556
3012			BCE	INPUT,CODE-3,L	J	8			GEN	556

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3013	22 75		MCW	@@,SWCHA	J	7	1695	M L98 #99		557
3014	22 76		MCW	@@,SWCHB	J	7	1702	M L28 X31		557
3015	22 77		MCW	@@,SWCHF	J	7	1709	M L28 Y06		557
3016	22 78		MCW	@@,SWCHG	J	7	1716	M L28 X39		557
3017	22 79	FIND1	BCE	FOUND,000EX1,	J	8	1723	B 997 0#0		557
3018	22 80	SWCHB	NOP	RTPAR,000EX1,@	J	8	1731	N X95 0#0		558
3019	22 81	SWCHG	NOP	DOLRI,000EX1,\$	J	8	1739	N Z95 0#0		558
3020	22 82	DONE	BCE	PASS,000EX1,	J	8	1747	B J63 0#0		558
3021	22 83		SBR	X1	J	4	1755	H 089		558
3022	22 84		B	FIND1	J	4	1759	B X23		558
3023	22 85		MCW	@@,SWCHA	J	4	1759	B X23		558
3024	22 86	INPUT	MCW	@@,SWCHB	J	7	1763	M L28 #99		558
3025	22 87		MCW	@@,SWCHB	J	7	1770	M L98 X31		559
3026	22 88		MCW	@@,SWCHF	J	7	1777	M L99 Y06		559
3027	22 89		MCW	@@,SWCHG	J	7	1784	M L98 X39		559
3028	22 90	RTPAR	B	FIND1	J	4	1791	B X23		559
3029	22 91		MCW	@@,SWCHA	J	7	1795	M L28 #99		559
3030	22 92		B	DONE	J	4	1802	B X47		559
3031	22 93	SWCHF	NOP	@@,SWCHB	J	7	1806	N L98 X31		560
3032	22 94		MCW	@@,SWCHA	J	7	1813	M L98 #99		560
3033	22 95	UNDEF	B	MIXUP	J	4	1820	B /03		560
3034	22 96		CS	299	J	4	1824	/ 299		560
3035	22 97		SW	FAILSW	J	4	1828	, 184		560
3036	22 98		MCW	ERROR 10 - UNDEFINED VARIABLE @,230	J	4	1828	, 184		560
3037			FFLIP	0EX3,231,X3,X1,INC,WM	J	7	1832	M M29 230		560
3038			MN	231	J	4	1839	D 231	MACRO	560
3039			MN		J	1	1843	D	GEN	561
3040			SAR	X1	J	4	1844	Q 089	GEN	561
3041			SBR	X3, 0EX3	J	7	1848	H 099 0&0	GEN	561
3042		OK076	MCW	0EX3,OK076#1	J	7	1855	M 0&0 M30	GEN	561
3043			SAR	X3	J	4	1862	Q 099	GEN	561
3044			MCW	OK076, 2EX1	J	7	1866	M M30 0+2	GEN	561
3045			SBR	X1	J	4	1873	H 089	GEN	561
3046			BW	OK076, 1EX3	J	8	1877	V Y89 0&1	GEN	562
3047			B	OK076	J	4	1885	B Y55	GEN	562
3048	22 99	OK076	EQU	*E1	J	4	1889	D K86 255	GEN	562
3049	23 00		MN	CODE,255	J	7	1889	D K86 255		562
3050	23 01		MN		J	1	1896	D		562
3051	23 02		MCW	STATEMENT @	J	1	1897	D		562
3052	23 03		W		J	4	1898	M M40		562
3053	23 04		FORMS		J	1	1902	2		562
3054			BCV	*E5	J	5	1903	B Z12 @	MACRO	563
3055			B	*E3	J	4	1908	B Z14	GEN	563
3056			CC	1	J	2	1912	F 1	GEN	563
3057	23 05		SBR	SENDE3,ZEROZ	J	7	1914	H S75 K47		563
3058	23 06		BWZ	CKFIX,231,K	J	8	1921	V Z40 231 K		563
3059	23 07	ZNA	MZ	@@,ZEROZ-1	J	7	1929	Y L35 K46		563
3060	23 08		B	RESTR	J	4	1936	B S64		563
3061	23 09	CKFIX	SW	231	J	4	1940	, 231		564
3062	23 10		MCW	231,*E8	J	7	1944	M 231 Z58		564

DELTA 11-7-8  
RT PAREN  
DOLLAR, A-OPERAND ALSO MODIFIED  
GROUP MARK

SEQ PG	LN	LABEL	OP	OPERANDS	INITIALIZED	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3063	23 11		BCE	ZNA, @OPQR, 3		J	8	1951	B Z29 M44	MACRO	564
3064	23 12		CHAIN			J	1	1959	B	GEN	564
3065			BCE			J	1	1960	B	GEN	564
3066			BCE			J	1	1961	B	GEN	564
3067			BCE			J	7	1962	Y M45 K46	GEN	564
3068	23 13		MZ	@K, ZEROZ-1		J	4	1969	B S64		565
3069	23 14		B	RESTR		J	4	1973	M K11		565
3070	23 15	OVFLW	NOP	FULL		J	7	1977	M L98 Z73		565
3071	23 16		MCW	@B, OVFLW		J	7	1984	M 848 089		565
3072	23 17		MCW	UPLIN, X1		J	7	1991	B S01		565
3073	23 18		B	CHAIN		J	7	1995	H X42 -13		565
3074	23 19	DQLR1	SBR	SWCHG&3, DQLR2		J	7	2002	M L98 #99		566
3075	23 20		MCW	@B, SWCHA		J	4	2009	B X47		566
3076	23 21		B	DONE		J	7	2013	H X42 Z95		566
3077	23 22	DQLR2	SBR	SWCHG&3, DQLR1		J	7	2020	M L28 #99		566
3078	23 23		MCW	@B, SWCHA		J	7	2027	B X47		566
3079	23 24		B	DONE		J	4	2031	Y M46 L36		566
3080	23 25	FIXED	MZ	@JB, VZONE		J	7	2038	V M49 L10 1		567
3081	23 26		BM	FUNST, ISFSM		J	8	2046	A 690 853		567
3082	23 27		A	PARAM&4, WORKS		J	7	2053	B T85		567
3083	23 28		B	PACK		J	4	2057	M 856 089		567
3084	23 29	OUT	MLC	SAVE2, X1		J	7	2064	/ 0-0		567
3085	23 30		CS	O&X2		J	4	2068	/		567
3086	23 31		CS			J	1	2068	/		567
3087	23 32		SBR	TCLEAR, SYS4		J	7	2069	M 710 M99		567
3088	23 33	SMCHD	NOP	DUN		J	4	2076	N J47		568
3089	23 34		SW	GM		J	4	2080	, M93		568
3090	23 35		MCW	@B, SWCHD		J	7	2084	M L98 -76		568
3091	23 36		MCW	@B, SWCHC		J	7	2091	M M47 S56		568
3092	23 37		MCW	@B, SWCHE		J	7	2098	M L28 943		568
3093	23 38		MCW	@B, SWCHA		J	7	2105	M L28 #99		568
3094	23 39		SBR	CHAIN&3, UNDEF		J	7	2112	H S04 Y24		569
3095	23 40		SBR	GOBACK&3, FIND2		J	7	2119	H T01 947		569
3096	23 41		CS	O&X2		J	4	2126	/ 0-0		569
3097	23 42		SBR	X2, I&X1		J	7	2130	H 094 0#1		569
3098	23 43		SBR	SAVE2		J	4	2137	H 856		569
3099	23 44		CC	J		J	2	2141	F J		569
3100	23 45		B	START		J	4	2143	B 879		569
3101	23 46	DUN	BSS	333, C		J	5	2147	B 333 C		570
3102	23 47		MCW	@VARBLQUIN&3, I10		J	7	2152	M M56 I10		570
3103	23 48		B	MONITOR		J	7	2159	B 769		570
3104	23 49	PASS	MVDWN	X3, X2		J	4	2163	L 0&0 0-0	MACRO	570
3105		PASS	LCA	O&X3, O&X2		J	7	2170	Q 099	GEN	570
3106			SAR	X3		J	4	2174	C 0-0	GEN	570
3107			C	O&X2		J	4	2178	Q 094	GEN	570
3108			SAR	X2		J	7	2182	M 099 089		571
3109	23 50		MCW	X3, X1		J	4	2189	B 879 0#1		571
3110	23 51		B	START		J	7	2193	H 089 0#1		571
3111	23 52	BOTH	SBR	X1, I&X1		J	7	2200	H 099 0&1		571
3112	23 53		SBR	X3, I&X3		J	7	2200	H 099 0&1		571

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3113	23 54		B	FIND1	J	4	2207	B X23	MACRO	571
3114	23 55	FULL	FQUIT		J	4	2211	/ 332	GEN	571
3115		FULL	CS	332	J	1	2215	/	GEN	571
3116			CS	1	J	2	2216	F 1	GEN	572
3117			CC	MESSAGE 2 - OBJECT PROGRAM TOO LARGE,270	J	7	2218	M M92 270	GEN	572
3118			MCM		J	1	2225	2	GEN	572
3119			W		J	2	2226	F 1	GEN	572
3120			CC	*\$6,MONTOR,1	J	8	2228	B K41 769 1	GEN	572
3121			BCE		J	5	2236	U \$U1 R	GEN	572
3122			RWD	*-3	J	4	2241	. K41	GEN	572
3123			H	@000@	J	3	2247		GEN	573
3124	23 56	ZEROZ	DCW	#1	J	1	2248		GEN	573
3125	23 57	LGSW	DC	#1	J	1	2249		GEN	573
3126	23 58		ORG	*	J	1	2250		GEN	573
3127		ZONES	DCW	#1	J	1	2281		GEN	573
3128			DC	9	J	1	2282		LIT	573
3129			DCW	@9Z9R9I99ZZRZIZ9RZRRRIR9IZIRI11@	J	1	2286		AREA	574
3130			LTORG	*	J	31	2288		AREA	574
			DCW	@S@	J	1	2298		LIT	574
	2821	CODE		#04	J	4	2300		AREA	574
	2822	WORK		#10	J	2	2301		LIT	574
	2829	FNCTR		@01@	J	2	2309		AREA	574
	2862	BOX		#01	J	1	2310		AREA	574
	2865			@@ #-@,@	J	1	2314		AREA	575
	2878	ISFSW		#01	J	4	2318		LIT	575
	2882	MOD		#04	J	4	2319		LIT	575
				@	J	1	2327		AREA	575
	2892	HEX2		@ @	J	8	2328		LIT	575
	2934			#08	J	1	2334		AREA	575
				@N@	J	6	2335		LIT	575
				@IJKLM@	J	1	2336		AREA	576
	2941	VZONE		@@	J	5	2341		LIT	576
				#01	J	36	2377		LIT	577
	2949			E16000	J	5	2382		AREA	578
	2952	HOLD5		MESSAGE 2 - OBJECT PROGRAM TOO LARGE	J	8	2390		AREA	578
	2953	HOLD8		#05	J	1	2391		LIT	578
	2968	ADRSS		#08	J	3	2394		AREA	578
	2976	ROL073		#03	J	1	2395		AREA	578
				#01	J	1	2396		LIT	578
				@ @	J	1	2397		LIT	578
				EL	J	1	2398		LIT	579
				@B@	J	1	2399		LIT	579
				@M@	J	30	2429		LIT	579
	3035			ERROR 10 - UNDEFINED VARIABLE @	J	1	2430		AREA	579
	3041	ROL076		#01	J	1	2440		LIT	580
	3051			@STATEMENT @	J	4	2444		LIT	580
				@OPQR@	J	1	2445		LIT	580
				@K@	J	1			LIT	580

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		3102			0J0	J	1	2446		LIT	580
		3118			000	J	1	2447		LIT	580
					0VARBLQUIN0	J	9	2456		LIT	580
					0MESSAGE 2 -- OBJECT PROGRAM TOO LARGE0	J	36	2492		LIT	581
		3131			LTORG *	J			2493	GEN	581
		3132	59	GM	0 0	J	1	2493			582
		3133	23 60	DC	0 0	J	5	2498			582
		3134	23 61	SYS4	0 0	J	1	2499			582
		3135	23 62	XFR	BEGIN	J			B 857		583

SEQ PG LIN	LABEL	OP	OPERANDS	VARIABLES PHASE FIVE	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3136 23 63		JOB	1401 FORTRAN							
3137 23 64	110	DCW	QVARBL QUINA		J	10	0110			586
3138 23 65		ORG	PHSE3							
3139 23 66	CKREF	CC	J		J	2	0857	0857		587
3140 23 67		MCW	X1,KEEP2#3		J	7	0859	F J		587
3141 23 68		MCW	PARAM#2,X2		J	7	0866	M 089 #79		587
3142 23 69	SCAN	BCE	ISGM,0&X2,	12-7-8	J	8	0873	B 688 094		587
3143 23 70		SBR	X2		J	4	0881	H 945 0-0		587
3144 23 71		C	X2,NXBTH		J	7	0885	C 094 083		587
3145 23 72		BU	SCAN		J	5	0892	B 873 /		588
3146 23 73		MCW	KEEP2,X1		J	7	0897	M #79 089		588
3147 23 74		FENDX	D,,,XBEGIN,XBEGIN,X8EGIN,SAUCEK-2,CONST ONE		J	5	0904	B 333 D	MACRO	
3148		BSS	333,D		J	7	0909	H 786 838	GEN	588
3149		SBR	INITAP&6,XBEGIN		J	4	0916	H 833	GEN	588
3150		SBR	BCLEAR		J	7	0920	H 796 838	GEN	588
3151		SBR	INITXT&3,XBEGIN		J	7	0927	H 710 098	GEN	588
3152		SBR	TCLEAR,SAUCEK-2		J	7	0934	L #88 110	GEN	589
3153		LCA	@CONST ONE@,110		J	4	0941	B 700	GEN	589
3154		B	MONTER		J	8	0945	V 965 0-0 1	GEN	589
3155 23 75	ISGM	BW	UNREF,0&X2		J	4	0953	D 0-0		589
3156 23 76		MN	0&X2		J	4	0957	H 094		589
3157 23 77		SBR	X2		J	4	0961	B 873		589
3158 23 78		B	SCAN		J	4	0965	/ 299		589
3159 23 79	UNREF	CS	299		J	7	0969	M /21 233		590
3160 23 80		MCW	ERROR 11 - UNREFERENCED VARIABLE @,233		J	7	0976	M 094 099		590
3161 23 81		MCW	X2,X3		J	4	0983	N 0&1		590
3162 23 82	NOPR	NOP	1&X3		J	4	0987	Q 099		590
3163 23 83		SAR	X3		J	4	0991	V #03 0&2 1		590
3164 23 84		BW	FLIP,2&X3		J	4	0999	B 983	MACRO	
3165 23 85		B	NOPR		J	4	1003	D 234	GEN	591
3166 23 86	FLIP	FFLIP	1&X3,234,X3,X1,INCL,WM		J	1	1007	D	GEN	591
3167	FLIP	MN	234		J	4	1008	Q 089	GEN	591
3168		MN			J	7	1012	H 099 0&1	GEN	591
3169		SAR	X1		J	4	1019	M 0&0 /22	GEN	591
3170		SBR	X3, 1&X3		J	4	1026	Q 099	GEN	591
3171		MCW	0&X3,@0L081#1		J	7	1030	M /22 0+2	GEN	591
3172		SAR	X3		J	4	1037	H 089	GEN	592
3173		MCW	@0L081, 2&X1		J	4	1041	V #53 0&1 1	GEN	592
3174		MCW	0L081, X1		J	4	1049	B #19	GEN	592
3175		SBR	@0M081, 1&X3		J	4	1053		GEN	592
3176		BW	@0M081, 1&X3		J	1	1053	2	MACRO	
3177		B	@0K081		J	5	1054	B #63 @	GEN	592
3178 23 87		EQU	@&1		J	4	1059	B #65	GEN	592
3179 23 88		W			J	2	1063	F 1	GEN	592
3180		FORMS	@&5		J	4	1065	D 0-0		593
3181		BCV	@&3		J	4	1069	Q 094		593
3182		B	1		J	4	1073	B 873		593
3183 23 89		CC			J	4				
3184 23 90		MN	0&X2		J	4				
3185 23 91		SAR	X2		J	4				
		B	SCAN		J	4				

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3186	23	92			J			1077		
			LTORG *							
	3140	KEEP2	DCW	#03	J	3	1079		AREA	593
	3153			@CONST ONE@	J	9	1088		LIT	593
	3160			@ERROR 11 - UNREFERENCED VARIABLE @	J	33	1121		LIT	594
	3171	EQLO81		@01	J	1	1122		AREA	594
				SYSTEM GROUP MARK						
3187	23	93	DCW	@ @	J	1	1123			594
3188	23	94	XFR	CKREF	J			8 857		595

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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3189	23	95		JOB	1401 FORTRAN						
3190	23	96		FBEGN	CONST ONE,X1,X2,R,X3,R,K						
3191				SFX	K						
3192			110	DCH	CONST ONEB						
3193			X1	EQU	089		9	0110		GEN	598
3194			X2	EQU	094			0089		GEN	
3195			094	DCM	000			0094		GEN	
3196			096	DC	00		3	0094		GEN	599
3197			X3	EQU	099			0096		GEN	599
3198			099	DCH	000			0099		GEN	
3199			100	DC	0		3	0099		GEN	599
3200	23	97		ORG	XBEGIN			0100		GEN	599
3201	23	98	TRACK	EQU	200			0200	0838		
3202	23	99	NXBTH	EQU	083			0083			
3203	24	00	INITL	CS	TRACK&99						
3204	24	01		SW	GM		4	0838	/ 299		600
3205	24	02		SW	TRACK		4	0842	, L49		600
3206	24	03		MCH	PARAM&2,X2		4	0846	, 200		600
3207	24	04		MN	000&X2		7	0850	M 688 094		600
3208	24	05		MN			4	0857	D 0-0		600
3209	24	06		SAR	X2		4	0861	D		600
3210	24	07		SBR	NXBTH		4	0862	Q 094		600
3211	24	08		LCA	GM, 1&X2		4	0866	H 083		601
3212	24	09		BCE	OUT,000&X1, BLANK		7	0870	L L49 0-1		601
3213	24	10	START	MCW	000&X1, CODE#4		8	0877	B J53 0#0		601
3214	24	11		LCA	000&X1, WORK#10		7	0885	M 0#0 L53		601
3215	24	12		SAR	X1		7	0892	L 0#0 L63		601
3216	24	13		SBR	HEX3#3		4	0899	Q 089		601
3217	24	14		SBR	KILL#3, 0&X2		4	0903	H L66		602
3218	24	15		LCA	WORK, 000&X2		7	0907	H L69 0-0		602
3219	24	16		SBR	X2		7	0914	L L63 0-0		602
3220	24	17		MCW	CODE-3, *68		4	0921	H 094		602
3221	24	18		BCE	TRYIT, DUPL3165DER&0		7	0925	M L50 939		602
3222	24	19		CHAIN	9		8	0932	B 972 L79 0		602
3223				BCE						MACRO	
3224				BCE			1	0940	B	GEN	602
3225				BCE			1	0941	B	GEN	603
3226				BCE			1	0942	B	GEN	603
3227				BCE			1	0943	B	GEN	603
3228				BCE			1	0944	B	GEN	603
3229				BCE			1	0945	B	GEN	603
3230				BCE			1	0946	B	GEN	603
3231				BCE			1	0947	B	GEN	603
3232	24	20		MVDMN	X1, X2		1	0948	B	GEN	604
3233				LCA	0&X1, 0&X2		7	0949	L 0#0 0-0	MACRO	
3234				SAR	X1		4	0956	Q 089	GEN	604
3235				C	0&X2		4	0960	C 0-0	GEN	604
3236				SAR	X2		4	0964	Q 094	GEN	604
3237	24	21		B	START		4	0968	B 877	GEM	604
3238	24	22	TRYIT	SBR	X3, TABLE-4		7	0972	H 099 L07		604

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3239	24	23		MCW	CODE-3,SCANET	K	7	0979	M L50 993		605
3240	24	24	SCAN	BCE	SETUP,004EX3,0	K	8	0986	B #02 064 0		605
3241	24	25		SBR	X3	K	4	0994	H 099		605
3242	24	26		B	SCAN	K	4	0998	B 986		605
3243	24	27	SETUP	MCW	006EX3,CNTRL#2	K	7	1002	M 066 L91		605
3244	24	28		MCW	CNTRL-1,TEST267	K	7	1009	M L80 #38		605
3245	24	29	TEST1	BCE	GUTS,CNTRL,2	K	8	1016	B #67 L81 2		606
3246	24	30		A	@1@,CNTRL	K	7	1024	A L82 L81		606
3247	24	31	TEST2	BCE	BUMPI,0EX1,0	K	8	1031	B #55 0#0 0		606
3248	24	32		BCE	GUTS,0EX1,	K	8	1039	B #67 0#0		606
3249	24	33		SBR	X1	K	4	1047	H 089		606
3250	24	34		B	TEST2	K	4	1051	B #31		606
3251	24	35	BUMPI	MN	0EX1	K	4	1055	D #0		607
3252	24	36		SAR	X1	K	4	1059	Q 089		607
3253	24	37		B	TEST1	K	4	1063	B #16		607
3254	24	38	GUTS	BWZ	MAYBE,000EX1,3	K	8	1067	V #91 0#0 3		607
3255	24	39		SBR	X1	K	8	1075	H 089		607
3256	24	40		BCE	SUBSC,1EX1,\$	K	4	1079	B /76 0#1 \$		607
3257	24	41		B	GUTS	K	4	1087	B #67 0#0		607
3258	24	42	MAYBE	BCE	PASS,000EX1,	K	8	1091	H J95 0#0		608
3259	24	43		SBR	X1	K	4	1099	H 089		608
3260	24	44		BCE	GUTS,001EX1,#	K	8	1103	B #67 0#1 #		608
3261	24	45		BCE	GUTS,1EX1,@	K	8	1111	B #67 0#1 @		608
3262	24	46		MCW	002EX1,80X61	K	7	1119	M 0#2 L48		608
3263	24	47		MCW		K	1	1126	M		608
3264	24	48		MCW		K	1	1127	M		608
3265	24	49		SAR	X1	K	4	1128	Q 089		609
3266	24	50		MCW	80X61,*E8	K	7	1132	M L48 /46		609
3267	24	51		BCE	RUCON,@ @.#3\$,*-E@,0	K	8	1139	B S16 L93 0		609
3268	24	52		CHAIN	10	K	8	1139	B S16 L93 0		609
3269	24	53		BCE		K	1	1147	B	MACRO	609
3270	24	54		BCE		K	1	1148	B	GEN	609
3271	24	55		BCE		K	1	1149	B	GEN	609
3272	24	56		BCE		K	1	1150	B	GEN	609
3273	24	57		BCE		K	1	1151	B	GEN	610
3274	24	58		BCE		K	1	1152	B	GEN	610
3275	24	59		BCE		K	1	1153	B	GEN	610
3276	24	60		BCE		K	1	1154	B	GEN	610
3277	24	61		BCE		K	1	1155	B	GEN	610
3278	24	62		BCE		K	1	1156	B	GEN	610
3279	24	63		BCE	PASS,1EX1,	K	8	1157	B J95 0#1		610
3280	24	64	BMPX1	SBR	X1,1EX1	K	7	1165	H 089 0#1		611
3281	24	65		B	GUTS	K	4	1172	B #67		611
3282	24	66	SUBSC	NDP	SUB2	K	4	1176	N /98		611
3283	24	67		MCW	@B@,SUBSC	K	7	1180	M L94 /76		611
3284	24	68		MCW	BLANK,SUBSW@4	K	7	1187	M N04 -42		611
3285	24	69		B	GUTS	K	4	1194	B #67		611
3286	24	70	SUB2	MCW	@A@,SUBSC	K	7	1198	M L95 /76		612
3287	24	71		MCW	@/A@,SUBSW@4	K	7	1205	M L96 -42		612
3288	24	72		B	GUTS	K	4	1212	B #67		612

8 11



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3239	24	63	RUCON	BCE	BAKUP,3&X1,.	K	8	1216	B K32 0*3	GEN	612
3290	24	64		MCW	BOX-1,*E8	K	7	1224	M L46 538	GEN	612
3291	24	65		BCE	BMPX1,0&ABCDEFGHI-JKLMNOPQRS,0	K	8	1231	B /65 M16 0	MACRO	613
3292	24	66		CHAIN	19						
3293				BCE							
3294				BCE							
3295				BCE							
3296				BCE							
3297				BCE							
3298				BCE							
3299				BCE							
3300				BCE							
3301				BCE							
3302				BCE							
3303				BCE							
3304				BCE							
3305				BCE							
3306				BCE							
3307				BCE							
3308				BCE							
3309				BCE							
3310				BCE							
3311				BCE							
3312	24	67		BCE	CKIF,3&X1,0	K	8	1258	B J83 0*3 0	GEN	615
3313	24	68	SET	SW	003&X1	K	4	1266	, 0*3	GEN	616
3314	24	69		MCW	HEX3,X3	K	7	1270	M L66 099	GEN	616
3315	24	70		LCA	000&X3,000&X2	K	7	1277	L 0&0 0-0	GEN	616
3316	24	71		SBR	X2	K	4	1284	H 094	GEN	616
3317	24	72		MCW	@ @,3&X1	K	7	1288	M M17 0*3	GEN	616
3318	24	73		SBR	KLOBR&6,3&X1	K	7	1295	H J17 0*3	GEN	616
3319	24	74		CH	001&X2	K	4	1302	0-1	GEN	616
3320	24	75		LCA	@ @,000&X2	K	7	1306	L M18 0-0	GEN	617
3321	24	76		SBR	X2	K	4	1313	H 094	GEN	617
3322	24	77		CW	001&X2	K	4	1317	0-1	GEN	617
3323	24	78		CW	ODDSW	K	4	1321	0 N44	GEN	617
3324	24	79		S	XPONT#2	K	4	1325	S M20	GEN	617
3325	24	80		S	COUNT#3	K	4	1329	S M23	GEN	617
3326	24	81		S	TOTAL	K	4	1333	S M28	GEN	617
3327	24	82		MCW	@,@,STODD	K	7	1337	M M24 K64	GEN	618
3328	24	83		MCW	@@,SWCHX	K	7	1344	M L95 T90	GEN	618
3329	24	84		MCW	@@,SWCHZ	K	7	1351	M L94 U04	GEN	618
3330	24	85		SBR	SWCHAE3,A	K	7	1358	H K75 L41	GEN	618
3331	24	86		SBR	SWCHSE3,S	K	7	1365	H K46 L42	GEN	618
3332	24	87		SBR	X1,2&X1	K	7	1372	H 089 0*2	GEN	619
3333	24	88	NORML	MCW	000&X1,0DX	K	7	1379	M 0*0 L47	GEN	619
3334	24	89		SAR	X1	K	4	1386	Q 089	GEN	619
3335	24	90	SWCHX	NOP	&1,XPONT	K	7	1390	N M25 M20	GEN	619
3336	24	91	A		&1,TOTAL#3	K	7	1397	A M25 M28	GEN	619
3337	24	92	SWCHZ	BCE	NORML,BOX,0	K	8	1404	B T79 L47 0	GEN	620
3338	24	93		BCE	SWCHS,BOX,.	K	8	1412	B K43 L47 .	GEN	620

PASSES BY LEADING ZEROS

SEQ PG LIN	LABEL	OP	OPERANDS	BRANCHES ON FIRST SIGNIF CHAR	SFX CT	LOCN	INSTRUCTION TYPE	CARD
339 24 94		BCE	SWCHA, SWCHZ, B		K	1420	B K72 U04 B	620
340 24 95		A	E1, COUNT		K	1428	A M25 M23	620
341 24 96	TEST	BCE	CNLFT, BOX, #		K	1435	B X20 L47 #	620
342 24 97		BCE	*E9, BOX, @		K	1443	B U59 L47 @	621
343 24 98		BWZ	NDRML, BOX, 2	ND ZONE	K	1451	V T79 L47 2	621
344 24 99	CR	C	SWCHA&3, NOPAD		K	1459	C K75 L45	621
345 25 00	* DECIMAL POINT SENDS THE ADDRESS OF NOP TO SWCHA&3							
346 25 01	* CANNOT USE ADDRESS CONSTANT							
347 25 02		BU	FIXED		K	1466	B Z31 /	621
348 25 03		BWZ	MARK, XPONT, 8		K	1471	V U86 M20 B	621
349 25 04		A	E1, XPONT		K	1479	A M25 M20	622
350 25 05	MARK	SW	002&X1		K	1486	, 0&2	622
351 25 06		BCE	ODDBL, 2&X1, =		K	1490	B Y22 0&2, *	622
352 25 07	CKTAL	BCE	TAIL, BOX, E		K	1498	B Y37 L47 E	622
353 25 08	FLOAT	C	TOTAL, 601		K	1506	C M28 M30	622
354 25 09		NOP	SYNTAX		K	1513	N X84	622
355 25 10		NOP			K	1517	N	622
356 25 11		C	COUNT, 6000		K	1518	C M23 M33	623
357 25 12		BU	RYLFT		K	1525	B V49 /	623
358 25 13	LDZER	LCA	@E0&@, 0&X2	12-0,0,12--0	K	1530	L M36 0-0	623
359 25 14		SBR	X2		K	1537	H 094	623
360 25 15		CW	001&X2		K	1541	@ 0-1	623
361 25 16		B	BDTM2		K	1545	B J00	623
362 25 17	RTLFT	MCH	X1, HEX1#3		K	1549	M 089 M39	623
363 25 18		BW	*E8, ODDSH		K	1556	V V71 N44 1	624
364 25 19		LCA	000&X3, 001&X3		K	1564	L 0&0 0&1	624
365 25 20		MCH	RIGHT#3, X1		K	1571	M M42 089	624
366 25 21		MCH	PARAM&6, PRESZ#2		K	1578	A M45 M44	624
367 25 22		A	E2, PRESZ		K	1585	A M45 M44	625
368 25 23		SBR	X3, TRACK-2		K	1592	H 099 198	625
369 25 24		SW	TRACK		K	1599	, 200	625
370 25 25	TMIST	MCH	000&X1, BOX		K	1603	M 0#0 L47	625
371 25 26		SAR	X1		K	1610	Q 089	625
372 25 27		MCH	BOX, 002&X3		K	1614	M L47 0&2	625
373 25 28		SBR	X3		K	1621	H 099	625
374 25 29		BWZ	PHEW, 001&X1, 1	WORD MARK	K	1625	V M52 0#1 1	626
375 25 30		S	E1, PRESZ		K	1633	S M25 M44	626
376 25 31		C	PRESZ, 800		K	1640	C M44 M47	626
377 25 32		BU	TMIST		K	1647	B M03 /	626
378 25 33	PHEW	SBR	X3, 1&X3		K	1652	H 099 0&1	626
379 25 34	PHEW1	BCE	*E5, 0&X3, 0		K	1659	B M71 0&0 0	627
380 25 35		B	XEUNT		K	1667	B M83	627
381 25 36		MN	0&X3		K	1671	D 0&0	627
382 25 37		SAR	X3		K	1675	Q 099	627
383 25 38		B	PHEW1		K	1679	B M59	627
384 25 39		MN	0&X3		K	1683	D 0&0	627
385 25 40	XEUNT	MN	X3		K	1687	Q 099	627
386 25 41		SAR	XPONT, 3&X3		K	1691	M M20 0&3	628
387 25 42		MCH	@A@, 1&X3		K	1698	Y M48 0&1	628
388 25 43		MZ	003&X3, 000&X2		K	1705	L 0&3 0-0	628
389 25 44		LCA			K			628

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
339 25 44		SBR	XZ	K 4	1712	H 094	628
340 25 45		B	BOTH	K 4	1716	B -89	628
341 25 46	CNLFT	CS	332	K 4	1720	/ 332	628
342 25 47		CS		K 1	1724	/	628
343 25 48		SW	FAILSW	K 4	1725	, 184	629
344 25 49		MN	CODE,256	K 4	1729	D L53 256	629
345 25 50		CHAIN 2		K 7			629
346		MN					
347		MN					
348 25 51		MCH	BEQUAL SIGN, STATEMENT 2	K 1	1736	D	MACRO
349 25 52		MCH	ERROR 41 - CONSTANT LEFT SIDE OF 2	K 1	1737	D	GEN
350 25 53		W		K 4	1738	M M70	629
351 25 54		FORMS		K 4	1742	M N03	629
352		BCV		K 1	1746	2	629
353		B	*E5				
354		CC	*E3				
355 25 55		MCH	KILL,X2	K 5	1747	B X56 2	MACRO
356 25 56		MCH	BLANK#1,0&X2	K 4	1752	B X58	GEN
357 25 57		C	0&X1	K 2	1756	F 1	630
358 25 58		SAR	X1	K 7	1758	M L69 094	630
359 25 59		B	START	K 7	1765	M N04 0-0	630
360 25 60	SYNTAX	FTMSG	44-CONSTANT SYNTAX, CODE, 17	K 4	1772	C 0+0	630
361	SYNTAX	CS	332	K 4	1776	Q 089	630
362		CS		K 4	1780	B 877	631
363		SW	FAILSW				
364		MN	CODE,224&I7	K 1	1784	/ 332	MACRO
365		MN		K 1	1788	/	GEN
366		MN	ERROR 44 - CONSTANT SYNTAX, STATEMENT 2	K 4	1789	, 184	631
367		MCH		K 7	1793	D L53 241	631
368		W		K 1	1800	D	631
369		BCV		K 1	1801	D	631
370		B	*E5	K 4	1802	M N42	632
371		CC	*E3	K 1	1806	2	632
372 25 61		B	LDZER	K 5	1807	B Y16 2	632
373 25 62		MCH	202,2&X1	K 4	1812	B Y18	632
374 25 63	ODDBL	SW	ODDSW#1	K 2	1816	F 1	632
375 25 64		B	CKTAL	K 4	1818	B V30	632
376 25 65	TAIL	ZA	EO,BUMP#2	K 4	1822	M N43 0+2	632
377 25 66		BWZ	FLIP,000&X1,2	K 4	1829	, N44	633
378 25 67		MZ	000&X1,BUMP	K 4	1833	B U98	633
379 25 68				K 7	1837	E N45 N47	633
380 25 69		SAR		K 8	1844	V Y63 0+0 2	633
381 25 70	FLIP	MN		K 7	1852	Y 0+0 N47	633
382 25 71		SAR		K 4	1859	Q 089	633
383 25 72		C	0&X1,2&3	K 4	1863	D 0+0	633
384 25 73		BL	UNITS	K 7	1867	Q 089	634
385 25 74		MN	001&X1,BUMP	K 5	1871	C 0+0 N48	634
386 25 75		B	BUMPR	K 7	1878	B Y94 T	634
387 25 76	UNITS	MN	001&X1,BUMP-1	K 4	1883	D 0+1 N47	634
388 25 77		MN	000&X1,BUMP	K 7	1890	B Z12	634
				K 7	1894	D 0+1 N46	634
				K 7	1901	D 0+0 N47	635

NUMERIC, TWO DIGIT EXPON  
ZONE RESPECTIVELY

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3449	25 78		SAR	X1	K	4	1908	Q 089		635
3450	25 79	BUMPR	A	RUMP,XPONT	K	7	1912	A N47 M20		635
3451	25 80		MIN	0EX1	K	4	1919	Q 089		635
3452	25 81		SAR	X1	K	4	1923	Q 089		635
3453	25 82		B	FLOAT	K	4	1927	B V06		635
3454	25 83	FIXED	C	COUNT,8000	K	7	1931	C M23 M33		636
3455	25 84		BU	LFRY	K	5	1938	B Z62 /		636
3456	25 85		LCA	2 00,000EX2	K	7	1943	L N50 0-0		636
3457	25 86		SBR	X2	K	4	1950	H 094		636
3458	25 87		CH	001EX2	K	4	1954	0 0-1		636
3459	25 88		B	BOTM2	K	4	1958	B J00		636
3450	25 89	LFRY	MCH	X1,HEX1	K	7	1962	M 089 M39		636
3451	25 90		MCH	RIGHT,X3	K	7	1969	M M42 099		636
3452	25 91		SW	0EX3	K	4	1976	, 060		637
3453	25 92		SBR	X3,TRACKE99	K	7	1980	H 099 299		637
3454	25 93		MCH	PARAME&4,PRESZ	K	7	1987	M 690 M44		637
3455	25 94		MCH	002EX1,BOX	K	7	1994	M 0#2 L47		637
3456	25 95	TURN	SAR	X1	K	4	2001	Q 089		637
3457	25 96		MCH	BOX,000EX3	K	7	2005	M L47 060		637
3458	25 97		SBR	X3	K	4	2012	H 099		638
3459	25 98		BMZ	HOW,001EX1,1	K	8	2016	V -43 0#1 1		638
3460	25 99		S	61,PRESZ	K	7	2024	S M25 M44		638
3461	26 00		C	PRESZ,800	K	7	2031	C M44 M47		638
3462	26 01	SUBSM	BU	TURN	K	5	2038	B Z94 /		638
3463	26 02	HOW	SW	001EX3	K	4	2043	, 061		638
3464	26 03		LCA	TRACKE99,000EX2	K	7	2047	L 299 0-0		639
3465	26 04		SBR	X2	K	4	2054	H 094		639
3466	26 05		CW	001EX3	K	4	2058	0 0E1		639
3467	26 06		C	COUNT,8001	K	7	2062	C M23 N53		639
3468	26 07		BU	BOTM	K	5	2069	B -89 /		639
3469	26 08		CW	001EX2	K	4	2074	0 0-1		639
3470	26 09		LCA	2 0,000EX2	K	7	2078	L N54 0-0		639
3471	26 10		SBR	X2	K	4	2085	H 094		640
3472	26 11	BOTM	CW	001EX2	K	4	2089	0 0-1		640
3473	26 12		MCH	HEX1,X1	K	7	2093	M M39 089		640
3474	26 13	BOTM2	SBR	X1,1EX1	K	7	2100	H 089 0#1		640
3475	26 14		SBR	HEX3	K	4	2107	H L66		640
3476	26 15	KLOBR	BCE	GUTS,0,	K	4	2107	H L66		640
3477	26 16		FQUIT		K	8	2111	B #67 000		640
3478			CS	332	K	4	2119	/ 332	MACRO	640
3479			CS		K	1	2123	/	GEN	641
3480			CC	1	K	2	2124	F 1	GEN	641
3481			MCH	MESSAGE 2 - OBJECT PROGRAM TOO LARGED,270	K	7	2126	M N90 270	GEN	641
3482			W		K	1	2133	2	GEN	641
3483			CC	1	K	2	2134	F 1	GEN	641
3484			BCE	#E6,MONITOR,1	K	8	2136	B J49 769 1	GEN	641
3485			RWD	1	K	5	2144	U 8U1 R	GEN	641
3486			H	#-3	K	4	2149	. J49	GEN	642
3487	26 17	OUT	FENDX	C,GM,,PHSE20,,SYS1,CONST TWO	K	5	2153	B 333 C	MACRO	642
3488		OUT	BSS	333C	K	5	2153	B 333 C	GEN	642

SEQ	PG	LIN	LABEL	DP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3400		26 18	CKIF	SBR	INITXT&3,PHSE2D	K	7	2158	H 796 849	GEN	642
3401		26 19		SBR	ICLEAR,SYSI	K	7	2165	H 710 001	GEN	642
3402		26 20		LCA	@CONST TWO@,110	K	7	2172	L N99 110	GEN	642
3403		26 21		B	MONTER	K	4	2179	B 700	GEN	642
3404		26 22	PASS	BCE	PASS,CODE-3,E	K	8	2183	B J95 L50 E		643
3405		26 23		MCW	HEX3,X3	K	4	2191	B S66		643
3406		26 24		MVDWN	X3,X2	K	4	2195	M L66 099		643
3407		26 25		LCA	06X3, 06X2					MACRO	
3408		26 26		SAR	X3	K	7	2202	L 060 0-0	GEN	643
3409		26 27		C	06X2	K	4	2209	Q 099	GEN	643
3410		26 28		SAR	X2	K	4	2213	C 0-0	GEN	643
3411		26 29		MCW	X3,X1	K	4	2217	Q 094	GEN	643
3412		26 30	BAKUP	B	START	K	7	2221	M 099 089		644
3413		26 31		SBR	X1,1&X1	K	4	2228	B 877		644
3414		26 32		B	SET	K	7	2232	H 089 0#1		644
3415		26 33	SWCHS	MCW	@@,SWCHX	K	4	2239	B S66		644
3416		26 34		MCW	NOPAD,SWCHA&3	K	7	2243	M D00 T90		644
3417		26 35		MCW	X1,X3	K	7	2250	M L45 K75		644
3418		26 36	STODD	SW	ODDSW	K	7	2257	M 089 099		644
3419		26 37		B	NORML	K	4	2264	, N44		645
3420		26 38	SWCHA	MCW	@@,SWCHX	K	4	2268	B T79		645
3421		26 39		MCW	NOPAD,SWCHS&3	K	7	2272	M M48 T90		645
3422		26 40		MCW	@@,SWCHZ	K	7	2279	M L45 K46		645
3423		26 41		SBR	RIGHT,1&X1	K	7	2286	M L95 U04		645
3424		26 42		MCW	@@,STODD	K	7	2293	M M42 0#1		646
3425		26 43		B	TEST	K	7	2300	M L95 K64		646
3426		26 44	TABLE	EQU	*&1	K	4	2307	B U35		646
3427		26 45		DCW	@R 2E 2D#1L,15,0U,1P,16,0I,13,1@	K	30	2311			647
3428		26 46		DCW	@@	K	1	2340			647
3429		26 47		DCW	@@	K	1	2341			647
3430		26 48		DCW	@@	K	1	2342			647
3431		26 49	NOPAD	DCW	@@	K	3	2345	L95		647
3432		26 50	BOX	DCW	@ @	K	1	2346			647
3433		26 51		DCW	@ @	K	1	2347			647
3434		26 52	GM	DC	@ @	K	1	2348			647
3435		26 53		DC	@ @	K	1	2349			647
3436		26 54	CODE	LTORG	*	K	1	2350			648
3437		26 55	WORK	DCW	#04	K	4	2353		AREA	648
3438		26 56	HEX3	DCW	#10	K	10	2363		AREA	648
3439		26 57	KILL	DCW	#03	K	3	2366		AREA	648
3440		26 58		DCW	#03	K	3	2369		AREA	648
3441		26 59	CNTRL	DCW	@UPL3165DER@	K	10	2379		LIT	649
3442		26 60		DCW	@1@	K	2	2381		AREA	649
3443		26 61		DCW	@ @-#&@,*--&@	K	1	2382		LIT	649
3444		26 62		DCW	@@	K	11	2393		LIT	649
3445		26 63		DCW	@@	K	1	2394		LIT	649
3446		26 64		DCW	@/@	K	1	2395		LIT	649
3447		26 65		DCW	@/@	K	1	2396		LIT	649
3448		26 66		DCW	@ ABCDEFGHI-JKLMNOPQR	K	20	2416		LIT	650
3449		26 67		DCW	@ @	K	1	2417		LIT	650

SEQ	PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					a a	K	1	2418		LIT	650
					#02	K	2	2420		AREA	650
					#03	K	3	2423		AREA	650
					a, a	K	1	2424		LIT	650
					z1	K	1	2425		LIT	650
					#03	K	3	2428		AREA	651
					z01	K	2	2430		LIT	651
					z000	K	3	2433		LIT	651
					z00z0	K	3	2436		LIT	651
					#03	K	3	2439		AREA	651
					#03	K	3	2442		AREA	651
					#02	K	2	2444		AREA	651
					z2	K	1	2445		LIT	652
					z00	K	2	2447		LIT	652
					z0z	K	1	2448		LIT	652
					zEQUAL SIGN, STATEMENT a	K	22	2470		LIT	652
					zERROR 41 - CONSTANT LEFT SIDE OF a	K	33	2503		LIT	653
					#01	K	1	2504		AREA	653
					zERROR 44 - CONSTANT SYNTAX, STATEMENT a	K	38	2542		LIT	654
					z0z	K	1	2543		LIT	654
					#01	K	1	2544		AREA	655
					z0	K	1	2545		LIT	655
					#02	K	2	2547		AREA	655
					zaz	K	1	2548		LIT	655
					a 0a	K	2	2550		LIT	655
					z001	K	3	2553		LIT	655
					a a	K	1	2554		LIT	655
					zMESSAGE 2 - OBJECT PROGRAM TOO LARGEa	K	36	2590		LIT	656
					zCONST TWOa	K	9	2599		LIT	657
					zSa	K	1	2600		LIT	657
					a a	K	1	2601		LIT	657
					#6X00	K			2700		
					#z1	K					
					INITL	K			B 838		
						K					658

SYSTEM GROUP MARK

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1500	26	51		JOB	1401 FORTRAN CONSTANT PHASE TWO						
1501	26	52		FBEGN	CONST TWO,X1,R,X2,X3,R,D						
1502				SFX	D						
1503			110	DCW	2CONST TWO@	0	9	0110		MACRO	
1504			X1	EQU	089	0	0	0089		GEN	661
1505			089	DCW	000	0	3	0089		GEN	662
1506			091	DC	00	0	2	0091		GEN	662
1507			X2	EQU	094	0	0	0094		GEN	
1508			X3	EQU	099	0	0	0099		GEN	
1509			099	DCW	000	0	3	0099		GEN	663
1510			100	DC	0	0	1	0100		GEN	663
1511	26	53		ORG	XBEGIN				0838		
1512	26	54	NXBTM	EQU	083	0	0	0083			
1513	26	55	NOMO	EQU	PARAM&2	0	0	0588			
1514	26	56	BASE	DCW	#3	0	3	0840			664
1515	26	57	MAX	DCW	#4	0	4	0844			664
1516	26	58		DC	#1	0	1	0845			664
1517	26	59	UPLIM	DCW	#3	0	3	0848			664
1518	26	60	PHSE2	MCH	X2, X3	0	7	0849	M 094 099		
1519	26	61		SW	GM2	0	4	0856	, T33		664
1520	26	62	CLR1	CS	000&X3	0	4	0860	/ 0&0		664
1521	26	63		SBR	X3	0	4	0864	H 099		664
1522	26	64		C	X3,&SAUCE-1	0	4	0868	C 099 T68		665
1523	26	65		BU	CLR1	0	7	0875	B 860 /		665
1524	26	66		SBR	X1,&SAUCE-1	0	5	0875	C 860 /		665
1525	26	67		SBR	X1,&SAUCE-1	0	7	0880	H 089 N99		665
1526	26	68		MOVUP	X2,X1,NOMO,ALL,*	0	0				
1527				MN	0&X1	0	4	0887	D 0*0	MACRO	665
1528				SAR	X1	0	4	0891	Q 089	GEN	665
1529			00J091	MCM	0&X2	0	4	0895	P 0-0	GEN	665
1530				SAR	00L091&6	0	4	0899	Q 921	GEN	665
1531				MCM	0&X2,1&X1	0	7	0903	P 0-0 0*1	GEN	666
1532				MN		0	1	0910	D	GEN	666
1533			00L091	SBR	X1	0	4	0911	H 089	GEN	666
1534				SBR	X2,0	0	7	0915	H 094 000	GEN	666
1535				BCE	00J091,0&X1,*	0	8	0922	B 895 0*0 *	GEN	666
1536				MN	0&X2	0	4	0930	D 0-0	GEN	666
1537				CH		0	1	0934	D	GEN	666
1538				SK	0&X1	0	4	0935	, 0*0	GEN	667
1539				C	X2,NOMO	0	7	0939	C 094 688	GEN	667
1540				BU	00J091	0	5	0946	B 895 /	GEN	667
1541				CH	0&X2	0	4	0951	D 0-0	GEN	667
1542	26	69		SBR	BASE,1&X1	0	1	0955	D		667
1543	26	70		SBR	TMD9,BASE	0	7	0956	H 840 0*1		667
1544	26	71		MN		0	7	0963	D T32 840		667
1545	26	72		MN		0	1	0970	D		668
1546	26	73		MN		0	7	0971	M 083 099		668
1547	26	74		MCM	NXBTM,X3	0	4	0978	/ 0&0		668
1548	26	75		CLR2	* CLEAR BALANCE OF CORE	0	4	0982	H 099		668
1549	26	76		CS	000&X3	0	4				
1550	26	77		SBR	X3	0	4				

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
357	26	78		C	X3, BASE	0	7	0986	C 099 840		668
358	26	79		BU	CLR2	0	5	0993	B 978 /		668
3582	26	80		MCM	@ @, 0E X3	0	7	0998	M T69 0E0		668
3583	26	81	* DIVIDE REST OF CORE FOR TABLES								
											12-6-8
											RATIO 3 TO 7
3584	26	82		MCM	NXBTM, LOC	0	7	1005	M 083 T30		669
3585	26	83		B	UNPAK	0	4	1012	B S56		669
3585	26	84		MCM	NUM#5, MAXE1	0	7	1016	M T74 845		669
3587	26	85		MCM	BASE, LOC	0	7	1023	M 840 T30		669
3588	26	86		B	UNPAK	0	4	1030	B S56		669
3589	26	87		S	NUM, MAXE1	0	7	1034	S T74 845		669
3590	26	88		A	MAX, ACCUM#6	0	7	1041	A 844 T80		670
3591	26	89		A	ACCUM	0	4	1048	A T80		670
3592	26	90		A	MAX, ACCUM	0	7	1052	A 844 T80		670
3593	26	91	* 1/10 OF NXBTM-BASE IN MAX								
											3*MAX IN ACCUM
3594	26	92		A	NXBTM-BASE IN MAX	0	7	1059	A T74 T80		670
3595	26	93		MCM	NUM, ACCUM	0	7	1066	M T77 099		670
3596	26	94		A	ACCUM-3, X3	0	4	1073	A 099		670
3597	26	95		MZ	X3	0	7	1077	Y TC4 T78		671
3598	26	96		MZ	ZON19E X3, ACCUM-2	0	7	1084	Y TC5 T80		671
3599	26	97		MCM	ZON19E1E X3, ACCUM	0	7	1091	M T80 099		671
3600	26	98		SW	ACCUM, X3	0	4	1098	, 0E2		671
3601	26	99		MCM	002E X3	0	4	1102	M T69		671
3602	27	00		SBR	@ @	0	4	1106	H 848		671
3603	27	01		MCM	UPLIM	0	7	1110	H 089 094		672
3604	27	02		MN	X1, X2	0	4	1117	D 0-0		672
3605	27	03		SAR	0E X2	0	4	1121	Q 089		672
3606	27	04		MCH	X1	0	7	1125	M 083 099		672
3607	27	05		LCA	NXBTM, X3	0	7	1132	L T33 0E1		672
3608	27	06		CS	GM2, 1E X3	0	4	1139	/ 299		672
3609	27	07		MCM	299	0	7	1143	M 692 099		673
3610	27	08		MCM	PARAME6, X3	0	4	1150	M T81		673
3611	27	09		SW	200	0	4	1154	, 200		673
3612	27	10		MCM	200	0	7	1158	M 083 /71		673
3613	27	11		LCA	NXBTM, LDFLT66	0	7	1165	L 119 000		673
3614	27	12	LDFLT	SBR	199E X3, 0	0	4	1172	H 083		673
3615	27	13		SBR	NXBTM	0	4	1176	H /94		673
3616	27	14		MN	LODXE6	0	7	1180	D 690 099		674
3617	27	15		MN	PARAME4, X3	0	1	1187	D		674
3618	27	16	LODX	LCA	199E X3, 0	0	7	1188	L 119 000		674
3619	27	17		SBR	X3	0	4	1195	H 099		674
3620	27	18		SBR	ONEADR	0	4	1199	H 142 060		674
3621	27	19		LCA	@ @, 0E X3	0	7	1203	L T82 060		674
3622	27	20		SBR	XEXPON	0	4	1210	H 157		674
3623	27	21		LCA	BAOE2	0	4	1214	L T85		675
3624	27	22		SBR	NXBTM	0	4	1218	H 083		675
3625	27	23	FENDX C, GM2, PHSE2, PHSE2, SYS2, CONST TRI								MACRO
			BSS	333, C							GEN
			SBR	INITAP66, PHSE2							GEN
			SBR	BCLEAR							GEN
			SBR	TCLEAR, SYS2							GEN



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3530				LCA	@CONST TRIA,110	0	7	1245	L T94 110	GEN	675
3531				B	MONTER	0	4	1252	B 700	GEN	676
3532	27	24	UNPAK	SBR	EXIT&3	0	4	1256	H T25		676
3533	27	25		MN	LOC,NUM	0	7	1260	D T30 T74		676
3534	27	26		MN		0	1	1267	D		676
3535	27	27		MN		0	1	1268	D		676
3536	27	28		MCM		0	1	1269	M		676
3537	27	29		MZ	LOC,TW09	0	1	1270	Y T30 T32		676
3538	27	30		MZ	LOC-2,TW09-1	0	7	1277	Y T29 T31		677
3539	27	31		NOP	ZON19-3	0	7	1284	N T31		677
3540	27	32		SAR	X3	0	4	1288	Q 099		677
3541	27	33		SAR	004&X3,TW09	0	4	1292	C 0&4 T32		677
3542	27	34	COMP	C	X3	0	7	1299	Q 099		677
3543	27	35		A	&1,NUM-3	0	7	1303	A T95 T71		677
3544	27	36		BU	COMP	0	7	1310	B S92 /		677
3545	27	37		MZ	@ @,NUM-3	0	5	1315	Y T96 T71		678
3546	27	38	EXIT	B	000	0	4	1322	B 000		678
3547	27	39	LOC	DCM	@0J @	0	5	1330			678
3548	27	40	TW09	DCW	@99@	0	2	1332			678
3549	27	41	GM2	DC	@ @	0	1	1333			678
3550	27	42	ZON19	DC	@9@	0	1	1334			678
3551	27	43		DC	@9Z9R9I99ZZRZL1Z9RZRRRIR9IZIRI1@	0	31	1365	1366 N99		679
3552	27	44		LTORG	@	0	31	1365			679
3553	27	45	NUM	DCW	@SAUCE-1	0	3	1368		ADCON	679
3554	27	46	ACCUM	XFR	@ @	0	1	1369		LIT	679
3555	27	47			#05	0	5	1374		AREA	680
3556	27	48			#06	0	6	1380		AREA	680
3557	27	49			@0@	0	1	1381		LIT	680
3558	27	50			@1@	0	1	1382		LIT	680
3559	27	51			@A0&@	0	3	1385		LIT	680
3560	27	52			@CONST TRIA	0	9	1394		LIT	680
3561	27	53	SYS2	DCW	@ @	0	1	1395		LIT	680
3562	27	54	XFR	XFR	@ @	0	1	1396		LIT	680
3563	27	55			PHSE2	0	1	1397		LIT	681
3564	27	56				0	1	1397	B 849		682

SYSTEM GROUP MARK

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
15	27	47	JOB		1401 FORTRAN CONSTANT PHASE THREE						
16	27	48	DCW		@CONST TRI@	0	9	0110			685
17	27	49	ORG		PHSE2	0			0849		
18	27	50	*		DEFINES NORMALIZED CONSTANTS IN SAUCE						
19	27	51	*		CALCULATING AMOUNT BY WHICH OBJECT TIME ADDRESSES OF						
20	27	52	*		CONSTANTS, FORMATS, AND LISTS MUST BE REDUCED						
21	27	53	*		%VIA MA INSTRUCTIONS% BECAUSE OF ARRAY STORAGE.						
22	27	54	*		PLUSDF IS USED IN PHASES 24,26,650						
23	27	55	*		MACFLS IS USED IN PHASES 20,24,25,26,650						
24	27	56	PHSE3	UNPAK	PARAM@2,WK5					MACRO	
25	27	56	PHSE3	S	@M093#2	0	4	0849	S -48	GEN	686
26	27	56	PHSE3	S	@L093#2	0	4	0853	S -50	GEN	686
27	27	56	PHSE3	MZ	PARAM@2,@M093-1	0	7	0357	Y 688 -47	GEN	686
28	27	56	PHSE3	MZ	PARAM@2-2,@L093-1	0	7	0864	Y 686 -49	GEN	686
29	27	56	PHSE3	BWZ	@K093, @L093-1, 2	0	8	0371	V 890 -49 2	GEN	686
30	27	56	PHSE3	A	@A0@, @L093	0	7	0879	A -52 -50	GEN	686
31	27	56	PHSE3	B	@J093	0	4	0886	B 871	GEN	687
32	27	56	PHSE3	BWZ	@P093, @M093-1, 2	0	8	0890	V 909 -47 2	GEN	687
33	27	56	PHSE3	A	@@@, @M093	0	7	0898	A -54 -48	GEN	687
34	27	56	PHSE3	B	@K093	0	4	0905	B 890	GEN	687
35	27	56	PHSE3	A	@L093-1,@M093	0	7	0909	A -49 -48	GEN	687
36	27	56	PHSE3	MCH	PARAM@2, WK5	0	7	0916	M 688 -71	GEN	687
37	27	56	PHSE3	MCM	@M093	0	4	0923	M -48	GEN	688
38	27	56	PHSE3	ZA	WK5	0	4	0927	Z -71	GEN	688
39	27	56	PHSE3	MZ	@-4, WK5	0	7	0931	Y 933 -71	GEN	688
40	27	56	PHSE3	MCH	XZ, SAVX2#3	0	7	0938	M 094 -57	GEN	688
41	27	56	PHSE3	UNPAK	CONLST,CNLS5					MACRO	
42	27	56	PHSE3	S	@M094#2	0	4	0945	S -59	GEN	688
43	27	56	PHSE3	S	@L094#2	0	4	0949	S -61	GEN	688
44	27	56	PHSE3	MZ	CONLST,@M094-1	0	7	0953	Y 194 -58	GEN	688
45	27	56	PHSE3	MZ	CONLST-2,@L094-1	0	7	0960	Y 192 -60	GEN	689
46	27	56	PHSE3	BWZ	@K094, @L094-1, 2	0	8	0967	V 986 -60 2	GEN	689
47	27	56	PHSE3	A	@A0@, @L094	0	7	0975	A -52 -61	GEN	689
48	27	56	PHSE3	B	@J094	0	4	0982	B 967	GEN	689
49	27	56	PHSE3	BWZ	@P094, @M094-1, 2	0	8	0986	V #05 -58 2	GEN	689
50	27	56	PHSE3	A	@@@, @M094	0	7	0994	A -54 -59	GEN	690
51	27	56	PHSE3	B	@K094	0	4	1001	B 986	GEN	690
52	27	56	PHSE3	A	@L094-1,@M094	0	7	1005	A -60 -59	GEN	690
53	27	56	PHSE3	MCM	CONLST, CNLS5	0	7	1012	M 194 -66	GEN	690
54	27	56	PHSE3	MCM	@M094	0	4	1019	M -59	GEN	690
55	27	56	PHSE3	ZA	CNLS5	0	4	1023	Z -66	GEN	690
56	27	56	PHSE3	MZ	@-4, CNLS5	0	7	1027	Y #29 -66	GEN	691
57	27	56	PHSE3	S	CNLS5#5,WK5#5	0	7	1034	S -64 -71	GEN	691
58	27	56	PHSE3	C	@0000@,WK5	0	7	1041	C -76 -71	GEN	691
59	27	56	PHSE3	BE	RSX2	0	5	1048	B /61 S	GEN	691
60	27	56	PHSE3	FPACK	WK5,PLUSDF,X2					MACRO	
61	27	56	PHSE3	INCLD	ZONES					GEN	691
62	27	56	PHSE3	MN	WK5,PLUSDF	0	7	1053	D -71 160	GEN	691
63	27	56	PHSE3	MN		0	1	1060	D	GEN	691
64	27	56	PHSE3	MN		0	1	1061	D	GEN	691

PLUS ZERO

90

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3705				SAR	*E4	0	4	1062	Q #69	GEN	692
3706				MCW	0, X2	0	7	1066	M 000 094	GEN	692
3707				MCW	000	0	4	1073	M -77	GEN	692
3708				A	X2	0	4	1077	A 094	GEN	692
3709				MZ	ZONES&16X2, PLUSDF	0	7	1081	Y -J6 160	GEN	692
3710				CW		0	1	1088	D	GEN	692
3711				SBR	*E7	0	4	1089	H #99	GEN	692
3712				MZ	ZONES&X2, 0	0	7	1093	Y -J5 000	GEN	693
3713	27	63		MCW	0160000, MCFL5#5	0	7	1100	M -82 -87	GEN	693
3714	27	64		S	WK5, MCFL5	0	7	1107	S -71 -87	GEN	693
3715	27	65		FPACK	MCFL5, MACFLS, X2	0	7			MACRO	
3716				INCLD	ZONES					GEN	
3717				MN	MCFL5, MACFLS					GEN	
3718				MN						GEN	
3719				MN						GEN	
3720				SAR	*E4	0	1	1121	D	GEN	693
3721				MCW	0, X2	0	1	1122	D	GEN	693
3722				MCW	000	0	4	1123	Q /30	GEN	693
3723				MCW	X2	0	7	1127	M 000 094	GEN	694
3724				A	X2	0	4	1134	M -77	GEN	694
3725				MZ	ZONES&16X2, MACFLS	0	4	1138	A 094	GEN	694
3726				CH		0	7	1142	Y -J6 163	GEN	694
3727				SBR	*E7	0	1	1149	D	GEN	694
3728	27	66		MZ	ZONES&X2, 0	0	4	1150	H /60	GEN	694
3729	27	67	RSX2	MCW	SAVX2, X2	0	7	1154	Y -J5 000	GEN	694
3730	27	68		MA	MACFLS, ONEADR	0	7	1161	M -57 094	GEN	695
3731	27	69		MA	MACFLS, XEXPON	0	7	1168	# 163 142	GEN	695
3732	27	70		MCW	BASE, BUMP&3	0	7	1175	# 163 157	GEN	695
3733	27	71		MZ	050, BUMP&2	0	7	1182	M 840 U82	GEN	695
3734	27	72		MCW	X2, HEX1#3	0	7	1189	Y -88 U81	GEN	695
3735	27	73		MCW	0, SAUCE-1	0	7	1196	M 094 -91	GEN	696
3736	27	74	START	BCE	OUT, 000&X1,	0	7	1203	M -92 N99	GEN	696
3737	27	75		MCW	000&X1, CODE#4	0	8	1210	B X76 0#0	GEN	696
3738	27	76		LCA	000&X1, WORK#10	0	7	1218	M 0#0 -96	GEN	696
3739	27	77		SAR	X1	0	7	1225	L 0#0 J06	GEN	696
3740	27	78		SBR	X3	0	4	1232	Q 089	GEN	697
3741	27	79		LCA	WORK, 000&X2	0	4	1236	M 099	GEN	697
3742	27	80		SBR	X2	0	7	1240	L J06 0-0	GEN	697
3743	27	81	FIND	BCE	PASS, CODE-3, /	0	4	1247	H 094	GEN	697
3744	27	82		BCE	SEEK, 000&X1,	0	8	1251	B X46 -93 /	GEN	697
3745				CHAIN	5	0	8	1259	B S93 0#0	MACRO	697
3746				BCE		0	1	1267	B	GEN	697
3747				BCE		0	1	1268	B	GEN	698
3748				BCE		0	1	1269	B	GEN	698
3749				BCE		0	1	1270	B	GEN	698
3750	27	83		BCE	PASS, 000&X1,	0	1	1271	B	GEN	698
3751	27	84		CHAIN	5	0	8	1272	B X46 0#0	MACRO	698
3752				BCE		0	1	1280	B	GEN	698
3753				BCE		0	1	1281	B	GEN	698
3754				BCE		0	1	1282	B	GEN	699

DELTA 11-7-6

RESTORE X2

BLANK, MAY NOT BE NECESSARY  
BLANK

GROUP MARK

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
755			BCE		0	1	1283	B	GEN	699
756			BCE		0	1	1284	B	GEN	699
757	27 85		SBR	X1	0	4	1285	H 089		699
758	27 86		B	FIND	0	4	1289	B S59		699
759	27 87	SEEK	BCE	FOUND,000EX1, DELTA 11-7-8	0	8	1293	B T09 0#0		699
760	27 88		SBR	X1	0	4	1301	H 089		699
761	27 89		B	SEEK	0	4	1305	B S93		700
762	27 90	FOUND	SW	001EX1	0	4	1309	, 0#1		700
763	27 91		CW		0	1	1313	□		700
764	27 92		CW		0	1	1314	□		700
765	27 93		CW		0	1	1315	□		700
766	27 94		SAR	X1	0	4	1316	Q 089		700
767	27 95		BCE	COPY, 004EX1, GROUP MK, FIRST CHAR MAY BE DLTA	0	8	1320	B T43 0#4		700
768	27 96		LCA	000EX3,000EX2	0	7	1328	L 060 0-0		701
769	27 97		SBR	X2	0	4	1335	H 094		701
770	27 98		CW	001EX2	0	4	1339	□ 0-1		701
771	27 99	COPY	SBR	X3,2EX1	0	7	1343	H 099 0#2		701
772	28 00	LIMIT	MCW	000EX1,BOX#1	0	7	1350	M 0#0 J07		701
773	28 01		SAR	X1	0	4	1357	Q 089		701
774	28 02		MCW	BOX,#C8	0	7	1361	M J07 T75		702
775	28 03		BCE	RANDOM,# a--Ea\$,a,0 EQUAL, GM	0	8	1368	B T88 J16 0		702
776	28 04		CHAIN 8						MACRO	
777			BCE		0	1	1376	B	GEN	702
778			BCE		0	1	1377	B	GEN	702
779			BCE		0	1	1378	B	GEN	702
780			BCE		0	1	1379	B	GEN	702
781			BCE		0	1	1380	B	GEN	702
782			BCE		0	1	1381	B	GEN	703
783			BCE		0	1	1382	B	GEN	703
784			BCE		0	1	1383	B	GEN	703
785	28 05		B	LIMIT	0	4	1364	B T50		703
786	28 06	RANDOM	SW	002EX1	0	4	1388	, 0#2		703
787	28 07		ZA	000EX3,MOD#4	0	7	1392	E 060 J20		703
788	28 08		A	004EX1,MOD	0	7	1399	A 0#4 J20		703
789	28 09		BCE	SQUOZ,002EX1, BLANK, 1 CHAR FIXED PT. NUM	0	8	1406	B X04 0#2		704
790	28 10	STRIP	MZ	a	0	7	1414	Y J24 J20		704
791	28 11		MZ		0	1	1421	Y		704
792	28 12		MZ		0	1	1422	Y		704
793	28 13		MCW	3 DIGIT NO. IN MOD	0	1	1423	M		704
794	28 14	SUBTR	S	MAX,MOD	0	7	1424	S 844 J20		704
795	28 15		BWZ	SUBTR,MOD,B	0	8	1431	V U24 J20 B		704
796	28 16		A	MAX,MOD	0	7	1439	A 844 J20		705
797	28 17		MZ	a a,MOD	0	7	1446	Y -92 J20		705
798	28 18		MCW	X2,HEX2#8	0	7	1453	M 094 J32		705
799	28 19		MCW	STORES X1	0	1	1460	M		705
300	28 20		MCW	MOD,X1	0	7	1461	M J20 089		705
301	28 21		A	X1	0	4	1468	A 089		705
302	28 22		A	MOD,X1	0	7	1472	A J20 089		706
303	28 23	BUMP	NOP	000	0	4	1479	N 000		706
304	28 24		SAR	X1	0	4	1483	Q 089		706

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
305	28 25		MCW	25@,OVFLW	0	7	1487	M J33 W71		706
306	28 26	CHAIN	BCE	NEW,000EX1,	0	8	1494	B W26 0#0		706
307	28 27		BCE	OVFLW,000EX1,	0	8	1502	B W71 0#0		706
308	28 28		MCW	000EX1,X2	0	7	1510	M 0#0 094		707
309	28 29		SAR	X1	0	4	1517	Q 089		707
310	28 30		C	000EX3,000EX2	0	7	1521	C 0E0 0-0		707
311	28 31		BU	CHAIN	0	7	1528	B U94 /		707
312	28 32		C	000EX2,000EX3	0	5	1533	C 0-0 0E0		707
313	28 33		BU	CHAIN	0	7	1533	C 0-0 0E0		707
314	28 34		MCW	X2,TEMP#3	0	5	1540	B U94 /		707
315	28 35	RESTR	MCW	TEMP,TEMP2	0	7	1545	M 094 J36		708
316	28 36		MCW	MACFLS,TEMP	0	7	1552	M J36 J39		708
317	28 37		MA	HEX2,X2	0	7	1559	# 163 J36		708
318	28 38		MCW		0	7	1566	M J32 094		708
319	28 39		MCW	TEMP,0EX2	0	7	1573	M		708
320	28 40		LCA	X2	0	7	1574	L J36 0-0		708
321	28 41		SBR	001EX2	0	4	1581	H 094		709
322	28 42		CW	TEMP2#3,#E7	0	4	1585	# 0-1		709
323	28 43		MCW	FIXED,0,2	0	7	1589	M J39 W02		709
324	28 44		BWZ	@ @,002EX2	0	8	1596	Y W93 000 2		709
325	28 45		MZ	X1,16X1	0	7	1604	V -92 0-2		709
326	28 46	BOTM	SBR	X3	0	7	1611	H 089 0#1		709
327	28 47		SBR		0	4	1618	H 099		710
328	28 48	NEW	B	FIND	0	4	1622	B S59		710
329	28 49		MCW	NXBYM,X2	0	4	1626	M 083 094		710
330	28 50		MCW	NXBTM,000EX1	0	7	1633	M 083 0#0		710
331	28 51		MCW	000EX3,000EX2	0	7	1640	M 0E0 0-0		710
332	28 52		SBR	X1	0	4	1647	H 089		710
333	28 53		SBR	NXBTM	0	4	1651	H 083		710
334	28 54		BCE	FULL,000EX1,	0	8	1655	B X12 0#0		711
335	28 55		SW	001EX1	0	4	1663	, 0#1		711
336	28 56		B	RESTR	0	4	1667	B V45		711
337	28 57	OVFLW	NOP	FULL	0	4	1671	N X12		711
338	28 58		MCW	25@,OVFLW	0	7	1675	M -88 W71		711
339	28 59		MCW	UPLIM,X1	0	7	1682	M 848 089		711
340	28 60		B	CHAIN	0	4	1689	B U94		711
341	28 61	FIXED	MZ	*-6,2EX2	0	4	1693	Y W93 0-2		712
342	28 62		B	BOTM	0	4	1700	B W11		712
343	28 63	SQUOZ	SW	003EX1	0	4	1704	, 0#3		712
344	28 64	FULL	B	STRIP	0	4	1708	B U14		712
345	28 65	FULL	FQUIT	332	0	4	1712	/ 332	MACRO	712
346		FULL	CS		0	4	1716	/	GEN	712
347			CS		0	1	1716	/	GEN	712
348			CC		0	2	1717	F 1	GEN	712
349			MCW	MESSAGE 2 -- OBJECT PROGRAM TOO LARGE,270	0	7	1719	M J75 270	GEN	713
350			H		0	1	1726	Z	GEN	713
351			CC		0	2	1727	F 1	GEN	713
352			BCE	#E6,MONTOR,1	0	8	1729	B X42 T69 1	GEN	713
353			RWD	1	0	5	1737	U X01 R	GEN	713
354		PASS	H	*-3	0	4	1742	. X42	GEN	713
355			MVDWN	X3,X2	0	4	1742	. X42	MACRO	713

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3355			PASS	LCA	OEX3, OEX2	0	7	1746	L OEO 0-0	GEN	713
3356				SAR	X3	0	4	1753	Q 099	GEN	714
3357				C	OEX2	0	4	1757	C 0-0	GEN	714
3358				SAR	X2	0	4	1761	Q 094	GEN	714
3359	28	66		MCM	X3,X1	0	7	1765	M 099 089		714
3360	28	67		B	START	0	4	1772	B S10		714
3361	28	68		MCM	HEX1,X1	0	7	1776	M -91 089		714
3362	28	69	OUT	CS	332	0	4	1783	/ 332		714
3363	28	70		CS		0	1	1787	/		715
3364	28	71		MCM		0	7	1788	M J98 223		715
3365	28	72		UNPAK	CONSTANTS LOCATED FROM 2,223					MACRO	
3366				S	NXBTM,WK51	0	4	1795	S K00	GEN	715
3367				S	DOM099#2	0	4	1799	S K02	GEN	715
3368				MZ	DOM099#2	0	7	1803	Y 083 J99	GEN	715
3369				MZ	NXBTM,DOM099-1	0	7	1810	Y 081 K01	GEN	715
3370				MZ	NXBTM-2,DOM099-1	0	8	1817	V Y36 K01 2	GEN	715
3371			DOM099	BWZ	DOM099, DOM099-1, 2	0	7	1825	A -52 K02	GEN	716
3372				A	DOM099	0	4	1832	B Y17	GEN	716
3373				B	DOM099	0	8	1836	V Y55 J99 2	GEN	716
3374				A	DOM099	0	7	1844	A -54 K00	GEN	716
3375				B	DOM099	0	4	1851	B Y36	GEN	716
3376				A	DOM099-1,DOM099	0	7	1855	A K01 K00	GEN	716
3377				MCM	NXBTM, WK51	0	7	1862	M 083 K08	GEN	717
3378				MCM	DOM099	0	4	1869	M K00	GEN	717
3379				ZA	WK51	0	4	1873	E K08	GEN	717
3380				MZ	4-4, WK51	0	7	1877	Y Y79 K08	GEN	717
3381	28	73		S	WK5,WK51	0	7	1884	S -71 K08	GEN	717
3382	28	74		MZ	a a,WK51	0	7	1891	Y -92 K08	GEN	717
3383	28	75		A	61,WK51#5	0	7	1898	A K03 K08	GEN	718
3384	28	76		MCM	NXBTM,X3	0	7	1905	M 083 099	GEN	718
3385	28	77		MA	MACFLS,X3	0	7	1912	# 163 099	GEN	718
3386	28	78		SBR	X3,16X3	0	7	1919	H 099 061	GEN	718
3387	28	79		MCM	CONLST,247	0	7	1926	M 194 247	GEN	718
3388	28	80		MCM	a-a	0	4	1933	M K09	GEN	718
3389	28	81		MCM	X3	0	4	1937	M 099	GEN	719
3390	28	82		MCM	a a	0	4	1941	M K12	GEN	719
3391	28	83		MCM	CNLS5	0	4	1945	M -66	GEN	719
3392	28	84		MCM	a TO a	0	4	1949	M K16	GEN	719
3393	28	85		MCM	WK51	0	4	1953	M K08	GEN	719
3394	28	86		CC	J	0	2	1957	F J	GEN	719
3395	28	87		W	J	0	1	1959	2	GEN	719
3396	28	88		CC	J	0	2	1960	F J	GEN	720
3397	28	89		FORMS		0	5	1962	B 271 a	MACRO	720
3398				BCV	*65	0	4	1967	B 273	GEN	720
3399				B	*63	0	2	1971	F 1	GEN	720
3400				CC	I	0	2			MACRO	
3401	28	90		FENDX	D,,,XBEGIN,XBEGIN,XBEGIN,SAUCE-2,SUBSCR	0	5	1973	B 333 D	GEN	720
3402				BSS	333,D	0	7	1978	H 786 838	GEN	720
3403				SBR	INITAPE6,XBEGIN	0	4	1985	H 833	GEN	720
3404				SBR	BCLEAR	0	4			GEN	720

REMOVE SIGN

BLANKS

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3005			SBR	INITXT&3,XBEGIN	0	7	1989	H 796 838	GEN	721
3006			SBR	TCLEAR,SAUCE-2	0	7	1996	H 710 N98	GEN	721
3007			LCA	@SUBSCR@110	0	7	2003	L K22 110	GEN	721
3008			B	MONTER	0	4	2010	B 700	GEN	721
3009	28 91		ORG	*	0	0		2014		
3010			DCW	#1	0	1	2014		GEN	721
3011		ZONES	DC	9	0	1	2015		GEN	721
3012			DCW	@9Z9R9I99ZZRZIZI9RZRRRIR9IZIRI11@	0	31	2046		GEN	722
3013			LTOrg	*	0	0		2047		
3665		#OM093	DCW	#02	0	2	2048		AREA	722
3666		#OL093		#02	0	2	2050		AREA	722
				@A0@	0	2	2052		LIT	722
				@E4@	0	2	2054		LIT	722
3680		SAVK2		#03	0	3	2057		AREA	723
3682		#OM094		#02	0	2	2059		AREA	723
3683		#OL094		#02	0	2	2061		AREA	723
3697		CNLS5		#05	0	5	2066		AREA	723
3697		WK5		#05	0	5	2071		AREA	723
3698				@0000@	0	5	2076		LIT	723
				@@	0	1	2077		LIT	723
3713		MCFL5		@16000@	0	5	2082		LIT	724
3713				#05	0	5	2087		LIT	724
				@S@	0	1	2088		AREA	724
3733		HEX1		#03	0	1	2091		LIT	724
				@ @	0	3	2091		AREA	724
3736		CODE		#04	0	1	2092		LIT	724
3737		WORK		#10	0	4	2096		AREA	724
3772		BOX		#01	0	10	2106		AREA	724
3775				@# @*-@@,@	0	1	2107		AREA	725
3787		MOD		#04	0	9	2116		LIT	725
				@	0	4	2120		AREA	725
3798		HEX2		#08	0	4	2124		LIT	725
				@N@	0	8	2132		AREA	725
3814		TEMP		#03	0	1	2133		LIT	725
3822		TEMP2		#03	0	3	2136		AREA	725
3848				@MESSAGE 2 - OBJECT PROGRAM TOO LARGE	0	3	2139		AREA	726
3864				@CONSTANTS LOCATED FROM @	0	36	2175		LIT	726
3866		#OM099		#02	0	23	2198		LIT	727
3867		#OL099		#02	0	2	2200		AREA	727
				C1	0	2	2202		AREA	727
3883		WK51		#05	0	1	2203		LIT	727
				@-@	0	5	2208		AREA	727
				@ TO @	0	1	2209		LIT	727
				@SUBSCR@	0	3	2212		LIT	727
3907			LTOrg	*	0	4	2216		LIT	728
				@	0	6	2222		LIT	728
3914				@	0	0		2223	GEN	
3915	28 92		DCW	@	0	1	2223			728
3916	28 93	SAUCE	ORG	TAMAXT&X00	0	0		2600		
3917	28 94		EQU	#E1	0	0	2600			
3918	28 95		XFR	PHSE3	0	0		B 849		729

SYSTEM GROUP MARK

SEQ PG LIN LABEL OP OPERANDS

SFX CT L OCN INSTRUCTION TYPE CARD



EQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1919	28	96		JOB	1401 FORTRAN SUBSCRIPTS PHASE						
1920	28	97		FBEEN	SUBSCR,X1,X2,X3,R,W						
1921				SFX	W						
1922			110	DCW	@SUBSCR@	6		0110		MACRO	
1923			X1	EQU	089			0089		GEN	732
1924			X2	EQU	094			0094		GEN	
1925			X3	EQU	099			0099		GEN	
1926			099	DCW	000			0099		GEN	733
1927			100	DC	0			0100		GEN	733
1928	28	98		ORG	XBEGIN				0838		
1929	28	99		* SQUEEZE	ADDRESSES BETWEEN \$ SIGNS TOGETHER, ERROR CHECK						
1930	29	00	INITL	CS	0&X2						
1931	29	01		CS							
1932	29	02		SBR	X2,1&X1			0838	/ 0-0		734
1933	29	03		SBR	HEXI#3			0842	/		734
1934	29	04	START	BCE	OUT,000&X1, BLANK			0843	H 094 0#1		734
1935	29	05		MCM	000&X1, CODE#4			0850	H /94		734
1936	29	06		B	SLIDE X2 INITIALLY GREATER THAN X1			0854	B /39 0#0		734
1937	29	07		BCE	PASS, CODE-3, /			0862	M 0#0 /98		734
1938	29	08		BCE	PASS, CODE-3, F			0869	B #64		734
1939	29	09	FIND	BCE	SEEK, 000&X1, \$			0873	B /31 /95 /		735
1940	29	10		CHAIN	5			0881	B /31 /95 F		735
1941				BCE				0889	B 923 0#0 \$		735
1942				BCE				0897	B	MACRO	
1943				RCE				0898	B	GEN	735
1944				BCE				0899	B	GEN	735
1945				BCE				0900	B	GEN	735
1946	29	11		BWZ	FINISH, 000&X1, 1			0901	B	GEN	736
1947	29	12		CHAIN	5			0902	V /24 0#0 1		736
1948				BWZ				0910	V	MACRO	
1949				BWZ				0911	V	GEN	736
1950				BWZ				0912	V	GEN	736
1951				BWZ				0913	V	GEN	736
1952				BWZ				0914	V	GEN	736
1953	29	13		SBR	X1			0915	H 089		737
1954	29	14		B	FIND			0919	B 889		737
1955	29	15	SEEK	BCE	FOUND, 000&X1, \$			0923	B 939 0#0 \$		737
1956	29	16		SBR	X1			0931	H 089		737
1957	29	17		B	SEEK			0935	B 923		737
1958	29	18	FOUND	SW	000&X1			0939	, 0#0		737
1959	29	19		B	SEND			0943	B /69		737
1960	29	20		MIN	000&X1			0947	D 0#0		738
1961	29	21		SAR	X1			0951	Q 089		738
1962	29	22		B	DROP4			0955	B #98		738
1963	29	23	SQUOZ	SW	2&X1			0959	, 0#2		738
1964	29	24		B	SEND			0963	B /69		738
1965	29	25		B	DROP4			0967	B #98		738
1966	29	26		BWZ	CPAR, 3&X1, S			0971	V #21 0#3 S		738
1967	29	27		BWZ	CPAR, 3&X1, K			0979	V #21 0#3 K		739
1968	29	28		FTMSG	12, FLOATING POINT SUBSCRIPT, CODE, 26					MACRO	

SEQ	PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
3969				CS	332	W	4	0987	/ 332	GEN	739
3970				CS		W	1	0991	/	GEN	739
3971				SW	FAILSW	W	4	0992	, 184	GEN	739
3972				MN	CODE,224&26	W	7	0996	D /98 250	GEN	739
3973				MN		W	1	1003	D	GEN	739
3974				MN		W	1	1004	D	GEN	739
3975				MCW		W	4	1005	M S45	GEN	740
3976				W		W	1	1009	2	GFN	740
3977				RCV	*E5	W	5	1010	B #19 @	GEN	740
3978				B	*E3	W	4	1015	B #21	GEN	740
3979				CC	1	W	2	1019	F 1	GEN	740
3980	29	29	CPAR	SW	2&X1	W	4	1021	, 0#2	GEN	740
3981	29	30		B	SEND	W	4	1025	B /69	GEN	740
3982	29	31		B	DROP4	W	4	1029	B #98	GEN	741
3983	29	32		C	001&X1,a&a	W	7	1033	C 0#1 S46	GEN	741
3984	29	33		BU	SQUOZ	W	5	1040	B 959 /	GEN	741
3985	29	34		SW	001&X1	W	4	1045	, 0#1	GEN	741
3986	29	35		B	SEND	W	4	1049	B /69	GEN	741
3987	29	36		MCW	X1,X3	W	7	1053	M 089 099	GEN	741
3988	29	37		B	FIND	W	4	1060	B 889	GEN	741
3989	29	38	SLIDE	SBR	EXSLD&3	W	4	1064	H #97	MACRO	742
3990	29	39		MVDWN	X1,X2	W	7	1068	L 040 0-0	GEN	742
3991				LCA	0&X1, 0&X2	W	4	1075	Q 089	GEN	742
3992				SAR	X1	W	4	1079	C 0-0	GEN	742
3993				C	0&X2	W	4	1083	Q 094	GEN	742
3994				SAR	X2	W	7	1087	M 089 099	GEN	742
3995	29	40		MCW	X1,X3	W	4	1094	B 000	GEN	742
3996	29	41	EXSLD	B	000	W	4	1098	H /23	GEN	743
3997	29	42	DROP4	SBR	EXDRP&3	W	4	1102	M 089 099	GEN	743
3998	29	43		MCW	X1,X3	W	7	1102	M 089 099	GEN	743
3999	29	44		MN	0&X1	W	4	1109	D 040	MACRO	743
4000	29	45		CHAIN	3	W	4	1109	D 040	MACRO	743
4001				MN		W	1	1113	D	GEN	743
4002				MN		W	1	1114	D	GEN	743
4003				MN		W	1	1115	D	GEN	743
4004	29	46		SBR	X1	W	4	1116	H 089	GEN	743
4005	29	47	EXDRP	B	000	W	4	1120	B 000	GEN	744
4006	29	48	FINISH	MCW	X3,X1	W	7	1124	M 099 089	GEN	744
4007	29	49	PASS	B	SLIDE	W	4	1131	B #64	GEN	744
4008	29	50		B	START	W	4	1135	B 854	GEN	744
4009	29	51	OUT	MCW	HEX1,X1	W	4	1135	B 854	GEN	744
4010	29	52		FENDX	C,,,,,SY51,STNUM ONE	W	7	1139	M /94 089	MACRO	744
4011				BSS	333,C	W	5	1146	B 333 C	GEN	744
4012				SBR	TCLEAR,SY51	W	7	1151	H 710 S56	GEN	744
4013				LCA	@STNUM ONE@,110	W	7	1158	L S55 110	GEN	745
4014				B	MONTER	W	4	1165	B 700	GEN	745
4015	29	53	SEND	SBR	EXSND&3	W	4	1169	H /91	GEN	745
4016	29	54		LCA	000&X3,000&X2	W	7	1173	L 0&0 0-0	GEN	745
4017	29	55		SBR	X2	W	4	1180	H 094	GEN	745
4018	29	56		CH	001&X2	W	4	1184	D 0-1	GEN	745

1401 FORTRAN SUBSCRIPTS PHASE

50213

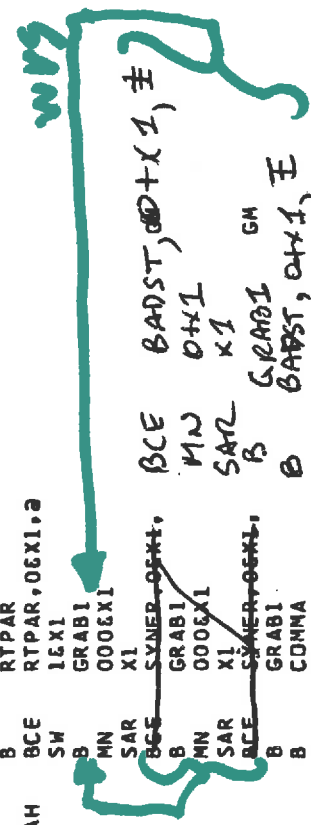
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SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
019 29 57	EXSND	B	000	W	4	1188	8 000		745
020 29 58	LTORG	*		W			1192		
3933	HEX1	DCW	#03	W	3	1194		AREA	746
3935	CODE		#04	W	4	1198		AREA	746
3975			ERROR 12 - FLOATING POINT SUBSCRIPT, STATEMENT 2	W	47	1245		LIT	748
			232	W	1	1246		LIT	748
4013			ASTNUM ONE	W	9	1255		LIT	748
021 29 59	SYS1	DCW	2 2	W	1	1256			748
022 29 60	XFR	INITL		W			8 838		749

SEQ PG	LN	LABEL	OP	OPERANDS	STATEMENT NUMBER PHASE ONE	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
023	29 61		JOB	1401 FORTRAN						
024	29 62		FBEGN	STNUM ONE,X1,X2,X3,R,M						
025			SFX	M						
026		110	DCW	STNUM ONE				0110	MACRO	
027		X1	EQU	089				0089	GEN	752
028		X2	EQU	094				0094	GEN	
029		X3	EQU	099				0099	GEN	
030		099	DCW	000				0099	GEN	753
031		100	DC	0				0100	GEN	753
032	29 63		ORG	X8BEGIN				0838		
033	29 64	NXBTH	EQU	083				0838		
034	29 65	INITL	CS	0EX2				0842	/ 0-0	754
035	29 66		MCM	NXBTH,X2				0849	M 083 094	754
036	29 67		SW	GM	FROM THE BOTTOM			0853	L Y83 0-0	754
037	29 68		LCA	GM,000EX2				0860	L Y83 0-0	754
038	29 69		SBR	X2				0864	H 094	754
039	29 70	START	BCE	DUT,000EX1, BLANK				0864	B Y52 0#0	754
040	29 71		LCA	000EX1,WORK1#10				0872	L 0#0 Z62	755
041	29 72		SAR	X1				0879	Q 089	755
042	29 73		CH	001EX1				0883	Q 0#1	755
043	29 74		SW	WORK1-3				0887	L Z62 0-0	755
044	29 75		LCA	WORK1,000EX2				0891	L Z62 0-0	755
045	29 76		SBR	X2				0898	H 094	755
046	29 77		CH	001EX2				0902	H 0-1	755
047	29 78		BWZ	LABEL,WORK1-4,2 ND ZONE				0906	V #03 Z58 2	756
048	29 79	TOP	LCA	GM,000EX2				0914	L Y83 0-0	756
049	29 80		SBR	X2				0921	H 094	756
050	29 81		MCM	WORK1-3,TEST#7				0925	M Z59 939	756
051	29 82	TEST	BCE	WORRY,@WT65UPLDEGK@,0				0932	B #26 Z73 0	756
052	29 83		CHAIN	10					MACRO	
053			BCE					0940	B	756
054			BCE					0941	B	756
055			BCE					0942	B	757
056			BCE					0943	B	757
057			BCE					0944	B	757
058			BCE					0945	B	757
059			BCE					0946	B	757
060			BCE					0947	B	757
061			BCE					0948	B	757
062			BCE					0949	B	758
063	29 84		BCE	KILL,WORK1-3, /				0950	B 981 Z59 /	758
064	29 85	BOTH	HVDWN	X1,X2				0958	L 0#0 0-0	758
065		BOTH	LCA	0EX1, 0EX2				0965	Q 089	758
066			SAR	X1				0969	C 0-0	758
067			C	0EX2				0973	Q 094	758
068			SAR	X2				0977	B 864	758
069	29 86		B	START				0981	C 0#0	759
070	29 87		C	0EX1				0985	Q 089	759
071	29 88	KILL	SAR	X1				0985	Q 089	759
072	29 89		MCM	4EX2				0989	P 0-4	759

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LDCN	INSTRUCTION	TYPE	CARD
173	29 90		MN		M	1	0993	D		759
174	29 91		MN		M	1	0994	D		759
175	29 92		SAR		M	4	0995	Q 094		759
176	29 93		B		M	4	0999	B 864		759
177	29 94	LABEL	LCA	WORK1-4, STATE#6	M	7	1003	L 258 279		760
178	29 95		SBR	X3	M	4	1010	H 099		760
179	29 96		SM	002&X3	M	4	1014	, 0&2		760
180	29 97		B	ALPHA	M	4	1018	B V63		760
181	29 98		B	TOP	M	4	1022	B 914		760
182	29 99	WORRY	BCE	IFEXP, WORK1-3, E	M	8	1026	B 762 259 E		760
183	30 00		BCE	DO, WORK1-3, D	M	8	1034	B 576 259 D		760
184	30 01		BCE	INOUT, WORK1-3, 5	M	8	1042	B /30 259 5		761
185	30 02		BCE	INOUT, WORK1-3, 6	M	8	1050	B /30 259 6		761
186	30 03		BCE	PUTE, WORK1-3, T	M	8	1058	B #90 259 T		761
187	30 04		BCE	SENSE, WORK1-3, W	M	8	1066	B /93 259 W		761
188	30 05		BCE	SENSE, WORK1-3, K	M	8	1074	B /93 259 K		762
189	30 06		B	GRAB1	M	4	1082	B U73		762
190	30 07		B	BOTM	M	4	1086	B 958		762
191	30 08		B	GRAB1	M	4	1090	B U73		762
192	30 09	PUTE	BCE	OVER, 000&X1, D	M	8	1094	B /18 0#0 D		762
193	30 10		BCE	SYNER, 0&X1, ,	M	8	1102	B X55 0#0		762
194	30 11		SBR	X1	M	4	1110	H 089		763
195	30 12		B	PUTE	M	4	1114	B #90		763
196	30 13	OVER	MN	000&X1	M	4	1118	D 0#0		763
197	30 14		SAR	X1	M	4	1122	Q 089		763
198	30 15		B	BOTM	M	4	1126	B 958		763
199	30 16	INOUT	MCM	X1, LOAD&3	M	7	1130	M 089 /77		763
200	30 17	FIND	BCE	TPNAM, 000&X1, ,	M	8	1137	B /61 0#0 ,		763
201	30 18		BCE	SYNER, 0&X1, ,	M	8	1145	B X55 0#0		764
202	30 19		SBR	X1	M	4	1153	H 089		764
203	30 20		B	FIND	M	4	1157	B /37		764
204	30 21	TPNAM	SW	001&X1	M	4	1161	, 0#1		764
205	30 22		MN		M	1	1165	D		764
206	30 23		SAR	X1	M	4	1166	Q 089		764
207	30 24	LOAD	B	GRAB1	M	4	1170	B U73		764
208	30 25		LCA	000, 000&X2	M	4	1174	L 000 0-0		764
209	30 26		SBR	X2	M	7	1181	H 094		765
210	30 27		CH	001&X2	M	4	1185	D 0-1		765
211	30 28		B	BOTM	M	4	1189	B 958		765
212	30 29	SENSE	MCM	X1, LOAD&3	M	7	1193	M 089 /77		765
213	30 30	FIND2	BCE	WITCH, 000&X1, D	M	8	1200	B S24 0#0 D		765
214	30 31		BCE	SYNER, 0&X1, ,	M	8	1208	B X55 0#0		766
215	30 32		SBR	X1	M	4	1216	H 089		766
216	30 33	WITCH	B	FIND2	M	4	1220	B S00		766
217	30 34		SW	001&X1	M	4	1224	, 0#1		766
218	30 35		MN		M	1	1228	D		766
219	30 36		SAR	X1	M	4	1229	Q 089		766
220	30 37		B	GRAB1	M	4	1233	B U73		766
221	30 38		MN	000&X1	M	4	1237	D 0#0		767
222	30 39		SAR	X1	M	4	1241	Q 089		767

SEQ PG	LIN	LABEL	OP	OPERANDS	GM	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4123	30 40		BCE	SYNER,06X1,		M	8	1245	B X55 0#0		767
4124	30 41		B	GRAB1		M	4	1253	B U73		767
4125	30 42	COMMA	LCA	@,000EX2		M	7	1257	L Z80 0-0		767
4126	30 43		SBR	X2		M	4	1264	M 094		767
4127	30 44		CW	001EX2		M	4	1268	0 0-1		767
4128	30 45		B	LOAD		M	4	1272	B /74		768
4129	30 46	DO	MCW	X1,X3		M	7	1276	M 089 099		768
4130	30 47	VARBL	BCE	BACK2,06X3,#		M	8	1283	B S99 060 #		768
4131	30 48		SBR	X3		M	4	1291	H 099		768
4132	30 49		B	VARBL		M	4	1295	B S83		768
4133	30 50	BACK2	MCW	36X3,SVZM#1		M	7	1299	M 063 Z81		768
4134	30 51		MCW	@,36X3		M	7	1306	M Z80 063		769
4135	30 52		SBR	HEX3#3,3EX3		M	7	1313	H Z84 063		769
4136	30 53		B	GRAB1		M	4	1320	B U73		769
4137	30 54		C	HEX3,X1		M	4	1324	C Z84 089		769
4138	30 55		BU	SYNER		M	5	1331	B X55 /		769
4139	30 56		MCW	SVZN,06X1		M	7	1336	M Z81 0#0		769
4140	30 57		LCA	@,000EX2		M	7	1343	L Z80 0-0		770
4141	30 58		SBR	X2		M	4	1350	H 094		770
4142	30 59		CW	001EX2		M	4	1354	0 0-1		770
4143	30 60		B	BOTM		M	4	1358	B 958		770
4144	30 61	IFEXP	MCW	X1,LOAD63		M	7	1362	M 089 /77		770
4145	30 62	RTPAR	BCE	NOZD,000EX1,#		M	8	1369	B T93 0#0 #		770
4146	30 63		BCE	SYNER,06X1,		M	8	1377	B X55 0#0		771
4147	30 64		SBR	X1		M	4	1385	H 089		771
4148	30 65		B	RTPAR		M	4	1389	B T69		771
4149	30 66	NOZD	MN	000EX1		M	4	1393	D 0#0		771
4150	30 67		SAR	X1		M	4	1397	Q 089		771
4151	30 68		BWZ	YEAH,000EX1,2	NO ZONE	M	8	1401	V U13 0#0 2		771
4152	30 69		B	RTPAR		M	4	1409	B T69		771
4153	30 70	YEAH	BCE	RTPAR,06X1,0		M	8	1413	B T69 0#0 0		772
4154	30 71		SW	1EX1		M	4	1421	, 0#1		772
4155	30 72		B	GRAB1		M	4	1425	B U73		772
4156	30 73		MN	000EX1		M	4	1429	D 0#0		772
4157	30 74		SAR	X1		M	4	1433	Q 089		772
4158	30 75		BCE	SYNER,06X1,		M	8	1437	B X55 0#0		772
4159	30 76		B	GRAB1		M	4	1445	B U73		772
4160	30 77		MN	000EX1		M	4	1449	D 0#0		773
4161	30 78		SAR	X1		M	4	1453	Q 089		773
4162	30 79		BCE	SYNER,06X1,		M	8	1457	B X55 0#0		773
4163	30 80		B	GRAB1		M	4	1465	B U73		773
4164	30 81		B	COMMA		M	4	1469	B S57		773
4165	30 82	GRAB1	SBR	EXITZ63		M	4	1473	H V62		773
4166	30 83		MCW	X1,TAKE63		M	7	1477	M 089 V47		773
4167	30 84		BWZ	LOOP,000EX1,2	NO ZONE	M	8	1484	V U96 0#0 2		774
4168	30 85		B	BADST		M	4	1492	B Y01		774
4169	30 86	LOOP	MN	000EX1		M	4	1496	D 0#0		774
4170	30 87		SAR	X1		M	4	1500	Q 089		774
4171	30 88		BWZ	LOOP,000EX1,2	NO ZONE	M	8	1504	V U96 0#0 2		774
4172	30 89		FBCEQ	SETWM,06X1,,, #		M	8				774



SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4173			BCE	SETWM,0&X1,0	M	8	1512	B V40 0+0	GEN	774
4174			BCE	SETWM,0&X1,0	M	8	1520	B V40 0+0	GEN	775
4175			BCE	SETWM,0&X1,0	M	8	1528	B V40 0+0	GEN	775
4176	30 90		B	BADST	M	4	1536	B V01	GEN	775
4177	30 91	SETWM	SW	1&X1	M	4	1540	0+1		
4178	30 92	TAKE	LCA	000,STATE	M	7	1544	L 000 Z79		
4179	30 93		CH	001&X1	M	4	1551	0+1		
4180	30 94		B	ALPHA	M	4	1555	9 V63		
4181	30 95	EXIT2	B	000	M	4	1559	B 000		
4182	30 96	ALPHA	SBR	EXIT1&X3	M	4	1563	H X54		
4183	30 97		LCA	SIX0,PLACE	M	4	1567	L Z52 Y90		
4184	30 98		C	SIX0,STATE	M	7	1574	C Z52 Z79		
4185	30 99		BU	NORM	M	4	1581	B V90 /		
4186	31 00		B	SET3	M	5	1586	B M24		
4187	31 01	NORM	SBR	X3,STATE&1	M	4	1590	H 099 Z80		
4188	31 02	ZERO	MN	000&X3	M	7	1597	D 0&0		
4189	31 03		SAR	X3	M	4	1601	Q 099		
4190	31 04		BCE	ZERO,000&X3,0	M	8	1605	B V97 0&0 0		
4191	31 05		MCW	000&X3,PLACE	M	7	1613	M 0&0 Y90		
4192	31 06		MCW	01&0	M	4	1620	M Z85		
4193	31 07	SET3	SW	PLACE-1	M	4	1624	Y Y89		
4194	31 08		CH		M	4	1628	0		
4195	31 09		SW		M	1	1629			
4196	31 10		CH		M	1	1630			
4197	31 11		SW		M	1	1631			
4198	31 12		S	05050&0,PLACE	M	7	1632	S Z89 Y90		
4199	31 13		S		M	1	1639	S		
4200	31 14		BNZ	TRY2,PLACE,K	M	1	1639	S		
4201	31 15		A	01&0,PLACE-5	M	8	1640	V W55 Y90 K		
4202	31 16	TRY2	BWZ	STRIP,PLACE-5	M	7	1648	A Z85 Y85		
4203	31 17		A	02&0,PLACE-2,K	M	8	1655	V W70 Y88 K		
4204	31 18	STRIP	MZ	02&0,PLACE-5	M	7	1663	A Z90 Y85		
4205	31 19		MZ	02 Z Z 0,PLACE	M	7	1670	Y Z96 Y90		
4206			CHAIN	5	M	7	1670	Y Z96 Y90		
4207			MZ		M	1	1677	Y	MACRO	779
4208			MZ		M	1	1678	Y	GEN	779
4209			MZ		M	1	1679	Y	GEN	779
4210			MZ		M	1	1680	Y	GEN	779
4211	31 20		MCW	X1,HEX1	M	1	1681	Y	GEN	779
4212	31 21		MCW	0TABLE-49,X1	M	7	1682	M 089 Y94		
4213	31 22		MCW	0PLACE,X3	M	7	1689	M Z99 089		
4214	31 23	COOL	MCW	000&X3,GENER&3	M	7	1696	M -02 099		
4215	31 24		SAR	X3	M	7	1703	M 0&0 X17		
4216	31 25	GENER	MCW	000,BOX	M	4	1710	Q 099		
4217	31 26		LCA	BOX,000&X2	M	7	1714	M 000 Y91		
4218	31 27		SBR	X2	M	7	1721	L Y91 0-0		
4219	31 28		CH	001&X2	M	4	1728	H 094		
4220	31 29		BWZ	COOL,000&X3,2	M	4	1732	0-1		
4221	31 30		MCW	HEX1,X1	M	8	1736	V X03 0&0 2		
4222	31 31	EXIT1	B	000	M	7	1744	M Y94 089		
					M	4	1751	B 000		

SW MKTST+1  
MLC TAKE+3, MKTST+3  
CW MKTST+1

MKTST MLC 0, TEST  
B TAKE, TEST-5, 8  
MLC @ 80, TEST-5, 8  
B BADST  
CW @ 8 b b b b b @

TEST

SEQ PG

LIN

LABEL

OP

OPERANDS

SFX CT

LOCN

INSTRUCTION

TYPE

CARD

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
1223	31	SYNER	FTMSG	13, STATEMENT NUMBER SYNTAX, WORK1, 25	4	1755	/ 332	MACRO	782
1224	32	SYNER	CS	332	M	1755	/ 332	GEN	782
1225	33		CS		M	1759	/ 184	GEN	782
1226	34		SH	FAILSM	M	1764	D 262 249	GEN	782
1227	35		MN	WORK1, 22+625	M	1771	D	GEN	782
1228	36		MN		M	1772	D	GEN	782
1229	37		MN		M	1773	M -48	GEN	783
1230	38		MN	ERROR 13 - STATEMENT NUMBER SYNTAX, STATEMENT 2	M	1777	2	GEN	783
1231	39		W		M	1778	B X87 2	GEN	783
1232	40		BCV	*65	M	1783	B X89	GEN	783
1233	41		B	*63	M	1787	F 1	GEN	783
1234	42		CC	1	M	1789	V Y09 Y95 1	GEN	783
1235	43		BM	PHOV, BADSM	M	1797	B Y30	GEN	783
1236	44		B	ERR	M	1801	, Y95	GEN	784
1237	45		SM	BADSM	M	1805	, B X55	GEN	784
1238	46	BADST	B	SYNER	M	1809	P 0-1	GEN	784
1239	47	PHOV	B	16X2	M	1813	D	GEN	784
1240	48		MCM		M	1814	Q 094	GEN	784
1241	49		MN	X2	M	1818	B Y09 0-0 *	GEN	784
1242	50		SAR	PHOV, 06X2, *	M	1826	Q Y95	GEN	785
1243	51		BCE	BADSM	M	1830	P 0-4	GEN	785
1244	52	ERR	CW	46X2	M	1834	D	GEN	785
1245	53		MCM		M	1835	D	GEN	785
1246	54		MN		M	1836	Q 094	GEN	785
1247	55		SAR	X2	M	1840	C 0#0	GEN	785
1248	56		C	06X1	M	1844	Q 089	GEN	785
1249	57		SAR	X1	M	1848	B 864	GEN	785
1250	58		B	START	M	1852	B 333 C	MACRO	786
1251	59	OUT	FENDX	C, T, AMROF, T, AMRIT, TAMROF ONE	M	1857	H 796 980	GEN	786
1252	60	OUT	BSS	333, C	M	1864	H 710 V99	GEN	786
1253	61		SBR	INITX1E3, TAMROF	M	1871	L -58 110	GEN	786
1254	62		SBR	TCLEAR, TAMRIT	M	1878	B 700	GEN	786
1255	63		LCA	TAMROF ONE, 110	M	1882		GEN	786
1256	64		B	MONTER	M	1883		GEN	786
1257	65		DCW	a a	M	1884		GEN	786
1258	66		DC	a a	M	1890		GEN	786
1259	67		DC	a a	M	1891		GEN	786
1260	68	PLACE	DCW	a a	M	1894		GEN	787
1261	69	BOX	DCW	a a	M	1895		GEN	787
1262	70	HEX1	DCW	a a	M	1945		GEN	789
1263	71	BADSM	DC	#1	M	1946		GEN	789
1264	72	TABLE	DC	a. aE#-2#0ABCDEFCHI-JKLMNOPQR /STUVWXYZ01234567892	M	1952		GEN	789
1265	73		DC	a a	M	1953		GEN	789
1266	74	SIX0	DCW	0000002	M	1962		GEN	789
1267	75	*	DC	6 IS 12-0 PUNCH - 11-0 PUNCH - 0-7-8 R, 11-7-8	M	1963		GEN	789
1268	76	*	DC	NO COMMA, RECORD MARK, OR GROUP MARK IN TABLE	M	1973		GEN	789
1269	77	LTORG *	DCW		M	1979		GEN	790
1270	78	WORK1	DCW	#10	M	1980		GEN	790
1271	79	4051	DCW	0WT65UPLDEGK3	M	1981		GEN	790
1272	80	4077	DCW	#06	M	1982		GEN	790

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4133		SVZN		a a	M	1	1980	LIT		790
4135		HEX3		#01	M	1	1981	AREA		790
				#03	M	3	1984	AREA		790
				a a	M	1	1985	LIT		790
				25050a	M	4	1989	LIT		790
				a a	M	1	1990	LIT		790
4204				a Z Z a	M	6	1996	LIT		791
4212				TABLE-49	M	3	1999	ADCON		791
4213				PLACE	M	3	1999	ADCON		791
4230				ERROR 13 - STATEMENT NUMBER SYNTAX, STATEMENT a	M	3	2002	ADCON		791
4255				STAMROF ONEa	M	46	2048	LIT		793
4270	31	63		a a	M	10	2058	LIT		793
4271	31	64		DCW	M	1	2059	LIT		793
				XFR	M					794
				INITL	M					794
								8 838		

SEQ PG	LIN	LABEL	OP	OPERANDS	JOB	TAMROF PHASE ONE	TAMROF PHASE ONE	FORMAT SPECS	SFX	CT	LOCH	INSTRUCTION	TYPE	CARD
4272	31	65	JOB	1401 FORTRAN									MACRO	
4273	31	66	FBEGN	TAMROF ONE,X1,R,X2,,X3,R,T,XXX									GEN	
4274			SFX	T									GEN	
4275		XXX	EQU	0					0000				GEN	797
4276		110	DCM	BTAMROF ONE					0110				GEN	
4277		X1	EQU	089					0089				GEN	798
4278		089	DCM	000					0091				GEN	798
4279		091	DC	00					0094				GEN	
4280		X2	EQU	094					0099				GEN	799
4281		X3	EQU	099					0099				GEN	799
4282		099	DCM	000					0100				GEN	
4283		100	DC	0										
4284	31	67	*						0083					
4285	31	68	NXBTH	EQU	83									
4286	31	69	*											
4287	31	70												
4288	31	71	KLOBR	ORG	XBEGIN				0838				MACRO	
4289			KLOBR	FQUIT	332				/ 332				GEN	800
4290			CS	CS					/				GEN	800
4291			CC	CC	1				F 1				GEN	800
4292			MCM	MCM	1				M 963 270				GEN	800
4293			W	W	1				2				GEN	800
4294			CC	CC	1				F 1				GEN	800
4295			BCE	BCE	*66,MONTOR,1				B 868 769 1				GEN	800
4296			RND	RND	1				U ZUL R				GEN	801
4297			M	M	*-3				.	868			GEN	801
4298	31	72	CKBIT	DCM	2 2				11-6-6					
4299	31	73	HEX3	DCM	#3									
4300	31	74	CODE	DCM	#4									
4301	31	75	*											
4302	31	76	*											
4303	31	77	ERROR	EQU	206				0206					
4304	31	78	PRNTN	EQU	250				0250					
4305	31	79	*											
4306	31	80	GETST	SBR	GSTXT&3				0880				MACRO	801
4307	31	81		FORMS									GEN	801
4308			BCV	BCV	*65				0884				GEN	802
4309			B	B	*63				0889				GEN	802
4310			CC	CC	1				0893				GEN	802
4311	31	82		CS	332				0895				GEN	802
4312	31	83		CS					/ 332				GEN	802
4313	31	84		SM	FAILSW				/				GEN	802
4314	31	85		MN	CODE,PRNTN				184				GEN	802
4315	31	86		CHAIN	2				D 879 250				MACRO	802
4316			MN	MN									GEN	802
4317			MN	MN					0911				GEN	803
4318	31	87		MCM	STATEMENT 2				0912				GEN	803
4319	31	88		MCM	ERROR2, ERROR-1				0913				GEN	803
4320	31	89		B	XXX				M 974 205				GEN	803
4321	31	90	*	GSTXT					0924				GEN	803

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4322	31			LTORG *						
	4292			DCM MESSAGE 2 - OBJECT PROGRAM TOO LARGE						
	4318			STATEMENT 2					LIT	804
	4319			ERROR2					LIT	805
4323	31	*	TANROF	16X2		36	0963	0928		
4324	31		SBR	X1		11	0974	/ 0-1		805
4325	31		SW	GM1		5	0979	H 089		805
4326	31		CS	06X1				, V03		805
4327	31	CLR	SBR	X1				/ 0+0		805
4328	31		C	X1, ETAMRI				H 089		805
4329	31		BU	CLR				C 089 U36		806
4330	31		LCA	GM1, TAMAX&1		5	1007	B 992 /		806
4331	32		SBR	X1, TAMAX&2		7	1012	L V03 001		806
4332	32		SBR	X2, 2&X2		7	1019	H 089 002		806
4333	32		MCH	a-a, 96		7	1026	H 094 0-2		806
4334	32		SW	IDSM#1		7	1033	M U37 096		807
4335	32		MCH	NXBTM, X3		4	1040	, U38		807
4336	32		SBR	X3, 16X3		7	1044	M 083 099		807
4337	32		C	X3,X2		7	1051	H 099 0&1		807
4338	32		BE	FINI		7	1058	C 099 094		807
4339	32		CH	DBLSW#1		5	1065	B 516 S		807
4340	32		MN	06X2		4	1070	H U39		808
4341	32		SAR	X3		4	1074	D 0-0		808
4342	32		MCH	CKBIT		4	1078	Q 099		808
4343	32		MVUP2	MOVUP X2,X1,.,.,*		4	1082	M 872		808
4344	32		MVUP2	MN 06X1		4			MACRO	
4345			SAR	X1		4	1086	D 0+0	GEN	808
4346			MCM	06X2		4	1090	Q 089	GEN	808
4347			SAR	00J114,06X1,.*		4	1094	P 0-0	GEN	808
4348			MCM	06X2,16X1		4	1098	Q /20	GEN	809
4349			MN			7	1102	P 0-0 0+1	GEN	809
4350			SBR	X1		1	1109	D	GEN	809
4351			SBR	X2+0		7	1110	H 089	GEN	809
4352			BCE	06X2		7	1114	H 094 000	GEN	809
4353			MN			8	1121	B #94 0+0 *	GEN	809
4354			CH	06X1		4	1129	D 0-0	GEN	809
4355			SW	X1, 16X1		1	1133	, 0+0	GEN	810
4356			SBR	BOTH,DBLSW		4	1134	D	GEN	810
4357			BW	DBLSW		7	1138	H 089 0+1	GEN	810
4358	32	14	SW	MVUP2		8	1145	V /61 U39 1	GEN	810
4359	32	15	B	06X1		4	1153	, U39		810
4360	32	16	MN			4	1157	B #86		810
4361	32	17	MN			4	1161	D 0+0		810
4362	32	18	MN			1	1165	D		811
4363	32	19	SAR	X3		4	1166	Q 099		811
4364	32	20	SBR	MKFMT&6		4	1170	H T97		811
4365	32	21	MCH	06X3, CODE		7	1174	M 060 879		811
4366	32	22	SAR	X3		4	1181	Q 099		811
4367	32	23	B	CKFMT, CODE-3, F		8	1185	B T15 876 F		811
4368	32	24	MCH	CODE-3, *68		7	1193	M 876 S07		811

SEQ PG	LIN	LABEL	DP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4369	32 25		BCE	YESIO, a56ULPa, X	T	8	1200	B S91 U44 X	MACRO	812
4370	32 26		CHAIN 4						GEN	812
4371			BCE		T	1	1208	B	GEN	812
4372			BCE		T	1	1209	B	GEN	812
4373			BCE		T	1	1210	B	GEN	812
4374			BCE		T	1	1211	B	GEN	812
4375	32 27		B	CHKND	T	4	1212	B #44		812
4376	32 28		MN	OEX1	T	4	1216	D O#0		812
4377	32 29	FINI	MN		T	1	1220	D		813
4378	32 30		SAR	X1	T	4	1221	Q 089		813
4379	32 31		MCH	LSTIO, X2	T	7	1225	M U57 094		813
4380	32 32		MCH	NXBTH, X3	T	7	1232	M 083 099		813
4381	32 33		MCH	a a, OEX3	T	7	1239	M U45 060		813
4382	32 34		MCH	OEX3	T	4	1246	M 060		813
4383	32 35		MCH	CKBIT, OEX3	T	7	1250	M 872 060		813
4384	32 36		FENDX	C,GM1,TAMROF,,TAMROF,TAMAX,TAMROF 2					MACRO	
4385			BSS	333,C	T	5	1257	B 333 C	GEN	814
4386			SBR	INITAP66,TAMROF	T	7	1262	M 786 980	GEN	814
4387			SBR	BCLEAR	T	4	1269	M 833	GEN	814
4388			SBR	TCLEAR,TAMAX	T	7	1273	M 710 000	GEN	814
4389			LCA	@TAMROF 2a,110	T	7	1280	L U53 110	GEN	814
4390			B	MONTER	T	4	1287	B 700	GEN	814
4391	32 37	* YESIO	MZ	aAa, 36X3	T	7	1291	Y U54 063		815
4392	32 38		CM	IOSW	T	4	1298	B U38		815
4393	32 39		MN	OEX1	T	4	1302	D O#0		815
4394	32 40		MN		T	1	1306	D		815
4395	32 41		MN		T	4	1307	Q U57		815
4396	32 42		SAR	LSTIO#3	T	4	1311	B #44		815
4397	32 43		B	CHKND	T	4	1311	B #44		815
4398	32 44	* CKFMT	MCH	a a, 96	T	7	1315	M U45 096		815
4399	32 45		BW	UNREF, IOSW	T	8	1322	Y T61 U38 1		816
4400	32 46		BCE	UNREF, OEX3,	T	8	1330	B T61 060		816
4401	32 47		MCH	OEX3, FBOX#3	T	7	1338	M 060 U60		816
4402	32 48		MCH	LSTIO, X3	T	7	1345	M U57 099		816
4403	32 49		BWZ	IOTYP, OEX3, B	T	8	1352	Y U02 060 B		816
4404	32 50	RUID	BWZ		T	8	1352	Y U02 060 B		816
4405	32 51		FTMSG	14,UNREFERENCED FORMAT, CODE,21,NOFAIL					MACRO	
4406	32 52	UNREF	CS	332	T	4	1361	/ 332	GEN	817
4407		UNREF	CS		T	1	1365	/	GEN	817
4408			MN	CODE,22+621	T	7	1366	D 879 245	GEN	817
4409			MN		T	1	1373	D	GEN	817
4410			MN		T	1	1374	D	GEN	817
4411			MCH	aERROR 14 - UNREFERENCED FORMAT, STATEMENT a	T	4	1375	M V02	GEN	817
4412			W		T	1	1379	Z	GEN	817
4413			BCV	#65	T	5	1380	B T89 a	GEN	818
4414			B	#63	T	4	1385	B T91	GEN	818
4415			CC	1	T	2	1389	F 1	GEN	818
4416			MZ	aAa, XXX	T	7	1391	Y U54 000	GEN	818
4417	32 53	MKFMT	B	CHKND	T	4	1398	B #44		818
4418	32 54		B		T	4	1398	B #44		818

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4419	32 55		C	06X3	T	4	1402	C 060		818
4420	32 56		SAR	X3	T	4	1406	Q 099		818
4421	32 57		C	06X3, FBOX	T	7	1410	C 060 U60		819
4422	32 58		BE	CHKND	T	5	1417	B' #44 S		819
4423	32 59		C	06X3	T	4	1422	C 060		819
4424	32 60		SAR	X3	T	4	1426	Q 099		819
4425	32 61		B	RUIO	T	4	1430	B T52		819
4426	32 62	*								
4427	32 63		LTORG *		T	3	1436	1434	ADCON	819
4329			DCW	ETAMR1	T	1	1437	V99	LIT	819
4335		IOSW		#02	T	1	1438		AREA	820
4340		DBLSW		#01	T	1	1439		AREA	820
4369				256ULP2	T	5	1444		LIT	820
4389				2	T	1	1445		LIT	820
4396		LSTIO		TAMROF 22	T	8	1453		LIT	820
4402		FBOX		2A2	T	1	1454		LIT	820
4412				#03	T	3	1457		AREA	820
4428	32 64	GMI		#03	T	3	1460		AREA	821
4429	32 65		DCW	2	T	42	1502		LIT	823
4430	32 66	TAMR1	ORG	2	T	1	1503		LIT	823
4431	32 67		EQU	*6X00	T	1	1599	1600		
			XFR	*	T		1599	B 980		824
				TAMROF	T					

UNREFERENCED FORMAT, STATEMENT 2  
SYSTEM AND WORK GM

SEQ PG	LTN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4432	32 68		JOB	1401 FORTRAN TAMROF TWO	T	8	0110			827
4433	32 69	110	DCH	@TAMROF, 20						
4434	32 70	*			T		0094			
4435	32 71	XL2	EQU	X2	T		0099	0980		
4436	32 72	XL3	EQU	X3	T					
4437	32 73		ORG	TAMROF	T					
4438	32 74	*								
4439	32 75	PHSE2	BCE	END2, 96, .	T	8	0980	B #21 096 .		828
4440	32 76		MCW	X2, IOBGN66	T	7	0988	H 094 J47		828
4441	32 77	RETRN	SBR	X2, 2EX1	T	7	0995	H 094 0+2		828
4442	32 78		LCA	a a	T	4	1002	L M08		828
4443	32 79		MCW	0EX1, CODE	T	7	1006	M 0+0 879		828
4444	32 80		BCE	MOR, CODE-3, F	T	8	1013	R #62 876 F		829
4445	32 81	END2	FENDX	C, GM2, XBEGIN, PHSE1X, XBEGIN, SYS2, LISTR1					MACRO	
4446		END2	BSS	333, C	T	5	1021	B 333 C	GEN	829
4447			SBR	INITAP66, XBEGIN	T	7	1026	H 786 838	GEN	829
4448			SBR	BCLEAR	T	4	1033	H 833	GEN	829
4449			SBR	INITXTE3, PHSE1X	T	7	1037	H 796 845	GEN	829
4450			SBR	TCLEAR, SYS2	T	7	1044	H 710 N99	GEN	829
4451			LCA	ALISTR10, 110	T	7	1051	L M14 110	GEN	830
4452			B	MONTER	T	4	1058	B 700	GEN	830
4453	32 82	MOR	C	0EX1	T	4	1062	C 0+0		830
4454	32 83		SAR	X1	T	4	1066	Q 089		830
4455	32 84		SBR	COMPLE6	T	4	1070	H /21		830
4456	32 85		MCW	4EX1, FMTND#3	T	7	1074	M 0+4 M17		830
4457	32 86		SW	SW1#1	T	4	1081	M18		830
4458	32 87		CW	PARSW#1	T	4	1085	M19		831
4459	32 88		ZA	61, NCTR	T	7	1089	Z M20 M26		831
4460	32 89		BCE	ERSIG, 0EX1, B	T	8	1096	B 558 0+0		831
4461	32 90		MCW	X2, SCNBX#3	T	7	1104	M 094 M23		831
4462	32 91		B	BGIN	T	4	1111	B V10		831
4463	32 92	* COMPL	SBR	X1, XXX	T	7	1115	H 089 000		831
4464	32 93	SETN	ZA	61, NCTR#3	T	7	1122	C M20 M26		832
4465	32 94	COMRT	BCE	RTPAR, 0EX1, B	T	8	1129	B V41 0+0		832
4466	32 95		SBR	COMPLE6	T	4	1137	H /21		832
4467	32 96		BCE	LFPAR, 0EX1, B	T	8	1141	B U98 0+0		832
4468	32 97		FBCEQ	ARIT, 0EX1, I, F, E					MACRO	
4469	32 98		BCE	ARIT, 0EX1, I	T	8	1149	B W64 0+0	GEN	832
4470			BCE	ARIT, 0EX1, F	T	8	1157	B W64 0+0	GEN	833
4471			BCE	ARIT, 0EX1, E	T	8	1165	B W64 0+0	GEN	833
4472			BCE	ARIT, 0EX1, A	T	8	1173	B W64 0+0	GEN	833
4473	32 99		FBCEQ	PGET, 0EX1, B, -					MACRO	
4474	33 00		BCE	PGET, 0EX1, C	T	8	1181	B U24 0+0	GEN	833
4475			BCE	PGET, 0EX1, -	T	8	1189	B U24 0+0	GEN	834
4476			BCE	SLASH, 0EX1, B	T	8	1197	B W36 0+0	GEN	834
4477	33 01		C	0EX1, aza	T	7	1205	C 0+0 M27		834
4478	33 02		BL	MV2N	T	5	1212	B Z04 T		834
4479	33 03		BL	PUTN	T	5	1217	B Z98 T		834
4480	33 04		BL	ERSIG, SW1	T	8	1222	V 558 M18 1		835
4481	33 05		BW							

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
4482 33 06		BCE	HNOT, 0&X1, H	T 8	1230	B T06 0#0 H		835
4483 33 07		SBR	X1	T 4	1238	H 089		835
4484 33 08		BCE	XNOT, 1&X1, X	T 8	1242	S S81 0#1 X		835
4485 33 09		BCE	PNOT, 1&X1, P	T 8	1250	B U79 0#1 P		835
4486 33 10	*							
4487 33 11	ERSIG	B	GETST	T 4	1258	B 880		836
4488 33 12		MCW	@15 - FORMAT SYNTAX,ERROR&IT	T 7	1262	H M45 223		836
4489 33 13	ERRWT	W		T 1	1269	Z		836
4490 33 14		MZ	@A@, CODE	T 7	1270	Y M46 879		836
4491 33 15		B	FINIS	T 4	1277	B -42		836
4492 33 16	*							
4493 33 17	XNOT	SW	8&X2	T 4	1281	, 0-8		836
4494 33 18		SBR	X2	T 4	1285	H 094		836
4495 33 19		LCA	KX	T 4	1289	L L83		837
4496 33 20		MN	NCTR, 0&X2	T 7	1293	D M26 0-0		837
4497 33 21		MN		T 1	1300	D		837
4498 33 22		MN		T 1	1301	D		837
4499 33 23		B	MKND	T 4	1302	B Y35		837
4500 33 24	*							
4501 33 25	HNOT	SW	5&X2	T 4	1306	, 0-5		837
4502 33 26		CW	X2	T 1	1310	H 094		837
4503 33 27		SBR	KH, 1&X2	T 4	1311	H 094		838
4504 33 28		LCA	&I, NCTR	T 7	1315	L L76 0-1		838
4505 33 29		S	ERSIG, NCTR	T 7	1322	S M20 M26		838
4506 33 30		BM	0&X1	T 8	1329	V S58 M26.K		838
4507 33 31		MN	X1	T 4	1337	D 0#0		838
4508 33 32		SAR	0&X1, 2&X2	T 4	1341	D 0#0		838
4509 33 33		MN	X2	T 7	1345	D 0#0 0-2		839
4510 33 34	FLIP	SBR	0&X1, 1&X2	T 7	1352	H 094		839
4511 33 35		MZ	X1	T 4	1356	Y 0#0 0-1		839
4512 33 36		SAR	COMPL&6	T 4	1363	Q 089		839
4513 33 37		SBR	2&X2	T 4	1367	H /21		839
4514 33 38		CW	&I, NCTR	T 4	1371	D 0-2		839
4515 33 39		S	HLERR,0&X1,	T 7	1375	S M20 M26		839
4516 33 40		BCE	FLIP, NCTR, B	T 8	1382	B U09 0#0		840
4517 33 41		BWZ	X2,1&X2	T 8	1390	V T45 M26 B		840
4518 33 42	BX2B2	SBR	MKND	T 7	1398	H 094 0-1		840
4519 33 43		B	GETST	T 4	1405	B Y35		840
4520 33 44	HLERR	B	@45 - HOLLERITH COUNT@,ERROR &25	T 4	1409	B 880		840
4521 33 45		MCW	BX2B2	T 7	1413	M M66 231		840
4522 33 46		W		T 4	1420	Z T98		841
4523 33 47	*							
4524 33 48	PGET	MZ	0&X1, NCTR	T 7	1424	Y 0#0 M26		841
4525 33 49		SAR	X1	T 4	1431	Q 089		841
4526 33 50		B	MV2N	T 4	1435	B Z04		841
4527 33 51		C	X3, @02@	T 7	1439	C 099 M69		841
4528 33 52		BL	ERSIG	T 5	1446	B S58 T		841
4529 33 53		MN	X3, NCTR	T 7	1451	D 099 M26		841
4530 33 54		MN		T 1	1458	D		842
4531 33 55		C	0&X1, @A	T 7	1459	C 0#0 M70		842

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4532	33		SAR	COMPL&6	T	4	1466	Q /21		842
4533	33		SBR	X1	T	4	1470	H 089		842
4534	33		BU	ERSIG	T	5	1474	B S58 /		842
4535	33	*								
4536	33		SBR	X2, 7&X2	T	7	1479	H 094 0-7		842
4537	33		LCA	NCTR	T	4	1486	L M26		842
4538	33		LCA	KP	T	4	1490	L M07		843
4539	33		B	MKND	T	4	1494	B Y35		843
4540	33	*								
4541	33		BW	PARER, PARSW	T	8	1498	V V69 M19 1		843
4542	33		SW	PARSW	T	4	1506	, M19		843
4543	33		SW	8&X2	T	4	1510	, 0-8		843
4544	33		SBR	X2	T	4	1514	H 094		843
4545	33		CW	URFSW	T	4	1518	D N50		843
4546	33		LCA	NCTR,0&X2	T	7	1522	L M26 0-0		844
4547	33		LCA	KLEFT	T	4	1529	L L87		844
4548	33		SW	SW1	T	4	1533	, M18		844
4549	33		B	COMPL	T	4	1537	B /15		844
4550	33	*								
4551	33		MN	0&X1	T	4	1541	D 0#0		844
4552	33		SAR	COMPL&6	T	4	1545	Q /21		844
4553	33		SBR	*67	T	4	1549	H V59		844
4554	33		BCE	EDSTM, XXX, GMM	T	8	1553	B M12 000		845
4555	33		BW	PAROK, PARSW	T	8	1561	V V84 M19 1		845
4556	33		B	GETST	T	4	1569	B 880		845
4557	33		MCM	016 - PARENTHESIS ERROR,ERROR&22	T	7	1573	M M92 228		845
4558	33		B	ERRWT	T	4	1580	B S69		845
4559	33	*								
4560	33		CW	PARSW	T	4	1584	D M19		845
4561	33		SW	5&X2	T	4	1588	, 0-5		845
4562	33		SBR	X2	T	4	1592	H 094		846
4563	33		LCA	KRITE	T	4	1596	L L91		846
4564	33		MN	0&X1	T	4	1600	D 0#0		846
4565	33		SAR	X1	T	4	1604	Q 089		846
4566	33		B	MKND	T	4	1608	B Y35		846
4567	33	*								
4568	33		CW	5&X2	T	4	1612	D 0-5		846
4569	33		SBR	X2	T	4	1616	H 094		846
4570	33		LCA	KEQJ	T	4	1620	L M03		847
4571	33		BW	PARER, PARSW	T	8	1624	V V69 M19 1		847
4572	33		B	FINIS	T	4	1632	B -42		847
4573	33	*								
4574	33		BW	*65, SW1	T	8	1636	V W48 M18 1		847
4575	33		B	ERSIG	T	4	1644	B S58		847
4576	34		SW	5&X2	T	4	1648	, 0-5		847
4577	34		SBR	X2	T	4	1652	H 094		847
4578	34		LCA	KLINE	T	4	1656	L L95		848
4579	34		B	COMPL	T	4	1660	B /15		848
4580	34	*								
4581	34		SW	5&X2	T	4	1664	, 0-5		848



SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4582 34 06		LCA	KARIT	T	4	1668	L L99		848
4583 34 07	MVRPT	LCA	NCTR,8&X2	T	7	1672	L M26 0-8		848
4584 34 08		MCH	0&X1	T	4	1679	M 0+0		848
4585 34 09		SAR	X1	T	4	1683	Q 089		849
4586 34 10		B	MV2N	T	4	1687	B Z04		849
4587 34 11		ZA	XL3, WCTR#3	T	7	1691	E 099 M95		849
4588 34 12		SW	IEKIT&4	T	4	1698	Y Y12		849
4589 34 13		BCE	CLRI, 5&X2, F	T	8	1702	B X33 0-5 F	MACRO	849
4590 34 14		FBCEQ	NOSUB, 5&X2, I, A	T	8	1710	B X72 0-5 I GEN		849
4591		BCE	NOSUB, 5&X2, I	T	8	1718	B X72 0-5 A GEN		849
4592		BCE	NOSUB, 5&X2, A	T	7	1726	S M96 M95		850
4593 34 15		S	64, WCTR	T	4	1733	Y Y12		850
4594 34 16	CLRI	CW	IEKIT&4	T	7	1737	C 0+0 M97		850
4595 34 17		C	0&X1, @.a	T	4	1744	Q 089		850
4596 34 18		SAR	X1	T	5	1748	B S58 /		850
4597 34 19		BU	ERSIG	T	4	1753	B Z04		850
4598 34 20		B	MV2N	T	4	1757	S 099 M95		850
4599 34 21		S	XL3, WCTR	T	7	1757	S 099 M95		850
4600 34 22		BH	EINPT,WCTR	T	8	1764	V Y70 M95 K		851
4601 34 23	NOSUB	BCE	@68, 5&X2, F	T	8	1772	B X87 0-5 F		851
4602 34 24		A	64, X3	T	7	1780	A M96 099		851
4603 34 25	HERE	SBR	X2,11&X2	T	7	1787	H 094 0J1		851
4604 34 26		NZ	*-4,WCTR	T	7	1794	Y X96 M95		851
4605 34 27		LCA	WCTR,0&X2	T	7	1801	L M95 0-0		852
4606 34 28	IEKIT	BCE	CKZRO, *-7, C	T	8	1808	B Y27 Y08 C		852
4607 34 29		SBR	XL2, 3&X2	T	7	1816	H 094 0-3		852
4608 34 30		LCA	XL3	T	4	1823	L 099		852
4609 34 31	CKZRO	BH	ERSIG,WCTR	T	8	1827	V S58 M95 K		852
4610 34 32	MKND	SW	SW1	T	4	1835	Y M18		852
4611 34 33	LK4CM	C	0&X1,@,a	T	7	1839	C 0+0 M9B		853
4612 34 34		SAR	COMPL&6	T	4	1846	Q /21		853
4613 34 35		SBR	X1	T	4	1850	H 089		853
4614 34 36		BE	LK4CM	T	5	1854	B Y39 S		853
4615 34 37		SBR	X1,1&X1	T	7	1859	H 089 0+1		853
4616 34 38		B	SETN	T	4	1866	B /22		853
4617 34 39	EINPT	A	XL3,WCTR	T	7	1870	A 099 M95		853
4618 34 40		A	@4a,WCTR	T	7	1877	A M99 M95		854
4619 34 41		MN	WCTR,XL3	T	7	1884	D M95 099		854
4620 34 42		MN		T	1	1891	D		854
4621 34 43		MN		T	1	1892	D		854
4622 34 44		MCH	@000a,WCTR	T	7	1893	M N02 M95		854
4623 34 45		B	HERE	T	4	1900	B X87		854
4624 34 46									
4625 34 47	* MV2N	SBR	MV2XTE3	T	4	1904	H Z97		854
4626 34 48		S	XL3&1	T	4	1908	S L00		855
4627 34 49		C	0&X1, @a	T	7	1912	C 0+0 N03		855
4628 34 50		BH	ERSIG	T	5	1919	B S58 U		855
4629 34 51	MVDIG	MN	0&X1, XL3	T	7	1924	D 0+0 099		855
4630 34 52		SAR	X1	T	4	1931	Q 089		855
4631 34 53		C	0&X1, @a	T	7	1935	C 0+0 N03		855

(BM TESTE) WCTR

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4632	34	54	BH	CHKN	T	5	1942	B Z77 U		855
4633	34	55	C	XL3, @133@	T	7	1947	C 099 N06		856
4634	34	56	BL	ERSIG	T	5	1954	B S58 T		856
4635	34	57	MN	XL3-1, XL3-2	T	7	1959	D 098 097		856
4636	34	58	MN	XL3, XL3-1	T	7	1966	D 099 098		856
4637	34	59	B	MVDIG	T	4	1973	B Z24		856
4638	34	60	*							
4639	34	61	C	@134@, XL3	T	7	1977	C N09 099		856
4640	34	62	BH	ERSIG	T	5	1984	B S58 U		857
4641	34	63	BE	ERSIG	T	5	1989	B S58 S		857
4642	34	64	B	XXX	T	4	1994	B 000		857
4643	34	65	*							
4644	34	66	*							
4645	34	67	PUTN	XL3, NCTR	T	7	1998	E 099 M26		857
4646	34	68	SW	BCEQ&7	T	4	2005	F -30		857
4647	34	69	MCM	O&X1, BCEQ&7	T	7	2009	M 0#0 -30		857
4648	34	70	CW	BCEQ&7, SW1	T	7	2016	D -30 M18		857
4649	34	71	BCEQ	COMRT, @PAXHIF&@, X	T	8	2023	B /29 N17 X		858
4650	34	72	CHAIN 7							
4651			BCE		T	1	2031	B	MACRO	858
4652			BCE		T	1	2032	B	GEN	858
4653			BCE		T	1	2033	B	GEN	858
4654			BCE		T	1	2034	B	GEN	858
4655			BCE		T	1	2035	B	GEN	858
4656			BCE		T	1	2036	B	GEN	858
4657			BCE		T	1	2037	B	GEN	859
4658	34	73	B	ERSIG	T	4	2038	B S58		859
4659	34	74	*							
4660	34	75	FINIS	NXBTM, X3	T	7	2042	M 083 099		859
4661	34	76	MCM	SETX2, CODE, B	T	8	2049	V K60 879 B		859
4662	34	77	BWZ	O&X3, CKBIT	T	7	2057	C 060 872		859
4663	34	78	C		T	5	2064	B 838 /		859
4664	34	79	BU	KLOBR	T	7	2069	L 0-0 0&0		859
4665	34	80	LCA	O&X2, O&X3	T	4	2076	Q 094		860
4666	34	81	SAR	X2	T	4	2080	C 0&0		860
4667	34	82	C	O&X3	T	4	2084	Q 099		860
4668	34	83	SAR	X3	T	4	2088	D 0-1		860
4669	34	84	CW	1&X2	T	7	2092	C 094 M23		860
4670	34	85	C	X2, SCNBX	T	5	2099	B -69 /		860
4671	34	86	BU	MVDWN	T	7	2104	H 875 0&0		860
4672	34	87	SBR	HEX3, O&X3	T	4	2111	D 0-0		861
4673	34	88	CW	O&X2	T	1	2115	D		861
4674	34	89	MCM		T	1	2116	M		861
4675	34	90	SAR	X2	T	4	2117	Q 094		861
4676	34	91	CW	1&X2	T	4	2121	D 0-1		861
4677	34	92	BW	MVZGM, URFSM	T	8	2125	V K48 N50 I		861
4678	34	93	BCE	MVZGM, IOBGN&5,	T	8	2133	B K48 J46		861
4679	34	94	SBR	X2, XXX	T	7	2141	H 094 000		862
4680	34	95	IOBGN	REFSW#1	T	4	2148	D N18		862
4681	34	96	CW	MVADRC6, 1&X3	T	7	2152	H L46 0&1		862
4681	34	96	SBR		T	7	2152	H L46 0&1		862

TESTE BCE E1NPT, S+X2, E  
 B ERSIG

BLANK

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4682	34 97	REPLS	MN	OEX2	T	4	2159	D 0-0	MACRO	862
4683	34 98		CHAIN 2						GEN	862
4684			MN						GEN	862
4685			MN							862
4686	34 99		SAR	X3						862
4687	35 00		MN	OEX3, *E15				Q 099		863
4688	35 01		MZ	OEX3, *E8				D OEO J90		863
4689	35 02		BCE	IOMK, @56ULP@, X				Y OEO J90		863
4690	35 03		CHAIN 4					B K97 N23 X		863
4691			BCE						MACRO	863
4692			BCE					B	GEN	863
4693			BCE					B	GEN	863
4694			BCE					B	GEN	863
4695	35 04		BW					V K19 N18 1		864
4696	35 05		B	NDRPL, REFSW				B		864
4697	35 06		MCW	GETST				B 880		864
4698	35 07		W	@17 - DOUBLY DEFINED FORMATA,ERROR&26				M N49 232		864
4699	35 08		B					2		864
4700	35 09	NDRPL	MCW	FBAD				K 75		864
4701	35 10		BWZ	HEX3, X3				M 875 099		864
4702	35 11	FDKAY	MCW	FBAD, CODE, B				V K75 879 B		865
4703	35 12		MCW	X3, NX8TM				M 099 083		865
4704	35 13	MVZGM	C	CKBIT, OEX3				M 872 OEO		865
4705	35 14		SAR	OEX1				C 0*0		865
4706	35 15		B	X1				Q 089		865
4707	35 16		MCW	RETRN				B 995		865
4708	35 17	SETX2	SW	X2, X3				M 094 099		865
4709	35 18		B	URFSW#1				, N50		866
4710	35 19		MCW	MVDWN				B -69		866
4711	35 20	FBAD	LCA	NX8TM, X3				M 083 099		866
4712	35 21		SBR	@.@,OEX3				L M97 OEO		866
4713	35 22		B	X3				H 099		866
4714	35 23	IOMK	C	FDKAY				C OEO		866
4715	35 24		SAR	OEX3				C 094		866
4716	35 25		BWZ	X2				V L17 OEO B		867
4717	35 26		B	*65, 2&X3, B				B L61		867
4718	35 27		C	NDSWT				C 0-0 M17		867
4719	35 28		BU	OEX2, FMTNO				B L61 /		867
4720	35 29		SW	NDSWT				# N18		867
4721	35 30		MA	REFSW				* L63 L46		868
4722	35 31	MVADR	SBR	MACFLS, MVADR&6				H 0-0 000		868
4723	35 32		MZ	OEX2, XXX				Y M08 OEO		868
4724	35 33		MA	@ @, 2&X3				# 160 L46		868
4725	35 34	NOSWT	C	PLUSDF, MVADR&6				Q 094		868
4726	35 35		SAR	OEX2				B J59		868
4727	35 36		B	X2						868
4728	35 37	*		REPLS						868
4729	35 38	KH	DCW	@BL28@						869
4730	35 39	KK	DCW	@H0990EO@						869
4731	35 40	KLEFT	DCW	@BJ52@						869

SEQ PG	LN	LABEL	OP	OPERANDS	CHANGE IF OBJ	FORMAT REASSEMBLED	SFX CT	LOCN	INSTRUCTION TYPE	CARD
4732	35 41	KRITE	DCW	OBJ850	CLSPR	CHANGE IF OBJ	4	2391	LIT	869
4733	35 42	KLINE	DCW	OBJK080	NDLIN	CHANGE IF OBJ	4	2395	LIT	869
4734	35 43	KARIT	DCW	OBJL850	GETW	CHANGE IF OBJ	4	2399	AREA	869
4735	35 44	KEOJ	DCW	OBJK230	EOJ1	CHANGE IF OBJ	4	2403	AREA	869
4736	35 45	KP	DCW	OBJL100	SCALE	CHANGE IF OBJ	4	2407	LIT	869
4737	35 46		LTDORG *					2408		
			DCW	OBJA			1	2408	LIT	870
4451				OBJL1STR10			6	2414	LIT	870
4456		FMTNO		OBJ3			3	2417	AREA	870
4457		SWI		OBJ1			1	2418	AREA	870
4458		PARSW		OBJ1			1	2419	AREA	870
				OBJ1			1	2420	LIT	870
4461		SCNBX		OBJ3			3	2423	AREA	870
4465		NCTR		OBJ3			3	2426	AREA	871
				OBJ20			1	2427	LIT	871
4488				OBJ15 -	FORMAT SYNTAX0		18	2445	LIT	871
				OBJ40			1	2446	LIT	871
4521				OBJ45 -	HOLLERITH COUNT0		20	2466	LIT	872
				OBJ2000			3	2469	LIT	872
				OBJ0			1	2470	LIT	872
4557				OBJ16 -	PARENTHESIS ERROR0		22	2492	LIT	873
4587		WCTR		OBJ03			3	2495	AREA	873
				OBJ4			1	2496	LIT	873
				OBJ0			1	2497	LIT	873
				OBJ0			1	2498	LIT	873
				OBJ0			1	2499	LIT	873
				OBJ0000			3	2502	LIT	873
				OBJ00			1	2503	LIT	874
				OBJ1330			3	2506	LIT	874
				OBJ1340			3	2509	LIT	874
				OBJPAXHIFE0			8	2517	LIT	874
4649		REFSW		OBJ01			1	2518	AREA	874
4680				OBJ056ULP0			5	2523	LIT	874
4689				OBJ17 -	DOUBLY DEFINED FORMATA		26	2549	LIT	875
4697				OBJ01			1	2550	AREA	875
4708		URFSW		OBJ*EX00				2600		
4738	35 47		ORG	OBJ*-1				2599		
4739	35 48		ORG	OBJ0			1	2599		876
4740	35 49	SYS2	DCW	OBJ0			1	2600		876
4741	35 50	TAMAX	DCW	OBJ1			1	2600		876
4742	35 51	PHSE2	XFR	OBJPHSE2				B 980		877

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4743	35 52		JOB	1401 FORTRAN LISTS PHASE ONE						
4744	35 53		FBEGN	LISTR 1,X1,X2,R,X3,R,X						
4745			SFX	X						
4746		110	DCW	ALISTR 1a	X	7	0110		MACRO	
4747		X1	EQU	089	X				GEN	880
4748		X2	EQU	094	X				GEN	
4749		094	DCW	000	X	3	0094		GEN	
4750		096	DC	00	X	2	0096		GEN	881
4751		X3	EQU	099	X				GEN	881
4752		099	DCW	000	X	3	0099		GEN	
4753		100	DC	0	X	1	0100		GEN	881
4754	35 54	NXBTH	EQU	083	X				GEN	
4755	35 55	*	CHECKS FOR DUPLICATE LISTS							
4756	35 56	ORG	XBEGIN					083R		
4757	35 57	CODE	DCW	#4	X	4	0841			882
4758	35 58	ABOBTM	DCW	#3	X	3	0844			882
4759	35 59	PHSE1	MCW	X1,ABOBTM	X	7	0845	M 089 844		882
4760	35 60		MCW	NXBTH,X2	X	7	0852	M 083 094		882
4761	35 61		LCA	0.0,0&X2	X	7	0859	L 513 0-0		882
4762	35 62		CW	0&X2	X	4	0866	D 0-0		882
4763	35 63		SBR	NXBTH	X	4	0870	H 083		882
4764	35 64		SBR	PERIOD,0&X2	X	7	0874	H 154 0-0		883
4765	35 65	START	MA	MACFLS,PERIOD	X	7	0881	# 163 154		883
4766	35 66		BCE	DUN,000&X1,	X	8	0888	B 768 0&0		883
4767	35 67		MCW	000&X1,CODE	X	7	0896	M 0&0 841		883
4768	35 68		MCW	X1,ALTER&6	X	7	0903	M 089 763		883
4769	35 69		MCW	CODE-3,*&8	X	7	0910	M 838 924		884
4770	35 70		BCE	LIST,05613LUPa,0	X	7	0917	B 935 520 0		884
4771	35 71		CHAIN	6	X	8	0917		MACRO	
4772			BCE		X	1	0925	B	GEN	884
4773			BCE		X	1	0926	B	GEN	884
4774			BCE		X	1	0927	B	GEN	884
4775			BCE		X	1	0928	B	GEN	884
4776			BCE		X	1	0929	B	GEN	884
4777			BCE		X	1	0930	B	GEN	885
4778	35 72		B	DUN	X	4	0931	B 768		885
4779	35 73	LIST	C	000&X1	X	4	0935	C 0&0		885
4780	35 74		SAR	X1	X	4	0939	Q 089		885
4781	35 75		B	COMNA	X	4	0943	B #88		885
4782	35 76		CW	XDDINI	X	4	0947	D 114		885
4783	35 77		BCE	NEXT1,PARAM&10,L	X	8	0951	D 963 696 L		885
4784	35 78		CW	XOBLST	X	4	0959	D 115		886
4785	35 79	NEXT1	SW	000&X1	X	4	0963	, 0&0		886
4786	35 80		SAR	X1	X	4	0967	Q 089		886
4787	35 81		MCW	ABOBTM,X3	X	7	0971	M 844 099		886
4788	35 82	RUDUP	C	0&X3	X	4	0978	C 0&0		886
4789	35 83		C		X	1	0982	C		886
4790	35 84		SAR	X3	X	4	0983	Q 099		886
4791	35 85		BCE	RUDUP,1&X3,	X	8	0987	B 978 0&1		887
4792	35 86		C	X1,X3	X	7	0995	C 089 099		887

GM

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCH	INSTRUCTION TYPE	CARD
4793	35		BU	COMP	X	5	1002	B #19 /	887
4794	35	PASS	C	000EX1	X	4	1007	C 0#0	887
4795	35		SAR	X1	X	4	1011	Q 089	887
4796	35		B	START	X	4	1015	B 888	887
4797	35	COMP	C	000EX1,000EX3	X	7	1019	C 0#0 0E0	888
4798	35		BU	RESET	X	5	1026	B #68 /	888
4799	35		C	000EX3,000EX1	X	7	103X	C 0E0 0#0	888
4800	35		BU	RESET	X	5	1038	B #68 /	888
4801	35		BWZ	WRONG,0EX1,1	X	8	1043	V /16 0#0 1	888
4802	35		BWZ		X	1	1051	V	888
4803	35		BWZ		X	1	1052	V	888
4804	35		LCA	X3,000EX1	X	7	1053	L 099 0#0	888
4805	35		SBR	X1	X	4	1060	H 069	889
4806	36		B	PASS	X	4	1064	H #07	889
4807	36	RESET	C	000EX3	X	4	1063	C 0E0	889
4808	36		SAR	X3	X	4	1072	Q 099	889
4809	36		BCE	RUDUP,1EX3,	X	8	1076	B 978 0E1	889
4810	36		B	RESET	X	4	1084	B #68	889
4811	36	COMMA	SBR	EXCMAE3	X	4	1088	H /03	889
4812	36	CKNG	BW	PASS,0EX1	X	8	1092	V #07 0#0 1	890
4813	36	EXCMA	BCE	000,000EX1,,	X	8	1100	B 000 0#0 ,	890
4814	36		SBR	X1	X	4	1108	H 089	890
4815	36		B	CKNG	X	4	1112	B #92	890
4816	36	WRONG	FTMSG 18,,LIST SYNTAX,CODE,13						
4817	36	WRONG	CS	332	X	4	1116	/ 332	MACRO 890
4818			CS		X	1	1120	/	GEN 890
4819			SW	FAILSW	X	4	1121	, 184	GEN 890
4820			MIN	CODE,224E13	X	7	1125	D 8#1 237	GEN 891
4821			MIN		X	1	1132	D	GEN 891
4822			MIN		X	1	1133	D	GEN 891
4823			MCW	ERROR 18 - LIST SYNTAX, STATEMENT a	X	4	1134	M S54	GEN 891
4824			W		X	1	1138	2	GEN 891
4825			BCV	#E5	X	5	1139	B /48 a	GEN 891
4826			B	#E3	X	2	1144	B /50	GEN 891
4827			CC	1	X	4	1148	F 1	GEN 892
4828	36		MCW	a/a, CODE-3	X	7	1150	M S55 838	892
4829	36	ALTER	MCW	CODE,000	X	7	1157	M 841 000	892
4830	36		B	PASS	X	4	1164	B #07	892
4831	36		SW	000EX1	X	4	1168	, 0#0	892
4832	36	DUN	MCW	ABOTM,X1	X	4	1172	M 844 089	892
4833	36		FENDX C,,PHSE1,,PHSE1,SYSL,LISTR TWO						
4834			BSS	333,C	X	5	1179	B 333 C	MACRO 892
4835			SBR	INITAP66,PHSE1	X	7	1184	H 786 845	GEN 893
4836			SBR	BCLEAR	X	4	1191	H 833	GEN 893
4837			SBR	TCLEAR,SYSL	X	7	1195	H 710 S65	GEN 893
4838			LCA	ALISTR TWOa,110	X	7	1202	L S64 110	GEN 893
4839			B	MONTER	X	4	1209	B 700	GEN 893
4840	36		LTORG *		X			1213	
			DCW	a.a	X	1	1213		LIT 893
				25613LUPa	X	7	1220		LIT 893

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4823			ERROR 18 - LIST SYNTAX, STATEMENT @	X	34	1254	LIT	LIT	894
4838			@/ @	X	1	1255	LIT	LIT	894
4841 36 18	SYS1	DCW	ALISTR TMD@	X	9	1264	LIT	LIT	895
4842 36 19	XFR	XFR	@ @	X	1	1265	LIT	LIT	895
			SYSTEM GROUP MARK	X					896
			PHSE1						
									B 845

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4843	36 20		JOB	1401 FORTRAN LISTS PHASE TWO						
4844	36 21	* REORDERS,	DCW	SQUEEZES, ERROR CHECKS, AND STORES LIST						
4845	36 22	110	DCW	ALISTR TMOB	X	9	0110			R99
4846	36 23		ORG	PHSE1	X			0845		
4847	36 24	PHSE2	MCW	NXB7M,X2	X	7	0845	M 083 094		900
4848	36 25	GO	BWZ	OUT,000EX1,1	X	8	0852	V Z88 0#0 1		900
4849	36 26		MCW	X2,HEX2#3	X	7	0860	M 094 -53		900
4850	36 27		MCW	000EX1, CODE	X	7	0867	M 0#0 841		900
4851	36 28		MCW	X1,EMASQ66	X	7	0874	M 089 Z69		900
4852	36 29		C	000EX1	X	4	0881	C 0#0		901
4853	36 30		SAR	X1	X	4	0885	Q 089		901
4854	36 31		SBR	X3	X	4	0889	H 099		901
4855	36 32		C	0EX3	X	4	0893	C 060		901
4856	36 33	SLIP	SAR	X3	X	4	0897	Q 099		901
4857	36 34		BCE	#65,1EX3,		8	0901	B 913 061		901
4858	36 35		B	SLIP	X	4	0909	B 893		901
4859	36 36		SBR	NXGUY66,0EX3	X	7	0913	H Z83 060		902
4860	36 37		C	000EX1	X	4	0920	C 0#0		902
4861	36 38		C		X	1	0924	C		902
4862	36 39		SAR	HEX1#3	X	4	0925	Q -56		902
4863	36 40		BCE	HEX1X,0EX1,,	X	4	0929	B 947 0#0 ,		902
4864	36 41		CHAIN 6			8				
4865			BCE						MACRO	
4866			BCE						GEN	
4867			BCE						GEN	
4868			BCE						GEN	
4869			BCE						GEN	
4870			BCE						GEN	
4871	36 42		B	CKTYP	X	4	0943	B Y22 089		903
4872	36 43	HEX1X	MCW	HEX1,X1	X	7	0947	M -56 089		903
4873	36 44		BCE	NEW,001EX1,	X	8	0954	B 989 0#1		903
4874	36 45		MCW	003EX1,X3	X	7	0962	M 0#3 099		904
4875	36 46		BWZ	ERROR,001EX3,1	X	8	0969	V Z22 061 1		904
4876	36 47		LCA	001EX3,004EX1	X	7	0977	L 061 0#4		904
4877	36 48		CM		X	1	0984	B		904
4878	36 49		B	NXGUY	X	4	0985	B Z77		904
4879	36 50	NEW	BCE	CKLST,2EX3,,	X	8	0989	B X98 0E2 ,		904
4880	36 51		SBR	X3	X	4	0997	H 099		904
4881	36 52	SNDPT	LCA	@,@,000EX2	X	7	1001	L -57 0-0		905
4882	36 53		SBR	X2	X	4	1008	H 094		905
4883	36 54		CM	001EX2	X	4	1012	B 0-1		905
4884	36 55		S	COUNT#1	X	4	1016	S -58		905
4885	36 56	MAIN	SBR	X3,001EX3	X	7	1020	H 099 0E1		905
4886	36 57		BCE	RTPAR,000EX3,0	X	8	1027	B S72 0E0		905
4887	36 58		BCE	DOLLR,000EX3,\$	X	8	1035	B X37 0E0 \$		906
4888	36 59		B	RUADR	X	4	1043	B Y42		906
4889	36 60		LCA	ADRSS,000EX2	X	4	1047	L J45 0-0		906
4890	36 61		SBR	X2	X	4	1054	H 094		906
4891	36 62		BCE	CKWMK,0EX3,,	X	8	1058	B S60 0E0 ,		906
4892	36 63		BCE	LFPAR,0EX3,%	X	8	1066	B U67 0E0 %		906



SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1893	36 64		B	RUADR	X	4	1074	B Y42	GEN	907
1894	36 65		LCA	ADRS,000EX2	X	7	1078	L J45 0-0	GEN	907
1895	36 66		LCA	a,a	X	4	1085	L -59	GEN	907
1896	36 67		SBR	X2	X	4	1089	M 094	GEN	907
1897	36 68		CH	5EX2	X	4	1093	M 0-5	GEN	907
1898	36 69		CH	001EX2	X	4	1097	M 0-1	GEN	907
1899	36 70		MZ	3EX2,SVZ#K1	X	7	1101	M 0-3 -60	GEN	907
1900	36 71		MCH	X1,SV1#3	X	7	1108	M 089 -63	GEN	908
1901	36 72		ZA	PARAMA64,HOLD5	X	7	1115	E 690 -68	GEN	908
1902	36 73		BWZ	DUN2,3EX2,K	X	8	1122	V /37 0-3 K	GEN	908
1903	36 74		MCH	PARAMA66,HOLD5#5	X	7	1130	M 692 -68	GEN	908
1904	36 75	DUN2	S	E16000,HOLD5	X	7	1137	S -73 -68	GEN	908
1905	36 76			FPACK HOLD5,HOLD3,X1						
1906				INCLD ZONES						
1907			MN	HOLD5,HOLD3						
1908			MN							
1909			MN							
1910			SAR	*E4	X	7	1144	D -68 -77	MACRO	909
1911			MCH	O,X1	X	1	1151	D	GEN	909
1912			MCH	202	X	1	1152	D	GEN	909
1913			MCH		X	4	1153	Q /60	GEN	909
1914			A	X1	X	7	1157	M 000 089	GEN	909
1915			MZ	ZONES616X1,HOLD3	X	4	1164	M -74	GEN	909
1916			CH		X	4	1168	A 089	GEN	909
1917			SBR		X	7	1172	V -50 -77	GEN	910
1918	36 77		MZ	*E7	X	1	1179	D	GEN	910
1919	36 78		MCH	ZONES6X1, 0	X	4	1180	H /90	GEN	910
1920	36 79		MCH	HOLD3#3,X1	X	7	1184	Y -79 000	GEN	910
1921	36 80		MZ	4EX2,SBR4E6	X	7	1191	M -77 089	GEN	910
1922	36 81	SBR4	MZ	*-6,SBR4E5	X	7	1198	M 0-4 518	GEN	911
1923	36 82		MZ	4EX2,0	X	7	1205	Y 505 517	GEN	911
1924	36 83		MCH	SVZ#3EX2	X	7	1212	M 0-4 000	GEN	911
1925	36 84		MZ	SV1,X1	X	7	1219	Y -60 0-3	GEN	911
1926	36 85	CKLFP	BCE	*-4,6EX2	X	7	1226	M -63 089	GEN	911
1927	36 86	CKCOM	C	LFPAR,0EX3,*	X	8	1240	B U67 060 2	GEN	912
1928	36 87	CKWMK	BU	000EX3,a,a	X	7	1248	C 060 -59	GEN	912
1929	36 88		BWZ	ERROR	X	5	1255	B 222 /	GEN	912
1930	36 89	RTPAR	B	FNLIZ,000EX3,1	X	8	1260	V W97 060 1	GEN	912
1931	36 90	PUTS	BCE	MAIN	X	4	1268	B #20	GEN	913
1932	36 91		MCH	SETUP,COUNT,E	X	8	1272	M W34 -58 E	GEN	913
1933	36 92		LCA	X1,SAVE1#3	X	7	1280	M 089 -80	GEN	913
1934	36 93		SBR	a,a,000EX1	X	7	1287	L -57 0#0	GEN	913
1935	36 94		A	X1	X	4	1294	H 089	GEN	913
1936	36 95		BCE	E1,COUNT	X	7	1298	A -81 -58	GEN	913
1937	36 96		B	ERROR,COUNT,D	X	8	1305	B 222 -58 D	GEN	914
1938	36 97		C	PUTMI	X	4	1313	B W52	GEN	914
1939	36 98		BU	000EX3,a,a	X	7	1317	C 060 -59	GEN	914
1940	36 99		B	ERROR	X	5	1324	B 222 /	GEN	914
1941	37 00		BCE	PUTMI	X	4	1329	B W52	GEN	914
1942	37 01		C	PUTMI,000EX3,,	X	8	1333	B W52 060 *	GEN	915
			BU	000EX3,a#a	X	7	1341	C 060 -82	GEN	915
			BU	ERROR	X	5	1348	B 222 /	GEN	915

ALLOW FOR NEST THREE DEEP

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCM	INSTRUCTION	TYPE	CARD
4943	37 02		B	PUTMI	X	4	1353	B W52		915
4944	37 03		SBR	000EX1,001EX2	X	7	1357	H 0#0 0-1		915
4945	37 04		CW	000EX1	X	4	1364	D 0#0		915
4946	37 05		CW		X	1	1368	D		915
4947	37 06		SW		X	1	1369	D		915
4948	37 07		SAR	X1	X	4	1370	Q 089		916
4949	37 08		MCW	X3,HEX3#3	X	7	1374	M 099 -85		916
4950	37 09		MN	000EX3	X	4	1381	D 0#0		916
4951	37 10		SAR	X3	X	4	1385	Q 099		916
4952	37 11		BCE	INNER,002EX3,#	X	8	1389	B U21 0&2 %		916
4953	37 12	LOOPY	BCE	OUTER,002EX3,#	X	8	1397	B U40 0&2 D		916
4954	37 13		BWZ	ERROR,002EX3,1	X	8	1405	V Z22 0&2 1		917
4955	37 14		SBR	X3	X	4	1413	H 099		917
4956	37 15		B	LOOPY	X	4	1417	B T89		917
4957	37 16	INNER	LCA	000,000EX2	X	7	1421	L -86 0-0		917
4958	37 17		SBR	X2	X	4	1428	H 094		917
4959	37 18		CW	001EX2	X	4	1432	D 0-1		917
4960	37 19		B	RESTR	X	4	1436	B U56		917
4961	37 20	OUTER	LCA	0# 0,000EX2	X	7	1440	L -90 0-0		918
4962	37 21		SBR	X2	X	4	1447	H 094		918
4963	37 22		SW	002EX2	X	4	1451	D 0-2		918
4964	37 23		CW		X	1	1455	D		918
4965	37 24	RESTR	MCW	HEX3,X3	X	7	1456	M -85 099		918
4966	37 25		B	CKCOM	X	4	1463	B 548		918
4967	37 26	LFPAR	S	51,COUNT	X	7	1467	S -81 -58		918
4968	37 27		BWZ	ERROR,COUNT,K	X	8	1474	V Z22 -58 K		919
4969	37 28		MA	MACFLS,3&X1	X	7	1482	# 163 0#3		919
4970	37 29		LCA	003EX1,000EX2	X	7	1489	L 0#3 0-0		919
4971	37 30		LCA	6&X1	X	4	1496	L 0#6		919
4972	37 31		SBR	X2	X	4	1500	H 094		919
4973	37 32		BCE	M31S1,013EX1,0	X	8	1504	B W19 0/3 .		919
4974	37 33		LCA	015EX1,000EX2	X	7	1512	L 0/5 0-0		920
4975	37 34		SBR	X2	X	4	1519	H 094		920
4976	37 35	SNDX2	LCA	012EX1,000EX2	X	7	1523	L 0/2 0-0		920
4977	37 36		LCA		X	1	1530	L		920
4978	37 37		LCA	0#0	X	4	1531	L -91		920
4979	37 38		SBR	X2	X	4	1535	H 094		920
4980	37 39		CW	001EX2	X	4	1539	D 0-1		920
4981	37 40	SWTCH	NOP	SWOFF	X	4	1543	M W08		921
4982	37 41		MCW	003EX1,X1	X	7	1547	M 0#3 089		921
4983	37 42		MN	000EX1	X	4	1554	D 0#0		921
4984	37 43		SAR	X1	X	4	1558	Q 089		921
4985	37 44		MA	PLUSDF,X1	X	7	1562	# 160 089		921
4986	37 45		MA	MACFLS,X2	X	7	1569	# 163 094		921
4987	37 46		SBR	0&X1,1&X2	X	7	1576	H 0#0 0-1		922
4988	37 47		MA	PLUSDF,X2	X	7	1583	# 160 094		922
4989	37 48	BUMP	SBR	X3,001EX3	X	7	1590	H 099 0&1		922
4990	37 49		MCW	SAVE1,X1	X	7	1597	M -80 089		922
4991	37 50		B	CKLFP	X	4	1604	B 540		922
4992	37 51	SWOFF	MCW	0#0,SWTCH	X	7	1608	M -92 V43		922

SEQ PG LIN	LABEL	OP	OPERANDS	OBJ TIME ADDR OF FIX PT ONE	SFX CT	LOCN	INSTRUCTION TYPE	CARD
4993 37 52		B	BUMP		X	4	B V90	923
4994 37 53	H31S1	LCA	ADONE,000EX2		X	7	L 142 0-0	923
4995 37 54		SBR	X2		X	4	H 094	923
4996 37 55		B	SNDM2		X	4	B V23	923
4997 37 56	SETUP	SBR	X1,SPACE#48		X	7	H 089 J40	923
4998 37 57		MCM	AB#,SWTCH		X	7	M J41 V43	923
4999 37 58		B	PUTS		X	4	B S80	923
5000 37 59	PUTMI	SBR	EXPMIC3		X	4	H W96	924
5001 37 60		SBR	X3,001EX3		X	7	H 099 0E1	924
5002 37 61		B	RUADR		X	4	B Y42 0#0	924
5003 37 62		LCA	ADR55,000EX1		X	4	L J45	924
5004 37 63		SBR	X1		X	4	H 089	924
5005 37 64		MZ	*-4,2EX1		X	7	Y W80 0#2	924
5006 37 65		BWZ	ERROR,000EX3,1		X	8	V 222 0E0 1	925
5007 37 66	EXPMI	B	000		X	4	B 000	925
5008 37 67	FNLIZ	C	COUNT,0E0	PLUS ZERO	X	7	C -58 J42	925
5009 37 68		BU	ERROR		X	5	B 222 /	925
5010 37 69		CW	000EX3		X	4	B 0E0	925
5011 37 70		CW			X	4	B 0E0	925
5012 37 71		SW			X	1	B 0E0	925
5013 37 72		SAR	X3		X	4	Q 099	925
5014 37 73		SBR	003EX3,001EX2		X	4	H 0E3 0-1	926
5015 37 74		MA	MACFLS,3EX3		X	7	# 163 0E3	926
5016 37 75		B	NXGUY		X	4	B 277	926
5017 37 76	DOLLR	SW	0EX3		X	4	Q 099	926
5018 37 77		SAR	X3		X	4	H X93 0E1	926
5019 37 78		SBR	CWEX,1EX3		X	7	H X68 0E2 \$	927
5020 37 79	LOOP	BCE	NDOLR,2EX3,\$		X	8	B X52	927
5021 37 80		SBR	X3		X	4	L 0E2 0-0	927
5022 37 81		B	LOOP		X	4	H 094	927
5023 37 82	NDOLR	LCA	2EX3,0EX2		X	7	H 099 0E3	927
5024 37 83		SBR	X2		X	4	B 000	928
5025 37 84		CW	1EX2		X	4	B S40	928
5026 37 85		SBR	X3,3EX3		X	6	V Y17 0E2 1	928
5027 37 86		CW	0		X	7	H 099 0E2	928
5028 37 87		B	CKLFP		X	4	B #01	928
5029 37 88	CKLST	BWZ	RMVCM,2EX3,1		X	4	Q 099 0E3	927
5030 37 89		SBR	X3,2EX3		X	4	B 000	928
5031 37 90	RMVCM	B	SNDPT		X	4	H 099 0E2	928
5032 37 91		SW	3EX3		X	4	B 0E3	928
5033 37 92		CW			X	4	B 0E3	928
5034 37 93	CKTYP	FBCEQ	ERROR, CODE-3,1,3		X	1	MACRO	928
5035	CKTYP	BCE	ERROR, CODE-3,1		X	8	B 222 838 1 GEN	929
5036		BCE	ERROR, CODE-3,3		X	8	B 222 838 3 GEN	929
5037 37 94		B	EMASO		X	4	B 263	929
5038 37 95	RUADR	SBR	EXRUAE3		X	4	H Y96	929
5039 37 96		MN	002EX3,EXRUK67		X	7	Q 0E2 Z08	929
5040 37 97		B	RUOK		X	4	B Y97	929
5041 37 98		MN	001EX3,EXRUK67		X	7	D 0E1 Z08	930
5042 37 99		B	RUOK		X	4	B Y97	930

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5043	38 00		MN	000EX3,EXRUK67	X	7	1868	D 060 Z08		930
5044	38 01		B	RUDK	X	4	1875	B Y97		930
5045	38 02		MCM	002EX3,ADRSS#3	X	7	1879	M 0E2 J45		930
5046	38 03		SBR	X3,003EX3	X	7	1886	H 099 0E3		930
5047	38 04	EXRUA	B	000	X	4	1893	B 000		931
5048	38 05	RUDK	SBR	EXRUK63	X	4	1897	H Z04		931
5049	38 06	EXRUK	BCE	000,001234567890,0	X	8	1901	B 000 J55 0		931
5050	38 07		CHAIN	9					MACRO	
5051			BCE		X	1	1909	B	GEN	931
5052			BCE		X	1	1910	B	GEN	931
5053			BCE		X	1	1911	B	GEN	931
5054			BCE		X	1	1912	B	GEN	931
5055			BCE		X	1	1913	B	GEN	932
5056			BCE		X	1	1914	B	GEN	932
5057			BCE		X	1	1915	B	GEN	932
5058			BCE		X	1	1916	B	GEN	932
5059			BCE		X	1	1917	B	GEN	932
5060	38 08		B	ERROR	X	4	1918	B Z22		932
5061	38 09	ERROR	FTMSG	47,BAD LIST,CODE,10	X	4	1922	/ 332	MACRO	932
5062		ERROR	CS	332	X	1	1926	/	GEN	933
5063			CS		X	1	1927	/	GEN	933
5064			SW	FAILSW	X	4	1927	1 184		933
5065			MN	CODE,224610	X	7	1931	D 841 234		933
5066			MN		X	1	1938	D		933
5067			MN		X	1	1939	D		933
5068			MCM	0ERROR 47 ~ BAD LIST, STATEMENT 0	X	4	1940	M J86		933
5069			W		X	1	1944	Z		933
5070			BCV	*E5	X	5	1945	B Z54 0		934
5071			B	*E3	X	4	1950	B Z56		934
5072			CC	1	X	2	1954	F 1		934
5073	38 10		MCM	0/0,CODE-3	X	7	1956	M J87 838		934
5074	38 11	EMASO	MCM	CODE,000	X	7	1963	M 841 000		934
5075	38 12		MCM	HEX2,X2	X	7	1970	M -53 094		934
5076	38 13	NXGUY	SBR	X1,0	X	7	1977	H 089 000		934
5077	38 14		B	GO	X	4	1984	B 852		935
5078	38 15	OUT	MCM	ABOTM,XI	X	7	1988	M 844 089		935
5079	38 16		FENDX	C,,,SY52,LISTR TRI					MACRO	
5080			BSS	333,C	X	5	1995	B 333 C		935
5081			SBR	TCLEAR,SY52	X	7	2000	H 710 J97		935
5082			LCA	0LISTR TRI0,110	X	7	2007	L J96 110		935
5083			B	MONTER	X	4	2014	B 700		935
5084	38 17		ORG	*	X	4	2014	B 700		935
5085			DCW	#1	X	1	2018	2018		935
5086		ZONES	DC	9	X	1	2019			936
5087			DCW		X	31	2050			936
5088			LTORG	*	X	3	2053	2051		936
5089		HEX2	DCW	#03	X	3	2056		AREA	936
5090		HEX1	DCW	0,0	X	1	2057		AREA	936
5091		COUNT	DCW	#01	X	1	2058		LIT	936

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
4899	SVZN		@#	X	1	2059	LIT		937
4900	SVI		#01	X	1	2060	AREA		937
4903	HOLD5		#03	X	3	2063	AREA		937
			#05	X	5	2068	AREA		937
			EL6000	X	5	2073	LIT		937
4918	HOLD3		@03	X	1	2074	LIT		937
4931	SAVE1		#03	X	3	2077	AREA		938
			EL	X	3	2080	AREA		938
4949	HEX3		@#	X	1	2081	LIT		938
			#03	X	1	2082	LIT		938
			@#	X	3	2085	AREA		938
			@#	X	1	2086	LIT		938
			@#	X	4	2090	LIT		938
			@#	X	1	2091	LIT		939
			@#	X	1	2092	LIT		939
4997	SPACE		@#	X	48	2140	AREA		941
			@#	X	1	2141	LIT		941
			@#	X	1	2142	LIT		941
5045	ADRSS		#03	X	3	2145	AREA		941
5049			@0123456789	X	10	2155	LIT		941
5068			@ERROR 47 - BAD LIST, STATEMENT @	X	31	2186	LIT		942
			@/	X	1	2187	LIT		942
5082			@LISTR TRI@	X	9	2196	LIT		943
5089			@LTORG *	X			GEN		943
5090	38 18	SYS2	@	X	1	2197			943
5091	38 19	ADDNE	@	X		0142			944
5092	38 20	XFR	PHSE2	X					944
							2197		
							8 845		

SEQ PG	LIN	LABEL	OP	OPERANDS	LISTS PHASE THREE	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
093	38 21		JOB	1401 FORTRAN						
094	38 22	110	DCH	ALISTR TRI@						947
095	38 23	*	MOVES	DOWN PROGRAM						
096	38 24		ORG	PHSE2						
097	38 25	PHSE3	MCM	X2,NXBTH						
098	38 26		SW	GM						
099	38 27		LCA	GM,0EX2						
100	38 28		SBR	X2						
101	38 29	BEGIN	BWZ	NOLST,000EX1,1						
102	38 30		B	SLIDE						
103	38 31		B	SLIDE						
104	38 32		BCE	BEGIN,1EX2,	GM					
105	38 33		CW	001EX2						
106	38 34		C	0EX1						
107	38 35		SAR	X1						
108	38 36		SBR	X1,001EX1						
109	38 37		B	SLIDE						
110	38 38		B	BEGIN						
111	38 39		CW	000EX1						
112	38 40	NOLST	BCE	EXPH3,000EX1,	BLANK					
113	38 41	RUDUN	B	SLIDE						
114	38 42		B	SLIDE						
115	38 43		B	RUDUN						
116	38 44	SLIDE	SBR	EXSLD@3						
117	38 45		MVDWN	X1,X2						
118			LCA	0EX1, 0EX2						
119			SAR	X1						
120			C	0EX2						
121			SAR	X2						
122	38 46	EXSLD	B	000						
123	38 47	EXPH3	FENDX	D,,XBEGIN,PHSE2N,XBEGIN,SYS3,STNUM2						
124		EXPH3	BSS	333,D						
125			SBR	INITAP@6,XBEGIN						
126			SBR	BCLEAR						
127			SBR	INITXT@3,PHSE2N						
128			SBR	TCLEAR,SYS3						
129			LCA	@STNUM2@,110						
130			B	MONTER						
131	38 48		DCW	@ @	BLANK					
132	38 49	GM	DC	@ @						
133	38 50		LTORG	*						
134	38 51	SYS3	DCW	@STNUM2@						
135	38 52		XFR	PHSE3						

PG	LIN	LABEL	OP	OPERANDS	STATEMENT NUMBER DEFINER TWO	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
5136	38 53		JOB	1401 FORTRAN						
5137	38 54		FBEGN	STNUM TWO,X1,X2,X3,R,N						
5138			SFX	N					MACRO	
5139			DCW	STNUM TWO					GEN	956
5140			EQU	089					GEN	
5141			EQU	094					GEN	
5142			EQU	099					GEN	
5143			DCW	000					GEN	957
5144			DC	0					GEN	957
5145	38 55		DRG	XBEGIN						
5146	38 56	BASE	DCW	#3				0838		
5147	38 57	MAX	DCW	#4						958
5148	38 58		DC	#2						958
5149	38 59	UPLIM	DCW	#3						958
5150	38 60	NOMO	DCW	#3						958
5151	38 61	MVUP	SBR	EXMVP&3						958
5152	38 62		MOVUP	X2,X1,NOMO,ALL,*				H 936		958
5153			MN	O&X1					MACRO	
5154			SAR	X1					GEN	958
5155		DOJ131	MCM	O&X2				D 0#0	GEN	958
5156			SAR	DOJ131&6				Q 089	GEN	959
5157			MCM	O&X2,1&X1				P 0-0	GEN	959
5158			MN					Q 891	GEN	959
5159			SBR	X1				P 0-0 0*1	GEN	959
5160		DOJ131	SBR	X2,0				Q	GEN	959
5161			BCE	DOJ131,O&X1,*				H 089	GEN	959
5162			MN					H 094 000	GEN	959
5163			CW	O&X2				B 865 0*0 #	GEN	959
5164			SW					D 0-0	GEN	960
5165			C	O&X1				D	GEN	960
5166			BU	X2,NOMO				0#0	GEN	960
5167	38 63		MN	DOJ131				C 094 852	GEN	960
5168	38 64		SAR	O&O&X1				B 865 /	GEN	960
5169	38 65		SBR	X1				D 0#0	GEN	960
5170	38 66	EXMVP	B	000				Q 089	GEN	961
5171	38 67	NXBTH	EQW	083				H 094	GEN	961
5172	38 68	PHSE2	MCW	NXRTM,X3				B 000	GEN	961
5173	38 69		SBR	NOMO,1&X3				M 083 099	GEN	961
5174	38 70		MCW	X2,X3				H 852 0&1	GEN	961
5175	38 71	CLRI	CS	O&O&X3				M 094 099	GEN	961
5176	38 72		SBR	X3				/ 0&0	GEN	961
5177	38 73		C	X3,SSAUCE-1				H 099	GEN	961
5178	38 74		BU	CLRI				C 099 110	GEN	962
5179	38 75		SBR	X1,SAUCE-1				B 958 /	GEN	962
5180	38 76		B	MVUP				H 099 A99	GEN	962
5181	38 77		B							
5182	38 78		SBR	BASE,5&X1				B 853	GEN	962
5183	38 79		MN	TWO9,BASE				H 840 0#5	GEN	962
5184	38 80		MN					D 575 840	GEN	962
5185	38 81		MCW	NXBTH,X3				D	GEN	962
								H 083 099	GEN	963

REQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
186	38	82		*	CLEAR BALANCE OF CORE						
187	38	83	CLR2	CS	000&X3	N	4	1011	/ 0&0		963
188	38	84		SBR	X3	N	4	1015	H 099		963
189	38	85		C	X3, BASE	N	7	1019	C 099 840		963
190	38	86		BU	CLR2	N	5	1026	B #11 /		963
191	38	87		MCW	@ @, 0&X3	N	7	1031	M #11 0&0		963
192	38	88		*	DIVIDE REST OF CORE FOR TABLES						
193	38	89		MCW	NXBTM, LOC						
194	38	90		B	UNPAK	N	7	1038	M 083 573		964
195	38	91		MCW	NUM#5, MAX&2	N	4	1045	B 500		964
196	38	92		MCW	BASE, LOC	N	7	1049	M #16 846		964
197	38	93		B	UNPAK	N	7	1056	M 840 573		964
198	38	94		S	NUM, MAX&2	N	4	1063	B 500		964
199	38	95		A	MAX&2	N	4	1074	A 846		965
200	38	96		A	MAX&2	N	4	1078	A 846		965
201	38	97		A	MAX&2	N	4	1082	A 846		965
202	38	98		A	MAX&2	N	4	1086	A 846		965
203	38	99		A	MAX, ACCUM#6	N	4	1090	A 844 T22		965
204	39	00		A	ACCUM	N	4	1097	A T22		965
205	39	01		A	MAX, ACCUM	N	7	1101	A 844 T22		965
206	39	02		A	NUM, ACCUM	N	7	1108	A T16 T22		966
207	39	03		MCW	ACCUM-3, X3	N	7	1115	M #19 099		966
208	39	04		A	X3	N	4	1122	A 099		966
209	39	05		MZ	ZONES&X3, ACCUM-2	N	7	1126	Y SG6 T20		966
210	39	06		MZ	ZONES&1&X3, ACCUM	N	7	1133	Y SG7 T22		966
211	39	07		MCW	ACCUM, X3	N	7	1140	M T22 099		966
212	39	08		SW	00&X3	N	4	1147	/ 0&2		967
213	39	09		MCW	@ @ 12-6-8	N	4	1151	N #11		967
214	39	10		SBR	UPLIM	N	4	1155	H 849		967
215	39	11		FENDX	C, PHSE2, PHSE3, PHSE2, SAUCE-1, STNUM TRI						
216	39	11		BSS	333, C	N	5	1159	B 333 C	MACRO	967
217	39	11		SBR	INITAP&6, PHSE2	N	7	1164	H 786 937	GEN	967
218	39	11		SBR	BCLEAR	N	4	1171	H 833	GEN	967
219	39	11		SBR	INITXT&3, PHSE3	N	7	1175	H 796 /87	GEN	967
220	39	11		SBR	TCLEAR, SAUCE-1	N	7	1182	H 710 A99	GEN	968
221	39	11		LCA	@STNUM TRI@, I10	N	7	1189	L #31 110	GEN	969
222	39	12		B	MONTER	N	4	1196	B 700	GEN	968
223	39	12		SBR	EXIT&3	N	4	1200	H 568	GEN	968
224	39	13		MN	LOC, NUM	N	7	1204	D 573 T16		968
225	39	14		MN		N	1	1211	D		968
226	39	15		MN		N	1	1212	D		968
227	39	16		MCW		N	1	1213	M		969
228	39	17		MZ	LOC, TWO9	N	7	1214	Y 573 575		969
229	39	18		MZ	LOC-2, TWO9-1	N	7	1221	Y 571 574		969
230	39	19		SBR	X3, ZONES-3	N	7	1228	H 099 573		969
231	39	20		C	00&X3, TWO9	N	7	1235	C 0&4 575		969
232	39	21		SAR	X3	N	4	1242	Q 099		969
233	39	22		A	#1, NUM-3	N	7	1246	A T32 T13		970
234	39	23		BU	COMP	N	5	1253	B 535 /		970
235	39	24		MZ	@ @, NUM-3	N	7	1258	Y T33 T13		970



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
136	39	25	EXIT	B	000	N	4	1265	B 000		970
137	39	26	LOC	DCW	@J @	N	5	1273			970
138	39	27	TWO9	DCW	@99@	N	2	1275			970
139	39	28	ZONES	DC	@9@	N	1	1276			970
140	39	29		DC	@9Z9R9I99ZZRZIZ9RZRRRIR9IZIRII@	N	31	1307			971
141	39	30		LTOrg *		N			1308		
		5177		DCW	&SAUCE-1	N	3	1310	A99	ADCON	971
		5195	NUM	@	@	N	1	1311		LIT	971
		5203	ACCUM	#05		N	5	1316		AREA	972
		5221		#06	@STNUM TRI@	N	6	1322		AREA	972
						N	9	1331		LIT	972
						N	1	1332		LIT	972
142	39	31		DCW	@ @	N	1	1333		LIT	972
143	39	32		XFR	PHSE2	N	1	1334	B 937	LIT	973

SYSTEM GROUP MARK

SEQ	PG	LIN	LABEL	OP	OPERANDS	STATEMENT NUMBER	PHASE	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5144	39	33		JOB	1401 FORTRAN		THREE						
5145	39	34	110	DCW	STNUM TRIA			N	9	0110			976
5146	39	35		ORG	PHSE2			N			0937		
5147	39	36	SLIDE	SBR	EXSLD&3			N	4	0937	H 963	MACRO	977
5148	39	37		MVDWN	X1,X2			N	7	0941	L 0#0 0-0	GEN	977
5149				LCA	0&X1, 0&X2			N	4	0948	Q 089	GEN	977
5150				SAR	X1			N	4	0952	C 0-0	GEN	977
5151				C	0&X2			N	4	0956	Q 094	GEN	977
5152				SAR	X2			N	4	0960	B 000		977
5153	39	38	EXSLD	B	000			N	4	0964	H #47		977
5154	39	39	RANDM	SBR	EXRDM&3			N	4	0968	M 0#0 #51		978
5155	39	40		MCW	000&X1,ALPH			N	7	0975	Q #54		978
5156	39	41		SAR	HEX1			N	4	0979	D #51 #58		978
5157	39	42		MN	ALPH,MOD			N	7	0986	D	MACRO	978
5158	39	43		CHAIN 3	BLANK IN ALPH-3 IMPLIES 3 DIGIT NO. IN MOD			N	1	0987	D	GEN	978
5159				MN				N	1	0988	D	GEN	978
5160				MN				N	1	0989	D	GEN	978
5161				MN				N	7	0996	S 844 #58		978
5162	39	44	SUBTR	S	MAX,MOD			N	8	0996	V 989 #58 B		979
5163	39	45		BWZ	SUBTR,MOD,B			N	7	1004	A 844 #58		979
5164	39	46		A	MAX,MOD			N	7	1011	Y #13 #58		979
5165	39	47		MZ	*-4,MOD			N	7	1018	M #58 089		979
5166	39	48		MCW	MOD,X1			N	4	1025	A 089		979
5167	39	49		A	X1			N	7	1029	A #58 089		980
5168	39	50		A	MOD,X1			N	4	1036	N 000		980
5169	39	51	BUMP	NOP	000	INITIALIZED BY PHSE3		N	4	1040	Q 089		980
5170	39	52		SAR	X1			N	4	1044	B 000		980
5171	39	53	EXRDM	B	000			N	4	1048			980
5172	39	54		DCW	#1			N	1	1051			980
5173	39	55	ALPH	DCW	#3			N	3	1054			980
5174	39	56	HEX1	DCW	#3			N	3	1058			981
5175	39	57	MOD	DCW	#4			N	4	1062			981
5176	39	58	CODE	DCW	#4			N	4	1065			981
5177	39	59	NEXT	DCW	#3			N	3			MACRO	981
5178	39	60	FULL	FQUIT				N	4	1066	/ 332		981
5179			FULL	CS	332			N	1	1070	/		981
5180				CS				N	2	1071	F 1		981
5181				CC				N	7	1073	M /79 270		981
5182				MCW		MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270		N	1	1080	2		982
5183				H				N	2	1081	F 1		982
5184				CC				N	8	1083	B #96 769 1		982
5185				BCE	#&6,MONTOR,1			N	5	1091	U #UL R		982
5186				RWD	1			N	4	1096	# #96		982
5187				H	*-3			N	7	1100	# /43 089		982
5188	39	61	OUT	MCW	SAVE1,X1			N	5	1107	B 333 C	MACRO	982
5189	39	62		FENDX	C,,,PHSE3,,PHSE3,SY3,STNUM 4			N	7	1112	H 786 /87	GEN	983
5190				BSS	333,C			N	4	1119	H 833	GEN	983
5191				SBR	INITAP&6,PHSE3			N	7	1123	H 710 WR9	GEN	983
5192				SBR	BCLEAR			N	7				
5193				SBR	TCLEAR,SY3			N	7				

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
294			LCA	@STNUM 4@,110	N	7	1130	L /86 110	GEN	983
295		SAVE1	B	MONTER	N	4	1137	R 700	GEN	983
296	39 63		DCW	#3	N	3	1143			
297	39 64		LTRG	*	N			1144		
5282			DCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	N	36	1179		LIT	984
5294				@STNUM 4@	N	7	1186		LIT	985
298	39 65	PHSE3	MCW	NXBTH,NEXT	N	7	1187	M 083 #65		985
299	39 66		MCW	NXBTH,ADTBLL	N	7	1194	M 083 145		985
300	39 67		MCW	BASE,BUMPE3	N	7	1201	M 840 #39		985
301	39 68		MZ	@S@,BUMP@2	N	7	1208	Y #67 #38		985
302	39 69		SBR	NOMO,2EX2	N	7	1215	H 852 0-2		986
303	39 70		MCW	X1,SAVE1	N	7	1222	M 089 /43		986
304	39 71	RUGGT	MCW	000EX1,CODE	N	7	1229	M 0#0 #62		986
305	39 72		BCE	CGOTO,CODE-3,T	N	8	1236	B T67 #59 T		986
306	39 73		MCW	@@,SWCH	N	7	1244	M #68 V93		986
307	39 74		MCW	NEXT,NXBTH	N	7	1251	M #65 083		987
308	39 75		C	X1,X2	N	7	1258	C 089 J94		987
309	39 76		BE	*@5	N	5	1265	B 574 S		987
310	39 77		B	MVUP	N	4	1270	B 853		987
311	39 78	NORML	BCE	OUT,000EX1,	N	8	1274	B /00 0#0		987
312	39 79		MCW	000EX1,CODE	N	7	1282	M 0#0 #62		987
313	39 80		B	SLIDE	N	4	1289	B 937		988
314	39 81		MCW	CODE-3,*@8	N	7	1293	M #59 T07		988
315	39 82		BCE	WORRY,@NTDEG@,0	N	7	1300	* T21 W74 0		988
316	39 83		CHAIN	5	N	8	1308		MACRO	988
317			BCE		N	1	1308	B	GEN	988
318			BCE		N	1	1309	B	GEN	988
319			BCE		N	1	1310	B	GEN	988
320			BCE		N	1	1311	B	GEN	988
321			BCE		N	1	1312	B	GEN	989
322	39 84	BTMNL	B	SLIDE	N	4	1313	B 937		989
323	39 85		B	NORML	N	4	1317	B 574		989
324	39 86	WORRY	B	RANDM	N	4	1321	B 964		989
325	39 87		B	CHAIN	N	4	1325	B V33		989
326	39 88		MCW	X3,000EX2	N	7	1329	M 099 0-0		989
327	39 89		SBR	X2	N	4	1336	H 094		989
328	39 90		MCW	HEX1,X1	N	7	1340	M #54 089		990
329	39 91		BCE	BTMNL,000EX1,	N	8	1347	B T13 0#0		990
330	39 92		BCE	BTMNL,000EX1,,	N	8	1355	B T13 0#0 ,		990
331	39 93		B	WORRY	N	4	1363	B T21		990
332	39 94	CGOTO	C	0EX1	N	4	1367	C 0#0		990
333	39 95		MN	X3	N	1	1371	D		990
334	39 96		SAR	COUNT#3	N	4	1372	Q 099		990
335	39 97		S	000EX3	N	4	1376	S W77		991
336	39 98	RTLFT	MN		N	4	1380	D 0E0		991
337	39 99		MN		N	1	1384	D		991
338	40 00		MN		N	1	1385	D		991
339	40 01		SAR	X3	N	4	1386	Q 099		991
340	40 02		A	@1@,COUNT	N	7	1390	A W78 W77		991
341	40 03		BCE	FORK,001EX3,,	N	8	1397	B U09 0E1 ,		991

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
342 40 04		B	RTLFT	N	4	B T80	992
343 40 05	FORK	S	ELL,COUNT	N	7	S M80 W77	992
344 40 06		BWZ	BIG,COUNT,B PLUS	N	8	V U36 W77 B	992
345 40 07		B	SLIDE	N	4	B 937	992
346 40 08	B TMCG	B	SLIDE	N	4	B 937	992
347 40 09		B	RUCGT	N	4	B S29	992
348 40 10	BIG	MN	000EX1	N	4	D 0#0	992
349 40 11		MN		N	1	D	993
350 40 12		MN		N	1	D	993
351 40 13		MCW	@H@	N	4	M W81	993
352 40 14		B	SLIDE	N	4	B 937	993
353 40 15		MCW	X3,HEX3#3	N	7	M 099 W84	993
354 40 16		MN	000EX3	N	4	D 0E0	993
355 40 17		MN		N	1	D	993
356 40 18		SAR	X1	N	4	Q 089	994
357 40 19		A	E9,COUNT	N	7	A W85 W77	994
358 40 20	LOOP	SBR	X1,6EX1	N	7	H 089 0#6	994
359 40 21		B	RANDM	N	4	B 964	994
360 40 22		B	CHAIN	N	4	B V33	994
361 40 23		MCW	HEX1,X1	N	7	M #54 089	994
362 40 24		BCE	HEADR,00#EX1,	N	8	B V07 0#4	995
363 40 25		B	LOOP	N	4	B U73	995
364 40 26	HEADR	MCW	NEXT,000EX2	N	7	M #65 0-0	995
365 40 27		MCW	COUNT	N	4	M W77	995
366 40 28		SBR	X2	N	4	H 094	995
367 40 29		MCW	HEX3,X1	N	7	H 094 089	995
368 40 30		B	BTMCG	N	4	B U28	995
369 40 31	CHAIN	SBR	EXCHNE3	N	4	H W44	996
370 40 32		MCW	@@,OVFLW	N	7	M W86 W45	996
371 40 33	AGAIN	MCW	000EX1,X3	N	7	M 0#0 099	996
372 40 34		SAR	X1	N	4	Q 089	996
373 40 35		BCE	NEW,003EX1,	N	8	B W06 0#3	996
374 40 36		BCE	OVFLW,003EX1,	N	8	B W45 0#3	996
375 40 37		C	000EX3,ALPH	N	7	C 0E0 #51	997
376 40 38		BU	AGAIN	N	5	B V44 /	997
377 40 39	SWCH	NOP	EXCHN	N	4	N W41	997
378 40 40		MCW	NEXT,000EX3	N	7	M #65 0E0	997
379 40 41		SBR	X3	N	4	H 099	997
380 40 42		MZ	@ A@,002EX3	N	7	Y M88 0E2	997
381 40 43		CW	DUMMY ON A-OPER, EFFECTIVE ON B-OPER.	N	1		997
382 40 44	NEW	LCA	NEXT,003EX1	N	7	L #65 0#3	998
383 40 45		MCW	NEXT,X3	N	7	M #65 099	998
384 40 46		BCE	FULL,000EX3,	N	8	B #66 0E0	998
385 40 47		B		N	1	B	998
386 40 48		B		N	1	B	998
387 40 49		LCA	ALPH,000EX3	N	7	L #51 0E0	998
388 40 50		SBR	NEXT	N	4	H #65	998
389 40 51	EXCHN	B	000	N	4	B 000	999
390 40 52	OVFLW	NOP	FULL	N	4	N #66	999
391 40 53		MCW	@@,OVFLW	N	7	M W68 W45	999

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
5392 40 54		MCH	UPLIM,X1	N 7	1656	M 849 089		999
5393 40 55		B	AGAIN	N 4	1663	B V44		999
5394 40 56		LORG *		N		1667		
		DCW	AS@	N 1	1667		LIT	999
5315		ABA	AWTDEGKA	N 1	1668		LIT	999
5335	COUNT	#03		N 6	1674		LIT	1000
		AI@		N 3	1677		AREA	1000
		LI1		N 1	1678		LIT	1000
		AH@		N 2	1680		LIT	1000
		#03		N 1	1681		LIT	1000
		EG		N 3	1684		AREA	1000
		ANA		N 1	1685		LIT	1000
		A A@		N 1	1686		LIT	1001
		A @		N 2	1688		LIT	1001
5395 40 57	SYS3	DCW		N 1	1689		LIT	1001
5396 40 58		ORG	NDRITHEX00	N		3200		
5397 40 59		ORG	*-5	N		3195		
5398 40 60		DCW	#5	N 5	3199			1002
5399 40 61	SAUCE	EQU	*LI	N	3200			
400 40 62		XFR	PHSE3	N		B /87		1003

SYSTEM GROUP MARK

SEQ PG LIN	LABEL	OP	OPERANDS	STATEMENT NUMBER PHASE FOUR	SFX CT	LOCN	INSTRUCTION TYPE	CARD
401 40 63		JOB	1401 FORTRAN					
402 40 64	110	DCW	@STNUM FOR@		N	0110		1006
403 40 65	PHSE4	DRG	PHSE3	BLANK	N	1187	L W25 0-0	1007
404 40 66		LCA	@ @,000&X2		N	1194	, X25	1007
405 40 67		SH	GM		N	1198	M 089 094	1007
406 40 68		MCW	X1,X2	BLANK	N	1205	B U84 0+0	1007
407 40 69	START	BCE	OUT1,0&X1,		N	1213	M 0+0 #62	1007
408 40 70		MCW	000&X1, CODE		N	1220	Q 089	1007
409 40 71		SAR	X1		N	1224	B V69 0+0	1008
410 40 72		BCE	NONUM, 000&X1,	GROUP MK	N	1232	B 954	1008
411 40 73		B	RANDM		N	1236	M W26 T90	1008
412 40 74		MCW	@@, WRAP		N	1243	M 0+0 099	1008
413 40 75	NOTHR	MCW	000&X1,X3		N	1250	Q 089	1008
414 40 76		SAR	X1		N	1254	V S94 0#1 1	1008
415 40 77		BWZ	NOTYT, 001&X1, 1	WORD MK	N	1262	B T90 0#3	1009
416 40 78		BCE	WRAP, 003&X1,	12-6-8	N	1270	B U12 0#1	1009
417 40 79		BCE	UNREF, 1&X1,	BLANK	N	1278	C 0#3 #51	1009
418 40 80		C	003&X1, ALPH		N	1285	B S43 /	1009
419 40 81		BU	NOTHR		N	1290	B U46	1009
420 40 82		B	MULTY		N	1294	C 0&0 #51	1009
421 40 83	NOTYT	C	000&X3, ALPH		N	1301	B S43 /	1010
422 40 84		BU	NOTHR		N	1306	Y #61 W27	1010
423 40 85		MZ	CODE-1, ZONE#1		N	1313	Y T15 #61	1010
424 40 86		MZ	*-4, CODE-1		N	1320	M #62 0&0	1010
425 40 87		MCW	CODE, 000&X3		N	1327	H 099	1010
426 40 88		SBR	X3		N	1331	H 0&1	1010
427 40 89		CW	001&X3		N	1335	M 0#3 #62	1011
428 40 90		MCW	003&X1, CODE		N	1342	Y W27 #61	1011
429 40 91		MZ	ZONE, CODE-1		N	1349	M #51 0#3	1011
430 40 92		MCW	ALPH, 003&X1		N	1356	M #54 089	1011
431 40 93		CW	001&X1		N	1367	M 089 0#4	1011
432 40 94	HEX2X	MCW	HEX1,X1		N	1374	M #62	1012
433 40 95	BOTM	SBR	X1, 4&X1		N	1378	B 937	1012
434 40 96		MCW	CODE		N	1382	B 937	1012
435 40 97		B	SLIDE		N	1386	B S05	1012
436 40 98		B	SLIDE		N	1390	N U12	1012
437 40 99		B	START		N	1394	M W28 T90	1012
438 41 00	WRAP	NOP	UNREF		N	1401	M 849 089	1012
439 41 01		MCW	@@, WRAP		N	1408	B S43	1013
440 41 02		MCW	UPLIM, X1		N	1412	/ 332	MACRO GEN 1013
441 41 03		B	NOTHR		N	1416	/	GEN 1013
442 41 04	UNREF	FTMSG	19, UNREFERENCED STMT NUMBER, CODE, 26, NOFAIL		N	1417	D #62 250	GFN 1013
443	UNREF	CS	332		N	1424	D	GEN 1013
444		CS	CODE, 224&26		N	1425	D	GEN 1013
445		MN			N	1426	M W75	GEN 1013
446		MN			N	1430	2	GEN 1014
447		MN			N	1431	B U40 @	GEN 1014
448		MCW	@ERROR 19 - UNREFERENCED STMT NUMBER, STATEMENT @		N			
449		W			N			
450		BCV	*65		N			

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5451				B	#63	N	4	1436	B U42	GEN	1014
5452				CC	I	N	2	1440	F 1	GEN	1014
5453	41	05		B	PRNUM	N	4	1442	B V62	MACRO	1014
5454	41	06	MULTY	FTMSG	20, DOUBLY DEFINED STMT, CODE, 21						
5455			MULTY	CS	332						
5456				CS		N	4	1446	/ 332	GEN	1014
5457				SW	FAILSW	N	1	1450	/	GEN	1014
5458				MN	CODE, 224&21	N	4	1451	, 184	GEN	1015
5459				MN		N	7	1455	D #62 245	GEN	1015
5460				MN		N	1	1462	D	GEN	1015
5461				MN		N	1	1463	D	GEN	1015
5462				MCW	ERROR 20 - DOUBLY DEFINED STMT, STATEMENT a	N	4	1464	M X17	GEN	1015
5463				W		N	1	1468	2	GEN	1015
5464				B	#65	N	5	1469	B U78 a	GEN	1015
5465				CC	#63	N	4	1474	B U80	GEN	1015
5466	41	07		B	1	N	2	1478	F 1	GEN	1016
5467	41	08		B	HEX2X	N	4	1480	B T60	GEN	1016
5468	41	09	OUT1	MCW	NEXT, X3	N	7	1484	M #65 099	GEN	1016
5469	41	10		LCA	GM, 0EX3	N	7	1491	L X25 060	GEN	1016
5470	41	11		SBR	X3	N	4	1498	H 099	GEN	1016
5471	41	12		SBR	BSAUCE	N	4	1502	H 148	GEN	1016
5472	41	13		CS	0EX2	N	4	1505	/ 0-0	GEN	1017
5473	41	14		MCW	SAVE1, X1	N	7	1510	M /43 089	GEN	1017
5474	41	15		SW	0EX2	N	4	1517	, 0-0	GEN	1017
5475				FENDX	C, GM, XBEGIN, XBEGIN, XBEGIN, X26, STNUM 5						
5476				BSS	333, C	N	5	1521	B 333 C	MACRO	1017
5477				SBR	INITAP66, XBEGIN	N	7	1525	H 786 838	GEN	1017
5478				SBR	BCLEAR	N	4	1533	H 833	GEN	1017
5479				SBR	INITX163, XBEGIN	N	7	1537	H 795 838	GEN	1017
5480				SBR	TCLEAR, SYS4	N	7	1544	H 710 X26	GEN	1018
5481				LCA	ASTNUM 5a, 110	N	7	1551	L X24 110	GEN	1018
5482	41	16	PRNUM	B	MONTER	N	4	1558	B 700	GEN	1018
5483	41	17	NDNUM	MCW	HEX1, X1	N	7	1562	M #54 089	GEN	1018
5484	41	18		BCE	PSUDO, CODE-3, D	N	8	1569	B V81 #59 D	GEN	1018
5485	41	19		B	BOTH	N	4	1577	B T67	GEN	1018
5486	41	20	PSUDO	MCW	NEXT, X3	N	7	1581	M #65 099	GEN	1019
5487	41	21		SBR	CODE, 000EX3	N	7	1588	M #62 060	GEN	1019
5488	41	22		BCE	FULL, 000EX3, 12-6-8	N	4	1595	H 099	GEN	1019
5489	41	23		MCW	NEXT, CODE	N	8	1599	B #66 060	GEN	1019
5490	41	24		SBR	NEXT, 1EX3	N	7	1607	M #65 #62	GEN	1019
5491	41	25		B	BOTH	N	7	1614	H #65 061	GEN	1020
5492	41	26		LTORG *		N	4	1621	B T67	GEN	1020
				DCW	a @	N	1	1625	1625	LIT	1020
					a@a	N	1	1626		LIT	1020
					#01	N	1	1627		AREA	1020
					a@a	N	1	1628		LIT	1020
5448					ERROR 19 - UNREFERENCED STMT NUMBER, STATEMENT a	N	47	1675		LIT	1022
5461					ERROR 20 - DOUBLY DEFINED STMT, STATEMENT a	N	42	1717		LIT	1024
5480					ASTNUM 5a	N	7	1724		LIT	1024
5493	41	27	GM	DC	a @	N	1	1725		LIT	1024

LINE	PG	LIN	LABEL	OP	OPERANDS	SYSTEM GROUP MARK	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
41	28	94	SYS4	DCW	@ @		N	1	1726		1024
41	29	95		XFR	PHSE4		N			B /87	1025



SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5496	41 30		JOB	1401 FORTRAN STATEMENT NUMBER PHASE FIVE						
5497	41 31		FBEGN	STNUM 5,X1,X2,R,X3,L						
5498			SFX	L						
5499			DCX	STNUM 58						
5500		L10	EQU	089		7	0110		GEN	1028
5501		X1	EQU	094			0089		GEN	
5502		X2	EQU	094			0094		GEN	
5503		094	DCW	000		3	0094		GEN	1029
5504		096	DC	00		2	0096		GEN	1029
5505		X3	EQU	099			0099		GEN	
5506	41 32		ORG	XBEGIN				0838		
5507	41 33	INITL	MCW	X3,HEX3#3		7	0838	M 099 S76		1030
5508	41 34		MCW	X1,HEX1#3		7	0845	M 089 S79		1030
5509	41 35		C	06X3		4	0852	C 060		1030
5510	41 36		SAR	X3		4	0856	Q 099		1030
5511	41 37		CW	16X3		4	0860	0 061		1030
5512	41 38		MCW	ADTBL,X2		7	0864	M 145 094		1030
5513	41 39		C	000EX2		4	0871	C 0-0		1030
5514	41 40		SAR	X2		4	0875	0 094		1031
5515	41 41		C	X2,HEX3		7	0879	C 094 S76		1031
5516	41 42		BE	DUT		5	0886	B 537 S		1031
5517	41 43		MCW	ADTBL,CGBTM#3		7	0891	M 145 S82		1031
5518	41 44	START	BWZ	OUT,000EX1,I		8	0898	V 537 0#0 I		1031
5519	41 45		MCW	000EX1,CODE#4		7	0906	M 0#0 S86		1031
5520	41 46		C	000EX1		4	0913	C 0#0		1032
5521	41 47		SAR	X1		4	0917	Q 089		1032
5522	41 48		MCW	@ @,COUNT#3		7	0921	M 589 S92		1032
5523	41 49		BCE	WORRY,CODE-3,H		8	0928	B 968 S83 H		1032
5524	41 50		MCW	CODE-3,#68		7	0936	M 583 950		1032
5525	41 51		BCE	RUBAD,@TWEDGK@,0	CHECK	8	0943	B 778 S98 0		1032
5526	41 52		CHAIN	5					MACRO	
5527			BCE			1	0951	B	GEN	1032
5528			BCE			1	0952	B	GEN	1033
5529			BCE			1	0953	B	GEN	1033
5530			BCE			1	0954	B	GEN	1033
5531	41 53	SKIP	C	000EX1		4	0955	B	GEN	1033
5532	41 54		SAR	X1		4	0960	Q 0#0		1033
5533	41 55		B	START		4	0964	B 898		1033
5534	41 56		MCW	CGBTM,X3		7	0968	M 582 099		1034
5535	41 57	WORRY	C	000EX1,X3		7	0975	C 0#0 099		1034
5536	41 58	CKEXT	BE	THRU		5	0982	B #45 S		1034
5537	41 59		MN	000EX3		4	0987	D 060		1034
5538	41 60		MN			1	0991	D		1034
5539	41 61		MN			1	0992	D		1034
5540	41 62		SAR	X3		4	0993	Q 099		1034
5541	41 63	CHAIN	SBR	X2		4	0997	H 094		1035
5542	41 64		BWZ	ADD1,001EX2,1		8	1001	V 767 0-1 1		1035
5543	41 65		BWZ	CKEXT,002EX2,2		8	1009	V 975 0-2 2		1035
5544	41 66		MCW	003EX2,X2		7	1017	M 0-3 094		1035
5545	41 67		MZ	@ @,X2-1	BLANK	7	1024	Y 599 093		1035

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
16	41	68		MN	000EXZ	L	4	1031	D 0-0		1035
17	41	69		MN		L	1	1035	D		1035
18	41	70		MN		L	1	1036	D		1036
19	41	71		SAR	X2	L	4	1037	Q 094		1036
20	41	72		B	CHAIN	L	4	1041	B #01		1036
21	41	73	THRU	MCW	X3,C68TM	L	7	1045	M 099 S82		1036
22	41	74	DUN	BCE	SKIP,COUNT,	L	8	1052	B 956 S92		1036
23	41	75		BWZ	*E5, CODE,2	L	8	1060	V #72 S86 2		1036
24	41	76		B	ZONE	L	4	1068	B #80		1036
25	41	77		BWZ	PRINT, CODE-2,2	L	8	1072	V #94 S84 2		1037
26	41	78	ZONE	MCW	CODE,X3	L	7	1080	M S86 099		1037
27	41	79		MCW	000&X3, CODE	L	7	1087	M 060 S86		1037
28	41	80	PRINT	CS	299	L	4	1094	/ 299		1037
29	41	81		SW	FAILSW	L	4	1098	/ 184		1037
30	41	82		MCW	ERRROR 21 -0,210	L	7	1102	M T09 210		1037
31	41	83		MCW	UNDEFINED STATEMENT NUMBERS, STATEMENTS,253	L	7	1109	M T47 253		1038
32	41	84		MN	CODE,257	L	7	1116	D S86 257		1038
33	41	85		MN		L	1	1123	D		1038
34	41	86		MN		L	1	1124	D		1038
35	41	87		MCS	COUNT,214	L	7	1125	Z S92 214		1038
36	41	88		C	COUNT,2001a	L	7	1132	C S92 T50		1038
37	41	89		BU	*E8	L	5	1139	B /51 /		1038
38	41	90		MCW	a, a,243	L	7	1144	M T52 243		1039
39	41	91		V		L	1	1151	2		1039
40	41	92		FORMS						MACRO	
41				BCV	*E5	L	5	1152	B /61 a	GEN	1039
42				B	*E3	L	4	1157	B /63	GEN	1039
43				CC	1	L	2	1161	F 1	GEN	1039
44	41	93		B	SKIP	L	4	1163	B 956		1039
45	41	94	ADD1	A	@1a,COUNT	L	4	1167	A T53 S92		1039
46	41	95		B	CKEXT	L	4	1174	B 975		1040
47	41	96	RUBAD	BWZ	DUN,000EX1,1	L	8	1178	V #52 0#0 1		1040
48	41	97		BCE	DUN,000EX1,,	L	8	1186	B #52 0#0 ,		1040
49	41	98		MCW	000EX1,X3	L	7	1194	M 0#0 099		1040
50	41	99		SAR	X1	L	4	1201	Q 089		1040
51	42	00		MN	000EX3	L	4	1205	D 0E0		1040
52	42	01		MN		L	1	1209	D		1040
53	42	02		SAR	X3	L	4	1210	Q 099		1041
54	42	03		BWZ	PLUS1,000EX3,1	L	8	1214	V S26 0E0 1		1041
55	42	04		B	RUBAD	L	4	1222	B /78		1041
56	42	05	PLUS1	A	@1a,COUNT	L	7	1226	A T53 S92		1041
57	42	06		B	RUBAD	L	4	1233	B /78		1041
58	42	07	OUT	MCW	HEX1,X1	L	7	1237	M S79 089		1041
59	42	08		MCW	HEX3,X3	L	4	1237	M S79 089		1041
60	42	09		FENDX	E,,,,,SYS5,I/O ONE	L	7	1244	M S76 099	MACRO	1042
61				BSS	333,E	L	5	1251	B 333 E	GEN	1042
62				SBR	TCLEAR,SYS5	L	7	1256	H 710 T61	GEN	1042
63				LCA	@I/O ONE@,110	L	7	1263	L T60 110	GEN	1042
64				B	MONTER	L	4	1270	B 700	GEN	1042
65	42	10		L TORG	*	L			1274		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5506			HEX3	DCW	#03	L	3	1276	AREA	AREA	1042
5507			HEX1		#03	L	3	1279	AREA	AREA	1042
5516			C08TM		#03	L	3	1282	AREA	AREA	1043
5518			CODE		#04	L	4	1286	AREA	AREA	1043
5521			COUNT		a a	L	3	1289	LIT	LIT	1043
5524					#03	L	3	1292	AREA	AREA	1043
					ATWEDGK	L	6	1298	LIT	LIT	1043
					a a	L	1	1299	LIT	LIT	1043
5560					ERROR 21 -a	L	10	1309	LIT	LIT	1043
5561					UNDEFINED STATEMENT NUMBERS, STATEMENTa	L	38	1347	LIT	LIT	1044
					2001a	L	3	1350	LIT	LIT	1045
					a, a	L	2	1352	LIT	LIT	1045
					21a	L	1	1353	LIT	LIT	1045
					21/0 ONEa	L	7	1360	LIT	LIT	1045
					a a	L	1	1361	LIT	LIT	1045
5593			SYSS	DCW	INITL	L	1				1046
5596	42	11		XFR							
5597	42	12									

SYSTEM GROUP MARK

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
508 42 13		JOB	1401 FORTRAN INPUT/OUTPUT PHASE ONE				MACRO	
509 42 14		FBEGN	I/O ONE,X1,X2,R,X3,,9				GEN	1049
510 42 15	110	SFX	9	9	0110		GEN	
511 42 16	X1	DCW	@I/O ONE@	9	0089		GEN	
512 42 17	X2	EQU	089	9	0094		GEN	
513 42 18	094	DCH	000	9	0094		GEN	1050
514 42 19	096	DC	00	9	0096		GEN	1050
515 42 20	X3	EQU	099	9	0099		GEN	
516 42 21	BEGIN	ORG	XBEGIN	9	0838	0838		
517 42 22	START	SW	GMI	9	0838	, W27		1051
518 42 23		BCE	OUT2,0&X1,	9	0842	B 886 0#0		1051
519 42 24		LCA	0&X1, CODE#5	9	0850	L 0#0 W49		1051
520 42 25		CH	XTPSW	9	0857	W X57		1051
521 42 26		SW	CODE-3	9	0861	, W46		1051
522 42 27		MCH	CODE-3,*E8	9	0865	M W46 879		1051
523 42 28		BCE	IOTYP,@1356LPU@,0	9	0872	B #12 W56 0		1052
524 42 29		CHAIN	6	9			MACRO	
525 42 30		BCE		9	0880	B	GEN	1052
526 42 31		BCE		9	0881	B	GEN	1052
527 42 32		BCE		9	0882	R	GEN	1052
528 42 33		BCE		9	0883	B	GEN	1052
529 42 34		BCE		9	0884	B	GEN	1052
530 42 35		BCE		9	0885	B	GEN	1052
531 42 36		SBR	X1,1&X1	9	0886	H 089 0#1		1053
532 42 37	OUT2	MZ	X3,ALL9	9	0893	Y 099 W16		1053
533 42 38		MZ		9	0900	Y		1053
534 42 39		MCH		9	0901	M		1053
535 42 40		MZ	X1,ALL91	9	0902	Y 089 W19		1053
536 42 41		MZ		9	0909	Y		1053
537 42 42		MCH		9	0910	M		1053
538 42 43		C	ALL9,ALL91	9	0911	C W16 W19		1054
539 42 44		BE	SINGL	9	0918	B 943 S		1054
540 42 45		CS	0&X3	9	0923	/ 060		1054
541 42 46	CLR	SBR	CLR&3	9	0927	H 926		1054
542 42 47		C	CLR&3,ALL91	9	0931	C 926 W19		1054
543 42 48		BU	CLR	9	0938	B 923 /		1054
544 42 49		MCH	ALL91,X2	9	0943	M W19 094		1054
545 42 50		C	X2,X1	9	0950	C 094 089		1055
546 42 51		BE	OUT3	9	0957	B 981 S		1055
547 42 52		LCA	BLANK,0&X2	9	0962	L X11 0-0		1055
548 42 53		CH	0&X2	9	0969	H 0-0		1055
549 42 54		SAR	X2	9	0973	Q 094		1055
550 42 55		B	BACK3	9	0977	B 950		1055
551 42 56		MN	0&X1	9	0981	D 0#0		1055
552 42 57		SAR	X1	9	0985	Q 089		1056
553 42 58		FENDX	C,GMI,,,,SYSL,ARITH ONE	9	0989	B 333 C	MACRO	
554 42 59		BSS	333,C	9	0994	M 710 X58	GEN	1056
555 42 60		SBR	TCLEAR,SYSL	9	1001	L W65 110	GEN	1056
556 42 61		LCA	@ARITH ONE@,110	9			GEN	

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5648			B	MONTER	9	4	1008	B 700	GEN	1056
5649	42 47	IOTYP	SW	CODE-2	9	4	1012	M 47	GEN	1056
5650	42 48		MCM	2 2,2&X1	9	7	1016	M W66 0#2		1056
5651	42 49		SBR	KLOBR6,2&X1	9	7	1023	H T55 0#2		1057
5652	42 50		C	0&X1	9	4	1030	C 0#0		1057
5653	42 51		SAR	X1	9	4	1034	Q 089		1057
5654	42 52		LCA	CODE,0&X3	9	7	1038	L W49 0&0		1057
5655	42 53		LCA	GM1	9	4	1045	L W27		1057
5656	42 54		SBR	X3	9	4	1049	H 099		1057
5657	42 55		CW	2&X3	9	4	1053	B 0&2		1057
5658	42 56		BWZ	NOFMT, CODE-1, B	9	8	1057	V U39 W48 B		1058
5659	42 57		FBCEQ	DOLST, CODE-3, 1, 3	9	8	1065	B /16 W46 1	MACRO	1058
5660			BCE	DOLST, CODE-3, 1	9	8	1073	B /16 W46 3	GEN	1058
5661			BCE	DOLST, CODE-3, 3					GEN	
5662	42 58		FBCEQ	DOSPC, CODE-3, L, P, U					MACRO	
5663			BCE	DOSPC, CODE-3, L	9	8	1081	B V32 W46 L	GEN	1058
5664			BCE	DOSPC, CODE-3, P	9	8	1089	B V32 W46 P	GEN	1059
5665			BCE	DOSPC, CODE-3, U	9	8	1097	B V32 W46 U	GEN	1059
5666	42 59		MCM	0&X1, SPEC	9	7	1105	M 0#0 W44		1059
5667	42 60		SAR	X1	9	4	1112	Q 089		1059
5668	42 61		MCM	0&X1, TUNO	9	7	1116	M 0#0 W38		1059
5669	42 62		SAR	X1	9	4	1123	Q 089		1059
5670	42 63		MCM	0&X1, TUNO-3	9	7	1127	M 0#0 W35		1060
5671	42 64		BCE	ACTL, TUNO-4,	9	8	1134	B T91 W34		1060
5672	42 65		BCE	ACTL, TUNO-1,	9	8	1142	B T91 W37		1060
5673	42 66		MN	212, TAPE	9	7	1150	D M67 X10		1060
5674	42 67		BCE	OTHR2, TUNO-3,	9	8	1157	B U28 W35		1060
5675	42 68		MCM	0&X1, LIST	9	7	1165	M 0#0 W41		1061
5676	42 69		SAR	X1	9	4	1172	Q 089		1061
5677	42 70		LCA	LIST, 0&X3	9	7	1176	L W41 0&0		1061
5678	42 71		SBR	X3	9	4	1183	H 099		1061
5679	42 72		LCA	SPEC, 0&X3	9	7	1187	L W44 0&0		1061
5680	42 73		SBR	X3	9	4	1194	H 099		1061
5681	42 74		LCA	TAPE, 0&X3	9	7	1198	L X10 0&0		1062
5682	42 75		LCA	BRANCH	9	4	1205	L W31		1062
5683	42 76		SBR	X3	9	4	1209	H 099		1062
5684	42 77		FBCEQ	TLGM, CODE-3, L, P, U, 1					MACRO	
5685			BCE	TLGM, CODE-3, L	9	8	1213	B S82 W46 L	GEN	1062
5686			BCE	TLGM, CODE-3, P	9	8	1221	B S82 W46 P	GEN	1062
5687			BCE	TLGM, CODE-3, U	9	8	1229	B S82 W46 U	GEN	1062
5688			BCE	TLGM, CODE-3, 1	9	8	1237	B S82 W46 1	GEN	1063
5689	42 78		MZ	2S2, 5&X3	9	7	1245	Y W68 0&5		1063
5690	42 79		BCE	TLGM, CODE-3, 3	9	8	1252	B S82 W46 3		1063
5691	42 80		MZ	2K2, 5&X3	9	7	1260	Y W69 0&5		1063
5692	42 81		BCE	TLGM, CODE-3, 5	9	8	1267	B S82 W46 5		1063
5693	42 82		MZ	2B2, 5&X3	9	7	1275	Y W70 0&5		1064
5694	42 83		BW	LGM, XTPSW	9	8	1282	V T30 X57 1		1064
5695	42 84		BWZ	LGM, TUNO-1, 2	9	8	1290	V T30 W37 2		1064
5696	42 85		MCH	TUNO, MASK1-3	9	7	1298	M W38 W23		1064
5697	42 86		MZ	BLANK, MASK1-4	9	7	1305	Y X11 W22		1064

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GM  
GM  
GM

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5008	42	87		LCA	MASK1,0EX3	9	7	1312	L W26 0E0	GEN	1065
5009	42	88		SBR	X3	9	4	1319	H 099	GEN	1065
5010	42	89		MCM	BLNK#3,TUNO-3	9	7	1323	M W73 W38	GEN	1065
5011	42	90	LGM	LCA	GMI,0EX3	9	7	1330	L W27 0E0	GEN	1065
5012	42	91		SBR	X3	9	4	1337	H 099	GEN	1065
5013	42	92		C	0EX1	9	4	1341	C 0+0	GEN	1065
5014	42	93		SAR	X1	9	4	1345	Q 089	GEN	1065
5015	42	94	KLOBR	BCE	START,0,	9	8	1349	B 842 000	MACRO	1066
5016	42	95		FQUIT							
5017	7	7		CS	332	9	4	1357	/ 332	GEN	1066
5018	7	7		CS		9	1	1361	/	GEN	1066
5019	7	7		CC	1	9	2	1362	F 1	GEN	1066
5020	7	7		MCM	MESSAGE 2 - OBJECT PROGRAM TOO LARGE,270	9	7	1364	M X09 270	GEN	1066
5021	7	7		H		9	1	1371	2	GEN	1066
5022	7	7		CC	1	9	2	1372	F 1	GEN	1066
5023	7	7		BCE	*66,MONTOR,1	9	8	1374	B T87 769 1	GEN	1067
5024	7	7		RWD	1	9	5	1382	U XUI R	GEN	1067
5025	7	7		H	*-3	9	4	1387	. T87	GEN	1067
5026	7	7		MN	TUNO,TAPE#1	9	7	1391	D W38 X10	GEN	1067
5027	7	7		SW	XTPSW	9	4	1398	. X57	GEN	1067
5028	7	7		BCE	OTHER,TUNO-1,	9	8	1402	B U21 W37	GEN	1067
5029	7	7		SBR	X1,2EX1	9	7	1410	H 089 0#2	GEN	1068
5030	7	7		B	XXX	9	4	1417	B /65	GEN	1068
5031	7	7		SBR	X1,1EX1	9	7	1421	H 089 0#1	GEN	1068
5032	7	7		MCM	PERIOD,LIST	9	7	1428	M 154 W41	GEN	1068
5033	7	7		B	RETRN	9	4	1435	B /76	GEN	1068
5034	7	7		MZ	BLANK#1,3EX3	9	7	1439	V X11 0E3	GEN	1068
5035	7	7		MCM	4EX3,ADR#3	9	7	1446	M 0E4 X14	GEN	1069
5036	7	7		BWZ	*E5,ADR,2	9	8	1453	V U65 X14 2	GEN	1069
5037	7	7		B	GTADR	9	4	1461	B U73	GEN	1069
5038	7	7		BWZ	ERR,ADR-2,2	9	8	1465	V U87 X12 2	GEN	1069
5039	7	7		MCM	ADR,*E4	9	7	1473	M X14 U83	GEN	1069
5040	7	7		MCM	0,ADR	9	7	1480	M 000 X14	GEN	1070
5041	7	7		ERR	FTMSG 22,UNDEFINED FORMAT,ADR,18					MACRO	1070
5042	7	7		ERR						GEN	1070
5043	7	7		CS	332	9	4	1487	/ 332	GEN	1070
5044	7	7		CS		9	1	1491	/	GEN	1070
5045	7	7		SW	FAILSW	9	4	1492	. 184	GEN	1070
5046	7	7		MN	ADR,22&18	9	7	1496	D X14 242	GEN	1070
5047	7	7		MN		9	1	1503	D	GEN	1070
5048	7	7		MN		9	1	1504	D	GEN	1070
5049	7	7		MCM	ERROR 22 - UNDEFINED FORMAT, STATEMENT 2	9	4	1505	M X57	GEN	1071
5050	7	7		H	*E5	9	1	1509	2	GEN	1071
5051	7	7		BCV	*E3	9	5	1510	B V19 2	GEN	1071
5052	7	7		B	*E3	9	4	1515	B V21	GEN	1071
5053	7	7		CC	1	9	2	1519	F 1	GEN	1071
5054	7	7		MZ	*-4,CODE-1	9	7	1521	V V23 W48	GEN	1071
5055	7	7		B	DOLST	9	4	1528	B /16	GEN	1071
5056	7	7		MCM	0EX1,SPEC	9	7	1532	M 0+0 W44	GEN	1072
5057	7	7		SAR	X1	9	4	1539	Q 089	GEN	1072
5058	7	7		MCM	PERIOD,LIST	9	7	1543	M 154 W41	GEN	1072

SEQ PG	LIN	OPERANDS	OP	LABEL	OPERANDS	GM	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5748	43 17	BCE	OP		HERE, OEX1,		9	8	1550	B V69 O#0		1072
5749	43 18	MCW			O&X1, LIST		9	7	1558	M O#0 W41		1072
5750	43 19	SAR			XI		9	4	1565	Q 089		1072
5751	43 20	MCW		HERE	@&@, TAPE		9	7	1569	M X54 X10		1073
5752	43 21	BCE			SETP, CODE-3, L		9	8	1576	B W06 W46 L		1073
5753	43 22	MCW			@-@, TAPE		9	7	1584	M X55 X10		1073
5754	43 23	BCE			SETP, CODE-3, U		9	8	1591	B W06 W46 U		1073
5755	43 24	MCW			@*@, TAPE		9	7	1599	M X56 X10		1073
5756	43 25	SW		SETP	XTPSW#1		9	4	1606	, X57		1074
5757	43 26	B			RETRN		9	4	1610	B /76		1074
5758	43 27	DCW		ALL 9	999		9	3	1616			1074
5759	43 28	DCW		ALL 91	999		9	3	1619			1074
5760	43 29	DCW		MASK1	@DXXX0&5@		9	7	1626			1074
5761	43 30	DC		GM1	@ @		9	1	1627			1074
5762	43 31	DCW		BRANCH	@BW97@		9	4	1631			1074
5763	43 32	DCW			#4		9	4	1635			1074
5764	43 33	DCW		TUNO	#3		9	3	1638			1075
5765	43 34	DCW		LIST	000		9	3	1638			1075
5766	43 35	DCW		SPEC	000		9	3	1641			1075
5767	43 36	LTORG			*		9	3	1644			1075
5610	DCW			CODE	#05		9	5	1649			1075
5614	DCW				@1356LP@		9	7	1656	AREA		1075
5647	DCW				@ARITH ONE@		9	9	1665	LIT		1075
					@ @		9	1	1666	LIT		1075
					@1@		9	1	1667	LIT		1076
					@S@		9	1	1668	LIT		1076
					@K@		9	1	1669	LIT		1076
					@B@		9	1	1670	LIT		1076
5700	BLNK3				#03		9	3	1673	AREA		1076
5710	TAPE				@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@		9	36	1709	LIT		1077
5716	BLANK				#01		9	1	1710	AREA		1077
5724	ADR				#03		9	3	1714	AREA		1077
5725					@ERROR 22 - UNDEFINED FORMAT, STATEMENT @		9	39	1753	LIT		1079
5738					@&@		9	1	1754	LIT		1080
					@-@		9	1	1755	LIT		1080
					@*@		9	1	1756	LIT		1080
					#01		9	1	1757	LIT		1080
					@ @		9	1	1758	AREA		1080
5756	XTPSW						9	1	1758	B 838		1081
5768	43 37	DCW			SYSTEM GROUP MARK		9	1	1758			1081
5769	43 38	XFR			BEGIN		9	1	1758			1081

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5770	43 39									
5771	43 40									
5772										
5773										
5774										
5775										
5776										
5777										
5778										
5779	43 41					7	0110		MACRO	
5780	43 42								GEN	1084
5781	43 43								GEN	
5782	43 44								GEN	
5783	43 45								GEN	
5784	43 46								GEN	
5785	43 47					3	0094		GEN	1085
5786	43 48					2	0096		GEN	1085
5787	43 49								GEN	
5788	43 50								GEN	
5789	43 51								GEN	
5790	43 52								GEN	
5791	43 53								GEN	
5792	43 54								GEN	
5793	43 55								GEN	
5794	43 56								GEN	
5795	43 57								GEN	
5796	43 58								GEN	
5797	43 59								GEN	
5798	43 60								GEN	
5799	43 61								GEN	
5800	43 62								GEN	
5801	43 63								GEN	
5802	43 64								GEN	
5803	43 65								GEN	
5804	43 66								GEN	
5805	43 67								GEN	
5806	43 68								GEN	
5807	43 69								GEN	
5808	43 70								GEN	
5809	43 71					7	0838	H M53	O&E2	1086
5810	43 72					4	0845	J60		1086
5811	43 73					7	0849	M 0#0	M47	1086
5812	43 74									
5813										
5814						8	0856	B 943	M44	1086
5815	43 75					8	0864	B 943	M44	1086
5816	43 76					7	0872	M M43	O94	1087
5817	43 77					4	0879	B 920		1087
5818	43 78					7	0883	M 0#0	M47	1087
5819	43 79					7	0890	H M50	O&E0	1087

ARITH PHASE ONE ERROR CHECKING ALGORITHM

PREVIOUS CHARACTER

OPND	ε*/.	-	GM	F%	#	z	□	NEG
ε	OK	DD	LS	KL	KL	KL	OK	DD
-	OK	DD	LS	NG	NG	NG	OK	DD
*/	OK	DD	LS	SY	SY	SY	OK	DD
#	OK	A2	LS	A2	A2	A2	OK	DD
U A	OK	OK	LS	OK	OK	OK	OK	DD
R A	OK	SY	LS	SY	A2	SY	OK	DD
E C	OK	SY	LS	SY	SY	SY	OK	DD
N T	OK	DD	LS	SY	SY	SY	OK	DD
T E	---	---	LS	OK	OK	OK	---	DD
F %	OK	OK	LS	OK	OK	OK	OK	DD
OPRND	---	OK	LS	OK	OK	OK	OK	DD

OK- VALID  
 DD- DOUBLE OPERATORS  
 SY- SYNTAX ERROR  
 A2- ERROR NOTED IN ARITH PHASE TWO  
 LS- LEFT SIDE INVALID  
 NG- GENERATE NEGATE FUNCTION  
 --- SYNTACTICALLY INADMISSABLE  
 KL- DELETE UNARY OPERATOR PLUS

START SBR NOMO,2&X3  
 SW GMI  
 MCH O&X1, CODE  
 FBCEQ DOCOD, CODE-3, R, E  
 BCE DOCOD, CODE-3, R  
 BCE DOCOD, CODE-3, E  
 MCH 0, 0, X2  
 B FENDX  
 MCH O&X1, CODE#4  
 SBR KILL#3, O&X3  
 FBCEQ DOCOD, CODE-3, R, E

NUS

NUS STM

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NUS STM



SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
5 20		BCE	DOCOD, CODE-3, R	8	0897	B 943 M44 R	GEN	1087
5 21		BCE	DOCOD, CODE-3, E	8	0905	B 943 M44 E	GEN	1088
5 22 43 80	FENDX	MCM	NOMO#3, X2	7	0913	M M53 094	MACRO	1088
5 24	FENDX	BSS	333, C	5	0920	B 333 C	GEN	1088
5 25		SBR	TCLEAR, SYSGM	7	0925	H 710 P68	GEN	1088
5 26		LCA	ARITH TMD#110	7	0932	L M62 110	GEN	1088
5 27		B	MONTER	4	0939	B 700	GEN	1088
5 28 43 82	DOCOD	MVDMN	X1, X3	7	0943	L 0#0 0E0	MACRO	1089
5 29	DOCOD	LCA	0EX1, 0EX3	4	0950	Q 089	GEN	1089
5 30		SAR	X1	4	0954	C 0E0	GEN	1089
5 31		C	0EX3	4	0958	Q 099	GEN	1089
5 32		SAR	X3	8	0962	V 974 M47 2	GEN	1089
5 33 43 83		BWZ	#E5, CODE, 2	4	0970	B 982	GEN	1089
5 34 43 84		B	INDIR	8	0974	V 998 M45 2	GEN	1089
5 35 43 85		BWZ	MAIN, CODE-2, 2	7	0982	M M47 094	GEN	1090
5 36 43 86	INDIR	MCH	CODE, X2	7	0989	D 0-0 M47	GEN	1090
5 37 43 87		MN	0EX2, CODE	1	0996	D	GEN	1090
5 38 43 88		MN		1	0997	D	GEN	1090
5 39 43 89		MN		4	0998	C 0#0	GEN	1090
5 40 43 90	MAIN	C	0EX1	4	1002	Q M65	GEN	1090
5 41 43 91		SAR	NEXT#3	8	1006	B #85 M44 R	GEN	1090
5 42 43 92		BCE	ARTYP, CODE-3, R	7	1014	C 0#0 M75	GEN	1091
5 43 43 93		C	0EX1, BLK10#10	4	1021	Q 089	GEN	1091
5 44 43 94		SAR	X1	4	1025	V 0#1	GEN	1091
5 45 43 95		SW	1EX1	7	1029	L 0/0 0E0	GEN	1091
5 46 43 96		LCA	10EX1, 0EX3	4	1036	Q 089	GEN	1091
5 47 43 97		SAR	X1	4	1040	C 0E0	GEN	1091
5 48 43 98		C	0EX3	4	1044	Q 099	GEN	1091
5 49 43 99		SAR	X3	7	1048	Q 0#1 0E1	GEN	1091
5 50 44 00		CW	1EX1, 1EX3	4	1055	L J60	GEN	1092
5 51 44 01		LCA	GM1	4	1059	L M79	GEN	1092
5 52 44 02		LCA	# 998	4	1063	H 099	GEN	1092
5 53 44 03		SBR	X3	7	1067	Q 0E1 0E5	GEN	1092
5 54 44 04		CW	1EX3, 5EX3	7	1074	H M82 0#0	GEN	1092
5 55 44 05		SBR	LAST, 0EX1	4	1081	B /43	GEN	1092
5 56 44 06		B	LOOP3	7	1085	H 094 0#1	GEN	1093
5 57 44 07	ARTYP	SBR	X2, 1EX1	8	1092	B -01 0#0 #	GEN	1093
5 58 44 08		BCE	CDINT, 0EX1, #	7	1100	H M82 0#0	GEN	1093
5 59 44 09		SBR	LAST#3, 0EX1	8	1107	B /31 0#0 #	GEN	1093
5 60 44 10	EQSCN	BCE	GOTEQ, 0EX1, #	8	1115	B -01 0#0	GEN	1093
5 61 44 11		BCE	CDINT, 0EX1,	4	1123	H 089	GEN	1094
5 62 44 12		SBR	X1	4	1127	B /07	GEN	1094
5 63 44 13		B	EQSCN	4	1131	B -53	GEN	1094
5 64 44 14	GOTEQ	B	MESUR	4	1135	D 0#0	GEN	1094
5 65 44 15	LOOP1	MN	0EX1	4	1139	Q 089	GEN	1094
5 66 44 16		SAR	X1	7	1143	H 094 0#1	GEN	1094
5 67 44 17	LOOP3	SBR	X2, 1EX1	4	1150	H M85	GEN	1094
5 68 44 18		SBR	FUNBX#3	7	1154	D 0#0 /79	GEN	1095
5 69 44 19	LOOP2	MN	0EX1, TST1E7					

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G-M

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5870	44 20		MZ	0&X1,TST1&7	7	1161	Y 0#0 779		GEN	1095
5871	44 21		SAR	X1	4	1168	Q 089		GEN	1095
5872	44 22	TST1	BCE	GOTOP,0&#330 a,0	8	1172	B /91 M93 0		MACRO	1095
5873	44 23		CHAIN	7						
5874			BCE		1	1180	B		GEN	1095
5875			BCE		1	1181	B		GEN	1095
5876			BCE		1	1182	B		GEN	1095
5877			BCE		1	1183	B		GEN	1096
5878			BCE		1	1184	B		GEN	1096
5879			BCE		1	1185	B		GEN	1096
5880			BCE		1	1186	B		GEN	1096
5881	44 24		B	LOOP2	4	1187	B /54		GEN	1096
5882	44 25	GOTOP	SBR	X1,1&X1	7	1191	H 089 0#1		GEN	1096
5883	44 26		BCE	CKNG,0&X1,-	8	1198	B V98 0#0		GEN	1096
5884	44 27		BCE	CKFUN,0&X1,2	8	1206	B W41 0#0 2		GEN	1097
5885	44 28		BCE	CKXP,0&X1,*	8	1214	B U31 0#0 *		GEN	1097
5886	44 29		BCE	PLUS,0&X1,2	8	1222	B V44 0#0 2		GEN	1097
5887	44 30		BCE	DIV,0&X1,0	8	1230	B U46 0#0 0		GEN	1097
5888	44 31		BCE	LOOP1,0&X1,#	8	1238	B /35 0#0 #		GEN	1098
5889	44 32		BCE	CLOSE,0&X1,0	8	1246	B T39 0#0 0		GEN	1098
5890	44 33		MZ	1&X1,CKGM&7	7	1254	D 0#1 575		GEN	1098
5891	44 34		MZ	1&X1,CKGM&7	7	1261	Y 0#1 575		GEN	1098
5892	44 35	CKGM	BCE	SYNER,0&#330-# a,0	8	1268	B J22 N00 0		MACRO	1098
5893	44 36		CHAIN	6						
5894			BCE		1	1276	B		GEN	1098
5895			BCE		1	1277	B		GEN	1099
5896			BCE		1	1278	B		GEN	1099
5897			BCE		1	1279	B		GEN	1099
5898			BCE		1	1280	B		GEN	1099
5899			BCE		1	1281	B		GEN	1099
5900	44 37		BCE	EOSTM,1&X1,	8	1282	B T10 0#1		GEN	1099
5901	44 38		BCE	EOSTM,1&X1,2	8	1290	B T10 0#1 2		GEN	1099
5902	44 39		BCE	EOSTM,1&X1,0	8	1298	B T10 0#1 0		GEN	1100
5903	44 40		B	MESUR	4	1306	B -53		GEN	1100
5904	44 41	EOSTM	MCH	LAST,X2	7	1310	M M82 094		GEN	1100
5905	44 42		LCA	0&X2,0&X3	7	1317	L 0-0 0&0		GEN	1100
5906	44 43		SBR	X3	4	1324	H 099		GEN	1100
5907	44 44		MCH	NEXT,X1	7	1328	M M65 089		GEN	1100
5908	44 45		B	NUSTM	4	1335	B 883		GEN	1101
5909	44 46	CLOSE	MLC	0&X1,BOX#2	7	1339	M 0#0 N02		GEN	1101
5910	44 47		MLC	BOX-1,*&8	7	1346	M N01 T60		GEN	1101
5911	44 48		BCE	CLZOK,0&#330- a,0	7	1346	M N01 T60		GEN	1101
5912	44 49		CHAIN	5	8	1353	B T78 N08 0		MACRO	1101
5913			BCE		1	1361	B		GEN	1101
5914			BCE		1	1362	B		GEN	1101
5915			BCE		1	1363	B		GEN	1101
5916			BCE		1	1364	B		GEN	1102
5917			BCE		1	1365	B		GEN	1102
5918	44 50		BCE	CLZOK,BOX-1,#	8	1366	B T78 N01 #		GEN	1102
5919	44 51		B	SYNER	4	1374	B J22		GEN	1102

ERGO GROUP MARK

G-M,0

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5020	44 52	CLZOK	MN	1EX1,CLSK&7	7		1378	D 0#1 T99	GEN	1102
5021	44 53		MZ	1EX1,CLSK&7	7		1385	Y 0#1 T99	GEN	1102
5022	44 54	CLSKC	BCE	SYNER,2E-2,2,2,0	8		1392	B J22 N16 0	MACRO	1102
5023	44 55		CHAIN	7						
5024			BCE		1		1400	B	GEN	1103
5025			BCE		1		1401	B	GEN	1103
5026			BCE		1		1402	B	GEN	1103
5027			BCE		1		1403	B	GEN	1103
5028			BCE		1		1404	B	GEN	1103
5029			BCE		1		1405	B	GEN	1103
5030			BCE		1		1406	B	GEN	1103
5031	44 56		BCE	LOOP1,1EX1,#	8		1407	B /35 0#1 #	GEN	1104
5032	44 57		BCE	LOOP1,1EX1,□	8		1415	B /35 0#1 □	GEN	1104
5033	44 58		B	MESUR	4		1423	B -53	GEN	1104
5034	44 59		B	LOOP1	4		1427	B /35	GEN	1104
5035	44 60	CKXP	MCW	0EX1,BOX2#2	7		1431	M 0#0 N18	GEN	1104
5036	44 61		BCE	ISXP,BOX2-1,*	8		1438	B V13 N17 *	MACRO	1104
5037	44 62	DIV	FBCEQ	SYNER,1EX1,#,%						
5038		DIV	BCE	SYNER,1EX1,#	8		1446	B J22 0#1 #	GEN	1105
5039			BCE	SYNER,1EX1,%	8		1454	B J22 0#1 %	GEN	1105
5040	44 63		BCE	SYNER,1EX1,%	8		1462	B J22 0#1	GEN	1105
5041	44 64	DIV2	MN	1EX1,DIVCK&7	7		1470	D 0#1 U91	GEN	1105
5042	44 65		MZ	1EX1,DIVCK&7	7		1477	Y 0#1 U91	GEN	1105
5043	44 66	DIVCK	BCE	DBLOP,2E-2,2,2,0	8		1484	B J61 N24 0	MACRO	1105
5044	44 67		CHAIN	5						
5045			BCE		1		1492	B	GEN	1106
5046			BCE		1		1493	B	GFN	1106
5047			BCE		1		1494	B	GEN	1106
5048			BCE		1		1495	B	GEN	1106
5049			BCE		1		1496	B	GEN	1106
5050	44 68		BCE	LOOP1,1EX1,□	8		1497	B /35 0#1 □	GEN	1106
5051	44 69		B	MESUR	4		1505	B -53	GEN	1107
5052	44 70		B	LOOP1	4		1509	B /35	GEN	1107
5053	44 71	ISXP	MN	0EX1	4		1513	D 0#0	GEN	1107
5054	44 72		MN		1		1517	D	GEN	1107
5055	44 73		SAR	X1	4		1518	Q 089	GEN	1107
5056	44 74		MCW	2,2,2EX1	7		1522	M M43 0#2	GEN	1107
5057	44 75		LCA	0EX1	4		1529	L 0#0	GEN	1107
5058	44 76		SBR	X1,2EX1	7		1533	H 089 0#2	GEN	1108
5059	44 77		B	DIV	4		1540	B U46	MACRO	1108
5060	44 78	PLUS	FBCEQ	SQUOZ,1EX1,#,%						
5061		PLUS	BCE	SQUOZ,1EX1,#	8		1544	B V72 0#1 #	GEN	1108
5062			BCE	SQUOZ,1EX1,%	8		1552	B V72 0#1 %	GEN	1108
5063	44 79		BCE	SQUOZ,1EX1,%	8		1560	B V72 0#1	GEN	1108
5064	44 80		B	DIV2	4		1568	B U70	GEN	1108
5065	44 81	SQUOZ	MN	0EX1	4		1572	D 0#0	GEN	1109
5066	44 82		SAR	X1	4		1576	Q 089	GEN	1109
5067	44 83		LCA	0EX1,1EX1	7		1580	L 0#0 0#1	GEN	1109
5068	44 84		SBR	X1,1EX1	7		1587	H 089 0#1	GEN	1109
5069	44 85		B	LOOP3	4		1594	B /43	GEN	1109

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
170	44	86	CKNG	FBCEQ	NEGAT,1&X1,#,Z	8	1598	B	W26 0#1	MACRO	1109
171			CKNG	BCE	NEGAT,1&X1,#	8	1606	B	W26 0#1	GEN	1110
172				BCE	NEGAT,1&X1,Z	8	1614	B	W26 0#1	GEN	1110
173	44	87		BCE	NEGAT,1&X1,	4	1622	B	U70		1110
174	44	88	NEGAT	MCW	0,0,0&X1	7	1626	M	N25 0#0		1110
175	44	89		CH	XNEGTF	4	1633	□	123		1110
176	44	90		B	LOOP1	4	1637	B	735		1110
177	44	91		B	LOOP1	4	1641	B	W83 0#1	F	1111
178	44	92	CKFUN	BCE	ISFUN,1&X1,F	7	1649	D	0#1 W70		1111
179	44	93		MN	1&X1,OPNCK&7	7	1656	Y	0#1 W70		1111
180	44	94		MZ	1&X1,OPNCK&7	7	1656	Y	0#1 W70		1111
181	44	95	OPNCK	BCE	LOOP1,0&#-#0 #Z,,0,0	8	1663	B	735 N34 0		1111
182	44	96		CHAIN	8						
183				BCE		1	1671	B		MACRO	1111
184				BCE		1	1672	B		GEN	1111
185				BCE		1	1673	B		GEN	1111
186				BCE		1	1674	B		GEN	1112
187				BCE		1	1675	B		GEN	1112
188				BCE		1	1676	B		GEN	1112
189				BCE		1	1677	B		GEN	1112
190				BCE		1	1678	B		GEN	1112
191	44	97		B	SYNER	4	1679	B	J22		1112
192	44	98	ISFUN	MCW	X2,HEX2#3	7	1683	M	094 N37		1112
193	44	99		MCW	FUNBX,X2	7	1690	M	M85 094		1113
194	45	00		MN	0&X2	4	1697	D	0-0		1113
195	45	01	SAR	X2		4	1701	Q	094		1113
196	45	02	SW	0&X1		4	1705	7	0#0		1113
197	45	03	SBR	FUNBX,2&X1		7	1709	H	M85 0#2		1113
198	45	04	C	FUNBX,X2		7	1716	C	M85 094		1113
199	45	05	BE	SYNER		5	1723	B	J22 S		1113
200	45	06	SBR	FUNBX,3&X1		7	1728	H	M85 0#3		1114
201	45	07	C	FUNBX,X2		7	1735	C	M85 094		1114
202	45	08	RE	SYNER		5	1742	B	J22 S		1114
203	45	09	MCW	X3,HEX3#3		7	1747	M	099 N40		1114
204	45	10	MCW	X1,HEX1#3		7	1754	M	089 N43		1114
205	45	11	SBR	X1,XSINFU		7	1761	H	089 118		1115
206	45	12	SBR	X3,FTBL1-1		7	1768	H	099 M41		1115
207	45	13	FSCAN	BCE	NOFUN,0&X3,*	8	1775	B	Y18 0&0 *		1115
208	45	14	SBR	X3		4	1783	H	099		1115
209	45	15	C	0&X3,0&X2		7	1787	C	0&0 0-0		1115
210	45	16	BE	GOTFN		5	1794	B	Y83 S		1115
211	45	17	C	0&X3		4	1799	C	0&0		1116
212	45	18	SAR	X3		4	1803	Q	099		1116
213	45	19	SBR	X1,1&X1		7	1807	H	089 0#1		1116
214	45	20	B	FSCAN		4	1814	B	X75		1116
215	45	21	NOFUN	FTMSG	29,UNDEFINED FUNCTION NAME, CODE,25	4	1818	/	332	MACRO	1116
216			NOFUN	CS	332	1	1822	/		GEN	1116
217			CS			4	1823	/	184	GEN	1116
218			SW	FAILSW		7	1827	D	M47 249	GEN	1117
219			MN	CODE,224&25							

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
020				MN		1		1834	D	GEN	1117
021				MN		1		1835	D	GEN	1117
022				MCW		4		1836	M N89	GEN	1117
023				W	ERROR 29 - UNDEFINED FUNCTION NAME, STATEMENT 2					GEN	1117
024				BCV	*E5	5		1840	2	GEN	1117
025				B	*E3	4		1841	B Y50 2	GEN	1117
026				CC	1	4		1846	B Y52	GEN	1117
027	45	22		B	ZONCH	2		1850	F 1	GEN	1118
028	45	23		CW	XCOMF1	4		1852	B -35	GEN	1118
029	45	24	COMFN	B	MOV	4		1856	B 117	GEN	1118
030	45	25	COSIN	B	XSINFU	4		1860	B Z26	GEN	1118
031	45	26		B	COMFN	4		1864	B 118	GEN	1118
032	45	27	ABSVL	CW	XABSVA,XNEGTF	4		1868	B Y56	GEN	1118
033	45	28		B	MOV	7		1872	B 122 123	GEN	1118
034	45	29	GOTFN	SW	1EX3	4		1879	B Z26	GEN	1119
035	45	30		BCE	COSIN,1EX3,C	4		1883	B 0E1	GEN	1119
036	45	31		BCE	ABSVL,1EX3,A	8		1887	B Y64 0E1 C	GEN	1119
037	45	32		CW	0EX1	8		1895	B Y72 0E1 A	GEN	1119
038	45	33		MCW	1EX3,*E8	4		1903	B 0+0	GEN	1119
039	45	34		BCE	COMFN,@SGECTA,0	7		1907	M 0E1 Z21	GEN	1119
040	45	35		CHAIN	4	8		1914	B Y56 N94 0	MACRO	1120
041				BCE		1		1922	B	GEN	1120
042				BCE		1		1923	B	GEN	1120
043				BCE		1		1924	B	GEN	1120
044				BCE		1		1925	B	GEN	1120
045	45	36	MOV	BCE	KEEPX,0EX2,X	8		1926	B Z89 0-0 X	GEN	1120
046	45	37		MCW	1EX3,0EX2	7		1934	M 0E1 0-0	GEN	1120
047	45	38		MCW	BLNK1#1	4		1941	M N95	GEN	1121
048	45	39		SBR	X2	4		1945	H 094	GEN	1121
049	45	40		MCW	HEX3,X3	7		1949	M N40 099	GEN	1121
050	45	41		MCW	HEX1,X1	7		1956	M N43 089	GEN	1121
051	45	42		CW	0EX1	4		1963	B 0+0	GEN	1121
052	45	43		SAR	X1	4		1967	Q 089	GEN	1121
053	45	44		LCA	0EX1,0EX2	7		1971	L 0+0 0-0	GEN	1121
054	45	45		SBR	X1,0EX2	7		1978	H 089 0-0	GEN	1122
055	45	46		B	LODP3	4		1985	B /43	GEN	1122
056	45	47	KEEPX	MN	0EX2	4		1989	D 0-0	GEN	1122
057	45	48		SAR	X2	4		1993	Q 094	GEN	1122
058	45	49		B	MOV68	4		1997	B Z34	GEN	1122
059	45	50	CDINT	FTMSG	23,CODING UNINTELLIGIBLE,CODE,23	4		2001	/ 332	MACRO	1122
060			CDINT	CS	332	4		2005	/	GEN	1122
061				CS		1		2006	/	GEN	1123
062				SW	FAILSW	4		2006	184	GEN	1123
063				MN	CODE,224E23	7		2010	D M47 247	GEN	1123
064				MN		1		2017	D	GEN	1123
065				MN		1		2018	D	GEN	1123
066				MCW	ERROR 23 - CODING UNINTELLIGIBLE, STATEMENT 2	4		2019	M 039	GEN	1123
067				W		1		2023	2	GEN	1123
068				BCV	*E5	5		2024	B -33 2	GEN	1123
069				B	*E3	4		2029	B -35	GEN	1124

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
070							
071	ZONCH	CC	1 KILL,X3	2	2033	F 1	GEN 1124
072		MCW	NEXT,X1	7	2035	M M50 099	1124
073		MCW	NJUSTM	7	2042	M M65 089	1124
074	MESUR	B	MESXT&3	4	2049	B B83	1124
075		SBR	SUBSC,1&X1,\$	4	2053	H -82	1124
076		BCE	MESBX#3,4&X1	8	2057	B J99 0#1 \$	1124
077	MESCM	SBR	MESBX,X2	7	2065	H 042 0#4	1125
078	MESXT	C	0	7	2072	C 042 094	1125
079		BE	FTMSG 25,LEFT SIDE INVALID,CODE,19	5	2079	B 000 S	1125
080		CS	332				
081		CS	FAILSW	4	2084	/ 332	MACRO GEN 1125
082		SW	CODE,224&19	1	2088	/	GEN 1125
083		MN		4	2089	, 184	GEN 1125
084		MN		7	2093	D M47 243	GEN 1125
085		MN		1	2100	D	GEN 1126
086		MCW	ERROR 25 - LEFT SIDE INVALID, STATEMENT a	1	2101	D	GEN 1126
087		W		4	2102	M 082	GEN 1126
088		BCV	#&5	1	2106	2	GEN 1126
089		B	#&3	5	2107	B J16 a	GEN 1126
090		CC	1	4	2112	B J18	GEN 1126
091		B	ZONCH	2	2116	F 1	GEN 1126
092		FTMSG	27,ARITHMETIC SYNTAX ERROR,CODE,25	4	2118	B -35	GEN 1127
093	SYNER	CS	332				MACRO GEN 1127
094		CS	FAILSW	4	2122	/ 332	GEN 1127
095		SW	CODE,224&25	1	2126	/	GEN 1127
096		MN		4	2127	, 184	GEN 1127
097		MN		7	2131	D M47 249	GEN 1127
098		MN		1	2138	D	GEN 1127
099		MCW	ERROR 27 - ARITHMETIC SYNTAX ERROR, STATEMENT a	1	2139	D	GEN 1127
100		W		4	2140	M P28	GEN 1128
101		BCV	#&5	1	2144	2	GEN 1128
102		B	#&3	5	2145	B J54 a	GEN 1128
103		CC	1	4	2150	B J56	GEN 1128
104		B	ZONCH	2	2154	F 1	GEN 1128
105	GMI	DC	a a	4	2156	B -35	GEN 1128
106	DBLOP	FTMSG	31,DOUBLE OPERATORS,CODE,18	1	2160		MACRO GEN 1128
107	DBLOP	CS	332				GEN 1128
108		CS	FAILSW	4	2161	/ 332	GEN 1128
109		SW	CODE,224&18	1	2165	/	GEN 1129
110		MN		4	2166	, 184	GEN 1129
111		MN		7	2170	D M47 242	GEN 1129
112		MN		1	2177	D	GEN 1129
113		MCW	ERROR 31 - DOUBLE OPERATORS, STATEMENT a	1	2178	D	GEN 1129
114		W		4	2179	M P67	GEN 1129
115		BCV	#&5	1	2183	2	GEN 1129
116		B	#&3	5	2184	B J93 a	GEN 1130
117		CC	1	4	2189	B J95	GEN 1130
118		B	ZONCH	2	2193	F 1	GEN 1130
119	SUBSC	SBR	MESBX,12&X1	4	2195	B -35	GEN 1130
				7	2199	H 042 0/2	1130

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
5120 45 67		BCE	MESCM,11&X1,\$	8	2206	B -72	0/1 \$	1130
5121 45 68		SBR	MESBX,18&X1	7	2214	H 042	0/8	1130
5122 45 69		B	MESCM	4	2221	B -72		1131
5123 45 70	*							
5124 45 71	*							
5125 45 72	*							
5126 45 73		DCH	a*a	1	2225			1131
5127 45 74	*							
5128 45 75		DCM	a %FSOCCa	9	2234			1131
5129 45 76		DCM	a %FSBAXa	9	2243			1131
5130 45 77		DCM	a %FKNILXa	9	2252			1131
5131 45 78	*							
5132 45 79		DCM	a Ha	9	2261			1132
5133 45 80				9	2270			1132
5134 45 81				9	2279			1132
5135 45 82				9	2288			1132
5136 45 83				9	2297			1133
5137 45 84				9	2306			1133
5138 45 85				9	2315			1133
5139 45 86				9	2324			1133
5140 45 87				9	2333			1134
5141 45 88				9	2342			1134
5142 45 89				9	2351			1134
5143 45 90				9	2360			1134
5144 45 91				9	2369			1135
5145 45 92				9	2378			1135
5146 45 93				9	2387			1135
5147 45 94		DCM	a %9	9	2396			1135
5148 45 95				9	2405			1136
5149 45 96		DCM	a %FNATAa	9	2414			1136
5150 45 97				9	2423			1136
5151 45 98				9	2432			1136
5152 45 99				9	2441			1137
5153 46 00	FTBL1	DCM	#1	1	2442			1137
5154 46 01		LTOrg *						
		DCM	a.a	1	2443			1137
5817	CODE		#04	4	2447			AREA 1137
5818	KILL		#03	3	2450			AREA 1137
5822	NOMO		#03	3	2453			AREA 1137
5826			ARITH TWOa	9	2462			LIT 1137
5841	NEXT		#03	3	2465			AREA 1138
5843	BLK10		#10	10	2475			AREA 1138
			a# 99a	4	2479			LIT 1138
5859	LAST		#03	3	2482			AREA 1138
5868	FUNBX		#03	3	2485			AREA 1138
5872			a-a-a-a-a	7	2500			LIT 1138
5892			a-a-a-a-a	2	2502			AREA 1139
5909	BOX		#02	6	2508			LIT 1139
5911			a-a-a-a-a	8	2516			LIT 1139
5922			a-a-a-a-a					

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USER FUNCTIONS

- USER FN 12
- USER FN 11
- USER FN 10
- USER FN 9
- USER FN 8
- USER FN 7
- USER FN 6
- USER FN 5
- USER FN 4
- USER FN 3
- USER FN 2
- USER FN 1

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5935		BOX2		#02	2		2518	AREA		1139
5943				@E-a*..a	6		2524	LIT		1139
				a,a	1		2525	LIT		1139
5981				@E-a #z..a	9		2534	LIT		1139
5992		HEX2		#03	3		2537	AREA		1140
6003		HEX3		#03	3		2540	AREA		1140
6004		HEX1		#03	3		2543	AREA		1140
6022				ERROR 29 - UNDEFINED FUNCTION NAME, STATEMENT a	46		2589	LIT		1142
6039				ASGECTa	5		2594	LIT		1142
6047		BLNK1		#01	1		2595	AREA		1142
6066				ERROR 23 - CODING UNINTELLIGIBLE, STATEMENT a	44		2639	LIT		1144
6076		MESBX		#03	3		2642	AREA		1144
6086				ERROR 25 - LEFT SIDE INVALID, STATEMENT a	40		2682	LIT		1146
6099				ERROR 27 - ARITHMETIC SYNTAX ERROR, STATEMENT a	46		2728	LIT		1148
6113				ERROR 31 - DOUBLE OPERATORS, STATEMENT a	39		2767	LIT		1149
6155	46	02	DCW	a a	1		2768	LIT		1150
6156	46	03	XFR	START						1151

B 838



SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6157 46 04		JOB	ARITH PHASE TWO						
6158 46 05		FBEGN	ARITH 2,X1,X2,X3,,0						
6159		DCX	0	0	7	0110		MACRO	1154
6160	I10	EQU	089	0		0089		GEN	
6161	X1	EQU	094	0		0094		GEN	
6162	X2	EQU	099	0		0099		GEN	
6163	X3	EQU	XBEGIN	0				GEN	
6164 46 06		ORG	OUT,X2,,	0	8	0838	0838 B N47 094 .		1155
6165 46 07	INITL	BCE	CM	0	4	0846	" N73		1155
6166 46 08		SW		0	7	0850	M 094 P45		1155
6167 46 09		MCH	X2,NOMO#3	0	7	0857	H 099 0E2		1155
6168 46 10		SBR	X3,2EX3	0	7	0864	M 089 0#2		1155
6169 46 11		SBR	X1,2EX1	0	7	0871	M 089 094		1156
6170 46 12		MCH	X1,X2	0	7	0878	D 094 P47		1156
6171 46 13	CLR1	MN	X2,TAIL#2	0	7	0885	D		1156
6172 46 14		MN		0	1	0886	C P47 P49		1156
6173 46 15		C	TAIL,000a	0	7	0893	B 913 S		1156
6174 46 16		BE	STO	0	5	0898	H 0-0		1156
6175 46 17		CW	0EX2	0	4	0902	H 094 0-1		1156
6176 46 18		SBR	X2,IEX2	0	7	0909	H 878		1157
6177 46 19		B	CLR1	0	4	0913	D 0-0		1157
6178 46 20	STO	MN	0EX2	0	4	0917	Q P52		1157
6179 46 21		SAR	LAST#3	0	4	0921	D 0E0		1157
6180 46 22		MN	0EX3	0	4	0925	Q 094		1157
6181 46 23		SAR	X2	0	4	0929	C 094 P52		1157
6182 46 24	CLR2	C	X2,LAST	0	7	0936	B 953 S		1157
6183 46 25		BE	MVUP	0	5	0941	/ 0-0		1158
6184 46 26		CS	0EX2	0	4	0945	H 094		1158
6185 46 27		SBR	X2	0	4	0949	B 929		1158
6186 46 28		B	CLR2	0	4			MACRO	
6187 46 29	MVUP	MVUP	X3,X1,NOMO,ALL,*	0	4	0953	D 0#0	GEN	1158
6188		MN	0EX1	0	4	0957	Q 089	GEN	1158
6189		SAR	X1	0	4	0961	P 0E0	GEN	1158
6190	00J163	MCM	0EX3	0	4	0965	Q 987	GEN	1158
6191		SAR	00L163E6	0	4	0969	P 0E0 0#1	GEN	1159
6192		MCM	0EX3,1EX1	0	7			GEN	1159
6193		MN		0	1	0976	D	GEN	1159
6194		SBR	X1	0	4	0977	H 089	GEN	1159
6195	00L163	SBR	X3,0	0	7	0981	H 099 000	GEN	1159
6196		BCE	00J163,0EX1,*	0	8	0988	B 961 0#0 #	GEN	1159
6197		MN	0EX3	0	4	0996	D 0E0	GEN	1159
6198		CH		0	1	1000	# 0#0	GEN	1159
6199		SW	0EX1	0	4	1001	# 0#0	GEN	1160
6200		C	X3,NOMO	0	7	1005	C 099 P45	GEN	1160
6201	46 30	BU	00J163	0	5	1012	B 961 /	GEN	1160
6202		MN	0EX1	0	4	1017	D 0#0	GEN	1160
6203	46 31	SAR	X1	0	4	1021	Q 089	GEN	1160
6204	46 32	MN	0EX3	0	4	1025	D 0E0	GEN	1160
6205	46 33	SBR	NXBTM#3	0	4	1029	H P55	GEN	1160
6206	46 34	BCE	START,0EX3,	0	8	1033	B #60 0E0	GEN	1161

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6207	46 35		SBR	X3	0	4	1041	H 099		1161
6208	46 36		LCA	GM	0	4	1045	L N73		1161
6209	46 37		SBR	NXBTM	0	4	1049	H P55		1161
6210	46 38		MCW	X3,NOMO	0	7	1053	M 099 P45		1161
6211	46 39	START	MCW	NXBTM,HEX2#3	0	7	1060	M P55 P58		1161
6212	46 40		MCW	OEX1,X3	0	7	1067	M 0#0 099		1162
6213	46 41		BWZ	*E5,X3,2	0	8	1074	V #86 099 2		1162
6214	46 42		B	*E9	0	4	1082	B #94		1162
6215	46 43		BWZ	*E8,X3-2,2	0	8	1086	V /01 097 2		1162
6216	46 44		MCW	OEX3,X3	0	7	1094	M 0E0 099		1162
6217	46 45		MCW	X3,CODE#3	0	7	1101	M 099 P61		1163
6218	46 46		MCW	BLNKS,CNTR	0	7	1108	M Q14 Q28		1163
6219	46 47		MCW	@,40EX1	0	7	1115	M P62 000		1163
6220	46 48		SBR	KLOBR&6,40EX1	0	7	1122	H /85 000		1163
6221	46 49		B	MVDWN	0	4	1129	B S57		1163
6222	46 50		BCE	IF,2EX1,E	0	8	1133	B S21 0#2 E		1164
6223	46 51		C	2EX1,ara	0	7	1141	C 0#2 P63		1164
6224	46 52		BU	DUN	0	5	1148	B N19 /		1164
6225	46 53	ARITH	MCW	X1,X3	0	7	1153	M 089 099		1164
6226	46 54		SBR	TUKIT&3,0EX1	0	7	1160	H M96 0#0		1164
6227	46 55		C	OEX3	0	4	1167	C 0E0		1164
6228	46 56		SAR	NEXT#3	0	4	1171	Q P66		1165
6229	46 57		B	GETLF	0	4	1175	B S91		1165
6230	46 58	KLOBR	BCE	CNTRL,0,	0	4	1175	B S91		1165
6231	46 59		FQUIT		0	8	1179	B T81 000		1165
6232			CS	332	0	4	1187	/ 332	MACRO	1165
6233			CS		0	1	1191	/	GEN	1165
6234			CC	1	0	2	1192	F 1	GEN	1165
6235			MCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270	0	7	1194	M Q02 270	GEN	1165
6236			W		0	1	1201	2	GEN	1166
6237			CC	1	0	2	1202	F 1	GEN	1166
6238			BCE	*E6,MONTOR,1	0	8	1204	B S17 769 1	GEN	1166
6239			RWD	1	0	5	1212	U %U1 R	GEN	1166
6240			H	*-3	0	4	1217	. S17	GEN	1166
6241	46 60	IF	MCW	X1,X3	0	7	1221	M 089 099		1166
6242	46 61	RUCOM	BCE	PASS,0EX3,1	0	8	1228	B S44 0E0 *		1166
6243	46 62		SBR	X3	0	4	1236	H 099		1167
6244	46 63		B	RUCOM	0	4	1240	B S28		1167
6245	46 64	PASS	MIN	OEX3	0	4	1244	D 0E0		1167
6246	46 65		SW		0	1	1248	.		1167
6247	46 66		B	MVDWN	0	4	1249	B S57		1167
6248	46 67		B	ARITH	0	4	1253	B /53		1167
6249	46 68	MVDWN	SBR	EXMVD&3	0	4	1257	H S90		1167
6250	46 69		MCW	NXBTM,X2	0	7	1261	M P55 094		1168
6251	46 70		LCA	OEX1,0EX2	0	7	1268	L 0#0 0-0		1168
6252	46 71		SBR	NXBTM	0	4	1275	H P55		1168
6253	46 72		C	OEX1	0	4	1279	C 0#0		1168
6254	46 73		SAR	X1	0	4	1283	Q 089		1168
6255	46 74	EXMVD	B	0	0	4	1287	B 000		1168
6256	46 75	GETLF	SBR	EXGTL&3	0	4	1291	H T46		1168

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6257	46 76		BCE	SBSCR,0EX3,\$	0	8	1295	B T47 0E0 \$	GEN	1169
6258	46 77	LOOP	MCW	0EX3,PHILF	0	7	1303	M 0E0 Q15	GEN	1169
6259	46 78		SAR	X3	0	4	1310	0 099	GEN	1169
6260	46 79		MCW	PHILF,*E8	0	7	1314	M Q15 T28	GEN	1169
6261	46 80		BCE	EXGTL,OPS,0	0	8	1321	B T43 042 0	MACRO	1169
6262	46 81		CHAIN	10						
6263			BCE							
6264			BCE							
6265			BCE							
6266			BCE							
6267			BCE							
6268			BCE							
6269			BCE							
6270			BCE							
6271			BCE							
6272			BCE							
6273	46 82		B	LOOP	0	1	1329	B	GEN	1169
6274	46 83	EXGTL	B	0	0	1	1330	B	GEN	1169
6275	46 84	SBSCR	C	0EX3,8LNKS#12	0	4	1331	B	GEN	1170
6276	46 85		SAR	X3	0	1	1332	B	GEN	1170
6277	46 86		BCE	EXGTL,2EX3,\$	0	4	1333	B	GEN	1170
6278	46 87		C	0EX3,8LNKS-6	0	8	1354	Q 099	GEN	1170
6279	46 88		SAR	X3	0	7	1358	B T43 0E2 \$	GEN	1171
6280	46 89		B	EXGTL	0	4	1366	C 0E0 Q08	GEN	1171
6281	46 90		MCW	1EX3,PHILF#1	0	4	1377	B T43	GEN	1172
6282	46 91		MCW	1EX1,PHIRT#1	0	7	1381	M 0E1 Q15	GEN	1172
6283	46 92		MCW	PHIRT,CKOP&7	0	7	1388	M 0F1 Q16	GEN	1172
6284	46 93		MCW	BLNKS,UNITS#3	0	7	1395	M Q16 V46	GEN	1172
6285	46 94		B	GTNUM	0	7	1402	M Q14 Q19	GEN	1172
6286	46 95		MN	NUM#1,UNITS-1	0	4	1409	8 V16	GEN	1173
6287	46 96		MCW	PHILF,CKOP&7	0	7	1413	D Q20 Q18	GEN	1173
6288	46 97		B	GTNUM	0	7	1420	M Q15 V46	GEN	1173
6289	46 98		MN	NUM,UNITS	0	4	1427	B V16	GEN	1173
6290	46 99		MCW	UNITS,X2	0	7	1431	D Q20 Q19	GEN	1173
6291	47 00		MN	MATRX&X2,X2	0	7	1438	M Q19 094	GEN	1173
6292	47 01		MCW	BLNKS	0	7	1445	D 0M3 094	GEN	1174
6293	47 02		BWZ	ERR5,X2,S	0	4	1452	M Q14	GEN	1174
6294	47 03		A	X2	0	8	1456	V K61 094 S	GEN	1174
6295	47 04		A	X2	0	4	1464	A 094	GEN	1174
6296	47 05		B	*E1&X2	0	4	1468	A 094	GEN	1174
6297	47 06		B	SKIP	0	4	1472	B UP6	GEN	1174
6298	47 07		B	PAREN	0	4	1476	B W03	GEN	1174
6299	47 08		B	FORCE	0	4	1480	B W18	GEN	1175
6300	47 09		B	EOJ	0	4	1484	B W59	GEN	1175
6301	47 10		B	NEG	0	4	1488	B M58	GEN	1175
6302	47 11		B	FUN	0	4	1492	B Z48	GEN	1175
6303	47 12		B	ERR1	0	4	1496	B Z81	GEN	1175
6304	47 13		B	ERR2	0	4	1500	B M13	GEN	1175
6305	47 14		B	ERR3	0	4	1504	B L75	GEN	1175
6306	47 15		B	ERR4	0	4	1508	B L37	GEN	1176
			B		0	4	1512	B K99	GEN	1176

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6307	47 16	GTNUM	SBR	CKOP&3	0	4	1516	H V42		1176
6308	47 17		BCE	GOTUM,CKOP&7,-	0	8	1520	B V62	V46 -	1176
5309	47 18	NISH	S	NUM	0	4	1528	S Q20		1176
6310	47 19		MCW	&OPS,CKOP&6	0	7	1532	M Q23	V45	1176
6311	47 20	CKOP	BCE	0,0,0	0	8	1539	B 000	000 0	1176
6312	47 21		SBR	CKOP&6	0	4	1547	H V45		1177
6313	47 22		A	al@,NUM	0	7	1551	A Q24	Q20	1177
6314	47 23		B	CKOP	0	4	1558	B V39		1177
6315	47 24	GOTUM	MCW	&@,CKOP&7	0	7	1562	M Q25	V46	1177
6316	47 25		B	NISH	0	4	1569	B V28		1177
6317	47 26	GNTMP	SBR	EXGTP&3	0	4	1573	H W02		1177
6318	47 27		A	al@,CNTR#3	0	7	1577	A Q24	Q28	1177
6319	47 28		MZ	CNTR-1,TEMP	0	7	1584	Y Q27	N72	1178
6320	47 29		MN	CNTR,TEMP	0	7	1591	D Q28	N72	1178
6321	47 30		MN		0	1	1598	D		1178
6322	47 31	EXGTP	B	0	0	4	1599	B 000		1178
6323	47 32	SKIP	MCW	X3,X1	0	7	1603	M 099	089	1178
5324	47 33		B	GETLF	0	4	1610	B S91		1178
6325	47 34		B	CNTRL	0	4	1614	B T81		1178
6326	47 35	PAREN	SW	2&X3	0	4	1618	, 0&2		1179
6327	47 36		LCA	0&X1,1&X1	0	7	1622	L 0#0	0#1	1179
6328	47 37		CW	3&X3	0	4	1629	□ 0&3		1179
6329	47 38		CW		0	1	1633	□		1179
6330	47 39		LCA	0&X3,2&X3	0	7	1634	L 0&0	0&2	1179
5331	47 40		SBR	X1,1&X1	0	7	1641	H 089	0#1	1179
6332	47 41		SBR	X3,1&X3	0	7	1648	H 099	0&1	1179
6333	47 42		B	CNTRL	0	4	1655	B T81		1180
5334	47 43	FORCE	MCW	NXBTM,X2	0	7	1659	M P55	094	1180
6335	47 44		MZ	4&X3,ZONE#1	0	7	1666	Y 0&4	Q29	1180
6336	47 45		BCE	*@8,2&X3,\$	0	8	1673	B W88	0&2 \$	1180
6337	47 46		MZ	3&X3,ZONE	0	7	1681	Y 0&3	Q29	1180
6338	47 47		SW	2&X3	0	4	1688	, 0&2		1180
6339	47 48		LCA	0&X1,0&X2	0	7	1692	L 0#0	0-0	1181
6340	47 49		SBR	X2	0	4	1699	H 094		1181
6341	47 50		CW	1&X2	0	4	1703	□ 0-1		1181
6342	47 51		SW	2&X1	0	4	1707	, 0#2		1181
6343	47 52		SW	1&X1,0&X2	0	1	1711	,		1181
6344	47 53		LCA	X2	0	7	1712	L 0#1	0-0	1181
6345	47 54		SBR	NXBTM	0	4	1719	H 094		1181
6346	47 55		SBR	1&X2	0	4	1723	H P55		1182
6347	47 56		CW	SBVRT,2&X1,\$	0	4	1727	□ 0-1		1182
6348	47 57		BCE	4&X1,0&X2	0	8	1731	B Y90	0#2 \$	1182
6349	47 58		LCA	NXBTM	0	7	1739	L 0#4	0-0	1182
6350	47 59		SBR	3&X1,TEMP-1	0	4	1746	H P55		1182
6351	47 60		MZ	X1	0	7	1750	Y 0#3	N71	1182
6352	47 61		SAR	GNTMP	0	4	1757	Q 089		1182
6353	47 62	FNISH	B	TEMP,2&X1	0	4	1761	B V73	0#2	1183
6354	47 63		LCA	1&X3	0	7	1765	L N72	0#2	1183
6355	47 64		LCA	0&X1	0	4	1772	L 0&1		1183
6356	47 65		CW		0	4	1776	□ 0#0		1183

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6357	47 66		MN		0	1	1780	D		1183
6358	47 67		SAR	X3	0	4	1781	Q 099		1183
6359	47 68		SBR	X1,2&X1	0	7	1785	H 089 0#2		1183
6360	47 69		BWZ	RUINT,TEMP-1,S	0	8	1792	V Y36 N71 S		1184
6361	47 70		BWZ	RUINT,TEMP-1,K	0	8	1800	V Y36 N71 K		1184
6362	47 71		BWZ	KLOBR,ZONE,2	0	8	1808	V /79 Q29 2		1184
6363	47 72		BWZ	KLOBR,ZONE,B	0	8	1816	V /79 Q29 8		1184
6364	47 73		BCE	KLOBR,PHIRT..	0	8	1824	B /79 Q16 .		1185
6365	47 74		B	ERR46	0	4	1832	B Y52		1185
6366	47 75	RUINT	BWZ	KLOBR,ZONE,S	0	8	1836	V /79 Q29 S		1185
6367	47 76		BWZ	KLOBR,ZONE,K	0	8	1836	V /79 Q29 S		1185
6368	47 77	ERR46	FTH56	46,MIXING IN ARITH,CODE,17	0	8	1844	V /79 Q29 K		1185
6369		ERR46	CS	332	0	4	1852	/ 332	MACRO	1185
6370			CS		0	1	1856	/	GEN	1185
6371			SW	FAILSW	0	4	1857	Y 184	GEN	1185
6372			MN	CODE,224&17	0	7	1861	D P61 241	GEN	1186
6373			MN		0	1	1868	D	GEN	1186
6374			MN		0	1	1869	D	GEN	1186
6375			MCW		0	4	1870	M Q67	GEN	1186
6376			W		0	1	1874	Z	GEN	1186
6377			PCV	ERROR 46 - MIXING IN ARITH, STATEMENT 2	0	5	1875	B Y84 2	GEN	1186
6378			B	#E5	0	4	1880	B Y86	GEN	1186
6379			CC	#E3	0	2	1884	F 1	GEN	1187
6380	47 78		B	1	0	4	1886	B M47	GEN	1187
6381	47 79	SBVRT	SBR	KILL	0	7	1890	H 094 0/0	GEN	1187
6382	47 80		BCE	X2,10&X1	0	8	1897	B Z12 0-2 \$	GEN	1187
6383	47 81		SBR	SEND,2&X2,\$	0	7	1905	H 094 0-6	GEN	1187
6384	47 82	SEND	MCW	X2,6&X2	0	7	1912	M P55 Z25	GEN	1187
6385	47 83		LCA	NXBTM,#E7	0	7	1919	L 0-2 000	GEN	1188
6386	47 84		SBR	2&X2,0	0	4	1926	H P55	GEN	1188
6387	47 85		MZ	NXBTM	0	7	1930	Y 0#4 N71	GEN	1188
6388	47 86		MCW	4&X1,TEMP-1	0	7	1937	M 094 089	GEN	1188
6389	47 87		B	X2,X1	0	4	1944	B X61	GEN	1188
6390	47 88	NEG	MCW	FNISH	0	7	1948	M Q68 0#1	GEN	1188
6391	47 89		MZ	0#2,1&X1	0	7	1955	Y 0&4 N71	GEN	1189
6392	47 90		BCE	4&X3,TEMP-1	0	8	1962	B J17 0&2 \$	GEN	1189
6393	47 91		MZ	FUNY,2&X3,\$	0	7	1970	Y 0&3 N71	GEN	1189
6394	47 92		B	3&X3,TEMP-1	0	4	1977	B J17	GEN	1189
6395	47 93		MCW	FUNY.	0	7	1981	M 0#3 Q70	GEN	1189
6396	47 94	FUN	BCE	3&X1,TYPE#2	0	8	1988	B J75 0#3 X	GEN	1190
6397	47 95		MZ	FXMOD,3&X1,X	0	4	1996	Y Z98 N71	GEN	1190
6398	47 96	CKUSR	SW	*-4,TEMP-1	0	7	2003	Y 0#2	GEN	1190
6399	47 97		MCW	2&X1	0	7	2007	M 0#2 -21	GEN	1190
6400	47 98		BCE	2&X1,*E8	0	8	2014	B -99 Q82 0	MACRO	1190
6401	47 99		CHAIN	OKAY,@RUPWYZKJLMDH@,0	0	1	2022	B	GEN	1190
6402			BCE	11	0	1	2023	B	GEN	1190
6403			BCE		0	1	2024	B	GEN	1191
6404			BCE		0	1	2025	B	GEN	1191
6405			BCE		0	1	2026	B	GEN	1191
6406			BCE		0	1	2026	B	GEN	1191

ARITH PHASE TWO

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6407			BCE		0	1	2027	B	GEN	1191
6408			BCE		0	1	2028	B	GEN	1191
6409			BCE		0	1	2029	B	GEN	1191
6410			BCE		0	1	2030	B	GEN	1191
6411			BCE		0	1	2031	B	GEN	1192
6412			BCE		0	1	2032	B	GEN	1192
6413	48	00	MZ	4EX3,ZONE	0	7	2033	Y 064 Q29		1192
6414	48	01	BCE	*68,2EX3,\$	0	8	2040	B -55 0E2 \$		1192
6415	48	02	MZ	3EX3,ZONE	0	7	2048	Y 0E3 Q29		1192
6416	48	03	BCE	RUFIX,2EX1,F	0	8	2055	B K07 0#2 F		1192
6417	48	04	BCE	RUFIX,2EX1,I	0	8	2063	B K07 0#2 I		1193
6418	48	05	C	TYPE,@AX@	0	7	2071	C Q70 Q84		1193
6419	48	06	BE	RUFIX	0	5	2078	B K07 S		1193
6420	48	07	BWZ	ERR6,ZONE,S	0	8	2083	V K23 Q29 S		1193
6421	48	08	BWZ	ERR6,ZONE,K	0	8	2091	V K23 Q29 K		1193
6422	48	09	MCH	2EX1,1EX1	0	7	2099	M 0#2 0#1		1194
6423	48	10	MCH	3EX3,2EX1	0	7	2106	M Q85 0#2		1194
6424	48	11	CW	2EX1	0	4	2113	M 0#2		1194
6425	48	12	MCH	NXBTH,X2	0	7	2117	M P55 094		1194
6426	48	13	SW	2EX3	0	4	2124	M 0E2		1194
6427	48	14	LCA	1EX1,0EX2	0	7	2128	L 0#1 0-0		1194
6428	48	15	SBR	NXBTH	0	4	2135	H P55		1195
6429	48	16	B	GNTMP	0	4	2139	B V73		1195
6430	48	17	LCA	TEMP,1EX1	0	7	2143	L N72 0#1		1195
6431	48	18	LCA	1EX3	0	4	2150	L 061		1195
6432	48	19	MN	0EX1	0	4	2154	D 0#0		1195
6433	48	20	CW		0	1	2158	M		1195
6434	48	21	MN		0	1	2159	D		1195
6435	48	22	SAR	X3	0	4	2160	Q 099		1196
6436	48	23	SBR	X1,1EX1	0	7	2164	H 089 0#1		1196
6437	48	24	B	KLOBR	0	4	2171	B /79		1196
6438	48	25	MZ	*-6,TEMP-1	0	7	2175	Y J75 N71		1196
6439	48	26	LCA	2EX1,3EX1	0	7	2182	L 0#2 0#3		1196
6440	48	27	SBR	X1,1EX1	0	7	2189	H 089 0#1		1196
6441	48	28	SBR	X3,1EX3	0	7	2196	H 099 0E1		1197
6442	48	29	B	CKUSR	0	4	2203	A -03		1197
6443	48	30	BWZ	OKAY,ZONE,S	0	8	2207	V -99 Q29 S		1197
6444	48	31	BWZ	OKAY,ZONE,K	0	8	2215	V -99 Q29 K		1197
6445	48	32	CS	332	0	4	2223	/ 332		1197
6446	48	33	CS		0	1	2227	/		1197
6447	48	34	SW	FAILSW	0	4	2228	/ 184		1197
6448	48	35	MN	CODE,224&37	0	7	2232	D P61 261		1198
6449	48	36	MN		0	1	2239	D		1198
6450	48	37	MN	BGM5G	0	1	2240	M 031		1198
6451	48	38	MCH		0	4	2241	M 031		1198
6452	48	39	W	*65	0	1	2245	2		1198
6453	48	40	BCV	*63	0	5	2246	B K55 @		1198
6454	48	41	B	1	0	4	2251	B K57		1198
6455	48	42	CC	KILL	0	2	2255	F 1		1199
6456	48	43	B		0	4	2257	B M47		1199

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6457	48 44	ERR5	FTMSG	24, SYSTEM ERROR, CODE, 14	0	4	2261	/ 332	MACRO	1199
6458		ERR5	CS	332	0	1	2265	/	GEN	1199
6459			CS		0	4	2266	, 184	GEN	1199
6460			SW	FAILSW	0	7	2270	D P61 238	GEN	1199
6461			MN	CODE, 224E14	0	1	2277	D	GEN	1199
6462			MN		0	1	2278	D	GEN	1200
6463			MN		0	4	2279	M R20	GEN	1200
6464			MW	ERROR 24 - SYSTEM ERROR, STATEMENT a	0	1	2283	2	GEN	1200
6465			W		0	5	2284	B K93 a	GEN	1200
6466			BCV	*E5	0	4	2289	B K95	GEN	1200
6467			B	*E3	0	2	2293	F 1	GEN	1200
6468			CC	1	0	4	2295	B M47	GEN	1200
6469	48 45		B	KILL	0	4	2299	/ 332	MACRO	1201
6470	48 46	ERR4	FTMSG	26, EXCESS OF # SIGNS, CODE, 19	0	4	2303	/	GEN	1201
6471		ERR4	CS	332	0	1	2304	, 184	GEN	1201
6472			CS		0	7	2308	D P61 243	GEN	1201
6473			SW	FAILSW	0	1	2315	D	GEN	1201
6474			MN	CODE, 224E19	0	1	2316	D	GEN	1201
6475			MN		0	4	2317	M R60	GEN	1201
6476			MN		0	1	2321	2	GEN	1202
6477			MW	ERROR 26 - EXCESS OF # SIGNS, STATEMENT a	0	5	2322	B L31 a	GEN	1202
6478			W		0	4	2327	B L33	GEN	1202
6479			BCV	*E5	0	2	2331	F 1	GEN	1202
6480			B	*E3	0	4	2333	B M47	GEN	1202
6481			CC	1	0	4	2337	/ 332	MACRO	1202
6482	48 47		B	KILL	0	1	2341	/	GEN	1202
6483	48 48	ERR3	FTMSG	32, MULTIPLE EXPONENT, CODE, 19	0	4	2342	, 184	GEN	1203
6484		ERR3	CS	332	0	7	2346	D P61 243	GEN	1203
6485			CS		0	1	2353	D	GEN	1203
6486			SW	FAILSW	0	1	2354	D	GEN	1203
6487			MN	CODE, 224E19	0	4	2355	M E00	GEN	1203
6488			MN		0	1	2359	2	GEN	1203
6489			MN	ERROR 32 - MULTIPLE EXPONENT, STATEMENT a	0	5	2360	B L69 a	GEN	1203
6490			W		0	4	2365	B L71	GEN	1204
6491			BCV	*E5	0	2	2369	F 1	GEN	1204
6492			B	*E3	0	4	2371	B M47	GEN	1204
6493			CC	1	0	4	2375	/ 332	MACRO	1204
6494	48 49		B	KILL	0	1	2379	/	GEN	1204
6495	48 50	ERR2	FTMSG	16, PARENTHESIS ERROR, CODE, 19	0	4	2380	, 184	GEN	1204
6496		ERR2	CS	332	0	7	2384	D P61 243	GEN	1204
6497			CS		0	1	2391	D	GEN	1205
6498			SW	FAILSW	0	1	2392	D	GEN	1205
6499			MN	CODE, 224E19	0	4	2393	M E40	GEN	1205
6500			MN		0	1	2397	2	GEN	1205
6501			MN		0	5	2398	B M07 a	GEN	1205
6502			MN	ERROR 16 - PARENTHESIS ERROR, STATEMENT a	0	4	2403	B M09	GEN	1205
6503			MW		0	4			GEN	1205
6504			W		0	5			GEN	1205
6505			BCV	*E5	0	4			GEN	1205
6506			B	*E3	0	4			GEN	1205

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5507			CC	1	0	2	2407	F 1	GEN	1205
6508	48 51		B	KILL	0	4	2409	B M47	MACRO	1206
6509	48 52	ERR1	FTMSG	25 LEFT SIDE INVALID, CODE, 19	0	4	2413	/ 332	GEN	1206
6510		ERR1	CS	332	0	1	2417	/	GEN	1206
6511			CS	FAILSW	0	4	2418	, 184	GEN	1206
6512			SW	CODE, 224&19	0	7	2422	D P61 243	GEN	1206
6513			MN		0	1	2429	D	GEN	1206
6514			MN		0	1	2430	D	GEN	1206
6515			MN		0	4	2431	M 680	GEN	1207
6516			MCW	ERROR 25 - LEFT SIDE INVALID, STATEMENT @	0	1	2435	2	GEN	1207
6517			W		0	5	2436	B M45 @	GEN	1207
6518			BCV		0	4	2441	B M47	GEN	1207
6519			B		0	2	2445	F 1	GEN	1207
6520			CC		0	7	2447	M P58 P55	GEN	1207
6521	48 53	KILL	MCW	HEX2, NXBTM	0	4	2454	B N08	GEN	1207
6522	48 54		B	RESET	0	4	2458	M P55 094	GEN	1208
6523	48 55	EOJ	MCW	NXBTM, X2	0	7	2465	, 0&2	GEN	1208
6524	48 56		SW	2&X3	0	4	2469	L 0#0 0-0	GEN	1208
6525	48 57		LCA	0&X1, 0&X2	0	4	2476	L 681	GEN	1208
6526	48 58		LCA	@#@	0	4	2480	H 094	GEN	1208
6527	48 59		SBR	X2	0	4	2484	H 0-2	GEN	1208
6528	48 60		CW	2&X2	0	1	2488	□	GEN	1208
6529	48 61		CW		0	4	2489	, 0#2	GEN	1209
6530	48 62		SW	2&X1	0	7	2493	L 000 0-0	GEN	1209
6531	48 63	TUKIT	LCA	0, 0&X2	0	4	2500	L N73	GEN	1209
6532	48 64		LCA	GM	0	4	2504	H P55	GEN	1209
6533	48 65		SBR	NXBTM	0	7	2508	M P66 089	GEN	1209
6534	48 66	RESET	MCW	NEXT, X1	0	4	2515	B #60	GEN	1209
6535	48 67		B	STARY	0	7	2519	H 089 0#5	GEN	1209
6536	48 68	DUN	SBR	X1, 5&X1	0	7	2526	M P55 099	GEN	1210
6537	48 69		MCW	NXBTM, X3	0	7	2533	H 094 0&5	GEN	1210
6538	48 70		SBR	X2, 5&X3	0	7	2540	M P45 099	GEN	1210
6539	48 71		MCW	NOMO, X3	0	7	2547	B 333 C	MACRO	1210
6540	48 72	OUT	FENDX	C,,,,,SYSGM, ARITH TRI	0	5	2552	H 710 691	GEN	1210
6541		OUT	BSS	333, C	0	7	2559	L 690 110	GEN	1211
6542			SBR	TCLEAR, SYSGM	0	7	2566	B 700	GEN	1211
6543			LCA	@ARITH TRI@, 110	0	4	2570	□	GEN	1211
6544			B	MONTER	0	2	2572	□	GEN	1211
6545	48 73		DCW	@ @	0	1	2573	□	GEN	1211
6546	48 74	TEMP	DC	@ @	0	2	2623	□	GEN	1213
6547	48 75	GM	DC	@ @	0	50	2631	□	GEN	1213
6548	48 76		DCW	ERROR 28 - INCORRECT MODE OF FUNCTION ARGUMENT, ST@	0	8	2632	□	GEN	1213
6549	48 77	BGMMSG	DC	@ATEMENT @	0	1	2642	□	GEN	1213
6550	48 78		DCW	@-@	0	10	2643	□	GEN	1213
6551	48 79	OPS	DCW	@, .@E #@#@@	0	10	2643	□	GEN	1213
6552	48 80	MATRIX	EQU	*61	0	50	2692	□	GEN	1215
6553	48 81		DC	@220922200SSSSSS010970000070930000660S66666@	0	50	2742	□	GEN	1217
6554	48 82		DC	@02092200S220922200S220922280S050970000044094400S@	0	50		□	GEN	1217
6555	48 83	*								
6556	48 84	*								



SEQ PG LIN LABEL OP OPERANDS SFX CT LOCN INSTRUCTION TYPE CARD

ARITH ALGORITHM

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6557 48 85	*								
6558 48 86	*								
6559 48 87	*								
6560 48 88	*								
6561 48 89	*								
6562 48 90	*								
6563 48 91	*								
6564 48 92	*								
6565 48 93	*								
6566 48 94	*								
6567 48 95	*								
6568 48 96	*								
6569 48 97	*								
6570 48 98	*								
6571 48 99	*								
6572 49 00	*								
6573 49 01	*								
6574 49 02	*								
6575 49 03	*								
6576 49 04	*								
6577 49 05	*								
6578 49 06	*								
6579 49 07	*								
6580 49 08	*								
6581 49 09	*								
6582 49 10	*								
6583 49 11	*								
6584 49 12	*								
6585 49 13	*								
6586 49 14	*								
6587 49 15	*								
6588 49 16	*								
6589 49 17	*								
6590 49 18	*								
6591 49 19	*								

PHI LEFT

PHI LEFT	*	□	Σ	#	GM	ε	/	**	F%	NG
P	2	2	0	9	2	2	2	0	0	S
H	S	S	S	S	S	S	S	S	S	S
I	0	1	0	9	7	0	0	0	0	0
R	0	7	0	9	3	0	0	0	0	0
I	6	6	6	0	S	6	6	6	6	6
G	0	2	0	9	2	2	0	0	0	S
H	2	2	0	9	2	2	2	0	0	S
T	0	5	0	9	7	0	0	0	0	S
	4	4	0	9	4	4	4	0	0	S

- 0 SKIP TO NEXT OP
- 1 DELETE PARENS
- 2 FORCE BINARY OP
- 3 EOJ
- 4 NEGATE FN
- 5 OTHER FN
- 6 LEFT SIDE INVALID
- 7 PAREN ERROR
- 8 DOUBLE EXPONENTIATION
- 9 MULTIPLE # SIGNS
- S COMPILER ERROR

LTORG *	NOMD	DCW	#03	#02	#03	#03	#03	#03	#03	#03	#03	#03	#03	#03	#03	#03	#03	#03
6167	TAIL																	
6171																		
6179	LAST																	
6205	NXBVM																	
6211	HEX2																	
6217	CODE																	
6228	NEXT																	
6235	BLNKS																	
6275	PHILF																	
6281	PHIRF																	
6282	PHIRT																	
6284	UNITS																	

0	3	2745	2743	AREA	1217
0	0	2745		AREA	1217
0	2	2747		AREA	1217
0	2	2749		LIT	1217
0	3	2752		AREA	1218
0	3	2755		AREA	1218
0	3	2758		AREA	1218
0	3	2761		AREA	1218
0	1	2762		LIT	1218
0	1	2763		LIT	1218
0	3	2766		AREA	1218
0	36	2802		LIT	1219
0	12	2814		AREA	1220
0	1	2815		AREA	1220
0	1	2816		AREA	1220
0	3	2819		AREA	1220

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6286	NUM			#01	0	1	2820	AREA		1220
6310				@OPS	0	3	2823	ADCON		1220
				@1@	0	1	2824	LIT		1220
				@6@	0	1	2825	LIT		1221
6318	CNTR			#03	0	3	2828	AREA		1221
6335	ZONE			#01	0	1	2829	AREA		1221
6375				@ERROR 46 - MIXING IN ARITH, STATEMENT @	0	38	2867	LIT		1222
				@N@	0	1	2868	LIT		1222
6395	TYPE			#02	0	2	2870	AREA		1223
6400				@RUPWYZKJLMDH@	0	12	2882	LIT		1223
				@AX@	0	2	2884	LIT		1223
				@@	0	1	2885	LIT		1223
6464				@ERROR 24 - SYSTEM ERROR, STATEMENT @	0	35	2920	LIT		1224
6477				@ERROR 26 - EXCESS OF # SIGNS, STATEMENT @	0	40	2960	LIT		1226
6490				@ERROR 32 - MULTIPLE EXPONENT, STATEMENT @	0	40	3000	LIT		1228
6503				@ERROR 16 - PARENTHESIS ERROR, STATEMENT @	0	40	3040	LIT		1230
6516				@ERROR 25 - LEFT SIDE INVALID, STATEMENT @	0	40	3080	LIT		1232
				@#@	0	1	3081	LIT		1232
6543				@ARITH TRI@	0	9	3090	LIT		1232
6592 49 20	SYSGM		DCW	@ @	0	9	3091	LIT		1232
6593 49 21	XFR		INITL		0	1	3091	LIT		1233
								B 838		

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
6594 49 22		JOB	ARITH PHASE THREE				
6595 49 23		SFX	12-5-8				
6596 49 24	110	DCW	ARITH 3@	7	0110	0838	1236
6597 49 25		ORG	XBEGIN				
6598 49 26	START	FENDX	C,.,.,,SYSGM,ARITH 4				
6599	START	BSS	333,C				
6600		SBR	TCLEAR,SYSGM	5	0838	B 333 C	MACRO
6601		LCA	ARITH 4@,110	7	0843	H 710 #68	GEN 1237
6602		B	MONTER	7	0850	L #67 110	GEN 1237
6603 49 27		ORG	*C200	4	0857	B 700	GEN 1237
6604 49 28		LTOrg *				1061	
		DCW	ARITH 4@	7	1067		LIT 1238
6605 49 29	SYSGM	DCW	@ @	1	1068		1238
6606 49 30		XFR	START			B 838	1239

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6607	49 31		JOB	ARITH PHASE FOUR						
6608	49 32		FBEGN	ARITH 4, X1,X2,X3,,7						
6609			SFX	7					MACRO	
6610		110	DCW	2ARITH 42	7	7	0110		GEN	1242
6611		X1	EQU	089	7	7	0089		GEN	
6612		X2	EQU	094	7	7	0094		GEN	
6613		X3	EQU	099	7	7	0099		GEN	
6614	49 33		ORG	XBEGIN				0838		
6615	49 34		* START -	INITIALIZATION						
6616	49 35		START	BCE FENDX,X2,,	7	8	0838	B R37 094		1243
6617	49 36		SW	GMI	7	4	0846	K40		1243
6618	49 37		SBR	SAVX3#3,0&X3	7	7	0850	H R62 0&0		1243
6619	49 38		SBR	X1,1&X1	7	7	0857	H 089 0&1		1243
6620	49 39		SBR	X2,1&X2	7	7	0864	H 094 0-1		1243
6621	49 40		* START OF	EVERY STATEMENT						
6622	49 41		MUSTM	S	7	4	0871	S N72		1243
6623	49 42		C	X2, SAVX3	7	7	0875	C 094 R62		1244
6624	49 43		BE	FENDX	7	5	0882	B R37 S		1244
6625	49 44		MCW	BLK4,MAXDL	7	7	0887	M &45 &21		1244
6626	49 45		SBR	HEX1#3,0&X1	7	7	0894	H R65 0*0		1244
6627	49 46		* START OF	EVERY DELTA STRING						
6628	49 47		BLKOP	MCW BLK4, HLDOP#1	7	7	0901	M &45 R66		1244
6629	49 48		CMPRT	CW PRISM	7	4	0908	R36		1244
6630	49 49		B	FIX	7	4	0912	B N73		1245
6631	49 50		BCE	DELTA, LEFT-2,	7	8	0916	B 974 &61		1245
6632	49 51		BCE	DELTA, RIGHT-2,	7	8	0924	B /66 &86		1245
6633	49 52		BCE	OUTPT,1&X2,	7	8	0932	B X33 0-1		1245
6634	49 53		BW	BIG,PRISM	7	8	0940	V T02 R36 1		1245
6635	49 54		ADD3	A @1992,CURDL#3	7	7	0948	A R69 R72		1246
6636	49 55		MCW	CURDL,X3	7	7	0955	M R72 099		1246
6637	49 56		BCE	ADD3, TABLE&X3,1	7	8	0962	B 948 KDI 1		1246
6638	49 57		B	BLKOP	7	4	0970	B 901		1246
6639	49 58		* DELTA IS	LEFT OPERAND						
6640	49 59		DELTA	BCE CKDL2,OP,#	7	8	0974	B 924 &64 #		1246
6641	49 60		BCE	TUF,OP,,	7	8	0982	B T28 &64		1247
6642	49 61		B	CVTDL	7	4	0990	B P58		1247
6643	49 62		DCW	LEFT	7	3	0996	&63		1247
6644	49 63		B	GETDL	7	4	0997	B Q37		1247
6645	49 64		MN	&1, TABLE&X1	7	7	1001	D R73 KUI		1247
6646	49 65		LCA	0&X3, HLD35#35	7	7	1008	L 0&0 &08		1247
6647	49 66		SAR	X1	7	4	1015	Q 089		1247
6648	49 67		* DELETE	TEMP						
6649	49 68		CMP3	C X1,X2	7	7	1019	C 089 094		1248
6650	49 69		BE	HLFT	7	5	1026	B &54 S		1248
6651	49 70		MVDWN	X1,X3					MACRO	
6652			LCA	0&X1, 0&X3	7	7	1031	L 0*0 0&0		1248
6653			SAR	X1	7	4	1038	Q 089		1248
6654			C	0&X3	7	4	1042	C 0&0		1248
6655			SAR	X3	7	4	1046	Q 099		1248
6656	49 71		B	CMP3	7	4	1050	B &19		1248

CVT3 HAS DELTA NO OF SOUGHT TEMP  
MARK DELTA DELETED

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6657 49 72	* X1 # X2 UNITS POSN OF TEMP TO BE OPTIMIZED			7	4	1054	C 0-0		1249
6658 49 73	* X3 # UNITS OF INSERTION OF OPTIMIZED TEMP			7	4	1058	Q 089		1249
6659 49 74	* INSERT TEMP IN STRING			7	8	1062	V R28 R36 1		1249
6660 49 75	HLFT C 0EX2			7	8	1070	B /01 888 *		1249
6661 49 76	SAR X1		X1 AT HI ORD OF OLD TEMP	7	7	1078	B W95 864 #		1249
6662 49 77	BW			7	4	1086	L 888 0E0		1250
6663 49 78	CKRT			7	4	1093	H 099		1250
6664 49 79	BCE			7	7	1101	L 864 0E0		1250
6665 49 80	BCE			7	4	1108	H 099		1250
6666 49 81	LCA			7	7	1112	H 0E1		1250
6667 49 82	SBR X3			7	4	1116	L 808 0E0		1250
6668 49 83	CW			7	4	1123	H 099		1250
6669 49 84	LCA			7	4	1127	H 094		1251
6670 49 85	CW			7	7	1131	L 0+0 0E0		1251
6671 49 86	LCA			7	4	1138	Q 089		1251
6672 49 87	SBR X3			7	4	1142	C 0E0		1251
6673 49 88	SBR X2			7	8	1146	Q 099		1251
6674 49 89	* SHIFT REST OF STATEMENT			7	4	1150	B /62 0+1		1251
6675 49 90	LOAD2 LCA 0EX1,0EX3		X2 NOW AT NEW LOC OF TEMP	7	4	1158	B /31		1251
6676 49 91	SAR X1			7	4	1162	B 901		1252
6677 49 92	C			7	8	1166	B /78 R66		1252
6678 49 93	SAR X3			7	4	1174	B U96		1252
6679 49 94	BCE			7	8	1178	B W63 864 #		1252
6680 49 95	B			7	8	1186	B S14 864 & GEN	MACRO	1252
6681 49 96	B			7	8	1194	B S14 864 * GEN		1253
6682 49 97	* DELTA IS RIGHT OPERAND			7	4	1202	B S39 864 -		1253
6683 49 98	DELTA2 BCE *E5,HLDDP,			7	7	1210	B V27		1253
6684 49 99	B			7	7	1214	L 863 808		1253
6685 50 00	BCE FIRST,OP,#			7	7	1221	L 888 863		1254
6686 50 01	FBCAQ COMUT,OP,#,*			7	7	1228	L 808 888		1254
6687	BCE COMUT,OP,#			7	4	1235	B 974		1254
6688	BCE COMUT,OP,#			7	7	1239	V T79 R36 1		1254
6689	BCE NEGAT,OP,-			7	4	1247	L 863 0-0		1254
6690	B			7	4	1254	L 809		1254
6691	COMUT			7	4	1258	H 094		1254
6692	LCA			7	7	1262	0-2 123		1255
6693	LCA			7	7	1269	L 888 863		1255
6694	LCA			7	7	1276	L 812 888		1255
6695	B			7	7	1283	M 813 864		1255
6696	NEGAT			7	4	1290	0 123		1255
6697	LCA			7	4	1294	0 R36		1255
6698	LCA			7	4	1298	0 974		1255
6699	CW			7	4				1256
6700	NEG3			7	7				1256
6701	LCA			7	7				1256
6702	LCA			7	7				1256
6703	MCW			7	7				1256
6704	CW			7	7				1256
6705	SW			7	7				1256
6706	B			7	7				1256

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
6707 50 20	BIG	BCE	TUF, RIGHT, *	7	1302	B T28 888 *	GEN	1256
6708 50 21		MCW	OP, BCE167	7	1310	M 664 T24	GEN	1256
6709 50 22	BCE1	BCE	MAYBE, 26-22, 0	7	1317	B T91 817 0	MACRO	1256
6710 50 23		CHAIN	3					
6711		BCE		7	1325	B	GEN	1256
6712		BCE		7	1326	B	GEN	1256
6713		BCE		7	1327	B	GEN	1256
6714 50 24	TUF	BW	*E5, PRISM	7	1328	V T40 R36 1		1257
6715 50 25		B	ADD3	7	1336	B 948		1257
6716 50 26		B	KWM	7	1340	B T79		1257
6717 50 27	TUF2	BW	ADJUST, 2&X2	7	1344	V T60 0-2 1		1257
6718 50 28		SBR	X2	7	1352	M 094		1257
6719 50 29		B	TUF2	7	1356	B T44		1257
6720 50 30		SBR	X2, 1&X2	7	1360	H 094 0-1		1257
6721 50 31	ADJUST	BCE	OUTPUT, 1&X2,	7	1367	B X33 0-1		1258
6722 50 32		B	ADD3	7	1375	B 948		1258
6723 50 33	KWM	SBR	KWMXT63	7	1379	H T90		1258
6724 50 34		CW	1&X2	7	1383	B 0-1		1258
6725 50 35	KWMXT	B	0	7	1387	B 000		1258
6726 50 36	MAYBE	BCE	*E5, HLDOP,	7	1391	B U03 R66		1258
6727 50 37		B	ADNL	7	1399	B U40		1258
6728 50 38		MCW	OP, HLDOP	7	1403	M 664 R66		1259
6729 50 39	MESUR	CW	1&X2	7	1410	B 0-1		1259
6730 50 40		LCA	RIGHT, 0&X2	7	1414	L 888 0-0		1259
6731 50 41		SBR	X2	7	1421	H 094		1259
6732 50 42		CW	MIDSW#1	7	1425	B 818		1259
6733 50 43		SBR	CW563, 1&X2	7	1429	H 017 0-1		1259
6734 50 44		B	CWPRT	7	1436	B 908		1259
6735 50 45	ADNL	FBCEQ	HOPE, HLDOP, &, -				MACRO	
6736	ADNL	BCE	HOPE, HLDOP, &	7	1440	B U76 R66 &	GEN	1260
6737		BCE	HOPE, HLDOP, -	7	1448	B U76 R66 -	GEN	1260
6738 50 46		FBCEQ	MESUR, OP, *, /	7	1456	B U10 664 *	MACRO	1260
6739		BCE	MESUR, OP, *	7	1464	B U10 664 /	GEN	1260
6740		BCE	MESUR, OP, /	7	1472	B T28	MACRO	1260
6741 50 47		B	TUF	7	1476	B U10 664 &	GEN	1261
6742 50 48	HOPE	FBCEQ	MESUR, OP, &, -	7	1484	B U10 664 -	GEN	1261
6743	HOPE	BCE	MESUR, OP, &	7	1492	B T28	MACRO	1261
6744		BCE	MESUR, OP, -	7	1496	M 664 V10	MACRO	1261
6745 50 49		B	TUF	7	1503	B V75 R66 0	MACRO	1261
6746 50 50		MCW	OP, *E8	7	1511	B V55 R66 &	GEN	1262
6747 50 51	CANU	BCE	SWAP, HLDOP, 0	7	1519	B V55 R66 -	GEN	1262
6748 50 52		FBCEQ	HOPE2, HLDOP, &, -	7	1527	B X33 0-1	MACRO	1262
6749 50 53		BCE	HOPE2, HLDOP, &	7	1535	V T28 R36 1	GEN	1262
6750		BCE	HOPE2, HLDOP, -	7	1543	V 948 0-1 1	MACRO	1263
6751		BCE	HOPE2, HLDOP, -	7	1551	B T28	MACRO	1263
6752 50 54	CKND	BCE	OUTPUT, 1&X2,	7				
6753 50 55		BW	TUF, PRISM	7				
6754 50 56		BW	ADD3, 1&X2	7				
6755 50 57		B	TUF	7				
6756 50 58	HOPE2	FBCEQ	SWAP, OP, &, -	7			MACRO	

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6757	HOPE2	BCE	SWAP,OP,6	7	8	1555	B V75 664	& GEN	1263
6758		BCE	SWAP,OP,-	7	8	1563	B V75 664	- GEN	1263
6759		B	CKND	7	4	1571	B V27		1263
6760		BCE	TUF,OP,2	7	8	1575	B T28 664	2	1264
6761	* SHIFT MIDDLE DELTA TO FRONT OF STRING	BW	KWM,PRTSW	7	7	1583	V T79 R36	1	1264
6762	SWAP	C	06X2,BLK4	7	7	1591	C 0--0 645		1264
6763		SAR	X3	7	4	1598	Q 099		1264
6764		MCM	06X3,06X2	7	7	1602	M 060 0-0		1264
6765		SBR	X2	7	4	1609	H 094		1264
6766		BCE	NEG2,OP,-	7	8	1613	B M44 664	-	1265
6767		MCM	OP,06X2	7	7	1621	M 664 0-0		1265
6768		MCM	RIGHT	7	4	1628	M 688		1265
6769		C	06X2	7	4	1632	C 0-0		1265
6770		SBR	X2	7	4	1636	H 094		1265
6771		B	BLKOP	7	4	1640	B 901		1265
6772		LCA	263,06X2	7	4	1644	L 609 0-0		1265
6773	NEG2	SBR	X2	7	7	1651	H 094		1266
6774		SM	PRTSW	7	4	1655	H 094		1266
6775		B	NEG3	7	4	1659	H 094		1266
6776		B	CVTDL	7	4	1663	B P58		1266
6777	FIRST	B	RIGHT	7	4	1669	688		1266
6778		DCW	RIGHT,MAXDL#3	7	3	1670	M 688 621		1266
6779		MCM	CVT3,CURDL	7	7	1677	M 691 R72		1266
6780		MCM	&1,CURDL	7	7	1684	A R73 R72		1266
6781		A	D2	7	4	1691	B 997		1267
6782		B	HLD35,06X3	7	4	1695	L 608 060		1267
6783	FST1	LCA	OP	7	4	1702	H 094		1267
6784		SBR	X2	7	4	1706	L 664		1267
6785		LCA	OP	7	4	1710	H 099		1267
6786		SBR	X3	7	4	1714	H 061		1267
6787		CH	16X3	7	4	1718	L 663 060		1267
6788		LCA	LEFT,06X3	7	7	1725	L K40		1268
6789		LCA	GM1	7	4	1729	B 901		1268
6790		B	BLKOP	7	4	1733	M R65 089		1268
6791	* ALL OPTIMIZATION HAS TAKEN PLACE - OUTPUT REMNANT	OUTPUT	HEX1,X1	7	7	1740	H 624 0-0		1268
6792		MCM	HEX2#3,06X2	7	7	1747	B Y87 0-2		1268
6793		SBR	NOPTM,26X2,,	7	8	1755	B Y87 619		1269
6794		BCE	NOPTM,MAXDL-2,	7	8	1763	B Y87 0-0	\$	1269
6795		BCE	NOPTM,06X2,\$	7	8	1771	B Y87 663	\$	1269
6796		BCE	NOPTM,80P,\$	7	8	1779	V Y07 662	K	1269
6797		BWZ	CKFIX,80P-1,K	7	8	1787	V Y87 687	K	1270
6798		BWZ	NOPTM,ADP-1,K	7	8	1795	V Y87 687	S	1270
6799		BWZ	NOPTM,ADP-1,S	7	8	1803	B Y23		1270
5800		B	OPTM	7	4	1807	V Y87 687	2	1270
5801	CKFIX	BWZ	NOPTM,ADP-1,2	7	8	1815	V Y87 687	B	1270
5802		BWZ	NOPTM,ADP-1,B	7	8	1823	B Y87		1271
5803		BWZ	NOPTM,ADP-1,B	7	4	1827	L 663		1271
5804	* GENERATE INLINE CODING	B	NOPTM	7	8				
5805	OPTM	B	NOPTM	7	8				
5806	LCA	ROP	ROP	7	4				

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6807	51 07		LCA	ADP	7	4	1831	L 688		1271
6808	51 08		LCA	DL@	7	4	1835	L 625		1271
6809	51 09		SBR	X3	7	4	1839	H 099		1271
6810	51 10		CM	26X3,56X3	7	7	1843	D 062 065		1271
6811	51 11		MZ	*-4,36X3	7	7	1850	Y Y52 063		1272
6812	51 12		MZ	*-4,66X3	7	7	1857	Y Y59 066		1272
6813	51 13		SBR	X1,66X1	7	7	1864	H 089 0#6		1272
6814	51 14		LCA	66X2	7	4	1871	L 0-6		1272
6815	51 15		LCA	X2,66X2	7	1	1875	L		1272
6816	51 16		SBR	NUSTM	7	7	1876	H 094 0-6		1272
6817	51 17		B		7	4	1883	B 871		1272
6818	51 18			* CANNOT GENERATE INLINE CODING						
6819	51 19	NOPTM	MCW	201a,MAXDL	7	7	1887	M 627 621		1272
6820	51 20		MCW	2001a,X3	7	7	1894	M 630 099		1273
6821	51 21		MCW	201a,DL2#2	7	7	1901	M 627 632		1273
6822	51 22		SBR	X1,46X1	7	7	1908	H 089 0#4		1273
6823	51 23		LCA	28700a	7	4	1915	L 636		1273
6824	51 24	CKZRO	BCE	PRODL, TABLEX3,0	7	8	1919	B Z63 KDI 0		1273
6825	51 25	DECR	A	61,DL2	7	7	1927	A R73 632		1274
6826	51 26		MCW	DL2,MAXDL	7	7	1934	M 632 621		1274
6827	51 27		MZ	DL2-1,MAXDL	7	7	1941	Y 631 621		1274
6828	51 28		A	61,X3	7	7	1948	A R73 099		1274
6829	51 29		SM	PRTSM	7	4	1955	, R36		1274
6830	51 30		B	CKZRO	7	4	1959	B Z19		1274
6831	51 31	PRODL	LCA	2#2,46X1	7	7	1963	L 637 0#4		1275
6832	51 32		LCA	MAXDL	7	4	1970	L 621		1275
6833	51 33		CM	46X1	7	4	1974	D 0#4		1275
6834	51 34		C	06X1,28700a	7	7	1978	C 0#0 636		1275
6835	51 35		BE	*65	7	5	1985	B Z94 S		1275
6836	51 36		CH	16X1	7	4	1990	D 0#1		1275
6837	51 37		LCA	GM1,16X2	7	7	1994	L K40 0-1		1275
6838	51 38		C	06X2	7	4	2001	C 0-0		1276
6839	51 39	CX2	SAR	X2	7	4	2005	Q 094		1276
6840	51 40		BCE	KWM2,06X2,#	7	8	2009	B J39 0-0 #		1276
6841	51 41		BCE	SUB3,16X2,\$	7	8	2017	B J47 0-1 \$		1276
6842	51 42		MZ	26X2,26X1	7	7	2025	Y 0-2 0#2		1276
6843	51 43	BMPX1	SBR	X1,46X1	7	7	2032	H 089 0#4		1276
6844	51 44		* STRING TO	OUTPUT AREA						
6845	51 45	PMOV	MCW	16X2,16X1	7	7	2039	P 0-1 0#1		1277
6846	51 46		MN		7	1	2046	D		1277
6847	51 47		SBR	X1	7	4	2047	H 089		1277
6848	51 48		MCW	16X2	7	4	2051	P 0-1		1277
6849	51 49		MN		7	1	2055	D		1277
6850	51 50		SAR	X2	7	4	2056	Q 094		1277
6851	51 51		BCE	PMOV,06X2,*	7	8	2060	B -39 0-0 #		1277
6852	51 52		C	06X2	7	4	2068	C 0-0		1278
6853	51 53		SAR	X2	7	4	2072	Q 094		1278
6854	51 54		MCW	X3,HEX3#3	7	7	2076	M 099 640		1278
6855	51 55		MCW	2#2,06X1	7	7	2083	M 641 0#0		1278
6856	51 56		LCA	06X2	7	4	2090	L 0-0		1278



SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6857 51 57		SBR	X3	7	4	2094	H 099		1278
6858 51 58		CW	0&X1,1&X3	7	7	2098	0#0 0&1		1278
6859 51 59		C	0&X2	7	4	2105	C 0-0		1279
6860 51 60		SAR	X3	7	4	2109	Q 099		1279
6861 51 61		BCE	EDSTR,0&X3, GM	7	8	2113	B J58 0&0		1279
6862 51 62		SBR	X2,0&X3	7	7	2121	H 094 0&0		1279
6863 51 63		MCW	HEX3,X3	7	7	2128	M &40 099		1279
6864 51 64		B	DECR	7	4	2135	B Z27		1279
6865 51 65	KWM2	CW	1&X2	7	4	2139	0-1		1279
6866 51 66		B	CX2	7	4	2143	B -01		1280
6867 51 67	SUB3	MZ	3&X2,2&X1	7	7	2147	Y 0-3 0#2		1280
6868 51 68		B	BMPX1	7	4	2154	B -32		1280
6869 51 69	* ALL OF STATEMENT TO OUTPUT AREA								
6870 51 70	EDSTR	C	0&X1,BLK4#4	7	4	2158	C 0#0 &45		1280
6871 51 71		SAR	X1	7	7	2165	Q 089		1280
6872 51 72		LCA	@#@,0&X1	7	4	2169	L &41 0#0		1280
6873 51 73		MCW	0&X2	7	7	2176	M 0-0		1280
6874 51 74		MCW	HEX2,X2	7	4	2180	M &24 094		1281
6875 51 75		BW	DOCOD,6&X2	7	8	2187	V K17 0-6 1		1281
6876 51 76		SW	3&X2	7	4	2195	0-3		1281
6877 51 77		SBR	X1,9&X1	7	7	2199	H 089 0#9		1281
6878 51 78		LCA	11&X2	7	4	2206	L 0J1		1281
6879 51 79		SBR	X2,11&X2	7	7	2210	H 094 0J1		1281
6880 51 80	DOCOD	SBR	X1,6&X1	7	7	2217	H 089 0#6		1282
6881 51 81		LCA	6&X2	7	4	2224	L 0-6		1282
6882 51 82		LCA	X2,6&X2	7	1	2228	L 0-6		1282
6883 51 83		SBR	X2,6&X2	7	7	2229	H 094 0-6		1282
6884 51 84		B	MUSTM	7	4	2236	B 871		1282
6885 51 85	GMI	DC	@ @	7	1	2240			1282
6886 51 86	TABLE	DA	1X332,C	7	1	2241			1282
6887 51 87	TBLR	EQU	*	7	7	2241	2572		1291
6888 51 88	* GETS OPERAND LEFT, OPERATOR, OPERAND RIGHT								
6889 51 89	FIX	SBR	FIXTE3	7	4	2573	H P27		1291
6890 51 90		BCE	SUB1,1&X2,\$	7	8	2577	B P28 0-1 \$		1292
6891 51 91		LCA	3&X2,LEFT#18	7	7	2585	L 0-3 &63		1292
6892 51 92		MCW	4&X2,OP#1	7	7	2592	M 0-4 &64		1292
6893 51 93		SBR	X2,4&X2	7	7	2599	H 094 0-4		1292
6894 51 94		BW	*&5,MIDSM	7	8	2606	V 018 &18 1		1292
6895 51 95	CWS	CW	0	7	4	2614	000		1292
6896 51 96		SW	MIDSW	7	4	2618	&18		1293
6897 51 97		BW	UNARY,1&X2	7	8	2622	V 072 0-1 1		1293
6898 51 98		SW	1&X2	7	4	2630	0-1		1293
6899 51 99		SBR	CW&3,1&X2	7	7	2634	H P23 0-1		1293
6900 52 00		MN	0&X2,BCE3&7	7	7	2641	D 0-0 0&2		1293
6901 52 01		MZ	0&X2,BCE3&7	7	7	2648	Y 0-0 0&2		1294
6902 52 02	BCE3	BCE	1STWO,@&-#@.#@,0	7	7	2655	B 083 &70 0		1294
6903 52 03		CHAIN	5	7	8	2655	B 083 &70 0		1294
6904								MACRO	
6905		BCE		7	1	2663	B	GEN	1294
6906		BCE		7	1	2664	B	GEN	1294
		BCE		7	1	2665	B	GEN	1294

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
6907		BCE		7	1	2666	B	GEN	1294
6908		BCE		7	1	2667	B	GEN	1294
6909		SW		7	4	2668	R36		1295
6910	UNARY	LCA	PRTSW	7	7	2672	L 12	1295	1295
6911		B	PRTSW	7	4	2679	B P24	1295	1295
6912	ISTWD	BCE	FIXT	7	8	2683	B P24	1295	1295
6913		LCA	SUB1,1EX2,\$	7	7	2691	L 0-3	1295	1295
6914		SBR	3EX2,RIGHT#18	7	7	2698	H 094	1295	1295
6915		BW	X2,3EX2	7	8	2705	V P20	1296	1296
6916		SW	CH,1EX2	7	7	2713	V P20	1296	1296
6917	CW	CW	1EX2,PRTSW	7	4	2720	H 000	1296	1296
6918	FIXT	B	O	7	4	2724	B 000	1296	1296
6919	SUB1	SBR	SUBXT13	7	7	2728	H P57	1296	1296
6920		SBR	X2,8EX2	7	7	2732	H 094	1297	1297
6921		BCE	SUBXT,3EX2,\$	7	8	2739	B P54	1297	1297
6922		SBR	X2,6EX2	7	7	2747	H 094	1297	1297
6923	SURXT	B	O	7	4	2754	B 000	1297	1297
6924	* CONVERTS	ANY DELTA NUMBER TO THREE CHARACTERS							
6925	CVTDL	SBR	X1	7	4	2758	H 089	1297	1297
6926		SBR	CVTXT13,3EX1	7	7	2762	H Q36	1297	1297
6927		MCW	2EX1,X1	7	7	2769	H 02	1297	1297
6928		MN	0EX1,CVT3#3	7	7	2776	D 040	1298	1298
6929		MN		7	1	2783	D	1298	1298
6930		MCW	00	7	4	2784	M 192	1298	1298
6931		BWZ	CVTXT,0EX1,2	7	8	2788	V Q33	1298	1298
6932		A	100,CVT3	7	7	2796	A 195	1298	1298
6933		BWZ	CVTXT,0EX1,5	7	8	2803	V Q33	1299	1299
6934		A	100,CVT3	7	7	2811	A 195	1299	1299
6935		BWZ	CVTXT,0EX1,K	7	8	2818	V Q33	1299	1299
6936		A	100,CVT3	7	7	2826	A 195	1299	1299
6937	CVTXT	B	O	7	4	2833	B 000	1299	1299
6938	* FINDS TEMP TO BE OPTIMIZED								
6939	GETDL	SBR	GDLXT13	7	4	2837	H Q73	1299	1299
6940		MCW	X3,0EX2	7	7	2841	H 099	1300	1300
6941		BW	CURDL,X1	7	7	2848	M R72	1300	1300
6942		C	GETWM,PRTSW	7	8	2855	V Q90	1300	1300
6943	CMP2	C	X1,CVT3	7	7	2863	C 089	1300	1300
6944	GDLXT	BE	O	7	5	2870	B 000	1300	1300
6945		BCE	ADD1,TABLE&X1,1	7	8	2875	B R17	1300	1300
6946		A	199,X1	7	7	2883	A R69	1301	1301
6947	GETWM	BW	GOTWM,2EX3	7	8	2890	V R06	1301	1301
6948		SBR	X3	7	4	2898	H 099	1301	1301
6949		B	GETWM	7	4	2902	H Q90	1301	1301
6950	GOTWM	SBR	X3,1EX3	7	7	2906	H 099	1301	1301
6951		B	CMP2	7	4	2913	B Q63	1301	1301
6952	ADD1	A	199,X1	7	7	2917	A R69	1302	1302
6953		B	CMP2	7	4	2924	B Q63	1302	1302
6954	CW2	CW	1EX3	7	4	2928	H 061	1302	1302
6955		B	CKRT	7	4	2932	B 470	1302	1302
6956	PRTSW	DC	#1	7	1	2936		1302	1302

SEQ PG LIN	LABEL	OP	OPERANDS	INSTRUCTION	TYPE	CARD
6957 52 52	FENDX	FENDX	C,,,,,SYSGM, ARITH 5			
6958	FENDX	BSS	333,C			
6959		SBR	TCLEAR,SYSGM			
6960		LCA	ARITH 5a,110			
6961		B	MONTER			
6962 52 53		LTOrg *				
6618	SAVX3	DCW	#03	2937	GEN	1302
6626	HEX1		#03	2942	GEN	1302
6628	HLDDP		#01	2949	L A02 110	1302
6635	CURDL		2199a	2956	GEN	1303
6646	HLDS5		61	2960		
			253	2962	AREA	1303
			2***a	2965	AREA	1303
			2na	2966	AREA	1303
			2c-2aa	2969	LIT	1303
6732	MIDSW		#01	2972	AREA	1303
6779	MAXDL		#03	2973	LIT	1303
6793	HEX2		#03	3008	AREA	1304
			21a	3009	LIT	1304
			2001a	3012	LIT	1304
6821	DL2		#02	3013	LIT	1305
			2b700a	3017	LIT	1305
6854	HEX3		2a2	3018	AREA	1305
			2+a	3021	AREA	1305
6870	BLK4		#04	3024	AREA	1305
6891	LEFT		#18	3025	LIT	1305
6892	OP		#01	3027	LIT	1305
6902			2c-2a.#2	3030	LIT	1306
6913	RIGHT		#19	3032	AREA	1306
6928	CVT3		#03	3036	LIT	1306
			20a	3037	LIT	1306
			6100	3040	AREA	1305
6963 52 54	AOP	EQU	2ARITH 5a	3041	LIT	1306
6964 52 55	BOP	EQU	RIGHT	3045	AREA	1305
6965 52 56	SYSGM	DCW	LEFT	3063	AREA	1307
6966 52 57		ORG	a a	3070	AREA	1307
6967 52 58	MORITH	EQU	*650	3088	AREA	1308
6968 52 59	XFR	XFR	*	3091	AREA	1308
			START	3092	LIT	1308
				3095	LIT	1308
				3102	LIT	1308
				3088	LIT	1308
				3063	LIT	1308
				3103	LIT	1308
				3154		
				3153		
				8 638		

SYSTEM GROUP MARK

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
5969	52 60		JOB	ARITH PHASE FIVE						
5970	52 61		FSEGN	ARITH 5,X1,X2,X3,Y						
5971			SFX	Y					MACRO	
5972		110	DCW	ARITH 53					GEN	1312
5973		X1	EQU	089					GEN	
5974		X2	EQU	094					GEN	
5975		X3	EQU	099					GEN	
5976	52 52		ORG	XBEGIN				0838		
5977	52 53	START	BCE	NDARI,X2,--				5 U99 094 .		1313
5978	52 54		C	DCX2				C 0-0		1313
5979	52 55		SAR	X2						1313
5980	52 56		SBR	SAVX3#3				H 089		1313
5981	52 57		C	DCX1				H 089		1313
5982	52 58		SAR	X1				C 0#0		1313
5983	52 59							Q 089		1313
5984	52 70		MUSTV	MCW				M 0#0 085		1313
5985	52 71		MCX					M		1314
5986	52 72		BCE	MVDWN,CODE-3,E				3 894 093 E		1314
5987	52 73		BCE	=E5,CODE-3,R				3 894 093 R		1314
5988	52 74		B	FENDX				5 U73		1314
5989	52 75		MVDWN	X1,X2				5 U73		1314
5990		MVDWN	LCA	0EX1, 0EX2				L 0#0 0-0	MACRO	1314
5991			SAR	X1				0 089	GEN	1314
5992			C	0EX2				C 0-0	GEN	1314
5993			SAR	X2				Q 094	GEN	1314
5994	52 76		LCA	1EX2,2EX2				L 0-1 0-2	GEN	1315
5995	52 77		SBR	X2				H 094	GEN	1315
5996	52 78		CW	MODSW#1				H 090	GEN	1315
5997	52 79		BCE	IFTYP,2EX1,E				D 090	GEN	1315
5998	52 80		CRXF	MVDWN X1,X2				B V22 0#2 E	MACRO	1315
5999		CRXF	LCA	0EX1, 0EX2				L 0#0 0-0	GEN	1315
7000			SAR	X1				Q 089	GEN	1315
7001			C	0EX2				C 0-0	GEN	1316
7002			SAR	X2				D 094	GEN	1316
7003	52 81		SBR	X3,0EX1				H 099 0#0	GEN	1316
7004	52 82		SBR	HEX3#3				H 099 0#0	GEN	1316
7005	52 83		BCE	EDSTR,0EX1,				B U21 0#0	MACRO	1316
7006	52 84								GEN	1316
7007	52 85								GEN	1316
7008	52 86		AN	0EX3,SCE5E7				D 0E5 999	GEN	1316
7009	52 87		MZ	0EX3,SCE5E7				Y 0E0 999	GEN	1317
7010	52 88		SAR	X3				Q 099	GEN	1317
7011	52 89		BCE	GOT50,3E-3*,#3,0				B #09 099 0	MACRO	1317
7012	52 90		CHAIN	5					GEN	1317
7013			BCE						GEN	1317
7014			BCE						GEN	1317
7015			BCE						GEN	1317
7016			BCE						GEN	1317
7017			BCE						GEN	1318
7018	52 91		B	NEXT				B 974	GEN	1318

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7019	52	92	GOTSO	WOPRY, 16X3, *	Y	8	1009	B /09 061 *		1318
7020	52	93		46X3, OP40M1	Y	7	1017	Y 054 P00		1318
7021	52	94		SUB5, 26X3, \$	Y	6	1024	B /90 052 \$		1318
7022	52	95		36X3, OPMD	Y	7	1032	Y 053 P00		1318
7023	52	96	BMP4	X3, 46X3	Y	7	1039	H 099 064		1319
7024	52	97	CMP5	X3, HEX3	Y	7	1046	C 099 093		1319
7025	52	98		SCHEQ	Y	5	1053	R 516 S		1319
7026	52	99		X3, 16X3	Y	7	1059	H 099 061		1319
7027	53	00	FBCFQ	MOJCH, 06X3, F, X	Y	8	1065	R *95 060 F	MACRO	1319
7028			BCE	MOJCH, 06X3, F	Y	8	1073	B *85 060 X	GEN	1320
7029			BCE	MOJCH, 06X3, X	Y	4	1081	B *46	GEN	1320
7030	53	01	B	CMP5	Y	8	1085	Y /01 092 1		1320
7031	53	02	MOJCH	CW1, MODSW	Y	4	1093	I 090		1320
7032	53	03	SM	MODSW	Y	4	1097	B *46		1320
7033	53	04	B	CMP5	Y	4	1101	C 090		1320
7034	53	05	CW1	MODSW	Y	4	1105	S *46		1320
7035	53	06		CMP5	Y	4	1109	H /41 060		1320
7036	53	07	WORRY	BMPUM6, 06X3	Y	7	1116	B /54 060 \$		1321
7037	53	08	BCE	GRIEF, 06X3, \$	Y	8	1124	H 099		1321
7038	53	09	SBR	X3	Y	4	1129	H 060 P00		1321
7039	53	10	SNDUM	06X3, OPMD	Y	7	1135	H 099 090		1321
7040	53	11	BMPUM	X3, 0	Y	8	1142	B /90 062 \$		1322
7041	53	12		SUB5, 26X3, \$	Y	4	1150	B *39		1322
7042	53	13	BCE	BMP4	Y	4	1154	C 060 066		1322
7043	53	14		06X3, 16LK8	Y	8	1161	C 099		1322
7044	53	15	SAR	X3	Y	4	1165	B /29 060 \$		1322
7045	53	16	ACE	SNDUM, 06X3, \$	Y	7	1174	B		1322
7046	53	17	B	DUMMY	Y	1	1175	C 060 072		1323
7047	53	18	B	06X3, 16LK6	Y	7	1182	Q 099		1323
7048	53	19	C	X3	Y	4	1186	B /78		1323
7049	53	20	SAR	SNDUM	Y	4	1190	H 099 0A2		1323
7050	53	21	B	X3, 126X3	Y	7	1197	B *46 060 \$		1323
7051	53	22	SBR	CMP5, 06X3, \$	Y	4	1205	H 099 066		1323
7052	53	23	BCE	X3, 66X3	Y	4	1212	B *46		1324
7053	53	24	SBR	CMP5	Y	7	1216	B 532 060 #		1324
7054	53	25	B	GOTEQ, 06X3, #	Y	4	1224	H 099		1324
7055	53	26	ACE	X3	Y	4	1228	B 516		1324
7056	53	27	SBR	SCNEQ	Y	7	1232	M 060 P18		1324
7057	53	28	B	06X3, HLD18F15	Y	4	1239	B 057 P17 \$		1324
7058	53	29	MCW	SUB1, HLD16-1, \$	Y	8	1247	Y P16 P19		1325
7059	53	30	BCE	HLD16-2, FSTMD#1	Y	7	1254	V T40 P19 S		1325
7060	53	31	MZ	CKFIX, FSTMD, S	Y	8	1262	V T40 P19 X		1325
7061	53	32	BWZ	CKFIX, FSTMD, K	Y	9	1275	V T16 P00 2		1325
7062	53	33	BWZ	CKSWF, OPMD, 2	Y	8	1286	V T62 090 1		1326
7063	53	34	BWZ	CKSWF, OPMD, 2	Y	9	1294	M P20 0-0		1326
7064	53	35	BWZ	CKSWF, OPMD, 2	Y	8	1301	M 094		1326
7065	53	36	BW	MDCVT, MODSW	Y	7	1305	M 0-1 125		1326
7066	53	37	MCW	06X3, 06X2	Y	4				1326
7067	53	38	SBR	X2	Y	7				1326
7068	53	39	CM	16X2, XFLTFU	Y	7				1326

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7069 53 40		B	NOCVT	Y	4	1312	B T82		1326
7070 53 41	CKSHF	BW	MKFLT,MODSW	Y	8	1316	V S94	O90 1	1326
7071 53 42		B	NOCVT	Y	4	1324	B T82		1327
7072 53 43	CKSWX	BW	MKFIX,MODSW	Y	8	1328	V T64	O90 1	1327
7073 53 44		B	NOCVT	Y	4	1336	B T82		1327
7074 53 45	CKFIX	BWZ	CKSWX,OPMD,S	Y	8	1340	V T28	P00 S	1327
7075 53 46		BWZ	CKSWX,OPMD,K	Y	8	1348	V T28	P00 K	1327
7076 53 47		BW	NOCVT,MODSW	Y	8	1356	V T82	O90 1	1328
7077 53 48	MKFIX	MCM	@X@,O&X2	Y	7	1364	M P21	O-0	1328
7078 53 49		SBR	X2	Y	4	1371	H 094		1328
7079 53 50		CH	I&X2,XFIXFU	Y	7	1375	□ 0-1	124	1328
7080 53 51	SCAN	EQU	*&E1	Y	7	1382	H 099	O#0	1328
7081 53 52	NOCVT	SBR	X3,O&X1	Y	8	1389	B Y08	O#0	1329
7082 53 53	SCAN2	BCE	EXPN,O&X1,.	Y	8	1397	B U63	O#0 @	1329
7083 53 54		BCE	DIV,O&X1,@	Y	8	1405	B U21	O#0	1329
7084 53 55		BCE	EDSTR,O&X1,	Y	8	1413	H 099		1329
7085 53 56		SBR	X1	Y	4	1417	B T89		1329
7086 53 57		B	SCAN2	Y	4	1421	L O&0	O-0	1330
7087 53 58	* END OF STATEMENT ROUTINE								
7088 53 59	EDSTR	MVDWN	X3,X2	Y	7	1428	Q 099		1330
7089	EDSTR	LCA	O&X3, O&X2	Y	4	1432	C 0-0		1330
7090		SAR	X3	Y	4	1436	Q 094		1330
7091		C	O&X2	Y	8	1440	B U52	O&E1	1330
7092		SAR	X2	Y	4	1448	B U21		1330
7093 53 60		BCE	*G5,I&X3,	Y	7	1452	H 089	O&0	1330
7094 53 61		B	EDSTR	Y	4	1459	B 866		1331
7095 53 62		SBR	X1,O&X3	Y	7	1463	M P22	O#0	1331
7096 53 63		B	MUSTM	Y	4	1470	H 089		1331
7097 53 64	* SUBSTITUTE / FOR @ AS DIVIDE SYMBOL								
7098 53 65	DIV	MCH	@/@,O&X1	Y	4	1474	B T89		1331
7099 53 66		SBR	X1	Y	7	1478	H 089	O#5	1331
7100 53 67		B	SCAN2	Y	7	1485	M 089	O99	1331
7101 53 68	FENDX	SBR	X1,5&X1	Y	7	1492	H 099	O&E2	1331
7102 53 69		MCH	SAVX3,X3	Y	5	1499	B 333	C	1332
7103 53 70		SBR	X3,2&X3	Y	7	1504	H 710	Q73	1332
7104 53 71	NOARI	FENDX	C,,,,,SYSGM,ARITH6	Y	4	1511	L P28	110	1332
7105	NOARI	BSS	333,C	Y	4	1518	B 700		1332
7106		SBR	TCLEAR,SYSGM	Y	7	1522	C O#0		1332
7107		LCA	@ARITH6@,110	Y	7	1526	Q 089		1332
7108		B	MONTER	Y	7	1530	M O#9	N08	1332
7109 53 72	* GENERATE IF EXITS								
7110 53 73	IFTYP	C	O&X1	Y	4	1537	M O#6	N00	1333
7111 53 74		SAR	X1	Y	7	1544	M O#3	M92	1333
7112 53 75		MCH	9&X1,MINUS	Y	7	1551	Y P29	M99	1333
7113 53 76		MCH	6&X1,ZERO	Y	7	1558	Y P29	M91	1333
7114 53 77		MCH	3&X1,PLUS	Y	7	1565	Y P29	M91	1333
7115 53 78		MZ	@K@,MINUS-1	Y	7	1572	M M92	M88	1334
7116 53 79		MZ	@K@,ZERO-1	Y	7				
7117 53 80		MZ	@K@,PLUS-1	Y	7				
7118 53 81		MCH	PLUS,ELSE&3	Y	7				

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7119	53	82	LCA	BLK20#20, HLD20	Y	7	1579	L P49 M84		1334
7120	53	83	SBR	X3, HLD20-20	Y	7	1586	H 099 M64		1334
7121	53	84	C	PLUS, ZERO	Y	7	1593	C M92 N00		1334
7122	53	85	BE	PZ	Y	5	1600	B X79 S		1334
7123	53	86	C	ZERO, MINUS	Y	7	1605	C N00 N08		1335
7124	53	87	BE	MKPLS	Y	5	1612	R W42 S		1335
7125	53	88	SBR	X3, 8EX3	Y	7	1617	H 099 0E8		1335
7126	53	89	MCW	IFZRO	Y	4	1624	M N04		1335
7127	53	90	MCW		Y	1	1628	M		1335
7128	53	91	LCA		Y	1	1629	L		1335
7129	53	92	C	PLUS, MINUS	Y	7	1630	C M92 N08		1335
7130	53	93	BE	MVLS	Y	5	1637	B W62 S		1336
7131	53	94	SBR	X3, 8EX3	Y	7	1642	H 099 0E8		1336
7132	53	95	MCW	IFPLS	Y	4	1649	M M96		1336
7133	53	96	MCW		Y	1	1653	M		1336
7134	53	97	LCA		Y	1	1654	L		1336
7135	53	98	MCW	MINUS, ELSE E3	Y	7	1655	M N08 M88		1336
7136	53	99	MCW	X3, HEX3	Y	7	1662	M 099 093		1336
7137	54	00	BWZ	*65, CODE, 2	Y	8	1669	V W81 086 2		1337
7138	54	01	B	*69	Y	4	1677	B W89		1337
7139	54	02	BWZ	LSADD, CODE-2, 2	Y	8	1681	V X03 084 2		1337
7140	54	03	MCW	CODE, X3	Y	7	1689	M 086 099		1337
7141	54	04	MCW	0EX3, CODE	Y	7	1696	M, 0E0 086		1337
7142	54	05	A	E1, CODE	Y	7	1703	A P50 086		1338
7143	54	06	MCW	ELSE E3, X3	Y	7	1710	C 0E0 086		1338
7144	54	07	C	0EX3, CODE	Y	7	1717	C 0E0 086		1338
7145	54	08	MCW	HEX3, X3	Y	7	1724	M 093 099		1338
7146	54	09	BE	NOBR	Y	5	1731	H X48 S		1338
7147	54	10	SBR	X3, 4EX3	Y	7	1736	H 099 0E4		1339
7148	54	11	MCW	ELSE E3	Y	4	1743	M M88		1339
7149	54	12	LCA		Y	1	1747	L		1339
7150	54	13	NOBR	MVDHN X3, X2	Y	7	1748	L 0E0 0-0	MACRO	1339
7151			NOBR	LCA 0EX3, 0EX2	Y	4	1755	Q 099	GEN	1339
7152			SAR	X3	Y	4	1759	C 0-0	GEN	1339
7153			C	0EX2	Y	4	1763	Q 094	GEN	1339
7154			SAR	X2	Y	8	1767	B 936 0E0 *	GEN	1339
7155	54	14	BCE	CKXF, 0EX3, *	Y	4	1775	B X48		1340
7156	54	15	B	NOBR	Y	7	1779	C M92 N08		1340
7157	54	16	C	PLUS, MINUS	Y	5	1786	B X36 S		1340
7158	54	17	BE	ALL3	Y	7	1791	H 099 0E8		1340
7159	54	18	SBR	X3, 8EX3	Y	4	1798	M N12		1340
7160	54	19	MCW	IFMNS	Y	1	1802	M		1340
7161	54	20	MCW		Y	1	1803	L		1340
7162	54	21	LCA		Y	4	1804	B W62		1341
7163	54	22	B	MVLS	Y	4	1808	0+1		1341
7164	54	23	* PROCESS	EXPONENTIATION	Y	8	1812	6 N13 0+1 \$		1341
7165	54	24	EXPN	1EX1	Y	7	1820	L 0+3 P67		1341
7166	54	25	BCE	XSUB, 1EX1, \$	Y	7	1827	Y 0+2 P68		1341
7167	54	26	LCA	3EX1, XPON#17	Y					1341
7168	54	27	MZ	2EX1, XPMOD#1	Y					1341

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7169	54 28		SBR	HEX31#3,3&X1	Y	7	1834	H P71 0#3	GEN	1341
7170	54 29		C	HEX31,X3	Y	7	1841	C P71 099	GEN	1342
7171	54 30		BE	SKIP	Y	5	1848	B Y80 S	GEN	1342
7172	54 31		SW	4&X1	Y	4	1853	, 0#4	GEN	1342
7173	54 32	MVBAL	MVDWN	X3,X2					MACRO	
7174		MVBAL	LCA	0&X3, 0&X2					GEN	1342
7175			SAR	X3	Y	7	1857	L 0&0 0-0	GEN	1342
7176			C	0&X2	Y	4	1864	Q 099	GEN	1342
7177			SAR	X2	Y	4	1868	C 0-0	GEN	1342
7178	54 33		CW	1&X2	Y	4	1872	Q 094	GEN	1342
7179	54 34	SKIP	C	0&X1,BLK4#4	Y	4	1876	Q 0-1	GEN	1343
7180	54 35		SAR	X1	Y	7	1880	C 0#0 P75	GEN	1343
7181	54 36		BCE	BSUB,3&X1,\$	Y	4	1887	Q 089	GEN	1343
7182	54 37		MZ	2&X1,BMOD#1	Y	8	1891	B N78 0#3 \$	GEN	1343
7183	54 38		SW	1&X1	Y	7	1899	Y 0#2 P76	GEN	1343
7184	54 39	LOAD	LCA	3&X1,BASE#17	Y	4	1906	, 0#1	GEN	1343
7185	54 40		SAR	X1	Y	7	1910	L 0#3 P93	GEN	1344
7186	54 41		BWZ	FIXXP,XPMOD,S	Y	4	1917	Q 089	GEN	1344
7187	54 42		BWZ	FIXXP,XPMOD,K	Y	8	1921	V -77 P68 S	GEN	1344
7188	54 43		CW	XLOGFN,XXPNTL	Y	8	1929	V -77 P68 K	GEN	1344
7189	54 44		CW	XCOMFI	Y	7	1937	Q 119 120	GEN	1344
7190	54 45		CW	PROCESS FLOATING POINT EXPONENTIATION	Y	4	1944	Q 117	GEN	1344
7191	54 46		BWZ	FLT,BMOD,2	Y	8	1948	V -32 P76 2	GEN	1345
7192	54 47		BWZ	FLT,BMOD,B	Y	8	1956	V -32 P76 B	GEN	1345
7193	54 48		BWZ	*&5,CODE,2	Y	8	1964	V 276 086 2	GEN	1345
7194	54 49		B	*&9	Y	4	1972	B 284	GEN	1345
7195	54 50		BWZ	FTMSG,CODE-2,2	Y	8	1976	V 298 084 2	GEN	1345
7196	54 51		MCW	CODE,X3	Y	8	1976	V 298 084 2	GEN	1345
7197	54 52		MCW	0&X3,CODE	Y	7	1984	M 086 099	GEN	1346
7198	54 53	FTMSG	FTMSG	30,FIX TO FLOAT POWER, CODE,20	Y	7	1991	M 0&0 086	MACRO	1346
7199		FTMSG	CS	332	Y	4	1998	/ 332	GEN	1346
7200			CS		Y	1	2002	/	GEN	1346
7201			SW	FAILSW	Y	4	2003	, 184	GEN	1346
7202			MN	CODE,224&20	Y	7	2007	D 086 244	GEN	1346
7203			MN		Y	1	2014	D	GEN	1346
7204			MN		Y	1	2015	D	GEN	1347
7205			MCW		Y	4	2016	M Q34	GEN	1347
7206			W		Y	1	2020	2	GEN	1347
7207			BCV		Y	5	2021	B -30 a	GEN	1347
7208			B		Y	4	2026	B -32	GEN	1347
7209			CC		Y	2	2030	F 1	GEN	1347
7210	54 54	FLT	LCA	0&0,0&X2	Y	7	2032	L Q35 0-0	GEN	1347
7211	54 55		LCA	XPON	Y	4	2039	L P67	GEN	1348
7212	54 56		LCA	0&0#0	Y	4	2043	L Q37	GEN	1348
7213	54 57		SBR	X2	Y	4	2047	H 094	GEN	1348
7214	54 58		CW	3&X2,1&X1	Y	4	2051	Q 0-3 0#1	GEN	1348
7215	54 59		LCA	BASE,0&X2	Y	7	2058	L P93 0-0	GEN	1348
7216	54 60		SBR	X2	Y	4	2065	H 094	GEN	1348
7217	54 61		CW	1&X2	Y	4	2069	Q 0-1	GEN	1348
7218	54 62		B	SCAN	Y	4	2073	B T82	GEN	1349



SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7219	54	63	* PROCESS	FIXED POINT EXPONENTIATION						
7220	54	64	FIXXP	SWEAT, XPMOD, K	Y	8	2077	V K54 P68 K		1349
7221	54	65	BWZ	SWEAT, XPON-2, 12-6-8	Y	8	2085	B K54 P65		1349
7222	54	66	BCE	XPON, X3	Y	7	2093	M P67 099		1349
7223	54	67	MCW	PLUSDF, X3	Y	7	2100	# 160 099		1350
7224	54	68	MA	@3@, 0EX3	Y	7	2107	C Q38 0E0		1350
7225	54	69	C	SWEAT	Y	5	2114	B K54 U		1350
7226	54	70	LCA	BASE, 0EX2	Y	7	2119	L P93 0-0		1350
7227	54	71	LCA	@*@	Y	4	2126	L Q39		1350
7228	54	72	SBR	X2	Y	4	2130	H 094		1350
7229	54	73	SBR	SAV2#3	Y	4	2134	H Q42		1350
7230	54	74	CW	1EX2, 2EX2	Y	7	2138	Q 0-1 0-2		1350
7231	54	75	LCA	BASE, 0EX2	Y	7	2145	L P93 0-0		1351
7232	54	76	SBR	X2	Y	4	2152	H 094		1351
7233	54	77	CW	1EX2	Y	4	2156	Q 0-1		1351
7234	54	78	BCE	HUH, 0EX3, 0	Y	4	2160	B K18 0E0 0		1351
7235	54	79	BCE	HUH2, 0EX3, 1	Y	8	2168	B K36 0E0 1		1351
7236	54	80	BCE	SCAN, 0EX3, 2	Y	8	2176	B T82 0E0 2		1351
7237	54	81	LCA	@*@, 0EX2	Y	7	2184	L Q39 0-0		1352
7238	54	82	SBR	X2	Y	4	2191	H 094		1352
7239	54	83	CW	1EX2	Y	4	2195	Q 0-1		1352
7240	54	84	LCA	BASE, 0EX2	Y	7	2199	L P93 0-0		1352
7241	54	85	SBR	X2	Y	4	2206	H 094		1352
7242	54	86	CW	1EX2	Y	4	2210	Q 0-1		1352
7243	54	87	B	SCAN	Y	4	2214	B T82		1352
7244	54	88	MCW	SAV2, X3	Y	4	2218	M Q42 099		1353
7245	54	89	MCW	@/@, 1EX3	Y	7	2225	M P22 0E1		1353
7246	54	90	B	SCAN	Y	4	2232	B T82		1353
7247	54	91	MCW	SAV2, X2	Y	7	2236	M Q42 094		1353
7248	54	92	SBR	X2, 1EX2	Y	7	2243	H 094 0-1		1353
7249	54	93	B	SCAN	Y	4	2250	B T82		1353
7250	54	94	SWEAT	XLOGFN, XXPNTL	Y	7	2254	Q 119 120		1354
7251	54	95	CW	XCOMF1, XFLTFU	Y	7	2261	Q 117 125		1354
7252	54	96	BWZ	CTU1, BMOD, 2	Y	8	2268	V L21 P76 2		1354
7253	54	97	BWZ	CTU1, BMOD, B	Y	8	2276	V L21 P76 B		1354
7254	54	98	LCA	@X@, 0EX2	Y	7	2284	L P21 0-0		1354
7255	54	99	SBR	X2	Y	4	2291	H 094		1355
7256	55	00	CW	0EX2, XFIFU	Y	4	2295	Q 0-0 124		1355
7257	55	01	LCA	XEXPON, 0EX2	Y	7	2302	L 157 0-0		1355
7258	55	02	LCA	@E@	Y	4	2309	L Q43		1355
7259	55	03	SBR	X2	Y	4	2313	H 094		1355
7260	55	04	CW	2EX2	Y	4	2317	Q 0-2		1355
7261	55	05	LCA	@E@, 0EX2	Y	7	2321	L Q35 0-0		1355
7262	55	06	LCA	@F# 4E@	Y	4	2328	L Q48		1356
7263	55	07	LCA	XPON	Y	4	2332	L P67		1356
7264	55	08	SBR	X2	Y	4	2336	H 094		1356
7265	55	09	CW	1EX2	Y	4	2340	Q 0-1		1356
7266	55	10	C	0EX1, BLK4	Y	7	2344	C 0#0 P75		1356
7267	55	11	SAR	X3	Y	4	2351	Q 099		1356
7268	55	12	BCE	FSUB, 3EX3, \$	Y	8	2355	B 023 0E3 \$		1356

F, \*, 12-6-8, 4, 12-0

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
7269 55 13	SWM	SW	16X3	Y	2363	MACRO	1357
7270 55 14		MVDWN	X1,X2	7	2367	L 0#D 0-0	1357
7271		LCA	06X1, 06X2	4	2374	Q 089	1357
7272		SAR	X1	4	2378	C 0-0	1357
7273		C	06X2	4	2382	Q 094	1357
7274		SAR	X2	4	2386	0 0-1	1357
7275 55 15		CW	16X2	4	2390	L Q50	1358
7276 55 16		LCA	@G#	4	2394	H 094	1358
7277 55 17		SBR	X2	8	2398	V M25 P76 2	1358
7278 55 18		BWZ	BSFLT,BMOD,2	8	2406	V M25 P76 B	1358
7279 55 19		BWZ	BSFLT,BMOD,B	7	2414	L P20 0-0	1358
7280 55 20		LCA	@F@,06X2	4	2421	H 094	1358
7281 55 21		SBR	X2	7	2425	L P93 0-0	1358
7282 55 22	BSFLT	LCA	BASE,06X2	4	2432	L Q54	1359
7283 55 23		LCA	@ 4&#	4	2436	H 094	1359
7284 55 24		SBR	X2	4	2444	C 0#0 Q58	1359
7285 55 25		CW	5&X2	7	2440	0 0-5	1359
7286 55 26		C	06X1,@B700@	5	2451	B T82 S	1359
7287 55 27		BE	SCAN	4	2456	0 0-1	1359
7288 55 28		CW	16X2	4	2460	B T82	1359
7289 55 29		B	SCAN	4	2464		1360
7290 55 30		DCW	@#@	1	2484		1360
7291 55 31	HLD20	DCW	#20	20	2485	8	1360
7292 55 32	ELSE	B		3	2488		1360
7293 55 33		DCW	#3	1	2489	V	1360
7294 55 34		BWZ		3	2492		1360
7295 55 35	PLUS	DCW	#3	3	2495	2G7	1360
7296 55 36		DCW	277&X3	1	2496		1361
7297 55 37	IFPLS	DSA	@B@	1	2497	B	1361
7298 55 38		DC		1	2500		1361
7299 55 39	ZERO	BCE		3	2503	280	1361
7300 55 40		DCW	#3	1	2504		1361
7301 55 41	IFZRO	DSA	280	1	2505	V	1362
7302 55 42		DC	@@	3	2508		1362
7303 55 43	MINUS	BWZ	#3	3	2511	2G7	1362
7304 55 44		DCW	277&X3	1	2512		1362
7305 55 45	IFMNS	DSA	@K@	1	2513	Y 0#3 P68	1362
7306 55 46	XSUB	DC	36X1,XPMOD	7	2520	H 089 0/1	1362
7307 55 47		MZ	X1,11&X1	8	2527	B N42 0#0 \$	1362
7308 55 48		SBR	GOTSB,06X1,\$	7	2535	H 089 0#6	1362
7309 55 49		BCE	X1,6&X1	7	2542	C 089 099	1363
7310 55 50	GOTSB	SBR	X1,X3	7	2549	8 N58 S	1363
7311 55 51		C	#E5	5	2554	0#1	1363
7312 55 52		BE	16X1	4	2558	L 0#0 P67	1363
7313 55 53		SW	06X1,XPON	7	2565	Q 089	1363
7314 55 54		LCA	X1	4	2569	B Y80 S	1363
7315 55 55		SAR	SKIP	5	2574	B Y57	1364
7316 55 56		BE	MVBAL	4	2578	C 0#0 Q66	1364
7317 55 57	BSUB	B	06X1,BLK8#8	7	2585	Q 099	1364
7318 55 58		C	X3	4			

12-6-8,4,12-0,#

SEQ PG LIN	OP	LABEL	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
7319 55 59	BCE		GTSUB, 16X3, \$	8	2589	B D08 061 \$	1364
7320 55 60	C		06X3, BLK6	7	2597	C 060 Q72	1364
7321 55 61	SAR		X3	4	2604	Q 099	1364
7322 55 62	MZ	GTSUB	36X3, BMOD	7	2608	Y 063 P76	1365
7323 55 63	SW		16X3	4	2615	Y 061	1365
7324 55 64	B		LOAD	4	2619	B Z10	1365
7325 55 65	C	FSUB	06X3, BLK8	7	2623	C 060 Q66	1365
7326 55 66	SAR		X3	4	2630	Q 099	1365
7327 55 67	BCE		SWM, 16X3, \$	8	2634	B L63 061 \$	1365
7328 55 68	C		06X3, BLK6#6	7	2642	C 060 Q72	1365
7329 55 69	SAR		X3	4	2649	Q 099	1365
7330 55 70	B		SWM	4	2653	B L63	1366
7331 55 71	MZ	SUB1	HLDI8-9, FSTMD	7	2657	Y P09 P19	1366
7332 55 72	BCE		NOWDP, HLDI8-11, \$	8	2664	B S54 P07 \$	1366
7333 55 73	MZ		HLDI8-15, FSTMD	7	2672	Y P03 P19	1366
7334 55 74	B		NOWDP	4	2679	B S54	1366
7335 55 75	DCW		#1	1	2683		1366
7336 55 76	DCW	CODE	#3	3	2686		1366
7337 55 77	LTORG		*				
6980	SAVX3			3	2687		
6996	MODSW		#03	3	2689	AREA	1367
7004	HEX3		#01	1	2690	AREA	1367
7011			#03	3	2693	AREA	1367
7020	OPMD		06-a*, #a	6	2699	LIT	1367
7058	HLDI8		#01	1	2700	AREA	1367
7060	FSTMD		#18	18	2718	AREA	1367
			#01	1	2719	AREA	1367
7107			0FA	1	2720	LIT	1368
			0Xa	1	2721	LIT	1368
			a/a	1	2722	LIT	1368
			0ARITH6a	6	2728	LIT	1368
			0Ka	1	2729	LIT	1368
7119	BLK20		#20	20	2749	AREA	1368
			01	1	2750	LIT	1368
7167	XPON		#17	17	2767	ARFA	1369
7168	XPMD		#01	1	2768	AREA	1369
7169	HEX31		#03	3	2771	AREA	1369
7179	BLK4		#04	4	2775	AREA	1369
7182	BMOD		#01	1	2776	AREA	1369
7184	BASE		#17	17	2793	AREA	1370
7205			0ERROR 30 - FIX TO FLOAT POWER, STATEMENT a	41	2834	LIT	1372
			0Ea	1	2835	LIT	1372
			0G#a	2	2837	LIT	1372
			03a	1	2838	LIT	1372
			a#a	1	2839	LIT	1372
7229	SAV2		#03	3	2842	AREA	1373
			0Ca	1	2843	LIT	1373
			0F* 4Ca	5	2848	LIT	1373
7262			0G#a	2	2950	LIT	1373
			a 4Ca	4	2854	LIT	1373
			0B700a	4	2858	LIT	1373

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
	7317	BLK8		#08	Y	8	2866		AREA	1373
	7328	BLK6		#06	Y	6	2872		AREA	1374
7338	55	78	DCW	a a	Y	1	2873			1374
7339	55	79	XFR	START	Y			B 838		1375

SYSTEM GROUP MARK

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
7340 55 80		JOB	FORTRAN: ARITH PHASE SIX					
7341 55 81		FBEGN	ARITH SIX,X1,X2,X3,S					
7342		SFX	S					
7343		DCW	ARITH SIX@					
7344	110	EQU	089	S	9	0110	MACRO	1378
7345	X2	EQU	094	S		0089	GEN	
7346	X3	EQU	099	S		0094	GEN	
7347 55 82	NXTOP	EQU	086	S		0099	GEN	
7348 55 83		DRG	XBEGIN	S		0086	GEN	
7349 55 84	INISH	BCE	HENDX,X2,S	S	8	0838		0838
7350 55 85		SBR	HEX2#3,0&X2	S	7	0846		B S51 094
7351 55 86		MN	0&X3	S	7	0853		H N31 0-0
7352 55 87		MN		S	4	0857		D 0&0
7353 55 88		SAR	NOMO#3	S	1	0858		D 0&0
7354 55 89		SBR	HEX1#3,0&X1	S	4	0858		Q N34
7355 55 90		MCW	NXTOP,MKTMP	S	7	0862		H N37 0+0
7356 55 91		MCW	PARAM&6,TMPSZ#3	S	7	0869		M 086 N66
7357 55 92		MN	&0,TMPSZ-2	S	7	0876		M 692 N40
7358 55 93		A	&2,TMPSZ	S	7	0883		D N41 N38
7359 55 94		C	TMPSZ,PARAM&4	S	7	0890		A N42 N40
7360 55 95		BL	START	S	7	0897		C N40 690
7361 55 96		MCW	PARAM&4,TMPSZ	S	5	0904		B 916 T
7362 55 97	START	C	X2,NOMO	S	7	0909		M 690 N40
7363 55 98		BE	DUN	S	7	0916		C 094 N34
7364 55 99		MCW	TABLE&165, TABLE&164	S	5	0923		B S21 S
7365 56 00	GETUM	BCE	GOTUM,2&X2,	S	7	0928		M 94 M93
7366 56 01		SBR	X2	S	8	0935		B 959 0-2
7367 56 02		BCE	NXGUY,1&X2,	S	4	0943		H 094
7368 56 03		B	GETUM	S	8	0947		B S10 0-1
7369 56 04	GOTUM	MN	4&X2,DLVAL#3	S	4	0955		B 935
7370 56 05		MN		S	7	0959		D 0-4 N45
7371 56 06		MCW	20@	S	1	0966		D
7372 56 07		BWZ	BMPUM,4&X2,2	S	4	0967		M N46
7373 56 08		A	&100,DLVAL	S	8	0971		V #16 0-4 2
7374 56 09		BWZ	BMPUM,4&X2,S	S	7	0979		A N49 N45
7375 56 10		A	&100,DLVAL	S	8	0986		V #16 0-4 S
7376 56 11		BWZ	BMPUM,4&X2,K	S	7	0994		A N49 N45
7377 56 12		A	&100,DLVAL	S	8	1001		V #16 0-4 K
7378 56 13	BMPUM	MCW	DLVAL,X3	S	7	1009		A N49 N45
7379 56 14		A	X3	S	7	1016		M N45 099
7380 56 15		A	DLVAL,X3	S	4	1023		A 099
7381 56 16		BCE	ASSGN,5&X2,#	S	7	1027		A N45 099
7382 56 17		MCW	MATRIX-1&X3,X1	S	8	1034		B #60 0-5 #
7383 56 18		MCW	@#,@,TABLE-1&X1	S	7	1042		M T&5 089
7384 56 19		B	CMPAD	S	7	1049		M N50 L58
7385 56 20	ASSGN	MCM	TABLE	S	4	1056		B #89
7386 56 21		SAR	X1	S	4	1060		Q L29
7387 56 22		MA	-TABLE,X1	S	4	1064		P 089
7388 56 23		MCW	*-6, TABLE-1&X1	S	7	1068		# N53 089
7389 56 24		MCW	X1, MATRIX-1&X3	S	7	1075		M #75 L58
				S	7	1082		M 089 T&5

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
7390 56 25	CMPAD	ZA	X1, ACCUM-4	S 7	1089	E 089 N56	1385
7391 56 26		M	TMPSZ, ACCUM#7	S 7	1096	@ N40 N60	1386
7392 56 27		SW	ACCUM-4	S 4	1103	; N56	1386
7393 56 28			FPACK ACCUM, 4EX2, X3				MACRO
7394			INCLD ZONES				GEN
7395		MN	ACCUM, 4EX2	S 7	1107	D N60 0-4	1386
7396		MN		S 1	1114	D	1386
7397		MN		S 1	1115	D	1386
7398		SAR	*E4	S 4	1116	Q /23	1386
7399		MCW	0, X3	S 7	1120	M 000 099	1386
7400		MCW	20a	S 4	1127	M N46	1387
7401		A	X3	S 4	1131	A 099	1387
7402		MZ	ZONES&1EX3, 4EX2	S 7	1135	Y M18 0-4	1387
7403		CH		S 1	1142	□	1387
7404		SBR	*E7	S 4	1143	H /53	1387
7405		MZ	ZONES&X3, 0	S 7	1147	Y M17 000	1387
7406 56 29		CW	ACCUM-4	S 4	1154	□ N56	1388
7407 56 30		MA	NXTOP, 4EX2	S 7	1158	# 086 0-4	1388
7408 56 31		C	X1, HYEST#3	S 7	1165	C 089 N63	1388
7409 56 32		BH	GOBAK	S 5	1172	B /99 U	1388
7410 56 33		MCW	X1, HYEST	S 7	1177	M 089 N63	1388
7411 56 34		MCW	4EX2, MXTMP#3	S 7	1184	M 0-4 N66	1388
7412 56 35		<del>BWZ</del>	<del>BLWUP, MXTMP#2</del>	S 8	1191	V S74 N66 2	1389
7413 56 36		SBR	X2, 3EX2	S 7	1199	H 094 0-3	1389
7414 56 37		B	GETUM	S 4	1206	B 935	1389
7415 56 38		SBR	X2, 4EX2	S 7	1210	H 094 0-4	1389
7416 56 39		B	START	S 4	1217	B 916	1389
7417 56 40		MCW	HEX2, X3	S 7	1221	M N31 099	1389
7418 56 41		MCW	HEX1, X1	S 7	1228	M N37 089	1390
7419 56 42		C	0&X1	S 4	1235	C 0#0	1390
7420 56 43		C		S 1	1239	C	1390
7421 56 44		SAR	X1	S 4	1240	Q 089	1390
7422 56 45		MCW	MXTMP, NXTOP	S 7	1244	M N66 086	1390
7423 56 46		FENDX	D,,,SYS6,I/O TWO				MACRO
7424		BSS	333,D	S 5	1251	B 333 D	1390
7425		SBR	TCLEAR, SYS6	S 7	1256	H 710 010	1390
7426		LCA	I/O TWOa, 110	S 7	1263	L N73 110	1391
7427		B	MONTER	S 4	1270	B 700	1391
7428 56 47		BW	GOBAK, LGSW	S 8	1274	V /99 M95 1	1391
7429 56 48		CS	332	S 4	1282	/ 332	1391
7430 56 49		CS		S 1	1286	/	1391
7431 56 50		MLC	MESSAGE 2 - OBJECT PROGRAM TOO LARGEa, 270	S 7	1287	M 009 270	1391
7432 56 51		H	FAILSW, LGSW	S 1	1294	2	1391
7433 56 52		SW	GOBAK	S 7	1295	, 184 M95	1392
7434 56 53		B	1X1023	S 4	1302	B /99	1392
7435 56 54		DA	1X165, #	S 4	1306	2328	1392
7436 56 55		TABLE	a#2	S 5	2329	2494	1392
7437 56 56		DC	#1	S 1	2494		1393
7438 56 57		DC	*	S 1	2495		1393

BWZ TST2N, MXTMP, 2

TST2N BWZ BLWUP MXTMP-2, 2

B GOBAK

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7439		DCW	#1	S	1	2496		GEN	1393
7440	ZONES	DC	9	S	1	2497		GEN	1393
7441		DCW	@9Z9R9I99ZZRZLZ9RZRRRIR9IZIRII@	S	31	2528		GEN	1393
7442		LTORG *		S			2529	GEN	
7350	HEX2	DCW	#03	S	3	2531		AREA	1393
7353	NOMO		#03	S	3	2534		AREA	1394
7354	HEX1		#03	S	3	2537		AREA	1394
7356	TMP5Z		#03	S	3	2540		AREA	1394
			EO	S	1	2541		LIT	1394
			E2	S	1	2542		LIT	1394
7369	DLVAL		#03	S	3	2545		AREA	1394
			@0@	S	1	2546		LIT	1394
			E100	S	1	2549		LIT	1395
			@*@	S	3	2550		LIT	1395
7387			-TABLE	S	1	2553		LIT	1395
7391	ACCUM		#07	S	3	2553	W7A	ADCON	1395
7408	HVEST		#03	S	7	2560		AREA	1395
7411	MKTMP		#03	S	3	2563		AREA	1395
7426			@I/D TWO@	S	3	2566		AREA	1395
7431			@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	S	7	2573		LIT	1395
7443		LTORG *		S	36	2609		LIT	1396
7444	SYS6	DCW	@ @	S	1	2610	2610	GEN	1396
7445	INISH	XFR		S			B 838	GEN	1397

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCH	INSTRUCTION	TYPE	CARD
7446	56 60		JOB	1401 FORTRAN INPUT/OUTPUT PHASE TWO					MACRO	
7447	56 61		FBEGN	I/O TWO,X1,X2,R,X3,U					GEN	1400
7448			SFX	U	U	7	0110		GEN	
7449		110	DCW	@I/O TWO@	U		0089		GEN	
7450		X1	EQU	089	U		0094		GEN	
7451		X2	EQU	094	U	3	0094		GEN	1401
7452		094	DCW	000	U	2	0096		GEN	1401
7453		096	DC	00	U		0099		GEN	
7454		X3	EQU	099	U				GEN	
7455	56 62		ORG	XBEGIN	U		0838	0838		
7456	56 63	START	BCE	OUT,0&X1,	U	8	0838	B 870 0#0		1402
7457	56 64		MCW	0&X1,CODE#4	U	7	0846	M 0#0 S30		1402
7458	56 65		MCW	CODE-3,*&8	U	7	0853	M S27 867		1402
7459	56 66		BCE	WORK,@BZNA,0	U	8	0860	B 893 S33 0		1402
7460	56 67		BCE		U	1	0868	B		1402
7461	56 68		BCE		U	1	0869	B		1402
7462	56 69	OUT	FENDX	C,,,,,SYS1,CGOTO	U				MACRO	
7463		OUT	BSS	333,C	U	5	0870	B 333 C		1402
7464			SBR	TCLEAR,SYS1	U	7	0875	H 710 T24		1403
7465			LCA	@CGOTO@,110	U	7	0882	L S38 110		1403
7466			B	MONTER	U	4	0889	B 700		1403
7467	56 70	WORK	MCW	@@,@IOCH	U	7	0893	M S39 S26		1403
7468	56 71		MCW	@ @,2&X1	U	7	0900	M S40 0#2		1403
7469	56 72		SBR	KLOBRE@,2&X1	U	7	0907	H /23 0#2		1403
7470	56 73		BCE	CTUI,CODE-3,B	U	8	0914	B 944 S27 B		1404
7471	56 74		MCW	@@,@IOCH	U	7	0922	M S41 S26		1404
7472	56 75		BCE	CTUI,CODE-3,Z	U	8	0929	B 944 S27 Z		1404
7473	56 76		MCW	@@,@IOCH	U	7	0937	M S42 S26		1404
7474	56 77	CTUI	MVDWN	X1,X3	U				MACRO	
7475		CTUI	LCA	0&X1, 0&X3	U	7	0944	L 0#0 0&0		1404
7476			SAR	X1	U	4	0951	Q 089		1405
7477			C	0&X3	U	4	0955	C 0&0		1405
7478			SAR	X3	U	4	0959	Q 099		1405
7479	56 78		LCA	1&X1,2&X3	U	7	0963	L 0#1 0&2		1405
7480	56 79		SBR	X3	U	4	0970	H 099		1405
7481	56 80		BWZ	*@5,CODE,2	U	8	0974	V 986 S30 2		1405
7482	56 81		B	CHNG	U	4	0982	B 994		1405
7483	56 82		BWZ	CKNUM,CODE-2,2	U	8	0986	V #08 S28 2		1406
7484	56 83	CHNG	MCW	CODE,X2	U	7	0994	M S30 094		1406
7485	56 84		MCW	0&X2,CODE	U	7	1001	M 0-0 S30		1406
7486	56 85	CKNUM	BCE	NONUM,0&X1,	U	8	1008	B /59 0#0		1406
7487	56 86		MIN	0&X1	U	4	1016	D 0#0		1406
7488	56 87		SAR	X2	U	4	1020	Q 094		1406
7489	56 88		BCE	CONST,0&X2,	U	8	1024	B S04 0-0		1407
7490	56 89	SYMB	MCW	@@,@TUNG	U	7	1032	M S43 S25		1407
7491	56 90		MCW	0&X1,MVMSK-3	U	7	1039	M #0 S18		1407
7492	56 91		MCW	@@,@MVMSK-6	U	7	1046	M S44 S15		1407
7493	56 92		MZ	*-4,MVMSK-4	U	7	1053	Y #55 S17		1407
7494	56 93		CW	MVSW#1	U	4	1060	Q S45		1408
7495	56 94	SLIDE	C	0&X1	U	4	1064	C 0#0		1408

D CHAR INITIALIZED

12-6-8

12-7-8

12-7-8



SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7496 56 95		SAR	X1	U	4	1068	Q 089	GEN	1408
7497 56 96		LCA	IDCH,0&X3	U	7	1072	L S26 0&0	GEN	1408
7498 56 97		SBR	X3	U	4	1079	H 099	GEN	1408
7499 56 98		BW	NOINT,MVSW	U	8	1083	V /06 S45 1	GEN	1408
7500 56 99		SW	MVSW	U	4	1091	, S45	GEN	1408
7501 57 00		LCA	MVMSK,0&X3	U	7	1095	L S21 0&0	GEN	1409
7502 57 01		SBR	X3	U	4	1102	H 099	GEN	1409
7503 57 02	NOINT	LCA	1&X1,0&X3	U	7	1106	L 0&1 0&0	GEN	1409
7504 57 03		SBR	X3	U	4	1113	H 099	GEN	1409
7505 57 04	KLOBR	BCE	START,0,	U	4	1117	B 838 000	GEN	1409
7506 57 05		FQUIT		U	8	1117	B 838 000	GEN	1409
7507		CS	332	U	4	1125	/ 332	MACRO	1409
7508		CS		U	1	1129	/	GEN	1409
7509		CC	1	U	2	1130	F 1	GEN	1410
7510		MCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270	U	7	1132	M S81 270	GEN	1410
7511		H		U	1	1139	2	GEN	1410
7512		CC	1	U	2	1140	F 1	GEN	1410
7513		BCE	*@6,MONTR,1	U	8	1142	B /55 7A9 1	GEN	1410
7514		RWD	1	U	5	1150	U %U1 R	GEN	1410
7515		H	*-3	U	8	1155	/ 55	GEN	1410
7516 57 06	NONUM	FTMSG 33,NO TAPE UNIT NUMBER,CODE,21		U	4	1159	/ 332	MACRO	1411
7517	NONUM	CS	332	U	1	1163	/	GEN	1411
7518		CS		U	4	1164	, 184	GEN	1411
7519		SW	FAILSW	U	7	1168	D S30 245	GFN	1411
7520		MN	CODE,22&@21	U	1	1175	D	GEN	1411
7521		MN		U	1	1176	D	GEN	1411
7522		MN	@ERROR 33 - NO TAPE UNIT NUMBER, STATEMENT @	U	4	1177	M T23	GEN	1411
7523		MCW		U	1	1181	2	GEN	1411
7524		W		U	5	1182	B /91 @	GEN	1412
7525		BCV		U	4	1187	B /93	GEN	1412
7526		B		U	2	1191	F 1	GEN	1412
7527		CC	1	U	7	1193	M S43 S25	GEN	1412
7528 57 07		MCW	@@,TUND	U	4	1200	B #32	GEN	1412
7529 57 08		B	SYMB	U	7	1204	D 0#0 S25	GEN	1412
7530 57 09		MN	0&X1,TUND	U	4	1211	B #64	GEN	1412
7531 57 10	CONST	B	SLIDE	U	7	1221		GEN	1413
7532 57 11	MVMSK	DCW	@MXX0&@	U	4	1221		GEN	1413
7533 57 12	IOCW	DCW	@U%OX@	U	7	1221		GEN	1413
7534 57 13	TUND	FOU	IOCH-1	U	5	1226		GEN	1413
7535 57 14	CODE	LTORG *		U	5	1226		GEN	1413
7457		DCW	#04	U	4	1230	1227	AREA	1413
7465			@BZNA	U	3	1233		LIT	1413
			@CGOTO@	U	5	1238		LIT	1413
			@B@	U	1	1239		LIT	1413
			@@	U	1	1240		LIT	1414
			@R@	U	1	1241		LIT	1414
			@M@	U	1	1242		LIT	1414
			@O@	U	1	1243		LIT	1414
			@D@	U	1	1244		LIT	1414
7494	MVSW	#01		U	1	1245		AREA	1414

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7510			MESSAGE 2 - OBJECT PROGRAM TOO LARGE	U	26	1281		LIT	1415
7523			ERROR 33 - NO TAPE UNIT NUMBER, STATEMENT 2	U	42	1323		LIT	1417
7536 57 15	SYS1	DCW	2 2	U	1	1324			1417
7537 57 16		XFR	START	U			B 838		1418

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7538 57 17		JOB	1401 FORTRAN COMPUTED GO TO PHASE						
7539 57 18		FBEGN	CGOTO,X1,X2,R,X3,...						
7540		SFX						MACRO	
7541	110	DCW	CGOTOa	5	0110			GEN	1421
7542	X1	EQU	089		0089			GEN	
7543	X2	EQU	094		0094			GEN	
7544	094	DCW	000	3	0094			GEN	1422
7545	096	DC	00	2	0096			GEN	1422
7546	X3	EQU	099		0099			GEN	
7547 57 19		ORG	XBEGIN				0838		
7548 57 20	INITL	SW	GMI,GM2	7	0838		S95 T09		1423
7549 57 21	START	BWZ	OUT,0EX1,1	8	0845		V T20 0#0 1		1423
7550 57 22		MCW	0EX1,ID#3	7	0853		M 0#0 T62		1423
7551 57 23		MCW	ID,MASK	7	0860		M T62 T12		1423
7552 57 24		MCW	a,a,1EX1	7	0867		M T63 0#1		1423
7553 57 25		SBR	KLOBR6,1EX1	7	0874		H #78 0#1		1424
7554 57 26		C	0EX1	4	0881		C 0#0		1424
7555 57 27		SAR	X1	4	0885		Q 089		1424
7556 57 28		C	2EX1,aT	4	0889		C 0#2 T64		1424
7557 57 29		BU	DUN	7	0889		C 0#2 T64		1424
7558 57 30		S	MAX#2	5	0896		B T13 /		1424
7559 57 31	SMALL	MN	0EX1	4	0901		S T66		1424
7560 57 32	LOOP	MN		4	0905		D 0#0		1424
7561 57 33		MN		1	0909		D		1425
7562 57 34		SAR		1	0910		D		1425
7563 57 35		A	X1,MAX	4	0911		Q 089		1425
7564 57 36		C	MAX,EL1	7	0915		A T67 T66		1425
7565 57 37		BE	ERROR	7	0922		C T66 T69		1425
7566 57 38		C	0EX1,a,a	5	0929		B S23 S		1425
7567 57 39		BU	LOOP	7	0934		C 0#0 T70		1425
7568 57 40		MN	0EX1	5	0941		B 905 /		1426
7569 57 41		SAR	X1	4	0946		D 0#0		1426
7570 57 42		B	RUADR	4	0950		Q 089		1426
7571 57 43		LCA	MASK,0EX3	4	0954		B /14		1426
7572 57 44		LCA	TRAP	7	0958		L T12 0&0		1426
7573 57 45		LCA		4	0965		L T59		1426
7574 57 46		LCA		1	0969		L		1426
7575 57 47		SBR	X3	1	0970		L		1427
7576 57 48		SBR	X1,1EX1	4	0971		H 099		1427
7577 57 49		BW	NOMO,4EX1	7	0975		H 089 0#1		1427
7578 57 50	ANYMO	SW	BRNCH-6	8	0982		V #53 0#4 1		1427
7579 57 51		MN	MAX,BRNCH	4	0990		T44		1427
7580 57 52		MCW	I	7	0994		D T66 T50		1427
7581 57 53		MCW	6EX1	4	1001		M T02		1427
7582 57 54		SAR	X1	4	1005		M 0#6		1428
7583 57 55		CW	BRNCH-6	4	1009		Q 089		1428
7584 57 56		MZ	AK, BRNCH-5	4	1013		T44		1428
7585 57 57		MZ	*-4, BRNCH-2	7	1017		Y T71 T45		1428
7586 57 58		LCA	BRNCH,0EX3	7	1024		Y #26 T48		1428
7587 57 59		SBR	X3	4	1031		L T50 0&0		1428
					1038		H 099		1428

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
7588 57 60		S	61,MAX	7	1042	S T67 T66	GEN	1429
7589 57 61		B	ANYMO	4	1049	B 982	GEN	1429
7590 57 62	NOMD	LCA	GMI,0&X3	7	1053	L S95 0&0	GEN	1429
7591 57 63		SBR	X3	4	1060	H 099	GEN	1429
7592 57 64	BOTH	C	0&X1	4	1064	C 0+0	GEN	1429
7593 57 65		SAR	X1	4	1068	Q 089	GEN	1429
7594 57 66	KLOBR	BCE	START,0,	8	1072	B 845 000	MACRO	
7595 57 67		FQUIT					GEN	1430
7596		CS	332	4	1080	/ 332	GEN	1430
7597		CS		1	1084	/	GEN	1430
7598		CC	1	2	1085	F 1	GEN	1430
7599		MCM	MESSAGE 2 -- OBJECT PROGRAM TOO LARGE@,270	7	1087	M U07 270	GEN	1430
7600		M		1	1094	2	GEN	1430
7601		CC	1	2	1095	F 1	GEN	1430
7602		BCE	*66,MONTOR,1	8	1097	B /10 769 1	GEN	1430
7603		RWD	1	5	1105	U XUI R	GEN	1431
7604		H	*-3	4	1110	- /10	GEN	1431
7605 57 68	RUADR	SBR	EXRUA&3	4	1114	H S22	GEN	1431
7606 57 69		S	COUNT#1	4	1118	S U08	GEN	1431
7607 57 70	OK	MN	0&X1,TEST&7	7	1122	D 0+0 /55	GEN	1431
7608 57 71		SAR	X1	4	1129	Q 089	GEN	1431
7609 57 72		BCE	RUFIX,COUNT,8	8	1133	B /81 U08 B	GEN	1431
7610 57 73		A	61,COUNT	7	1141	A T67 U08	GEN	1432
7611 57 74	TEST	BCE	OK,@0123456789@,0	8	1148	B /22 U18 0	MACRO	
7612 57 75		CHAIN	9				GEN	1432
7613		BCE		1	1156	B	GEN	1432
7614		BCE		1	1157	B	GEN	1432
7615		BCE		1	1158	B	GEN	1432
7616		BCE		1	1159	B	GEN	1432
7617		BCE		1	1160	B	GEN	1432
7618		BCE		1	1161	B	GEN	1433
7619		BCE		1	1162	B	GEN	1433
7620		BCE		1	1163	B	GEN	1433
7621		BCE		1	1164	B	GEN	1433
7622 57 76	ERR1	BCE	ERROR,0&X1,	8	1165	B S23 0+0	GEN	1433
7623 57 77		SBR	X1	4	1173	H 089	GEN	1433
7624 57 78	RUFIX	B	ERR1	4	1177	B /65	GEN	1433
7625 57 79		BWZ	FIXED,2&X1,K	8	1181	V /93 0+2 K	GEN	1434
7626 57 80		B	ERR1	4	1189	B /65	GEN	1434
7627 57 81	FIXED	MZ	BLANK#1,2&X1	7	1193	Y U19 0+2	GEN	1434
7628 57 82		MCM	3&X1,1	7	1200	M 0+3 T02	GEN	1434
7629 57 83		C	0&X1,GMI	7	1207	C 0+0 S95	GEN	1434
7630 57 84		BU	ERR1	5	1214	B /65 /	GEN	1434
7631 57 85	EXRUA	B	0	4	1219	B 000	GEN	1435
7632 57 86	ERROR	BWZ	*65,ID,2	8	1223	V S35 T62 2	GEN	1435
7633 57 87		B	ZONE	4	1231	B S43	GEN	1435
7634 57 88		BWZ	PRINT,ID-2,2	8	1235	V S57 T60 2	GEN	1435
7635 57 89	ZONE	MCM	ID,X2	7	1243	M T62 094	GEN	1435
7636 57 90		MCM	0&X2,ID	7	1250	M 0-0 T62	MACRO	
7637 57 91	PRINT	FTMSG	34,COMPUTED GO TO SYNTAX,ID,23					

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
7638	PRINT	CS	332	4	1257	/ 332	GEN	1436
7639	CS	CS		1	1261	/	GEN	1436
7640	SW	SW	FAILSW	4	1262	/ 184	GEN	1436
7641	MN	MN	ID,224&23	7	1266	D T62 247	GEN	1436
7642	MN	MN		1	1273	D	GEN	1436
7643	MN	MN		1	1274	D	GEN	1436
7644	MCW	MCW		4	1275	M U63	GEN	1436
7645	W	W		1	1279	2	GEN	1437
7646	BCV	BCV	*E5	5	1280	B S89 @	GEN	1437
7647	B	B	*E3	4	1285	B S91	GEN	1437
7648	CC	CC	1	2	1289	F 1	GEN	1437
7649	B	B	BOTH	4	1291	B #64	GEN	1437
7650	DC	DC	@ @	1	1295		GEN	1437
7651	DCW	DCW	@T@	1	1296		GEN	1437
7652	DC	DC	XLINKS	3	1299	840	GEN	1437
7653	DCW	DCW	#3	3	1302		GEN	1437
7654	DCW	DCW	#3	3	1305		GEN	1438
7655	DCW	DCW	#3	3	1308		GEN	1438
7656	DC	DC	@ @	1	1309		GEN	1438
7657	DC	DC	#3	3	1312		GEN	1438
7658	DUN	SBR	X1,5&X1	7	1313	H 089 0#5	MACRO	1438
7659	OUT	FENDX	C,,,,SYSCG,GOMSK	5	1320	B 333 C	GEN	1438
7660	OUT	BSS	333,C	7	1325	H 710 U69	GEN	1438
7661	OUT	SBR	TCLEAR,SYSCG	7	1332	L U68 110	GEN	1438
7662		LCA	@GOMSK@,110	4	1339	B 700	GEN	1439
7663		MONTER		8	1350		GEN	1439
7664	BRNCH	DCW	@BXXXXXXA@	4	1351	N #01	GEN	1439
7665	58 03	NOP	1001	1	1355		GEN	1439
7666	58 04	H		4	1359		GEN	1439
7667	58 05	TRAP	@B11B@	3	1362		AREA	1439
7668	58 06	LTORG	*	1	1363		LIT	1439
7669	58 07	ID	#03	1	1364		LIT	1440
7670	58 08	DCW	@ @	2	1366		AREA	1440
7671	58 09	DCW	@T@	1	1367		LIT	1440
7672	58 10	DCW	#02	2	1369		LIT	1440
7673	58 11	DCW	E1	1	1370		LIT	1440
7674	58 12	DCW	E11	1	1371		LIT	1440
7675	58 13	DCW	@,@	36	1407		LIT	1441
7676	58 14	DCW	@K@	10	1408		AREA	1441
7677	58 15	DCW	@MESSAGE 2 ~ OBJECT PROGRAM TOO LARG@	1	1418		LIT	1442
7678	58 16	DCW	#01	1	1419		AREA	1442
7679	58 17	DCW	@0123456789@	44	1463		LIT	1444
7680	58 18	DCW	#01	5	1468		LIT	1444
7681	58 19	DCW	@ERROR 34 ~ COMPUTED GO TO SYNTAX, STATEMENT @	1	1469		LIT	1445
7682	58 20	DCW	@GOMSK@	8	838		LIT	1445
7683	58 21	XFR	@ @					
7684	58 22	INITL	INITL					

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7671 58 10		JOB	1401 FORTRAN GO TO MASK PHASE						
7672 58 11		FBEGN	GOMSK,X1,,,X3,,*					MACRO	
7673		SFX	*	*				GEN	1448
7674	110	DCW	@GOMSK@	*	5	0110		GEN	
7675	X1	EQU	089	*		0089		GEN	
7676	X3	EQU	099	*		0099		GEN	
7677 58 12		ORG	XBEGIN	*		0838	0838		
7678 58 13	START	BCE	OUT,0EX1,	*	8	0838	B 861 0+0	GEN	1449
7679 58 14		MCW	0EX1,CODE#4	*	7	0846	M 0+0 962	GEN	1449
7680 58 15		BCE	CTU,CODE-3,G	*	8	0853	B 884 959 G	GEN	1449
7681 58 16	OUT	FENDX	C,,,,,SYS1,STOP/PAUSE					MACRO	
7682	OUT	BSS	333,C	*	5	0861	B 333 C	GEN	1449
7683		SBR	TCLEAR,SYS1	*	7	0866	H 710 975	GEN	1449
7684		LCA	@STOP/PAUSE@,110	*	7	0873	L 972 110	GEN	1450
7685 58 17		B	MONTER	*	4	0880	B 700	GEN	1450
7687	CTU	MVDWN	X1,X3	*	7	0884	L 0+0 0E0	MACRO	
7688	CTU	LCA	0EX1, 0EX3	*	4	0891	Q 089	GEN	1450
7689		SAR	X1	*	4	0895	C 0E0	GEN	1450
7690		C	0EX3	*	4	0899	Q 099	GEN	1450
7691 58 18		SAR	X3	*	7	0903	L 0E1 0E2	GEN	1450
7692 58 19		LCA	1EX3,2EX3	*	4	0910	H 099	MACRO	1451
7693 58 20		SBR	X3	*	7	0914	L 0+0 0E0	GEN	1451
7694		MVDWN	X1,X3	*	4	0921	Q 089	GEN	1451
7695		LCA	0EX1, 0EX3	*	4	0925	C 0E0	GEN	1451
7696		SAR	X1	*	4	0929	Q 099	GEN	1451
7697		C	0EX3	*	7	0933	M 973 0E1	GEN	1451
7698 58 21		SAR	X3	*	4	0940	L 0+1	GEN	1451
7699 58 22		MCW	@B@,1EX3	*	4	0944	H 099	GEN	1452
7700 58 23		LCA	1EX1	*	7	0948	Y 974 0E4	GEN	1452
7701 58 24		SBR	X3	*	4	0955	B 838	GEN	1452
7702 58 25		MZ	@K@,4EX3	*	4	0959	0959	AREA	1452
7703 58 26		B	START	*	4	0962		LIT	1452
7704 58 27	CODE	LTOrg	*	*	4	0972		LIT	1452
7705 58 28		DCW	#04	*	10	0973		LIT	1452
		XFR	@STOP/PAUSE@	*	1	0974		LIT	1453
			@B@	*	1	0975		LIT	1454
			@K@	*	1				
			@ @	*	1				
			@ @	*	1				
			START	*	1				
			SYSTEM GROUP MARK	*					

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7706 58 29		JOB	1401 FORTRAN STOP/PAUSE PHASE						
7707 58 30		FBEGN	STOP/PAUSE,X1,,X2,,X3,,3						
7708		SFX	3	3	10	0110		MACRO	
7709	110	DCW	@STOP/PAUSE@					GEN	1457
7710	X1	EQU	089			0089		GEN	
7711	X2	EQU	094			0094		GEN	
7712	X3	EQU	099			0099		GEN	
7713 58 31		ORG	XBEGIN				0838		
7714 58 32	START	CS	299		4	0838	/ 299		1458
7715 58 33	NUTYP	BCE	OUT,0&X1,		8	0842	B 873 0+0		1458
7716 58 34		MCW	0&X1,CODE#4		7	0850	M 0+0 W02		1458
7717 58 35		FBCEQ	DOIT,CODE-3,A,S						
7718		BCE	DOIT,CODE-3,A						
7719		BCE	DOIT,CODE-3,S						
7720 58 36	OUT	FENDX	C,,,,,SYS1,LIGHT		8	0857	B 896 V99 A	MACRO	1458
7721	OUT	BSS	333,C		8	0865	B 896 V99 S	GEN	1458
7722		SBR	TCLEAR,SYSL					MACRO	
7723		LCA	@LIGHT@,110		5	0873	B 333 C	GEN	1459
7724		B	MONTER		3	0878	H 710 W61	GEN	1459
7725 58 37	DOIT	MCW	@,2&X1		7	0885	L W07 110	GEN	1459
7726 58 38		SBR	KL0BR&6,2&X1		4	0892	B 700	GEN	1459
7727 58 39		MVDWN	X1,X3		3	0896	M W08 0+2	GEN	1459
7728		LCA	0&X1, 0&X3		7	0903	H S58 0+2	MACRO	1459
7729		SAR	X1					GEN	1460
7730		C	0&X3		4	0917	Q 089	GEN	1460
7731		SAR	X3		4	0921	C 0&0	GEN	1460
7732 58 40		LCA	1&X3,2&X3		4	0925	Q 099	GEN	1460
7733 58 41		SBR	X3		3	0929	L 0&1 0&2	GEN	1460
7734 58 42		BCE	NOAD,0&X1,		4	0936	H 099	GEN	1460
7735 58 43		CS	WORK		3	0940	B +69 0+0	GEN	1460
7736 58 44		FFLIP	0&X1,LOWK,X1,X2,,MM		8	0948	/ V98	MACRO	1461
7737		MN	LOWK		4	0952	D V00	GEN	1461
7738		MN			3	0956	D	GEN	1461
7739		SAR	X2		3	0957	Q 094	GEN	1461
7740		SBR	X1, 0&X1		3	0961	H 089 0+0	GEN	1461
7741	00K212	MCW	0&X1,00L212#1		7	0968	M 0+0 W09	GFN	1461
7742		SAR	X1		3	0975	Q 089	GEN	1461
7743		BW	00M212, 1&X1		4	0979	V #02 0+1. 1	GEN	1462
7744		MCW	00L212, 2&X2		3	0987	M W09 0-2	GEN	1462
7745		SBR	X2		7	0994	H 094	GEN	1462
7746		B	00K212		4	0998	B 968	GEN	1462
7747	00M212	EQU	*&X1		4	1002	/ V00	GFN	1462
7748 58 45		SW	LOWK		4	1006	B #42 V03	GEN	1462
7749 58 46		BCE	OKAY2,LOWK&3,		8	1014	M T15 222	GEN	1463
7750 58 47		MCW	MSG1,222		7	1014	M T33 247	GEN	1463
7751 58 48		MCW	MSG2,247		3	1021	M V04 228	GEN	1463
7752 58 49		MCW	LOWK&4,228		7	1028	M V02 251	GEN	1463
7753 58 50		MCW	LOWK&2,251		3	1035	B #54 V02	GEN	1463
7754 58 51	OKAY2	BCE	*&5,LOWK&2,		8	1042	B #84	GEN	1463
7755 58 52		B	SETUP		4	1050	B #84	GFN	1464

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GM

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1401 FORTRAN STOP/PAUSE PHASE

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7756 58 53		MCW	LOWK&1,LOWK&2	3	7	1054	M V01 V02		1464
7757 58 54		MCW	@a	3	4	1061	M W10		1464
7758 58 55		B	OKAY2	3	4	1065	B #42		1464
7759 58 56	NDA0	LCA	@000a,LOWK&2	3	7	1069	L W13 V02		1464
7760 58 57		C	O&X1	3	4	1076	C 0#0		1464
7761 58 58		SAR	X1	3	4	1080	Q 089		1465
7762 58 59	SETUP	MCW	LOWK&2,SAVE3#3	3	7	1084	M V02 W16		1465
7763 58 60		A	@a,LOWK&3	3	7	1091	A W10 V03		1465
7764 58 61		C	LOWK&2,SAVE3	3	5	1105	C V02 W16		1465
7765 58 62		BE	AOK	3	8	1110	B /70 S		1465
7766 58 63		BCE	NUERR,201,	3	7	1118	B /31 201		1466
7767 58 64	RTN	MZ	BLNK3#3,251	3	7	1125	Y W19 251		1466
7768 58 65		MZ		3	1	1126	Y		1466
7769 58 66		MZ		3	1	1127	Y /70		1466
7770 58 67		B	AOK	3	4	1127	B /70		1466
7771 58 68	NUERR	MCW	MSG1,222	3	7	1131	M T15 222		1466
7772 58 69		MCW	MSG2,247	3	7	1138	M T33 247		1466
7773 58 70		MCW	LOWK&2,226	3	7	1145	M V02 226		1467
7774 58 71		MCW	LOWK&2,251	3	7	1152	M V02 251		1467
7775 58 72		MCW	BLANK,223	3	7	1159	M W17 223		1467
7776 58 73		B	RTN	3	4	1166	B /18		1467
7777 58 74	AOK	BCE	CTU,201,	3	8	1170	B /94 201		1467
7778 58 75		W		3	1	1178	2		1467
7779 58 76		FORMS						MACRO	
7780		BCV	#&5	3	5	1179	B /88 a	GEN	1467
7781		B	#&3	3	4	1184	B /90	GEN	1467
7782		CC	1	3	2	1188	F 1	GEN	1468
7783 58 77		CS	299	3	4	1190	/ 299		1468
7784 58 78	CTU	CW	LOWK	3	4	1194	W V00		1468
7785 58 79		BCE	PAUSE, CODE-3,A	3	8	1198	B S33 V99 A		1468
7786 58 80		LCA	@IIBa,0&X3	3	7	1206	L W23 0&0		1468
7787 58 81		LCA	@a	3	4	1213	L W24		1468
7788 58 82		LCA	LOWK&2	3	4	1217	L V02		1468
7789 58 83		LCA	1&X1	3	4	1221	L 0#1		1469
7790 58 84		SBR	X3	3	4	1225	H 099		1469
7791 58 85		B	KLOBR	3	4	1229	B S52		1469
7792 58 86	PAUSE	LCA	@a,0&X3	3	7	1233	L W24 0&0		1469
7793 58 87		LCA	LOWK&2	3	4	1240	L V02		1469
7794 58 88		LCA	1&X1	3	4	1244	L 0#1		1469
7795 58 89		SBR	X3	3	4	1248	H 099		1469
7796 58 90	KLOBR	BCE	NUITY,0,	3	8	1252	B 842 000		1470
7797 58 91		FQUIT						MACRO	
7798		CS	332	3	4	1260	/ 332	GEN	1470
7799		CS		3	1	1264	/	GEN	1470
7800		CC	1	3	2	1265	F 1	GEN	1470
7801		MCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGEa,270	3	7	1267	M W60 270	GEN	1470
7802		W		3	1	1274	2	GEN	1470
7803		CC	1	3	2	1275	F 1	GEN	1470
7804		BCE	#&6,MONITOR,1	3	8	1277	B S90 769 1	GEN	1471
7805		RWD	1	3	5	1285	U #U1 R	GEN	1471

BLANK

BLANK

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LDCN	INSTRUCTION TYPE	CARD
7806		H	*-3	3	1290	GEN	1471
7807	MSG1	DCW	ERROR 35 - HALT NUMBER	4	1315	GEN	1471
7808	MSG2	DCW	TO BE DISPLAYED AS	22	1333		1472
7809		ORG	*X00	3			
7810		ORG	*X99	3	1400		
7811		DCW	AND	1499			
7812	LOWK	DS	1	3	1500		1473
7813	WORK	DS	98	3	1598		
7814		LTORG	*	3			
7716	CODE	DCW	#04	3	1602	AREA	1474
7723			ALIGHT	3	1607	LIT	1474
			a a	3	1608	LIT	1474
7741	00L212		#01	3	1609	AREA	1474
			000	3	1610	LIT	1474
			0000	3	1613	LIT	1474
7762	SAVE3		#03	3	1616	AREA	1474
7767	BLNK3		#03	3	1619	AREA	1475
			00110	3	1623	LIT	1475
			a.a	3	1624	LIT	1475
7801			MESSAGE 2 - OBJECT PROGRAM TOO LARGE	1	1660	LIT	1476
7815	SYS1	DCW	a a	36	1661	LIT	1476
7816	BLANK	EQU	BLNK3-2	1	1617	LIT	1476
7817		XFR	START	3			
				3	838		1477

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7818	59 03		JOB	1401 FORTRAN SENSE LIGHT PHASE					MACRO	
7819	59 04		FBEGN	LIGHT,X1,,X2,R,X3,,5					GEN	1480
7820			SFX	5	5		0110		GEN	
7821		110	DCW	ALIGHT@	5		0089		GEN	
7822		X1	EQU	089	5		0094		GEN	
7823		X2	EQU	094	5		0094		GEN	1481
7824		094	DCW	000	5		0096		GEN	1481
7825		096	DC	00	5		0099		GEN	
7826		X3	EQU	099	5		0838	0838	GEN	
7827	59 05		ORG	XBEGIN	5		861 0+0		GEN	1482
7828	59 06	START	BCE	OUT,0EX1,	5		0846 M 0+0 /88		GEN	1482
7829	59 07		MCW	0EX1,CODE#4	5		884 /85 J		GEN	1482
7830	59 08		BCE	DOIT,CODE-3,J	5				MACRO	
7831	59 09	OUT	FENDX	C,,,,,SYSL,IFCOND	5				GEN	1482
7832		OUT	BSS	333,C	5		0861 B 333 C		GEN	1482
7833			SBR	TCLEAR,SYSL	5		0866 H 710 S92		GEN	1482
7834			LCA	@IFCONDA,110	5		L /94 110		GEN	1483
7835			B	MONTER.	5		0880 B 700		GEN	1483
7836	59 10	DOIT	MVDWN	X1,X3	5				MACRO	
7837		DOIT	LCA	0EX1, 0EX3	5		0884 L 0+0 0E0		GEN	1483
7838			SAR	X1	5		0891 Q 089		GFN	1483
7839			C	0EX3	5		0895 C 0E0		GEN	1483
7840			SAR	X3	5		0899 Q 099		GEN	1483
7841	59 11		SBR	KLOBRE6,1EX1	5		0903 H /26 0+1		GEN	1483
7842	59 12		MCW	@ ,1EX1	5		0910 M /95 0+1		GEN	1484
7843	59 13		LCA	1EX3,2EX3	5		L 0E1 0E2		GEN	1484
7844	59 14		SBR	X3	5		0924 H 099		GEN	1484
7845	59 15		MCW	CODE,HOLD#3	5		0928 M /88 /98		GEN	1484
7846	59 16		BWZ	*E5,HOLD,2	5		0935 V 947 /98 2		GEN	1484
7847	59 17		B	SWEAT	5		0943 B 955		GEN	1484
7848	59 18		BWZ	CKGM,HOLD-2,2	5		0947 V 969 /96 2		GEN	1485
7849	59 19	SWEAT	MCW	HOLD,X2	5		0955 M /98 094		GEN	1485
7850	59 20		MCW	0EX2,HOLD	5		0962 M 0-0 /98		GEN	1485
7851	59 21	CKGM	BCE	BAD,0EX1,	5		0969 B #15 0+0		GEN	1485
7852	59 22		MCW	0EX1,HLD2#2	5		0977 M 0+0 S00		GEN	1485
7853	59 23		BCE	*E5,HLD2-1,	5		0984 B 996 /99		GEN	1486
7854	59 24		B	BAD	5		0992 B #15		GEN	1486
7855	59 25		MN	0EX1,*E8	5		0996 D 0+0 #10		GEN	1486
7856	59 26		BCE	OK,@01234@,0	5		1003 B #68 S05 0		MACRO	1486
7857	59 27		CHAIN	4	5				GEN	1486
7858			BCE		5		1011 B		GEN	1486
7859			BCE		5		1012 B		GEN	1486
7860			BCE		5		1013 B		GEN	1486
7861			BCE		5		1014 B		GEN	1487
7862	59 28	BAD	FTMSG	36,ILLEGAL SENSE LIGHT,HOLD,21	5		1015 / 332		MACRO	1487
7863		BAD	CS	332	5		1019 /		GEN	1487
7864			CS		5		1020 , 184		GEN	1487
7865			SW	FAILSW	5		1024 D /98 2+5		GEN	1487
7866			MN	HOLD,22+@21	5				GEN	1487
7867			MN		5		1031 D		GEN	1487

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7868			MN		5	1	1032	D	GEN	1487
7869			MCW	ERROR 36 - ILLEGAL SENSE LIGHT, STATEMENT a	5	4	1033	M S47	GEN	1488
7870			W		5	1	1037	2	GEN	1488
7871			BCV	*65	5	5	1038	B #47 a	GEN	1488
7872			B	*63	5	4	1043	B #49	GEN	1488
7873			CC	I	5	2	1047	F 1	GEN	1488
7874	59	29	SBR	X3,4&X3	5	7	1049	H 099 0&4	GEN	1488
7875	59	30	C	0&X1	5	4	1056	C 0+0	GEN	1488
7876	59	31	SAR	X1	5	4	1060	C 089	GEN	1489
7877	59	32	B	START	5	4	1064	B 838	GEN	1489
7878	59	33	MZ	*-4,0&X1	5	7	1068	Y #70 0#0	GEN	1489
7879	59	34	BCE	ZERO,0&X1,0	5	8	1075	B /62 0#0 0	GEN	1489
7880	59	35	MN	0&X1,MASK1	5	7	1083	D 0#0 /84	GEN	1489
7881	59	36	LCA	MASK1,0&X3	5	7	1090	L /84 0&0	GEN	1489
7882	59	37	SBR	X3	5	4	1097	H 099	GEN	1490
7883	59	38	C	0&X1	5	4	1101	C 0+0	GEN	1490
7884	59	39	SAR	X1	5	4	1105	Q 089	GEN	1490
7885	59	40	LCA	1&X1,0&X3	5	7	1109	L 0+1 0&0	GEN	1490
7886	59	41	SBR	X3	5	4	1116	H 099	GEN	1490
7887	59	42	BCE	START,0,	5	8	1120	B 838 000	MACRO	1490
7888	59	43	FQUIT							
7889			CS	332	5	4	1128	/ 332	GEN	1490
7890			CS		5	1	1132	/	GEN	1491
7891			CC	I	5	2	1133	F 1	GEN	1491
7892			MCW	MESSAGE 2 - OBJECT PROGRAM TOO LARGE,270	5	7	1135	M S83 270	GEN	1491
7893			W		5	1	1142	2	GEN	1491
7894			CC	I	5	2	1143	F 1	GEN	1491
7895			BCE	*66,MONITOR,1	5	8	1145	B /58 769 1	GEN	1491
7896			RWD	I	5	5	1153	U 301 R	GEN	1491
7897			H	*-3	5	4	1158	- /58	GEN	1492
7898	59	44	LCA	a,a,0&X3	5	7	1162	L S84 0&0	GEN	1492
7899	59	45	LCA	a,082084a	5	4	1169	L S91	GEN	1492
7900	59	46	SBR	X3	5	4	1173	H 099	GEN	1492
7901	59	47	B	RTN	5	4	1177	B /01	GEN	1492
7902	59	48	DCW	a#080a	5	4	1184		GEN	1492
7903	59	49	LTORG	*	5	4			GEN	1492
			DCW	#04	5	4		1185	AREA	1492
			DCW	aIFCONDa	5	4	1188		LIT	1493
				a a	5	6	1194		LIT	1493
				#03	5	1	1195		AREA	1493
				#02	5	3	1198		AREA	1493
				a01234a	5	2	1200		AREA	1493
				ERROR 36 - ILLEGAL SENSE LIGHT, STATEMENT a	5	5	1205		LIT	1493
				MESSAGE 2 - OBJECT PROGRAM TOO LARGE	5	42	1247		LIT	1495
				a,a	5	36	1283		LIT	1495
				a,a	5	1	1284		LIT	1496
				a,082084a	5	7	1291		LIT	1496
				a a	5	1	1292		LIT	1496
				START	5	1		B 838	LIT	1497
7904	59	50	DCW							
7905	59	51	XFR	SYSTEM GROUP MARK						

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7906 59 52		JOB	1401 FORTRAN IF 2HARDWARE PHASE						
7907 59 53		FBEGN	IFCOND,X1,,X2,R,X3,,4						
7908		SFX	4	6	0110			MACRO	1500
7909		DCW	@IFCONDA					GEN	
7910		EQU	089		0089			GEN	
7911		EQU	094		0094			GEN	
7912		DCW	000	3	0094			GEN	1501
7913		DC	00	2	0096			GEN	1501
7914		EQU	099		0099			GEN	
7915 59 54		ORG	XBEGIN			0838			
7916 59 55	START	BCE	OUT,0&X1,	8	0838	B 870 0#0			1502
7917 59 56		MCM	0&X1,CODE	7	0846	M 0#0 U45			1502
7918 59 57		MCM		1	0853	M			1502
7919 59 58		FBCEQ	DOIT,CODE-3,M,K					MACRO	
7920		BCE	DOIT,CODE-3,M	8	0854	B 893 U42 M		GEN	1502
7921		BCE	DOIT,CODE-3,K	8	0862	B 893 U42 K		GEN	1502
7922 59 59	OUT	FENDX	C,,,,,SYS1,CONTINUE					MACRO	
7923	OUT	BSS	333,C	5	0870	B 333 C		GEN	1502
7924		SBR	TCLEAR,SYS1	7	0875	H 710 W14		GEN	1503
7925		LCA	@CONTINUE,110	7	0882	L U69 110		GEN	1503
7926		B	MONTER	4	0889	B 700		GEN	1503
7927 59 60	DOIT	MCM	@,2&X1	7	0893	M U70 0#2			1503
7928 59 61		SBR	KLOBR6,2&X1	7	0900	H S03 0#2			1503
7929 59 62		MVDWN	X1,X3					MACRO	
7930		LCA	0&X1, 0&X3	7	0907	L 0#0 0&0		GEN	1503
7931		SAR	X1	4	0914	Q 089		GEN	1504
7932		C	0&X3	4	0918	C 0&0		GEN	1504
7933		SAR	X3	4	0922	Q 099		GEN	1504
7934 59 63		LCA	1&X3,2&X3	7	0926	L 0&1 0&2			1504
7935 59 64		SBR	X3	4	0933	H 099			1504
7936 59 65		MCM	0&X1,0N	7	0937	M 0#0 U36			1504
7937 59 66		MCM		4	1	0944	M		1504
7938 59 67		SAR	X1	4	0945	Q 089			1505
7939 59 68		MZ	@K@,ON-1	7	0949	Y U71 U35			1505
7940 59 69		MZ	@K@,OFF-1	7	0956	Y U71 U32			1505
7941 59 70		BWZ	*E5,CODE,2	8	0963	V 975 U45 2			1505
7942 59 71		B	FLIP	4	0971	B 983			1505
7943 59 72		BWZ	CKCOM,CODE-2,2	4	0975	V 997 U43 2			1505
7944 59 73	FLIP	MCM	CODE,X2	7	0983	M U45 094			1506
7945 59 74		MCM	0&X2,CODE	7	0990	M 0-0 U45			1506
7946 59 75	CKCOM	B	ADK	4	0997	B #20			1506
7947 59 76	KILL	C	0&X1	4	1001	C 0#0			1506
7948 59 77		SAR	X1	4	1005	Q 089			1506
7949 59 78		SBR	X3,4&X3	7	1009	H 099 0&4			1506
7950 59 79		B	START	4	1016	H 838			1506
7951 59 80	ADK	MN	0&X1	4	1020	D 0#0			1507
7952 59 81		SAR	X1	4	1024	Q 089			1507
7953 59 82		BCE	LIGHT,CODE-3,K	8	1028	B S54 U42 K			1507
7954 59 83		MCM	0&X1,BOX#1	7	1036	M 0#0 U72			1507
7955 59 84		MCM	BOX,*E8	7	1043	M U72 #57			1507

PROCESS IF SENSE SWITCH

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
7956	59 85		BCE	AOK2,001234560,0	4	8	1050	B /02 U79 0	MACRO	1507
7957	59 86		CHAIN	6					GEN	1507
7958			BCE		4	1	1058	B	GEN	1508
7959			BCE		4	1	1059	B	GEN	1508
7960			BCE		4	1	1060	B	GEN	1508
7961			BCE		4	1	1061	B	GEN	1508
7962			BCE		4	1	1062	B	GEN	1508
7963			BCE		4	1	1063	B	GEN	1508
7964	59 87		FTMSG	37,ILLEGAL SENSE SWITCH,CODE,22					MACRO	
7965			CS	332	4	4	1064	/ 332	GEN	1508
7966			CS		4	1	1068	/	GEN	1508
7967			SW	FAILSW	4	4	1069	, 184	GEN	1509
7968			MN	CODE,224&22	4	7	1073	D U45 246	GEN	1509
7969			MN		4	1	1080	D	GEN	1509
7970			MN		4	1	1081	D	GEN	1509
7971			MCW	ERROR 37 - ILLEGAL SENSE SWITCH, STATEMENT a	4	4	1082	M V22	GEN	1509
7972			H		4	1	1086	Z	GEN	1509
7973			BCV	*E5	4	5	1087	B #96 a	GEN	1509
7974			B	*E3	4	4	1092	B #98	GEN	1510
7975			CC	1	4	2	1096	F 1	GEN	1510
7976	59 88		B	KILL	4	4	1098	B #01	GEN	1510
7977	59 89		A	E1,BDX	4	4	1102	A V23 U72	GEN	1510
7978	59 90	AOK2	MN	BOX, MASK1	4	7	1109	D U72 U41	GEN	1510
7979	59 91		MCW	ON, MASK1-1	4	7	1116	M U36 U40	GEN	1510
7980	59 92		MCW	OFF, X2	4	7	1123	M U33 094	GEN	1510
7981	59 93		MCW	OEX2, X2	4	7	1130	M 0-0 094	GEN	1511
7982	59 94		S	E10, X2E1	4	7	1137	S V25 095	GEN	1511
7983	59 95		C	CODE, X2	4	7	1144	C U45 094	GEN	1511
7984	59 96		BE	NOXTR	4	5	1151	B S39 S	GEN	1511
7985	59 97		MCW	OFF, MASK2	4	7	1156	M U33 U49	GEN	1511
7986	59 98		LCA	MASK2, OEX3	4	7	1163	L U49 0E0	GEN	1512
7987	59 99		LCA	MASK1	4	4	1170	L U41	GEN	1512
7988	60 00		SBR	X3	4	4	1174	H 099	GEN	1512
7989	60 01	RETRN	C	OEX1	4	4	1178	C 0#0	GEN	1512
7990	60 02		SAR	X1	4	4	1182	Q 089	GEN	1512
7991	60 03		LCA	E1X1, OEX3	4	7	1186	L 0#1 0E0	GEN	1512
7992	60 04		SBR	X3	4	4	1193	H 099	GEN	1512
7993	60 05	KLOBR	BCE	START, 0,	4	4	1197	B 838 000	GEN	1513
7994	60 06		FQUIT						MACRO	
7995			CS	332	4	4	1205	/ 332	GEN	1513
7996			CS		4	1	1209	/	GEN	1513
7997			CC	1	4	2	1210	F 1	GEN	1513
7998			MCW	MESSAGE 2 - OBJECT PROGRAM TOO LARGE, 270	4	7	1212	M V61 270	GEN	1513
7999			W		4	1	1219	2	GEN	1513
8000			CC	1	4	2	1220	F 1	GEN	1513
8001			BCE	E6, MONTOR, 1	4	4	1222	B S35 769 1	GEN	1514
8002			RWD	1	4	8	1230	U XUI R	GEN	1514
8003			H	*-3	4	4	1235	. S35	GEN	1514
8004	60 07	NOXTR	LCA	MASK1, OEX3	4	7	1239	L U41 0E0	GEN	1514
8005	60 08		SBR	X3	4	4	1246	H 099	GEN	1514

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8006	60 09		B	RETRN	4	4	1250	B /78	GEN	1514
8007	60 10	LIGHT	MCW	0EX1,BOX	4	7	1254	M 0#0 U72	GEN	1514
8008	60 11		MCW	BOX,*E8	4	7	1261	M U72 S75	GEN	1515
8009	60 12		BCE	ADK3,@1234a,0	4	8	1268	B T17 V65 0	MACRO	1515
8010	60 13		CHAIN	3					GEN	1515
8011			BCE		4	1	1276	B	GEN	1515
8012			BCE		4	1	1277	B	GEN	1515
8013			BCE		4	1	1278	B	GEN	1515
8014	60 14		FTMSG	36,ILLEGAL SENSE LIGHT, CODE,21	4	4	1279	/ 332	MACRO	1515
8015			CS	332	4	1	1283	/	GEN	1515
8016			CS		4	4	1284	, 184	GEN	1516
8017			SN	FAILSW	4	7	1288	D U45 245	GFN	1516
8018			MN	CODE,224821	4	1	1295	D	GFN	1516
8019			MN		4	1	1296	D	GFN	1516
8020			MN		4	4	1297	M W07	GFN	1516
8021			MCW	ERROR 36 - ILLEGAL SENSE LIGHT, STATEMENT a	4	1	1301	2	GEN	1516
8022			W		4	5	1302	B T11 a	GEN	1516
8023			BCV	*E5	4	4	1307	B T13	GEN	1517
8024			B	*E3	4	2	1311	F 1	GEN	1517
8025			CC	1	4	4	1313	B #01	GEN	1517
8026	60 15		B	KILL	4	4	1317	M W10 W13	GEN	1517
8027	60 16		MCW	ADK3	4	7	1324	A U72 W13	GEN	1517
8028	60 17		A	ADK3,WORK3#3	4	7	1331	M W13 U56	GEN	1517
8029	60 18		MCW	BOX,WORK3	4	7	1338	M U33	GEN	1517
8030	60 19		MCW	WORK3, MASK3-1	4	4	1342	M W13 U61	GEN	1518
8031	60 20		MCW	OFF	4	7	1349	M U36 094	GEN	1518
8032	60 21		MCW	WORK3, MASK4	4	7	1356	M 0-0 094	GEN	1518
8033	60 22		MCW	ON,X2	4	7	1363	S V25 095	GEN	1518
8034	60 23		MCW	0EX2,X2	4	7	1370	C U45 094	GEN	1518
8035	60 24		S	E10,X2E1	4	5	1377	B U12 S	GEN	1519
8036	60 25		C	CODE,X2	4	7	1382	M U36 U49	GEN	1519
8037	60 26		BE	CHEAP	4	7	1389	L U49 060	GEN	1519
8038	60 27		MCW	ON, MASK2	4	4	1400	L U57	GEN	1519
8039	60 28		LCA	ON, MASK2, 0EX3	4	4	1404	H 099	GEN	1519
8040	60 29		LCA	MASK4	4	4	1408	B /78	GEN	1519
8041	60 30		LCA	MASK3	4	7	1412	L U57 060	GEN	1520
8042	60 31		SBR	X3	4	4	1423	H 099	GEN	1520
8043	60 32	CHEAP	B	RETRN	4	4	1427	B /78	GEN	1520
8044	60 33		LCA	MASK4, 0EX3	4	4	1433		GEN	1520
8045	60 34		LCA	MASK3	4	3	1436		GEN	1520
8046	60 35		SBR	X3	4	5	1441		GEN	1520
8047	60 36		B	RETRN	4	1	1442		GEN	1521
8048	60 37	OFF	DCW	#3	4	3	1445		GEN	1521
8049	60 38	ON	DCW	#3	4	4	1449		GEN	1521
8050	60 39	MASK1	DCW	@B	4	4	1457		GEN	1521
8051	60 40	CODE	DCW	#1	4	4	1461		GEN	1521
8052	60 41	MASK2	DCW	#3	4	4			GEN	1521
8053	60 42	MASK3	DCW	@B	4	4			GEN	1521
8054	60 43	MASK4	DCW	@V	4	4			GEN	1521
8055	60 44	LTORG	DCW	@,	4	4			GEN	1521
			LTORG	*	4	4		1462		

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
7925		DCW	@CONTINUE@	4	1469	LIT	1521
			@	4	1470	LIT	1521
			@K@	4	1471	LIT	1522
7954	BOX		#01	4	1472	AREA	1522
7956			@123456@	4	1479	LIT	1522
7971			@ERROR 37 - ILLEGAL SENSE SWITCH, STATEMENT @	4	43	LIT	1524
			@	4	1522	LIT	1524
			@	4	1523	LIT	1524
7998			@10	4	2	LIT	1525
			@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	4	36	LIT	1525
			@1234@	4	4	LIT	1526
8021			@ERROR 36 - ILLEGAL SENSE LIGHT, STATEMENT @	4	42	LIT	1528
			@080@	4	1607	LIT	1528
8027	WORK3		#03	4	3	LIT	1528
8056 60 45	SYS1	DCW	@	4	3	AREA	1528
8057 60 46		XFR	START	4	1	AREA	1528
							1529

B 838

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8058	60 47		JOB	1401 FORTRAN CONTINUE PHASE						
8059	60 48		FBEGN	CONTINUE,X1,,,X3,,6					MACRO	
8060			SFX	6					GEN	1532
8061		110	DCW	@CONTINUE@	6	8	0110		GEN	
8062		X1	EQU	089	6		0089		GEN	
8063		X3	EQU	099	6		0099		GEN	
8064	60 49		ORC	XBEGIN				0838		
8065	60 50	START	BCE	OUT,0&X1,	6	8	0838	B 861 0#0		1533
8066	60 51		MCW	0&X1,CODE#4	6	7	0846	M 0#0 925		1533
8067	60 52		BCE	ISCTU,CODE-3,C	6	8	0853	B 884 922 C		1533
8068	60 53	OUT	FENDX	C,,,,,SYSL,DOMSK					MACRO	
8069		OUT	BSS	333,C	6	5	0861	B 333 C	GEN	1533
8070			SBR	TCLEAR,SYSL	6	7	0866	H 710 931	GEN	1533
8071			LCA	@DOMSK@,110	6	7	0873	L 930 110	GEN	1534
8072			B	MONTER	6	4	0880	B 700	GEN	1534
8073	60 54	ISCTU	MVDWN	X1,X3					MACRO	
8074		ISCTU	LCA	0&X1, 0&X3	6	7	0884	L 0#0 0&0	GEN	1534
8075			SAR	X1	6	4	0891	Q 089	GEN	1534
8076			C	0&X3	6	4	0895	C 0&0	GEN	1534
8077			SAR	X3	6	4	0899	Q 099	GEN	1534
8078	60 55		LCA	1&X1,2&X3	6	7	0903	L 0#1 0&2		1534
8079	60 56		C	0&X1	6	4	0910	C 0#0		1535
8080	60 57		SAR	X1	6	4	0914	Q 089		1535
8081	60 58		B	START	6	4	0918	B 838		1535
8082	60 59		LTDG	*	6			0922		
	8066	CODE	DCW	#04	6	4	0925		AREA	1535
	8071		@DOMSK@		6	5	0930		LIT	1535
8083	60 60	SYS1	DCW	@	6	1	0931			1535
8084	60 61		XFR	START	6			B 838		1536

SYSTEM GROUP MARK



SEQ PG LIN LABEL OP OPERANDS SFX CT LOCN INSTRUCTION TYPE CARD

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8085 60 62 JOB 1401 FORTRAN DO PHASE
8086 60 63 FBEGN DOMSK,X1,X2,R,X3,*,*
8087 SFX *
8088 DCW @DOMSK@
8089 EQU 089
8090 EQU 094
8091 DCW 000
8092 DC 00
8093 EQU 099
8094 60 64 * DO PHASE ALGORITHM
8095 60 65 *
8096 60 66 *
8097 60 67 *
8098 60 68 *
8099 60 69 *
8100 60 70 *
8101 60 71 *
8102 60 72 *
8103 60 73 *
8104 60 74 *
8105 60 75 *
8106 60 76 *
8107 60 77 *
8108 60 78 *
8109 60 79 *
8110 60 80 *
8111 60 81 *
8112 60 82 *
8113 60 83 *
8114 60 84 *
8115 60 85 *
8116 60 86 *
8117 60 87 *
8118 60 88 *
8119 60 89 *
8120 60 90 *
8121 60 91 *
8122 60 92 *
8123 60 93 *
8124 60 94 *
8125 60 95 *
8126 60 96 *
8127 60 97 *
8128 60 98 *
8129 60 99 *
8130 61 00 *
8131 61 01 *
8132 61 02 *
8133 61 03 *
8134 61 04 *

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OUTER

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1 N NO SAME DIFF
B XT B XT B XT
N GM T BK T IN T BK
E EZ B BK B IN B BK
R HD - BK - IN - BK

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ORG XBEGIN
SW GH1,GM2
SW GM3,GM4
MCW X3,HEX3#3
BWZ OUT,000EX1,1
MCW @ @,2EX1
SBR KLOBR&6,2EX1
C 000EX1
SAR X1
C 002EX1,@D@
BU DUN
CW XDDAD1,XDDAD2
CW XDDAD3,XDOIINI
MCW 005EX1,X2
MCW 000EX2,TOP#3
MCW 000EX1,X2
SAR X1
MCW 000EX2,BOTM#3
ZA TOP,ACCUM#3
S BOTM,ACCUM
MCW @N@,SWTCH
BWZ ERR1,ACCUM,B
MCW X1,X2
MCW @ @,EXIT
MCW @T@,GOBAK-3
MCW @B@,NOAPX
C 000EX2
C X2
C 002EX2,@D@

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12-6-8

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8135	61	05	BU	DIFNT	%	5	1020	B #90 /		1546
8136	61	06	MCH	000EX2,X3	%	7	1025	M 0-0 099		1546
8137	61	07	C	000EX3, TOP	%	7	1032	C 0E0 W42		1546
8138	61	08	BH	LOOP	%	5	1039	B #04 U		1546
8139	61	09	C	000EX3, BOTM	%	7	1044	C 0E0 W45		1546
8140	61	10	BH	ERR2	%	5	1051	B U42 U		1546
8141	61	11	BCE	RUDIF, 1EX2, H	%	8	1056	B #71 0-1 H		1547
8142	61	12	MCH	@E@, 1EX2	%	7	1064	M W55 0-1		1547
8143	61	13	BL	DIFNT	%	5	1071	B #90 T		1547
8144	61	14	MCH	@H@, 1EX2	%	7	1076	M W56 0-1		1547
8145	61	15	MCH	5EX2, EXIT	%	7	1083	M 0-5 W21		1547
8146	61	16	BCE	MDIFY, 4EX1, H	%	8	1090	B /20 0#4 H		1548
8147	61	17	MCH	@N@, NOAPX	%	7	1098	M W49 S16		1548
8148	61	18	BCE	MDIFY, 4EX1,	%	8	1105	B /20 0#4		1548
8149	61	19	MCH	@B@, GOBAK-3	%	7	1113	M W54 W27		1548
8150	61	20	MCH	BOTM, MASK	%	7	1120	M W45 W34		1548
8151	61	21	SH	006EX1	%	4	1127	, 0#6		1549
8152	61	22	MCH	008EX1, MASK-9	%	7	1131	M 0#8 W25		1549
8153	61	23	MCH	008EX1, GOBAK	%	7	1138	M 0#8 W30		1549
8154	61	24	B	TEST	%	4	1145	B T01		1549
8155	61	25	DCW	@, @	%	1	1149			1549
8156	61	26	DCW	@	%	3	1152	W18		1549
8157	61	27	B	TEST	%	4	1153	B T01		1549
8158	61	28	DCW	@#@	%	1	1157			1550
8159	61	29	DCW	@M1	%	3	1160	W09		1550
8160	61	30	B	TEST	%	4	1161	S T01		1550
8161	61	31	DCW	@, @	%	1	1165			1550
8162	61	32	DCW	@M2	%	3	1168	W12		1550
8163	61	33	BWZ	M3IS1, 000EX1, 1	%	8	1169	V T86 0#0 1		1550
8164	61	34	B	TEST	%	4	1177	B T01		1550
8165	61	35	DCW	@, @	%	1	1181			1551
8166	61	36	DCW	@M3	%	3	1184	W15		1551
8167	61	37	BWZ	SEND, 000EX1, 1	%	8	1185	V /97 0#0 1		1551
8168	61	38	B	ERROR	%	4	1193	R U87 099		1551
8169	61	39	MCH	HEX3, X3	%	7	1197	M W37 099		1551
8170	61	40	MN	000EX1	%	4	1204	D 0#0		1551
8171	61	41	SAR	X1	%	4	1208	Q 089		1551
8172	61	42	NOP	KLOBR	%	4	1212	N S59		1552
8173	61	43	NOP	REG	%	4	1216	N S40		1552
8174	61	44	A	@1, GNSTMZ	%	7	1220	A W57 151		1552
8175	61	45	LCA	MASK, 000EX3	%	7	1227	L W34 0E0		1552
8176	61	46	CHAIN 2		%				MACRO	
8177			LCA		%	1	1234	L	GEN	1552
8178			LCA		%	1	1235	L	GEN	1552
8179	61	47	SBR	X3	%	4	1236	H 099		1552
8180	61	48	LCA	GM2-1, 0EX3	%	7	1240	L W25 0E0		1553
8181	61	49	CHAIN 8		%				MACRO	
8182			LCA		%	1	1247	L	GEN	1553
8183			LCA		%	1	1248	L	GEN	1553
8184			LCA		%	1	1249	L	GEN	1553

GROUP MK

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8185			LCA		8	1	1250	L	GEN	1553
8186			LCA		8	1	1251	L	GEN	1553
8187			LCA		8	1	1252	L	GEN	1553
8188			LCA		8	1	1253	L	GFN	1554
8189			LCA		8	1	1254	L	GEN	1554
8190	61 50		SBR	HEX3	8	4	1255	H W37		1554
8191	61 51	KLOBR	BCE	START,0,	8	8	1259	B 859 000		1554
8192	61 52		FQUIT						MACRO	
8193			CS	332	8	4	1267	/ 332	GFN	1554
8194			CS		8	1	1271	/	GEN	1554
8195			CC	1	8	2	1272	F 1	GEN	1554
8196			MCM	MESSAGE 2 - OBJECT PROGRAM TOO LARGE,270	8	7	1274	M W93 270	GEN	1555
8197			W		8	1	1281	2	GEN	1555
8198			CC	1	8	2	1282	F 1	GEN	1555
8199			BCE	*66,MONTOR,1	8	8	1284	B S97 769 1	GEN	1555
8200			RWD	1	8	5	1292	U 3U1 R	GEN	1555
8201			H	*-3	8	4	1297	. S97	GEN	1555
8202	61 53	TEST	SBR	X2	8	4	1301	H 094		1555
8203	61 54		C	000&X1,000&X2	8	7	1305	C 0+0 0-0		1556
8204	61 55		SAR	X1	8	4	1312	Q 089 /		1556
8205	61 56		BU	ERROR	8	5	1316	B U80 /		1556
8206	61 57		MCM	003&X2,*&7	8	7	1321	M 0-3 T34		1556
8207	61 58		MCM	000&X1,000	8	7	1328	M 0+0 000		1556
8208	61 59		S	COUNT#1	8	4	1335	S W94		1556
8209	61 60	OK	A	&1,COUNT	8	7	1339	A W57 W94		1557
8210	61 61		BCE	004&X2,COUNT,D	8	8	1346	B 0-4 W94 D		1557
8211	61 62		MN	000&X1,RUOK&7	8	7	1354	D 0+0 T72		1557
8212	61 63		SAR	X1	8	4	1361	Q 089		1557
8213	61 64	RUOK	BCE	OK,20123456789a,0	8	8	1365	B T39 X04 0		1557
8214	61 65		CHAIN	9					MACRO	
8215			BCE		8	1	1373	B	GEN	1557
8216			BCE		8	1	1374	B	GEN	1557
8217			BCE		8	1	1375	B	GFN	1558
8218			BCE		8	1	1376	B	GEN	1558
8219			BCE		8	1	1377	B	GEN	1558
8220			BCE		8	1	1378	B	GEN	1558
8221			BCE		8	1	1379	B	GEN	1558
8222			BCE		8	1	1380	B	GEN	1558
8223			BCE		8	1	1381	B	GEN	1558
8224	61 66		B	ERROR	8	4	1382	B U80		1559
8225	61 67	M3I S1	MCM	ONEADR,M3	8	7	1386	M 142 W15		1559
8226	61 68		B	SEND	8	4	1393	B /97		1559
8227	61 69	ERR1	FTMSG	38,ILLEGAL RANGE OF DO,TOP,21	8	4	1397	/ 332	MACRO	
8228		ERR1	CS	332	8	4	1397	/ 332	GEN	1559
8229			CS		8	1	1401	/	GEN	1559
8230			SW	FAILSW	8	4	1402	, 184	GFN	1559
8231			MN	TOP,224&21	8	7	1406	D W42 245	GEN	1559
8232			MN		8	1	1413	D	GEN	1560
8233			MN		8	1	1414	D	GEN	1560
8234			MCM	ERROR 38 - ILLEGAL RANGE OF DO, STATEMENT a	8	4	1415	M X46	GEN	1560

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8235			M			1	1419	2	GEN	1560
8236			BCV	*E5		5	1420	B U29 @	GEN	1560
8237			B	*E3		4	1425	B U31	GEN	1560
8238			CC	1		2	1429	F 1	GEN	1560
8239	61 70	AVOID	MCM	2B@,SWTCH		7	1431	M W54 S12		1561
8240	61 71		B	CKSYN		4	1438	B /45		1561
8241	61 72	ERR2	B	FTMSG 39,ILLEGAL NESTING,TOP,17					MACRO	
8242		ERR2	CS	332		4	1442	/ 332	GEN	1561
8243			CS			1	1446	/	GEN	1561
8244			SW	FAILSW		4	1447	, 184	GEN	1561
8245			MN	TOP,224&17		7	1451	D W42 241	GEN	1561
8246			MN			1	1458	D	GEN	1561
8247			MN			1	1459	D	GEN	1562
8248			MCM	@ERROR 39 - ILLEGAL NESTING, STATEMENT @		4	1460	M X94	GEN	1562
8249			W			1	1464	2	GEN	1562
8250			BCV	*E5		5	1465	B U74 @	GEN	1562
8251			B	*E3		4	1470	B U76	GEN	1562
8252			CC	1		2	1474	F 1	GEN	1562
8253	61 73		B	AVOID		4	1476	B U31		1562
8254	61 74	ERROR	B	FTMSG 40,DO SYNTAX,TOP,11					MACRO	
8255		ERROR	CS	332		4	1480	/ 332	GEN	1563
8256			CS			1	1484	/	GEN	1563
8257			SW	FAILSW		4	1485	, 184	GEN	1563
8258			MN	TOP,224&11		7	1489	D W42 235	GEN	1563
8259			MN			1	1496	D	GEN	1563
8260			MN			1	1497	D	GEN	1563
8261			MCM	@ERROR 40 - DO SYNTAX, STATEMENT @		4	1498	M Y16	GEN	1563
8262			W			1	1502	2	GEN	1564
8263			BCV	*E5		5	1503	B V12 @	GEN	1564
8264			B	*E3		4	1508	B V14	GEN	1564
8265			CC	1		2	1512	F 1	GEN	1564
8266	61 75		C	001&X1		4	1514	C 0*1		1564
8267	61 76		SAR	X1		4	1518	Q 089		1564
8268	61 77		B	KLOBR		4	1522	B S5@		1564
8269	61 78		SBR	X1,005&X1		7	1526	H 089 0*5		1565
8270	61 79	DUN	MCM	HEX3,X3		7	1533	M W37 099		1565
8271	61 80	OUT	MN	0&X3		4	1540	D 0&0		1565
8272	61 81		SAR	X2		4	1544	Q 094		1565
8273	61 82	KLEAR	CS	0&X2		4	1548	/ 0-0		1565
8274	61 83		SBR	X2		4	1552	H 094		1565
8275	61 84		C	0&X2,DOEND		7	1556	C 0-0 Y99		1565
8276	61 85		BU	KLEAR		5	1563	B V4R /	MACRO	1566
8277	61 86		FENDX	E,GMI,,BEGINZ,,TABELZ,RESORT 1						
8278			BSS	333,E		5	1568	B 333 E	GEN	1566
8279			SBR	INITX1&3,BEGINZ		7	1573	H 796 /75	GEN	1566
8280			SBR	YCLEAR,TABELZ		7	1580	H 710 M99	GEN	1566
8281			LCA	@RESORT 1@,110		7	1587	L Y24 110	GEN	1566
8282			B	MONTER		4	1594	B 700	GEN	1566
8283	61 87	GMI	DC	@ @		1	1598			1566
8284	61 88		DCW	31@		1	1599			1566

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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8285	61	89		DC	DDADR1	*	3	1602	924		1567
8286	61	90		DCW	@T@	*	1	1603			1567
8287	61	91		DC	DDADR2	*	3	1606	921		1567
8288	61	92	M1	DCW	#3	*	3	1609			1567
8289	61	93	M2	DCW	#3	*	3	1612			1567
8290	61	94	M3	DCW	#3	*	3	1615			1567
8291	61	95	I	DCW	#3	*	3	1618			1568
8292	61	96	EXIT	DCW	#3	*	3	1621			1568
8293	61	97	GM4	DC	@ @	*	1	1622			1568
8294	61	98		DC	#3	*	3	1625			1568
8295	61	99	GH2	DC	@ @	*	1	1626			1568
8296	62	00		DCW	@T@	*	1	1627			1568
8297	62	01	GOBAK	DC	#3	*	3	1630			1568
8298	62	02	GM3	DC	@ @	*	1	1631			1568
8299	62	03	MASK	DC	#3	*	3	1634			1568
8300	62	04		LTRG	*	*	3	1635			1568
		8108	HEX3	DCW	#03	*	3	1637		AREA	1568
					@ @	*	1	1638		LIT	1568
					@ @	*	1	1639		LIT	1568
8119		TOP			#03	*	3	1642		AREA	1568
8122		BOTM			#03	*	3	1645		AREA	1569
8123		ACCUM			#03	*	3	1648		AREA	1569
					@ @	*	1	1649		LIT	1569
					@ @	*	3	1652		LIT	1569
					@T@	*	1	1653		LIT	1569
					@ @	*	1	1654		LIT	1569
					@ @	*	1	1655		LIT	1569
					@ @	*	1	1656		LIT	1570
					@ @	*	1	1657		LIT	1570
8196		COUNT			@ @	*	36	1693		LIT	1570
8208					#01	*	1	1694		AREA	1570
8213					@123456789@	*	10	1704		LIT	1571
8234					@ERROR 38 - ILLEGAL RANGE OF DO, STATEMENT @	*	42	1745		LIT	1573
8248					@ERROR 39 - ILLEGAL NESTING, STATEMENT @	*	38	1784		LIT	1574
8261					@ERROR 40 - DO SYNTAX, STATEMENT @	*	32	1815		LIT	1575
8281					@RESORT 1@	*	8	1824		LIT	1576
8301	62	05		DCW	@ @	*	1	1825		LIT	1576
8302	62	06		ORG	*@X00	*			1900		
8303	62	07	DOEND	EQU	*	*					
8304	62	08		XFR	INITL	*			1899	9 838	1577

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8305	62	09		JOB	1401 FORTRAN RESORT PHASE ONE						
8306	62	10		FBEGN	RESORT 1,X1,X2,X3,Z						
8307				SFX	Z						
8308			110	DCW	@RESORT 1@		8	0110		MACRO	
8309			X1	EQU	089			0089		GEN	1580
8310			X2	EQU	094			0094		GEN	
8311			X3	EQU	099			0099		GEN	
8312	62	11		ORG	XBEGIN				0838		
8313	62	12	THREE	DCW	0		1	0838			1581
8314	62	13	COUNT	DCW	000		3	0841			1581
8315	62	14	ASIDE	DCW	000		3	0844			1581
8316	62	15	TBL1	DCW	000		3	0847			1581
8317	62	16	LAST	DCW	000		3	0850			1581
8318	62	17	STORE	DCW	000		3	0853			1581
8319	62	18	SAUCE	DCW	000		3	0856			1581
8320	62	19	DIFF	DCW	000		3	0859			1582
8321	62	20	ADDIN	DCW	000		3	0862			1582
8322	62	21	INTNO	DCW	000		3	0865			1582
8323	62	22	FROMX	EQU	SAUCE						
8324	62	23	WKBK1	DCW	00000		5	0870			1582
8325	62	24	WKBK2	DCW	00000		5	0875			1582
8326	62	25	AREAL	DCW	00000		5	0880			1582
8327	62	26	ADRES	EQU	BSAUCE						
8328	62	27	TBL2	DCW	000		3	0883			1582
8329	62	28	TEST1	DCW	0		1	0884			1583
8330	62	29	ZONE	DCW	99		2	0886			1583
8331	62	30	HOLD	DCW	@		5	0891			1583
8332	62	31	CNVRT	DCW	@		1	0896			1583
8333	62	32	TABLE	DCW	9		1	0897			1583
8334	62	33		DC	9		1	0898			1583
8335	62	34		DCW	@Z9@		2	0900			1583
8336	62	35		DCW	@R9@		2	0902			1583
8337	62	36		DCW	@I9@		2	0904			1584
8338	62	37		DCW	@Z@		2	0906			1584
8339	62	38		DCW	@Z@		2	0908			1584
8340	62	39		DCW	@R@		2	0910			1584
8341	62	40		DCW	@I@		2	0912			1584
8342	62	41		DCW	@R@		2	0914			1584
8343	62	42		DCW	@Z@		2	0916			1584
8344	62	43		DCW	@RR@		2	0918			1585
8345	62	44		DCW	@IR@		2	0920			1585
8346	62	45		DCW	@I@		2	0922			1585
8347	62	46		DCW	@Z@		2	0924			1585
8348	62	47		DCW	@R@		2	0926			1585
8349	62	48		DCW	@I@		2	0928			1585
8350	62	49	K5TK3	SBR	CMBCKE3		4	0929	H 968		1585
8351	62	50	ZA	ZA	CNVRT-3,X1		7	0933	E 893 089		1586
8352	62	51	MZ	MZ	@ @,X1		7	0940	Y /26 089		1586
8353	62	52	A	A	X1		4	0947	A 089		1586
8354	62	53		MZ	TABLE&X1,CNVRT-2		7	0951	Y 827 894		1586

CONVERT FIVE DIGIT NUMBER  
TO THREE DIGIT ADRES  
BLANK

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8355 62 54		MZ	TABLE&1&X1,CNVRT	Z	7	0958	Y 828 896		1586
8356 62 55	CMBCK	B	000	Z	4	0965	H 000		1586
8357 62 56	EXPND	SBR	CZONE&10	Z	4	0969	H #24		1587
8358 62 57		MLC	@ @,HOLD	Z	7	0973	M /31 891		1587
8359 62 58		MIN	CNVRT,HOLD	Z	7	0980	D 896 891		1587
8360 62 59		MIN		Z	1	0987	D		1587
8361 62 60		MIN		Z	1	0988	D		1587
8362 62 61		MZ	CNVRT,ZONE	Z	7	0989	Y 896 886		1587
8363 62 62		MZ	CNVRT-2,ZONE-1	Z	7	0996	Y 894 885		1587
8364 62 63		MLC	&TABLE&1,CZONE&6	Z	7	1003	M /34 #20		1588
8365 62 64		S	CNVRT	Z	4	1010	S 896		1588
8366 62 65	CZONE	C	ZONE,000	Z	7	1014	C 886 000		1588
8367 62 66		BE	000	Z	5	1021	B 000 S		1588
8368 62 67		A	@1@,HOLD-3	Z	7	1026	A /35 888		1588
8369 62 68		SW	CZONE&4	Z	4	1033	, #18		1588
8370 62 69		A	@002@,CZONE&6	Z	7	1037	A /38 #20		1589
8371 62 70		CW	CZONE&4	Z	4	1044	□ #18		1589
8372 62 71		B	CZONE	Z	4	1048	B #14		1589
8373 62 72	IMVUP	SBR	HERE&3	Z	4	1052	H #91		1589
8374 62 73		MIN	O&X3	Z	4	1056	D 0&0		1589
8375 62 74		SAR	X3	Z	4	1060	Q 099		1589
8376 62 75	RECMK	MCM	I&X3	Z	4	1064	P 0&1		1589
8377 62 76		MIN		Z	1	1068	D		1590
8378 62 77		SBR	X3	Z	4	1069	H 099		1590
8379 62 78		BCE	RECMK,O&X3,+	Z	8	1073	B #64 0&0 #		1590
8380 62 79		SBR	X3,I&X3	Z	7	1081	H 099 0&1		1590
8381 62 80	HERE	B	0	Z	4	1088	B 000		1590
8382 62 81	ERRMS	FQUIT		Z	4	1092	/ 332		MACRO 1590
8383		CS	332	Z	1	1096	/		GEN 1590
8384		CS		Z	2	1097	F 1		GEN 1591
8385		CC		Z	7	1099	M /74 270		GEN 1591
8386		MCM	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@,270	Z	1	1106	2		GEN 1591
8387		W		Z	2	1107	F 1		GEN 1591
8388		CC		Z	9	1109	B /22 769 1		GEN 1591
8389		BCE	#66,MONTOR,1	Z	5	1117	U 211 R		GEN 1591
8390		RWD	1	Z	4	1122	./22		GEN 1591
8391		H	#-3	Z	1	1126	1126		LIT 1592
8392 62 82		LTORG	*	Z	1	1131			LIT 1592
		DCW	@ @	Z	3	1134	898		ADCON 1592
8358		@	@	Z	1	1135			LIT 1592
8364		&TABLE&1		Z	3	1138			LIT 1593
		@1@		Z	3	1174			LIT 1594
		@002@		Z	7	1175	H 856 0&0		1594
8393 62 83	BEGIN	SBR	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	Z	7	1182	H 089 M99		1594
8394 62 84		SBR	SAUCE,O&X3	Z	4	1189	H 847		1594
8395 62 85		SBR	X1,END	Z	7	1193	M 183 S13		1594
8396 62 86		MLC	TBL1	Z	7	1200	Y V23 S12		1594
8397 62 87		MZ	INTST,IMS3&6	Z	7	1207	H 089 000		1594
8398 62 88	TMS3	SBR	@Z@,TMS3&5	Z	7	1207	H 089 000		1594
		SBR	X1,0	Z	7	1207	H 089 000		1594

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8399	62	89	A	010,THREE	Z	7	1214	A V24 838		1595
8400	62	90	C	THREE,030	Z	7	1221	C 838 V25		1595
8401	62	91	BH	TMS3	Z	5	1228	B S07 U		1595
8402	62	92	SBR	COUNT,06X1	Z	7	1233	H 841 0#0		1595
8403	62	93	SBR	TBL2,16X1	Z	7	1240	H 883 0#1		1595
8404	62	94	MLC	0,THREE	Z	7	1247	M V26 838		1596
8405	62	95	BCE	*E5,GNSTM,	Z	8	1254	B S66 151		1596
8406	62	96	B	*E27	Z	4	1262	B S92		1596
8407	62	97	SBR	ADDIN,16X1	Z	7	1266	H 862 0#1		1596
8408	62	98	SBR	CNVRT	Z	4	1273	H 896		1596
8409	62	99	B	EXPND	Z	4	1277	B 969		1596
8410	63	00	MLC	HOLD,WK8K1	Z	7	1281	M 891 870		1597
8411	63	01	B	ROOM	Z	4	1288	B T61		1597
8412	63	02	MLC	GNSTM,WK8K2	Z	7	1292	M 151 875		1597
8413	63	03	A	WK8K2	Z	4	1299	A 875		1597
8414	63	04	A	WK8K2	Z	4	1303	A 875		1597
8415	63	05	A	GNSTM	Z	4	1307	A 151		1597
8416	63	06	A	GNSTM,WK8K2	Z	7	1311	A 151 875		1597
8417	63	07	SBR	CNVRT,16X1	Z	7	1318	H 896 0#1		1598
8418	63	08	B	EXPND	Z	4	1325	B 969		1598
8419	63	09	MLC	HOLD,WK8K1	Z	7	1329	M 891 870		1598
8420	63	10	A	WK8K2,WK8K1	Z	7	1336	A 875 870		1598
8421	63	11	MLC	WK8K1,CNVRT	Z	7	1343	M 870 896		1598
8422	63	12	B	K5TOK3	Z	4	1350	B 929		1598
8423	63	13	MLC	CNVRT,ADDIN	Z	7	1354	M 896 862		1599
8424	63	14	MLC	SAUCE,CNVRT	Z	7	1361	M 856 896		1599
8425	63	15	B	EXPND	Z	4	1368	B 969		1599
8426	63	16	MLC	HOLD,AREA1	Z	7	1372	M 891 880		1599
8427	63	17	C	WK8K1,AREA1	Z	7	1379	C 870 880		1599
8428	63	18	BH	*E5	Z	5	1386	B T95 U		1599
8429	63	19	B	ERRMS	Z	4	1391	B #92		1600
8430	63	20	MESSG	0STARTING ADDRESS OF STATEMENTS0,43,1,K					MACRO	
8431			CC	1	Z	2	1395	F 1	GEN	1600
8432			CS	332	Z	4	1397	/ 332	GEN	1600
8433			CS		Z	1	1401	/	GEN	1600
8434			MCM	0STARTING ADDRESS OF STATEMENTS0,43&200	Z	7	1402	M V56 243	GEN	1600
8435			W		Z	1	1409	Z	GEN	1600
8436			CC	K	Z	2	1410	F K	GEN	1600
8437	63	21	CS	332	Z	4	1412	/ 332		1601
8438	63	22	CS		Z	1	1416	/		1601
8439	63	23	MCM	0SEQ0,208	Z	7	1417	M V59 208		1601
8440	63	24	MCM	0STARTING ADDRESS0,242	Z	7	1424	M V75 242		1601
8441	63	25	MLC	0DISPLAY0,256	Z	7	1431	M V82 256		1601
8442	63	26	W		Z	1	1438	F		1601
8443	63	27	CC	J	Z	2	1439	F J		1601
8444	63	28	CS	392	Z	4	1441	/ 332		1602
8445	63	29	CS		Z	1	1445	/		1602
8446	63	30	LCA	00000,208	Z	7	1446	L V85 208		1602
8447	63	31	MLC	FROMX,X1	Z	7	1453	M 856 089		1602
8448	63	32	SBR	X1,26X1	Z	7	1460	M 089 0#2		1602



1401 FORTRAN RESORT PHASE ONE

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8449 63 33		SBR	X3	Z	4	1467	H 099	GEN	1603
8450 63 34		B	IMVUP	Z	4	1471	B #52	GEN	1603
8451 63 35		MLC	X3,X2	Z	7	1475	M 099 094	MACRO	1603
8452 63 36		FENDX	C...BEGIN,BEGIN,BEGIN,SYSL,RESORT 2						
8453		BSS	333,C						
8454		SBR	INITAP66,BEGIN	Z	5	1482	B 333 C	GEN	1603
8455		SBR	BCLEAR	Z	7	1487	H 786 /75	GEN	1603
8456		SBR	INITXT63,BEGIN	Z	4	1494	H 833	GEN	1603
8457		SBR	YCLEAR,SYSL	Z	7	1498	H 796 /75	GEN	1603
8458		LCA	@RESORT 2@,110	Z	7	1505	H 710 V94	GEN	1603
8459		B	MONTER	Z	7	1512	L V93 110	GEN	1604
8460 63 37		LTORG *		Z	4	1519	B 700	GEN	1604
		DCH	@a	Z		1523	1523	LIT	1604
			@1a	Z	1	1524		LIT	1604
			@3a	Z	1	1525		LIT	1604
			@ a	Z	1	1526		LIT	1604
8434			@STARTING ADDRESS OF STATEMENTS@	Z	1	1526		LIT	1604
			@SEQ@	Z	30	1556		LIT	1605
8440			@STARTING ADDRESS@	Z	3	1559		LIT	1605
8441			@DISPLAY@	Z	16	1575		LIT	1606
			@000@	Z	7	1582		LIT	1606
8458			@RESORT 2@	Z	3	1585		LIT	1606
8461 63 38	SYSL	DCH	@ a	Z	8	1593		LIT	1606
8462 63 39		XFR	BEGIN	Z	1	1594	B /75	LIT	1606
				Z					1607

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
8463 63 40		JOB	1401 FORTRAN RESORT PHASE TWO					
8464 63 41		ORG	BEGIN					
8465 63 42	110	DC						
8466 63 43		MLC	TBL2,X3					
8467 63 44		B	SAVE					
8468 63 45	INIT	SBR	X2,2EX2					
8469 63 46		MZ	X3,ASIDE					
8470 63 47		MLC	X2,X3					
8471 63 48		B	IMVUP					
8472 63 49		MLC	X3,X2					
8473 63 50		MLC	ASIDE,X3					
8474 63 51	SAVE	SBR	STORE,2EX2					
8475 63 52		BWZ	*E5,0EX2,2					
8476 63 53		B	*E9					
8477 63 54		BWZ	CNTNU,2EX2,2					
8478 63 55		MLC	2EX2,X2					
8479 63 56		MLC	0EX2,X2					
8480 63 57		B	*E8					
8481 63 58	CNTNU	MLC	2EX2,X2					
8482 63 59		SBR	INTNO,0EX2					
8483 63 60		SBR	MLPLYE6					
8484 63 61		MZ	@R@,MLPLYE5					
8485 63 62	MLPLY	SBR	X2,0					
8486 63 63		MLC	INTNO,*E14					
8487 63 64		MZ	@R@,*E6					
8488 63 65		SBR	X2,0					
8489 63 66		C	TABELX2,@					
8490 63 67		BU	GNTBL					
8491 63 68		MLC	X1,TABELX2					
8492 63 69		B	SETX1					
8493 63 70	GNTBL	SW	3EX3					
8494 63 71		MLC	TABELX2,5EX3					
8495 63 72		CW	3EX3					
8496 63 73		MLC	X1,2EX3					
8497 63 74		MLC	@1@,TEST1					
8498 63 75		SBR	TABELX2,2EX3					
8499 63 76		MZ	@Z@,TABEL-1EX2					
8500 63 77		SBR	X3,6EX3					
8501 63 78	SETX1	MLC	STORE,X2					
8502 63 79		C	ADRES,STORE					
8503 63 80		BU	RESET					
8504 63 81		BCE	CTOAL,TEST1,0					
8505 63 82		MLC	@@@,TEST1					
8506 63 83		MLC	X1,X3					
8507 63 84		B	IMVUP					
8508 63 85		MZ	@Z@,1EX3					
8509 63 86	CTOAL	MLC	ADDIN,X2					
8510 63 87		LCA	@ @,0EX2					
8511 63 88		MLC	TBL1,X3					
8512 63 89		SBR	X3,3EX3					

5-8 WITH WM ABOVE PROGRAM  
ADRES ONE POS ABOVE TABLE .1

SEQ PG	LIN	LABEL	OP	OPERANDS	TRUE STARTING ADRES	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8513	63	90	MLC	86,CNVRT		Z	7	1476	M 086 896		1619
8514	63	91	B	EXPND		Z	4	1483	B 969		1619
8515	63	92	MLC	HOLD,WKBK1		Z	7	1487	M 891 870		1619
8516	63	93	SBR	CNVRT,08X2		Z	7	1494	H 896 0-0		1619
8517	63	94	B	EXPND		Z	4	1501	B 969		1620
8518	63	95	MLC	HOLD,WKBK2		Z	7	1505	M 891 875		1620
8519	63	96	S	WKBK2,WKBK1		Z	7	1512	S 875 870		1620
8520	63	97	BWZ	*E5,WKBK1,K	IS DIFF NEG	Z	8	1519	V V31 870 K		1620
8521	63	98	B	*E8		Z	4	1527	B V38		1620
8522	63	99	A	@16000@,WKBK1		Z	7	1531	A M67 870		1620
8523	64	00	MLC	WKBK1,CNVRT		Z	7	1538	M 870 896		1621
8524	64	01	B	K5TOK3		Z	4	1545	B 929		1621
8525	64	02	MLC	CNVRT,DIFF	DIFF BET ACT AND FIXED ADRES	Z	7	1549	M 896 859		1621
8526	64	03	SBR	X2,18X2	HIGH ORD ADRES OF SORTED PROGRAM	Z	7	1556	M 094 0-1		1621
8527	64	04	SBR	INTST		Z	4	1563	H 183		1621
8528	64	05	FENDX	C,,,,,SYS2,RESORT 3		Z	4	1563	H 183		1621
8529			BSS	333,C		Z	5	1567	B 333 C	MACRO	1621
8530			SBR	TCLEAR,SYS2		Z	7	1572	H 710 W76	GEN	1622
8531			LCA	@RESORT 3@,110		Z	7	1579	L W75 110	GEN	1622
8532			B	MONTER		Z	4	1586	B 700	GEN	1622
8533	64	06	MLC	X3,ASIDE		Z	7	1590	M 099 844		1622
8534	64	07	MLC	X1,X3		Z	7	1597	M 089 099		1622
8535	64	08	B	IMVUP		Z	4	1604	A #52		1622
8536	64	09	MLC	X3,X1		Z	7	1608	M 099 089		1623
8537	64	10	MLC	ASIDE,X3		Z	7	1615	M 844 099		1623
8538	64	11	BCE	#E15,TEST1,0	SET X1 TO GNMW1&1 OF NXT INSTR	Z	8	1622	B W44 894 0		1623
8539	64	12	MLC	@0@,TEST1		Z	7	1630	M W61 884		1623
8540	64	13	MZ	@Z@,16X1		Z	7	1637	Y W60 0#1		1623
8541	64	14	SBR	X1,4&X1		Z	7	1644	H 089 0#4		1624
8542	64	15	B	INIT		Z	4	1651	B /86		1624
8543	64	16	LTORG *			Z	4	1651	B /86		1624
			DCW	@R@		Z	1	1655	1655	LIT	1624
				@		Z	3	1658		LIT	1624
				@1@		Z	1	1659		LIT	1624
				@2@		Z	1	1660		LIT	1624
				@0@		Z	1	1661		LIT	1624
				@ @		Z	1	1662		LIT	1625
8522				@16000@		Z	5	1667		LIT	1625
8531				@RESORT 3@		Z	8	1675		LIT	1625
8544	64	17	DCW	@ @		Z	8	1675		LIT	1625
8545	64	18	XFR	BEGIN	SYSTEM GROUP MARK	Z	1	1676	B /75		1625

SEQ PG	LIN	LABEL	OP	OPERANDS	RESORT PHASE THREE	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8546	64	19	JOB	1401 FORTRAN		Z	1	0110	1175		1629
8547	64	20	ORG	BEGIN		Z	4	1175	M68		1630
8548	64	21	DC	@3@		Z	4	1179	B /90		1630
8549	64	22	SW	GMM		Z	7	1183	H 099 000		1630
8550	64	23	B	NEXT@7	RE-INIT X3	Z	4	1190	H 850		1630
8551	64	24	SBR	X3,0		Z	4	1194	B 230 0E0		1630
8552	64	25	SBR	LAST	TST FOR BLANKS IN TBL	Z	7	1202	H /89 0E3		1630
8553	64	26	BCE	ADONE,0E,X3,		Z	4	1209	D 0E0		1630
8554	64	27	SBR	NEXT@6,3E,X3		Z	4	1213	Q S23		1631
8555	64	28	MN	0E,X3		Z	4	1217	V Y26 000 S		1631
8556	64	29	SAR	@E7	A ZONE IN TENS POS OF TBL1	Z	8	1225	M 0E0 089		1631
8557	64	30	BWZ	CASE2,0,S	PLACE HI ORD POS OF INST IN X1	Z	7	1232	H 862 0E0		1631
8558	64	31	MLC	0E,X3,X1		Z	7	1239	M 089 M47		1631
8559	64	32	SBR	ADDIN,0E,X3		Z	7	1246	M 089 099		1632
8560	64	33	MLC	X1,PREPI#3	SAVE X1	Z	4	1253	B #52		1632
8561	64	34	MLC	X1,X3		Z	4	1257	M 099 896		1632
8562	64	35	B	IMVUP		Z	4	1264	B 969		1632
8563	64	36	MLC	X3,CNVRT		Z	4	1268	M 891 880		1632
8564	64	37	B	EXPND		Z	7	1275	A M48 880		1632
8565	64	38	MLC	HOLD,AREAL		Z	7	1282	M M47 896		1633
8566	64	39	A	@1@,AREAL		Z	4	1289	B 969		1633
8567	64	40	MLC	PREPI,CNVRT		Z	7	1293	M 891 M42		1633
8568	64	41	B	EXPND		Z	7	1300	S M42 880		1633
8569	64	42	MLC	HOLD,AREAZ	LNGLTH OF NXT INST TO BE MOVED	Z	4	1314	B 969		1633
8570	64	43	S	AREAZ,AREAL	NKT AVAIL POS IN SORTED AREA	Z	7	1318	M 891 870		1634
8571	64	44	MLC	X2,CNVRT		Z	4	1325	B Y90		1634
8572	64	45	B	EXPND		Z	5	1329	B 771 T		1634
8573	64	46	MLC	HOLD,WKBKI		Z	7	1334	M M47 089		1634
8574	64	47	B	NUFRM		Z	8	1341	B T60 M43 1		1634
8575	64	48	BL	SQUEZ	PRINT STMT NO, HI ORD ADRES	Z	4	1349	A M48 208		1634
8576	64	49	MLC	PREPI,X1		Z	4	1356	B V27		1635
8577	64	50	BCE	*E12,TEST2,1		Z	7	1360	M M49 M43		1635
8578	64	51	A	@1@,208	RESET INDICATOR	Z	7	1367	M 099 V26		1635
8579	64	52	B	ADDR1		Z	7	1374	M 0E0 099		1635
8580	64	53	MLC	@0@,TEST2		Z	7	1381	M 0E0 099		1635
8581	64	54	MLC	X3,GARY@6		Z	7	1388	H 0E3 0E4		1635
8582	64	55	MCH	3E,X1,X3		Z	7	1395	# 859 0E3		1636
8583	64	56	MCH	0E,X3,X3		Z	7	1402	M 089 M52		1636
8584	64	57	SBR	3E,X1,4E,X3		Z	7	1409	Y U11 0E9		1636
8585	64	58	MA	DIFF,3E,X1		Z	7	1416	Y U18 0A2		1636
8586	64	59	MCH	X1,HEX1#3		Z	7	1423	Y U25 0A5		1636
8587	64	60	MZ	*-4,9E,X3		Z	7	1430	B U32 0A8		1637
8588	64	61	MZ	*-4,12E,X3		Z	7	1437	B U84 0B2		1637
8589	64	62	MZ	*-4,15E,X3		Z	7	1445	M 082 089		1637
8590	64	63	MZ	*-4,18E,X3	BLANK	Z	7	1452	M 0E0 0B2		1637
8591	64	64	BCE	DUTER,22E,X3,		Z	7	1459	# M55 0B2		1637
8592	64	65	MCH	22E,X3,X1		Z	7	1466	# 859 0B2		1638
8593	64	66	MCH	0E,X1,22E,X3		Z	7				
8594	64	67	MA	@004@,22E,X3		Z	7				
8595	64	68	MA	DIFF,22E,X3		Z	7				

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
8596 64 69		MCW	0&X1,X3	Z	1473	M 0+0 099	1638
8597 64 70		B	ROUND	Z	1480	H U09	1638
8598 64 71	OUTER	SBR	22&X3,4&X2	Z	1484	H 082 0-4	1638
8599 64 72		MA	DIFF,22&X3	Z	1491	# 859 082	1638
8600 64 73		MCW	HEX1,X1	Z	1498	M M52 089	1638
8601 64 74		BCE	*E8,0&X1,B	Z	1505	B V20 0+0 B	1639
8602 64 75		SBR	3&X1,DDADR3	Z	1513	H 0+3 918	1639
8603 64 76	GARY	SBR	X3+0	Z	1520	H 099 000	1639
8604 64 77	ADDR1	MCW	DIFF,227	Z	1527	M 859 227	1639
8605 64 78		MA	X2,227	Z	1534	# 094 227	1639
8606 64 79		MCW	227,X3	Z	1541	M 227 099	1640
8607 64 80		MCW	X3,CNVRT	Z	1548	M 099 896	1640
8608 64 81		B	EXPND	Z	1555	B 969	1640
8609 64 82		MCS	HOLD,244	Z	1559	Z 891 244	1640
8610 64 83		MCW	X3,256	Z	1565	M 099 256	1640
8611 64 84		MA	20042,256	Z	1573	# M55 256	1640
8612 64 85		W		Z	1580	Z	1640
8613 64 86		FORMS		Z			1641
8614		BCV	*E5	Z	1581	B V90 @	1641
8615		B	*E3	Z	1586	B V92	1641
8616		CC	1	Z	1590	F 1	1641
8617 64 87		MLC	X2,SYMBL-1	Z	1592	M 094 X01	1641
8618 64 88		BCE	CNTU2,0&X1,	Z	1599	B W74 0+0	1641
8619 64 89		MN	0&X2	Z	1607	D 0-0	1641
8620 64 90		SAR	X2	Z	1611	Q 094	1642
8621 64 91	CTNMV	MCM	0&X1	Z	1615	P 0+0	1642
8622 64 92		SAR	STRX1&6	Z	1619	Q M41	1642
8623 64 93		MCM	0&X1,1&X2	Z	1623	P 0+0 0-1	1642
8624 64 94		MN		Z	1630	D	1642
8625 64 95		SBR	X2	Z	1631	H 094	1642
8626 64 96	STRX1	SBR	X1,0	Z	1635	H 089 000	1642
8627 64 97		BCE	C1NMV,0&X2,*	Z	1642	B W15 0-0 #	1643
8628 64 98		BWZ	*E5,0&X1,2,	Z	1650	V M62 0+0 2	1643
8629 64 99		B	CHNGE	Z	1658	B W89	1643
8630 65 00		BWZ	SYMBL,2&X1,2,	Z	1662	V X02 0+2 2	1643
8631 65 01		B	CHNGE	Z	1670	B W88	1643
8632 65 02	ENTU2	SBR	X1,1&X1	Z	1674	H 089 0+1	1643
8633 65 03		MLC	2&X1,X3	Z	1681	M M56 X09	1644
8634 65 04	CHNGE	MLC	0&X3,0	Z	1688	M 0+2 099	1644
8635 65 05		SBR	@ @,0&X1	Z	1695	H 0&0 000	1644
8636 65 06	SYMBL	MLC	BOTOM	Z	1702	M M57 0+0	1644
8637 65 07		NOP		Z	1709	N X61	1644
8638 65 08		MN	0&X1	Z	1713	D 0+0	1644
8639 65 09		MN		Z	1717	D	1644
8640 65 10		SAR	X1	Z	1718	Q 089	1645
8641 65 11		MN	0&X2	Z	1722	D 0-0	1645
8642 65 12		SAR	TRAHM&6	Z	1726	Q X36	1645
8643 65 13		LCA	0&X1,0&X2	Z	1730	L 0+0 0-0	1645
8644 65 14	TRAHM	SBR	.TRAHM&6	Z	1737	H X36	1645
8645 65 15		C	0&X1	Z	1741	C 0+0	1645

DUZ STMT EXIST 12-7-8  
 MOVE STATEMENT  
 B \*+18  
 CAPTURE SBR X1,1+X1  
 MLC @B@,SYMBL+7

DUZ REPLC TBL NEED UPDATING  
 UPDATE REPLC TABLE  
 MV SYMB INTO USED STMT 5-8  
 SKIP TRAHM FOR NO STMT

GMMW2-1 OF STMT JUST MOVED  
 TRANSFER WORD MARKS  
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SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8646	65		SAR	X1	Z	4	1745	Q 089		1645
8647	65		BCE	*85,06X1,	Z	8	1749	B X61 040		1646
8648	65		B	TRAMM	Z	4	1757	B X30		1646
8649	65	BOTTOM	MLC	@N@,SYMBL&7	Z	7	1761	M M58 X09		1646
8650	65		C	LAST,COUNT	Z	7	1768	C 850 841		1646
8651	65		BU	TSTCS	Z	5	1775	B Y14 /		1646
8652	65	LDSYM	LCA	@ @,06X2	Z	7	1780	L M57 0-0		1646
8653	65		SBR	X3	Z	4	1787	H 099		1647
8654	65		FENDX	C,,,,,SYSGM,RESORT 4					MACRO	
8655			BSS	333,C	Z	5	1791	B 333 C	GEN	1647
8656			SBR	TCLEAR,SYSGM	Z	7	1796	H 710 M69	GEN	1647
8657			LCA	@RESORT 4@,110	Z	7	1803	L M66 110	GEN	1647
8658			B	MONTER	Z	4	1810	B 700	GEN	1647
8659	65	TSTCS	BCE	PART2,TEST1,1	Z	8	1814	B Y58 884 1		1647
8660	65		B	NEXT	Z	4	1822	B /83		1647
8661	65	CASE2	MLC	06X3,X3	Z	7	1826	M 060 099		1648
8662	65		MLC	06X3,X1	Z	7	1833	M 060 089		1648
8663	65		SBR	PART2&10,3&X3	Z	7	1840	H Y68 0&3		1648
8664	65		MLC	@@,TEST1	Z	7	1847	M M48 8R4		1648
8665	65	PART2	B	SPACE-14	Z	4	1854	B S32		1648
8666	65		MLC	@@,TEST1	Z	7	1858	M M49 884		1648
8667	65		MLC	0,X1	Z	7	1865	M 000 089		1649
8668	65		MLC	PART2&10,ADDIN	Z	7	1872	M Y68 862		1649
8669	65		MLC	@@,TEST2	Z	7	1879	M M48 M43		1649
8670	65		B	SPACE-7	Z	4	1886	B S39		1649
8671	65	NUFRM	SBR	STREG&3	Z	4	1890	H Z29		1649
8672	65		MLC	FROMX,CNVRT	Z	7	1894	M 856 896		1649
8673	65		B	EXPND	Z	4	1901	B 969		1650
8674	65		MLC	HOLD,WK&K2	Z	7	1905	M 891 875		1650
8675	65		S	WK&K1,WK&K2	Z	7	1912	S 870 875		1650
8676	65		C	AREA1,WK&K2	Z	7	1919	C 860 875		1650
8677	65	STREG	O	0	Z	4	1926	B 000		1650
8678	65	ADONE	A	@@,208	Z	7	1930	A M48 208		1650
8679	65		C	LAST,COUNT	Z	7	1937	C 850 841		1651
8680	65		BE	LDSYM	Z	5	1944	B X80 S		1651
8681	65		SBR	X3,3&X3	Z	7	1949	M 099 0&3		1651
8682	65		SBR	LAST	Z	4	1956	H 850		1651
8683	65		B	NEXT&11	Z	4	1960	B /94		1651
8684	65	FIXIT	SBR	FROMX,2&X3	Z	7	1964	H 856 0&2		1651
8685	65	SQUEZ	MLC	FROMX,X3	Z	7	1971	M 856 099		1652
8686	65		SBR	X3,2&X3	Z	7	1978	H 099 0&2		1652
8687	65		B	IMVUP	Z	4	1985	B #52		1652
8688	65		BCE	FIXIT,0&X3,	Z	8	1989	B Z64 0&0		1652
8689	65		B	NUFRM	Z	4	1997	B Y90		1652
8690	65		BL	LOOP-7	Z	5	2001	B -10 T		1652
8691	65		B	LIST	Z	4	2006	R T34		1652
8692	65		SBR	SAVE1&6,0&X2	Z	7	2010	H M19 0-0		1653
8693	65	LOOP	C	X3,PARAM&2	Z	7	2017	C 099 688		1653
8694	65		BE	LOPP	Z	5	2024	B -44 S		1653
8695	65		SBR	X1,3&X3	Z	7	2029	H 089 0&3		1653

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SAVE GMM3

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8696 65 62		BCE	MVAGN-7,0&X1,	Z	8	2036	B -57 0#0		1653
8697 65 63	LOPP	B	NUFRM	Z	4	2044	B Y90		1653
8698 65 64		BL	ERRMS	Z	5	2048	B #92 T		1654
8699 65 65		B	SAVEI	Z	4	2053	B M13		1654
8700 65 66		SBR	X3,4&X3	Z	7	2057	H 099 0&4		1654
8701 65 67	MVAGN	B	IMVUP	Z	4	2064	B #52		1654
8702 65 68		C	0&X3,0 @	Z	7	2068	C 0&0 M57		1654
8703 65 69		BU	LOOP	Z	5	2075	B -17 /		1654
8704 65 70		SBR	HOLD2&6,0&X3	Z	7	2080	H J46 0&0		1654
8705 65 71		SBR	STORE,2&X3	Z	7	2087	H 853 0&2		1655
8706 65 72		SBR	X3,3&X3	Z	7	2094	H 099 0&3		1655
8707 65 73	MVDWN	LCA	0&X1,0&X3	Z	7	2101	L 0#0 0&0		1655
8708 65 74		SAR	X1	Z	4	2108	Q 089		1655
8709 65 75		C	0&X3	Z	4	2112	C 0&0		1655
8710 65 76		SAR	X3	Z	4	2116	Q 099		1655
8711 65 77		BCE	*&5,0&X1,	Z	8	2120	B J32 0#0		1656
8712 65 78		B	MVDWN	Z	4	2128	B J01		1656
8713 65 79		MN	0&X1	Z	4	2132	D 0#0		1656
8714 65 80		SAR	ASIDE	Z	4	2136	Q 844		1656
8715 65 81	HOLD2	SBR	X1,0	Z	7	2140	H 089 000		1656
8716 65 82		BWZ	*&5,1&X1,S	Z	8	2147	V J59 0#1 S		1656
8717 65 83		B	*&8	Z	4	2155	B J66		1656
8718 65 84		MLC	@1@,TEST3	Z	7	2159	M M48 M44		1657
8719 65 85		BWZ	*&5,0&X1,2	Z	8	2166	V J78 0#0 2		1657
8720 65 86		B	*&9	Z	4	2174	B J86		1657
8721 65 87		BWZ	UPDAT,2&X1,2	Z	8	2178	V K04 0#2 2		1657
8722 65 88		MLC	2&X1,X1	Z	7	2186	M 0#2 089		1657
8723 65 89		MLC	0&X1,X2	Z	7	2193	M 0#0 094		1658
8724 65 90		B	*&8	Z	4	2200	B K11		1658
8725 65 91		MLC	2&X1,X2	Z	7	2204	M 0#2 094		1658
8726 65 92		SBR	INTND,0&X2	Z	7	2211	H 865 0-0		1658
8727 65 93		SBR	MULT&6	Z	4	2218	H K35		1658
8728 65 94		MZ	@R@,MULT&5	Z	7	2222	Y M67 K34		1658
8729 65 95		SBR	X2,0	Z	7	2229	H 094 000		1659
8730 65 96		MLC	INTNO,*&14	Z	7	2236	M 865 K56		1659
8731 65 97		MZ	@R@,*&6	Z	7	2243	Y M67 K55		1659
8732 65 98		SBR	X2,0	Z	7	2250	H 094 000		1659
8733 65 99		BWZ	ACHCK,TABEL-1&X2,S	Z	8	2257	V K76 MR8 S		1659
8734 66 00		SBR	TABEL&X2,1&X3	Z	7	2265	H MR9 0&1		1660
8735 66 01		B	NUPOSE&14	Z	4	2272	B L16		1660
8736 66 02	ACHCK	MLC	TABEL&X2,X1	Z	7	2276	M MR9 089		1660
8737 66 03		BCE	NUPOS,TEST3,1	Z	8	2283	B L02 M44 I		1660
8738 66 04		SBR	3&X1,1&X3	Z	7	2291	H 0#3 0&1		1660
8739 66 05		B	NUPOSE&14	Z	4	2298	B L16		1660
8740 66 06	NUPOS	SBR	0&X1,1&X3	Z	7	2302	H 0#0 0&1		1661
8741 66 07		MLC	@0@,TEST3	Z	7	2309	M M49 M44		1661
8742 66 08		C	@0@,TEST3	Z	7	2316	C 844 856		1661
8743 66 09		BE	ASIDE,FRMX	Z	5	2323	B L56 S		1661
8744 66 10		MLC	RTNLD	Z	7	2328	M 844 089		1661
8745 66 11		MN	ASIDE,X1	Z	4	2335	D 0&0		1661
			0&X3	Z	4				1661

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8746	66	12	MN		Z	1	2339	D		1661
8747	66	13	MN		Z	1	2340	D		1662
8748	66	14	SAR	HOLD2&6	Z	4	2341	Q J46		1662
8749	66	15	SBR	X1,1&X1	Z	7	2345	H 089 0#1		1662
8750	66	16	B	MVDWN	Z	4	2352	B J01		1662
8751	66	17	LCA	GMWM,0&X3	Z	7	2356	L M68 0&0		1662
8752	66	18	SBR	FROMX	Z	4	2363	H 856		1662
8753	66	19	C	ADRES,STORE	Z	7	2367	C 148 853		1662
8754	66	20	BE	FINIS	Z	5	2374	B M04 S		1663
8755	66	21	MLC	STORE,X3	Z	7	2379	M 853 099		1663
8756	66	22	SBR	X1,1&X3	Z	7	2386	H 089 0&1		1663
8757	66	23	SBR	X3,2&X3	Z	7	2393	H 099 0&2		1663
8758	66	24	B	MVAGN	Z	4	2400	B -64		1663
8759	66	25	B	NUFRM	Z	4	2404	B Y90		1663
8760	66	26	BL	ERRMS	Z	5	2408	B #92 T		1663
8761	66	27	SBR	X2,0	Z	7	2413	M 094 000		1664
8762	66	28	MLC	ADDIN,X3	Z	7	2420	M 862 099		1664
8763	66	29	MLC	0&X3,PREP1	Z	7	2427	M 0&0 M47		1664
8764	66	30	B	LIST	Z	4	2434	B T34		1664
8765	66	31	AREA2	DCW 00000	Z	5	2442			1664
8756	66	32	TEST2	DCW 0	Z	1	2443			1664
8767	66	33	TEST3	DCW 0	Z	1	2444			1664
8768	66	34	LTORG *		Z	1	2444			1664
		8560	PREP1	DCW #03	Z	3	2447		AREA	1665
				@1@	Z	1	2448		LIT	1665
				@2@	Z	1	2449		LIT	1665
8586		HEX1		#03	Z	3	2452		AREA	1665
				@004@	Z	3	2455		LIT	1665
				@8@	Z	1	2456		LIT	1665
				@ @	Z	1	2457		LIT	1665
				@N@	Z	1	2458		LIT	1665
				@RESORT 4@	Z	8	2466		LIT	1666
				@R@	Z	1	2467		LIT	1666
8769	66	35	GMWM	DC @ @	Z	1	2468		LIT	1666
8770	66	36	SYSGM	DCW @ @	Z	1	2469		LIT	1666
8771	66	37	ORG	#&X00	Z	1	2469	2500		1666
8772	66	38	EQU	*	Z	2	2499			1666
8773	66	39	EQU	END	Z	2	2499			1666
8774	66	40	TABEL	EQU BEGIN	Z	2	2499	8 /75		1666
			XFR	BEGIN	Z	2	2499			1666

NEW GMWML-1 OF HI DRD UNSRT INST

WORK GROUP MK  
SYSTEM GROUP MK



SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
8775	66	41	JOB	1401 FORTRAN					
8776	66	42	ORG	BEGIN					
8777	66	43	DC					1175	1670
8778	66	44	MLC	BSAUCE,X1			0110	M 148 089	1671
8779	66	45	SBR	X1,1&X1			1175	H 089 0#1	1671
8780	66	46	C	ADTBLL,X1			1189	C 145 089	1671
8781	66	47	BE	ENDPH			1196	B 560 5	1671
8782	66	48	SBR	X1,3&X1			1201	H 089 0#3	1671
8783	66	49	MLC	0&X1,X2			1208	M 0#0 094	1672
8784	66	50	BWZ	BYP4,X2-1,2			1215	V S34 093 2	1672
8785	66	51	MCH	0&X2,0&X1			1223	M 0-0 0#0	1672
8786	66	52	B	CMP4			1230	B 548	1672
8787	66	53	MA	DIFF,X2			1234	# 859 094	1672
8788	66	54	MCH	X2,0&X1			1241	M 094 0#0	1673
8789	66	55	C	X1,ADTBLL			1248	C 089 145	1673
8790	66	56	BU	CONST			1255	B S01 /	1673
8791	66	57	MCH	DIFF,X1			1260	M 859 089	1673
8792	66	58	MA	X3,X1			1267	# 099 089	1673
8793	66	59	MCH	X1,RTR&6			1274	M 089 U69	1674
8794	66	60	SBR	CNVRT,0&X3			1281	H 896 0&0	1674
8795	66	61	B	EXPND			1288	B 969	1674
8796	66	62	MLC	HOLD,WKBK1			1292	M 891 870	1674
8797	66	63	MCH	HOLD,WKBK3#5			1299	M 891 W68	1674
8798	66	64	MLC	DIFF,CNVRT			1306	M 859 896	1674
8799	66	65	B	EXPND			1313	B 969	1675
8800	66	66	A	HOLD,WKBK1			1317	A 891 870	1675
8801	66	67	C	SIXTN,WKBK1			1324	C W63 870	1675
8802	66	68	BL	*68			1331	B T43 T	1675
8803	66	69	S	SIXTN,WKBK1			1336	S W63 870	1675
8804	66	70	MLC	BSAUCE,CNVRT			1343	M 148 896	1675
8805	66	71	B	EXPND			1350	B 969	1676
8806	66	72	C	HOLD,WKBK1			1354	C 891 870	1676
8807	66	73	BH	ERRMS			1361	B #92 U	1676
8808	66	74	MZ	X1,TESTA&7			1366	Y 089 V77	1676
8809	66	75	MCH	X1-2,TESTB&7			1373	M 087 V97	1676
8810	66	76	MLC	INTST,X2			1380	M 183 094	1676
8811	66	77	MA	DIFF,INTST			1387	# 859 183	1677
8812	66	78	C	WKBK1,WKBK3			1394	C 870 W68	1677
8813	66	79	BH	WMTST			1401	B V14 U	1677
8814	66	80	LCA	0&X3,0&X1			1406	L 0&0 0#0	1677
8815	66	81	SAR	X3			1413	Q 099	1677
8816	66	82	C	0&X1			1417	C 0#0	1677
8817	66	83	SAR	X1			1421	Q 089	1677
8818	66	84	PCE	*65,0&X3,			1425	B U37 0&0	1678
8819	66	85	B	MVD			1433	B U06	1678
8820	66	86	CS	0&X1			1437	B 0#0	1678
8821	66	87	SRR	X1			1441	H 089	1678
8822	66	88	C	X1,@W99@			1445	C 089 W71	1678
8823	66	89	BU	DUN			1452	B U37 /	1678
8824	66	90	CH	0&X1			1457	B 0#0	1678

NEXT TBL ENTRY  
CONTENTS OF TBL IN X2

5-8

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8825	66		CW		Z	1	1461			1679
8826	66		CW		Z	1	1462			1679
8827	66	RTR	SBR	X3,0	Z	7	1463	H 099 000		1679
8828	66		MLC	0EX1,1EX3 DIFF,X2	Z	7	1470	, 0#0 0E1		1679
8829	66		FENDX	D,,,,,GM50A,SHIFT CFL	Z	7	1477	M 859 094		1679
8830	66		BSS	333,D	Z	5	1484	B 333 D	MACRO	1679
8831			SBR	TCLEAR,GM50A	Z	7	1489	M 710 M88	GEN	1679
8832			LCA	@SHIFT CFL@,110	Z	7	1496	L M80 110	GEN	1680
8833			B	MONTER	Z	4	1503	B 700	GEN	1680
8834				<del>0EX2</del>	Z	7	1507	A M81 094		1680
8835	66	ADD1	BW	LDWRD,1EX2	Z	8	1514	V V26 0-1 1		1680
8836	66	WMTST	B	ADD1	Z	4	1522	B V07		1680
8837	66		MLC	X2,X1	Z	4	1526	M 094 089		1680
8838	67	LDWRD	MA	DIFF,X1	Z	7	1533	# 859 089		1681
8839	67		LCA	0EX2,0EX1	Z	7	1540	L 0-0 0#0		1681
8840	67		C	X2,X3	Z	7	1547	C 094 099		1681
8841	67		BU	ADD1	Z	5	1554	B V07 /		1681
8842	67		LCA	@,2EX3	Z	7	1559	L M83 0E2		1681
8843	67		CW	1EX3	Z	4	1566	0 0E1		1681
8844	67		BWZ	TESTB,X3,2	Z	8	1570	V V90 099 2		1682
8845	67	TESTA	CS	0EX3	Z	4	1578	/ 0E0		1682
8846	67		SBR	X3	Z	4	1582	H 099		1682
8847	67		B	TESTA	Z	4	1586	B V70		1682
8848	67		BCE	TESTC,X3-2,0	Z	8	1590	B M10 097 0		1682
8849	67	TESTB	CS	0EX3	Z	4	1598	/ 0E0		1682
8850	67		SBR	X3	Z	4	1602	H 099		1682
8851	67		B	TESTB	Z	4	1606	B V90		1682
8852	67		C	X3,X1	Z	4	1610	C 099 089		1683
8853	67	TESTC	BE	FINIS	Z	5	1617	B M41 S		1683
8854	67		LCA	@,0EX3	Z	7	1622	L M84 0E0		1683
8855	67		CW	0EX3	Z	4	1629	0 0E0		1683
8856	67		SBR	X3	Z	4	1633	H 099		1683
8857	67		B	TESTC	Z	4	1637	B M10		1683
8858	67		MCW	INTST,X1	Z	7	1641	M 183 089		1684
8859	67	FINIS	MA	@191@,X1	Z	7	1648	# M87 089		1684
8860	67		B	DUN	Z	4	1655	B U37		1684
8861	67	SIXTN	DCW	@16000@	Z	4	1663			1684
8862	67		LTORG *		Z	5	1664	1664		1684
8863	67	MKBK3	DCW	#05	Z	5	1668		AREA	1684
8797				@M99@	Z	3	1671		LIT	1684
8833				@SHIFT CFL@	Z	9	1680		LIT	1685
				01	Z	1	1681		LIT	1685
				@	Z	2	1683		LIT	1685
				@	Z	1	1684		LIT	1685
				@191@	Z	3	1687		LIT	1685
				@	Z	1	1688		LIT	1685
8864	67	GM50A	DCW	BEGIN	Z	1	1688	B /75		1686
8865	67	XFR			Z					

MA @001@,X2

BLANKS

BLANK

GROUP MARK

SHIFT CONSTANTS, FORMATS, AND LISTS

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8866	67	28	JOB	SHIFT CONSTANTS, FORMATS, AND LISTS	Z	9	0110			1689
8867	67	29	DCH	ASHIFT CFLB	Z		0083			
8868	67	30	EQU	083	Z					
8869	67	31	ORG	BEGINZ	Z					
8870	67	32	C	PARAMA&2, CONSLT	Z			1175		
8871	67	33	BE	EXIT	Z	7	1175	C 688 194		1690
8872	67	34	MCW	BSAUCE, X1	Z	5	1182	B V49 S		1690
8873	67	35	MCW	BSAUCE, X2	Z	7	1187	M 148 089		1690
8874	67	36	MA	MACFLS, X2	Z	7	1194	M 148 094		1690
8875	67	37	SBR	RSX366, OEX3	Z	7	1201	# 163 094		1690
8876	67	38	CW	CNVRT-2	Z	7	1208	H U89 OEO		1691
8877	67	39	MCW	X2, CNVRT	Z	4	1215	□ 894		1691
8878	67	40	B	EXPND	Z	7	1219	M 094 896		1691
8879	67	41	MCW	HOLD, X25#5	Z	4	1226	B 969		1691
8880	67	42	MCW	X3, CNVRT	Z	7	1230	M 891 V94		1691
8881	67	43	B	EXPND	Z	7	1237	M 099 896		1691
8882	67	44	MCW	HOLD, X35#5	Z	4	1244	B 969		1692
8883	67	45	C	X25, X35	Z	7	1248	M 891 V99		1692
8884	67	46	BH	ERRMS	Z	7	1255	C V94 V99		1692
8885	67	47	MCW	BSAUCE, CNVRT	Z	5	1262	B #92 U		1692
8886	67	48	B	EXPND	Z	7	1267	M 148 896		1692
8887	67	49	MCW	HOLD, NXBTM5#5	Z	4	1274	B 969		1692
8888	67	50	MCW	CONSLT, CNVRT	Z	7	1278	M 891 W04		1693
8889	67	51	B	EXPND	Z	7	1285	M 194 896		1693
8890	67	52	MCW	HOLD, CNLST5#5	Z	4	1292	B 969		1693
8891	67	53	C	NXBTM5, CNLST5	Z	7	1296	M 891 W09		1693
8892	67	54	BL	WRDMV	Z	5	1310	B T93 T		1693
8893	67	55	MA	0001a, X1	Z	7	1315	# M12 089		1694
8894	67	56	MA	0001a, X2	Z	7	1322	# M12 094		1694
8895	67	57	BW	LDWM, OEX1	Z	8	1329	V T82 0+0 1		1694
8896	67	58	CW	OEX2	Z	4	1337	□ 0-0		1694
8897	67	59	MN	OEX1, OEX2	Z	7	1341	D 0+0 0-0		1694
8898	67	60	MZ	OEX1, OEX2	Z	7	1348	Y 0+0 0-0		1695
8899	67	61	CW	OEX1	Z	4	1355	□ 0+0		1695
8900	67	62	C	X1, CONSLT	Z	7	1359	C 089 194		1695
8901	67	63	BU	MAD	Z	5	1366	B T15 /		1695
8902	67	64	MLC	CONSLT, X3	Z	7	1371	M 194 099		1695
8903	67	65	B	TSTWM	Z	4	1378	B U00		1695
8904	67	66	LCA	OEX1, OEX2	Z	7	1382	L 0+0 0-0		1696
8905	67	67	B	CWX1	Z	4	1389	B T55		1696
8906	67	68	MLC	BSAUCE, X3	Z	7	1393	V 148 099		1696
8907	67	69	BW	MANXB, 1EX3	Z	8	1400	V U16 OEL 1		1696
8908	67	70	CW	WMSW#1	Z	4	1408	□ M13		1696
8909	67	71	SW	1EX3	Z	4	1412	7 OEL		1696
8910	67	72	MCW	PARAMA&2, X1	Z	7	1416	M 688 089		1697
8911	67	73	MCW	CONSLT, X2	Z	7	1423	M 194 094		1697
8912	67	74	LCA	OEX1, OEX2	Z	7	1430	L 0+0 0-0		1697
8913	67	75	SBR	X2	Z	4	1437	H 094		1697
8914	67	76	SBR	X1	Z	4	1441	H 089		1697
8915	67	77	MA	PLUSDF, X1	Z	7	1445	# 160 089		1697

BH MAD  
B WRDMV

TEST FOR WORD MARKIN TEST ADRE&1

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8916	67 78		C	X1,X3	Z	7	1452	C 089 099		1698
8917	67 79		BU	LOAD	Z	5	1459	B U30 /		1698
8918	67 80		BW	RSX3,WMSW	Z	8	1464	V U83 W13 1		1698
8919	67 81		MA	MACFLS,X3	Z	7	1472	# 163 099		1698
8920	67 82		CW	16X3	Z	4	1479	□ 0E1		1698
8921	67 83	RSX3	SBR	X3,0	Z	7	1483	H 099 000		1698
8922	67 84		MA	MACFLS,NXBTM	Z	7	1490	# 163 083		1699
8923	67 85		MA	MACFLS,ADTBLL	Z	7	1497	# 163 145		1699
8924	67 86		MA	MACFLS,BSAUCE	Z	7	1504	# 163 145		1699
8925	67 87		MCW	PARAMAC2,X1	Z	7	1511	M 688 089		1699
8926	67 88	CX1CN	C	X1,CONLST	Z	7	1518	C 089 194		1699
8927	67 89		BE	EXIT	Z	5	1525	B V49 S		1700
8928	67 90		MCW	@ @,0EX1	Z	7	1530	M W14 0#0		1700
8929	67 91		CW	0EX1	Z	4	1537	□ 0#0		1700
8930	67 92		SBR	X1	Z	4	1541	H 089		1700
8931	67 93		B	CX1CN	Z	4	1545	B V18		1700
8932	67 94	EXIT	FENDX	C,,,XBEGIN,XBEGIN,,GM50C,REPLACE 1	Z	5	1549	B 333 C	MACRO	1700
8933		EXIT	BSS	333,C	Z	7	1554	H 786 838	GEN	1700
8934			SBR	INITAP66,XBEGIN	Z	4	1561	H 833	GEN	1701
8935			SBR	BCLEAR	Z	7	1565	H 796 838	GEN	1701
8936			SBR	INITXT83,XBEGIN	Z	7	1572	H 710 W24	GFN	1701
8937			SBR	TCLEAR,GM50C	Z	7	1579	L W23 110	GEN	1701
8938			LCA	@REPLACE 1@,110	Z	4	1586	B 700	GEN	1701
8939			B	MONTER	Z	4	1590			
8940	67 95		LTOrg *		Z	5	1594		AREA	1701
8879		X25	DCW	#05	Z	5	1599		AREA	1701
8882		X35		#05	Z	5	1604		AREA	1702
8887		NXBTM5		#05	Z	5	1609		AREA	1702
8890		CNLST5		#05	Z	3	1612		LIT	1702
8908		WMSW		@001@	Z	1	1613		AREA	1702
				@ @	Z	1	1614		LIT	1702
8938				@REPLACE 1@	Z	9	1623		LIT	1702
8941	67 96	GM50C	DCW	@ @	Z	1	1624			1703
8942	67 97		XFR	BEGIN	Z	1		B /75		

BRANCH IF WM SWITCH IS ON

MOVE BLANKS TO CLEAR STORAGE.  
CLEAR WORD MARKS

GROUP MARK

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
8943	67	98	JOB	1401 FORTRAN REPLACE PHASE ONE						
8944	67	99	FBEGN	REPLACE I,X1,R,X2,X3,V						
8945			SFX	V					MACRO	
8946		110	DCM	@REPLACE 1@	V	9	0110		GEN	1706
8947		X1	EQU	089	V	3	0089		GEN	1707
8948		089	DCM	000	V	2	0091		GEN	1707
8949		091	DC	00	V		0094		GEN	
8950		X2	EQU	094	V		0099		GEN	
8951		X3	EQU	099	V				GEN	
8952	68	00	ORG	XBEGIN	V					
8953	68	01	MCM	X3, GARY#3	V	7	0838	0838 M 099 S49		1708
8954	68	02	MCM	BSAUCE,*E7	V	7	0845	M 148 858		1708
8955	68	03	MCM	a a,0	V	7	0852	M 550 000		1708
8956	68	04	MCM	PERIOD,X2	V	7	0859	M 154 094		1708
8957	68	05	MCM	a a,1600	V	7	0866	M 550 W00		1708
8958	68	06	BCE	DOLR,0EX2,\$	V	8	0873	B 915 0-0 \$		1709
8959	68	07	CHAIN	9	V				MACRO	
8960			BCE		V	1	0881	B	GEN	1709
8961			BCE		V	1	0882	B	GEN	1709
8962			BCE		V	1	0883	B	GEN	1709
8963			BCE		V	1	0884	B	GEN	1709
8964			BCE		V	1	0885	B	GEN	1709
8965			BCE		V	1	0886	B	GEN	1709
8966			BCE		V	1	0887	B	GFN	1709
8967			BCE		V	1	0888	B	GEN	1710
8968			BCE		V	1	0889	B	GEN	1710
8969	68	08	BCE	SKG8G,0EX2,	V	1	0889	B	GEN	1710
8970	68	09	CHAIN	9	V	8	0890	B #15 0-0	GEN	1710
8971			BCE		V	1	0898	B	MACRO	
8972			BCE		V	1	0899	B	GEN	1710
8973			BCE		V	1	0900	B	GEN	1710
8974			BCE		V	1	0901	B	GEN	1711
8975			BCE		V	1	0902	B	GEN	1711
8976			BCE		V	1	0903	B	GEN	1711
8977			BCE		V	1	0904	B	GEN	1711
8978			BCE		V	1	0905	B	GEN	1711
8979			BCE		V	1	0906	B	GEN	1711
8980	68	10	SBR	X2	V	4	0907	H 094		
8981	68	11	B	SCNDL	V	4	0911	B 873		
8982	68	12	BCE	FND,0EX2,\$	V	8	0915	B 931 0-0 \$		
8983	68	13	SBR	X2	V	4	0923	H 094		
8984	68	14	B	DOLR	V	4	0927	B 915		
8985	68	15	MIN	0EX2	V	4	0931	D 0-0		
8986	68	16	SAR	X2	V	4	0935	Q 094		
8987	68	17	BCE	SETSW,0EX2,\$	V	4	0939	B 966 0-0 \$		
8988	68	18	CHAIN	15	V	8	0947	B	MACRO	
8989			BCE		V	1	0948	B	GEN	1713
8990			BCE		V	1	0949	B	GEN	1713
8991			BCE		V	1	0950	B	GEN	1713
8992			BCE		V	1			GEN	1713

DOLLR BCE RV68,94X2,8

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCM	INSTRUCTION	TYPE	CARD
8993			BCE		V	1	0951	B	GEN	1713
8994			BCE		V	1	0952	B	GEN	1713
8995			BCE		V	1	0953	B	GEN	1714
8996			BCE		V	1	0954	B	GEN	1714
8997			BCE		V	1	0955	B	GEN	1714
8998			BCE		V	1	0956	B	GEN	1714
8999			BCE		V	1	0957	B	GEN	1714
9000			BCE		V	1	0958	B	GEN	1714
9001			BCE		V	1	0959	B	GEN	1714
9002			BCE		V	1	0960	B	GEN	1714
9003			BCE		V	1	0961	B	GEN	1715
9004	68 19		B	SCNDL	V	4	0962	B 873		1715
9005	68 20	SETSW	CH	XDOSBS	V	4	0966	□ 116		1715
9006	68 21	DLOOP	MN	OEX2	V	4	0970	D 0-0		1715
9007	68 22	CHAIN	2		V	4				
9008			MN						MACRO	
9009			MN		V	1	0974	D	GEN	1715
9010	68 23	SAR	SAR	X2	V	1	0975	D	GEN	1715
9011	68 24	SW	SW	1EX2	V	4	0976	Q 094		1715
9012	68 25	BCE	BCE	NDOLR, OEX2, \$	V	4	0980	0-1		1716
9013	68 26	MZ	MZ	*-4, 2EX2	V	8	0984	B #03 0-0 \$		1716
9014	68 27	B	B	DLOOP	V	7	0992	Y 994 0-2		1716
9015	68 28	MN	MN	OEX2	V	4	0999	9 970		1716
9016	68 29	SAR	SAR	X2	V	4	1003	D 0-0		1716
9017	68 30	B	B	SCNDL	V	4	1007	Q 094		1716
9018	68 31	MCW	MCW	ETEST5, RU68E3	V	4	1011	B 873		1716
9019	68 32	MCW	MCW	X3, X2	V	7	1015	M S53 893		1717
9020	68 33	B	B	SCNDL	V	7	1022	M 099 094		1717
9021	68 34	BCE	BCE	EXIT, OEX3, BLANK	V	4	1029	B 873		1717
9022	68 35	MCW	MCW	X3, SBR&6	V	8	1033	B S10 0E0		1717
9023	68 36	C	C	OEX3 MOVE POINTER	V	7	1041	M 099 /37		1717
9024	68 37	SBR	SBR	X2	V	4	1048	C 0E0		1717
9025	68 38	SBR	SBR	X3	V	4	1052	H 094		1718
9026	68 39	BCE	BCE	PSKIP, 1EX3, #	V	8	1056	H 099		1718
9027	68 40	BWZ	BWZ	TEST5, 4EX2, 1	V	8	1060	B /74 0E1 #		1718
9028	68 41	BWZ	BWZ		V	8	1068	V #33 0-4 1		1718
9029	68 42	BWZ	BWZ		V	1	1076	V		1718
9030	68 43	BM	BM	REPLC, 3EX2	V	1	1077	V		1718
9031	68 44	C	C	4EX2, 2267#	V	8	1078	V /42 0-3 K		1718
9032	68 45	BE	BE	TEST5	V	7	1086	C 0-4 S56		1719
9033	68 46	BWZ	BWZ	ADDU, 3EX2, B	V	5	1093	R #33 S		1719
9034	68 47	SBR	SBR	X2, TEST2	V	7	1098	V /17 0-3 B		1719
9035	68 48	R	R	TEST2	V	8	1106	H 094 0-3		1719
9036	68 49	MCW	MCW	4EX2, X1	V	4	1113	B #68		1719
9037	68 50	MZ	MZ	*-6, SBR&5	V	7	1117	M 0-4 089		1719
9038	68 51	SBR	SBR	4EX2, 0	V	7	1124	V /24 /36		1720
9039	68 52	R	R	RIGHT	V	7	1131	H 0-4 000		1720
9040	68 53	MCW	MCW	4EX2, X1	V	4	1138	B /06		1720
9041	68 54	MA	MA	MACFLS, X1	V	7	1142	M 0-4 089		1720
9042	68 55	MCW	MCW	OEX1, X1	V	7	1149	# 163 089		1720
					V	7	1156	M 0#0 089		1720

CHANGE ON REAS. OF OBJ ARITH

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9043	68 56		MCW	X1,4EX2	V	7	1163	M 089 0-4		1721
9044	68 57		B	RIGHT	V	4	1170	B /06		1721
9045	68 58	PSKIP	BW	SKIP,2EX3	V	8	1174	V /86 0E2 1		1721
9046	68 59		B	TEST5	V	4	1182	B #33		1721
9047	68 60	SKIP	C	0EX3	V	4	1186	C 0E0		1721
9048	68 61		SBR	X3	V	4	1190	H 099		1721
9049	68 62		C	4EX3,2B7002	V	7	1194	C 0E4 S60		1721
9050	68 63		BE	TEST5	V	5	1201	B #33 S		1722
9051	68 64		B	SKIP	V	4	1206	B /86		1722
9052	68 65	EXIT	MCW	GARY,X3	V	7	1210	M 549 099		1722
9053	68 66		FENDX	C,,,STARTR,,SYS1,LOAD 52B&C					MACRO	
9054			BSS	333,C	V	5	1217	B 333 C	GEN	1722
9055			SBR	INITXTE3,STARTR	V	7	1222	H 796 934	GEN	1722
9056			SBR	TCLEAR,SYS1	V	7	1229	H 710 571	GEN	1722
9057			LCA	2LOAD 52B&C@,110	V	7	1236	L 570 110	GEN	1723
9058			B	MONTR	V	4	1243	B 700	GEN	1723
9059	68 67		LTORG	*	V	3	1249	1247	AREA	1723
	8953	GARY	DCW	#03	V	1	1250		LIT	1723
	9018			@ @	V	3	1253	#33	ADCON	1723
				4TEST5	V	3	1256		LIT	1723
				2G72	V	4	1260		LIT	1723
				2B7002	V	10	1270		LIT	1724
	9057			2LOAD 52B&C@	V	1	1271		LIT	1724
9060	68 68		DCW	@ @	V	1				1724
9061	68 69	SYS1	XFR	INIT	V	1		B 838		1725

CHANGE ON REDRIGIN OF OBJ ARITH

SEQ PG LIN LABEL OP OPERANDS SFX CT LDCN INSTRUCTION TYPE CARD

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LDCN	INSTRUCTION	TYPE	CARD
9062	68	70		JOB	LOAD PHASE 52-SECTIONS B & C.	R	10	0110			1728
9063	68	71		SFX	R	R					
9064	68	72	110	DCW	LOAD 52B&C	R			0838		
9065	68	73		ORC	XBEGIN	R					
9066	68	74	KLINKS	DCW	#3	R	3	0840			1729
9067	68	75	YUSR12	DCW	#3	R	3	0843			1729
9068	68	76	YUSR11	DCW	#3	R	3	0846			1729
9069	68	77	YUSR10	DCW	#3	R	3	0849			1729
9070	68	78	YUSR9	DCW	#3	R	3	0852			1729
9071	68	79	YUSR8	DCW	#3	R	3	0855			1729
9072	68	80	YUSR7	DCW	#3	R	3	0858			1729
9073	68	81	YUSR6	DCW	#3	R	3	0861			1730
9074	68	82	YUSR5	DCW	#3	R	3	0864			1730
9075	68	83	YUSR4	DCW	#3	R	3	0867			1730
9076	68	84	YUSR3	DCW	#3	R	3	0870			1730
9077	68	85	YUSR2	DCW	#3	R	3	0873			1730
9078	68	86	YUSR1	DCW	#3	R	3	0876			1730
9079	68	87	SQRTFN	DCW	#3	R	3	0879			1730
9080	68	88	FLTFUN	DCW	#3	R	3	0882			1731
9081	68	89	FIXFUN	DCW	#3	R	3	0885			1731
9082	68	90	NEGTFN	DCW	#3	R	3	0888			1731
9083	68	91	ABSVAL	DCW	#3	R	3	0891			1731
9084	68	92	ATANFN	DCW	#3	R	3	0894			1731
9085	68	93	XPNETL	DCW	#3	R	3	0897			1731
9086	68	94	LOGFUN	DCW	#3	R	3	0900			1731
9087	68	95	SINFUN	DCW	#3	R	3	0903			1732
9088	68	96	COMFNI	DCW	#3	R	3	0906			1732
9089	68	97	DOSRSC	DCW	#3	R	3	0909			1732
9090	68	98	OBLIST	DCW	QJ32	R	3	0912			1732
9091	68	99	DOINIT	DCW	#3	R	3	0915			1732
9092	69	00	DDADR3	DCW	#3	R	3	0918			1732
9093	69	01	DDADR2	DCW	#3	R	3	0921			1732
9094	69	02	DDADR1	DCW	#3	R	3	0924			1733
9095	69	03	TBLAD	DCW	DDADR1	R	3	0927	924		1733
9096	69	04	FIXWD	DCW	#3	R	3	0930			1733
9097	69	05	FLTWD	DCW	#3	R	3	0933			1733
9098	69	06	START	B	EXIT3	R	4	0934	8 983		1733
9099	69	07	LD52C	FENDX	START,START1,GMMW,FUNLOAD C	R	7	0938	H 786 934	MACRO	1733
9100			LD52C	SBR	INITAPE6,START	R	4	0945	H 833	GEN	1733
9101				SBR	BCLEAR	R	7	0949	H 796 337	GEN	1734
9102				SBR	INITXT&3,START1	R	7	0956	H 710 M96	GEN	1734
9103				SBR	TCLEAR,GMMW	R	7	0963	L 982 110	GEN	1734
9104				LCA	BFUNLOAD C,110	R	4	0970	B 700	GEN	1734
9105				R	MONTER	R	4	0974	0974	GEN	1734
9106	69	08		LTORG	*	R	9	0982		LIT	1734
9107	69	09	9104	DCW	BFUNLOAD C	R	7	0983	H 786 333		1735
9108	69	10	EXIT3	SBR	INITAPE6,333	R	7	0990	H 833 983		1735
9109	69	11		SBR	BCLEAR,EXIT3	R	5	0997	B 333 C	MACRO	1735
9110				FENDX	C,LD52C,GMMW,FUNLOAD B	R	5			GEN	1735
				BSS	333C	R	5			GEN	1735

FMTXT CHANGE IF OBJ FORMAT REASSEMBLED

ADJX3



SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCM	INSTRUCTION	TYPE	CARD
9111			SBR	INITXTE3,LD52C	R	7	1002	H 796 938	GEN	1735
9112			SBR	TCLEAR,GMWM	R	7	1009	H 710 M96	GEN	1735
9113			LCA	@FUNLOAD B@,110	R	7	1016	L #35 110	GEN	1736
9114			B	MONTER	R	4	1023	B 700	GEN	1736
9115	69 12		LTORG *		R			1027		
	9113		DCW	@FUNLOAD B@	R	9	1035		LIT	1736
9116	69 13		ORG	1696	R			1696		
9117	69 14	GMWM	DCW	@ @	R	1	1696			1737
9118	69 15		XFR	START	R			B 934		1738

ADJX3 Bwz  
 CKX3 Bwz  
 GROUP MAMB  
 CHG43 SBR  
 B  
 CKX3, X3, 2  
 EXIT3  
 CHG43, X3-2, 5  
 EXIT3  
 X3, 2000  
 EXIT3

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9119	69	16	JOB	1401 FORTRAN FUNCTION/SUBROUTINE LOADER-B						
9120	69	17	FBEGN	FUNLOAD B,X1,R,X2,R,X3,R						
9121			SFX	R					MACRO	
9122			DCW	@FUNLOAD B@					GEN	1741
9123			EQU	089			0110		GEN	
9124			DCW	000			0089		GEN	
9125			DC	00			0091		GEN	1742
9126			EQU	094			0094		GEN	
9127			DCW	000			0094		GEN	1742
9128			DC	00			0096		GEN	1742
9129			EQU	099			0099		GEN	
9130	69	18	NXBTM	083			0083		GEN	
9131	69	19	ORG	333				0333		
9132	69	20	H	333				. 333		1743
9133	69	21	START1	CS				/ 080		1743
9134	69	22	MCH	X3,HEX3				M 099 W35		1743
9135	69	23	SBR	X3,1&X3				H 099 061		1743
9136	69	24	SW	1,40				, 001 040		1743
9137	69	25	SW	47,54				, 047 054		1744
9138	69	26	SW	61,68				, 061 068		1744
9139	69	27	SW	72				, 072		1744
9140	69	28	MCH	MONITOR,READ				M 769 /60		1744
9141	69	29	B	GET				/49		1744
9142	69	30	MCH	NXBTM,X2				M 083 094		1744
9143	69	31	MN	0&X2				D 0-0		1744
9144	69	32	MN					D		1744
9145	69	33	SBR	KL08R&6				H 495		1745
9146	69	34	MCH	@ @				H V65		1745
9147	69	35	NOP					N		1745
9148	69	36	MCH	X3,NOP4&3				M 099 436		1745
9149	69	37	MZ	@B@,NOP4&2				Y V66 435		1745
9150	69	38	MCH	DSA,X3				M V60 099		1745
9151	69	39	NOP	0				N 000		1745
9152	69	40	SAR	X3				Q 099		1746
9153	69	41	B	GET				B /49		1746
9154	69	42	AGET2	005,@ @				C 005 V70		1746
9155	69	43	BU	MVAD				B 468 /		1746
9156	69	44	MCH	X3,HXCMN#3				M 099 V73		1746
9157	69	45	R	GET2				B 441		1746
9158	69	46	MCH	TBAD2,X1				M V63 089		1746
9159	69	47	SBR	TBAD2,1&X1				H V63 0+1		1747
9160	69	48	C	X1,ENDTABL				C 089 V76		1747
9161	69	49	BE	OUT				B T59 S		1747
9162	69	50	MCH	@H@,BMPT2				M V77 475		1747
9163	69	51	C	TBLAD,&YUSER1				C 927 V80		1747
9164	69	52	BE	STOTP				B U23 S		1747
9165	69	53	MCH	TBLAD,X2				M 927 094		1748
9166	69	54	C	0&X2				C 0-0		1748
9167	69	55	SAR	TBLAD				Q 927		1748
9168	69	56	BW	NODIC,0&X1				V T35 0+0 1		1748

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9169 69 57	NOPSW	MCW	@A@,SW1	R	7	0536	M V81 583	MACRO	1748
9170 69 58	CKZN	BWZ	PURE,42,2	R	8	0543	V /31 042 2	GEN	1748
9171 69 59		MN	46,LOAD&6	R	7	0551	D 046 578	GEN	1749
9172 69 60		CHAIN	5						
9173		MN							
9174		MN							
9175		MN							
9176		MN							
9177		MN							
9178 69 61		MZ	46,LOAD&6	R	7	0562	D 046 578	GEN	1749
9179 69 62		MN							
9180 69 63		MZ							
9181 69 64	LOAD	LCA	0,0&X3	R	1	0570	D	GEN	1750
9182 69 65		SBR	X2	R	1	0571	Y	GEN	1750
9183 69 66	SWI	NOP	CTU1	R	7	0572	L 000 0&0	GEN	1750
9184 69 67		MCW	TBLAD,X1	R	4	0579	H 094	GEN	1750
9185 69 68		SBR	3&X1,1&X2	R	4	0583	N 608	GEN	1750
9186 69 69		MCW	@B@,SW1	R	7	0587	M 927 089	GEN	1750
9187 69 70	CTU1	MZ	45,HLDZN#1	R	7	0594	H 0#3 0-1	GEN	1750
9188 69 71		B	RELOC	R	7	0601	M V66 583	GEN	1751
9189 69 72		S	X1&1	R	7	0608	Y 045 V82	GEN	1751
9190 69 73	DOWM	C	50&X1,@040@	R	4	0615	B S17	GEN	1751
9191 69 74		BE	READ2	R	4	0619	S 090	GEN	1751
9192 69 75		MCW	50&X1,SETW&3	R	7	0623	C 0V0 V85	GEN	1751
9193 69 76		MZ	@B@,SETW&2	R	5	0630	B #11 S	GEN	1751
9194 69 77		BCE	SETW@,SETW@,@	R	7	0635	M 0V0 667	GEN	1752
9195 69 78		MCW	@,@,SETW	R	7	0642	Y V66 666	GEN	1752
9196 69 79	SETW	SW	0&X3	R	8	0649	B 664 664	GEN	1752
9197 69 80		SAR	X2	R	7	0657	M V86 664	GEN	1752
9198 69 81		B	BRELC	R	4	0664	0 0&0	GEN	1752
9199 69 82		NOP	000	R	4	0668	Q 094	GEN	1752
9200 69 83	GMK1	DCW	@ @	R	4	0672	B 934	GEN	1753
9201 69 84		XFR	LD52CR	R	4	0676	N 000	GEN	1753
				R	1	0680	B 938	GEN	1754

FIELD

PROCESS SUBSEQUENT  
DATA FIELDS IF ANY

SET WORD MARK IN  
STORAGE

GROUP MARK

SEQ PG	LIN	LABEL	OP	OPERANDS	FUNCTION/SUBROUTINE LOADER-C	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
9202	69 85		JOB	1401 FORTRAN		R	9	0110		1757
9203	69 86	I10	DCW	@FUNLOAD C@		R	7	0934	0934, Y OUP, V82	1758
9204	69 87	BRELC	ORG	STARTR		R	4	0941	B S17	1758
9205	69 88		MZ	49EX1, HLDZN		R	7	0945	N V87 089	1758
9206	69 89		B	RELOC	RELOCATE OPERANDS	R	7	0952	A V88 089	1758
9207	69 90	ADDS	NOP	@A@, X1		R	8	0959	B 993 945 A	1759
9208	69 91	ADDS2	A	@3@, X1		R	7	0967	M V89 945	1759
9209	69 92		BCE	TYPE1, ADDS, A		R	8	0974	M V81 952	1759
9210	69 93		MCH	@A@, ADDS		R	7	0981	B 945 664 □	1759
9211	69 94		MCH	@A@, ADDS2		R	4	0989	B 623	1759
9212	69 95		BCE	ADDS, SETWM, □		R	7	0993	M V81 945	1760
9213	69 96		B	DOWM		R	7	1000	M V89 952	1760
9214	69 97	TYPE1	MCH	@A@, ADDS		R	4	1007	B 623	1760
9215	69 98		MCH	@A@, ADDS2		R	7	1011	M 046 V92	1760
9216	69 99		B	DOWM		R	7	1018	M V81 945	1760
9217	70 00	READ2	MCH	4@, LAST#3		R	7	1025	M V89 952	1760
9218	70 01		MCH	@A@, ADDS		R	4	1032	B /49	1760
9219	70 02		MCH	@A@, ADDS2		R	8	1036	B #56 068 B	1761
9220	70 03		B	GET		R	8	1044	B #56 040 /	1761
9221	70 04	CKEX	BCE	END, 68, B		R	4	1052	B 543	1761
9222	70 05		BCE	END, 40, /		R	7	1056	M V92 #73	1761
9223	70 06		B	CKZM		R	4	1063	Y V66 #72	1761
9224	70 07	END	MCH	LAST, NOP3@3		R	4	1070	N 0@0	1761
9225	70 08		MZ	@B@, NOP3@2		R	4	1074	Q 099	1762
9226	70 09	NOP3	NOP	0@X3		R	4	1078	H W35	1762
9227	70 10		SAR	X3		R	7	1082	H 099 0@1	1762
9228	70 11		SBR	HEX3		R	8	1089	B 412 000	1762
9229	70 12		SBR	X3, 1@X3		R	4	1097	/ 332	1762
9230	70 13	KLOBR	BCE	LOOP2, 0,		R	1	1101	/	1762
9231	70 14		CS	332		R	2	1102	F 1	1762
9232	70 15		CS			R	7	1104	M W29 270	1763
9233	70 16		CC			R	1	1111	2	1763
9234	70 17		MCH	1	@MESSAGE 2 -- OBJECT PROGRAM TOO LARGE@,270	R	8	1114	B /27 769 I	1763
9235	70 18		W	@MESSAGE 2 -- OBJECT PROGRAM TOO LARGE@,270		R	5	1122	U #U1 R	1763
9236	70 19		CC			R	4	1127	. /27	1763
9237	70 20		BCE	*@6, MONTOR, 1		R	7	1131	H 071 #11	1763
9238	70 21		RWD	1		R	7	1138	M V66 068	1764
9239	70 22		H	*--3		R	4	1145	B 040	1764
9240	70 23	PURE	SBR	71, READ2		R	4	1149	H /87	1764
9241	70 24		MCH	@B@, 68		R	7	1153	M W29 001	1764
9242	70 25		B	40		R	4	1160	1 /84	1764
9243	70 26	GET	SBR	GETX1@3		R	4	1164	M W30 W31	1765
9244	70 27		MCH	@ @, 001		R	8	1171	M #U1 001 R	1765
9245	70 28	READ	R	GETXT		R	5	1179	B /8R L	1765
9246	70 29	MYNIN	MCH	@9, RDCNT#1		R	4	1184	B 000	1765
9247	70 30	ROTAP	RT	1, 1		R	5	1188	U #U1 B	1765
9248	70 31		BER	TPERR		R	7	1193	S W32 W31	1765
9249	70 32	GETXT	B	0		R	7			1765
9250	70 33	TPERR	BSP	1		R	7			1765
9251	70 34		S	@1, RDCNT		R	7			1765

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9252 70 35		BWZ	RDTAP,RDCNT,B	R	8	1200	V /71 W31 B		1765
9253 70 36		NOP	3333	R	4	1208	N C33		1766
9254 70 37		H		R	1	1212	.		1766
9255 70 38		B	MVNIN	R	4	1213	B /64		1766
9256 70 39	RELOC	SBR	RELXT&3	R	4	1217	H T34		1766
9257 70 40		BWZ	RELXT,HL DZN,2	R	8	1221	V T31 V82 2		1766
9258 70 41		BWZ	ISB,HL DZN,S	R	8	1229	V S88 V82 S		1766
9259 70 42		MCM	X3,HEX3#3	R	8	1237	M 099 W35		1766
9260 70 43		BWZ	SW2X2,4&X2,2	R	7	1244	V S66 0-4 2		1767
9261 70 44		MCM	HXC MN,X3	R	7	1252	M V73 099		1767
9262 70 45		MZ	*-4,4&X2	R	7	1259	Y S61 0-4		1767
9263 70 46	SW2X2	MA	X3,4&X2	R	7	1266	# 099 0-4		1767
9264 70 47		MCM	HEX3,X3	R	7	1273	M W35 099		1767
9265 70 48		BWZ	RELXT,HL DZN,K	R	8	1280	V T31 V82 K		1768
9266 70 49	ISB	MCM	X3,HEX3	R	7	1288	M 099 W35		1768
9267 70 50		BWZ	MCWX2,7&X2,2	R	8	1295	V T17 0-7 2		1768
9268 70 51		MCM	HXC MN,X3	R	7	1303	M V73 099		1768
9269 70 52		MZ	*-4,7&X2	R	7	1310	Y T12 0-7		1768
9270 70 53	MCWX2	MA	X3,7&X2	R	7	1317	# 099 0-7		1768
9271 70 54		MCM	HEX3,X3	R	7	1324	M W35 099		1769
9272 70 55	RELXT	B	000	R	4	1331	B 000		1769
9273 70 56	NODIC	B	GET	R	4	1335	B /49		1769
9274 70 57		BCE	GET2,40,/	R	8	1339	B 441 040 /		1769
9275 70 58		BCE	GET2,68,B	R	8	1347	B 441 068 B		1769
9276 70 59		R	NODIC	R	4	1355	B T35		1770
9277 70 60	OUT	NOP	OUT2	R	4	1359	N U41		1770
9278 70 61		MCM	@B@,OUT	R	7	1363	M V66 T59		1770
9279 70 62		SBR	TBAD2,XSINFU	R	7	1370	M V63 118		1770
9280 70 63		MCM	HEX3,X2	R	7	1377	M W35 094		1770
9281 70 64		SBR	GOTOFN,1&X2	R	7	1384	H 188 0-1		1770
9282 70 65		MCM	@N@,BMPT2	R	7	1391	M V81 475		1771
9283 70 66		MCM	@N@,NGPSW	R	7	1398	M V81 536		1771
9284 70 67		MCM	@B@,SW1	R	7	1405	M V66 583		1771
9285 70 68		MCM	HEX3,BTM#3	R	7	1412	M W35 W38		1771
9286 70 69		B	AGET2	R	4	1419	B 445		1771
9287 70 70	STOTP	MCM	HEX3,TOP#3	R	7	1423	M W35 W41		1771
9288 70 71		MCM	@N@,CKUSR	R	7	1430	M V81 508		1772
9289 70 72		B	CKUSR&5	R	4	1437	B 513		1772
9290 70 73		MCM	HEX3,X3	R	7	1441	M W35 099		1772
9291 70 74	OUT2	MCM	PARAM&2,X2	R	7	1448	M 688 094		1772
9292 70 75		C	OSX2	R	4	1455	C 0-0		1772
9293 70 76		SAR	X2	R	4	1459	Q 094		1772
9294 70 77		SBR	FLTWD	R	4	1463	H 933		1772
9295 70 78		C	OGX2	R	4	1467	C 0-0		1773
9296 70 79		SAR	FIXWD	R	4	1471	Q 930		1773
9297 70 80		BCE	MTPX1,XLINKS,	R	8	1475	B V08 840		1773
9298 70 81		MCM	XLINKS,X1	R	7	1483	M 840 089		1773
9299 70 82		MA	@013@,X1	R	7	1490	# W44 089		1773
9300 70 83		MLC	CONLST,0&X1	R	7	1497	M 194 0#0		1773
9301 70 84		CW	XLINKW	R	4	1504	□ 185		1774

BLANK

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9302	70 85	MTPX1	MCW	TOP,X1	R	7	1508	M W41 089		1774
9303	70 86		MCW	BTM,X2	R	7	1515	M W38 094		1774
9304	70 87		FENDX	START,START,,1696,RELOAD SS					MACRO	
9305			SBR	INITAP66,START					GEN	1774
9306			SBR	BCLEAR	R	4	1522	H 786 934	GEN	1774
9307			SBR	INITXT63,START	R	4	1529	H 833	GEN	1774
9308			SBR	TCLEAR,1696	R	7	1533	H 796 934	GEN	1774
9309			LCA	ARELOAD SS,110	R	7	1540	H 710 W96	GEN	1775
9310			B	MONTER	R	4	1547	L W53 110	GEN	1775
9311	70 88	DSA	DSA	-2000	R	3	1554	B 700	GEN	1775
9312	70 89	TBAD2	DCW	XDOADI	R	3	1560	-0E		1775
9313	70 90	LDGSW	DC	#1	R	3	1563	111		1775
9314	70 91		LTORG *		R	1	1564	1565		1775
			DCW	@ @	R	1	1565		LIT	1775
				@ @	R	1	1566		LIT	1775
				@ @	R	4	1570		LIT	1776
9156		HXCMM	#03		R	3	1573		AREA	1776
9160			ENDTABL		R	3	1576	140	ADCON	1776
			SHA		R	1	1577		LIT	1776
9163			YUSER1		R	3	1580	876	ADCON	1776
			ANA		R	1	1581		LIT	1776
9187		HLDZN	#01		R	1	1582		AREA	1776
			@040a		R	3	1585		LIT	1777
			@,a		R	1	1586		LIT	1777
			@4a		R	1	1587		LIT	1777
			@3a		R	1	1588		LIT	1777
			@Aa		R	1	1589		LIT	1777
9217		LAST	#03		R	3	1592		AREA	1777
9234			MESSAGE 2 - OBJECT PROGRAM TOO LARGE		R	36	1628		LIT	1778
			@ @		R	1	1629		LIT	1778
			CA		R	1	1630		LIT	1778
9246		RDCNT	#01		R	1	1631		AREA	1778
			CI		R	1	1632		LIT	1779
9259		HEX3	#03		R	3	1635		AREA	1779
9285		BTM	#03		R	3	1638		AREA	1779
9297		TOP	#03		R	3	1641		AREA	1779
			@013a		R	3	1644		LIT	1779
9309			ARELOAD SSa		R	9	1653		LIT	1779
9315	70 92		@ @		R	1	1654			1779
9316	70 93		STARTI		R	1		B 337		1780

SYSTEM GROUP MARK

SEQ PG	LTN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9317	70 94		JOB	1401 FORTRAN RELOCATABLE PACKAGE						
9318	70 95	110	DCW	2			5 0110			1783
9319	70 96	*		ALL 11-5-8						
9320	70 97	*		FIRST CARD OF PACKAGE						
9321	70 98	*		RELOCATABLE PACKAGE APPEARS HERE IN SYSTEM DECK						
9322	70 99	*		MUST MANUALLY ZONE ADDRESS IN OBLST TO RELOCATE						
9323	71 00	*								
9324	71 01	*								
9325	71 02	110	DCW	2			5 0110			1784
				ALL 11-6-8						
				LAST CARD OF PACKAGE						

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
9326 71 03		JOB	1401 FORTRAN RELOADING SNAPSHOT					
9327 71 04		SFX #		9	0110			1785
9328 71 05	110	DCW	@RELOAD SS@					1786
9329 71 06		ORG	STARTR					1786
9330 71 07	BEGIN	B	EXIT1			0934		1786
9331 71 08	RETRN	MCH	@@,WORD	4	0934	B #00		1786
9332 71 09		CW	WORD	7	0938	M 990 680		1786
9333 71 10		FENDX	C,,,STARTR,STARTR,,GM53S,FORMATPAK	4	0945	a 680	MACRO	
9334		BSS	333,C	5	0949	B 333 C	GEN	1786
9335		SBR	INITAP@,STARTR	7	0954	H 786 934	GEN	1786
9336		SBR	BCLEAR	4	0961	H 833	GEN	1786
9337		SBR	INITXT@,STARTR	7	0965	H 796 934	GEN	1786
9338		SBR	TCLEAR,GM53S	7	0972	H 710 W96	GEN	1787
9339		LCA	@FORMATPAK@,110	7	0979	L 999 110	GEN	1787
9340		B	MONTER	4	0986	B 700	GEN	1787
9341 71 11		LTORG *				0990		
		DCW	@@	1	0990		LIT	1787
9339			@FORMATPAK@	9	0999		LIT	1787
9342 71 12		SBR	INITAP@,333	7	1000	H 786 333		1787
9343 71 13	EXIT1	SBR	BCLEAR,EXIT1	7	1007	H 833 #00		1788
9344 71 14		SBR	INITXT@,RETRN	7	1014	H 796 938		1788
9345 71 15		SBR	TCLEAR,GM53S	7	1021	H 710 W96		1788
9346 71 16		LCA	@SNAPSHOT53@,110	7	1028	L #48 110		1788
9347 71 17		B	MONTER	4	1035	B 700		1788
9348 71 18		LTORG *				1039		
		DCW	@SNAPSHOT53@	10	1048		LIT	1789
9349 71 19		ORG	1696			1696		
9350 71 20	GM53S	DCW	@ @	1	1696			1790
9351 71 21		XFR	BEGIN			B 934		1791



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9352	71	22		JOB	1401 FORTRAN SNAPSHOT 53S						
9353	71	23	XXX	EQU	0	#	0000				1794
9354	71	24	XL1	EQU	089	#	0089				1794
9355	71	25	XL2	EQU	094	#	0094				1794
9356	71	26	XL3	EQU	099	#	0099				1794
9357	71	27		DRG	333	#			0333		1794
9358	71	28		SBR	PRTXTE3	#	0333		M 567		1795
9359	71	29		SBR	HLDXTE6	#	0337		H 408		1794
9360	71	30		MCW	@000@,LINCT-2	#	0341		M 661 656		1794
9361	71	31		MCW	XL3, HLD32E6	#	0348		M 099 415		1794
9362	71	32		MCW	XL1, HLD31E6	#	0355		M 089 422		1794
9363	71	33		SBR	XL1, I	#	0362		H 089 001		1794
9364	71	34		SBR	XL3, 202	#	0369		H 099 202		1795
9365	71	35		CS	332	#	0376		/ 332		1795
9366	71	36		CS		#	0380		/		1795
9367	71	37		MCW	110,210	#	0381		M 110 210		1795
9368	71	38		BSS	ONLY,F	#	0388		B 621 F		1795
9369	71	39		CC	1	#	0393		F 1		1795
9370	71	40		MCW	094,250	#	0395		M 094 250		1795
9371	71	41	HLDXT	SBR	216,XXX	#	0402		H 216 000		1796
9372	71	42	HLD32	SBR	256,XXX	#	0409		H 256 000		1796
9373	71	43	HLD31	SBR	244,XXX	#	0416		H 244 000		1796
9374	71	44		W		#	0423		2		1796
9375	71	45		CC	K	#	0424		F K		1796
9376	71	46		ZA	E2,PGCTR#2	#	0426		E 662 664		1796
9377	71	47	NUL IN	CS	332	#	0433		/ 332		1796
9378	71	48		CS		#	0437		/		1797
9379	71	49		CC	J	#	0438		F J		1797
9380	71	50		MCW	LINCT,306	#	0440		M 658 306		1797
9381	71	51		MCW		#	0447		M		1797
9382	71	52		SBR	MVHED&6	#	0448		H 465		1797
9383	71	53		MCW	@9@, CTR-1	#	0452		M 665 668		1797
9384	71	54		MCW	CTR-1,XXX	#	0459		M 668 000		1797
9385	71	55	MVHED	MCW	HEAD	#	0466		M 651		1798
9386	71	56		SBR	MVHED&6	#	0470		H 465		1798
9387	71	57		A	@10@, CTR#2	#	0474		A 667 669		1798
9388	71	58		BWZ	MVHED, CTR-1, 2	#	0481		V 459 668 2		1798
9389	71	59		A	E1,LINCT-2	#	0489		A 670 656		1798
9390	71	60		W		#	0496		2		1798
9391	71	61	LOOP	SW	OEX3	#	0497		, OEO		1798
9392	71	62		MCW	OEX1,OEX3	#	0501		M 0#0 OEO		1799
9393	71	63		BW	CMPAB,OEX1	#	0508		V 520 0#0 I		1799
9394	71	64		CH	OEX3	#	0516		O OEO		1799
9395	71	65	CMPAB	C	XL1,PARAMAE2	#	0520		C 089 698		1799
9396	71	66		BU	CPL	#	0527		B 568 /		1799
9397	71	67		W		#	0532		2		1799
9398	71	68		WM		#	0533		2		1799
9399	71	69	RSTRX	MCW	HLD31E6,XL1	#	0535		M 422 089		1800
9400	71	70		MCW	HLD32E6, XL3	#	0542		M 415 099		1800
9401	71	71		CS	332	#	0549		/ 332		1800

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9402	71 72		CS		#	1	0553	/		1800
9403	71 73		BSS	*G5,G	#	5	0554	B 563 G		1800
9404	71 74		B	PRTXT	#	4	0559	B 564		1800
9405	71 75		H		#	1	0563	.		1800
9406	71 76	PRTXT	B	O	#	4	0564	B 000		1801
9407	71 77	CPL	SBR	XL1, 1&X1	#	7	0568	H 089 0+1		1801
9408	71 78		BCE	INC, XL3-2, 2	#	8	0575	B 632 097 2		1801
9409	71 79		SBR	XL3, 201	#	7	0583	H 099 201		1801
9410	71 80		W		#	1	0590	2		1801
9411	71 81		MM		#	2	0591	2		1801
9412	71 82		A	E1,PGCTR	#	7	0593	A 670 664		1801
9413	71 83		C	PGCTR,E15	#	7	0600	C 664 672		1802
9414	71 84		BU	NULIN	#	5	0607	B 433 /		1802
9415	71 85		S	PGCTR	#	4	0612	S 664		1802
9416	71 86		CCB	NULIN,1	#	5	0615	F 433 1		1802
9417	71 87	ONLY	MCM	WORD,220	#	7	0621	M 680 220		1802
9418	71 88		W	RSTRX	#	4	0628	2 535		1802
9419	71 89	INC	A	E1, XL3	#	7	0632	A 670 099		1802
9420	71 90		B	LOOP	#	4	0639	B 497		1803
9421	71 91	HEAD	DCW	39.....a	#	9	0651			1903
9422	71 92		DCW	a9-a	#	2	0653			1903
9423	71 93	LINCT	DCW	00000	#	5	0658			1903
9424	71 94		LTOrg	*	#			0659		1903
			DCW	a000a	#	3	0661		LIT	1903
			DCW	C2	#	1	0662		LIT	1903
9376		PGCTR		#02	#	2	0664		AREA	1903
				a9a	#	1	0665		LIT	1904
				a10a	#	2	0667		LIT	1904
9387		CTR		#02	#	2	0669		AREA	1904
				E1	#	1	0670		LIT	1904
				E15	#	2	0672		LIT	1904
9425	71 95		DCW	aEXECUTEa	#	7	0679			1804
9426	71 96	WORD	DCW	a a	#	7	0679			1804
9427	71 97		XFR	RETRN	#	1	0680	B 938		1804

GROUP MARK IN 680

SEQ PG	LIN	LABEL	OP	OPERANDS	REPLACE PHASE TWO	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
9428	71	98	JOB	1401 FORTRAN						
9429	71	99	SFX	Q						
9430	72	00	EQU	086		Q	0086			
9431	72	01	NXTOP	083		Q	0083			
9432	72	02	EQU	089		Q	0089			
9433	72	03	X1	094		Q	0094			
9434	72	04	X2	099		Q	0099			
9435	72	05	EQU	FIXWDR		Q	0930			
9436	72	06	EQU	FLTWDR		Q	0933			
9437	72	07	ORG	STARTR						
9438	72	08	SBR	GARY#3, 1&X3		Q	0934	0934	H V13 0&1	1808
9439	72	09	SW	1&X3		Q	0941		H 0&1	1808
9440	72	10	SBR	LIMIT#3, 0&X2		Q	0945		H V16 0-0	1808
9441	72	11	SBR	TOP#3, 0&X1		Q	0952		H V19 0+0	1808
9442	72	12	MCH	PARAM&2, X2		Q	0956		M 688 094	1808
9443	72	13	C	0&X2		Q	0966		C 0-0	1808
9444	72	14	C			Q	0970		C	1808
9445	72	15	C			Q	0971		C	1809
9446	72	16	SBR	RON&6		Q	0972		H T93	1809
9447	72	17	MCH	NXTOP, X2		Q	0976		M 086 094	1809
9448	72	18	MN	0&X2		Q	0983		D 0-0	1809
9449	72	19	SAR	TOP2#3		Q	0987		Q V22	1809
9450	72	20	C	X3, LIMIT		Q	0991		C 099 V16	1809
9451	72	21	BE	EXITA		Q	0998		B /57 S	1809
9452	72	22	C	0&X3		Q	1003		C 0&0	1810
9453	72	23	SBR	X2		Q	1007		H 094	1810
9454	72	24	SBR	X3		Q	1011		H 099	1810
9455	72	25	BCE	TEST2, 1&X3, T		Q	1015		B #95 0&1 T	1810
9456	72	26	MCH	4&X3, BOX		Q	1023		M 0&4 V25	1810
9457	72	27	BCE	FXFLI, BOX-2,	11-6-8	Q	1030		B T98 V23	1810
9458	72	28	BCE	FXFLI, BOX-2,	11-7-8	Q	1038		B T98 V23	1811
9459	72	29	BCE	RON, BOX-2,	11-5-8	Q	1046		B T97 V23	1811
9460	72	30	MCH	BOX, 4&X3		Q	1054		M V25 0&4	1811
9461	72	31	MCH	7&X3, BOX#3		Q	1061		M 0&7 V25	1811
9462	72	32	BCE	FXFLI, BOX-2,	11-6-8	Q	1068		B T98 V23	1811
9463	72	33	BCE	FXFLI, BOX-2,	11-7-8	Q	1076		B T9A V23	1812
9464	72	34	MCH	BOX, 7&X3		Q	1084		M V25 0&7	1812
9465	72	35	B	TEST5		Q	1091		B 991	1812
9466	72	36	BCE	TEST5, 4&X3, \$		Q	1095		B 991 0&4 \$	1812
9467	72	37	C	0&X3, @B700@		Q	1103		C 0&0 V29	1812
9468	72	38	BE	TEST5		Q	1110		B 991 S	1812
9469	72	39	BWZ	CKFX, 4&X2, 1		Q	1115		V #23 0-4 1	1813
9470	72	40	BWZ			Q	1123		V	1813
9471	72	41	BWZ			Q	1124		V	1813
9472	72	42	MCH	@B@, 1&X3		Q	1125		M V30 0&1	1813
9473	72	43	MCH	4&X2, X1		Q	1132		M 0-4 089	1813
9474	72	44	MCH	0&X1, X1		Q	1139		M 0+0 089	1813
9475	72	45	MCH	X1, 4&X2		Q	1146		M 089 0-4	1813
9476	72	46	B	CKFX		Q	1153		B #23	1814
9477	72	47	MCH	EXIT, SWITCH&3		Q	1157		M V33 #01	1814

SEQ PG LIN	LABEL	OP	OPERANDS	FORM-1 CHG ON REASSM OF OBJ FORMAT	SFX CT	LOCN	INSTRUCTION TYPE	CARD
9478 72 48		MCW	TOP,X3		Q	7 1164	M V19 099	1814
9479 72 49		MCW	@M96@,LIMIT		Q	7 1171	M V36 V16	1814
9480 72 50		B	TEST5		Q	4 1178	B 991	1814
9481 72 51	EXIT	MCW	GARY,X3		Q	7 1182	M V13 099	1814
9482 72 52		SBR	X3,1&X3		Q	7 1189	H 099 0&1	1815
9483 72 53		MZ	X3,ALL9		Q	7 1196	Y 099 V07	1815
9484 72 54		MZ			Q	1 1203	Y	1815
9485 72 55		MCW			Q	1 1204	M	1815
9486 72 56		MZ	NXBTM,ALL91		Q	7 1205	Y 083 V10	1815
9487 72 57		MZ			Q	1 1212	Y	1815
9488 72 58		MCW			Q	1 1213	M	1815
9489 72 59		C	ALL9,ALL91		Q	7 1214	C V07 V10	1816
9490 72 60		BE	SPCL		Q	5 1221	B S84 S	1816
9491 72 61		MCW	NXBTM,X3		Q	7 1226	M 083 099	1816
9492 72 62	CLEER	CS	0&X3		Q	4 1233	/ 0&0	1816
9493 72 63		SBR	X3		Q	4 1237	H 099	1816
9494 72 64		C	X3,ALL9		Q	7 1241	C 099 V07	1816
9495 72 65		BU	CLEER		Q	5 1248	B S33 /	1816
9496 72 66	SNGL	C	X3,GARY		Q	7 1253	C 099 V13	1817
9497 72 67		BE	EOJ		Q	5 1260	B S95 S	1817
9498 72 68		LCA	BLNK#1,0&X3		Q	7 1265	L V37 0&0	1817
9499 72 69		SBR	X3		Q	4 1272	H 099	1817
9500 72 70		CW	1&X3		Q	4 1276	H 0&1	1817
9501 72 71		B	SNGL		Q	4 1280	B S53	1817
9502 72 72	SPCL	MCW	NXBTM,X3		Q	7 1284	M 083 099	1817
9503 72 73		B	SNGL		Q	4 1291	B S53	1818
9504 72 74	EOJ	MCW	NXBTM,X3		Q	7 1295	M 083 099	1818
9505 72 75		MCW	@@,0&X3		Q	7 1302	M V3& 0&0	1818
9506 72 76		SBR	X3		Q	4 1309	H 099	1818
9507 72 77		MCW	@ @,0&X3	11-5-8	Q	7 1313	M V39 0&0	1818
9508 72 78		MCW	0&X3		Q	4 1320	M 0&0	1818
9509 72 79		SBR	X3		Q	4 1324	H 099	1818
9510 72 80		LCA	BLNK,2&X3		Q	7 1328	L V37 0&2	1819
9511 72 81		LCA	BLNK		Q	4 1335	L V37	1819
9512 72 82		MCW	DOSBSC,SUBSCR		Q	7 1339	M 909 191	1819
9513 72 83		FENDX	C,,XBEGIN,XBEGIN,XBEGIN,SYS2,SNAPSHOT		Q			MACRO
9514		BSS	333,C		Q	5 1346	B 333 C	GEN
9515		SBR	INITAP&6,XBEGIN		Q	7 1351	H 786 83&	GEN
9516		SBR	BCLEAR		Q	4 1358	H 833	GEN
9517		SBR	INITXT&3,XBEGIN		Q	7 1362	H 796 838	GEN
9518		SBR	TCLEAR,SYS2		Q	7 1369	H 710 V49	GEN
9519		LCA	@SNAPSHOT@,110		Q	7 1376	L V47 110	GEN
9520		B	MONTER		Q	4 1383	B 700	GEN
9521 72 84	RON	SBR	4&X3,0		Q	7 1387	H 0&4 000	1820
9522 72 85		B	CKBOP		Q	4 1394	B #61	1820
9523 72 86	FXFLT	SBR	FKT&3		Q	4 1398	H U85	1821
9524 72 87		MCW	FIXWD,BOX2		Q	7 1402	M 937 094	1821
9525 72 88		BCE	*68,BOX-2,	11-7-8	Q	8 1409	B U24 V23	1821
9526 72 89		MCW	FLTWD,BOX2		Q	7 1417	M 933 094	1821
9527 72 90		BCE	EOFX,BOX,0	236	Q	8 1424	B U75 V25 0	1821

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9528	72 91		BWZ	POSTV, BOX, B	Q	8	1432	V U86 V25 B		1822
9529	72 92	BOX2	EQU	X2	Q		0094			1822
9530	72 93		SW	BOX-1	Q	4	1440	, V24		1822
9531	72 94	LOOP	A	E1, BOX	Q	7	1444	A V48 V25		1822
9532	72 95		BWZ	DUN2, BOX, B	Q	8	1451	V U71 V25 B		1822
9533	72 96		MN	OE X2	Q	4	1459	D 0-0		1822
9534	72 97		SAR	X2	Q	4	1463	Q 094		1822
9535	72 98		B	LOOP	Q	4	1467	B U44		1822
9536	72 99		CW	BOX-1	Q	4	1471	□ V24		1822
9537	73 00	DUN2	MCH	BOX2, BOX	Q	4	1475	M 094 V25		1823
9538	73 01	EDFX	R	0	Q	7	1482	B 000		1823
9539	73 02	POSTV	MN	BOX, SBR&6	Q	4	1486	D V25 V00		1823
9540	73 03		MN		Q	7	1493	D		1823
9541	73 04	SBR	SBR	BOX, OE X2	Q	1	1494	H V25 0-0		1823
9542	73 05		B	FXT	Q	7	1501	R U82		1823
9543	73 06	ALL9	DCW	999	Q	4	1507			1823
9544	73 07	ALL91	DCW	999	Q	3	1510			1824
9545	73 08		LTRG *		Q	3	1510	1511		1824
	9438	GARY	DCW	#03	Q	3	1513		AREA	1824
	9440	LIMIT		#03	Q	3	1516		AREA	1824
	9441	TOP		#03	Q	3	1519		AREA	1824
	9449	TOP2		#03	Q	3	1522		AREA	1824
	9461	BOX		#03	Q	3	1525		AREA	1824
				@B700a	Q	4	1529		LIT	1825
	9477			@Ba	Q	1	1530		LIT	1825
				LEXIT	Q	3	1533	/82	ADCON	1825
	949B	BLNK		@M96a	Q	3	1536		LIT	1825
				#01	Q	3	1537		AREA	1825
				@a	Q	1	1538		LIT	1825
				@a	Q	1	1539		LIT	1825
	9519			@SNAPSHOTA	Q	8	1547		LIT	1826
				L1	Q	1	1548		LIT	1826
9546	73 09	SYS2	DCW	@ a	Q	1	1549			1826
9547	73 10		XFR	INIT	Q	1		B 934		1827

SYSTEM GROUP MARK

SEQ	PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9548	73	11		JOB	1401 FORTRAN SNAPSHOT PHASE					MACRO	
9549	73	12		FBEGN	SNAPSHOT,X1,R,,X3,R,8,XXX					GEN	
9550				SFX	0	8		0000		GEN	1830
9551			XXX	EQU	@SNAPSHOT@	8		0110		GEN	1831
9552			L10	DCW	089	8		0089		GEN	1831
9553			X1	EQU	000	8		0091		GEN	1832
9554			089	DCW	000	8		0099		GEN	1832
9555			091	DC	099	8		0099		GEN	1832
9556			X3	EQU	000	8		0100		GEN	1832
9557			099	DCW	0	8		0838	0838		
9558			100	DC	XBEGIN	8		850	694 S		
9559	73	13		ORG	*85,PARAM&8,S	8		850	694 S		
9560	73	14	START	BCE	RSTRX	8		850	694 S		
9561	73	15		B		8		850	694 S		
9562	73	16		BW	NOGUD,FAILSW	8		850	694 S		
9563	73	17		SBR	X1,4200	8		850	694 S		
9564	73	18		SBR	X3,201	8		850	694 S		
9565	73	19		BCE	NOIO,PARAM&10,X	8		850	694 S		
9566	73	20		BCE	L10,PARAM&10,L	8		850	694 S		
9567	73	21		BCE	AFORM,PARAM&10,A	8		850	694 S		
9568	73	22		B	PRINT	8		850	694 S		
9569	73	23		SBR	X1,1600	8		850	694 S		
9570	73	24	NOIO	MCW	@01600@,LINCT	8		850	694 S		
9571	73	25		MCW	@1696@,BIGMS	8		850	694 S		
9572	73	26		B	PRINT	8		850	694 S		
9573	73	27		SBR	X1,2000	8		850	694 S		
9574	73	28		MCW	@2000@,LINCT	8		850	694 S		
9575	73	29		MCW	@2015@,BIGMS	8		850	694 S		
9576	73	30		B	PRINT	8		850	694 S		
9577	73	31	AFORM	SBR	X1,4600	8		850	694 S		
9578	73	32		MCW	@4600@,LINCT	8		850	694 S		
9579	73	33		MCW	@4616@,BIGMS	8		850	694 S		
9580	73	34		MESSG	@SNAPSHOT OF OBJECT PROGRAM@,60,1,J	8		850	694 S		
9581			PRINT	CC	1	8		0971	F 1	MACRO	1836
9582				CS	332	8		0973	/ 332	GEN	1836
9583				CS		8		0977	/	GEN	1836
9584				MCW	@SNAPSHOT OF OBJECT PROGRAM@,60&200	8		0978	M T74 260	GEN	1837
9585				W		8		0985	2	GEN	1837
9586				CC		8		0986	F J	GEN	1837
9587	73	35		MESSG	@INPUT/OUTPUT AREAS LOCATED FROM 001-332@,39,,J	8		0988	/ 332	MACRO	1837
9588				CS	332	8		0992	/	GEN	1837
9589				CS		8		0993	M U13 239	GEN	1837
9590				MCW	@INPUT/OUTPUT AREAS LOCATED FROM 001-332@,39&200	8		1000	2	GEN	1837
9591				W		8		1001	F J	GEN	1837
9592				CC		8		1003	/ 332	MACRO	1838
9593	73	36		MESSG	BIGMS,48,,K	8		1007	/	GEN	1838
9594				CS	332	8		1008	M T00 248	GEN	1838
9595				CS		8		1008	M T00 248	GEN	1838
9596				MCW	BIGMS,48&200	8		1015	2	GEN	1838
9597				W		8		1015	2	GEN	1838

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
9598		CC	K	8	1016	F K	GEN	1838
9599		ZA	63,PGCTR	8	1018	& U14 U67		1838
9600	NULIN	CS	332	8	1025	/ 332		1839
9601		CS		8	1029	/		1839
9602		CC	J	8	1030	F J		1839
9603		MCW	LINCT,311	8	1032	M T21 311		1839
9604		MCW		8	1039			1839
9605		MCW		8	1040			1839
9606		SBR	MVHED&6	8	1041	H #58		1839
9607		MCW	39@,CTR-1	8	1045	M U15 U18		1840
9608		MCW	CTR-1,XXX	8	1052	M U18 000		1840
9609	MVHED	MCW	HEAD	8	1059	M T09		1840
9610		SBR	MVHED&6	8	1063	H #58		1840
9611		A	@IO@,CTR#2	8	1067	A U17 U19		1840
9612		BWZ	MVHED,CTR-1,2	8	1074	V #52 U18 2		1840
9613		A	@1.LINCT-2	8	1082	A U20 T19		1841
9614		W		8	1089	2		1841
9615	LOOP	SW	O&X3	8	1090	, O&O		1841
9616		MCW	O&X1,O&X3	8	1094	M O#0 O&O		1841
9617		BW	CMPAB,O&X1	8	1101	V /13 O#0 1		1841
9618		CW	O&X3	8	1109	O O&O		1841
9619		C	X1,PARAM&2	8	1113	C O&9 688		1841
9620	CMPAB	BU	CPL	8	1120	A /88 /		1842
9621		H		8	1125	2		1842
9622		WM		8	1126	2		1842
9623	RSTRX	FENDX	C,,,BEGIN/,SYSG,CONDECK1	8	1128	B 333 C	MACRO	1842
9624	RSTRX	BSS	333,C	8	1133	H 796 884	GEN	1842
9625		SBR	INITXT&3,BEGIN/	8	1140	L 710 U79	GEN	1842
9626		SBR	TCLEAR,SYSG	8	1147	H U25 110	GEN	1842
9627		LCA	@CONDECK1@,110	8	1154	B 700	GEN	1843
9628		B	MONTER	8	1158	F J	MACRO	1843
9629		MESSE	@SNAPSHOT DEFERRED DUE TO INPUT ERRORS@,37,J	8	1160	/ 332	GEN	1843
9630	NOGUD	CC	J	8	1164	/	GEN	1843
9631	NOGUD	CS	332	8	1165	M U65 237	GEN	1843
9632		CS		8	1172	2	GEN	1843
9633		MCW	@SNAPSHOT DEFERRED DUE TO INPUT ERRORS@,37&200	8	1173	B /82 @	MACRO	1843
9634		W		8	1178	B /84	GEN	1844
9635		FORMS		8	1182	F 1	GEN	1844
9636		BCV	*&5	8	1184	B /28	GEN	1844
9637		B	*&3	8	1188	H O89 0#1	GEN	1844
9638		CC	1	8	1195	B 542 097 2	GEN	1844
9639		B	RSTRX	8	1203	H O99 201	GEN	1844
9640		SBR	X1,1&X1	8	1210	2	GEN	1844
9641		BCE	INC,X3-2,2	8	1211	2	GEN	1845
9642		SBR	X3,201	8	1213	A U20 U67	GEN	1845
9643		W		8	1220	C U67 U69	GEN	1845
9644		WM		8	1227	B #25 /	GEN	1845
9645		A	@1,PGCTR#2	8				
9646		C	PGCTR,615	8				
9647		AU	NULIN	8				

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
9648 73 73		S	PGCTR	8	1232	S U67	1845
9649 73 74		CC	1	8	1236	F 1	1845
9650 73 75		B	NULIN	8	1238	B #25	1845
9651 73 76	INC	A	E1,X3	8	1242	A U20 099	1846
9652 73 77		B	LOOP	8	1249	B #90	1846
9653 73 78	RIGMS	DCW	@FIXED OBJECT TIME ROUTINES LOCATED FROM 333-4279@	8	1300		1848
9654 73 79	HEAD	DCW	@9.....@	8	1309		1848
9655 73 80		DCW	@9@	8	1310		1848
9656 73 81		DCW	@-AREA-@	8	1316		1848
9657 73 82	LINCT	DCW	04200	8	1321		1848
9658 73 83		LTOrg *		8		1322	
9570		DCW	@01600@	8	1326		1849
			@1696@	8	1330		1849
9574			@02000@	8	1335		1849
			@2015@	8	1339		1849
9578			@04600@	8	1344		1849
			@4616@	8	1348		1849
9584			@SNAPSHOT OF OBJECT PROGRAM@	8	1374		1850
9590			@INPUT/OUTPUT AREAS LOCATED FROM 001-332@	8	1413		1851
			E3	8	1414		1852
			@9@	8	1415		1852
9611	CTR		@10@	8	1417		1852
			#02	8	1419		1852
			E1	8	1420		1852
9627			@CONDECK1@	8	1428		1852
9633			@SNAPSHOT DEFERRED DUE TO INPUT ERRORS@	8	1465		1853
9645	PGCTR		#02	8	1467		1853
			E15	8	1469		1854
9659 73 84	SYSG	DCW	@ @	8	1470		1854
9660 73 85	XFR	XFR	START	8			1855
			SYSTEM GROUP MARK	8			1855



SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9661	73 86		JOB	1401 FORTRAN CONDENSED DECK PHASE ONE						
9662	73 87		FBEGN	CONDECK1,...../					MACRO	1858
9663			SFX	/					GEN	
9664		110	DCW	@CONDECK1@	/	8	0110		GEN	
9665	73 88	LAST	EQU	CONLST	/		0194			
9666	73 89		ORG	XBEGIN	/	4	0838	H 853		1859
9667	73 90	PCHCD	SBR	PXT@3	/	7	0842	A 883 175		1859
9668	73 91		A	@1,175	/	5	0849	B 859 B		1859
9669	73 92		BSS	MCW18,B	/	1	0854	4		1859
9670	73 93		P	000	/	4	0855	B 000		1859
9671	73 94	PXT	B	180,280	/	7	0859	M 180 280		1859
9672	73 95	MCM18	MCW		/	1	0866	M		1859
9673	73 96		MCW		/	1	0866	M		1859
9674	73 97		WP		/	1	0967	6		1860
9675	73 98		FORMS		/				MACRO	
9676			BCV	*@5	/	5	0868	B 877 @		1860
9677			B	*@3	/	4	0873	R 879		1860
9678			CC	1	/	2	0877	F 1		1860
9679	73 99		B	PXT	/	4	0879	B 855		1860
9680	74 00		LTORG	*	/			0883		
9681	74 01	BEGIN	DCW	@1	/	1	0883		LIT	1860
9682	74 02		BCE	GOTTA,PARAM@7,P	/	8	0884	B 896 693 P		1860
9683	74 03	GOTTA	B	FENDX	/	4	0892	B 956		1861
9684	74 04		BW	FENDX,FAILSW	/	8	0896	V 956 184 1		1861
9685	74 05		LCA	CONLST,LAST	/	7	0904	L 194 194		1861
9686	74 06		CS	180	/	4	0911	/ 180		1861
9687	74 07		SW	101	/	4	0915	/ 101		1861
9688	74 08		MCW	PARAM-1,180	/	7	0919	M 685 180		1861
9689	74 09		BSS	MESSG,B	/	5	0926	B 935 B		1861
9690	74 10	MESSG	B	CDDMP	/	4	0931	B 997		1862
9691		MESSG	CC	@CONDENSED DECK@,60,1,J	/	2	0935	F 1	MACRO	1862
9692			CS	332	/	4	0937	/ 332	GFN	1862
9693			CS		/	1	0941	/	GEN	1862
9694			MCW	@CONDENSED DECK@,60&200	/	7	0942	M U04 260	GEN	1862
9695			W		/	1	0949	2	GEN	1862
9696			CC	J	/	2	0950	F J	GEN	1862
9697	74 11		B	CDDMP	/	4	0952	B 997	GEN	1863
9698	74 12	FENDX	FENDX	C,.,BEGIN,BEGIN,BEGIN,SYSL,CONDECK2	/	5	0956	B 333 C	MACRO	1863
9699			BSS	333,C	/	7	0961	M 786 884	GEN	1863
9700			SBR	INITAP@6,BEGIN	/	4	0968	H 833	GEN	1863
9701			SBR	BCLEAR	/	7	0972	H 796 884	GEN	1863
9702			SBR	INITXT@3,BEGIN	/	7	0979	H 710 U17	GEN	1863
9703			SBR	TCLEAR,SYSL	/	7	0986	L U12 110	GEN	1864
9704			LCA	@CONDECK2@,110	/	7	0993	B 700	GEN	1864
9705			B	MONTER	/	4	0997	L U16 175	GEN	1864
9706	74 13	CDDMP	LCA	@0000@,175	/	7	1004	V #45 688 2	GEN	1864
9707	74 14		BWZ	LITCS,PARAM@2,2	/	8	1012	M T19 152	GEN	1864
9708	74 15		MCW	CS1A,152	/	7	1019	M 838	GEN	1864
9709	74 16		B	PCHCD	/	4			GEN	1864

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
9710 74 17		MCW	PARAMAE2,CS2XA	/	7	1023	M 688 T48	1865
9711 74 18		MCW	CS2A,171	/	7	1030	M T90 171	1865
9712 74 19		B	PCHCD	/	4	1037	B 838	1865
9713 74 20		B	DOBCL	/	4	1041	R #74	1865
9714 74 21	LITCS	MCW	CS1,144	/	7	1045	M /40 144	1865
9715 74 22		B	PCHCD	/	4	1052	B 938	1865
9716 74 23		MCW	PARAMAE2,CS2X	/	7	1056	M 688 /69	1866
9717 74 24		MCW	CS2, 170	/	7	1063	M S10 170	1866
9718 74 25		B	PCHCD	/	4	1070	B 838	1866
9719 74 26	DOBCL	MCW	BC1,171	/	7	1074	M S21 171	1866
9720 74 27		CS		/	1	1081	/	1866
9721 74 28		LCA	BC2,146	/	7	1082	L S67 146	1866
9722 74 29		B	PCHCD	/	4	1089	B 838	1866
9723 74 30		B	FENDX	/	4	1093	B 956	1867
9724 74 31	CS1	DCW	a,008015,019026,030,034041,045,053,0570571026a	/	44	1140		1869
9725 74 32	CS2X	DCW	aL068112,102106,113/101099/199a	/	29	1169		1871
9726 74 33	CS2	DC	a,027A070028B0278001027080261,001/00111310a	/	41	1210		1871
9727 74 34	BC1	DCW	a,0010011040a	/	11	1221		1873
9728 74 35	BC2	DCW	a,008015,022029,036040,047054,061068,072/061039a	/	46	1267		1874
9729 74 36		DCW	a,008015,022026,030037,044,049,053037a	/	36	1303		1875
9730 74 37	CS1A	DC	a035036N00001026a	/	16	1319		1876
9731 74 38	CS2XA	DCW	aL068116,105106,1101178101/191a	/	29	1348		1878
9732 74 39	CS2A	DC	a079191N0290368026/8001/0991,001/00111710ca	/	42	1390	1391	1878
9733 74 40	LTOrg	MCW	aCONDESENED DECKa	/	14	1404		1878
9694		DCW	aCONDECK2a	/	8	1412		1878
9704			a0000a	/	4	1416		1878
9734 74 41	SYS:	DCW	a a	/	1	1417		1878
9735 74 42		XFR	BEGIN	/			B 884	1879

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9736 74 43		JOB	1401 FORTRAN CONDENSED DECK PHASE TWO						
9737 74 44		FBEGN	CONDECK2,,,,,,,,,2						
9738		SFX	Z	2	8	0110		MACRO GEN	1882
9739	110	DCW	@CONDECK2@	2			0884		
9740 74 45		ORG	BEGIN/	2	7	0884	M 769 #74		1883
9741 74 46	START	MCW	MONTOR,READ	2	8	0891	V 984 185 1		1883
9742 74 47		BW	PCHTS,XLINKW	2	7	0899	M 769 920		1883
9743 74 48		MCW	MONTOR,SKPSS	2	7	0906	H /17 931		1883
9744 74 49		SBR	TPERR&15,RDTPS	2	7	0913	H /30 924		1883
9745 74 50		SBR	CK48-1,MVNSS	2	4	0920	I 944		1884
9746 74 51	SKPSS	R	ENDSS	2	4	0924	M V36 V85		1884
9747 74 52	MVNSS	MCW	69,RDCNT	2	8	0931	M 8U1 001 R		1884
9748 74 53	RDTPS	RT	1,1	2	5	0939	B /02 L		1884
9749 74 54		BER	TPERR	2	8	0944	B 956 068 8		1884
9750 74 55	ENDSS	BCE	*65,68,B	2	4	0952	B 920		1884
9751 74 56		B	SKPSS	2	7	0956	H /01 /31		1885
9752 74 57		SBR	GETX&3,CK48	2	7	0963	H /17 #85		1885
9753 74 58		SBR	TPERR&15,RDTAP	2	7	0970	H /30 #78		1885
9754 74 59		SBR	CK48-1,MVNIN	2	7	0977	A V37 V86		1885
9755 74 60		A	61,NBR5W	2	8	0984	B 996 693 P		1885
9756 74 61	PCHTS	BCE	*65,PARAM&7,P	2	4	0992	B #74		1886
9757 74 62		B	READ	2	8	0996	V /66 184 1		1886
9758 74 63		BW	NOPUN,FAILSW	2	7	1004	M V41 171		1886
9759 74 64		MCW	@1040@,171	2	4	1011	M V69		1886
9760 74 65		MCW	@L014100,092097,081082,083084@	2	1	1015	/		1886
9761 74 66		CS		2	7	1016	L V83 114		1886
9762 74 67		LCA	@00000000000002, 114	2	7	1023	M V84 #70		1886
9763 74 68		MCW	@B@,RETRN	2	4	1030	N 83A		1887
9764 74 69		MCW	PCHCD	2	4	1034	M V41 171		1887
9765 74 70		MCW	@1040@,171	2	4	1041	M V34		1887
9766 74 71		MCW	LDFMT-1	2	1	1045	/		1887
9767 74 72		CS		2	7	1046	M U63 157		1887
9768 74 73		MCW	MASK,157	2	4	1053	V W12		1887
9769 74 74		SW	SYSC2	2	7	1057	M W12 108		1888
9770 74 75		MCW	SYSC2,108	2	4	1064	M 692		1888
9771 74 76		MCW	PARAM&6	2	1	1068	M		1888
9772 74 77		MCW		2	1	1069	L		1888
9773 74 78		LCA		2	4	1070	N 838		1888
9774 74 79	RETRN	NOP	PCHCD	2	4	1074	I #9A		1888
9775 74 80	READ	R	GETXT	2	7	1078	M V36 V85		1888
9776 74 81	MVNIN	MCW	69,RDCNT#1	2	8	1085	M 8U1 -001 R		1888
9777 74 82	RDTPS	RT	1,1	2	5	1093	B /02 L		1889
9778 74 83		BER	TPERR	2	4	1098	B /55		1889
9779 74 84	GETXT	B	DNCE	2	5	1102	U 8U1 B		1889
9780 74 85	TPERR	BSP	1	2	7	1107	S V37 V85		1889
9781 74 86		S	61,RDCNT	2	8	1114	V #95 V85 9		1889
9782 74 87		BWZ	RDTPS,RDCNT,8	2	4	1122	N C13		1889
9783 74 88		NOP	3333	2	1	1126	.		1889
9784 74 89		H		2	4	1127	B #7A		1890
9795 74 90		B	MVNIN	2	4	1127	B #7A		1890

B PCHCD

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
9786 74 91	CK48	BCE	FENDX,68,B	2	8 1131	S /85 068 B		1890
9787 74 92		MCW	71,171	2	7 1139	M 071 171		1890
9788 74 93		CHAIN	5				MACRO	
9789		MCW		2	1 1146	M	GEN	1890
9790		MCW		2	1 1147	M	GEN	1890
9791		MCW		2	1 1148	M	GEN	1890
9792		MCW		2	1 1149	M	GEN	1890
9793		MCW		2	1 1150	M	GEN	1891
9794 74 94		B	RETRN	2	4 1151	B #70		1891
9795 74 95	ONCE	SBR	GETXT&3,CK4B	2	7 1155	H /01 /31		1891
9796 74 96		B	READ	2	4 1162	B #74		1891
9797 74 97	NOPUN	MESSG	MESSG,43,,J				MACRO	
9798	NOPUN	CS	332	2	4 1166	/ 332	GFN	1891
9799		CS		2	1 1170	/	GEN	1891
9800		MCW	MESSG,43&200	2	7 1171	M V06 243	GEN	1891
9801		W		2	1 1178	2	GEN	1892
9802		CC		2	2 1179	F J	GEN	1892
9803 74 98		B	J	2	4 1181	B #74		1892
9804 74 99	FENDX	A	&1,NBRSM#1	2	7 1185	A V37 V86		1892
9805 75 00		BCE	EXIT,NBRSM,3	2	8 1192	B S95 V86 3		1892
9806 75 01		BCE	READ,NBRSM,2	2	8 1200	B #74 V86 2		1892
9807 75 02		BW	#&5,XLINK	2	8 1208	B S20 185 1		1892
9808 75 03		B	READ	2	4 1216	B #74		1893
9809 75 04		MCW	MONTOR,SKPXL	2	7 1220	M 769 S41		1893
9810 75 05		SBR	TPERR&15,RDTPX	2	7 1227	H /17 S52		1893
9811 75 06		SBR	CK48-1,MVNXL	2	7 1234	H /30 S45		1893
9812 75 07	SKPXL	R	ENDXL	2	4 1241	1 S65		1893
9813 75 08	MVNXL	MCW	&9,RDCNT	2	7 1245	M V36 V85		1893
9814 75 09	RDTPX	RT	1,1	2	8 1252	M #U1 001 R		1894
9815 75 10		BER		2	5 1260	B /02 L		1894
9816 75 11	ENDXL	BCE	#&5,68,B	2	8 1265	B S77 068 B		1894
9817 75 12		B	SKPXL	2	4 1273	B S41		1894
9818 75 13		SBR	TPERR&15,RDTAP	2	7 1277	H /17 #85		1894
9819 75 14		SBR	CK49-1,MVNNIN	2	7 1284	M /30 #78		1894
9820 75 15		B	FENDX	2	4 1291	B /85		1895
9821 75 16	EXIT	SBR	GETXT&3,FEND2	2	7 1295	H /01 T06		1895
9822 75 17		B	READ	2	4 1302	B #74		1895
9823 75 18	FEND2	BCE	FEND3,RETRN,N	2	8 1306	B U05 #70 N		1895
9824 75 19		CS	171	2	4 1314	/ 171		1895
9825 75 20		SW	101	2	4 1319	, 101		1895
9826 75 21		MCW	@1040@,171	2	7 1322	M V41 171		1895
9827 75 22		MCW	LDFMT-1	2	4 1329	M V34		1896
9828 75 23		MCW	@M092V36@,146	2	7 1333	M V93 146		1896
9829 75 24		MCW	PARAMAE&4,102	2	7 1340	M 690 102		1896
9830 75 25		B	PCHCD	2	4 1347	B 838		1896
9831 75 26		MCW	@837@,146	2	7 1351	M V96 146		1896
9832 75 27		MCW	PARAMAE&6,102	2	7 1358	M 692 102		1896
9833 75 28		B	PCHCD	2	4 1365	B 838		1897
9834 75 29		MCW	@3T30@,146	2	7 1369	M W00 146		1897
9835 75 30		MCW	GOTOFN,103	2	7 1376	M 188 103		1897

BRANCH IF XLINK SWITCH OFF

SKIP XLINK

RESTORE TPERR OPERANDS

CHANGE ON REASM OF OB ARITH XSIZE&6

CHANGE ON REASM OF OB ARITH FSIZE&6

CHANGE ON REASM OF OB ARITH OUT1-1

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9836	75 31	B	PCHCD	2	4	1383	B 838	GEN	1897
9837	75 32	MCW	@S09@,146	2	7	1387	M W03 146	GEN	1897
9838	75 33	MCW	SUBSCR,103	2	7	1394	M 191 103	GEN	1897
9839	75 34	B	PCHCD	2	4	1401	B 838	MACRO	1898
9840	75 35	FEND3	C,,,XBEGIN,XBEGIN,XBEGIN,SYSC2,CONDECK3	2	5	1405	B 333 C	GEN	1898
9841		FEND3	333,C	2	7	1410	H 786 838	GEN	1898
9842		SBR	INITAP@6,XBEGIN	2	4	1417	H 833	GEN	1898
9843		SBR	BCLEAR	2	7	1421	H 796 838	GEN	1898
9844		SBR	INITXT@3,XBEGIN	2	7	1428	H 710 W12	GEN	1898
9845		SBR	TCLEAR,SYSC2	2	7	1435	L W11 110	GEN	1899
9846		LCA	@CONDECK3@,110	2	4	1442	B 700	GEN	1899
9847		B	MONTER	2	4	1449		GEN	1899
9848	75 36	DCW	@L00B@	2	4	1449		GEN	1899
9849	75 37	DC	PARAM@7	2	3	1452	693		1899
9850	75 38	DC	@,@	2	1	1453			1899
9851	75 39	DC	PARAM@3	2	3	1456	689		1899
9852	75 40	DC	PARAM@5	2	3	1459	691		1899
9853	75 41	DC	@,@	2	1	1460			1899
9854	75 42	DC	PARAM@7	2	3	1463	693		1899
9855	75 43	DCW	@CONDECK3@	2	43	1506			1899
9856	75 44	LDFMT	@L039000,040040,040040,040040,040040@	2	29	1535			1901
9857	75 45	LTORG *		2	29	1535			1901
		DCW	@L040@	2	1	1536		LIT	1901
		DCW	@L040@	2	1	1537		LIT	1901
		DCW	@L014100,092097,081082,083084@	2	4	1541		LIT	1901
9760			@00000000000000@	2	28	1569		LIT	1902
9762			@@	2	14	1583		LIT	1903
9776	RDCNT	#01	#01	2	1	1584		LIT	1903
9804	NBRSW	#01	#01	2	1	1585		AREA	1903
982R			@M002V36@	2	1	1586		AREA	1903
			@B37@	2	7	1593		LIT	1903
			@3T30@	2	3	1596		LIT	1903
			@S09@	2	4	1600		LIT	1903
			@CONDECK3@	2	3	1603		LIT	1904
9846			@	2	8	1611		LIT	1904
9858	75 46	DCW	@	2	1	1612		LIT	1904
9859	75 47	EQU	PCHCD/	2	1	1612		LIT	1904
9860	75 48	XFR	START	2	2	0838	B 884		1905

SYSTEM GROUP MARK

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9861	75	49									
9862	75	50	110	JOB	1401 FORTRAN FIXED ROUTINE FOR CONDENSING ROUTINE						
9863	75	51	*	DCW	@ ALL 11-5-8 FIRST CARD	2	5	0110			1908
9864	75	52	*								
9865	75	53	*		COPY OF FIXED PACKAGE						
9866	75	54	*		SNAPSHOT - XLINK - ARITH						
9867	75	55	*								
9868	75	56	110	DCW	@ ALL 11-6-8 LAST CARD	2	5	0110			1909

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9869	75	57		JOB	1401 FORTRAN CONDENSED DECK PHASE THREE						
9870	75	58		FBEGN	CONDECK3,X1,R,X2,R,X3,R,1						
9871				SFX	1					MACRO	
9872			110	DCW	CONDECK3		8	0110		GEN	1910
9873			X1	DCW	089		1	0089		GEN	
9874			089	DCW	000		3	0089		GEN	1911
9875			091	DC	00		2	0091		GEN	1911
9876			X2	EQU	094		1	0094		GEN	1911
9877			094	DCW	000		3	0094		GEN	1911
9878			096	DC	00		2	0096		GEN	1911
9879			X3	EQU	099		1	0099		GEN	1911
9880			099	DCW	000		3	0099		GEN	1911
9881			100	DC	0		1	0100		GEN	1911
9882	75	59	LAST	EQU	CONLST		1	0194		GEN	1911
9883	75	60		ORG	XREGIN						
9884	75	61	BEGIN	MCW	GOGOGO,X1		7	0838	0838		1912
9885	75	62		BCE	*E5,PARAMA&7,P		8	0845	M 183 089		1912
9886	75	63		B	GARY		4	0853	B 857 693 P		1912
9887	75	64		BW	GARY,FAILSW		8	0857	V U74 184 1		1912
9888	75	65	REST	SBR	WPB&3,RESET		1	0865	H /55 893		1912
9889	75	66		MCW	CON40-11,80X1		7	0872	M V10 V38		1913
9890	75	67		MCW	@146@,X3		1	0879	M V25 099		1913
9891	75	68		MCW	@L@,140		1	0886	M V26 140		1913
9892	75	69	RESET	CS	139		7	0893	/ 139		1913
9893	75	70		FORMS			4			MACRO	
9894				BCV	*E5		5	0897	B 906 a		1913
9895				B	*E3		4	0902	B 908		1913
9896				CC	1		2	0906	F 1		1913
9897	75	71		MCW	CON40,171		7	0908	M V21 171		1914
9898	75	72		SW	140		4	0915	, 140		1914
9899	75	73		CS	332		4	0919	/ 332		1914
9900	75	74		CS			1	0923	/		1914
9901	75	75		SW	101		1	0924	, 101		1914
9902	75	76		MCW	@001@,X2		4	0928	M V29 094		1914
9903	75	77		MCW	@1@,FLIP#1		7	0935	M V30 V31		1914
9904	75	78		MCW	BOX1#7,153		1	0942	M V38 153		1915
9905	75	79		BW	SKIP2,SKPSM		8	0949	V S91 V22 1		1915
9906	75	80	MOVE	MN	OEX1,100&X2		1	0957	D 0#0 1-0		1915
9907	75	81		MZ	OEX1,100&X2		7	0964	Y 0#0 1-0		1915
9908	75	82	CPAR	C	LAST,X1		1	0971	C 194 089		1915
9909	75	83		BE	TERM		7	0978	B S04 S		1916
9910	75	84		SBR	X1,1&X1		5	0983	H 089 0#1		1916
9911	75	85		SBR	X2,1&X2		7	0990	H 094 0-1		1916
9912	75	86		BCE	SKIP,OEX1,		1	0997	B S83 0#0		1916
9913	75	87		SW	CDFUL,OEX1		8	1005	V S15 0#0 1		1916
9914	75	88	TBKFF	C	@040@,X2		7	1013	C V41 094		1917
9915	75	89		BL	MOVE		5	1020	B 957 T		1917
9916	75	90		C	@160@,X3		7	1025	C V44 099		1917
9917	75	91		BL	LOZNG		5	1032	R /75 T		1917
9918	75	92		MCW	@040@,167		7	1037	M V41 167		1917

11-5-8

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9919	75		BH	*E8	1	5	1044	B #56 U		1917
9920	75		MCW	20402, 164	1	7	1049	M V41 164		1918
9921	75		CW	140	1	4	1056	D 140		1918
9922	75	SW	SW	000	1	4	1060	, 000		1918
9923	75		SBR	X2	1	4	1064	H 094		1918
9924	75		A	-990,X2E1	1	7	1068	A V47 095		1918
9925	75		MCW	239,139	1	7	1075	M 239 139		1918
9926	76		SBR	X1,000	1	7	1082	H 089 000		1919
9927	76	COMMA	MCW	CON40-11,BOX1	1	7	1089	M V10 V38		1919
9928	76		MCW	21462,X3	1	7	1096	M V25 099		1919
9929	76	WP	A	212,CDNO	1	7	1103	A V30 175		1919
9930	76		MN	0E X2	1	4	1110	D 0-0		1919
9931	76		SBR	143	1	4	1114	H 143		1919
9932	76		C	143,20002	1	7	1118	C 143 V50		1920
9933	76		BE	END2	1	5	1125	D U26 S		1920
9934	76		MN	0E X1	1	4	1130	D 0#0		1920
9935	76		SBR	146	1	4	1134	H 146		1920
9936	76		LCA	180,280	1	7	1138	L 180 280		1920
9937	76		LCA		1	1	1145	L		1920
9938	76		LCA		1	1	1146	L		1920
9939	76		BSS	SWLWP,B	1	5	1147	B /56 B		1921
9940	76		P	RESET	1	4	1152	4 893		1921
9941	76	WP	SW	LWPB21	1	4	1156	, /72		1921
9942	76	SWLWP	MCW	WPB23,LWPB23	1	7	1160	M /55 /74		1921
9943	76		CW	LWPB21	1	4	1167	2 /72		1921
9944	76	LWPB	WP	RESET	1	4	1171	6 893		1921
9945	76	LOZNG	MCW	222,BOX1-6	1	7	1175	M V51 V32		1921
9946	76		MCW	X1,BOX1	1	7	1182	M 089 V38		1922
9947	76		MCW	X1	1	4	1189	M 089		1922
9948	76		MCW	21532,X3	1	7	1193	M V54 099		1922
9949	76		B	WP	1	4	1200	B /03		1922
9950	76	TERM	SBR	WPB23,END1	1	7	1204	H /55 T48		1922
9951	76		B	WP	1	4	1211	B /03		1922
9952	76	CDFUL	MCW	X1,SBR26	1	7	1215	M 089 #88		1923
9953	76		SBR	SW23,100E X2	1	7	1222	H #63 1-0		1923
9954	76		C	20402,X2	1	7	1229	C V41 094		1923
9955	76		BE	COMMA	1	5	1236	B #89 S		1923
9956	76		C	21672,X3	1	7	1241	C V57 099		1923
9957	76		BE	COMMA	1	5	1248	B #89 S		1923
9958	76		SBR	X3,3E X3	1	7	1253	H 099 0E3		1924
9959	76		ZS	FLIP	1	4	1260	- V31		1924
9960	76		BM	PLUS1,FLIP	1	8	1264	V T37.V31 K		1924
9961	76	MCH	MCW	X1,0E X3	1	7	1272	M 089 0E0		1924
9962	76		B	MOVE	1	4	1279	B 957		1924
9963	76	SKIP	SW	SKPSW	1	4	1283	, V22		1924
9964	76		B	COMMA	1	4	1287	B #89		1924
9965	76	SKIP2	CW	SKPSW	1	4	1291	2 V22		1925
9966	76		MCW	0E X1	1	4	1295	P 0#0		1925
9967	76		SBR	X1	1	4	1299	H 089		1925
9968	76		BW	MOVE,0E X1	1	8	1303	V 957 0#0 1		1925

END1



SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
9969	76 43		MCW	X1,153	1	7	1311	M 089 153		1925
9970	76 44		MCW	X1	1	4	1318	M 089		1925
9971	76 45		MCW	@@	1	4	1322	M V51		1925
9972	76 46		MCW	@153@,X3	1	7	1326	M V54 099		1926
9973	76 47		B	MOVE	1	4	1333	B 957		1926
9974	76 48	PLUS1	SBR	X3,1CX3	1	7	1337	H 099 0C1		1926
9975	76 49		B	MCW	1	4	1344	B S72		1926
9976	76 50	END1	SBR	X1,1697	1	7	1348	H 089 W97		1926
9977	76 51		RCE	END2,PARAMAE10,X	1	8	1355	B U25 696 X		1926
9978	76 52		BCE	L10,PARAMAE10,L	1	8	1363	B U04 696 L		1927
9979	76 53		RCE	AFORM,PARAMAE10,A	1	8	1371	B U15 696 A		1927
9980	76 54	NEXT1	SBR	CPARE3,HIFMT	1	7	1379	H 974 VJ3		1927
9981	76 55		SBR	<del>WPCSYNRESET</del>	1	7	1386	H /55 893		1927
9982	76 56		SBR	TERM6,END2	1	7	1393	H S10 U26		1927
9983	76 57		B	REST	1	4	1400	B 865		1928
9984	76 58	L10	SRR	HIFMT,2016	1	7	1404	H V03 -16		1928
9985	76 59	AFORM	SRR	NEXT1	1	4	1411	R T79		1928
9986	76 60		SRR	HIFMT,4617	1	7	1415	H V03 61X		1928
9987	76 61		B	NEXT1	1	4	1422	B T79		1928
9988	76 62	END2	CS	171	1	4	1426	/ 171		1928
9989	76 63		MCW	@080@,146	1	7	1430	M V60 146		1929
9990	76 64		MCW	GUGOGO	1	4	1437	M 183		1929
9991	76 65		LCA	@/3	1	4	1441	L V61		1929
9992	76 66		A	@1R,CDNO	1	7	1445	A V30 175		1929
9993	76 67		LCA	190,280	1	7	1452	L 180 280		1929
9994	76 68		LCA		1	1	1459	L		1929
9995	76 69		CS		1	1	1460	/		1929
9996	76 70		BSS	WPCS.B	1	5	1461	B U97 8		1929
9997	76 71		P		1	1	1466	4		1930
9998	76 72	CS180	CS	180	1	4	1467	/ 180		1930
9999	76 73		P		1	1	1471	4		1930
# 1	76 74		SS	B	1	2	1472	K 8	MACRO	1930
# 2	76 75	GARY	FENDX	C,,,,,SYS2,GAUX ONE	1	5	1474	B 333 C	GFN	1930
# 3		GARY	BSS	333,C	1	7	1479	H 710 V73	GFN	1930
# 4			SBR	TCLEAR,SYS2	1	7	1486	L V69 110	GFN	1930
# 5			LCA	@GAUX ONE@,110	1	4	1493	B 700	GFN	1931
# 6	76 76	WPCS	B	MONTER	1	4	1497	6 U67		1931
# 7	76 77	HIFMT	WP	CS180	1	3	1503	28*		1931
# 8	76 78	CON40	DSA	4280	1	1A	1521			1931
# 9	76 79	SKPSW	DC	@,040040,0400401040@	1	1	1522			1931
# 10	76 80		LTORG	*	1	1	1522	1523		1931
			DC*	@146@	1	3	1525		LIT	1931
				@L@	1	1	1526		LIT	1931
				@001@	1	3	1529		LIT	1931
				@1@	1	1	1530		LIT	1932
9903		FLIP		#01	1	1	1531		AREA	1932
9904		BOX1		#07	1	7	1538		AREA	1932
				@040@	1	3	1541		LIT	1932
				@150@	1	3	1544		LIT	1932

WP+25,END2

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				-990		3	1547	LIT		1932
				0000@		3	1550	LIT		1932
				000@		1	1551	LIT		1933
				0153@		1	1554	LIT		1933
				0167@		3	1557	LIT		1933
				0080@		3	1560	LIT		1933
				0/@		1	1561	LIT		1933
				0GAUX ONE@		1	1569	LIT		1933
				0199@		8	1572	LIT		1933
				0 @		3	1573	LIT		1934
				0 EQU 175		1	0175			
				0 XFR BEGIN		1				
								B 838		1935

SYSTEM GROUP MARK

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
# 15	76 85		JOB	I401 FORTRAN GEAX PHASE ONE						
# 16	76 86		FBEGN	GEAX 1,X1,R,....6						
# 17			SFX	6					MACRO	
# 18			DCW	@GEAX 1a	6	7	0110		GEN	1938
# 19		110	EQU	089	6	3	0089		GEN	1939
# 20		X1	DCW	000	6	2	0091		GEN	1939
# 21		091	DC	00	6	2	0091		GEN	1939
# 22	76 87		ORG	XBEGIN	6			0838		
# 23	76 88	START	LCA	BLNK#4,84	6	7	0838	L #78 084		1940
# 24	76 89		SW	84	6	4	0845	, 084		1940
# 25	76 90		SW		6	1	0849	,		1940
# 26	76 91		SW		6	1	0850	,		1940
# 27	76 92		MESSG	@END OF COMPILATION@,18,1					MACRO	
# 28			CC	1	6	2	0851	F 1	GEN	1940
# 29			CS	332	6	4	0853	/ 332	GEN	1940
# 30			CS		6	1	0857	/	GEN	1940
# 31			MCH	@END OF COMPILATION@,18&200	6	7	0858	M #96 218	GEN	1941
# 32	76 93		MCH	GOGOO,X1	6	1	0865	M	GEN	1941
# 33	76 94		BM	BAD,FALSM	6	7	0866	M 183 089	GEN	1941
# 34	76 94		MESSG	@PRESS START TO GO@,17,J	6	8	0873	V #56 184 1	MACRO	1941
# 35	76 95		CC	J	6	2	0981	F J	GEN	1941
# 36			CS	332	6	4	0883	/ 332	GEN	1941
# 37			CS		6	1	0887	/	GFN	1941
# 38			CS		6	7	0888	M /13 217	GEN	1942
# 39			MCH	@PRESS START TO GO@,17&200	6	1	0895	2	GEN	1942
# 40			W		6	4	0896	, /44		1942
# 41	76 96	OUT	SW	SYS2	6	7	0900	L /44 693		1942
# 42	76 97		LCA	SYS2,693	6	8	0907	R 963 769 1		1942
# 43	76 98		BCE	COSYS,MONTOR,1	6	8	0915	V 988 185 1		1942
# 44	76 99		BM	SKPXL,XLINKW	6	7	0923	H 962 930		1943
# 45	77 00		SBR	TPERX&15,RTPXL	6	8	0930	L 301 333 R		1943
# 46	77 01	RTPXL	RTW	1,333	6	5	0938	B 947 L		1943
# 47	77 02		BER	TPERX	6	4	0943	B #20		1943
# 48	77 03		B	OUT33	6	5	0947	U 301 B		1943
# 49	77 04	TPERX	BSP	1	6	7	0952	, 44U 44U		1943
# 50	77 05		H	4444,4444	6	4	0959	B 988		1944
# 51	77 06		B	SKPXL	6	8	0963	V 975 185 1		1944
# 52	77 07	COSYS	BM	SKPXC,XLINKW	6	4	0971	I 040		1944
# 53	77 08		R	040	6	1	0975	1		1944
# 54	77 09	SKPXC	R		6	8	0976	B #01 068 B		1944
# 55	77 10		BCE	OUT2,68,B	6	4	0984	B 975		1944
# 56	77 11		B	SKPXC	6	8	0988	L 301 /44 R		1944
# 57	77 12	SKPXL	RTW	1,SYS2	6	5	0996	B 947 L		1945
# 58	77 13		BER	TPERX	6	5	1001	B 333 C		1945
# 59	77 14	OUT2	BSS	333,C	6	7	1006	L /14 381		1945
# 60	77 15		LCA	@#381	6	7	1013	L /15 554		1945
# 61	77 16		LCA	@.@,564	6	4	1020	H 680		1945
# 62	77 17	OUT33	CW	680	6	7	1024	H 710 /44		1945
# 63	77 18		SBR	TCLEAR,SYS2	6	7	1031	H 786 201		1945
# 64	77 19		SBR	INITAP66,201	6	7	1031	H 786 201		1946

INITIALIZE SENSE LIGHTS

IF B, BRANCH TO READ IN ARITH

RETURN FROM LOADING XLINK

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
* 65	77 20		SBR	INITX1E3,201	6	7	1038	H 796 201		1946
* 66	77 21		SBR	BCLEAR,XBEGIN	6	7	1045	H 833 838		1946
* 67	77 22		B	MONTER	6	4	1052	B 700		1946
* 68	77 23	BAD	MESSG	@CORRECT ERRORS AND RECOMPILE@,28,J	6	2	1056	F J	MACRO	
* 69		BAD	CC	J	6	4	1058	/ 332	GEN	1946
* 70			CS	332	6	1	1062	/	GEN	1946
* 71			CS		6	7	1063	M /43 228	GEN	1947
* 72			MCH	@CORRECT ERRORS AND RECOMPILE@,28&200	6	1	1070	2	GEN	1947
* 73			W		6	4	1071	B 896	GEN	1947
* 74	77 24		B	OUT	6	4	1071	B 896		1947
* 75	77 25		LTORG	*	6	4	1078	1075		1947
* 23		BLNK4	DCW	#04	6	18	1096		AREA	1947
* 31				@END OF COMPILATION@	6	17	1113		LIT	1947
* 39				@PRESS START TO GO@	6	1	1114		LIT	1948
				@N@	6	1	1115		LIT	1948
				@-@	6	1	1115		LIT	1948
* 72				@CORRECT ERRORS AND RECOMPILE@	6	28	1143		LIT	1949
* 77 77 26		SYS2	DCW	@ @	6	1	1144		LIT	1949
* 77 77 27		XFR	XFR	START	6	1	1144	B-838		1950

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
# 78	77 28		JOB	1401 FORTRAN FIXED XLINK ROUTINE	#	4	0333	0333		1953
# 79	77 29		SFX	#	#	7	0337	M 086 094		1953
# 80	77 30		ORG	333	#	4	0344	/ 080		1953
# 81	77 31		H	86,XL2	#	8	0348	B 585 0-0 \$		1953
# 82	77 32	START	MCW		#	4	0356	/ 000		1953
# 83	77 33		CS	80	#	4	0360	H 359		1953
# 84	77 34		BCE	ARRAY,0&X2,\$	#	7	0364	C 359 645		1954
# 85	77 35	CLEAR	CS	000	#	4	0376	/ 2G4		1954
# 86	77 36		SBR	ADR3	#	7	0380	Y 2G9 642		1954
# 87	77 37		C	ADR3,@699@	#	5	0394	B 603 S		1954
# 88	77 38		BU	CLEAR	#	8	0399	V 620 2G9 K		1954
# 89	77 39		SW	ACCHI-5&X3	#	7	0407	Y 637 2G9		1955
# 90	77 40		MZ	ACCHI&X3,FIELD	#	7	0414	C 699 2G9		1955
# 91	77 41		C	FIELD,ACCHI&X3	#	5	0421	B 620 S		1955
# 92	77 42		RF	CARDS	#	4	0426	/ 022		1955
# 93	77 43		M	GETM,ACCHI&X3	#	7	0430	M 680 022		1955
# 94	77 44		MZ	ZERO,ACCHI&X3	#	8	0437	M 8U1 001 R		1955
# 95	77 45		C	699,ACCHI&X3	#	5	0445	B 478 K		1956
# 96	77 46		BE	GETM	#	5	0457	B 437 /		1956
# 97	77 47		SW	22	#	5	0462	C 017 2G9		1956
# 98	77 48		MCW	GM,22	#	4	0474	B 498 S		1956
# 99	77 49		RT	1,1	#	4	0478	M 603		1956
# 100	77 50	SERCH	REF	OUT	#	7	0482	M 333 478		1957
# 101	77 51		C	10,@LIB@	#	5	0489	U 8U1 R		1957
# 102	77 52		BU	SERCH	#	4	0494	B 437		1957
# 103	77 53		C	17,ACCHI&X3	#	7	0498	L 641 101		1957
# 104	77 54		BE	TL	#	4	0505	L 641		1957
# 105	77 55		B	SERCH	#	4	0509	L 641		1957
# 106	77 56	OUT	NOP	CARDS	#	5	0521	B 557 L		1958
# 107	77 57		MCW	99,OUT	#	7	0526	M 637 641		1958
# 108	77 58		RWD	1	#	7	0533	M 580 540		1958
# 109	77 59		R	SERCH	#	8	0540	L 8U1 700 R		1958
# 110	77 60	T1	LCA	ZEROS,101	#	5	0548	B 557 L		1958
# 111	77 61		LCA	ZEROS	#	4	0553	B 000		1958
# 112	77 62		LCA	ZEROS	#	7	0557	A 679 641		1959
# 113	77 63		RTW	1,333	#	8	0564	B 581 641 9		1959
# 114	77 64		BER	ERR	#	4	0572	U 8U1 B		1959
# 115	77 65		MCW	ZERO,CTRR	#	4	0577	B 498		1959
# 116	77 66		SBR	TPERM-1,T2	#	4	0581	. 581		1959
# 117	77 67	T2	RTW	1,700	#	7	0585	M 0-3 359		1959
# 118	77 68		BER	ERR	#	7	0592	Y 637 358		1960
# 119	77 69	TBJOT	B	000	#	4	0599	B 356		1960
# 120	77 70	FRR	A	ONE,CTRR	#	4				
# 121	77 71		BCE	TPERM,CTRR,9	#	7				
# 122	77 72		BSP	1	#	8				
# 123	77 73		B	TL	#	5				
# 124	77 74	TPERM	H	TPERM	#	4				
# 125	77 75	ARRAY	MCW	3&X2,ADR3	#	4				
# 126	77 76		MZ	ZERO,ADR3-1	#	7				
# 127	77 77		B	CLEAR	#	4				

TPERM

FROM LIBED

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
#128 77 78	CARDS	SW	1	# 4	0603	, 001		1960
#129 77 79		R		# 1	0607	1		1960
#130 77 80		BCE	1,1,,	# 8	0608	B 001 001 ,		1960
#131 77 81		B	CARDS	# 4	0616	B 603		1960
#132 77 82	GETM	RWD	1	# 5	0620	U %U1 R		1960
#133 77 83		RTW	1,1	# 8	0625	L %U1 001 R		1961
#134 77 84		B	1	# 4	0633	B 001		1961
#135 77 85	ADR3	EQU	CLEARL3	# 6	0359			1961
#136 77 86	FIELD	DCW	@000000@	#	0642			
#137 77 87	ZEROS	EQU	FIELD-1	#	0641			
#138 77 88	ZERO	EQU	ZEROS-4	#	0637			
#139 77 89	CTRR	EQU	ZEROS	#	0641			
#140 77 90	ACCHI	EQU	Z79	#	0279			
#141 77 91		LTRG *		#		0643		
		DCW	@699@	# 3	0645		LIT	1961
			@LIB@	# 3	0648		LIT	1961
#142 77 92		ORG	679	#		0679		
#143 77 93	ONE	DCW	@1@	# 1	0679			1962
#144 77 94	GM	DCW	@ @	# 1	0680			1962
#145 77 95		XFR	OUT336	#		B #20		1963

EXECUTE MONITOR PROGRAM

GROUP MARK IN 680

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
#146 77 96		JOB	1401 FORTRAN GEAX PHASE TWO						
#147 77 97		SFX	6	6	9	0110			1966
#148 77 98	110	DCW	GEAX TWO				0201		
#149 77 99		DRG	201				B 769 769 1		1967
#150 78 00	YIPEE	BCE	MONTOR, MONTOR, 1				L XUI 700 R		1967
#151 78 01	RTP	RTW	1, MONTER				B 284 L		1967
#152 78 02		BER	TPERR				U XUI R		1967
#153 78 03		RWD	1				M 191 S09		1967
#154 78 04	INIT	MCW	SUBSCR, ARSUB				□ W96		1967
#155 78 05		CW	1696				□ W96		1967
#156 78 06		MCW	GOTOFN, FUNC				M 189 T30		1968
#157 78 07		MCW	PARAM&4, FIXSZ				M 690 V36		1968
#158 78 08		MCW	PARAM&6, FLTSZ				M 692 837		1968
#159 78 09		CC	1				F 1		1968
#160 78 10		BW	HALT, FAILSW				V 280 184 1		1968
#161 78 11		MCW	GOGOGO, XI				M 183 089		1968
#162 78 12		H	0CX1				• 0#0		1969
#163 78 13	HALT	H	*-3				• 280		1969
#164 78 14	TPERR	BSP	1				U XUI B		1969
#165 78 15		H	3333, 3333				• C33 C33		1969
#166 78 16		B	RTP				B 209		1969
#167 78 17		DCH	0						1969
#168 78 18	FUNC	EQU	1330						1969
#169 78 19	FIXSZ	EQU	1536						1969
#170 78 20	FLTSZ	EQU	837						1969
#171 78 21	ARSUB	EQU	1209						1969
#172 78 22		LTORG	*						1969
#173 78 23		DCW	3				0301		1969
#174 78 24		XFR	YIPEE				B 201		1970
#175 78 25	*								
#176 78 26	*								
#177 78 27	*								
#178 78 28		END	INIT						1973

CHANGE ON REASM OF OB ARITH OUT1-1  
 CHANGE ON REASM OF OB ARITH XSIZE&6  
 CHANGE ON REASM OF OB ARITH FSIZE&6  
 CHANGE ON REASM OF OB ARITH STSUB&3

SYSTEM GROUP MARK

PHASE 63 GOES HERE

THE DEED IS DONE

/ 227 080

CLEAR STORAGE 1  
 CLEAR STORAGE 2  
 BOOTSTRAP

,008015,022026,030037,044,049,053053N000000000001026  
 L068116,L05106,1101178101/192#071029C0290568026/8001/0991,001/00111710E  
 ,008015,022029,036040,047054,061068,072/061039,0010011040

1401 FORTRAN ARITH AND RELOCATABLE ROUTINES PAGE 1

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101	1 01	O13	JOB	1401 FORTRAN ARITH AND RELOCATABLE ROUTINES						
102	1 02	*	CTL	644 11						
103	1 03	*	SFX	B						
104	1 04	*	XINIT	XL1, XL2, XL3, ..., XXX						
105	1 05		EQU	0	B		0000		MACRO	
106	1 06	XXX	EQU	0	B		0089		GEN	
107		XL1	EQU	089	B		0089		GEN	
108		O89	DCW	000	B	3	0089		GEN	4
109		O91	DC	00	B	2	0091		GEN	4
110		O91	DC	00	B	2	0091		GEN	4
111		XL2	EQU	094	B		0094		GEN	
112		O94	DCW	000	B	3	0094		GEN	4
113		O96	DC	00	B	2	0096		GEN	4
114		XL3	EQU	099	B		0099		GEN	
115		O99	DCW	000	B	3	0099		GEN	4
116		100	DC	0	B	1	0100		GEN	4
117	1 07	*	XNMBR						MACRO	
118	1 08	X1	EQU	089	B		0089		GEN	
119		X2	EQU	094	B		0094		GEN	
120		X3	EQU	099	B		0099		GEN	
121		*								
122	1 09	WKZON	EQU	200	B		0200			
123	1 10	TOP	EQU	WKZON&1	B		0201			
124	1 11	SPOT	EQU	WKZON&50	B		0250			
125	1 12	ACCHI	EQU	WKZON&79	B		0279			
126	1 13	*	ORG	700	B			0700		
127	1 14	*								
128	1 15	*								
129	1 16	*								
130	1 17	*								
131	1 18	*								
132	1 19	ARITF	SBR	X2	B	4	0700	H 094		5
133	1 20		SBR	O86	B	4	0704	H 086		5
134	1 21		SBR	STMME6	B	4	0708	H V06		5
135	1 22	ARITH	MCW	2&X2, X1	B	7	0712	M 0-2 089		5
136	1 23		SAR	ALGRTE6	B	4	0719	Q 765.		5
137	1 24	SBBR1	SBR	BRWHR&6	B	4	0723	H S27		5
138	1 25		BCE	STSUB, O&X2, \$	B	8	0727	B S06 0-0 \$		5
139	1 26		SBR	DUT2&6, O&X1	B	7	0735	H T75 0#0		6
140	1 27		CS	WKZON&103	B	4	0742	/ 303		6
141	1 28		CS		B	1	0746	/		6
142	1 29		CS		B	1	0747	/		6
143	1 30		LCA	@0&, ACCHI&1	B	7	0748	L W85 280		6
144	1 31	CLR X	S	X1&2	B	4	0755	S 091		6
145	1 32	ALGR T	SBR	XL2, XXX	B	7	0759	H 094 000		6
146	1 33		C	4&X2, @#&	B	7	0766	C 0-4 W86		7
147	1 34		MCW	4&X2, SIGNF	B	7	0773	M 0-4 924		7



SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148	1 35		TOP	B	4	0780	201		7
149	1 36	EXIT	QFUNCT	B	5	0784	T05 T		7
150	1 37		NG8MP6,4&X2	B	7	0789	H 874 0-4		7
151	1 38		BCE OPDSC,5&X2,\$	B	8	0796	B /99 0-5 \$		7
152	1 39		MCW 7&X2, XL1	B	7	0804	M 0-7 089		8
153	1 40		SAR ALGRTE6	B	4	0811	Q 765		8
154	1 41	SBBR2	XSIZE,X1-1,K	B	8	0815	V V30 088 K		8
155	1 42		XSIZE,X1-1,S	B	8	0823	Y V30 098 S		8
156	1 43	*							
157	1 44	*							
158	1 45	*							
159	1 46	F SIZE	X3,XXX	B	7	0831	H 099 000		8
160	1 47		FIXSW#1	B	4	0838	W 87		8
161	1 48		MCW 0&X1,EXPB	B	7	0842	M 0+0 W82		9
162	1 49		SAR XL1	B	4	0849	Q 089		9
163	1 50		MCW 0&X1,SPOT	B	7	0853	M 0+0 250		9
164	1 51		SBR XL2	B	4	0860	H 094		9
165	1 52		LCA 202	B	4	0864	L W85		9
166	1 53	NG8MP	*68,0	B	8	0868	Y 883 000 1		9
167	1 54		BW SPOT, NSIGN	B	7	0876	Y 250 #87		10
168	1 55		MZ 202,SPOT&2&X3	B	7	0883	S W85 2E2		10
169	1 56		S 1&X2, 202	B	7	0890	C 0-1 W85		10
170	1 57		A XL3, XL2	B	7	0897	A 099 094		10
171	1 58		BCE FDIV,CODE,/	B	8	0904	B S33 924 /		10
172	1 59		BCE FMPY,CODE,*	B	8	0912	B S62 924 *		11
173	1 60	*							
174	1 61	*							
175	1 62	*							
176	1 63								
177	1 64	SIGNF	SIGNF	B	4	0920	S 924		11
178	1 65		NUVAL,ACCHI&1,0	B	4	0924	E #87		11
179	1 66		BCE CLRWK	B	8	0928	B #17 280 0		11
180	1 67		S EXPB,EXP	B	5	0936	B /34 S		11
181	1 68		ZA EXP&1,XL1&1	B	7	0941	S W82 W79		11
182	1 69		C XL3,XL1	B	7	0948	E W80 090		12
183	1 70		BM RTN1,EXP	B	7	0955	C 099 089		12
184	1 71		BH CHGEX	B	8	0962	V /65 W79 K		12
185	1 72		A EXP,EXPB	B	5	0970	6 /88 U		12
186	1 73		ZA SPOT,SPOT&X1	B	7	0975	A W79 W82		12
187	1 74		ZA XL3&1,XL1&1	B	7	0982	E 250 2V0		13
188	1 75	ASC0M	MZ NSIGN,0&X2	B	7	0989	E 100 090		13
189	1 76		A ACCHI&X1,0&X2	B	7	0996	Y #87 0-0		13
190	1 77	MVZON	MZ 0&X2,NSIGN	B	7	1003	A 2X9 0-0		13
191	1 78	NUVAL	ZA EXPB,EXP	B	7	1010	Y 0-0 #87		13
192	1 79	*		B	7	1017	E W82 W79		14
193	1 80	*							
194	1 81	*							
195	1 82	NMLZ1	MCH RCDMK,1&X2	B	7	1024	M W75 0-1		14
196	1 83		MZ	B	1	1031	Y		14
197	1 84		MZ	B	1	1032	Y		14

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	1	85	A		B	1	1033	A		14
199	1	86	MN		B	1	1034	D		14
200	1	87	SBR	XL1	B	4	1035	H 089		14
201	1	88	S	ACCHI&2&X3	B	4	1039	S 2H1		15
202	1	89	NLOOP	STRZE,2&X1,#	B	8	1043	B /42 0#2 #		15
203	1	90	BCE	XL1	B	4	1051	H 089		15
204	1	91	BCE	NLOOP, 1&X1, 0	B	8	1055	B #43 0#1 0		15
205	1	92	MCM	1&X1, ACCHI&1	B	7	1063	P 0#1 280		15
206	1	93	S	XL3, XL2	B	7	1070	S 099 094		15
207	1	94	CW		B	1	1077	□		15
208	1	95	CW		B	1	1078	□		16
209	1	96	S		B	1	1079	S		16
210	1	97	S	XL1, EXP	B	7	1080	S 089 W79		16
211	1	98	NSIGN	ACCHI&X3	B	4	1087	E 2G9		16
212	1	99	SW		B	1	1091	,		16
213	2	00	BCE	CLRWK,EXP-2,0	B	8	1092	B /34 W77 0		16
214	2	01	BM	STRZE,EXP	B	8	1100	V /42 W79 K		16
215	2	02	*							
216	2	03	*							
217	2	04	*							
218	2	05	B	ERMSG	B	4	1108	B U71		17
219	2	06	DCW	ANOF&	B	3	1114			17
220	2	07	*							
221	2	08	*	STORE NINES IN WORK ACCUMULATOR AND EXP ON EXPONENT OVFL						
222	2	09	*							
223	2	10	STR99	EXP,EXP	B	7	1115	E W89 W79		17
224	2	11	MN	EXP,ACCHI&X3	B	7	1122	D W89 2G9		17
225	2	12	MCH		B	1	1129	M		17
226	2	13	MCM	ACCHI-1&X3	B	4	1130	M 2G8		17
227	2	14	CLRWK	ACCHI-1	B	4	1134	/ 278		17
228	2	15	CS		B	4	1138	B 755		18
229	2	16	B	CLR&	B	4				
230	2	17	*							
231	2	18	*							
232	2	19	STRZE	EXP	B	4	1142	S W79		18
233	2	20	S	ACCHI&X3	B	4	1146	S 2G9		18
234	2	21	B	CLRWK	B	4	1150	B /34		18
235	2	22	*							
236	2	23	*							
237	2	24	*							
238	2	25	DVERR	B	B	4	1154	B U71		18
239	2	26	DCW	ADZ&	B	3	1160			18
240	2	27	B	STR99	B	4	1161	B /15		18
241	2	28	*							
242	2	29	RTNI	NUVAL	B	5	1165	B #17 U		19
243	2	30	S	XL3&1, XL1&1	B	7	1170	S 100 090		19
244	2	31	MZ	ACCHI&X3,ACCHI&X1	B	7	1177	Y 2G9 2X9		19
245	2	32	B	ASCOM	B	4	1184	B 996		19
246	2	33	*							
247	2	34	CHGEX	EXPB,EXP	B	7	1188	A W82 W79		19

EXPONENT OVERFLOW DUE TO NORMALIZING

MOVE PROPER SIGN TO WORK ACCUMULATOR

BRANCH ON EXPONENT UNDERFLOW

STORE ZERO IN WORK ACCUMULATOR

DIVISION BY ZERO ATTEMPTED

BRANCH TO STORE NEW VALUE IN WK ACC

INITIALIZE INDEX REGISTERS

INITIALIZE WORK ACCUMULATOR

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
248	2 35		B	CLRWK	B	4	1195	B /34		19
249	2 36	*								
250	2 37	*								
251	2 38	*								
252	2 39	OPDSC	SBR	X2,5&X2	B	7	1199	H 094 0-5		20
253	2 40	STSUB	B	XXX	B	4	1206	B 000		20
254	2 41		MN	O&X2	B	4	1210	D 0-0		20
255	2 42		MN		B	1	1214	D		20
256	2 43		MN		B	1	1215	D		20
257	2 44		MN		B	1	1216	D		20
258	2 45		SAR	ALGRTE6	B	4	1217	Q 765		20
259	2 46	BRWHR	BCE	SBRL,XXX,\$	B	8	1221	B 723 000 \$		21
260	2 47		B	SBBR2	B	4	1229	B 815		21
261	2 48	*								
262	2 49	*								
263	2 50	*								
264	2 51	FDIV	BE	DVERR	B	5	1233	B /54 S		21
265	2 52		MN	ACCHI&X3, 1&X2	B	7	1238	D 2G9 0-1		21
266	2 53		MCH		B	1	1245	M		21
267	2 54		MN		B	1	1246	D		21
268	2 55		D	O&X1, SPOT&1	B	7	1247	* 0#0 251		21
269	2 56		ZS	EXPB	B	4	1254	- W82		22
270	2 57		B	NMDV	B	4	1258	B S83		22
271	2 58	*								
272	2 59	*								
273	2 60	*								
274	2 61	FMPY	M	ACCHI&X3, SPOT&1&X3	B	7	1262	B 2G9 2E1		22
275	2 62		SBR	X2,3&X2	B	7	1269	H 094 0-3		22
276	2 63		S	&2,EXP	B	7	1276	S W90 W79		22
277	2 64	NMDV	A	EXPB, EXP	B	7	1283	A W82 W79		22
278	2 65		MZ	ACCHI&X3, *&1	B	7	1290	Y 2G9 S97		23
279	2 66		ZA	NSIGN	B	4	1297	& *87		23
280	2 67		B	NMLZ1	B	4	1301	B *24		23
281	2 68	*								
282	2 69	*								
283	2 70	*								
284	2 71	OFUNCT	BCE	OUT1,4&X2,*#	B	8	1305	B T31 0-4 #		23
285	2 72		SBR	ALGRTE6,1&X2	B	7	1313	H 765 0-1		23
286	2 73		C	ACCHI&1,80@	B	7	1320	C 280 W85		23
287	2 74		B	XXX	B	4	1327	B 000		24
288	2 75	OUT1	BCE	OUT2,ACCHI&1,0	B	8	1331	B T69 280 0		24
289	2 76		BW	OUT2,FIXSW	B	8	1339	V T69 W87 1		24
290	2 77		BW	FINST,4&X2	B	8	1347	V T92 0-4 1		24
291	2 78		SBR	X3,2&X3	B	7	1355	H 099 0&2		24
292	2 79	MVEXP	MCH	EXP-1,ACCHI-1&X3	B	7	1362	P W78 2G8		25
293	2 80	OUT2	LCA	ACCHI&X3,XXX	B	7	1369	L 2G9 000		25
294	2 81		BW	5&X2,4&X2	B	8	1376	V 0-5 0-4 1		25
295	2 82		SAR	XL2	B	4	1384	Q 094		25
296	2 83		B	ARITH	B	4	1388	B 712		25
297	2 84	*								

FLOATING DIVIDE

FLOATING MULTIPLY

EXIT ROUTINE

SEQ PG	LIN	LABEL	OP	OPERANDS	ROUNDING FOR FINAL STORAGE	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
298	2 85	*				B	7	1392	A W91 2G8		25
299	2 86	*				B	8	1399	V U18 280 S		26
300	2 87	FINST	A	ES,ACCHI-1EX3		B	7	1407	Y 2G9 2G7		26
301	2 88		BWZ	RDOVF,ACCHI&1,S		B	4	1414	B T62		26
302	2 89	ZONMV	MZ	ACCHI&X3,ACCHI-2&X3		B	7	1418	A W92 W79		26
303	2 90		B	MVEXP		B	8	1425	B U48 W77 1		26
304	2 91	RDOVF	A	E1,EXP		B	4	1433	S 2G9		26
305	2 92		BCE	NORND,EXP-2,1		B	7	1437	L W93 280		27
306	2 93		S	ACCHI&X3		B	4	1444	B U07		27
307	2 94		LCA	@1@,ACCHI&1		B	4				
308	2 95		B	ZONMV		B	4				
309	2 96	*									
310	2 97	*		NO ROUNDING IF EXPONENT OVERFLOW WOULD OCCUR							
311	2 98	*									
312	2 99	NORND	MN	E99,ACCHI&X3		B	7	1448	D W89 2G9		27
313	3 00		MCH			B	1	1455	M 2G8		27
314	3 01		MCH	ACCHI-1EX3		B	4	1456	M 2G8		27
315	3 02		S	E1,EXP		B	7	1460	S W92 W79		27
316	3 03		B	ZONMV		B	4	1467	B U07		27
317	3 04	*									
318	3 05	*		PRINT ERROR MESSAGE							
319	3 06	*									
320	3 07	ERMSG	SBR	STRX2&6		B	4	1471	H U92		28
321	3 08		CS	TOP&1&X3		B	4	1475	/ 2&2		28
322	3 09		SBR	RJNX2&6,0&X3		B	7	1479	H V25 0&0		28
323	3 10	STRX2	SBR	X3,XXX		B	7	1486	H 099 000		28
324	3 11		MCH	2&X3,TOPE11		B	7	1493	M 0&2 212		28
325	3 12	STMNM	SBR	TOPE16,XXX		B	7	1500	H 217 000		28
326	3 13		H			B	1	1507	2		28
327	3 14		SW	TOP		B	4	1508	, 201		29
328	3 15		SBR	ERMXT&3,3&X3		B	7	1512	H V29 0&3		29
329	3 16	RINX2	SBR	X3,XXX		B	7	1519	H 099 000		29
330	3 17	ERMXT	B	XXX		B	4	1526	B 000		29
331	3 18	*									
332	3 19	*		FIXED POINT ENTRY							
333	3 20	*									
334	3 21	XSIZE	SBR	X3,XXX	STORE FIX-SIZE	B	7	1530	H 099 000		29
335	3 22		SW	FIXSW		B	4	1537	, W87		29
336	3 23	*									
337	3 24	FIXPT	MCS	0&X1, SPOT		B	7	1541	Z 0*0 250		30
338	3 25		BCE	XDIV, CODE, /		B	8	1548	B W23 924 /		30
339	3 26		BCE	XMPY, CODE, *		B	8	1556	B V98 924 *		30
340	3 27	*									
341	3 28	*		FIXED ADD / SUBTRACT							
342	3 29	*									
343	3 30		BWZ	SUBTR, CODE, K	Q. SUBTRACT	B	8	1564	V V87 924 K		30
344	3 31		A	0&X1, ACCHI&X3		B	7	1572	A 0*0 2G9		30
345	3 32	ADDRT	ZA	ACCHI&X3		B	4	1579	E 2G9		31
346	3 33		B	CLRWK		B	4	1583	B /34		31
347	3 34	*									

1401 FORTRAN ARITH AND RELOCATABLE ROUTINES

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
348	3 35	SUBTR	S	0&X1, ACCH1&X3	R	7	1587	S 0*0 2G9		31
349	3 36	*	B	ADDR	R	4	1594	B V79		31
350	3 37	*								
351	3 38	*								
352	3 39	*								
353	3 40	XMPY	LCA	0&X1, SPOT	B	7	1598	L 0*0 250		31
354	3 41		M	ACCH1&X3, SPOT&1&X3	B	7	1605	@ 2G9 2E1		31
355	3 42		MCH	SPOT&1&X3, ACCH1&X3	B	7	1612	M 2E1 2G9		32
356	3 43		B	CLRWK	B	4	1619	B /34		32
357	3 44	*								32
358	3 45	*								
359	3 46	*								
360	3 47	XDIV	BCE	DVRR, SPOT,	B	8	1623	B /54 250		32
361	3 48		MCH	0&X1, SPOT&X3	B	7	1631	M 0*0 2E0		32
362	3 49		MN		B	1	1638	D		32
363	3 50		SBR	MVQUTE3	B	4	1639	H W64		32
364	3 51		LCA	ACCH1&X3	R	4	1643	L 2G9		32
365	3 52		ZA	ACCH1&X3, SPOT&X3	R	4	1647	L 2G9 2E0		33
366	3 53		D	0&X1, SPOT&1	B	7	1654	* 0*0 251		33
367	3 54	MVQUT	MCH	SPOT-1, ACCH1&X3	B	7	1661	M 249 2G9		33
368	3 55		B	CLRWK	B	4	1668	B /34		33
369	3 56	*								
370	3 57		DCW	000	R	3	1674			33
371	3 58	RCDMK	DCW	@#@	B	1	1675			33
372	3 59		DCW	0	B	1	1676			33
373	3 60	EXP	DCW	000	B	3	1679			34
374	3 61		DC	@#@	B	1	1680			34
375	3 62	EXPB	DCW	00	B	2	1682			34
376	3 63		DC	0	B	1	1683			34
377	3 64	CODE	EQU	SIGNF	B	1	0924			34
378	3 65	ZROSM	EQU	*E1	B		1684			
379	3 66	BASEZ	EQU	*E1	B		1684			
380	3 67	XPNUM	DCW	@@	B	1	1684			
381	3 68		LTORG		B		1684	1685		34
			DCW	@@	B					
				@#@	B				LIT	34
				#01	B		1685		LIT	34
				E99	B		1686		LIT	34
				E2	B		1687		AREA	34
				E5	B		1689		LIT	34
				E1	B		1690		LIT	35
				@1@	B		1691		LIT	35
				1	B		1692		LIT	35
				@1@	B		1693		LIT	35
382	3 69		DS		B		1694			36
383	3 70		DCW	@@	B		1695			36
384	3 71		DCW	@ @	B		1696			36

SYSTEM GROUP MARK

SEQ PG	LIN	LABEL	OP	OPERANDS	1401 FORTRAN	RELOCATABLE PACKAGE	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
385	3 72		JOB		1401 FORTRAN						
386	3 73	DIVID	EQU	14000			B		14000		
387	3 74	CALC	EQU	DIVID&47			B		14047		
388	3 75	CALC1	EQU	DIVID&58			B		14058		
389	3 76	LOGM1	EQU	DIVID&149			B		14149		
390	3 77	LOGM2	EQU	DIVID&171			B		14171		
391	3 78	CALXT	EQU	DIVID&187			B		14187		
392	3 79	STR1	EQU	DIVID&191			R		14191		
393	3 80	LNLO	EQU	DIVID&226			B		14226		
394	3 81	UPBY	EQU	DIVID&250			B		14250		
395	3 82	NCON	EQU	DIVID&253			B		14253		
396	3 83	NCTR	EQU	DIVID&256			B		14256		
397	3 84	DEC	EQU	DIVID&259			B		14259		
398	3 85	TWTCH	EQU	DIVID&260			B		14260		
399	3 86	DELTA	EQU	ACCHI-200			R		0079		
400	3 87		PARAM							MACRO	
401		PARAM	EQU	686			B		0686	GEN	
402		XBEGIN	EQU	838			B		0838	GEN	
403		MONTOR	EQU	769			B		0769	GEN	
404		MONTER	EQU	700			B		0700	GEN	
405		TCLEAR	EQU	710			B		0710	GEN	
406		INITAP	EQU	780			B		0780	GEN	
407		INITXT	EQU	793			B		0793	GEN	
408		BCLEAR	EQU	833			B		0833	GEN	
409		FAILSW	EQU	184			B		0184	GEN	
410	3 88	XLINKS	EQU	840			B		0840	GFN	
411	3 89	ATANFN	EQU	894			B		0894	GFN	
412	3 90		RELOC							MACRO	
413		ORG		841						GEN	
414		YUSR12	DS	3			B		0843	GEN	
415		YUSR11	DS	3			B		0846	GEN	
416		YUSR10	DS	3			B		0849	GEN	
417		YUSR9	DS	3			B		0852	GEN	
418		YUSR8	DS	3			R		0855	GEN	
419		YUSR7	DS	3			B		0858	GEN	
420		YUSR6	DS	3			B		0861	GEN	
421		YUSR5	DS	3			B		0864	GEN	
422		YUSR4	DS	3			B		0867	GEN	
423		YUSR3	DS	3			B		0870	GEN	
424		YUSR2	DS	3			B		0873	GEN	
425		YUSR1	DS	3			B		0876	GEN	
426		SORTFN	DS	3			B		0879	GEN	
427		FLTFUN	DS	3			B		0882	GEN	
428		FIXFUN	DS	3			B		0885	GEN	
429		NEGTFN	DS	3			B		0888	GEN	
430		ABSVAL	DS	3			B		0891	GEN	
431		INVTFN	DS	3			B		0894	GEN	
432		XPNETL	DS	3			B		0897	GEN	
433		LOGFUN	DS	3			B		0900	GEN	
434		SINFUN	DS	3			B		0903	GEN	

1401 FORTRAN RELOCATABLE PACKAGE

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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
435			COMFN1	DS	3	B		0906		GEN	
436			DOSBSC	DS	3	B		0909		GEN	
437			OBLIST	DS	3	B		0912		GEN	
438			DOINIT	DS	3	B		0915		GEN	
439			DOADR3	DS	3	B		0918		GEN	
440			DOADR2	DS	3	B		0921		GEN	
441			DOADR1	DS	3	B		0924		GEN	

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
442	3	91	JOB	1401 FORTRAN						
443	3	92	SFX	A						
444	3	93	EQU	089	A	0089				37
445	3	94	EQU	94	A	0094				37
446	3	95	EQU	099	A	0099				37
447	3	96	ORG	2000	A		2000			37
448	3	97	SBR	EXITL	A	4	2000	H J41		37
449	3	98	SBR	X2	A	4	2004	H 094		37
450	3	99	SBR	X2,4EX2	A	7	2008	H 094 0-4		37
451	4	00	B	INITL&4	A	4	2015	B -96		37
452	4	01	EQU	*&74	A					
453	4	02	EQU	*&123	A					
454	4	03	XFR	0	A		2141			
455	4	04	ORG	2000	A			B 000		38
456	4	05	SBR	X2	A			2000		
457	4	06	MCH	11&X2,003&6	A	4	2000	H 094		41
458	4	07	MCH		A	7	2004	M OJ1 -46		41
459	4	08	MCH	5&X2,LIMIT&3	A	1	2011	M		41
460	4	09	MCH	11&X2,S&IX&3	A	7	2012	M 0-5 -50		41
461	4	10	MCH	14&X2,TESTL&3	A	7	2019	M OJ1 -57		41
462	4	11	SBR	EXD03&3,15&X2	A	7	2026	M OJ4 -64		41
463	4	12	EQU	*&1	A	7	2033	H -72 0J5		42
464	4	13	EQU	*&8	A		2040			
465	4	14	EQU	*&15	A		2047			
466	4	15	TESTL	*&22	A		2054			
467	4	16	EXD03	*&30	A		2061			
468	4	17	XFR	0	A		2069			
469	4	18	ORG	2000	A			B 000		43
470	4	19	A	0,0	A			2000		
471	4	20	BFIXW	ZA,000,FI&WORD	A	7	2000	A 000 000		46
472			ZA		A	1	2007	S	MACRO	46
473			DC	000	A	3	2010		GEN	46
474			DC	@ 0@	A	2	2012		GEN	46
475			DC	0	A	1	2013		GEN	46
476	4	21	BFIXW	S,000,FI&WORD	A	1	2014		MACRO	46
477			S		A	3	2017	S	GEN	46
478			DC	000	A	2	2019		GEN	46
479			DC	@ 0@	A	1	2020		GEN	46
480			DC	0	A	1	2021		MACRO	46
481	4	22	BFIXW	BWZ,000,FI&WORD,K	A	1	2021	V	GEN	46
482			BWZ		A	3	2024		GEN	46
483			DC	000	A	2	2026		GEN	46
484			DC	@ 0@	A	1	2027		GEN	46
485			DC	0	A	1	2028		GEN	46
486			DC	@K@	A	4	2029	B 000		46
487	4	23	B	0	A			B 000		46
488	4	24	XFR	0	A			B 000		47



SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
489	4 25	JOB	1401 FORTRAN						
490	4 26	ORG	2000						
491	4 27	INITIL	SBR EXITEL E3	A	4	2000	2000		50
492	4 28	MCW	2E X2, *E4	A	7	2004	H -49		50
493	4 29	*	NOTE - ADDRESS OF FIXWORD INITIALIZED BY LATER PASS				M 0-2 -14		
494	4 30	BFIXW	ZA,000, FIXWORD						
495	4 31	ZA		A	1	2011	E	MACRO	
496	4 32	DC	000	A	3	2014		GEN	50
497		DC	@ 0a	A	2	2016		GFN	50
498		DC	0	A	1	2017		GFN	50
499	4 31	MCW	8E X2, *E4	A	7	2018	M 0-8 -28	GEN	50
500	4 32	BFIXW	S,000, FIXWORD						
501	4 33	S		A	1	2025	S	MACRO	
502	4 34	DC	000	A	3	2028		GFN	50
503		DC	@ 0a	A	2	2030		GFN	50
504		DC	0	A	1	2031		GFN	50
505	4 33	MCW	11E X2, *E7	A	7	2032	M 0 J1 -45	GFN	50
506	4 34	AFIXW	LCA, FIXWORD, ,000						
507		LCA		A	1	2039	L	MACRO	
508		DC	@ 0a	A	2	2041		GEN	51
509		DC	0	A	1	2042		GEN	51
510		DC	000	A	3	2045		GFN	51
511	4 35	EXITEL	B	A	4	2046	B 000		51
512	4 36	LTRG	*	A			2050		51
513	4 37	XFR	0	A			B 000		52

SEQ PG	LIN	LABEL	OP	OPERANDS	OBJECT TIME LIST	SFX CT	LOCN	INSTRUCTION TYPE	CARD
514	4 38		JOB	1401 FORTRAN		A			
515	4 39		ORG	2000		A	2000		
516	4 40	OBJLST	SBR	X2		A	4	H 094	55
517	4 41		SBR	BSTANE6,2EX2		A	7	H -93 0-2	55
518	4 42		SBR	XTLST#3,3EX2		A	7	H -97 0-3	55
519	4 43		MCW	2EX2,ADLST#3		A	7	M 0-2 L94	55
520	4 44	XYZ	MCW	ADLST,X2		A	7	M L94 094	55
521	4 45		BW	SMPLE,0EX2		A	8	V J04 0-0 1	56
522	4 46		BCE	ARRAY,0EX2,0		A	8	B J22 0-0 ,	56
523	4 47		BCE	SUBSCR,0EX2,\$		A	8	B K53 0-0 \$	56
524	4 48		BCE	INDX1,0EX2,8		A	8	B K75 0-0 8	56
525	4 49		BCE	INDX4,0EX2,0		A	8	B L34 0-0 0	57
526	4 50		BCE	INDX2,0EX2,#		A	8	B K98 0-0 #	57
527	4 51		MCW	BLANK#3,X1		A	7	M L97 0A9	57
528	4 52	BSTAN	MCW	ADLST,0		A	7	M L94 007	57
529	4 53	XTLST	B	0		A	4	B 000	57
530	4 54	RAY	DCW	0XXXXXX0		A	6	M 0-2 089	58
531	4 55	SMPLE	MCW	2EX2,X1		A	7	H L94 0-3	58
532	4 56		SBR	ADLST,3EX2		A	7	B -87	58
533	4 57		B	BSTAN		A	4	B	58
534	4 58	ARRAY	MZ	2136,*E8 FMTZON	CHANGE ON REASM OF OBJ FORMAT	A	7	Y J36 J36	58
535	4 59		BCE	NOSWT,@258,2		A	8	B K28 L99 2	58
536	4 60		BCE			A	1	B	59
537	4 61		BWZ	INRAY,RAY-4,2		A	8	V J84 -99 2	59
538	4 62		MCW	6EX2,RAY		A	7	M 0-6 J03	59
539	4 63		MN	PARAMAE4,SBRLT#6		A	7	D 690 J97	59
540	4 64		MN			A	1	B	59
541	4 65		BWZ	*E9,RAY-4,K		A	8	V J77 -99 K	59
542	4 66		MN	PARAMAE6,SBRLT#6		A	7	D 692 J97	59
543	4 67		MN			A	1	B	60
544	4 68		MZ	*-4,RAY-4		A	7	Y J79 -99	60
545	4 69	INRAY	MCW	RAY-3,X1		A	7	M J00 089	60
546	4 70	SBRLT	SBR	X1,0EX1		A	7	M 089 0#0	60
547	4 71		MCW	X1,RAY-3		A	7	M 089 J00	60
548	4 72		C	RAY,RAY-3		A	7	C J03 J00	60
549	4 73		BU	BSTAN		A	5	B -87 /	61
550	4 74		MZ	*-6,RAY-4		A	7	Y K17 -99	61
551	4 75		B	DUN1		A	4	B K47	61
552	4 76	NOSWT	MCW	6EX2,RAY		A	7	M 0-6 J03	61
553	4 77		MCW	@,@,X1		A	7	M M00 089	61
554	4 78	DUN1	SBR	ADLST,7EX2		A	7	H L94 0-7	61
555	4 79		B	BSTAN		A	4	B -87.	62
556	4 80	SUBSCR	T	DOSBSC		A	4	T 909	62
557	4 81		MZ	*-4,X1-1		A	7	Y K59 0A9	62
558	4 82		MCW	X2,ADLST		A	7	M 094 L94	62
559	4 83		B	BSTAN		A	4	B -87	62
560	4 84	INDX1	SBR	X2,1EX2		A	7	H 094 0-1	62
561	4 85		T	DOINIT		A	4	T 915	62
562	4 86		MN	0EX2		A	4	D 0-0	63
563	4 87		SBR	X2		A	4	H 094	63

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
564	4	88	B	SETUP	A	4	2294	8 L05		63
565	4	89	MCH	3EX2,X2	A	7	2298	M 0-3 094		63
566	4	90	SETUP	12EX2,INDX3&6	A	7	2305	M 0J2 L47		63
567	4	91	MCH		A	1	2312	M		63
568	4	92	MCH	6EX2,LIMIT&3	A	7	2313	M 0-6 L51		63
569	4	93	MCH	12EX2,SUBIX&3	A	7	2320	M 0J2 L58		64
570	4	94	SBR	LPARN#3,0EX2	A	7	2327	H M03 0-0		64
571	4	95	INDX4	LPARN,X2	A	7	2334	M M03 094		64
572	4	96	INDX3	0,0	A	7	2341	A 000 000		64
573	4	97	*	NOTE - ADDRESS OF FIXWORD INITIALIZED BY LATER PHASE OF COMPILER						
574	4	98	LIMIT	BFIXW ZA,000,FIXWORD						
575	4	98	LIMIT	ZA						
576	4	98	DC	000	A	1	2348	E	MACRO	64
577	4	98	DC	@ 0@	A	3	2351		GEN	64
578	4	98	DC	0	A	2	2353		GEN	64
579	4	99	SUBIX	BFIXW S,000,FIXWORD	A	1	2354		GEN	64
580	4	99	SUBIX	S					MACRO	
581	5	00	DC	000	A	1	2355	S	GEN	64
582	5	01	DC	@ 0@	A	3	2358		GEN	64
583	5	02	DC	0	A	2	2360		GEN	65
584	5	03	*	IMPORTANT NOTE - THE OPERAND -SATFY- IN THE FOLLOWING MACRO	A	1	2361		GEN	65
585	5	04	*	WILL NOT BE CODED AS RELOCATABLE BY THE RELOCATABLE						
586	5	05	*	CONDENSING ROUTINE. THIS IS DUE TO THE FACT THAT THE						
587	5	06	*	CONDENSER DOES NOT RECOGNIZE DC OR DCW STATEMENTS AS HAVING						
588	5	07	*	RELOCATABLE OPERANDS. IT IS NECESSARY TO MANUALLY ZONE THE						
589	5	08	*	SET WORD MARK INSTRUCTION WITH AND 11-PUNCH TO CAUSE						
590	5	09	*	RELOCATION.						
591	5	10	BWZ	BFIXW BWZ,SATFY,FIXWORD,,K						
592	5	11	DC	SATFY	A	1	2362	V	MACRO	65
593	5	12	DC	@ 0@	A	3	2365	L81	GEN	65
594	5	13	DC	0	A	2	2367		GEN	65
595	5	14	DC	@K@	A	1	2368		GEN	65
596	5	15	DC	B	A	1	2369		GEN	65
597	5	16	SBR	ADLST,16EX2	A	7	2370	H L94 0J6		65
598	5	17	B	XYZ	A	4	2377	B -25		65
599	5	18	SATFY	MCH 15EX2,ADLST	A	7	2381	M 0J5 L94		65
600	5	19	B	XYZ	A	4	2388	B -25		65
601	5	20	LTORG	*	A	4	2392	2392		65
519	5	21	ADLST	DCW #03	A	3	2394		AREA	66
527	5	22	BLANK	#03	A	3	2397		AREA	66
				@2S@	A	2	2399		LIT	66
				@.a	A	1	2400		LIT	66
				#03	A	3	2403		AREA	66
602	5	23	LPARN	XFR 0	A	3	R 000			67

SEQ PG	LIN	LABEL	OP	OPERANDS	1401 FORTRAN OBJECT TIME SUBSCRIPTS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
603	5 14		JOB	1401 FORTRAN		A			
604	5 15		ORG	2000		A	2000	H J78	70
605	5 16	DTSUB	SBR	EXITSE3		A	2004	M 0-3 J94	70
606	5 17		MCH	3EX2,AAA#3		A	2011	S J99	70
607	5 18		S	PROD#5		A	2015	B -20 Z	70
608	5 19		BAV	*E1		A	2020	M 0-9 -44	70
609	5 20	SBR1	MCH	96X2,LCAE3		A	2027	M 0-6 -37	70
610	5 21		MCH	6EX2,ZAE3		A	2034	E 000 K04	71
611	5 22	ZA	ZA	000,WORK#5		A	2041	L 000 K09	71
612	5 23	LCA	LCA	000,BFEEL-6		A	2048	Q K04 K15	71
613	5 24		M	WORK,BFEEL#11		A	2055	A K15 J99	71
614	5 25		A	BFEEL,PROD		A	2062	C J96 K17	71
615	5 26		C	PROD-3,@15a		A	2069	B J79 T	72
616	5 27		BL	OHALT		A	2074	B -93 0J0 \$	72
617	5 28		BCE	PACK,10EX2,\$		A	2082	H 094 0-6	72
618	5 29		SBR	X2,6EX2		A	2089	B -20	72
619	5 30		B	SBR1		A	2093	A K19 J96	72
620	5 31	PACK	A	896,PROD-3		A	2100	B -93 Z	72
621	5 32		BAV	PACK		A	2105	Y J95 J99	73
622	5 33		MZ	PROD-4,PROD		A	2112	E J97 090	73
623	5 34		ZA	PROD-2,X1E1		A	2119	Y -22 J97	73
624	5 35		MZ	ZONES-99EX1,PROD-2		A	2126	M J99 089	73
625	5 36		MCH	PROD,X1		A	2140	Y J89 J59	74
626	5 37		MCH	X1,SBR66		A	2147	M J94 089	74
627	5 38		MZ	ZONES-2,SBR65		A	2154	H 089 0#0	74
628	5 39		MCH	AAA,X1		A	2161	Y J93 0R8	74
629	5 40	SBR	SBR	X1,0EX1		A	2168	H 094 0J1	74
630	5 41		MZ	AAA-1,X1-1		A	2175	B 000	74
631	5 42		SBR	X2,11EX2		A	2179	N -02	75
632	5 43	EXITS	B	000		A	2183	.	75
633	5 44	OHALT	NDP	2002		A	2184	R J79	75
634	5 45		H			A	2191		75
635	5 46	ZONES	DCH	OHALT		A			
636	5 47		B	@2SKB@		A			
637	5 48		L	LTORG *		A			
638	5 49	AAA	DCW	#03		A	2192		
606		PROD		#05		A	2194	AREA	75
607		WORK		#05		A	2199	AREA	75
611		WORK		#11		A	2204	AREA	75
613		BFEEL		#11		A	2215	AREA	76
613		BFEEL		@15@		A	2217	LIT	76
613		BFEEL		E96		A	2219	LIT	76
638	5 49	XFR	O			A		B 000	77

COMPUTE ADDRESS

SEQ PG LIN	LABEL	OP	OPERANDS	1401 FLOATING POINT SINE -- COSINE SUBROUTINE	SFX CT	LOCN	INSTRUCTION TYPE	CARD
639	5 50	JOB			B	2000	B -24 924 C	80
640	5 51	SFX			B	2008	B /42 S	80
641	5 52	*		INSERT FUNCTION COMMON DECK HERE	B	2013	Y 269 K23	80
642	5 53	ORG			B	2020	B -36	80
643	5 54	*			B	2024	B J9A S	80
644	5 55	TRIGF			B	2029	Y M28 K23	80
645	5 56	SINF			B	2035	M M29 M33	81
646	5 57				B	2043	C W79 W82	81
647	5 58				B	2050	S M28 W79	81
648	5 59	COSF			B	2057	V L05 W79 K	81
649	5 60	MZ		SINE 0 # 1	B	2065	A M30 W79	81
650	5 61	MCH		SINE -X # -SINE X	B	2072	S 099 W79 B	82
651	5 62	ZA		COSINE 0 # 1	B	2079	V L90 W79 B	82
652	5 63	S		COS -X # COS X	B	2087	C W82 W79	82
653	5 64	BM			B	2094	H 089 M85	82
654	5 65	A		REDUCE ARGUMENT	B	2101	C W80 095	82
655	5 66	S		DIVIDE ARGUMENT BY PI/2	B	2108	B -08	83
656	5 67	BWZ			B	2112	C #1 095	83
657	5 68	ZA		DETERMINE QUADRANT IN WHICH	B	2119	S M32 095	83
658	5 69	SBR		ANGLE IS LOCATED AND WHETHER	B	2126	V J19 095 B	83
659	5 70	ZA		SINE OR COSINE FUNCTION IS TO	B	2134	B J49 924 C	83
660	5 71	R		BE CALCULATED	B	2142	H 094 0-1	84
661	5 72	ZA			B	2149	Y M-0 #87	84
662	5 73	S		DEC # 0	B	2156	D M-0 M33	84
663	5 74	BWZ			B	2163	S K51	84
664	5 75	BCE			B	2167	S W79	84
665	5 76	SBR			B	2171	B K38 M33 2	84
666	5 77	MZ			B			
667	5 78	MN		SINE INITIALIZATION	B			
668	5 79	S			B			
669	5 80	S			B			
670	5 81	BCE			B			
671	5 82	*			B			
672	5 83	*			B			
673	5 84	*			B			
674	5 85	SINE			B			
675	5 86	B			B	2179	C 269 262	85
676	5 87	ZA			B	2186	B K64	85
677	5 88	ZA		FIRST TERM # X	B	2190	C 262 249	85
678	5 89	ZA		NCON # -2	B	2197	C 251	85
679	5 90	ZS			B	2201	- M30 K5C	85
680	5 91	*		GENERAL INITIALIZATION FOR SERIES EVALUATION	B			
681	5 92	*			B			
682	5 93	SCGEN			B			
683	5 94	S		UPBY # 88	B	2208	C M34 K5C	85
684	5 95	B		NCTR # 0	B	2215	S K5F	86
685	5 96	*		CALC	B	2219	B -4G	86
686	5 97	*			B			
687	5 98	*		PREPARE FIELDS FOR NORMALIZATION	B			
688	5 99	ZA			B			
					B	2223	C #87	86

SEQ PG	LINE	LABEL	OP	OPERANDS	INSTRUCTION	TYPE	CARD
689	6 00		SBR	X2,TOPEX3	H 094 2E1		86
690	6 01		B	NMLZ1	A #24		86
691	6 02	*					
692	6 03	*					
693	6 04	*					
694	6 05	COS	B	SQRX	B K64		86
695	6 06		MN	E1,0EX1	D M28 0+0		86
696	6 07		ZS	E6,NCON	- M35 K5C		87
697	6 08		S	EXP	S W79		87
698	6 09		B	SCGEN	B K08		87
699	6 10	*					
700	6 11	*					
701	6 12	*					
702	6 13	SQRX	SBR	SORXTE3	H L04		87
703	6 14		MCW	ACCHIEX3,SPOT	M 2G9 250		87
704	6 15		SBR	X1	H 089		87
705	6 16		LCA	@0@	L M36		87
706	6 17		M	ACCHIEX3,SPOTE1EX3	@ 2G9 2E1		88
707	6 18		ZS	SPOTE2,ACCHIEX3	- 252 2G9		88
708	6 19		S	SPOTE1	S 251		88
709	6 20	SQRXT	B	XXX	B 000		88
710	6 21	*					
711	6 22	*					
712	6 23	*					
713	6 24	SMALL	A	X3,EXP	A 099 W79		88
714	6 25		BM	TSTFC,EXP	V L71 W79 K		88
715	6 26		ZA	EXPB,EXP	E W82 W79		89
716	6 27		MZ	ACCHIEX3,ACCHI-1EX3	Y 2G9 2G8		89
717	6 28		ZA	ACCHI-1EX3,ACCHIEX3	E 2G8 2G9		89
718	6 29		A	EXPB	A W82		89
719	6 30		ZS	EXPB&1,DEC	- W83 K51		89
720	6 31		MZ	E1,NSIGN	Y M28 #87		89
721	6 32		BCE	COS,CODE,C	B K38 924 C		90
722	6 33		B	SINE	B J79		90
723	6 34	TSTFC	BCE	STR1,CODE,C	B J9A 924 C		90
724	6 35		ZA	EXPB,EXP	E W82 W79		90
725	6 36		B	CLRWK	B /34		90
726	6 37		B	ERMSG	B U71		90
727	6 38		DCW	@SCL@	B 2396		90
728	6 39		B	STRZE	B /42		91
729	6 40	*					
730	6 41	ZONZ	EQU	* @AKJBAA	2400		91
731	6 42		DCW		2405		
732	6 43	*					
733	6 44	PIOV2	EQU	* 1570796326794896619231	2405		91
734	6 45		DCW	E1	2427		91
			DCW	@ @	1 2428		91
				E2	1 2429		91
				E40	1 2430		91
					2 2432		91

LIT  
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1401 FLOATING POINT SINE - COSINE SUBROUTINE

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
667	80X			#01	B	1	2433	AREA		92
				£8	B	1	2434	LIT		92
				£6	B	1	2435	LIT		92
				@0@	B	1	2436	LIT		92
735	6 46		EX	TRIGF	B			B -00		93

SEQ PG LIN	LABEL	OP	OPERANDS	POINT NATURAL LOGARITHM	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
736		JOB	1401		B	7	2000	Y 269 W84	96
737	*	ORG	2000		B	5	2007	B K50 S	96
738		MZ	ACCHI&X3, BASEZ		B	8	2012	V K24 269 K	96
739	*	BE	LOG99	Q. NEGATIVE ARGUMENT	B	7	2020	C 248 269	96
740	LOGF	BM	LOGER, ACCHI&X3		B	4	2027	Q D89	96
741	LOGF2	C	SPOT-2, ACCHI&X3		B	4	2031	, O#0	96
742	LOGF1	SAR	X1		B	7	2035	D L15 O#2	97
743		SW	O&X1		B	7	2042	C 281 L17	97
744		MN	E1, 2&X1	SET UP CONSTANT ONE	B	5	2049	B -68 U	97
745		C	E1, 2&X1	SET UP CONSTANT ONE	B	7	2054	E 268 269	97
746		BH	NOSHF	SET UP CONSTANT ONE	B	7	2061	A L15 W79	97
747		ZA	ACCHI&2, @31@	SET UP CONSTANT ONE	B	7	2068	S 269 249	98
748		A	ACCHI&1&X3, ACCHI&X3	SHIFT DEC POINT 1 TO LEFT	B	7	2075	- 249 L14	98
749		S	E1, EXP	SHIFT DEC POINT 1 TO LEFT	B	7	2082	S L15 W79	98
750		ZS	ACCHI&X3, SPOT-1	SHIFT DEC POINT 1 TO LEFT	B	7	2089	A L15 280	98
751		S	E1, EXP	SHIFT DEC POINT 1 TO LEFT	B	7	2096	S L18 2E0	98
752	*	A	E1, EXP	SHIFT DEC POINT 1 TO LEFT	B	7	2103	X 269 249	99
753	NOSHF	S	ACCHI&X3, SPOT-1	SHIFT DEC POINT 1 TO LEFT	B	7	2110	L 249 L13	99
754		ZS	SPOT-1, LZONE	SHIFT DEC POINT 1 TO LEFT	B	7	2117	A L13 2E1	99
755		S	E1, EXP	SHIFT DEC POINT 1 TO LEFT	B	7	2124	E 249 269	99
756		A	E1, ACCHI&1	SHIFT DEC POINT 1 TO LEFT	B	7	2131	E L13 251	99
757		S	E0, SPOT&X3	SHIFT DEC POINT 1 TO LEFT	B	7	2138	E K87 K51	100
758		D	ACCHI&X3, SPOT-1	SHIFT DEC POINT 1 TO LEFT	B	1	2145	E	100
759		LCA	SPOT-1, HOLD	SHIFT DEC POINT 1 TO LEFT	B	1	2146	E	100
760		M	HOLD, SPOT&1&X3	SHIFT DEC POINT 1 TO LEFT	B	1	2147	E	100
761		ZA	SPOT-1, ACCHI&X3	SHIFT DEC POINT 1 TO LEFT	B	7	2148	, J41 J7A	100
762		ZA	HOLD, SPOT&1	SHIFT DEC POINT 1 TO LEFT	B	7	2155	H J4E L13	100
763		ZA	LIMIT, DEC	SHIFT DEC POINT 1 TO LEFT	B	4	2162	H J7E	100
764		ZA	LOGM1, LOGM2	SHIFT DEC POINT 1 TO LEFT	B	7	2166	H J9E J77	101
765		ZA	LOGM1-4, HOLD	SHIFT DEC POINT 1 TO LEFT	B	4	2173	B -5H	101
766		ZA	LOGM2-1	SHIFT DEC POINT 1 TO LEFT	B	4	2177	A 2E2	101
767		SW	CALXT&3, LOGRT	SHIFT DEC POINT 1 TO LEFT	B	7	2181	Y L14 2E1	101
768		SBR	CALC1	SHIFT DEC POINT 1 TO LEFT	B	7	2188	E K8G 248	101
769		SBR	TOP&1&X3	SHIFT DEC POINT 1 TO LEFT	B	7	2195	A W79 252	101
770		B	LZONE, TOP&X3	SHIFT DEC POINT 1 TO LEFT	B	7	2202	A 2E1 252	102
771		A	LN10&1&X3, SPOT-2	SHIFT DEC POINT 1 TO LEFT	B	7	2209	H 094 .252	102
772		MZ	EXP, SPOT&2	SHIFT DEC POINT 1 TO LEFT	B	4	2216	S W82	102
773		ZA	TOP&X3, SPOT&2	SHIFT DEC POINT 1 TO LEFT	B	4	2220	B #10	102
774		M	EXPB	SHIFT DEC POINT 1 TO LEFT	B	4	2224	V K39 0-4 1	102
775		A	MVIZON	SHIFT DEC POINT 1 TO LEFT	B	4	2232	B U71	102
776		SBR	*E8, 4&X2	SHIFT DEC POINT 1 TO LEFT	B	3	2238	B	102
777		S	ERMMSG	SHIFT DEC POINT 1 TO LEFT	B	7	2239	Y K87 269	103
778		B	ALMNA@	SHIFT DEC POINT 1 TO LEFT	B	4	2246	B -20	103
779		B	LIMIT, ACCHI&X3	SHIFT DEC POINT 1 TO LEFT	B	4	2246	B -20	103
780		BW	LOGF1	SHIFT DEC POINT 1 TO LEFT	B	4	2246	B -20	103
781		B	LOGER	SHIFT DEC POINT 1 TO LEFT	B	4	2246	B -20	103
782		B	ERMMSG	SHIFT DEC POINT 1 TO LEFT	B	4	2246	B -20	103
783		DCH	ALMNA@	SHIFT DEC POINT 1 TO LEFT	B	4	2246	B -20	103
784		MZ	LIMIT, ACCHI&X3	SHIFT DEC POINT 1 TO LEFT	B	4	2246	B -20	103
785		B	LOGF1	SHIFT DEC POINT 1 TO LEFT	B	4	2246	B -20	103



SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
786 6 97	LOG99	BW	POWER,4EX2	8	2250	V K76 0-4 1		103
787 6 98		B	ERMSG	4	2258	8 U71		103
788 6 99		DCW	@LNZ@	3	2264			103
789 7 00		MZ	-0,ACCHI&X3	7	2265	Y L19 269		103
790 7 01		B	STR99	4	2272	8 /15		103
791 7 02	POWER	CW	ZROSW	4	2276	8 H84		104
792 7 03		B	STRI	4	2280	8 J9A		104
793 7 04	*							
794 7 05		DCW	EO	1	2284			104
795 7 06			E2	1	2285			104
796 7 07			E1	1	2286			104
797 7 08	LIMIT		EO	1	2287			104
798 7 09	HOLD	DCW	#26	26	2313			104
799 7 10	LZONE	DCW	#1	1	2314			105
			E1	1	2315		LIT	105
			2313	2	2317		LIT	105
			EO	1	2318		LIT	105
800 7 11	EX	LOGF	-0	1	2319		LIT	105
						B -00		106

GIVE LARGE NEG NUMBER AS RESULT

UPBY  
NCON  
NCTR  
DEC

SEQ PG	LIN	LABEL	OP	OPERANDS	INSTRUCTION	TYPE	CARD
801	7 12	*	JOB	14-01	FORTRAN	POINT	EXPONENTIAL
802	7 13	*	ORG	2000			
803	7 14	*					
804	7 15	*					
805	7 16	EXPF	MZ	ONE, NSIGN	Y K90 #87		109
806	7 17		MN	XPNUM, #E8	D W84 -21		109
807	7 18		BCE	OUTM1, #024688, 0	B -40 K99 0		109
808	7 19		CHAIN	4			
809			BCE			MACRO	
810			BCE			GEN	109
811			BCE			GEN	109
812			BCE			GEN	109
813	7 20		MZ	BASEZ, NSIGN	Y W84 #87		110
814	7 21		MN	#83, XPNUM	D L00 W84		110
815	7 22		BW	RUNML, ZROSW	V -79 W84 1		110
816	7 23		SW	ZROSW	W84		110
817	7 24		ZS	ACCHIEX3	- 2G9		110
818	7 25		BU	QSIGN	B J21 /		110
819	7 26		B	ERMSG	B U71		110
820	7 27		DCW	#ZTZ@			111
821	7 28		MZ	NSIGN, TWICH	Y #87 K6E		111
822	7 29		B	STRI	B 2068		111
823	7 30		BE	PETTY	B J9A		111
824	7 31		ZA	EXP, EXPB	B -68 S		111
825	7 32		S	ONE, EXPB	E W79 W82		111
826	7 33		BM	SML, EXPB	S K90 W82		111
827	7 34		S	THREE, EXPB	V K45 W82 K		112
828	7 35		BM	REDUC, EXPB	S K94 W82		112
829	7 36	*			V J40 W82 K		112
830	7 37	*					
831	7 38	*					
832	7 39	*					
833	7 40	QSIGN	BM	STRZE, ACCHIEX3	B 2121	V /42 2G9 K	112
834	7 41		B	ERMSG	B 4 2129	B U71	112
835	7 42		DCW	#EOF@	B 3 2135		112
836	7 43		B	STR99	B 4 2136	B /15	113
837	7 44	*					
838	7 45	*					
839	7 46	*					
840	7 47	REDUC	SBR	X1, LN10EX3	B 7 2140	H 089 KBF	113
841	7 48		ZA	EXP61, X2E1	B 7 2147	E W80 095	113
842	7 49		B	DIVID	B 4 2154	B -0E	113
843	7 50		C	0EX1, THC99	B 7 2158	C 0#0 K93	113
844	7 51		BL	QSIGN	B 5 2165	B J21 T	113
845	7 52		ZA	0EX1, EXP	B 7 2170	E 0#0 W79	114
846	7 53	*	MZ	ACCHIEX3, EXP	B 7 2177	V 2G9 W79	114
847	7 54	*					
848	7 55	*					
849	7 56	*					
850	7 57		S	PREPARE FIELDS FOR SERIES CALCULATION	B 4 2184	S K51	114

SEQ PG	LIN	LABEL	OP	OPERANDS	SET UP TERM DEVELOPMENT AREA	SFX CT	LOCN	INSTRUCTION TYPE	CARD
851	7 58	FTERM	C	SPOT,ACCHI&X3		8	2188	C 250 2G9	114
852	7 59		SAR	X1		8	2195	Q 089	114
853	7 60		SW	0&X1		8	2199	0#0	114
854	7 61		S	SPOT&1		8	2203	S 251	114
855	7 62		MN	ONE,0&X1	CLEAR TERM DEVELOPMENT AREA	8	2207	D K90 0#0	115
856	7 63		ZA	THC99-2,NCTR	FIRST TERM # 1	8	2214	E K91 K5F	115
857	7 64		ZA		SET NCTR # ZERO	8	2221	E	115
858	7 65		ZA		SET NCON # 1	8	2222	E	115
859	7 66		B	CALC	SET UPBY # ZERO	8	2223	B -4G	115
860	7 67	*				8			
861	7 68	*				8			
862	7 69	*			PREPARE FIELDS FOR NORMALIZING	8			
863	7 70		MZ	TOP&1&X3,TOPE&X3		8	2227	Y 2&2 2&1	115
864	7 71		SBR	X2,TOPE&X3		8	2234	H 094 2&1	115
865	7 72		B	NMLZ1		8	2241	B #24	116
866	7 73	*							
867	7 74	*			EXPONENTS LESS OR # TO ZERO				
868	7 75	*							
869	7 76	SML	A	X3,EXPB		8	2245	A 099 W82	116
870	7 77		BM	PETTY,EXPB	BRANCH IF -E GREATER THAN PRECISION	8	2252	V -68 W92 K	116
871	7 78		ZS	EXP&1,DEC	SET DEC # E	8	2260	- W80 K51	116
872	7 79		S	EXP		8	2267	S W79	116
873	7 80		MZ	ACCHI&X3,ACCHI-1&X3	SET UP SERIES MULTIPLIER	8	2271	Y 2G9 2G8	116
874	7 81		ZA	ACCHI-1&X3,ACCHI&X3		8	2278	E 2G8 2G9	117
875	7 82		B	FTERM		8	2285	B J88	117
876	7 83		DCW	0		8	2289		117
877	7 84	ONE	DCW	&1		8	2290		117
878	7 85	THC99	DCW	&099		8	2293		117
879	7 86	THREE	DCW	&3		8	2294		117
880	7 87		EX	002468@		8	2299		LIT
				08@		8	2300		LIT
				EXPF		8		B -00	118
									119

SEQ PG	LN	LABEL	OP	OPERANDS	POINT	ARCTANGENT	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
881	7		JOB	1401	FLOATING	POINT						
882	7	*	ORG	2000								
883	7											
884	7	*										
885	7	CASE1	BE	STRZE					2000			
886	7		MZ	ε1,INITL					B /42 S			122
887	7		ZA	ACCHI-1εX3,ACCHIεX3					Y M61 L62			122
888	7		S	DEC					ε 2G8 2G9			122
889	7		S	TOPε1εX3					S K51			122
890	7		C	SPOT-2,ACCHIεX3					S 2ε2			122
891	7		SAR	X1					C 248 2G9			122
892	7		SW	0εX1					Q 089			122
893	8		ZA	0εεε,SPOTεX3					ε 0ε0			123
894	8		MCW	0εεε,EXPB					ε M63 2EO			123
895	8		MN	EXP,EXPB					M M63 WR2			123
896	8		MN						D W79 W82			123
897	8		C	EXPB,0εεε					D			123
898	8		BE	ZEREX					C W82 M63			123
899	8		S	X3,EXPB					B K83 S			123
900	8		BM	TEST,EXPB					S 099 W82			124
901	8		BM	CASE2,EXP					V J50 W82 K			124
902	8		B	CASE7					V J03 W79 K			124
903	8	CASE2	MCW	ACCHIεX3,TOPεX3					B J21			124
904	8		A	ε1,EXP					M 2G9 2ε1			124
905	8		B	SIGN					A M61 W79			125
906	8		S	EXP					B J39			125
907	8	CASE7	S						S W79			125
908	8	ADDP12	A	PIOV4ε1εX3,TOPε1εX3					A MA4 2ε2			125
909	8	ADDP14	A	PIOV4ε1εX3,TOPε1εX3					A MA4 2ε2			125
910	8	SIGN	SBR	X2,TOPεX3					H 094 2ε1			125
911	8		B	NMLZ1					B #24			126
912	8	TEST	BM	CASE3,EXP					V K47 W79 K			126
913	8		MN	ε1,2εX1					D M61 0ε2			126
914	8	SHIFT	ZA	SPOT-1εX3,SPOTεX3					ε 2D9 2EO			126
915	8		S	ε1,EXP					S M61 W79			126
916	8		C	EXP,0εεε					C W79 M63			127
917	8		BL	SHIFT					B J65 T			127
918	8		D	ACCHIεX3,SPOT-1					ε 2G9 249			127
919	8		BH	2εX1,0ε42ε					C 0ε2 M66			127
920	8		ZS	CASE6					B K32 U			127
921	8		MCW	INITL					- L62			127
922	8		ZA	SPOT-3,ACCHIεX3					M 247 2G9			128
923	8		B	0εεε,SPOTεX3					ε M63,2EO			128
924	8	CASE6	SBR	CASE4					B K95			128
925	8		ZS	CALXTε3,ADDP12					H J9ε J25			128
926	8		B	INITL					- L62			128
927	8	CASE3	SBR	MLTPLY					B L41			128
928	8		ZA	CALXTε3,SIGN					H J9ε J39			129
929	8		A	EXP,EXPB					ε W79 W82			129
930	8		ZS	EXPBε1,DEC					A W82			129
									- W83 K51			129

1401 FLOATING POINT ARCTANGENT

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
931		MCW	ACCHIEX3,SPOT-3	B	7	2272	M 2G9 247		129
932		B	MLTPLY	B	4	2279	B L41		129
933	ZEREX	C	ACCHIEX3, @042@	B	7	2283	C 282 M66		130
934		BH	CASE3	B	5	2290	B K47 U		130
935	CASE4	SBR	CALXTE3, ADDPI4	B	7	2295	H J9E J32		130
936		ZS	INITL	B	4	2302	- L62		130
937		MN	E1,2EX1	B	7	2306	D M61 0#2		130
938		S	ACCHIEX3,SPOT-1	B	7	2313	S 2G9 249		130
939		A	E1,ACCHIEX1	B	7	2320	A M61 280		131
940		A	@0E@,SPOTEX3	B	7	2327	A M63 2E0		131
941		D	ACCHIEX3,SPOT-1	B	7	2334	% 2G9 249		131
942	MLTPLY	LCA	SPOT-1,HOLDD	B	7	2341	L 249 M60		131
943		M	HOLDD,SPOTEX3	B	7	2348	@ M60 2E2		131
944		ZS	SPOT-1,ACCHIEX3	B	7	2355	- 249 2G9		132
945		ZA	HOLDD	B	4	2362	E M60		132
946		ZA	HOLDD,SPOTEX1	B	7	2366	E M60 251		132
947		ZA	R2,NCON	B	7	2373	E M67 K5C		132
948		S	UPBY	B	4	2380	S K5E		132
949		ZA	E1,NCTR	B	7	2384	E M61 K5F		132
950		SW	LOGM1,LOGM2	B	7	2391	, J41 J7A		133
951		SBR	LOGM1-4,HOLDD	B	7	2398	H J4E M60		133
952		SBR	LOGM2-1	B	4	2405	H J7E		133
953		B	CALC1	B	4	2409	B -5H		133
954		EQU	*E1	B	4	2413			134
955		DCW	@078539816339744830961566@	B	24	2436			135
956		DCW	#24	B	24	2460			135
		DCW	E1	B	1	2461		LIT	135
			@042@	B	2	2463		LIT	135
			E2	B	3	2466		LIT	135
957		EX	CASE1	B	1	2467		LIT	135
				B			B -00		136

SEQ PG LIN	LABEL	OP	OPERANDS	ABSOLUTE VALUE - NEGATE SUBROUTINE	SFX CT.	LOCN	INSTRUCTION TYPE	CARD
958	8 65	JOB	1401	ABSOLUTE VALUE - NEGATE SUBROUTINE	8	2000	2000	139
959	8 66	ORG	2000		0	Y -07 2G9		140
960	8 67	MZ	*61,ACCHI&X3		0	B -00		
961	8 68	EX	ABSVL		0			
962	8 69				0			
963	8 70				0			
964	8 71	ORG	2000		0	2000		
965	8 72	ZS	ACCHI&X3		0	- 2G9		143
966	8 73	B	CLRWK		0	B /34		143
967	8 74	EX	NEGF		0	B -00		144

FLOAT TO FIX CONVERSION

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SEQ PG LIN	LABEL	OP	OPERANDS	OP	INSTRUCTION	TYPE	CARD
968	8 75						
969	8 76	*	FLOAT TO FIX CONVERSION	JOB			
970	8 77			ORG	2000		
971	8 78	*					
972	8 79	FIXF		SW			
973	8 80		FIXSW	SBR	W87		147
974	8 81		X1,0EX3	MCW	H 089 0E0		147
975	8 82		PARAMAE4,*E7	SBR	H 690 -24		147
976	8 83		X3,000	S	H 099 000		147
977	8 84		E1,EXP	BM	S J32 W79		148
978	8 85		STRZE,EXP	ZA	V /42 W79 K		148
979	8 86		EXPE1,X2E1	C	E W80 095		148
980	8 87		X1,X2	BL	C 089 094		148
981	8 88		EXPLS	S	R J07 T		148
982	8 89		X1E1,X2E1	C	S 090 095		148
983	8 90		X3,X2	BH	C 099 094		149
984	8 91		STRZE	S	B /42 U		149
985	8 92		SPOTE1EX2	ZA	S 2N1		149
986	8 93		ACCHIEX1,SPOT	MZ	E 2X9 250		149
987	8 94		SPOT,SPOTE1EX2	ZA	Y 250 2N1		149
988	8 95		SPOTE1EX2,ACCHIEX3	B	E 2N1 2G9		149
989	8 96	EXPLS	CLRWK	MZ	B /34		150
990	8 97		ACCHIEX1,ACCHIE1EX2	LCA	Y 2X9 2Q0		150
991	8 98		ACCHIE1EX2,SPOT	ZA	L 2Q0 250		150
992	8 99		SPOT,ACCHIEX3	B	E 250 2G9		150
			CLRWK	DCW	B /34		150
			E1	EX			151
993	9 00		FIXF		B -00	LIT	151

STORE ZERO IF CHAR OF ARG LESS THAN 1

STORE FIXPT NUMBERS MODULO K

ADD ONLY INTEGER PLACES

SEQ PG LIN	LABEL	OP	OPERANDS	FIX TO FLOAT CONVERSION	SFX CT	LOCN	INSTRUCTION TYPE	CARD
994	9 01	JOB						
995	9 02	ORG	2000					
996	9 03							
997	9 04	FLOT						
998	9 05	CM	FIXSW					
999	9 06	BM	*E5,4EX2					
1000	9 07	B	*E8					
1001	9 08	MN	ACCHIEX3,XPNUM					
1002	9 09	SBR	X2,SPOT					
1003	9 10	LCA	ACCHIEX3					
1004	9 11	MCM	PARAMAE6,*E7					
1005	9 12	SBR	X3,000					
1006	9 13	ZA	X3,EXPB					
1007	9 14	B	MVZON					
1008	9 15	EX	FLOT					



1401 FLOATING POINT SQUARE ROOT

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1009	9 16								
1010	9 17	*	1401 FLOATING POINT SQUARE ROOT	B	8	2000	V J87 2G9 K		159
1011	9 18			B	7	2008	D 2G9 282		159
1012	9 19	*	2000	B	1	2015	M		159
1013	9 20	SQRTF	QERR,ACCHI&X3 ACCHI&X3,TOPE2I&X3	B	4	2016	H 089		159
1014	9 21	MN	BRANCH IF ARGUMENT NEGATIVE	B	7	2021	L K09 201		159
1015	9 22	MCH		B	4	2028	H 094		159
1016	9 23	SW	INITIALIZE SUBTRAHEND	B	4	2032	E W80 283		160
1017	9 24	SBR		B	7	2039	A K09 282		160
1018	9 25	LCA		B	7	2046	A K11 285		160
1019	9 26	SBR		B	7	2053	D 283 W79		160
1020	9 27	ZA		B	1	2060	D		160
1021	9 28	A	EXP&I,ACCHI&4 DETERMINE EXPONENT OF ROOT	B	8	2061	B -80 284 0		160
1022	9 29	M		B	7	2069	H 089 0+1		161
1023	9 30	MN		B	4	2076	B -95		161
1024	9 31	MN		B	8	2080	V -95 W79 B		161
1025	9 32	BCE		B	7	2088	A K09 W79		161
1026	9 33	SBR		B	4	2095	S 2G9		161
1027	9 34	B	CKSGN,ACCHI&5,0	B	7	2099	S K13 0-2		161
1028	9 35	BWZ		B	4	2106	H 0K1		162
1029	9 36	A		B	1	2110	H 094 0-1		162
1030	9 37	S	QSTRT,EXP,B	B	7	2111	H 094 0-1		162
1031	9 38	S	QSTRT	B	7	2118	- K09 K14		162
1032	9 39	SW	EXP,EXP,B	B	7	2125	A K09 K14		162
1033	9 40	SW	EXP,EXP,B	B	7	2132	A K15 0-1		162
1034	9 41	SW	EXP,EXP,B	B	7	2139	A K15 0-1		162
1035	9 42	SW	EXP,EXP,B	B	8	2146	V J25 0+2 B		163
1036	9 43	SW	EXP,EXP,B	B	8	2154	A 0-1 0+2		163
1037	9 44	SW	EXP,EXP,B	B	7	2161	D K14 0P9		163
1038	9 45	SW	EXP,EXP,B	B	7	2168	H 089 0+2		163
1039	9 46	SW	EXP,EXP,B	B	8	2175	V -99 0P9 2		163
1040	9 47	SW	EXP,EXP,B	B	4	2183	B /34		164
1041	9 48	SW	EXP,EXP,B	B	4	2187	B U71		164
1042	9 49	SW	EXP,EXP,B	B	3	2193			164
1043	9 50	SW	EXP,EXP,B	B	7	2194	Y K09 2G9		164
1044	9 51	SW	EXP,EXP,B	B	4	2201	/ 278		164
1045	9 52	SW	EXP,EXP,B	B	4	2205	B -08		164
1046	9 53	SW	EXP,EXP,B	B	1	2209			164
1047	9 54	SW	EXP,EXP,B	B	2	2211		LIT	165
1048	9 55	SW	EXP,EXP,B	B	2	2213		LIT	165
1049	9 56	SW	EXP,EXP,B	B	1	2214		AREA	165
1050	9 57	EX	EX	B	1	2215		LIT	165
				B			B --00		166

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1051	9	58		JOB	1401 FORTRAN USER FUNCTIONS						
1052	9	59		SFX	A	A	26	2025	2000		169
1053	9	60		ORG	2000						170
1054	9	61		DCW	@USER FUNCTION 1 GOES HERE@						
1055	9	62		XFR	0	A	26	2025	2000		
1056	9	63		ORG	2000						
1057	9	64		DCW	@USER FUNCTION 2 GOES HERE@						173
1058	9	65		XFR	0	A	26	2025	2000		174
1059	9	66		ORG	2000						
1060	9	67		DCW	@USER FUNCTION 3 GOES HERE@						177
1061	9	68		XFR	0	A	26	2025	2000		178
1062	9	69		ORG	2000						
1063	9	70		DCW	@USER FUNCTION 4 GOES HERE@						181
1064	9	71		XFR	0	A	26	2025	2000		182
1065	9	72		ORG	2000						
1066	9	73		DCW	@USER FUNCTION 5 GOES HERE@						185
1067	9	74		XFR	0	A	26	2025	2000		186
1068	9	75		ORG	2000						
1069	9	76		DCW	@USER FUNCTION 6 GOES HERE@						189
1070	9	77		XFR	0	A	26	2025	2000		190
1071	9	78		ORG	2000						
1072	9	79		DCW	@USER FUNCTION 7 GOES HERE@						193
1073	9	80		XFR	0	A	26	2025	2000		194
1074	9	81		ORG	2000						
1075	9	82		DCW	@USER FUNCTION 8 GOES HERE@						197
1076	9	83		XFR	0	A	26	2025	2000		198
1077	9	84		ORG	2000						
1078	9	85		DCW	@USER FUNCTION 9 GOES HERE@						201
1079	9	86		XFR	0	A	26	2025	2000		202
1080	9	87		ORG	2000						
1081	9	88		DCW	@USER FUNCTION 10 GOES HERE@						205
1082	9	89		XFR	0	A	26	2025	2000		206
1083	9	90		ORG	2000						
1084	9	91		DCW	@USER FUNCTION 11 GOES HERE@						209
1085	9	92		XFR	0	A	26	2025	2000		210
1086	9	93		ORG	2000						
1087	9	94		DCW	@USER FUNCTION 12 GOES HERE@						213
1088	9	95		XFR	0	A	26	2025	2000		214

1401 FORTRAN RELOCATABLE XLINKF

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1089	9 96	JOB	1401 FORTRAN RELOCATABLE XLINKF	A	7	2000	2000		217
1090	9 97	ORG	2000	A	4	2007	M -13 359		217
1091	9 98	START	CLRCN,359	A	3	2013	B 337		217
1092	9 99	B	337	A	3	2013	B -00		218
1093	10 00	CLRCN	#3						
1094	10 01	EX	START						

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1095	10	02	JOB	1401 FORTRAN	A	8	2000	T 903 0-4 S	2000	221
1096	10	03	ORG	2000	A	8	2000	B 000	2000	222
1097	10	04	XFR	SINFUN,4EX2,S	A	8	2000	T 903 0-4 C	2000	225
1098	10	05	ORG	0	A	8	2000	B 000	2000	226
1099	10	06	XFR	SINFUN,4EX2,C	A	8	2000	T 900 0-4 G	2000	229
1100	10	07	ORG	2000	A	8	2000	B 000	2000	230
1101	10	08	XFR	LOGFUN,4EX2,G.	A	8	2000	T 897 0-4 E	2000	233
1102	10	09	ORG	0	A	8	2000	B 000	2000	234
1103	10	10	XFR	2000	A	8	2000	T 894 0-4 T	2000	237
1104	10	11	ORG	XPNETL,4EX2,E	A	8	2000	B 000	2000	238
1105	10	12	XFR	0	A	8	2000	T 891 0-4 A	2000	241
1106	10	13	ORG	2000	A	8	2000	B 000	2000	242
1107	10	14	XFR	ATANFN,4EX2,T	A	8	2000	T 889 0-4 N	2000	245
1108	10	15	ORG	0	A	8	2000	B 000	2000	246
1109	10	16	XFR	2000	A	8	2000	T 885 0-4 X	2000	249
1110	10	17	ORG	0	A	8	2000	B 000	2000	250
1111	10	18	XFR	ABSVAL,4EX2,A	A	8	2000	T 882 0-4 F	2000	253
1112	10	19	ORG	0	A	8	2000	B 000	2000	254
1113	10	20	XFR	NEGTFN,4EX2,N	A	8	2000	T 879 0-4 Q	2000	257
1114	10	21	ORG	0	A	8	2000	B 000	2000	258
1115	10	22	XFR	2000	A	8	2000	T 875 0-4 R	2000	261
1116	10	23	ORG	0	A	8	2000	B 000	2000	262
1117	10	24	XFR	FI XFUN,4EX2,X	A	8	2000	T 873 0-4 U	2000	265
1118	10	25	ORG	0	A	8	2000	B 000	2000	266
1119	10	26	XFR	FLTFUN,4EX2,F	A	8	2000	T 870 0-4 P	2000	269
1120	10	27	ORG	0	A	8	2000	B 000	2000	270
1121	10	28	XFR	2000	A	8	2000	T 867 0-4 W	2000	273
1122	10	29	ORG	0	A	8	2000	B 000	2000	274
1123	10	30	XFR	SQRTFN,4EX2,Q	A	8	2000	T 864 0-4 Y	2000	277
1124	10	31	ORG	0	A	8	2000	B 000	2000	278
1125	10	32	XFR	2000	A	8	2000	T 861 0-4 Z	2000	281
1126	10	33	ORG	0	A	8	2000	B 000	2000	282
1127	10	34	XFR	YUSER1,4EX2,R	A	8	2000	T 875 0-4 R	2000	261
1128	10	35	ORG	0	A	8	2000	B 000	2000	262
1129	10	36	XFR	YUSER2,4EX2,U	A	8	2000	T 873 0-4 U	2000	265
1130	10	37	ORG	0	A	8	2000	B 000	2000	266
1131	10	38	XFR	2000	A	8	2000	T 870 0-4 P	2000	269
1132	10	39	ORG	0	A	8	2000	B 000	2000	270
1133	10	40	XFR	YUSER3,4EX2,P	A	8	2000	T 867 0-4 W	2000	273
1134	10	41	ORG	0	A	8	2000	B 000	2000	274
1135	10	42	XFR	2000	A	8	2000	T 864 0-4 Y	2000	277
1136	10	43	ORG	0	A	8	2000	B 000	2000	278
1137	10	44	XFR	YUSER4,4EX2,W	A	8	2000	T 861 0-4 Z	2000	281
1138	10	45	ORG	0	A	8	2000	B 000	2000	282
1139	10	46	XFR	YUSER5,4EX2,Y	A	8	2000	T 875 0-4 R	2000	261
1140	10	47	ORG	0	A	8	2000	B 000	2000	262
1141	10	48	XFR	2000	A	8	2000	T 873 0-4 U	2000	265
1142	10	49	ORG	0	A	8	2000	B 000	2000	266
1143	10	50	XFR	YUSER6,4EX2,Z	A	8	2000	T 870 0-4 P	2000	269
1144	10	51	ORG	0	A	8	2000	B 000	2000	270

1401 FORTRAN FUNCTION BRANCH ROUTINE

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SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1145	10	52	T	YUSER7,4&X2,J	A	8	2000	T 858 0-4 J		285
1146	10	53	XFR	0	A			B 000		286
1147	10	54	ORG	2000	A			2000		
1148	10	55	T	YUSER8,4&X2,K	A	8	2000	T 855 0-4 K		289
1149	10	56	XFR	0	A			B 000		290
1150	10	57	ORG	2000	A			2000		
1151	10	58	T	YUSER9,4&X2,L	A	8	2000	T 852 0-4 L		293
1152	10	59	XFR	0	A			B 000		294
1153	10	60	ORG	2000	A			2000		
1154	10	61	T	YUSR10,4&X2,M	A	8	2000	T 849 0-4 M		297
1155	10	62	XFR	0	A			B 000		298
1156	10	63	ORG	2000	A			2000		
1157	10	64	T	YUSR11,4&X2,D	A	8	2000	T 846 0-4 D		301
1158	10	65	XFR	0	A			B 000		302
1159	10	66	ORG	2000	A			2000		
1160	10	67	T	YUSR12,4&X2,H	A	8	2000	T 843 0-4 H		305
1161	10	68	XFR	0	A			B 000		306
1162	10	69	ORG	2000	A			2000		
1163	10	70	T	XLINKS,4&X2,I	A	8	2000	T 840 0-4 I		309
1164	10	71	XFR	0	A			B 000		310
1165	10	72	END		A			/ 000 080		313

CLEAR STORAGE 1  
 CLEAR STORAGE 2  
 300TSTRAP

,008015,022026,030037,044,049,053053N00000000001026  
 L068116,105106,1101178101/192#071029C0290568026/8001/0991,001/001117108  
 ,008015,022029,036040,047054,061068,072/061039

1  
 2  
 3

1401 FORTRAN COPY OF SNAPSHOT ROUTINE

5059A

PAGE 1

SEQ PG	LIN	LABEL	OP	OPERANDS	COPY OF SNAPSHOT ROUTINE	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
101	1 01	002	JOB	1401 FORTRAN						
102	1 02		CTL	644 11						
103	1 03		SFX	#				0000		
104	1 04	XXX	EQU	0				0089		
105	1 05	XL1	EQU	089				0094		
106	1 06	XL2	EQU	094				0099		
107	1 07	XL3	EQU	099				0686		
108	1 08	PARAMA	EQU	686						
109	1 09		ORG	333						
110	1 10		SBR	PRTXT&3				0333		
111	1 11		SBR	HLDXTE6				H 567		
112	1 12		MCM	00000,LINCT-2				H 408		
113	1 13		MCM	XL3, HLD32&6				M 661 656		
114	1 14		MCM	XL1, HLD31&6				M 099 415		
115	1 15		SBR	XL1, 1				M 089 422		
116	1 16		SBR	XL3, 202				M 089 001		
117	1 17		CS	332				H 099 202		
118	1 18		CS					/ 332		
119	1 19		NOP	110,210				/		
120	1 20		BSS	ONLY,F				N 110 210		
121	1 21		CC	1				8 621 F		
122	1 22		MCM	094,250				F 1		
123	1 23	HLDXT	SBR	216,XXX				M 094 250		
124	1 24	HLD32	SBR	256,XXX				H 216 000		
125	1 25	HLD31	SBR	244,XXX				H 256 000		
126	1 26		W					H 244 000		
127	1 27		CC	K				2		
128	1 28		ZA	&2,PGCTR#2				F K		
129	1 29		CS	332				& 662 664		
130	1 30	NULLIN	CS					/ 332		
131	1 31		CC	J				/		
132	1 32		MCM	LINCT,306				F J		
133	1 33		MCM					M 658 306		
134	1 34		SBR	MVHED&6				N		
135	1 35		MCM	090,CTR-1				H 465		
136	1 36	MVHED	MCM	CTR-1,XXX				M 665 668		
137	1 37		MCM	HEAD				M 668 000		
138	1 38		SBR	MVHED&6				M 651		
139	1 39		A	0100,CTR#2				H 465		
140	1 40		BWZ	MVHED,CTR-1, 2				A 667 669		
141	1 41		A	01,LINCT-2				V 459 668 2		
142	1 42		W					A 670 656		
143	1 43	LOOP	SW	0&X3				2		
144	1 44		MCM	0&X1,0&X3				, 0&0		
145	1 45		BW	CMPAB,0&X1				V 520 0&0 1		
146	1 46		CW	0&X3				0 0&0		
147	1 47	CMPAB	C	XL1,PARAMA&2				C 089 688		

1401 FORTRAN COPY OF SNAPSHOT ROUTINE

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148		BU	CPL	#	5	0527	B 568 /		9
149		W		#	1	0532	2		9
150		WM		#	2	0533	2		9
151	RSTRX	MCW	HLD3166, XL1	#	7	0535	M 422 099		10
152		MCW	HLD3266, XL3	#	7	0542	M 415 099		10
153		CS	332	#	4	0549	/ 332		10
154		CS		#	4	0549	/ 332		10
155		BSS	#E5,G	#	1	0553	/		10
156		B	PRTXT	#	5	0554	B 563 G		10
157		H		#	4	0559	B 564		10
158		H		#	1	0563			10
159	PRTXT	H		#	4	0564			10
160	CPL	SBR	XL1, 16X1	#	7	0568	H 089 0#1		11
161		BCE	INC, XL3-2, 2	#	8	0575	B 632 097 2		11
162		SBR	XL3, 201	#	7	0583	H 099 201		11
163		W		#	1	0590	2		11
164		WM		#	2	0591	2		11
165		A	E1, PGCTR	#	7	0593	A 670 664		11
166		C	PGCTR, E15	#	7	0600	C 664 672		12
167		BU	NULIN	#	5	0607	B 433 /		12
168		S	PGCTR	#	4	0612	S 664		12
169	ONLY	CCB	NULIN, 1	#	5	0616	F 433 1		12
170		MCW	EXECUTED@, 220	#	7	0621	M 680 220		12
171		H	RSTRX	#	4	0628	2 535		12
172	INC	A	E1, XL3	#	4	0632	A 670 099		13
173	HEAD	B	LOOP	#	4	0639	B 497		13
174		DCW	@9.....@	#	9	0651			13
175		DCW	@9-@	#	2	0653			13
176	LINCT	DCW	00000	#	5	0658			13
		LTRG	*	#					
		DCW	@000@	#			0659		
		DCW	E2	#	3	0661		LIT	13
128	PGCTR		#02	#	1	0662		LIT	13
			@9@	#	2	0664		AREA	13
			@10@	#	1	0665		LIT	14
139	CTR		#02	#	2	0667		LIT	14
			E1	#	2	0669		AREA	14
			E15	#	1	0670		LIT	14
169			EXECUTED@	#	2	0672		LIT	14
177		XFR	0	#	8	0680	B 000	LIT	15

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
178	1 78		JOB	1401 FORTRAN FIXED XLINK ROUTINE						
179	1 79		ORG	333			0333			18
180	1 80		H	333			. 333			18
181	1 81	START	MCW	86,XL2			M 086 094			18
182	1 82		CS	80			/ 080			18
183	1 83		BCE	ARRAY,0EX2,\$			B 585 0-0 \$			18
184	1 84	CLEAR	CS	000			/ 000			18
185	1 85		SBR	ADR3			H 359			18
186	1 86		C	ADR3,a699a			C 359 645			18
187	1 87		BU	CLEAR			B 356 /			19
188	1 88		SW	ACCHI-5EX3			, 2G4			19
189	1 89		MZ	ACCHIEX3,FIELD			Y 2G9 642			19
190	1 90		C	FIELD,ACCHIEX3			C 642 2G9			19
191	1 91		BE	CARDS			B 603 S			19
192	1 92		BM	GETM,ACCHIEX3			V 620 2G9 K			19
193	1 93		MZ	ZERD,ACCHIEX3			Y 637 2G9			20
194	1 94		C	699,ACCHIEX3			C 699 2G9			20
195	1 95		BE	GETM			B 620 S			20
196	1 96		SW	22			, 022			20
197	1 97		MCW	GM,22			M 680 022			20
198	1 98	SERCH	RT	1,1			M 801 001 R			20
199	1 99		BEF	OUT			B 478 K			21
200	2 00		C	10,aliba			C 010 648			21
201	2 01		BU	SERCH			B 437 /			21
202	2 02		C	17,ACCHIEX3			C 017 2G9			21
203	2 03		BE	T1			B 498 S			21
204	2 04		B	SERCH			B 437			21
205	2 05	OUT	NOP	CARDS			N 603			21
206	2 06		MCW	333,OUT			M 333 478			22
207	2 07		RWD	1			U 801 R			22
208	2 08		B	SERCH			B 437			22
209	2 09	T1	LCA	ZEROS,101			L 641 101			22
210	2 10		LCA	ZEROS			L 641			22
211	2 11		LCA	ZEROS			L 641			22
212	2 12		RTW	1,333			L 801 333 R			22
213	2 13		BER	ERR			B 557 L			23
214	2 14		MCW	ZERO,CTRR			M 637 641			23
215	2 15		SBR	TPERM-1,T2			H 580 540			23
216	2 16	T2	RTW	1,700			L 801 700 R			23
217	2 17		BER	ERR			B 557 L			23
218	2 18	TBOOT	B	000			B 000			23
219	2 19	ERR	A	ONE,CTRR			A 679 641			24
220	2 20		BCE	TPERM,CTRR,9			B 581 641 9			24
221	2 21		BSP	1			U 801 B			24
222	2 22		B	T1			B 498			24
223	2 23	TPERM	H	TPERM			. 581			24
224	2 24	ARRAY	MCW	3EX2,ADR3			M 0-3 359			24
225	2 25		MZ	ZERO,ADR3-1			Y 637 358			25
226	2 26		B	CLEAR			B 356			25
227	2 27	CARDS	SW	1			, 001			25

TPERM

FROM LIBED



1401 FORTRAN FIXED XLINK ROUTINE

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
228	2 28		R		#	1	0607	1		25
229	2 29		BCE	1,1,,	#	8	0608	B 001 001		25
230	2 30		B	CARDS	#	4	0616	B 603		25
231	2 31	GETM	RWD	1	#	5	0620	U %U1 R		25
232	2 32		RTW	1,1	#	8	0625	L %U1 001 R		26
233	2 33		B	1	#	4	0633	B 001		26
234	2 34	ADR3	EQU	CLEAR%3	#	6	0359			26
235	2 35	FIELD	DCW	@000000@	#		0642			
236	2 36	ZEROS	EQU	FIELD-1	#		0641			
237	2 37	ZERO	EQU	ZEROS-4	#		0637			
238	2 38	CTRR	EQU	ZEROS	#		0641			
239	2 39	ACCHI	EQU	ZEROS	#		0279			
240	2 40	ONE	EQU	279	#		0679			
241	2 41	GM	EQU	679	#		0679			
242	2 42		LTORG *	880	#		0680			
			DCW	@699@	#			0643		
243	2 43		ORG	@LIB@	#	3	0645		LIT	26
244	2 44		DCW	@1 @	#	3	0648		LIT	26
245	2 45		XFR	0	#	2	0680	0679		27
					#			B 000		28

EXECUTE MONITOR PROGRAM

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
246	2	46								
247	2	47	*	JOB						
248	2	48	*	SFX	B					
249	2	49		XINIT						
250	2	50		XL1, XL2, XL3, ..., XXX						
251	2	51		EQU			0000		MACRO	
252	2	52		EQU			0089		GEN	
253	2	53		DCW			0089		GEN	31
254	2	54		DC			0091		GEN	31
255	2	55		XL2			0094		GEN	
256	2	56		DCW			0094		GEN	
257	2	57		DC			0094		GEN	31
258	2	58		XL3			0096		GEN	31
259	2	59		EQU			0099		GEN	
260	2	60		DCH			0099		GEN	31
261	2	61	*	DC			0100		GEN	31
262	2	62		XNMBR						
263	2	63		EQU			0089		MACRO	
264	2	64		EQU			0094		GEN	
265	2	65		EQU			0099		GEN	
266	2	66	*							
267	2	67		WKZON			0200		GEN	
268	2	68		TOP			0201		GEN	
269	2	69		SPOT			0250		GEN	
270	2	70		ACCHI			0279		GEN	
271	2	71	*							
272	2	72		ORG			700			
273	2	73	*							
274	2	74	*							
275	2	75	*							
276	2	76		ARITF						
277	2	77		SBR			0700			32
278	2	78		SBR			0704			32
279	2	79		MCW			0712			32
280	2	80		SAR			0719			32
281	2	81		SBR			0723			32
282	2	82		BCE			0727			32
283	2	83		SBR			0735			32
284	2	84		CS			0742			33
285	2	85		CS			0746			33
286	2	86		CS			0747			33
287	2	87		LCA			0748			33
288	2	88		S			0755			33
289	2	89		ALGR			0759			33
290	2	90		C			0766			33
291	2	91		MCW			0773			34
292	2	92		SW			0780			34
293	2	93		BL			0784			34
294	2	94		SBR			0789			34
295	2	95		BCE			0796			34

ARITHMETIC ROUTINE MONITOR

STORE FIRST LOCATION OF ARITH STRING

CHECK FOR SUBSCRIPTED STORE LOCATION

CLEAR WORK AREA

CHECK FOR SUBSCRIPTED OPERAND

1401 FORTRAN ARITHMETIC OPERATIONS

5059C

SEQ PG	LIN	LABEL	OP	OPERANDS	\$FX CT	LOCN	INSTRUCTION	TYPE	CARD
296	2 83		MCW	76X2, XL1	B	7 0804	M 0-7 089		35
297	2 84		SAR	ALGRTE6	B	4 0811	Q 765		35
298	2 85	SBBR2	BWZ	XSIZE,XI-1,K	B	8 0815	V V30 088 K		35
299	2 86		BWZ	XSIZE,XI-1,S	B	8 0823	V V30 099 S		35
300	2 87	*							
301	2 88	*							
302	2 89	*							
303	2 90	F SIZE	SBR	X3,XXX	B	7 0831	H 099 000		35
304	2 91		CW	FIXSW#1	B	4 0838	D W87		35
305	2 92		MCW	06X1,EXPB	B	7 0842	M 0#0 W82		36
306	2 93		SAR	XL1	B	4 0849	Q 089		36
307	2 94		MCW	06X1,SPOT	B	7 0853	M 0#0 250		36
308	2 95		SBR	XL2	B	4 0860	H 094		36
309	2 96		LCA	000	B	4 0864	L W85		36
310	2 97	NGBMP	BW	*68,0	B	8 0868	V 883 000 1		36
311	2 98		MZ	SPOT, NSIGN	B	7 0876	Y 250 #87		37
312	2 99		S	000, SPOT&2&X3	B	7 0883	S W85 2E2		37
313	3 00		C	1&X2, 000	B	7 0890	C 0-1 W85		37
314	3 01		A	XL3, XL2	B	7 0897	A 099 094		37
315	3 02		BCE	FOIV, CODE, /	B	8 0904	A S33 924 /		37
316	3 03		BCE	FMPY, CODE, *	B	8 0912	B S62 924 *		38
317	3 04	*							
318	3 05	*							
319	3 06	*							
320	3 07		S	SIGNF	B	4 0920	S 924		38
321	3 08	SIGNF	ZA	NSIGN	B	4 0924	E #87		39
322	3 09		BCE	NUVAL, ACCHI&1,0	B	8 0929	B #17 280 0		38
323	3 10		BE	CLRWK	B	5 0936	B /34 S		38
324	3 11		S	EXPB, EXP	B	7 0941	S W82 W79		38
325	3 12		ZA	EXP&1, XL1&1	B	7 0948	E W80 090		39
326	3 13		C	XL3, XL1	B	7 0955	C 099 089		39
327	3 14		BM	RTNI, EXP	B	8 0962	V /65 W79 K		39
328	3 15		BH	CHGEX	B	5 0970	A /89 U		39
329	3 16		A	EXP, EXPB	B	7 0975	A W79 W82		39
330	3 17		ZA	SPOT, SPOT&X1	B	7 0982	E 250 2V0		40
331	3 18		ZA	XL3&1, XL1&1	B	7 0989	E 100 090		40
332	3 19	ASCDM	MZ	NSIGN, 06X2	B	7 0996	Y #87 0-0		40
333	3 20		A	ACCHI&X1, 06X2	B	7 1003	A 2X9 0-0		40
334	3 21	MVZON	MZ	06X2, NSIGN	B	7 1010	Y 0-0 #87		40
335	3 22	NUVAL	ZA	EXPB, EXP	B	7 1017	E W82 W79		41
336	3 23	*							
337	3 24	*							
338	3 25	*							
339	3 26	NMLZ1	MCW	RCDMK, 1&X2	B	7 1024	M W75 0-1		41
340	3 27		MZ		B	1 1031	Y		41
341	3 28		MZ		B	1 1032	Y		41
342	3 29		A		B	1 1033	A		41
343	3 30		MN		B	1 1034	D		41
344	3 31		SBR	XL1	B	4 1035	H 099		41
345	3 32		S	ACCHI&2&X3	B	4 1039	S 2H1		42

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
346	NLOOP	RCE	STRZE,2&X1,+	8	1043	B /42 0#2 #		42
347		SBR	XL1	8	1051	H 099		42
348		RCE	NLOOP, 1&X1, 0	8	1055	B #43 0#1 0		42
349		MCM	1&X1, ACCHI&1	8	1063	P 0#1 280		42
350		S	XL3, XL2	7	1070	S 099 094		42
351		CW		1	1077			42
352		CW		1	1078			43
353		S		1	1079	S		43
354		S	XL1, EXP	8	1080	S 089 W79		43
355	NSIGN	ZA	ACCHI&X3	4	1087	C 2G9		43
356		SW		1	1091			43
357		RCE	CLRWK,EXP-2,0	8	1092	B /34 W77 0		43
358		BM	STRZE,EXP	8	1100	V /42 W79 K		43
359	*							
360	*		EXPONENT OVERFLOW DUE TO NORMALIZING					
361	*							
362		B	ERMSG	8	1108	B U71		44
363		DCW	ANOF@	3	1114			44
364	*							
365	*		STORE NINES IN WORK ACCUMULATOR AND EXP ON EXPONENT OVFL					
366	*							
367	STR99	ZA	EXP,EXP	7	1115	C W89 W79		44
368		MN	EXP,ACCHI&X3	7	1122	D W89 2G9		44
369		MCM		1	1129	M		44
370		MCW	ACCHI-1&X3	4	1130	M 2G8		44
371	CLRWK	CS	ACCHI-1	4	1134	/ 278		44
372		B	CLR	4	1138	B 755		45
373	*							
374	*		STORE ZERO IN WORK ACCUMULATOR					
375	*							
376	STRZE	S	EXP	4	1142	S W79		45
377		S	ACCHI&X3	4	1146	S 2G9		45
378		B	CLRWK	4	1150	B /34		45
379	*							
380	*		DIVISION BY ZERO ATTEMPTED					
381	*							
382	DVERR	B	ERMSG	4	1154	B U71		45
383		DCW	ADZE@	3	1160			45
384		B	STR99	4	1161	B /15		45
385	*							
386	RTN1	BH	NUVAL	5	1165	B #17 U		45
387		S	XL3&1, XL1&1	7	1170	S 100 090		46
388		MZ	ACCHI&X3,ACCHI&X1	7	1177	Y 2G9 2X9		46
389		B	ASCOM	4	1184	B 996		46
390	*							
391	CHGEX	A	EXP,EXP	7	1188	A W82 W79		46
392		B	CLRWK	4	1195	B /34		46
393	*							
394	*		SUBSCRIBED VARIABLES					
395	*							

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SEQ PG	LINE	LABEL	OP	OPERANDS	SFX	CT	LDCN	INSTRUCTION	TYPE	CARD
396	3	OPDSC	SBR	X2,5&X2	8	7	1199	H 094	0-5	47
397	3	STSUB	B	XXX	8	4	1206	B 000		47
398	3		MN	0&X2	8	4	1210	D 0-0		47
399	3		MN		8	1	1214	D		47
400	3		MN		8	1	1215	D		47
401	3		MN		8	1	1216	D		47
402	3		SAR	ALGRT&6	8	4	1217	Q 765		47
403	3		BCE	SBBR1,XXX,\$	8	8	1221	B 723 000 \$		47
404	3		B	SBBR2	8	4	1229	B 815		48
405	3	*								
406	3	*								
407	3	*								
408	3	F DIV	BE	DVERR	8	5	1233	B /54 S		48
409	3		MN	ACCHI&X3, 1&X2	8	7	1238	D 2G9 0-1		48
410	3		M&W		8	1	1245	M		48
411	3		MN		8	1	1246	D		48
412	3		D	0&X1, SPOT&1	8	7	1247	Z 0#0 251		48
413	4		ZS	EXPB	8	4	1254	- W82		49
414	4		B	N&M&DV	8	4	1258	B S83		49
415	4	*								
416	4	*								
417	4	*								
418	4	FMPY	M	ACCHI&X3, SPOT&1&X3	8	7	1262	B 2G9 2E1		49
419	4		SBR	X2,3&X2	8	7	1269	H 094 0-3		49
420	4		S	E2,EXP	8	7	1276	S W90 W79		49
421	4	N&M&DV	A	EXPB, EXP	8	7	1283	A W82 W79		49
422	4		MZ	ACCHI&X3, #&1	8	7	1290	Y 2G9 S97		50
423	4		ZA	NSIGN	8	4	1297	E #87		50
424	4		B	N&M&LZ1	8	4	1301	B #24		50
425	4	*								
426	4	*								
427	4	*								
428	4	QFUNCT	BCE	OUT1,4&X2,#	8	8	1305	B T31 0-4 #		50
429	4		SBR	ALGRT&6,1&X2	8	7	1313	H 765 0-1		50
430	4		C	ACCHI&1,20#	8	7	1320	C 280 W85		50
431	4		B	XXX	8	4	1327	B 000		51
432	4	OUT1	BCE	OUT2,ACCHI&1,0	8	8	1331	B T69 280 0		51
433	4		BW	OUT2,FXSW	8	8	1339	V T69 W87 1		51
434	4		BW	FINST,4&X2	8	8	1347	V T92 0-4 1		51
435	4		SBR	X3,2&X3	8	7	1355	H 099 0&2		51
436	4	MVEXP	M&W	EXP-1,ACCHI-1&X3	8	7	1362	P W78 2G8		52
437	4	OUT2	LCA	ACCHI&X3,XXX	8	7	1369	L 2G9 000		52
438	4		BW	5&X2,4&X2	8	8	1376	V 0-5 0-4 1		52
439	4		SAR	XL2	8	4	1384	Q 094		52
440	4		B	ARITH	8	4	1388	B 712		52
441	4	*								
442	4	*								
443	4	*								
444	4	F INST	A	ROUNDING FOR FINAL STORAGE	8	7	1392	A W91 2G8		52
445	4		BWZ	E5,ACCHI-1&X3	8	8	1399	V U18 280 S		53
				R&O&V&F,ACCHI&1,S						

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
446	ZONMV	MZ	ACCHI&X3,ACCHI-2&X3	B	7	1407	Y 2G9 2G7		53
447		B	HVEXP	B	4	1414	B T62		53
448	ROOVF	A	&1,EXP	B	7	1418	A W92 W79		53
449		BCE	NORND,EXP-2,1	B	8	1425	B U48 W77 1		53
450		S	ACCHI&X3	B	4	1433	S 2G9		53
451		LCA	&1&,ACCHI&1	B	7	1437	L W93 280		54
452		B	ZONMV	B	4	1444	B U07		54
453	*								
454	*		NO ROUNDING IF EXPONENT OVERFLOW WOULD OCCUR						
455	*								
456	NORND	MN	&99,ACCHI&X3	B	7	1448	D M89 2G9		54
457		MCH		B	1	1455	M 2G8		54
458		MCM	ACCHI-1&X3	B	4	1456	M 2G8		54
459		S	&1,EXP	B	7	1460	S W92 W79		54
460		B	ZONMV	B	4	1467	B U07		54
461	*								
462	*		PRINT ERROR MESSAGE						
463	*								
464	ERMMSG	SBR	STRX2&&6	B	4	1471	H U92		55
465		CS	TOP&1&X3	B	4	1475	/ 2&2		55
466		SBR	RINX2&&6,0&X3	B	7	1479	H V25 0&0		55
467	STRX2	SBR	X3,XXX	B	7	1486	H 099 000		55
468		MCM	2&X3,TOPE11	B	7	1493	M 0&2 212		55
469	STHNM	SBR	TOP&16,XXX	B	7	1500	H 217 000		55
470		W		B	1	1507	2		55
471		SW	TOP	B	4	1508	* 201		56
472		SBR	ERMXT&3,3&X3	B	7	1512	H V29 0&3		56
473	RINX2	SBR	X3,XXX	B	7	1519	H 099 000		56
474	ERMXT	B	XXX	B	4	1526	B 000		56
475	*								
476	*		FIXED POINT ENTRY						
477	*								
478	XSIZE	SBR	X3,XXX	B	7	1530	H 099 000		56
479		SW	FIXSW	B	4	1537	* W87		56
480									
481	FIXPT	MCS	0&X1, SPOT	B	7	1541	Z 0*0 250		57
482		BCE	XDIV, CODE, /	B	8	1548	B W23 924 /		57
483		BCE	XMPY, CODE, *	B	8	1556	B V98 924 *		57
484	*								
485	*		FIXED ADD / SUBTRACT						
486	*								
487		BWZ	SUBTR, CODE, K	B	8	1564	V V87 924 K		57
488		A	0&X1, ACCHI&X3	B	7	1572	A 0*0 2G9		57
489	ADDRT	ZA	ACCHI&X3	B	4	1579	C 2G9		58
490		B	CLRWK	B	4	1583	B /34		58
491	*								
492	SUBTR	S	0&X1, ACCHI&X3	B	7	1587	S 0*0 2G9		58
493		B	ADDRT	B	4	1594	B V79		58
494	*								
495	*		FIXED MULTIPLY						

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
496	4 83	*			B	7	1598	L 0+0 250		58
497	4 84	XMPY	LCA	06X1, SPOT	B	7	1605	M 269 2E1		58
498	4 85		M	ACCHI&X3, SPOT&1&X3	B	7	1612	M 2E1 2G9		59
499	4 86		MCH	SPOT&1&X3, ACCHI&X3	B	7	1619	B /34		59
500	4 87		B	CLRWK	B	4				
501	4 88	*								
502	4 89	*								
503	4 90	*								
504	4 91	XDIV	BCE	DVERR, SPOT,	B	8	1623	B /54 250		59
505	4 92		MCH	06X1, SPOT&X3	B	7	1631	M 0+0 2E0		59
506	4 93		MN		B	1	1638	D		59
507	4 94		SBR	MVQUIT&3	B	4	1639	M W64		59
508	4 95		LCA	ACCHI&X3	B	4	1643	L 2G9		59
509	4 96		ZA	ACCHI&X3, SPOT&X3	B	7	1547	S 2G9 2E0		60
510	4 97		D	06X1, SPOT&1	B	7	1554	X 0+0 251		60
511	4 98	MVQUIT	MCH	SPOT-1, ACCHI&X3	B	7	1561	M 249 2G9		60
512	4 99		B	CLRWK	B	7	1568	B /34		60
513	5 00	*								60
514	5 01		DCW	000	B	3	1574			60
515	5 02	RCOMK	DCW	a+a	B	1	1675			60
516	5 03		DCW	0	B	1	1676			60
517	5 04	EXP	DCW	000	B	3	1679			61
518	5 05		DC	a+a	B	1	1680			61
519	5 06	EXPB	DCW	00	B	2	1682			61
520	5 07		DC	0	B	1	1683			61
521	5 08	CODE	EQU	SIGNF	B	1	0924			
522	5 09	ZROSH	EQU	*E1	B	8	1684			
523	5 10	BASEZ	EQU	*E1	B	8	1684			
524	5 11	XPNUM	DCW	a@a	B	1	1684			61
525	5 12		LTORG		B	8				
			DCW	a@a	B	8		1685		
			a#a		B	8			LIT	61
			#01		B	1	1686		LIT	61
		304	FIXSW	E99	B	1	1687		AREA	61
				E2	B	2	1689		LIT	61
				E5	B	1	1690		LIT	62
				E1	B	1	1691		LIT	62
				a1a	B	1	1692		LIT	62
526	5 13		DS	1	B	1	1693		LIT	62
527	5 14		DCW	a@a	B	8	1694			
528	5 15		DC	a a	B	1	1695			63
529	5 16		XFR	0	B	1	1696			63
					B	8		B 000		64

FIXED DIVIDE

GROUP MARK

SEQ PG LIN LABEL OP OPERANDS SFX CT LOCN INSTRUCTION TYPE CARD

```

530 5 17 JOB 1401 FORTRAN FUNCTION COMMON DECK
531 5 18 * ORG INSERT BEFORE SIN-COS DECK
532 5 19 * 2000
533 5 20 * DCM a ALL 11-7-8
534 5 21 110 *
535 5 22 *
536 5 23 *
537 5 24 *
538 5 25 DIVID
539 5 26 SBR DVXT&3
540 5 27 MCM ACCHI&X3,SPOT
541 5 28 MN LCA
542 5 29 S &0
543 5 30 D &0,SPOT-1&X2
544 5 31 MN MN 0&X1,SPOT
545 5 32 MCM SPOT-1&X2,ACCHI&X3
546 5 33 MN
547 5 34 SAR X1
548 5 35 B DVXT XXX
549 5 36 *
550 5 37 *
551 5 38 *
552 5 39 CALC
553 5 40 CW SBR
554 5 41 * CALCL LOGM1,LOGM2
555 5 42 CW TOP&1&X3
556 5 43 CW ACCHI&1
557 5 44 SW X2&2
558 5 45 S X2,SPOT
559 5 46 MCS SPOT
560 5 47 * CALCL O&X1
561 5 48 SW FINIS,O&X2,
562 5 49 BCE SPOT&1,1&X2
563 5 50 MZ 1&X2,TOPE1&X3
564 5 51 A DEC,X2&1
565 5 52 A X2,X1
566 5 53 C FINIS
567 5 54 BH UPBY,NCON
568 5 55 A NCON,NCTR
569 5 56 A XXX,SPOT&1
570 5 57 NDP
571 5 58 LOGM1 ZA
572 5 59 M ACCHI&X3,SPOT&4&X3
573 5 60 MZ SPOT&4&X3,SPOT&5
574 5 61 NDP SPOT&5,XXX
575 5 62 LOGM2 ZA
576 5 63 D NCTR,4&X1
577 5 64 B CALCL
578 5 65 SW ACCHI&1
579 5 66 B CALXT XXX

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POWER SERIES CALCULATION

```

2047 H J90
2051 M J49 J71
2058 S 2&2
2052 M 280
2056 M
2067 S
2068 S 096
2072 H 094 250
2079 Z 250
2083 S 0+0
2087 B J83 0-0
2095 Y 251 0-1
2102 A 0-1 2&2
2109 A K59 095
2116 C 094 089
2123 B J83 U
2128 A K50 K53
2135 A K53 K56
2142 N 000 251
2149 C
2150 M 269 2E4
2157 Y 2E4 255
2164 N 255 000
2171 C
2172 Z K55 0+4
2179 B -79
2183 S 280
2187 B 000

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CLEAR SERIES ACCUMULATOR

```

CALXT&3
LOGM1,LOGM2
TOP&1&X3
ACCHI&1
X2&2
X2,SPOT
SPOT
O&X1
FINIS,O&X2,
SPOT&1,1&X2
1&X2,TOPE1&X3
DEC,X2&1
X2,X1
FINIS
UPBY,NCON
NCON,NCTR
XXX,SPOT&1

```

ADD TERM TO SERIES ACCUMULATOR

```

ACCHI&X3,SPOT&4&X3
SPOT&4&X3,SPOT&5
SPOT&5,XXX
NCTR,4&X1
CALCL
ACCHI&1
XXX

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NORMALLY PART OF NOP

NORMALLY PART OF NOP



1401 FORTRAN FUNCTION COMMON DECK

50533

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
580	5 67	*			B	4	2191	S 269		74
581	5 68	STR1	S	ACCHIEX3	B	7	2195	D K62 280		74
582	5 69		MN	&1,ACCHI&1	B	7	2202	Y K60 269		74
583	5 70		MZ	TWTCH,ACCHIEX3	B	7	2209	Y -47 K60		74
584	5 71		MZ	CALC,TWTCH	B	7	2216	& K62 W79		74
585	5 72		ZA	&1,EXP	B	7	2223	B 755		74
586	5 73		B	CLR	B	4				74
587	5 74	*								
588	5 75	*								
589	5 76	*								
590	5 77	LN10	EQU							
591	5 78		DCW		B	23	2226			75
592	5 79	UPBY	DCW	* 23025850929940456840179	B	1	2249			75
593	5 80	NCON	DCW	#1	B	3	2250			75
594	5 81	NCTR	DCW	#3	B	3	2253			75
595	5 82	DEC	DCW	#3	B	3	2256			75
596	5 83	TWTCH	DCW	2AA	B	1	2259			75
			DCW	EO	B	1	2260			75
			DCW	&1	B	1	2261		LIT	75
597	5 84	*			B	1	2262		LIT	76
598	5 85		EX	DIVID						
599	5 86		END	LOADER						
					B			B -00		77
					B			/ 000 080		80

COMMON CONSTANTS

CLEAR STORAGE 1  
 CLEAR STORAGE 2  
 BOOTSTRAP

,008015,022026,030037,044,049,053053N00000N0001026  
 L068116,105106,1101178101/19Z#071029C0290568026/B001/0991,001/001117106  
 ,008015,022029,036040,047054,061068,072/061039

1  
 2  
 3

1401 FORTRAN FORMAT PACKAGE

5054A

PAGE 1

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101	1	01	030	JOB	1401 FORTRAN FORMAT PACKAGE						
102	1	02		CTL	645 11						
103	1	03		SFX	Q	9		0110			
104	1	04	110	DCW	Q			0089			
105	1	05		EQU	Q			0094			
106	1	06	X2	EQU	Q			0099			
107	1	07	X3	EQU	Q			0686			
108	1	08	PARAM	EQU	Q			0700			
109	1	09	MONTR	EQU	Q			0710			
110	1	10	TCLEAR	EQU	Q			0769			
111	1	11	MONTR	EQU	Q			0934			
112	1	12	STARTR	EQU	Q				0934		
113	1	13	ORG	ORG	Q						
114	1	14	FORMAT	SW	GMHM,FORMAT			0934			
115	1	15	RCE	RCE	TPSYS,MONTR,N			0941			
116	1	16	CDSYS	BCE	CDLIO,PARAM&10,L			0949			
117	1	17	SKLIO	R				0957			
118	1	18		BCE	NTEST,68,B			0958			
119	1	19		B	SKLIO			0966			
120	1	20	NTEST	BCE	SKFIO,PARAM&10,X			0970			
121	1	21		R	040			0978			
122	1	22	CMFIO	CM	GMK			0982			
123	1	23		C	PARAM&4,201a			0986			
124	1	24		BU	ATEST			0993			
125	1	25		LCA	20a,CMKS			0998			
126	1	26	ATEST	BCE	CDAF,PARAM&10,A			1005			
127	1	27	SKAIO	R				1013			
128	1	28		BCE	EXITA,68,B			1014			
129	1	29		B	SKAIO			1022			
130	1	30	CDLIO	R	040			1026			
131	1	31	CHLIO	CM	GPWDMK			1030			
132	1	32	SKFIO	R				1034			
133	1	33		BCE	ATEST,68,B			1035			
134	1	34		B	SKFIO			1043			
135	1	35	CDAF	R	040			1047			
136	1	36	CWAF	CM	GM54D			1051			
137	1	37		B	EXITA			1055			
138	1	38	TPSYS	BCE	TPLIO,PARAM&10,L			1059			
139	1	39	SKPL	RTW	I,GMHM			1067			
140	1	40		BER	TPR			1075			
141	1	41		BCE	SKPF,PARAM&10,X			1080			
142	1	42		RTW	I,FORMAT			1088			
143	1	43		BER	TPR			1096			
144	1	44		C	PARAM&4,201a			1101			
145	1	45		BU	TSTAF			1108			
146	1	46		LCA	20a,CMKS			1113			
147	1	47	TSTAF	BCE	TPAF,PARAM&10,A			1120			

1401 FORTRAN FORMAT PACKAGE

5054A

PAGE 2

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148	1 48	SKPAF	RTW	1,GMWM	Q	8	1128	L XUI S53 R		10
149	1 49	BER	TPER		Q	5	1136	B S11 L		11
150	1 50	EXITA	FENDX	C,,,,,GMWM,REPLACE 2					MACRO	
151		EXITA	BSS	333,C						
152			SBR	TCLEAR,GMWM	Q	5	1141	B 333 C	GFN	11
153			LCA	AREPLACE 20,110	Q	7	1146	H 710 S53	GEN	11
154			B	MONTER	Q	7	1153	L 549 110	GEN	11
155	1 51	TPLIO	RTW	1,FORMAT	Q	4	1160	B 700	GEN	11
156	1 52	BER	TPER		Q	8	1164	L XUI W97 R		11
157	1 53	SKPF	RTW	1,GMWM	Q	5	1172	B S11 L		12
158	1 54		BER	TPER	Q	8	1177	L XUI S53 R		12
159	1 55		B	SKPAF	Q	5	1185	B S11 L		12
160	1 56	TPAF	RTW	1,ABEGN	Q	4	1190	B /28		12
161	1 57		BER	TPER	Q	8	1194	L XUI 28* R		12
162	1 58		B	EXITA	Q	5	1202	B S11 L		12
163	1 59	TPER	SBR	BACK&3	Q	4	1207	B /41		12
164	1 60		MA	@18G@,BACK&3	Q	4	1211	H S37		13
165	1 61		BSP	1	Q	7	1215	# S52 S37		13
166	1 62		H	3333,3333	Q	5	1222	U XUI B		13
167	1 63	BBACK	B	0	Q	7	1227	. C33 C33		13
168	1 64		LYORG *		Q	4	1234	B 000		13
			DCW	@01@	Q	2	1239	1238	LIT	13
	153			@N@	Q	1	1240		LIT	13
				@REPLACE 2@	Q	9	1249		LIT	14
				@18G@	Q	3	1252		LIT	14
169	1 65	GMWM	DCW	@	Q	1	1253			14
170	1 66		XFR	FOMAT	Q			B 934		15

GROUP MARK  
NEXT COMES L10 THEN FULL I/O

OBJECT TIME FORMAT

SEQ PG	LIN	LABEL	OP	OPERANDS	INSTRUCTION TYPE	CARD
171	1 67		JOB	OBJECT TIME FORMAT		
172	1 68		ORG	1697		18
173	1 69	START	SBR	X1		18
174	1 70		SW	GP WDMK		18
175	1 71		CH	0EX1		18
176	1 72		MCW	X3, SAVX3#3		18
177	1 73		LCA	20012, X3		18
178	1 74		RWZ	WRAP, 0EX1, S		19
179	1 75		MCW	2R3, I04&7		19
180	1 76	RTAP	MCW	6EX1, LOC#3		19
181	1 77	I01	MCW	LOC, I012&6		19
182	1 78	I012	BCE	RET, 000, .		20
183	1 79		MA	20062, LOC		20
184	1 80		MCW	LOC, I015&3		20
185	1 81	I015	MCW	000, ADDR#6		20
186	1 82		SW	ADDR-2		20
187	1 83		MA	20012, ADDR		20
188	1 84		MCW	ADDR, I02&3		20
189	1 85	I02	MCW	000, SAVCH#1		21
190	1 86		MCW	ADDR, I03&6		21
191	1 87	I03	LCA	GP WDMK, 000		21
192	1 88		MCW	ADDR-3, I04&6		21
193	1 89		MN	0EX1, I04&3		21
194	1 90		S	COUNT#1, COUNT		22
195	1 91		MZ	2A2, I04&5		22
196	1 92	I04	RTM	1, 000		22
197	1 93		BEF	RWT78		22
198	1 94		BER	RWT31		22
199	1 95		MCW	ADDR, I05&6		22
200	1 96	I05	MCW	SAVCH, 000		23
201	1 97		MA	<del>20012, I04&amp;6</del>		23
202	1 98		CM	ADDR-2		23
203	1 99		B	I01		23
204	2 00	RET	MCW	SAVX3, X3		23
205	2 01		SM	0EX1		23
206	2 02		B	7&X1		23
207	2 03	WRTAP	MCW	2A2, I04&7		24
208	2 04		B	RD TAP		24
209	2 05	RWT31	BCE	RWT77, COUNT, I		24
210	2 06		MN	I04&3, *E4		24
211	2 07		UB	XUO		24
212	2 08		BCE	RWT41, I04&7, W		24
213	2 09		A	212, COUNT		25
214	2 10		B	I04		25
215	2 11	RWT41	MN	I04&3, *E4		25
216	2 12		UE	XUO		25
217	2 13		B	I04		25
218	2 14	RWT77	H	*-6, 777		25
219	2 15	RWT78	H	*-6, 888		25
220	2 16		L TORG	*		25

SAVE X3

GO TO WRITE TAPE ON ZONE-  
SET READ TAPE D MODIFIER

. IS END OF LIST, RETURN

ADDR IS LOC OF DATA ADDR

ADDR IS NOW LOC OF DATA ADDR &1

SAVE CHAR AFTER DATA AREA

MOVE GP MK WD MK TO DATA ADDR &1

MOVE FIRST CHAR ADDR OF DATA

MOVE TAPE NO.

CLEAR READ-ERROR COUNTER

RETURN CHAR AFTER DATA AREA  
STEP TO NEXT VARIABLE IN LIST

RESTORE X3

SET WRITE TAPE D MODIFIER

TEST READ-ERROR COUNTER

BACKSPACE

INCREASE READ-ERROR COUNTER

SKIP AND ERASE

TAPE-ERROR

END-OF-FILE

3 0 0

SFX	CT	LOCN	INSTRUCTION TYPE	CARD
Q	4	1697	H 089	18
Q	4	1701	, -15	18
Q	4	1705	0#0	18
Q	7	1709	M 099 Z92	18
Q	7	1716	L 295 099	18
Q	8	1723	V 210 0#0 S	18
Q	7	1731	M 296 Y55	19
Q	7	1738	M 0#6 Z99	19
Q	7	1745	M 299 X58	19
Q	8	1752	B Y95 000 .	19
Q	7	1760	# -02 Z99	19
Q	7	1767	M 299 X77	20
Q	7	1774	M 000 -08	20
Q	4	1781	, -06	20
Q	7	1785	# 295 -08	20
Q	7	1792	M -08 Y02	20
Q	7	1799	M 000 -09	20
Q	7	1806	M -08 Y19	21
Q	7	1813	L -15 000	21
Q	7	1820	M -05 Y54	21
Q	7	1827	D 0#0 Y51	21
Q	7	1834	S -10 -10	21
Q	7	1841	Y -11 Y53	22
Q	8	1848	L XU1 000 R	22
Q	5	1856	B 283 K	22
Q	5	1861	B 221 L	22
Q	7	1866	M -08 Y79	22
Q	7	1873	M -09 000	22
Q	7	1880	# 295 Z99	23
Q	4	1887	0 -06	23
Q	4	1891	B X45	23
Q	7	1895	M 292 099	23
Q	4	1902	, 0#0	23
Q	4	1906	B 0#7	23
Q	7	1910	M -12 Y55	23
Q	4	1917	B X38	24
Q	8	1921	B 276 -10 I	24
Q	7	1929	D Y51 Z39	24
Q	5	1936	U XUO B	24
Q	8	1941	B 260 Y55 W	24
Q	7	1949	A -13 -10	24
Q	4	1956	B Y48	25
Q	7	1960	D Y51 Z70	25
Q	5	1967	U XUO E	25
Q	4	1972	B Y48	25
Q	7	1976	. 276 777	25
Q	7	1983	. 283 888	25
Q	7	1983	. 1990	25

OBJECT TIME FORMAT

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
	176	SAVX3	DCM	#03 @001@ @R@ #03 @006@ #06 #01 #01 @A@ @M@ @I@ @ @ @ @ @ @ CWLIO	Q	3	1992	AREA	25	
	190	LUC			Q	3	1995	LIT	26	
	185	ADDR			Q	1	1996	LIT	26	
	189	SAVCH			Q	3	1999	AREA	26	
	194	COUNT			Q	3	2002	LIT	26	
					Q	6	2008	AREA	26	
					Q	1	2009	AREA	26	
					Q	1	2010	AREA	26	
					Q	1	2011	LIT	27	
	Z 17		DCM		Q	1	2012	LIT	27	
	Z 18	GPWDNK	DCM		Q	1	2013	LIT	27	
	Z 19	XFR	XFR		Q	1	2014	LIT	27	
					Q	1	2015		27	
					Q				28	

GROUP MARK

9 #30

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
224	2 20		JOB	OBJECT TIME FORMAT	Q					
225	2 21		ORG	1697	Q	4	1697	H 089		31
226	2 22	FORMAT	SBR	X1	Q	7	1701	M 0#0 J36		31
227	2 23		MLC	0&X1,FMTZON	Q	7	1708	M X08 D34		31
228	2 24		MLC	*-6,IO	Q	7	1715	H J35 0#7		31
229	2 25		SBR	FMTXT&3, 7&X1	Q	7	1722	M 0#6 Z68		31
230	2 26		MCW	6&X1,LIST&6	Q	7	1729	E X29 L27		31
231	2 27		ZA	*-6,PCTR	Q	4	1736	2 23V		32
232	2 28		CW	INSW#1	Q	4	1740	2 26Z		32
233	2 29		SW	GMK	Q	4	1744	M 0#3 094		32
234	2 30		MCW	3&X1, XL2	Q	7	1751	H 099 200		32
235	2 31		SBR	X3, 200	Q	7	1758	H 23Y 334		32
236	2 32		SBR	TUMUCH#3,334	Q	8	1765	B E56 0#0 6		32
237	2 33		BCE	READC, 0&X1, 6	Q	8	1773	B E25 0#0 -		33
238	2 34		BCE	PUNCH, 0&X1, -	Q	8	1781	B D71 0#0 *		33
239	2 35		BCE	PRINT, 0&X1, *	Q	8	1789	V C12 0#0 K		33
240	2 36		BWZ	RDITP, 0&X1, K	Q	8	1797	V C75 0#0 B		33
241	2 37		BWZ	WT2,0&X1,B	Q	7	1805	H 094 Z16		33
242	2 38		SBR	X2,4DRTB	Q	4	1812	/ 332		34
243	2 39		CS	332	Q	1	1816	/		34
244	2 40		CS		Q	1	1817	/		34
245	2 41		CS		Q	7	1818	H 099 100		34
246	2 42		SBR	X3,100	Q	7	1825	M -79 D34		34
247	2 43		MLC	ELL,IO	Q	4	1832	2 0&0		34
248	2 44	LOOP2	SW	0&X3	Q	4	1836	B Z43		34
249	2 45		B	GETAD	Q	4	1840	V C12 J36 2		35
250	2 46		BWZ	RDITP,FMTZON,2	Q	8	1848	H 24/ 100		35
251	2 47		SBR	BUCKT,100	Q	7	1855	M 0#0 0&0		35
252	2 48	MVAGN	MLC	0&X1,0&X3	Q	7	1862	Q 094		35
253	2 49		SAR	.X2	Q	4	1866	B J37		35
254	2 50		B	SBRX3	Q	4	1870	V Y82 0-1 1		35
255	2 51		9W	*&5,1&X2	Q	4	1878	B Y55		36
256	2 52		B	MVAGN	Q	4	1882	B Q08		36
257	2 53		B	CKOVF	Q	4	1886	H K22 C84		36
258	2 54		SBR	OUTPT&3,TPCMND	Q	7	1893	B Y32		36
259	2 55		B	LOOP2	Q	4	1897	B Q08		36
260	2 56	OUT	B	CKOVF	Q	4	1901	L 0&0 0#0		36
261	2 57		MLCWA	0&X3,0&X1	Q	4	1908	B Z43		36
262	2 58		B	GETAD	Q	4	1912	B J37		37
263	2 59	RDRTN	B	SBRX3	Q	4	1916	V Y97 061 1		37
264	2 60	RDRTB	BW	OUT,1&X3	Q	8	1924	H Z12		37
265	2 61		B	RDRTN	Q	4	1928	H K22		37
266	2 62	FMAIN	SBR	OUTPT&3	Q	4	1932	M 099 24/		37
267	2 63		MLC	X3,BUCKT#3	Q	7	1939	B 0-0		37
268	2 64		B	0&X2	Q	4	1943	H -06		37
269	2 65	GETAD	SBR	GTXT&3	Q	4	1947	M 094 -02		38
270	2 66		MLC	X2,SAVE2&6	Q	7	1954	V -31 Z3U 1		38
271	2 67		8W	ALRDY,ALKHED	Q	8	1962	T 912		38
272	2 68	LIST	T	OBLIST	Q	4	1968			38
273	2 69	MLBOX	DCW	#3	Q	3				38

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
274		SBR	X2	Q	4	1969	H 094		38
275	RMVZN	AZ	NOZN,X1-1	Q	7	1973	Y B62 088		38
276		BCE	NTRAY,X1,0	Q	8	1980	B -46 089		39
277		BCE	UNDUN,X1,0	Q	8	1988	B -07 089		39
278	SAVE2	SBR	X2, XXX	Q	7	1996	H 094 000		39
279	GTXT	B	XXX	Q	4	2003	B 000		39
280	UNDUN	BW	FMTXT, INSW	Q	8	2007	V J32 23V 1		39
281		C	BUCKT, X3	Q	7	2015	C 24/ 099		40
282		BU	NOLIN	Q	5	2022	B K08 /		40
283		B	FMTXT	Q	4	2027	B J32		40
284	ALRDY	CW	LKHED	Q	4	2031	M 23U		40
285		MLC	SAVE1, X1	Q	7	2035	M 24Z 089		40
286		B	RMVZN	Q	4	2042	B Z73		40
287		MLC	26X2, X3	Q	7	2046	M 0-2 099		40
288	NTRAY	MLC	56X2, X1	Q	7	2053	M 0-5 089		41
289		MLC	16X1, GMKHD#1	Q	7	2060	M 0+1 24S		41
290		BW	*65, 16X1	Q	8	2067	V -79 0#1 1		41
291		CW	GMKSW#1	Q	4	2075	M 24T		41
292	ELL	MLCWA	GMK, 16X1	Q	7	2079	L 26Z 0#1		41
293		B	SBRX3	Q	4	2086	B J37		41
294		SBR	X2, ARRTN	Q	7	2090	H 094 J09		42
295		BWZ	RDITP, FMTZON, 2	Q	8	2097	V C12 J36 2		42
296		B	TPCMND	Q	4	2105	B C84		42
297	ARRTN	MLC	GMKHD, 16X1	Q	7	2109	M 24S 0#1		42
298		BW	FMTXT, GMKSW	Q	8	2116	V J32 24T 1		42
299		CW	16X1	Q	4	2124	M 0#1		42
300		SW	GMKSW	Q	4	2128	I 24T		42
301	FMTXT	B	XXX	Q	4	2132	B 000		43
302	FMTZON	DCW	@ @	Q	1	2136	H J51		43
303	SBRX3	SBR	SBRX3614	Q	7	2141	H 099 061		43
304		SBR	X3, 16X3	Q	4	2152	H 000		43
305		B	0	Q	4	2156	D 0-0		43
306	OPNPR	SBR	X2	Q	1	2160	D		44
307		MN	06X2	Q	1	2161	D		44
308		MN		Q	1	2162	D		44
309		MN		Q	4	2163	Q L09		44
310		MN		Q	7	2167	M 0-2 24W		44
311		SAR	REPEAT63	Q	7	2174	H K07 0-3		44
312		MCW	26X2, RPTA#3	Q	4	2181	H J89		45
313		SBR	LAST163, 36X2	Q	4	2185	H 094		45
314		B	DECRA	Q	7	2189	S E74 24W K		45
315	CLSPP	SBR	X2	Q	8	2196	V 0-0 24W K		45
316	DECRA	S	ONE, RPTA	Q	4	2204	B 000		45
317		BM	06X2, RPTA	Q	4	2208	H 094		45
318		B	XXX	Q	7	2212	M 24/ 099		45
319	LAST1	B	X2	Q	4	2219	B 000		45
320	NOLIN	SBR	BUCKT, X3	Q	8	2223	V K43 23V 1		46
321		MLC	XXX	Q	7	2231	C		46
322	OUTPT	B	BUCKT, X3	Q	4				46
323	EOJ1	BW	NOPSW, INSW	Q	8				46
324		C	BUCKT, X3	Q	7				46

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
324		BU	NDLIN	Q	2238	B K09 /	46
325	NOPSW	MLC	LIST66,*E7	Q	2243	M Z68 K56	46
326		RCE	NOPBR,0,,	Q	2250	B K98 000 ,	46
327		MLC	LIST66,*E7	Q	2258	M Z68 K71	47
328		T	OBLIST	Q	2265	T 912	47
329	EJBOX	DCH	#3	Q	2271		47
330		BCE	FMTXT,X1,	Q	2272	B J32 089	47
331		MLC	EJBOX,MLBOX	Q	2280	M K71 768	47
332		MLC	X1,SAVEI#3	Q	2287	M 089 Z4Z	47
333		SW	LKHED	Q	2294	, 23U	48
334	NOPBR	BW	NDLIN, INSW	Q	2298	V K08 23V 1	48
335	REPEAT	B	XXX	Q	2306	B 000	48
336	SCALE	SBR	X2	Q	2310	H 094	48
337		ZA	2&X2, PCTR	Q	2314	E 0-2 L27	48
338		B	3&X2	Q	2321	B 0-3	48
339		DCH	6000	Q	2327		48
340	PCTR	SBR	X2	Q	2328	H 094	49
341	HOLLR	SBR	X2	Q	2332	V L47 23V 1	49
342	TESTH	BW	HOLIN, INSW	Q	2340	M 0-0 0E0	49
343	HLOUT	MLC	0&X2,0&X3	Q	2347	M 0&0 0-0	49
344	HOLIN	MLC	0&X3,0&X2	Q	2354	B J37	49
345		B	SBRX3	Q	2358	H 094 0-1	49
346		SBR	X2,1&X2	Q	2365	V L77 0-0 1	50
347		BW	*65,0&X2	Q	2373	B L32	50
348		B	TESTH	Q	2377	B 009	50
349		B	CKOVF	Q	2381	B 0-0	50
350		B	0&X2	Q	2385	H 094	50
351	GETW	SBR	X2	Q	2389	M 0-3 25S	50
352	DCRPB	MCH	3&X2, RPTB#3	Q	2396	S E74 25S	50
353		S	ONE,RPTB	Q	2403	V M31 25S B	51
354		BWZ	GRTN,RPTB,B	Q	2411	R 0-7 0-0 I	51
355		BCE	7&X2,0&X2,I	Q	2419	B 0-7 0-0 A	51
356		BCE	7&X2,0&X2,A	Q	2427	B 0J0	51
357		B	10&X2	Q	2431	B Z43	51
358	GRTN	B	GETAD	Q			MACRO
359		AFIXW	S,FIKWD	Q			GEN
360		S		Q	1 2435	S	GEN
361		DC	a 0a	Q	2 2437		GEN
362		DC	0	Q	1 2438		GEN
363	EFNTN	AFLTW	SM,FLTWD,-1	Q			MACRO
364	EFNTN	SW		Q	1 2439		GEN
365		DC	a 0a	Q	2 2441		GEN
366		DC	-1	Q	1 2442		GEN
367		BW	INEFI, INSW	Q	8 2443	V F51 23V 1	52
368		CS	24	Q	4 2451	/ 024	52
369		SW	0&X3	Q	4 2455	, 0&0	52
370		MN		Q	1 2459	0	52
371		SBR	X3	Q	4 2460	H 099	53
372		SBR	JOE4&3,2&X3	Q	7 2464	H Q97 0&2	53
373		SW	FINS&3	Q	4 2471	H A49	53
		SW	001	Q	4 2475	, 001	53

GO GET NEW RCD IF INPUT

SAVE SCALING FACTOR  
RETURN TO FORMAT SPEC

3 1 4



OBJECT TIME FORMAT

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX CT	LCGN	INSTRUCTION	TYPE	CARD
374	3 64		BCE	INDIN, 0&X2, I	Q	2479	B Q33 0-0 I	MACRO	53
375	3 65		BCE	ADUT, 0&X2, A	Q	2487	B 41Z 0-0 A	GEN	53
376	3 66	EFOUT	BFLTH	MLC, 0*0, FLTWD					
377		EFOUT	MLC						
378			DC	0*0	Q	2495	M	MACRO	53
379			DC	@ 0@	Q	2498		GEN	54
380			DC	0	Q	2500		GEN	54
381	3 67		MCW		Q	2501		GEN	54
382	3 68		SBR	XL1	Q	2502	M	MACRO	54
383	3 69		SW	0&X1	Q	2503	H 089	GEN	54
384	3 70		A	WD, XL3	Q	2507	, 0*0	GEN	54
385	3 71		SBR	FINS-1, 2&X3	Q	2511	A 0-6 099	GEN	54
386	3 72		MLC	@ 0@	Q	2518	H A45 0&2	GEN	55
387	3 73		SW	2&X3	Q	2525	M 25V	GEN	55
388	3 74		BCE	EFT1, 1&X1, 0	Q	2529	, 0&2	GEN	55
389	3 75		BFLTH	BWZ, FOVFL, FLTWD, -2, 2	Q	2533	B N49 0*1 0	MACRO	55
390			BWZ						
391			DC	FOVFL	Q	2541	V	MACRO	55
392			DC	@ 0@	Q	2544	074	GEN	55
393			DC	-2	Q	2546		GEN	55
394			DC	@2@	Q	2547		GEN	55
395	3 76	EFT1	BCE	*E12, 0&X2, E	Q	2548		GEN	55
396	3 77		BFLTH	A, PCTR, FLTWD	Q	2549	B N68 0-0 E	GEN	55
397			A						
398			DC	PCTR	Q	2557	A	MACRO	56
399			DC	@ 0@	Q	2560	L27	GEN	56
400			DC	0	Q	2562		GEN	56
401	3 78		B	*E8	Q	2563		GEN	56
402	3 79		BFLTH	S, PCTR, FLTWD	Q	2564	B N75	GEN	56
403			S						
404			DC	PCTR	Q	2568	S	MACRO	56
405			DC	@ 0@	Q	2571	L27	GEN	56
406			DC	0	Q	2573		GEN	56
407	3 80		AFLTH	MLNS, FLTWD, ECON	Q	2574		GEN	56
408			MLNS						
409			DC	@ 0@	Q	2575	D	MACRO	56
410			DC	0	Q	2577		GEN	56
411			DC	ECON	Q	2578		GEN	56
412	3 81		MN		Q	2581	F50	GEN	56
413	3 82		AFLTH	MLC, FLTWD	Q	2582	D	MACRO	56
414			MLC						
415			DC	@ 0@	Q	2583	H	MACRO	56
416			DC	0	Q	2585		GEN	56
417	3 83		BCE	FTYP, 0&X2, F	Q	2586		GEN	56
418	3 84		C	ECON, ZERD4-2	Q	2587	B P04 0-0 F	GEN	56
419	3 85		BE	*E9	Q	2595	C F50 B64	GEN	57
420	3 86		BWZ	*E8, ECON-2, K	Q	2602	B 015 S	GEN	57
421	3 87		MLZS	NOZN, ECON-2	Q	2607	V 022 F4R K	GEN	57
422	3 88		BFLTH	ZA, PCTR, FLTWD	Q	2615	Y B62 F48	MACRO	57
423			ZA					GEN	57

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
424		DC	PCTR	Q 3	2625	L27	GEN	57
425		DC	a 0a	Q 2	2627		GEN	57
426		DC	0	Q 1	2628		GEN	57
427	UPX1	AFLTW	MLNS,FLTWD,,*£8	Q 1	2629	D	MACRO	57
428	UPX1	MLNS		Q 2	2631		GEN	57
429		DC	a 0a	Q 1	2632		GEN	57
430		DC	0	Q 3	2635	D43	GEN	58
431		DC	*£8	Q 1	2636	D	GEN	58
432		MN		Q 7	2637	H 089 0+0		58
433		SBR	X1, XX£X1	Q 7	2644	£ 837 23S		58
434		ZA	837,POINT	Q 7	2644	£ 837 23S		58
435		S	DOPRT,POINT	Q 7	2651	S E05 23S		58
436		C	BFLTW C,POINT,FLTWD	Q 7	2651	S E05 23S	MACRO	58
437		DC	POINT	Q 1	2658	C	GEN	59
438		DC	a 0a	Q 3	2661	23S	GEN	59
439		DC	0	Q 2	2663		GEN	59
440		DC	0	Q 1	2664		GEN	59
441		BH	INTEG	Q 5	2665	B P28 U		59
442		B	OK1	Q 4	2670	B P97		59
443	F0VFL	MLC	a X a,2£X3	Q 7	2674	M 25Y 0£2		59
444		MLC		Q 1	2681	M		59
445		SBR	X3,2£X3	Q 7	2682	H 099 0£2		59
446		SBR	FINSI-1	Q 4	2689	H A53		59
447		A	D, X3	Q 7	2693	A 0-9 099		60
448		B	CWMS	Q 4	2700	B A38		60
449		BM	NEG£,ECON-2	Q 8	2704	V P6£ F48 K		60
450	F1YP	C	WD, ECON	Q 7	2712	C 0-6 F50		60
451		BL	UPX1	Q 5	2719	B 029 T		60
452		B	F0VFL	Q 4	2724	B 074		60
453	INTEG	S	23	Q 4	2728	S 023		60
454		AFIXW	MCM,FIXWD,£1,001	Q 1	2732	P	MACRO	61
455		MCM		Q 2	2734		GEN	61
456		DC	a 0a	Q 1	2735		GEN	61
457		DC	£1	Q 3	2738		GEN	61
458		DC	001	Q 4	2739	M B66		61
459		MLC	ZERD4	Q 1	2743	Y		61
460		MZ		Q 7	2744	M F50 089		61
461		MLC	ECON,X1	Q 4	2751	M B63		61
462		MLC	ZERD4-3	Q 7	2755	M 262 0+3		61
463		MLC	GMK,3£X1	Q 4	2762	B P97		61
464		B	OK1	Q 7	2766	Y B67 0+0		62
465		MZ	NOZN,0£X1	Q 7	2773	C 0-9 F50		62
466		C	D,ECON	Q 0	2780	B P92 /		62
467		BU	BRHI	Q 1	2785	C	MACRO	62
468		AFIXW	C,FIXWD,£1,FIVE	Q 2	2787		GEN	62
469		C		Q 1	2788		GEN	62
470		DC	a 0a	Q 1	2791	23T		62
471		DC	£1	Q 3	2791	23T		62
472		DC	FIVE	Q 5	2792	B Q65 U		62
473		BH	MVDAT	Q 5	2792	B Q65 U		62

CHANGE IF ARITH REASSEMBLED

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SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
474	OKI	AFLTM	MLZS,FLTWD,-2,0#0	Q	2797	Y	MACRO	62
475	OKI	MLZS		Q	2799		GEN	62
476		DC	0 0#	Q	2800		GEN	62
477		DC	-2	Q	2803		GEN	62
478		DC	0#0	Q	2804		GEN	63
479	CKOVF	B	MVDAT	Q	2804	B Q65		63
480		SBR	OVFEX#3	Q	2808	H Q32		63
481		C	TUMUCH,X3	Q	2812	C 23Y 099		63
482		BL	OVFEX	Q	2819	B Q29 T		63
483		NDP	3700	Q	2824	N 600		63
484		H		Q	2828	.		63
485	OVFEX	B	XXX	Q	2829	B 000		63
486	INDTN	B	FIXW MLC,0#0,FIXWD	Q	2833	M	MACRO	64
487	INDTN	MLC		Q	2836		GEN	64
488		DC	0#0	Q	2838		GEN	64
489		DC	0 0#	Q	2839		GEN	64
490		DC	0	Q	2839		GEN	64
491		A	W, XL3	Q	2840	A 0-6 099		64
492		MCH	W, XL1	Q	2840			64
493		AFIXW	ZA, FIXWD, 0#0	Q	2847	M 0-6 089		64
494		ZA		Q	2854	S	MACRO	64
495		DC	0 0#	Q	2856		GEN	64
496		DC	0	Q	2857		GEN	64
497		DC	0#0	Q	2860		GEN	64
498		B	SBRX3	Q	2861	B J37		64
499	MVDAT	MCS	0#X1,0#X3	Q	2865	Z 0#0 0#0		64
500		SBR	SAVE#6	Q	2872	H R58		65
501		MLNS	0#X1,0#X3	Q	2876	D 0#0 0#0		65
502		SBR	MCS#3,0#X3	Q	2883	H A90 0#0		65
503		SBR	FINSI-1	Q	2890	H A53		65
504	JOE4	SW	XXX	Q	2894	, 000		65
505		BWZ	BACK,0#X1,K	Q	2898	V R10 0#0 K		65
506		B	SAVE	Q	2906	B R52		65
507	BACK	BCE	EXIT,0#X3,	Q	2910	B R34 0#0		65
508		SBR	X3	Q	2918	H 099		66
509		BW	SAVE,1#X3	Q	2922	V R52 0#1 I		66
510		B	BACK	Q	2930	Y R10		66
511	EXIT	MLZS	MINUS,0#X3	Q	2934	Y G46 0#0		66
512		SW	1#X3	Q	2941	, 0#1		66
513		SBR	FINSI-1,1#X3	Q	2945	H A53 0#1		67
514	SAVE	SBR	X3,111	Q	2952	H 099 111		67
515		BCE	FINS,0#X2,I	Q	2959	B A45 0-0 I		67
516		A	D, X3	Q	2967	A 0-9 099		67
517		RCE	JUMPF,0#X2,F	Q	2974	B R93 0-0 F		67
518		MLNS	0#X3	Q	2982	D 0#0		68
519		MLNS		Q	2986	D		68
520		MLNS		Q	2987	D		68
521		MLNS		Q	2988	D		68
522		SBR	X3	Q	2989	H 099		68
523	JUMPF	SBR	OVRI#6,1#X3	Q	2993	H #88 0#1		68

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LDGN	INSTRUCTION	TYPE	CARD
524	4	58	S	1EX3	Q	4	3000	S 0E1		68
525	4	59	MLNS		Q	1	3004	D		69
526	4	60	SAR	X3	Q	4	3005	Q 099		69
527	4	61	BCE	MDIG,0EX2,E	Q	8	3009	B 644 0-0 E		69
528	4	62	BWZ	MDIG,ECON-2,B	Q	8	3017	V 644 F48 B		69
529	4	63	C	D,ECON	Q	7	3025	C 0-9 F50		69
530	4	64	BH	OVR1	Q	5	3032	B 682 U		69
531	4	65	A	ECON,X3	Q	7	3037	A F50 099		70
532	4	66	BCE	OVR1,3EX1,	Q	8	3044	B 682 0*3		70
533	4	67	MLNS	1EX1,2EX3	Q	7	3052	D 0*1 0E2		70
534	4	68	SBR	X1,1EX1	Q	7	3059	H 089 0*1		70
535	4	69	BWZ	OVR1,2EX3,B	Q	8	3066	V 682 0E2 B		70
536	4	70	SBR	X3	Q	4	3074	H 099		71
537	4	71	B	MDIG	Q	4	3078	B 644		71
538	4	72	SBR	X3,XXX	Q	7	3082	H 099 000		71
539	4	73	BAV	*E1	Q	5	3089	B 694 Z		71
540	4	74	A	ECON-3,0EX3	Q	7	3094	A F47 0E0		71
541	4	75	MLC	NOZN,0EX3	Q	7	3101	M 862 0E0		71
542	4	76	BCE	CWMS-5,0EX2,F	Q	8	3103	B A33 0-0 F		72
543	4	77	SBR	X3,4EX3	Q	7	3116	H 099 0E4		72
544	4	78	MLNS	0EX3	Q	4	3123	D 0E0		72
545	4	79	MCW	ECON	Q	4	3127	M F50		72
546	4	80	MZ		Q	4	3131	Y		72
547	4	81	MCW		Q	1	3132	M		72
548	4	82	BAV	ARRAY	Q	1	3132	M		72
549	4	83	CWMS	AFIXM CM,FIXWD	Q	5	3133	B A66 Z		72
550	4	83	CWMS	CM	Q	1	3138	□	MACRO	73
551	4	84	DC	□ 0□	Q	2	3140		GEN	73
552	4	85	DC	0	Q	1	3141		GEN	73
553	4	86	CW	XXX	Q	4	3142	□ 000		73
554	4	87	CW	000	Q	4	3146	□ 000		73
555	4	88	CW	XXX	Q	4	3150	□ 000		73
556	4	89	FINS	AFIXM SW,FIXWD,61	Q	4	3154		MACRO	73
557	4	90	FINS	SW	Q	2	3156		GEN	73
558	4	91	DC	□ 0□	Q	1	3157		GEN	73
559	4	92	DC	E1	Q	4	3158	B Q08		73
560	4	93	B	CKOVF	Q	4	3162	B L96		73
561	4	94	B	DCRPB	Q	4	3166	M A45 089		74
562	4	95	MLC	FINS-1,X1	Q	7	3173	Y B62 0*0		74
563	4	96	MLZS	NOZN,0EX1	Q	7	3180	M		74
564	4	97	MLC		Q	1	3181	A		74
565	4	98	A		Q	1	3182	B A95 Z		74
566	4	99	BAV	OVR9S	Q	5	3187	Z 000		74
567	4	99	MCS	0	Q	4	3191	B A38		74
568	4	99	B	CWMS	Q	4	3195	D 0*0		75
569	4	99	MN	OEX1	Q	4	3199	C		75
570	4	99	C		Q	1	3200	D		75
571	4	99	MN		Q	1	3201	H 089		75
572	5	00	SBR	X1	Q	4	3205	C A49 089		75
573	5	01	C	FINS63,X1	Q	7	3205	C A49 089		75

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
574	5 02		BL	CLEAR	Q	5	3212	B 840 T		75
575	5 03		SW	06X1	Q	4	3217	040		75
576	5 04		MLC	16X1,06X1	Q	7	3221	M 0#1 0#0		76
577	5 05		CW		Q	1	3228	0		76
578	5 06		<del>MGW</del>	<del>0NE,16X1</del>	Q	7	3229	M E74 0#1		76
579	5 07		B	CHMKS	Q	4	3236	B A38		76
580	5 08		MLC	16X3,06X3	Q	7	3240	M 061 060		76
581	5 09		MLC		Q	1	3247	M		76
582	5 10		MLC		Q	1	3248	M		76
583	5 11		MLC	a X a,36X1	Q	7	3249	M 25Y 0#3		77
584	5 12		B	CHMKS	Q	4	3256	B A38		77
585	5 13		DCW	1	Q	1	3260			77
586	5 14		DCW	a.a	Q	1	3261			77
587	5 15		DCW	a a	Q	1	3262			77
588	5 16	NOZN	DCW	0000	Q	4	3266			77
589	5 17	ZERO4	MLC	X1,X3	Q	7	3267	M 089 099		77
590	5 18	INI	MLZS	ZAFLT,*E8	Q	7	3274	Y 065 088		77
591	5 19		BFIXM	MLNS,060,FXWD,61	Q	7				78
592			MLNS		Q	1	3281	D	MACRO	78
593			DC	060	Q	3	3284		GEN	78
594			DC	a 0a	Q	2	3286		GEN	78
595			DC	61	Q	1	3287		GEN	78
596	5 20		ZA		Q	1	3288	6		78
597	5 21		MLC	URZRO6,X1	Q	7	3289	M 14W 089		78
598	5 22		AFIXM	MLCWA,FXWD,0#0	Q	1	3296	L	MACRO	78
599			MLCWA		Q	2	3298		GEN	78
600			DC	a 0a	Q	1	3299		GEN	78
601			DC	0	Q	3	3302		GEN	78
602			DC	0#0	Q	4	3303	B 15V	GFN	78
603			B	MRWM	Q	4	3307	M 005		78
604	5 23		NOP	4002	Q	1	3311			78
605	5 24	HLTGO	H		Q	4	3312	23V		79
606	5 25	ROITP	SW	INSW	Q	4	3316	/ 332		79
607	5 26	RD2	CS	332	Q	4	3320	/		79
608	5 27		CS		Q	1	3321	B C84		79
609	5 28		B	TPCMND	Q	4	3325	B C07 K		79
610	5 29		BEF	HLTGO	Q	5	3330	B C84 OA2		79
611	5 30	CMBCK	BCE	TPCMND,12EX3,	Q	8	3338	B	MACRO	80
612	5 31		CHAIN	12	Q	1	3339	B	GEN	80
613			BCE		Q	1	3340	B	GEN	80
614			BCE		Q	1	3341	B	GEN	80
615			BCE		Q	1	3342	B	GEN	80
616			BCE		Q	1	3343	B	GEN	80
617			BCE		Q	1	3344	B	GEN	80
618			BCE		Q	1	3345	B	GEN	80
619			BCE		Q	1	3346	B	GEN	81
620			BCE		Q	1	3347	B	GEN	81
621			BCE		Q	1	3348	B	GEN	81
622			BCE		Q	1				81
623			BCE		Q	1				81

LCA @ 300, 2+X1  
CW 1+X1

SEQ	PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
624				BCE		Q	1	3349	B	GEN	81
625	5	33		B	FMAIN	Q	4	3350	B Z28		81
626	5	34		B	RD2	Q	4	3354	B C16		81
627	5	35	WTM	MLNS	FMTZON,*E4	Q	7	3358	D J36 C68		82
628	5	36		WTM	0	Q	5	3365	U X00 H		82
629	5	37		NOP	4003	Q	4	3370	N 00T		82
630	5	38		H		Q	1	3374	.		82
631	5	39	WT2	CS	332	Q	4	3375	/ 332		82
632	5	40		CS		Q	1	3379	/		82
633	5	41		B	FMAIN	Q	4	3380	B Z28		82
634	5	42	TPCMND	MLNS	FMTZON,10E3	Q	7	3384	D J36 D37		83
635	5	43		MLC	ARA,10E7	Q	7	3391	M 25Z D41		83
636	5	44		ZA	ARA,POINT	Q	7	3398	E 25Z 23S		83
637	5	45		BW	SVGK,INSW	Q	8	3405	V D27 23V 1		83
638	5	46		MLC	ARA,10E7	Q	7	3413	M 26# D41		83
639	5	47		A	E41,POINT	Q	7	3420	A 26S 23S		84
640	5	48	SVGK	MLCWA	GK,333	Q	7	3427	L 26Z 333		84
641	5	49	IO	RT	0,0EX3	Q	8	3434	M X00 060 R		84
642	5	50		MLCHA	FORMAT,333	Q	7	3442	L W97 333		84
643	5	51		BER	TPERR	Q	5	3449	B E91 L		84
644	5	52		BCE	GMBC,10E7,R	Q	8	3454	B C25 D41 R		85
645	5	53		BEF	WTM	Q	5	3462	B C58 K		85
646	5	54		B	WT2	Q	4	3467	B C75		85
647	5	55	PRINT	CS	333	Q	4	3471	/ 333		85
648	5	56		CS		Q	1	3475	/		85
649	5	57		B	FMAIN	Q	4	3476	B Z28		85
650	5	58	PRZRO	BCE	DOPRT,200,	Q	8	3480	B E05 200		85
651	5	59		BCE	SPACE,200,0	Q	8	3488	B E20 200 0		86
652	5	60		MN	200,*E2	Q	7	3496	D 200 E04		86
653	5	61		CC	0	Q	2	3503	F 0		86
654	5	62	DOPRT	M		Q	1	3505	2		86
655	5	63		BCV	*E5	Q	5	3506	B E15 a		86
656	5	64		B	PRINT	Q	4	3511	B D71		86
657	5	65		CCB	PRINT,1	Q	5	3515	F D71 1		86
658	5	66	SPACE	CCB	DOPRT,J	Q	5	3520	F E05 J		87
659	5	67	PUNCH	MLC	281a,TUNUCH	Q	7	3525	M 26V 23Y		87
660	5	68		CS	FMAIN,285	Q	7	3532	/ 228 285		87
661	5	69		SW	200	Q	4	3539	, 200		87
662	5	70		LCA	279,180	Q	7	3543	L 279 180		87
663	5	71		P		Q	1	3550	4		87
664	5	72		SSB	PUNCH,4	Q	5	3551	K E25 4		87
665	5	73	READC	CS	80	Q	4	3556	/ 080		88
666	5	74		MLC	281a,TUNUCH	Q	7	3560	M 26V 23Y		88
667	5	75		SW	1, INSW	Q	7	3567	, 001 23V		88
668	5	76	ONE	R		Q	1	3574	1		88
669	5	77		LCA	80,279	Q	7	3575	L 080 279		88
670	5	78		SSB	FMAIN,1	Q	5	3582	K 228 1		88
671	5	79		B	READC	Q	4	3587	B E56		88
672	5	80	TPERR	MLNS	FMTZON,BSPTE3	Q	7	3591	D J36 F08		89
673	5	81		MLNS	FMTZON,SKPE3	Q	7	3598	D J36 F21		89

BLANK

OBJECT TIME FORMAT

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
674	5	BSPTP	BSP	0	Q	5	3605	U ZUO B		89
675	5	SKP	BCE	*E6,IOE7,R	Q	8	3610	B F23 D41 R		89
676	5	SKP	SKP	0	Q	5	3618	U ZUO E		89
677	5	ONE,POINT	S	ONE,POINT	Q	7	3623	S E74 23S		89
678	5	BWZ	BWZ	SVGK,POINT,B	Q	8	3630	V D27 23S B		90
679	5	NDP	NDP	1111	Q	4	3638	N /11		90
680	5	H	H		Q	1	3642	- C84		90
681	5	B	B	TPCMND	Q	4	3643	B C84		90
682	5	DCW	DCW	@E@	Q	1	3647			90
683	5	DCW	DCW	@ @	Q	1	3648			90
684	5	ECON	DCW	OO	Q	2	3650			90
685	5	INEFI	SW	OEX3	Q	4	3651			91
686	5	MLC	MLC	X1,URZROE6	Q	7	3655	M 089 14W		91
687	5	MLC	MLC	X3,X1	Q	7	3662	M 099 089		91
688	5	A	A	MD,X1	Q	7	3669	A 0-6 089		91
689	5	BCE	BCE	OUTQ,OEX2,I	Q	8	3676	B F99 0-0 I		91
690	5	BCE	BCE	OUTQA,OEX2,A	Q	8	3684	B 39# 0-0 A		92
691	5	A	A	D,X1	Q	7	3692	A 0-9 089		92
692	6	OUTQ	SW	OEX1	Q	4	3699	, 0#0		92
693	6	SBR	SBR	MRWME3,OEX1	Q	7	3703	H 15Y 0#0		92
694	6	AFLTH	S	S,FLTWD	Q	7	3710	S	MACRO	92
695	6	S	S		Q	2	3712		GFN	92
696	6	DC	DC	@ 0@	Q	1	3713		GEN	92
697	6	DC	DC	0	Q	1	3714		GEN	92
698	6	S	S		Q	8	3715	B G62 0E0		92
699	6	BLANK	BCE	BLANK, OEX3,	Q	7	3723	Y G46 06S		93
700	6	MLZS	MLZS	MINUS,ZAFLT	Q	8	3730	B G78 0E0 -		93
701	6	BCE	BCE	KILL,OEX3	Q	8	3738	B G78 0E0 @		93
702	6	BCE	BCE	KILL,OEX3	Q	4	3746	- 06S		93
703	6	MINUS	ZS	ZAFLT	Q	8	3750	B G78 0E0 E		93
704	6	BCE	BCE	KILL,OEX3,E	Q	4	3758	B G86		93
705	6	B	B	MVZWK	Q	8	3770	B J37		94
706	6	BLANK	BW	URZRO-8,1EX3	Q	4	3774	B G15		94
707	6	B	B	SBRX3	Q	4	3778	, 0E1		94
708	6	B	B	SCNBL	Q	4	3782	B J37		94
709	6	KILL	SW	1EX3	Q	8	3786	B 867 0-0 I		94
710	6	PLUS	B	SBRX3	Q	1	3794	H	MACRO	94
711	6	MVZWK	BCE	INI, OEX2, I	Q	3	3797		GEN	95
712	6		BFIXW	SBR,089,FIKWD,-1	Q	2	3799		GEN	95
713	6	SBR	SBR		Q	1	3800		GEN	95
714	6	DC	DC	089	Q	1	3801	Y	MACRO	95
715	6	DC	DC	@ 0@	Q	3	3804	862	GEN	95
716	6	DC	DC	-1	Q	2	3806		GEN	95
717	6	BFLTW	MLZS	NOZN,FLTWD,-2	Q	1	3807		GEN	95
718	6	MLZS	MLZS		Q	7	3808	26W 26X	GEN	95
719	6	DC	DC	NOZN	Q	4	3815	26Y	GEN	95
720	6	DC	DC	@ 0@	Q	3	3904		GEN	95
721	6	DC	DC	-2	Q	2	3806		GEN	95
722	6	CW	CW	SIGSW#1,SWB#1	Q	1	3507		GEN	95
723	6	CW	CW	SWA#1	Q	4	3815	26Y	GEN	95

BFLTW MLZS, NOZN, FLTWD, -2  
 MLZS PLUS, ZAFLT  
 SCNBL  
 BLANK  
 MINUS  
 MINUS, OEX3, -  
 MINUS, OEX3, @  
 MINUS ZS ZAFLT  
 MINUS ZS ZAFLT

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
724	6 21	S	XPN	Q	3819	S 22T	95
725	6 22	BCE	ABEGN,0EX2,A	Q	3823	B 28# 0-0 A	96
726	6 23	B	LEWP2	Q	3831	B H81	96
727	6 24	SBR	POINT,0EX3	Q	3835	H 235 0E0	96
728	6 25	SW	SWA	Q	3842	, 26Y	96
729	6 26	BW	LEWP, SIGSM	Q	3846	V H61 26W 1	96
730	6 27	SBR	POINT, 1EX3	Q	3854	H 235 0E1	96
731	6 28	BW	OVR,1EX3	Q	3861	V 04X 0E1 1	97
732	6 29	BCE	OVR,1EX3,	Q	3869	B 04X 0E1	97
733	6 30	B	SBRX3	Q	3877	B J37	97
734	6 31	BCE	PYNT1,0EX3,.	Q	3881	B H35 0E0 .	97
735	6 32	C	0EX3,ZERO4-3	Q	3889	C 0E0 863	97
736	6 33	BL	MVDIG	Q	3896	B 16T T	98
737	6 34	BH	QFTYP	Q	3901	B 118 U	98
738	6 35	BW	MVDIG, SIGSM	Q	3906	V 16T 26W 1	98
739	6 36	B	LEWP	Q	3914	B H61	98
740	6 37	BCE	FHLT,0EX2,F	Q	3918	B 171 0-0 F	98
741	6 38	SBR	END,4EX3	Q	3926	H 22W 0E4	98
742	6 39	MLZS	PLUS,ZAEXP	Q	3933	Y 176 03W	99
743	6 40	BCE	PROCE, 0EX3, E	Q	3940	B 180 0E0 E	99
744	6 41	MZ	0EX3, ZAEXP	Q	3948	Y 0E0 03W	99
745	6 42	FBCEQ	GRAB, 0EX3, E,-				
746		BCE	GRAB,0EX3,E				
747		BCE	GRAB,0EX3,-				
748	6 43	NOP	1121	Q	3955	B 01S 0E0 & GEN	99
749	6 44	H		Q	3963	B 01S 0E0 - GEN	99
750	6 45	FHLT		Q	3971	N /21	100
751	6 46	PLUS		Q	3975	.	100
752	6 47	PROCE		Q	3976	B 171 0E1 2	100
753	6 48	B	HERE,1EX3,2	Q	3980	V 196 0E1 2	100
754	6 49	BCE	SBRX3	Q	3988	B J37	100
755	6 50	B	ZOND	Q	3992	B 148	100
756	6 51	B	*E5,1EX3,	Q	3996	B 00Y 0E1	100
757	6 52	B	*E5	Q	4004	B 01S	101
758	6 53	GRAB	SBRX3	Q	4008	B J37	101
759	6 54	SW	1EX3	Q	4012	, 0E1	101
760	6 55	BW	ZAEXP, 2EX3	Q	4016	V 03W 0E2 1	101
761	6 56	BCE	ZAEXP,2EX3,	Q	4024	B 03W 0E2	101
762	6 57	SBR	X3	Q	4032	H 099	101
763	6 58	ZAEXP	1EX3, XPN	Q	4036	E 0E1 22T	101
764	6 59	B	ZAFLT	Q	4043	B 06S	102
765	6 60	BCE	FHLT, 0EX2, E	Q	4047	B 171 0-0 E	102
766		SBR	END, 1EX3	Q	4055	H 22W 0E1	102
767		AFLTW	ZA,FALTWD,-2				
768		ZA					
769	6 61	DC	a 0a	Q	4062	E	102
770	6 62	DC	-2	Q	4064		102
771	6 63	BW	*E5, SIGSM	Q	4065		102
772	6 64	BW	URZRO	Q	4066	V 07Y 26W 1	102
773	6 65	S	NOSMT, SWA	Q	4074	B 14#	103
		END, POINT	D, END	Q	4078	V 10# 26Y 1	103
				Q	4086	S 0-9 22W	103
				Q	4093	E 22W 23S	103

Q. DATA NOT FRACTIONAL

BLANK

Q. SIGNIFICANT ZERO

ERROR HALT DATA IS WRONG MODE

BLANK

BLANK

Q. ACTUAL DECIMAL PT. IN DATA



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
774	6	66	NOSWT	S	POINT, MSD	Q	7	4100	S 23S 22Z	MACRO	103
775	6	67		A	PCTR, XPN	Q	7	4107	A L27 22T	GEN	103
776	6	68		ZS	MSD	Q	4	4114	- 22Z	GEN	104
777	6	69		A	MSD, XPN	Q	7	4118	A 22Z 22T	GEN	104
779				ZA	RFLTH ZA, XPN, FLTWD						
780				DC	XPN	Q	1	4125	E	GEN	104
781				DC	@ 0a	Q	3	4128	22T	GEN	104
782				DC	0	Q	2	4130		GEN	104
783	6	71		BCE	INI, 0&X2, I	Q	1	4131		GEN	104
784	6	72	URZRO	AFLTW	MLC, FLTWD, XXX	Q	8	4132	B 867 0-0 I	MACRO	104
785			URZRO	MLC							
786				DC	@ 0a	Q	1	4140	M	GEN	104
787				DC	0	Q	2	4142		GEN	104
788				DC	XXX	Q	1	4143		GEN	104
789	6	73		LCA		Q	3	4146	000	GEN	104
790	6	74	MRWH	MLC	MRWH&3, X3	Q	1	4147	L	GEN	104
791	6	75		CH	XXX	Q	7	4148	M 15Y 099	GEN	105
792	6	76		B	FINSI	Q	4	4155	0 000	GEN	105
793	6	77	MVDIG	BW	*E12, SIGSW	Q	4	4159	B A54	GEN	105
794	6	78		SBR	MSD, 0&X3	Q	8	4163	V 18S 26W I	GEN	105
795	6	79		SW	SIGSW	Q	7	4171	H 22Z 0&0	GEN	105
796	6	80		BW	LEWP, SWB	Q	4	4178	, 26W	GEN	105
797	6	81		MN	0&X3, 2&X1	Q	8	4182	V H61 26X I	GEN	106
798	6	82		SBR	X1	Q	7	4190	D 0&0 0#2	GEN	106
799	6	83		SW	SWB	Q	4	4197	H 089	GEN	106
800	6	84		BCE	LEWP, 4&X1,	Q	4	4201	, 26X	GEN	106
801	6	85		CH	SWB	Q	8	4205	B H61 0#4	GEN	106
802	6	86		B	LEWP	Q	4	4213	0 26X	GEN	106
803	6	87		DCW	#3	Q	4	4217	B H61	GEN	106
804	6	88	XPN	DCW	#3	Q	3	4223		GEN	107
805	6	89	END	DCW	#3	Q	3	4226		GEN	107
806	6	90	MSD	DCW	#3	Q	3	4229		GEN	107
807	6	91	POINT	DCW	#3	Q	3	4232		GEN	107
808	6	92	FIVE	DCW	05a	Q	1	4233		GEN	107
808	6	92	LKHED	DC	#1	Q	1	4233		GEN	107
809	6	93	LTRG	*		Q	1	4234		GEN	107
232			INSW	DCW	#01	Q	1	4235	4235	AREA	107
236			TUMUCH		#03	Q	1	4235		AREA	107
267			BUCKY		#03	Q	3	4238		AREA	108
289			GKHD		#01	Q	3	4241		AREA	108
291			GKSW		#01	Q	1	4242		AREA	108
312			RPTA		#01	Q	1	4243		AREA	108
332			SAVE1		#03	Q	3	4246		AREA	108
351			RPTB		#03	Q	3	4249		AREA	109
			@ 0a		@ 0a	Q	3	4252		AREA	109
			@ X a		@ X a	Q	3	4255		AREA	109
			@Ra		@Ra	Q	3	4258		LIT	108
			@Ma		@Ma	Q	3	4259		LIT	109
			E41		E41	Q	1	4259		LIT	109
			@281a		@281a	Q	2	4262		LIT	109
						Q	3	4265		LIT	109

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
	722	SIGSM		#01	Q	1	4266		AREA	109
	722	SMB		#01	Q	1	4267		AREA	109
	723	SMA		#01	Q	1	4268		AREA	110
810	6 94	GMK	DCW	a a	Q	1	4269			110
811	6 95	W	EQU	66X2	Q		0006			
812	6 96	WD	EQU	66X2	Q		0006			
813	6 97	D	EQU	96X2	Q		0009			
814	6 98	XXX	EQU	0	Q		0000			
815	6 99	XL1	EQU	089	Q		0089			
816	7 00	XL2	EQU	094	Q		0094			
817	7 01	XL3	EQU	099	Q		0099			
818	7 02	OBLIST	EQU	912	Q		0912			
819	7 03	CEXIT	EQU	988	Q		0988			
820	7 04		XFR	CHFIO	Q			B 982		111

GROUP MARK

M - D

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
821		JOB	A FORMAT	8	4280	V 29Z 26M 1		114
822		ORG	4280	7	4288	H 22Z 080		114
823	ABEGN	BW	*E12,SIGSW	4	4295	, 26W		114
824		SBR	MSD,0EX3	4	4299	V 34/ 26X 1		114
825		SW	SIGSW	7	4307	D 060 0#2		114
826		BW	LEWPA,SWB	7	4314	Y 080 0#2		115
827		MN	0EX3,2EX1	7	4321	H 089		115
828		MZ	0EX3,2EX1	4	4325	, 26X		115
829		SBR	X1	8	4329	B 34/ 0#4		115
830		SW	SWB	4	4337	D 26X 0E1 1		115
831		BCE	LEWPA,4EX1,	8	4341	V 35X 0E1 1		115
832		CW	SWB	4	4349	B J37		115
833	LEWPA	BW	OVRA,1EX3	4	4353	B 28#		116
834		B	SBRX3	7	4357	H 22W 0E1		116
835		B	ABEGN	7	4364	M 14W 37X		116
836	OVRA	SBR	END,1EX3	1	4371	M 000 000		116
837		MCH	URZR0E6,NEXTAE6	7	4378	L		116
838	NEXTA	MCH	0,0	7	4379	M 15Y 099		116
839		MCH	0,0	4	4386	B A54		116
840		LCA	MRW#3,X3	1	4390	M	MACRO	117
841		B	FINSI	3	4393	57X	GEN	117
842	OUTQA	BFLTW	MCH,BLK3,FLTWD	2	4395		GEN	117
843	OUTQA	MCH		1	4396		GEN	117
844		DC	BLK3	1	4397	M	MACRO	117
845		DC	a 0a	3	4400	59X	GEN	117
846		DC	0	2	4402		GEN	117
847		BFLTW	MCH,BLK20,FLTWD,-2	1	4403		GEN	117
848		MCH		4	4404	, 0#0	GEN	117
849		DC	BLK20	7	4408	H 15Y 0#0		117
850		DC	a 0a	4	4415	B G86		117
851		DC	-2	7	4419	M N01 43S		117
852		SW	0EX1	7	4426	M 000 000		118
853		SBR	MRW#3,0EX1	1	4433	M		118
854		B	MV2WK	4	4434	H 089		118
855	ADUT	MCH	EFOU#6,NEXA#6	7	4438	H 60T 0#1		118
856	NEXA	MCH	0,0	7	4445	H 60W 0E0		118
857		MCH		7	4452	# 0-6 60W		118
858		SBR	X1	7	4459	H 60# 0E1		119
859		SBR	TEMPX1#3,1EX1	7	4466	M 43S 60Z		119
860		SBR	TEMPX3#3,0EX3	7	4473	# 61S 60Z		119
861		MA	6EX2,TEMPX3	7	4480	D 0#1 0E2		119
862		SBR	TEMP32,1EX3	7	4487	Y 0#1 0E2		119
863		MCH	NEXA#6,TFLTWD#3	7	4494	C 60# 60W		120
864		MA	019H#2,TFLTWD	7	4501	B 55# S		120
865	MOVNUM	MN	1EX1,2EX3	7	4506	C 60T 60Z		120
866		MZ	1EX1,2EX3	5	4513	B 55# S		120
867		C	TEMP32,TEMPX3	7				120
868		BE	FINI1	7				120
869		C	TEMPX1,TFLTWD	7				120
870		BE	FINI1	5				120

GROUP MARK

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
871 7 47		MA	@001@,TEMPX1	Q	4518	# 61V 60T		120
872 7 48		MA	@001@,TEMP32	Q	4525	# 61V 60+		120
873 7 49		SBR	X1,16X1	Q	4532	H 089 0#1		121
874 7 50		SBR	X3,16X3	Q	4539	H 099 0#1		121
875 7 51		B	MOVNUM	Q	4546	B 48+		121
876 7 52	FINI1	SBR	FINS#7,0&X3	Q	4550	H A53 0#0		121
877 7 53		MCW	TEMPX3,X3	Q	4557	M 60W 099		121
878 7 54		SBR	X3,2&X3	Q	4564	H 099 0#2		121
879 7 55		B	FINS	Q	4571	B A46		122
880 7 56	BLK3	DCW	#3	Q	4577			122
881 7 57	BLK20	DCW	#20	Q	4597			122
882 7 58	TEMP32	DCW	@ @	Q	4600			122
883 7 59		L TORG *		Q		4601		122
859	TEMPX1	DCW	#03	Q	4603		AREA	122
860	TEMPX3		#03	Q	4606		AREA	122
863	TFLTWD		#03	Q	4609		AREA	122
			@19H@	Q	4612		LIT	123
			@001@	Q	4615		LIT	123
884 7 60	GM54D	DCW	@ @	Q	4616			123
885 7 61	*	XFR	CWAF	Q		B #51		124
886 7 62	**							
887 7 63	**							
888 7 64	*							
889 7 65				Q		/ 000 080		127

GROUP MARK

PLACE PRECEDING CARDS BETWEEN PHASES 53 AND 55

END

CLEAR STORAGE 1  
 CLEAR STORAGE 2  
 ROOTSTRAP

,008015,022026,030037,044,049,053053N0000000000001026  
 L068116,105106,110117B101/197#071029C0290568026/B001/0991,001/00111710E  
 ,008015,022029,036040,047054,061068,072/061039  
 ,0010011040

1  
 2  
 3

1401 FORTRAN LIB TAPE GENERATOR

50953

PAGE 1

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101	1	01	000	JOB	1401 FORTRAN LIB TAPE GENERATOR	4	0101	0101			4
102	1	02		CTL	645 11	4	0105	/ 000			4
103	1	03		ORG	101	4	0109	H 104			4
104	1	04	CCORE	CS	000	7	0109	C 104 281			4
105	1	05		SBR	CCORE&3	5	0116	B 101 /			4
106	1	06		C	CCORE&3,2699a	1	0121	1			4
107	1	07		BU	CCORE	1	0122	1			4
108	1	08		R		8	0123	B 142 040 /			4
109	1	09	RDBUT	R	SAVE,40,/ 71,RDBUT&1	7	0131	H 071 123			4
110	1	10		BCE	40	4	0138	B 040			5
111	1	11		SBR	041	4	0142	, 041			5
112	1	12	SAVE	B	43,TBODT&3	7	0146	M 043 556			5
113	1	13		SW	41	4	0153	041			5
114	1	14		MCW		7	0157	M 688 104			5
115	1	15		MCW	PARAM&2,CCORE&3	8	0164	L 301 333 W			6
116	1	16	REC	WTW	1,333	5	0172	B 236 L			6
117	1	17		ERR		8	0177	L 301 700 W			6
118	1	18		BER		5	0185	B 236 L			6
119	1	19		WTW	1,700	5	0190	B 261 A			6
120	1	20		BER		1	0195	1			6
121	1	21		ERR		7	0196	C 010 284			6
122	1	22	COMP	BLC	LSTCD	5	0203	B 275 /			7
123	1	23		R		7	0208	L 285 020			7
124	1	24		C	10,ALIBa	8	0215	M 301 001 W			7
125	1	25		BU	NOLIB	5	0223	B 236 L			7
126	1	26		LCA	a a,20	4	0228	020			7
127	1	27		WT	1,1	4	0232	B 101			7
128	1	28		BER		4	0236	H 260			7
129	1	29		CW	20	7	0240	# 288 260			8
130	1	30	*	B	CCORE	5	0247	U 301 B			8
131	1	31	ERR	SBR	ERRTN&3	4	0252	U 301 E			8
132	1	32		MA	a18Ga,ERRTN&3	4	0257	B 000			8
133	1	33		BSP	1	5	0261	U 301 M			8
134	1	34		SKP	1	5	0266	U 301 R			8
135	1	35	ERRTN	B	0	4	0271	. Z9R			8
136	1	36	*			4	0275	. 195			9
137	1	37	LSTCD	WTM	1	3	0281	LIT			9
138	1	38		RWD	1	3	0284	LIT			9
139	1	39		H	<del>9999</del>	1	0285	LIT			9
140	1	40	*	H	COMP	4	0553	0279			9
141	1	41	NOLIB	H		3	0281	LIT			9
142	1	42	*	EQU	553	3	0284	LIT			9
143	1	43	TBODT	LTORG	*	1	0285	LIT			9
144	1	44		DCW	2699a ALIBa a a	1					9

666

317

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					a186a	3	0288		LIT		9

318

FIRST PART OF MONITOR

50953

PAGE 3

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
145		JOB	FIRST PART OF MONITOR						
146	*	EQU	000						
147	*	EQU	089						
148	XXX	EQU	094						
149	XL1	ORG	333						
150	XL2	BSS	DUMP,G						
151	XL3	SH	274EX3						
152		C	BLANK#6,279EX3						
153		BE	GETM2						
154		MZ	BLANK,279EX3						
155		C	699,279EX3						
156		CH	274EX3						
157		BE	DUMP						
158		RTW	1,1						
159		BER	#65						
160		B	1						
161		H	999						
162	GETM2	CC	1						
163		W							
164		WM							
165		CC							
166		CC							
167		CS							
168		CS							
169		CS							
170		CS							
171		MCH	XL1,289						
172		MCH	XL2,294						
173		MCH	XL3,299						
174		W							
175		CC							
176		MCW	0000, LINCT-2						
177	INITL	SBR	XL1,1						
178		SBR	XL3,202						
179		ZA	62,PGCTR#2						
180		CS	332						
181		CS							
182		CC	J						
183		MCW	LINCT,306						
184		MCW							
185		SBR	MVHED&6						
186		MCW	098, CTR-1						
187	MVHED	MCW	CTR-1,XXX						
188		MCW	HEAD						
189		SBR	MVHED&6						
190		A	0108, CTR#2						
191		BNZ	MVHED, CTR-1, 2						
192		A	61, LINCT-2						
193		W							
194	LOOP	SW	0&X3						

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
195	1 95		MCH	0EX1,0EX3	7	0530	M 0#0 0E0	16
196	1 96		BW	CMPAB,0EX1	8	0537	V 549 0#0 1	16
197	1 97		CM	0EX3	4	0545	0 0E0	16
198	1 98	CMPAB	C	XL1,PARAM62	7	0549	C 089 688	16
199	1 99		BU	CPL	5	0556	B 575 /	16
200	2 00		W		1	0561	2	16
201	2 01		WM		2	0562	2	16
202	2 02	RSTRX	CS	332	4	0564	/ 332	17
203	2 03		CS		1	0568	/	17
204	2 04		CC	1	2	0569	F 1	17
205	2 05		B	GETM2	4	0571	B 377	17
206	2 06	CPL	SBR	XL1, 1EX1	7	0575	H 089 0#1	17
207	2 07		BCE	INC, XL3-2, 2	8	0582	B 628 097 2	17
208	2 08		SBR	XL3, 201	7	0590	H 099 201	17
209	2 09		W		1	0597	2	18
210	2 10		WM		2	0598	2	18
211	2 11		A	E1,PGCTR	7	0600	A 672 666	18
212	2 12		C	PGCTR,E15	7	0607	C 666 674	18
213	2 13		BU	NULIN	5	0614	B 462 /	18
214	2 14		S	PGCTR	4	0619	S 666	18
215	2 15		CCB	NULIN,1	5	0623	F 462 1	18
216	2 16	INC	A	E1, XL3	7	0628	A 672 099	19
217	2 17		R	LOOP	4	0635	B 526	19
218	2 18	HEAD	DCW	09.....0	9	0647		19
219	2 19		DCW	09-0	2	0649		19
220	2 20	LINCT	DCW	00000	2	0654		19
221	2 21	LTORG	DCW	*	5	0655		19
222	2 22		DCW	#06	6	0660	AREA	19
223	2 23			#00000	3	0663	LIT	19
224	2 24			E2	1	0664	LIT	20
225	2 25			#02	2	0666	AREA	20
226	2 26			090	1	0667	LIT	20
227	2 27			0100	2	0669	LIT	20
228	2 28			#02	2	0671	AREA	20
229	2 29			E1	1	0672	LIT	20
230	2 30			E15	2	0674	LIT	20
231	2 31			0	1	0675	LIT	21
232	2 32							
233	2 33							
234	2 34							
235	2 35							
222	2 22							
223	2 23	*						
224	2 24	*						
225	2 25		ORG	700	8	0700	L %U1 333 R	22
226	2 26	MON18	RTW	1,333	5	0708	B 018 L	22
227	2 27		BER	18	4	0713	B 333	22
228	2 28		B	333	4	0717	. 999	22
229	2 29		H	999	1	0721	N	22
230	2 30		NOP		1	0722		22
231	2 31		DCW	0				
232	2 32	*						
233	2 33	*						
234	2 34		ORG	800	5	0800	U %U1 R	23
235	2 35	WMON1	RWD	1				

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FIRST PART OF MONITOR

50953

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
236	2	36	WTW	1, MONIB	8	0805	L 201	700	W	23
237	2	37	BER	ERR	5	0813	B 236	L		23
238	2	38	WTW	1, 333	8	0818	L 201	333	W	23
239	2	39	BER	ERR	5	0826	B 236	L		23
240	2	40	WTW	1, 700	8	0831	L 201	700	W	23
241	2	41	BER	ERR	5	0839	B 236	L		23
242	2	42	R		1	0844	I			24
243	2	43	BCE	REC, 40, /	8	0845	B 164	040	/	24
244	2	44	SBR	71, RMONZ&I	7	0853	H 071	845		24
245	2	45	B	40	4	0860	B 040			24
246	2	46	XFR	800	4	0860	B 800			25

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
247	2	47								
248	2	48								
249	2	49								
250	2	50		FIRST PART OF MONP2						
251	2	51	START	ORG 333				0333		28
252	2	52	SCAN	CS 80				/ 080		28
253	2	53		BLC LAST				B 476 A		28
254	2	54		R				I		28
255	2	55		C 10,ALIBa				C 010 608		28
256	2	56		BU SCAN				B 337 /		28
257	2	57	SETM	BCE CLEAR, 1,C				B 509 001 C		28
258	2	58		SW 19				, 019		28
259	2	59		LCA 24,699				L 024 699		29
260	2	60		CW 19				019		29
261	2	61	NOM	C 17,BLANKS#6				C 017 614		29
262	2	62	RTW	LOADC				B 544 S		29
263	2	63		BE 1,40				L 8U1 040 R		29
264	2	64		RTW STOP				B 577 L		29
265	2	65	SERCH	BER STOP				, 600		30
266	2	66		SW GMM				M 8U1 581 R		30
267	2	67		RT 1,BUF				B 577 L		30
268	2	68		BER STOP				B 505 K		30
269	2	69		BEF HALT				C 590 608		30
270	2	70		C BUF&9,ALIBa				B 407 /		30
271	2	71		BU SERCH				, 592		30
272	2	72		SW BUF&11				C 017 597		31
273	2	73		C 17,BUF&16				B 407 /		31
274	2	74	T1	BU SERCH				B 600		31
275	2	75		CW GMM				L 605 101		31
276	2	76		LCA ZEROS,101				L 605		31
277	2	77		LCA ZEROS				L 605		31
278	2	78	LAST	LCA ZEROS				B 040		31
279	2	79		B 40				/ 332		32
280	2	80		CS 332				/		32
281	2	81		CS 1				F 1		32
282	2	82		CC 2				M 646 232		32
283	2	83		MCH 2	2ND MORE LIB CARDS IN READ HOPPERa, 232			2		32
284	2	84		W 299				2		32
285	2	85		CS 299				M 675 232		32
286	2	86		MCH 299				2		32
287	2	87	HALT	2PUSH START TO READ MORE CARDSa,232				F 1		33
288	2	88	CLEAR	1				1		33
289	2	89	CLEER	SCAN&5				, 342		33
290	2	90		SW 002				, 002		33
291	2	91		MCH 004,CLEER&3				M 004 523		33
292	2	92		CS 000				/ 000		33
293	2	93		SBR CLEER&3				H 523		33
294	2	94		C CLEER&3,2699a				C 523 678		34
295	2	95	LOADC	BU CLEER				B 520 /		34
296	2	96		B SETM				B 520 /		34
				CS 80				B 363		34
				SW 1				/ 080		34

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SECOND PART OF MONITOR

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
297	2	97	R		1	0552		34
298	2	98	B		4	0553	B 001	34
299	2	99	NOP	HALT	4	0557	N 505	35
300	3	00	MCW	EOF-4, EOF	7	0561	M 553 557	35
301	3	01	RWD		5	0568	U %U1 R	35
302	3	02	B	SERCH	4	0573	B 407	35
303	3	03	H		4	0577	. 999	35
304	3	04	DCW	@ @	1	0581		35
305	3	05	DC	@ @	18	0599		35
306	3	06	DC	@ @	1	0600		36
307	3	07	DCW	@00000@	5	0605		36
308	3	08	PARAM	EQU 686		0686		36
309	3	09	EQU	540		0540		36
310	3	10	LYORG	*				
			DCW	@LIB@			0606	
			BLANKS					
		260			3	0608		LIT 36
		281			6	0614		AREA 36
		284			32	0646		LIT 37
					29	0675		LIT 38
311	3	11	DCW	@ @	3	0678		LIT 38
312	3	12	*		1	0679		38
313	3	13	*					
314	3	14						
315	3	15	ORG	700			0700	
316	3	16	RTM	1,333	8	0700	L %U1 333 R	39
317	3	17	BER	60	5	0708	B 060 L	39
318	3	18	CS	T2,80	7	0713	/ 540 080	39
319	3	19	H	999	4	0720	. 999	39
320	3	20	NOP	@ @	1	0724	N	39
321	3	21	DCW	@ @	1	0725		39
322	3	22	END	0			/ 000 080	40

AND MORE LIB CARDS IN READ HOPPER@  
@PUSH START TO READ MORE CARDS@  
@699@

SECOND PART OF MONP2

CLEAR STORAGE 2 L068116,105106,1101178101/192#071029C0290568026/B001/0991,001/001117106  
 BOOTSTRAP ,008015,022029,036040,047054,061068,072/061039

SEQ PG LIN LABEL OP OPERANDS SFX CT LOCN INSTRUCTION TYPE CARD

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101	1	01	001	JOB	1401 FORTRAN - RELOCATABLE CONDENSER - PHASE 96						
102	1	02		CTL	645 11						
103	1	03	*		* EQUATES USED BY PROGRAM						
104	1	04	*								
105	1	05	*								
106	1	06	INITAP	EQU	ZU0						
107	1	07	SYSTAP	EQU	ZU1						
108	1	08	ORIGTP	EQU	ZU4						
109	1	09	WORKTP	EQU	ZU5						
110	1	10	FIXFRM	EQU	0						
111	1	11	STSTMT	EQU	FIXFRM&5						
112	1	12	COUNT	EQU	FIXFRM&7						
113	1	13	LABADD	EQU	FIXFRM&61						
114	1	14	SUPADD	EQU	FIXFRM&66						
115	1	15	OP	EQU	FIXFRM&67						
116	1	16	AOP	EQU	FIXFRM&70						
117	1	17	BOP	EQU	FIXFRM&73						
118	1	18	DMOD	EQU	FIXFRM&74						
119	1	19	TYPE	EQU	FIXFRM&75						
120	1	20	ALTER	EQU	FIXFRM&75						
121	1	21	XXXX	EQU	0						
122	1	22	PRINT	EQU	200						
123	1	23	LAB	EQU	PRINT&19						
124	1	24	OPCODE	EQU	PRINT&25						
125	1	25	OPRAND	EQU	PRINT&78						
126	1	26	CT	EQU	PRINT&84						
127	1	27	LOCN	EQU	PRINT&90						
128	1	28	INDP	EQU	PRINT&93						
129	1	29	INADP	EQU	PRINT&97						
130	1	30	INDOP	EQU	PRINT&101						
131	1	31	INDMOD	EQU	PRINT&103						
132	1	32	CARDNO	EQU	PRINT&114						
133	1	33	PUNCH	EQU	100						
134	1	34	ZONE	EQU	189						
135	1	35			XINIT XR1,XR2,XR3						
136			XRI	EQU	089						MACRO
137			089	DCW	000	3		0089	GEN		4
138			091	DC	00	2		0091	GEN		4
139			XR2	EQU	094						
140			094	DCW	000	3		0094	GEN		4
141			096	DC	00	2		0096	GEN		4
142			XR3	EQU	099						
143			099	DCW	000	3		0099	GEN		4
144			100	DC	0	1		0100	GEN		4
145			189	DCW	22SKB@	4		0189	GEN		5
146			*								
147			*		INITIALIZATION ROUTINE						

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SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148	1 39	*								
149	1 40	SSOP	ORG	333						
150	1 41		CS	332						
151	1 42		CS				0333	/ 332		6
152	1 43		CS	180						6
153	1 44		RWD	ORIGTP						6
154	1 45		RWD	WORKTP						6
155	1 46		SW	PUNCHE72,PUNCHE76						6
156	1 47		A	84,PUNCHE75						6
157	1 48		B	READOG						6
158	1 49	*								6
159	1 50	*								7
160	1 51	*								
161	1 52		C	MNEMON-2,@JOB@						
162	1 53		BU	CKCTL			0370	C H4R A19		7
163	1 54		LCA	@ ,181			0377	B 408 /		7
164	1 55		RT	WORKTP,180			0382	L A20 181		7
165	1 56		MCW	IMAGE80,PUNCHE80			0389	M 8U5 180 R		7
166	1 57		B	READOG			0397	M 110 180		7
167	1 58	*					0404	B R80		8
168	1 59	*								
169	1 60	*								
170	1 61	CKCTL	C	MNEMON-2,@CTLA						
171	1 62		MCH	IMAGE80,CTLSAV#10			0408	C H48 A23		8
172	1 63		BE	TSTSIZ			0415	M H60 A33		8
173	1 64		MCW	@3@,PROSIZ			0422	B 438 S		8
174	1 65		B	TSTSIZ&4			0427	M A34 A24		8
175	1 66	*					0434	B 442		8
176	1 67	*								
177	1 68	*								
178	1 69	TSTSIZ	B	READOG						
179	1 70		C	PROSIZ,@4@			0438	B R80		8
180	1 71		BH	GETMAN			0442	C A24 A35		9
181	1 72		C	PROSIZ,@6@			0449	B 488 U		9
182	1 73		BL	GETMAN			0454	C A24 A36		9
183	1 74		MCW	@400@,KBLKNG			0461	B 488 T		9
184	1 75		BCE	GETMAN,PROSIZ,4			0466	M A39 879		9
185	1 76		A	@400@,KBLKNG			0473	B 488 A24 4		9
186	1 77	*					0481	A A39 879		10
187	1 78	*								
188	1 79	*								
189	1 80	GETMAN	BSP	ORIGTP						
190	1 81		SW	FIXFRM61,FIXFRM66			0488	U 8U4 B		10
191	1 82		SW	FIXFRM68,FIXFRM614			0493	, 001 006		10
192	1 83		SW	FIXFRM623,FIXFRM657			0500	, 008 014		10
193	1 84		SW	FIXFRM662,FIXFRM667			0507	, 023 057		10
194	1 85		SW	FIXFRM668,FIXFRM671			0514	, 062 067		11
195	1 86		SW	FIXFRM674			0521	, 068 071		11
196	1 87		MCW	KBLKNG,HOLDA-1			0528	, 074		11
197	1 88		LCA	@LO			0532	M 879 871		11
							0539	L A71 171		11

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	1 89		CW	WMSW#1	4	0546	D A72			11
199	1 90		B	GET	4	0550	B Q95			12
200	1 91		B	SETUP	4	0554	B 767			12
201	1 92									
202	1 93									
203	1 94									
204	1 95		SBR	XR2	4	0558	H 094			12
205	1 96		SBR	REDXT&3	4	0562	H 630			12
206	1 97		MZ	PLUS9, XR2	7	0566	Y 762 094			12
207	1 98		MCH	4000-10&X2, TPINST&7	7	0573	M 1R0 621			12
208	1 99		MN	TPINST&3, BSP1&3	7	0580	D 617 597			12
209	2 00		MCH	TPINST&7, INST2&7	7	0587	M 621 730			13
210	2 01		BSP1	INITAP	5	0594	U &UO B			13
211	2 02		BCE	WRTRED, TPINST&7, M	8	0599	B 703 621 W			13
212	2 03		MCH	PLUS9, READCT	7	0607	M 762 764			13
213	2 04		RT	INITAP, XXXX	8	0614	M &UO 000 R			13
214	2 05		BER	RDRERR	5	0622	B 631 L			14
215	2 06		B	XXXX	4	0627	B 000			14
216	2 07		RDRERR	TPINST&3, BSP2&3	7	0631	D 617 641			14
217	2 08		BSP2	INITAP	5	0638	U &UO B			14
218	2 09		S	PLUS1, READCT	7	0643	S 763 764			14
219	2 10		BWZ	TPINST, READCT, B	8	0650	V 614 764 B			14
220	2 11		MN	TPINST&3, TPHALT&6	7	0658	D 617 671			15
221	2 12		H	XXXX, 790	7	0665	- 000 790			15
222	2 13		MCH	TPINST&7, *&8	7	0672	M 621 686			15
223	2 14		RT	INITAP, XXXX	8	0679	M &UO 000 R			15
224	2 15		BSS	BSP1, E	5	0687	B 594 E			15
225	2 16		H	XXXX, 712	7	0692	- 000 712			16
226	2 17		B	REDXT	4	0699	B 627			16
227	2 18		SKP	SYSTAP	5	0703	U &U1 E			16
228	2 19		BCE	SUBCTR, WRTCTR-1, 5	8	0708	B 740 765 5			16
229	2 20		A	PLUS1, WRTCTR	7	0716	A 763 766			16
230	2 21		WT	INITAP, XXXX	8	0723	M &UO 000 W			16
231	2 22		BER	BSP1	5	0731	B 594 L			17
232	2 23		B	REDXT	4	0736	B 627			17
233	2 24		S	WRTCTR	4	0740	S 766			17
234	2 25		MN	TPINST&3, *&7	7	0744	D 617 757			17
235	2 26		H	XXXX, 760	7	0751	- 000 760			17
236	2 27		B	INST2	4	0758	B 723			17
237	2 28		DCW	&9	1	0762				17
238	2 29		DCW	&1	1	0763				18
239	2 30		DCW	#1	1	0764				18
240	2 31		DCW	#2	2	0765				18
241	2 32									
242	2 33									
243	2 34									
244	2 35		CS	PRINT&132	4	0767	/ 332			18
245	2 36		CS	SETUP	1	0771	/			18
246	2 37		B	GETORG	4	0772	B R80			18
247	2 38		*							

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SEQ PG LIN	LABEL OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
246	2 39	* DETERMINE					
249	2 40	* ANALWK SW	4	0776	, A73		18
250	2 41	SW	4	0780	, B31		19
251	2 42	MN	7	0784	D 075 A74		19
252	2 43	BCE	8	0791	B T15 075 *		19
253	2 44	BCE	8	0799	B T15 075 8		19
254	2 45	BCE	8	0807	B T15 075 I		19
255	2 46	BCE	8	0815	B 977 080		20
256	2 47	BCE	8	0823	B 942 H36 *		20
257	2 48	BCE	8	0831	B 942 I05 R		20
258	2 49	BCE	8	0839	B 946 I05 S		20
259	2 50	BCE	8	0847	B 954 H46 J		20
260	2 51	C	7	0855	C 080 I14		21
261	2 52	BU	5	0862	B Q84 /		21
262	2 53	B	4	0867	B T31		21
263	2 54	CH	4	0871	B A73		21
264	2 55	BCE	8	0875	B T83 075		21
265	2 56	MN	7	0883	D 075 094		22
266	2 57	A	4	0890	A 094		22
267	2 58	A	4	0894	A 094		22
268	2 59	B	4	0898	B 9-2		22
269	2 60	B	4	0902	B W14		22
270	2 61	B	4	0906	B #99		22
271	2 62	B	4	0910	B #43		22
272	2 63	B	4	0914	B X48		22
273	2 64	B	4	0918	B S01		23
274	2 65	B	4	0922	B T08		23
275	2 66	B	4	0926	B T15		23
276	2 67	B	4	0930	B T15		23
277	2 68	B	4	0934	B T08		23
278	2 69	B	4	0938	B T08		23
279	2 70	B					
280	2 71	* COMMENTS CARD					
281	2 72	* COMXT B	4	0942	B J10		24
282	2 73	* COMXT B	4	0946	B R80		24
283	2 74	* COMXT B	4	0950	B 823		24
284	2 75	* NEW JOB CARD					
285	2 76	* DOJOB BW	8	0954	V 966 B98 1		24
286	2 77	* DOJOB B	4	0962	B N75		24
287	2 78	* DOJOB MCM	7	0966	M I10 180		24
288	2 79	* DOJOB B	4	0973	B 942		24
289	2 80	* PROGRAM GENERATED RECORD					
290	2 81	* PROWRK BCE	8	0977	B #05 075 Y		25
291	2 82	* PROWRK BCE	8	0985	B #25 075 S		25
292	2 83						
293	2 84						
294	2 85						
295	2 86						
296	2 87						
297	2 88						

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
298	2	89	BCE	LITRAL,TYPEA,1	8	0993	B #65 A74 1			25
299	2	90	B	TYPERR	4	1001	B T08			25
300	2	91	*							
301	2	92	*	* LITERAL GREATER THAN 30 CHARACTERS						
302	2	93	*							
303	2	94	XTRA	SW PRINT&27	4	1005	, 227			25
304	2	95		MCW FIXFRM&72,OPRAND	7	1009	M 072 278		MACRO	25
305	2	96		CHAIN 5						
306				MCW						
307				MCW					GEN	26
308				MCW					GEN	26
309				MCW					GEN	26
310				MCW					GEN	26
311	2	97	B	BYPASS	4	1021	B T15			26
312	2	98	*							
313	2	99	*	* ADCON CARD						
314	3	00	*							
315	3	01	ADCON	SW PRINT&27	4	1025	, 227			26
316	3	02	MCW	FIXFRM&53,PRINT&40	7	1029	M 053 240			27
317	3	03	MCW	FIXFRM&16,OPCODE-2	7	1036	M 016 223			27
318	3	04	DSA	MCW BOP,PRINT&95	7	1043	M 073 295			27
319	3	05	MCW	BOP,HOLDH&3	7	1050	M 073 A79			27
320	3	06	B	SETADD	4	1057	B S75			27
321	3	07	B	SETLIT	4	1061	B /93			27
322	3	08	*							
323	3	09	*	* LITERAL & AREA DEFINITION CARDS						
324	3	10	*							
325	3	11	LITRAL	BWZ PROLIT,TYPE,S	8	1065	V #85 075 S			28
326	3	12	BWZ	DADC,FIXFRM&1,B	8	1073	V S58 001 B			28
327	3	13	B	PROLIT	4	1081	B #85			28
328	3	14	PROLIT	MCW FIXFRM&53,PRINT&57	7	1085	M 053 257			28
329	3	15	MCW	FIXFRM&16,OPCODE-2	7	1092	M 016 223			28
330	3	16	CONST	B SETADD	4	1099	B S75			28
331	3	17	A	@00@,COUNT	7	1103	A A75 007			29
332	3	18	C	COUNT,@00@	7	1110	C 007 A76			29
333	3	19	BL	GOOD	5	1117	B /33 T			29
334	3	20	MZ	ZONE-1,STSTMT	7	1122	Y 188 005			29
335	3	21	B	SETLIT	4	1129	B /93			29
336	3	22	BCE	AREADF,PRINT&27,#	8	1133	B S20 227 #			29
337	3	23	BWZ	AREADF,FIXFRM&4,B	8	1141	V S20 004 B			30
338	3	24	MCW	OPRAND,HOLDDT-1	7	1149	M 278 827			30
339	3	25	BCE	SETLIT,PRINT&27,@	8	1156	B /93 227 @			30
340	3	26	BWZ	UNSIGN,PRINT&27,2	8	1164	V S09 227 2			30
341	3	27	MCW	COUNT,XR1	7	1172	M 007 089			30
342	3	28	MZ	BLANK@,PRINT&27&X1	7	1179	Y E76 257			31
343	3	29	MZ	PRINT&27,HOLDH&X1	7	1186	Y 227 AX6			31
344	3	30	SETLIT	B SETLOC	4	1193	B T60			31
345	3	31	B	CONDNS	4	1197	B J23			31
346	3	32	LITOUT	B PRNTLN	4	1201	B J10			31
347	3	33	B	BYPASS	4	1205	B T15			31



SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
348	UNSIGN	MCW	OPRAND,HOLDT#52	7	1209	M 278 828			31
349	AREADF	BW	SETLIT	4	1216	B /93			32
350	AREADF	BW	*%5,TYPE\$M	8	1220	V 532 A73 1			32
351	AREADF	BW	SETLIT	4	1228	B /93			32
352	AREADF	BW	FIXFRM&13,LAB	7	1232	M 013 219			32
353	AREADF	BW	BLANK-2,PRINT&31	7	1239	M 674 231			32
354	AREADF	BW	COUNT	4	1246	M 007			32
355	AREADF	BW	@#2	4	1250	M 829			32
356	AREADF	BW	SETLIT	4	1254	B /93			33
357	AREADF	BW	SETADD	4	1258	B 575			33
358	AREADF	BW	CONDNS	4	1262	B J23			33
359	AREADF	BW	PRINT&132	4	1266	/ 332			33
360	AREADF	BW	CS	1	1270	/			33
361	AREADF	BW	BYPASS	4	1271	B 115			33
362	AREADF	BW	* SET CONDENSE ADDRESSES FOR CONSTANTS						
363	AREADF	BW	* SET CONDENSE ADDRESSES FOR CONSTANTS						
364	AREADF	BW	* SET CONDENSE ADDRESSES FOR CONSTANTS						
365	AREADF	BW	SETADD SBR	4	1275	H 107			33
366	AREADF	BW	ZA	7	1279	E 061 853			34
367	AREADF	BW	LABADD,LOADAD	4	1286	M 853			34
368	AREADF	BW	LOADAD	7	1290	S 007 848			34
369	AREADF	BW	S	7	1297	A 830 848			34
370	AREADF	BW	COUNT,WMADDR	4	1304	B 000			34
371	AREADF	BW	E1,WMADDR						
372	AREADF	BW	ADDXT B						
373	AREADF	BW	XXXX						
374	AREADF	BW	* GET NEXT RECORDS						
375	AREADF	BW	* GET NEXT RECORDS						
376	AREADF	BW	XXXX,770	7	1308	• 000 770			34
377	AREADF	BW	GET	4	1315	B 095			35
378	AREADF	BW	ANALWK,TYPE\$M	8	1319	V 776 A73 1			35
379	AREADF	BW	GETORG	4	1327	B 772			35
380	AREADF	BW	* FREE FORM RECORD TO PRINT AREA						
381	AREADF	BW	* FREE FORM RECORD TO PRINT AREA						
382	AREADF	BW	SETFRE SBR	4	1331	H T59			35
383	AREADF	BW	MCW	7	1335	M H41 219			35
384	AREADF	BW	MCW	7	1342	M H50 225			35
385	AREADF	BW	MCW	7	1349	M 102 278			36
386	AREADF	BW	FREEXT B	4	1356	B 000			36
387	AREADF	BW	XXXX						
388	AREADF	BW	* ASSEMBLED INFORMATION TO PRINT AREA						
389	AREADF	BW	* ASSEMBLED INFORMATION TO PRINT AREA						
390	AREADF	BW	SETLOC SBR	4	1360	H T82			36
391	AREADF	BW	MCS	7	1364	Z 007 284			36
392	AREADF	BW	MN	7	1371	D 061 290			36
393	AREADF	BW	MCW	1	1378	M			36
394	AREADF	BW	LOCXT B	4	1379	B 000			36
395	AREADF	BW	XXXX						
396	AREADF	BW	* INSTRUCTION CARD						
397	AREADF	BW	* INSTRUCTION CARD						
398	AREADF	BW	INSTR MCW	7	1383	M 074 303			37
399	AREADF	BW	DMOD,INDMOD						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
398	3	84		MCW	BOP, INBOP	7		1390	M 073 301		37
399	3	85		MCW	ADP, INADP	7		1397	M 070 297		37
400	3	86		MCW	OP, INOP	7		1404	M 067 293		37
401	3	87		MCW	DMOD, HOLDH68	7		1411	M 074 A84		37
402	3	88		MCW		1		1418	M		37
403	3	89		MCW		1		1419	M		37
404	3	90		MCW		1		1420	M		38
405	3	91		CM	RELSW#1	4		1421	□ B31		38
406	3	92		MCW	21862, RELAD#3.	7		1425	M 834 837		38
407	3	93		S	XR3&1	4		1432	S 100		38
408	3	94		S		1		1436	S		38
409	3	95		S		1		1437	S		38
410	3	96		NXTADD		8		1438	B V36 OP0 #		38
411	3	97		BCE	DOBOP, OPADDR, #	8		1446	B V36 OP0 #		39
412	3	98		BCE	DOBOP, OPADDR-2, #	8		1454	B V36 OP0		39
413	3	99		BWZ	DOBOP, OPADDR,	8		1462	B V74 OP0 2		39
414	4	00		B	*E5, OPADDR, 2	4		1470	B U90		39
415	4	01		BWZ	ASKSYM	8		1474	V V36 OP0 2		39
416	4	02		BWZ	DOBOP, OPADDR-2, 2	8		1482	V V36 OP0 S		40
417	4	03		ASKSYM	DOBOP, OPADDR-2, S	8		1490	B V14 0/7 #		40
418	4	04		BCE	ISSYM, OPSYM, #	8		1498	B V14 0/7 #		40
419	4	05		BWZ	ISSYM, OPSYM, #	8		1506	V V70 0/7 2		40
420	4	06		BWZ	QUSYM, OPSYM, 2	7		1514	A B30 837		40
421	4	07		BCE	ISSYM	8		1521	A B82 094 3		41
422	4	08		A	RELFIN, XR2, 3	7		1529	A B30 837		41
423	4	09		A	RELFIN, XR2,	7		1536	A B38 094		41
424	4	10		A	E3, XR2	7		1543	A B40 089		41
425	4	11		S	XR3&1	4		1550	S 100		41
426	4	12		C	XR2, @003@	7		1554	C 094 843		42
427	4	13		BE	NXTADD	5		1561	B U38 S		42
428	4	14		B	RELFIN	4		1566	B V82		42
429	4	15		BWZ	DOBOP, OPSYM&1, 2	8		1570	V V36 0/8 2		42
430	4	16		B	ISSYM	4		1578	B V14		42
431	4	17		OPADDR	ADP&X2			0070	X		
432	4	18		OPSYM	EQU			0017	X		
433	4	19		RELFIN	FIXFRM&17&X1	7		1582	M 061 848		42
434	4	20		MCW	LABADD, WMADDR#5	7		1589	M 061 853		43
435	4	21		A	LABADD, LOADAD#5	7		1596	A 007 853		43
436	4	22		S	COUNT, LOADAD	7		1603	S B30 853		43
437	4	23		B	E1, LOADAD	4		1610	B /93		43
438	4	24		B	SETLIT						
439	4	25			* DEFINE AREA CARDS						
440	4	26			* DA						
441	4	27		BCE	HEADER, TYPE, 0	8		1614	B W93 075 0		43
442	4	28		MCW	SUPADD, WMADDR	7		1622	M 066 848		44
443	4	29		BWZ	SETDA, TYPE, B	8		1629	V W45 075 B		44
444	4	30		B	SETLOC	4		1637	B T60		44
445	4	31		B	LITOUT	4		1641	B S01		44
446	4	32		B	SETLOC	4		1645	B T60		44
447	4	33		B	CONDNS	4		1649	B J23		44

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LCN	INSTRUCTION	TYPE	CARD
448	4	34		PRNTLN	4					
449	4	35	B	GET	4	1653	B J10			44
450	4	36	BYPDA	GET	4	1657	B Q95			45
451	4	37	BCE	RPTOUT,TYPE,*	8	1661	B W73 075 *			45
452	4	38	B	GETORG	4	1669	B 772			45
453	4	39	MCW	SUPADD,WMADDR	7	1673	M 066 848			45
454	4	40	B	CONDNS	4	1680	B J23			45
455	4	41	CS	PRINT&132	4	1684	/ 332			45
456	4	42	CS		1	1688	/			45
457	4	43	B	BYPDA	4	1689	B W57			46
458	4	44	B	SETLOC	4	1693	B T60			46
459	4	45	NXTRPT MN	SUPADD,PRINT&97	7	1697	D 066 297			46
460	4	46	MCW		1	1704	M			46
461	4	47	MCW	LABADD,WMADDR	7	1705	M 061 848			46
462	4	48	B	CONDNS	4	1712	B J23			46
463	4	49	B	GET	4	1716	B Q95			46
464	4	50	C	FIXFRM&16,0DA @	7	1720	C 016 856			47
465	4	51	BU	PNTDA	5	1727	B X40 /			47
466	4	52	BCE	NXTRPT,TYPE,*	8	1732	B W97 075 *			47
467	4	53	B	PRNTLN	4	1740	B J10			47
468	4	54	B	GETORG	4	1744	B 772			47
469	4	55	*	EX, END CARDS						47
470	4	56	*							47
471	4	57	EXEND	@@,INOP	7	1748	M 857 293			47
472	4	58	MCW	@@,HOLD&1	7	1755	M 857 A77			48
473	4	59	BCE	SETAOP,TYPE,C	8	1762	B X84 075 C			48
474	4	60	MCW	@/ 080@,INBOP	7	1770	M 866 301			48
475	4	61	MCW	@/ 080@,HOLDH&4	7	1777	M 873 A83			48
476	4	62	MCW	AOP,INAOB	7	1784	M 070 297			48
477	4	63	MCW	AOP,HOLDH&4	7	1791	M 070 A80			49
478	4	64	B	SETLOC	4	1798	B T60			49
479	4	65	B	CONDNS	4	1802	B J23			49
480	4	66	B	PRNTLN	4	1806	B J10			49
481	4	67	BCE	BYPASS,TYPE,C	4	1810	B T15 075 C			49
482	4	68	H	*-3	8	1810	B T15 075 C			49
483	4	69	*	CONDENSE EX, END CARDS	4	1818	. Y18			49
484	4	70	*							49
485	4	71	*							49
486	4	72	NOCARD C	WMLOC,AWMSTR	7	1822	C 882 885			49
487	4	73	BE	TSTEND	5	1829	B Y50 S			50
488	4	74	CW	NEWSW	4	1834	B 898			50
489	4	75	ENDRTN BW	NOCARD,NEWSW	8	1838	V Y22 898 1			50
490	4	76	B	PNCCHD	4	1846	B N75			50
491	4	77	BCE	EXECUTE,TYPE,C	8	1850	B Y87 075 C			50
492	4	78	CS	PUNCH&71	4	1858	/ 171			50
493	4	79	MCW	HOLDH&7,PUNCH&46	7	1862	M A83 146			51
494	4	80	MCS	PUNCH&75,CARDNO	7	1869	Z 175 314			51
495	4	81	MCW	ELSTCD,PNHXT&3	7	1876	M 876 P31			51
496	4	82	B	TSTPCH	4	1883	B 067			51
497	4	83	MCE	WMSTR,PUNCH&71	7	1887	E A15 171			51

SEQ PG	LN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
498	4	84	MCW	20000000a,PUNCH&46	7		1894	M 883 146		51
499	4	85	MCW	HOLDH&4,PUNCH&71	7		1901	M 880 171		52
500	4	86	MCS	PUNCH&75,CARDNO	7		1908	Z 175 314		52
501	4	87	MCW	EXOUT,PNHXT&3	7		1915	M 886 P31		52
502	4	88	B	TSTPCH	4		1922	B 067		52
503	4	89								
504	4	90	*	PUNCH COMPATIBILITY CARDS						
505	4	91	*							
506	4	92	EXOUT	PUNCH&71	4		1926	/ 171		52
507	4	93	B	READDG	4		1930	B 860		52
508	4	94	BSP	ORIGTP	5		1934	U X04 B		52
509	4	95	BCE	*E5,MNEMON--4,J	8		1939	B 251 H46 J		53
510	4	96	B	*E8	4		1947	B 258		53
511	4	97	MCW	IMAGE&80,PUNCH&80	7		1951	M 110 180		53
512	4	98	MCW	WORD2,PUNCH&39	7		1958	M -66 139		53
513	4	99	LCA	WORD3,PUNCH&66	7		1965	L -77 166		53
514	5	00	MCW	PUNCH&66,PUNCH&50	7		1972	M 166 150		54
515	5	01	P		1		1979	4		54
516	5	02	CS	PUNCH&66	4		1980	/ 166		54
517	5	03	A	E1,PUNCH&75	7		1984	A B30 175		54
518	5	04	MCW	WORD4,PUNCH&21	7		1991	M -98 121		54
519	5	05	MCW	WORD5,PUNCH&71	7		1998	M J09 171		54
520	5	06	MCW	EXOUT,PNHXT&3	7		2005	M B89 P31		55
521	5	07	P		1		2012	4		55
522	5	08	B	NEWCRD	4		2013	B 068		55
523	5	09	CS	PUNCH&80	4		2017	/ 180		55
524	5	10	P		1		2021	4		55
525	5	11	SS		2		2022	K 8		55
526	5	12	B	CNDOUT&7	4		2024	B Q55		55
527	5	13	WORD2	DCW @,0150222024056,029036,040047,0540611001a	39		2066			56
528	5	14	WORD3	DCW @,0010088001a	11		2077			57
529	5	15	WORD4	DCW @,0680720063067/061039a	21		2098			57
530	5	16	WORD5	DCW @,0010011040a	11		2109			58
531	5	17	*	PRINT STATEMENTS						
532	5	18	*							
533	5	19								
534	5	20	PRNTLN	SBR PRNTXT&3	4		2110	H J22		58
535	5	21	CS	PRNT&132	4		2114	/ 332		58
536	5	22	CS		1		2118	/		58
537	5	23	PRNTXT	B XXXX	4		2119	B 000		58
538	5	24	*	CONDENSE ROUTINE						
539	5	25	*							
540	5	26	*							
541	5	27	CONDNS	SBR CONDXT&3	4		2123	H Q83		58
542	5	28	CW	BIGSW,DCSW	7		2127	B C98 C21		58
543	5	29	BM	CONDXT,STSTMT	8		2134	V Q80 005 K		59
544	5	30	BH	PNCHCD,WMSW	8		2142	V N75 A72 I		59
545	5	31	*							
546	5	32	*	PROCESS RECORD						
547	5	33	*							

SEQ PG LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
548	5 34	NXTRCD	BCE	DOWM,TYPEA,0	8	2150	B L08 A74 0		59
549	5 35	BCE	ENDRTN,TYPEA,3	8	2158	B Y38 A74 3			59
550	5 36	BWZ	TSIDC,TYPE,B	8	2166	V M08 075 B			60
551	5 37	*	TEST ROOM ON CARD						
552	5 38	*	TEST ROOM ON CARD						
553	5 39	*	TEST ROOM ON CARD						
554	5 40	YSTROM	C	COUNT,@39@	7	2174	C 007 B91		60
555	5 41	BL	TSTCON	5	2181	B P32 T			60
556	5 42	MCH	PNHLOC,ROOMCT#3	7	2186	M E88 B94			60
557	5 43	A	COUNT,ROOMCT	7	2193	A 007 B94			60
558	5 44	C	ROOMCT,@039@	7	2200	C B94 B97			61
559	5 45	BL	SETPNH	5	2207	B M00 T			61
560	5 46	BW	RSTCTR,NEWSW#1	8	2212	V L89 B98 1			61
561	5 47	*	TEST SEQUENCE						
562	5 48	*	TEST SEQUENCE						
563	5 49	*	TEST SEQUENCE						
564	5 50	MCH	COUNTR#5,SEQCT#5	7	2220	M C03 C08			61
565	5 51	A	COUNT,SEQCT	7	2227	A 007 C08			61
566	5 52	C	LOADAD,SEQCT	7	2234	C B53 C08			62
567	5 53	BU	SETPNH	5	2241	B M00 /			62
568	5 54	A	COUNT,COUNTR	7	2246	A 007 C03			62
569	5 55	*	MOVE DATA TO PUNCH AREA						
570	5 56	*	MOVE DATA TO PUNCH AREA						
571	5 57	*	MOVE DATA TO PUNCH AREA						
572	5 58	MVDATA	MCH	6HOLDH,XR3	7	2253	M C11 099		62
573	5 59	A	COUNT,XR3	7	2260	A 007 099			62
574	5 60	MCH	PNHLOC,PNHLOC	7	2267	A 007 E88			63
575	5 61	MCH	PNHLOC,XR2	7	2274	M E88 094			63
576	5 62	MCH	XXXXX3,PUNCHEX2	7	2281	M 0E0 1-0			63
577	5 63	CM	DATASW#1	4	2288	C 12			63
578	5 64	BW	FIRST,NEWSW	8	2292	V M44 B98 1			63
579	5 65	BWZ	CNDOUT,TYPE,B	8	2300	V Q48 075 B			63
580	5 66	*	SET WORD MARK ADDRESS						
581	5 67	*	SET WORD MARK ADDRESS						
582	5 68	*	SET WORD MARK ADDRESS						
583	5 69	DOWM	MCH	WMADDR,CNVADDR#5	7	2308	M B48 C17		64
584	5 70	B	CNVRT	4	2315	B N29			64
585	5 71	A	E3,WMLOC	7	2319	A B38 E82			64
586	5 72	MCH	WMLOC,XR1	7	2326	M E82 089			64
587	5 73	MCH	CNVADD,WMADDR-2	7	2333	M C17 B46			65
588	5 74	BW	MVWMAD,RELSW	8	2340	V L62 B31 1			65
589	5 75	MCH	RELAD,*E4	7	2348	M B37 L58			65
590	5 76	MZ	ZONE,WMADDR-3	7	2355	Y 189 B45			65
591	5 77	MVWMAD	MCH	WMADDR-2,XXXXX6X1	7	2362	M B46 0#0		65
592	5 78	C	XR1,6WMSTR-3	7	2369	C 089 C20			65
593	5 79	BU	CNDOUT	5	2376	B Q48 /			66
594	5 80	SW	WMSW	4	2381	, A72			66
595	5 81	B	CNDOUT	4	2385	B Q48			66
596	5 82	RSTCTR	MCH	LOADAD,COUNTR	7	2389	M B53 C03		66
597	5 83	B	MVDATA	4	2396	B K53			66

SEQ PG LIN	LABEL OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
598 5 84	SETPNH B	PNCHCD	4	2400	B N75		66
599 5 85	NXTRCD		4	2404	B J50		67
600 5 86	TSTDC BW	COMPWM,NEWSW	8	2408	V M20 B98 1		67
601 5 87	TSTROM		4	2416	B J74		67
602 5 88	COMPWM C	WMLOC,AMMSTR	7	2420	C 882 885		67
603 5 89	BE	TSTROM	5	2427	B J74 S		67
604 5 90	SW	DCSW#1	4	2432	, C21		67
605 5 91	B	PNCHCD	4	2436	B N75		67
606 5 92	B	TSTROM	4	2440	B J74		68
607 5 93	*	FIRST DATA ON CARD					
608 5 94	*						
609 5 95	*						
610 5 96	FIRST CW	NEWSW	4	2444	B B98		68
611 5 97	BWZ	PRODC,TYPE,B	8	2448	V M82 075 B		68
612 5 98	BW	CNDOUT,RELSW	8	2456	V Q48 B31 1		68
613 5 99	MCH	RELAD,#84	7	2464	M B37 M74		68
614 6 00	MZ	ZONE,SVZONE#1	7	2471	Y 189 C22		68
615 6 01	B	CNDOUT	4	2478	B Q48		69
616 6 02	*						
617 6 03	*	CONDENSE DC CARDS					
618 6 04	*						
619 6 05	PRODC MCW	888,PUNCH847	7	2482	M C23 147		69
620 6 06	MCW	WMADDR,CNVADD	7	2489	M B48 C17		69
621 6 07	B	CNVRT	4	2496	B N29		69
622 6 08	MCW	CNVADD,WMADDR-2	7	2500	M C17 846		69
623 6 09	MCW	WMADDR-2,WMSTR-15	7	2507	M B46 A00		69
624 6 10	MCW	WMADDR-2	4	2514	M B46		70
625 6 11	A	86,WMLOC	7	2518	A C24 882		70
626 6 12	B	CNDOUT	4	2525	B Q48		70
627 6 13	*						
628 6 14	*	CONVERT 5 TO 3 DIGIT ADDRESS					
629 6 15	*						
630 6 16	CNVRT SBR	CNVXT83	4	2529	H N74		70
631 6 17	BAV	#81	5	2533	B N38 Z		70
632 6 18	ADDA:N A	896,CNVADD-3	7	2538	A C26 C14		70
633 6 19	BAV	ADDAGN	5	2545	B N38 Z		70
634 6 20	MZ	CNVADD-4,CNVADD	7	2550	Y C13 C17		71
635 6 21	MN	CNVADD-3,#84	7	2557	D C14 N67		71
636 6 22	MZ	ZONE,CNVADD-2	7	2564	Y 189 C15		71
637 6 23	CNVXT B	XXXX	4	2571	B 000		71
638 6 24	*						
639 6 25	*	PUNCH A CARD					
640 6 26	*						
641 6 27	PNCHCD SBR	PNHXT83	4	2575	H P31		71
642 6 28	BW	EDIT,DCSW	8	2579	V D27 C21 1		71
643 6 29	BW	EDIT,DATASW	8	2587	V D27 C12 1		72
644 6 30	MCW	COUNTR,CNVADD	7	2595	M C03 C17		72
645 6 31	B	CNVRT	4	2602	B N29		72
646 6 32	MCW	CNVADD,WMSTR-21	7	2606	M C17 894		72
647 6 33	MCW	PNHLOC,WMSTR-24	7	2613	M 888 891		72

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
648		MZ	SVZONE,WMSTR-22	7	2620	Y C22 E93	73
649	EDIT	MCE	WMSTR,PUNCHE71	7	2627	E A15 171	73
650		MN	@@,PUNCHE41	7	2634	D C27 141	73
651		MZ	@ @,COUNTR	7	2641	Y C28 C03	73
652		C	COUNTR,@02000@	7	2648	C C03 C33	73
653		BH	TSTPCH	5	2655	B 067 U	74
654		MZ	ZONE,PUNCHE42	7	2660	Y 189 142	74
655	TSTPCH P			1	2667	4	74
656	*		* RESET COUNTERS & SWITCHES				
657							
658	*						
659							
660	NEWCRD A		E1,PUNCHE75	7	2668	A B30 175	74
661	CS		PUNCHE71	4	2675	/ 171	74
662	LCA		@LO	7	2679	L C65 171	74
663	SW		NEWSW,DATASH	7	2686	, 898 C12	74
664	CW		WMSW,DCSW	7	2693	@ A72 C21	75
665	MZ		@ @,SVZONE	7	2700	Y C28 C22	75
666	MCW		@000@,PNHLOC	7	2707	M C68 E88	75
667	MCW		AWMSTR,WMLOC	7	2714	M E85 E82	75
668	MCW		@001001040040040040040040040040@,WMSTR	7	2721	M C95 A15	75
669	PNHXT B		XXXX	4	2728	B 000	75
670	*		* CONSTANT GREATER THAN 39 CHARACTERS				
671							
672							
673	TSTCON BW		*E5,NEWSW	8	2732	V P44 898 I	76
674	B		PNCHCD	4	2740	B N75	76
675	MCW		COUNT,HOLDCT#2	7	2744	M 007 C97	76
676	MCW		LOADAD,COUNTR	7	2751	M 853 C03	76
677	MCW		@39@,COUNT	7	2758	M B91 007	76
678	S		@39@,HOLDCT	7	2765	S B91 C97	77
679	S		HOLDCT,COUNTR	7	2772	S C97 C03	77
680	MZ		ZONE-3,HOLDCT	7	2779	Y 186 C97	77
681	SW		BIGSW#1	4	2786	, C9A	77
682	MCW		WMADDR,SAVEWM#5	7	2790	M B48 D03	77
683	B		MVDATA	4	2797	B K53	77
684	BIGRN B		PNCHCD	4	2801	B N75	78
685	CW		BIGSW	4	2805	@ C98	78
686	MCW		HOLDCT,COUNT	7	2809	M C97 007	78
687	MCW		@A@,TYPE	7	2816	M D04 075	78
688	MCW		HOLDDT,HOLDDT-39	7	2823	M B28 A89	78
689	MCW		SAVEWM,WMADDR	7	2830	M D03 B48	78
690	A		@39@,WMADDR	7	2837	A B91 B48	79
691	B		RSTCTR	4	2844	B L89	79
692	*		* EXIT FROM CONDENSE ROUTINE				
693							
694	CNDOUT MCS		PUNCHE75,CARDNO	7	2848	Z 175 314	79
695	S		XR361	4	2855	S 100	79
696	S			1	2859	S	79
697	S			1	2860	S	79

SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
698	6 84		BW	BIGRN,BIGSW	8		2861	V Q01 C98 1		79
699	6 85		MCW	BLANK1,HOLDDT	7		2869	M £73 828		80
700	6 86		MCW	HOLDDT	4		2876	M 828		80
701	6 87	CONDXT B		XXXX	4		2880	B 000		80
702	6 88	*								
703	6 89	* SEQUENCE ERROR ON INPUT RECORDS								
704	6 90	*								
705	6 91	SEQERR H		XXXX,777	7		2884	. 000 777		80
706	6 92	SEQERR B		SEQERR	4		2891	B Q84		80
707	6 93	*								
708	6 94	* GET RECORD FROM WORKING TAPE								
709	6 95	*								
710	6 96	GET	SBR	WORKXT£3	4		2895	H R79		80
711	6 97		C	BLKCT,KBLKNG	7		2899	C £71 £79		80
712	6 98		BU	NXTREC	5		2906	B R39 /		81
713	6 99		S	HOLDA	4		2911	S £72		81
714	7 00		MCW	£INPUT££13,£GTCK£6	7		2915	M D07 £51		81
715	7 01		RT	WORKTP,INPUTS	8		2922	M £U5 I18 R		81
716	7 02		B	CHKLGT	4		2930	B £30		81
717	7 03		BER	TPERR	5		2934	B 558 L		81
718	7 04	NXTREC A		£80,BLKCT	7		2939	A D09 £71		82
719	7 05		MCW	BLKCT,XR3	7		2946	M £71 099		82
720	7 06		MCW	FIXINP,FXFRME80	7		2953	M IAT 080		82
721	7 07			CHAIN 10					MACRO	
722			MCW		1		2960	M	GEN	82
723			MCW		1		2961	M	GEN	82
724			MCW		1		2962	M	GEN	82
725			MCW		1		2963	M	GEN	82
726			MCW		1		2964	M	GEN	83
727			MCW		1		2965	M	GEN	83
728			MCW		1		2966	M	GEN	83
729			MCW		1		2967	M	GEN	83
730			MCW		1		2968	M	GEN	83
731			MCW		1		2969	M	GEN	83
732	7 08		S	XR3£1	4		2970	S 100		83
733	7 09		S		1		2974	S		84
734	7 10		S		1		2975	S		84
735	7 11	WORKXT B		XXXX	4		2976	B 000		84
736	7 12	*								
737	7 13	* READ ORIGINAL TAPE								
738	7 14	*								
739	7 15	READOG SBR		ORIGXT£3	4		2980	H £29		84
740	7 16	MCW		BLANK1,IMAGE£21	7		2984	M £73 H51		84
741	7 17	S		IMAGE£20	4		2991	S H50		84
742	7 18	S			1		2995	S		84
743	7 19	S			1		2996	S		85
744	7 20	S			1		2997	S		85
745	7 21	MCW		£INPUT££12,£GTCK£6	7		2998	M D12 £51		85
746	7 22	RT		ORIGTP,INPUT4	8		3005	M £U4 H31 R		85
747	7 23	B		CHKLGT	4		3013	B £30		85





SEQ PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
405		RELSW		#01	1		3231	AREA		94
406		RELAD		@186a	3		3234	LIT		94
433		WMADDR		#03	3		3237	AREA		95
434		LOADAD		£3	1		3238	LIT		95
474				£11	2		3240	LIT		95
475				@003a	3		3243	LIT		95
495				#05	5		3248	AREA		95
498				#05	5		3253	AREA		95
501				@DA a	3		3256	LIT		95
520				@Ba	1		3257	LIT		96
556		ROOMCT		a/ 080a	9		3266	LIT		96
560		NEWSW		a/ 080a	7		3273	LIT		96
564		COUNTR		£LSTCD	3		3276	ADCON		96
572		SEQCT		£N000000a	7		3283	LIT		96
577		DATASH		£EXOUT	3		3286	ADCON		96
583		CNVADD		£OUTEX	3		3289	ADCON		96
592		DCSW		£39a	2		3291	LIT		97
604		SVZONE		#03	3		3294	AREA		97
614				@039a	3		3297	LIT		97
652				#01	1		3298	AREA		97
661				#05	5		3303	AREA		97
667				#05	5		3308	AREA		97
674		HOLDCT		£HOLDH	3		3311	ADCON		97
680		RIGSW		#01	5		3312	AREA		98
681		SAVEWM		#05	5		3317	AREA		98
714				£WMSTR-3	3		3320	ADCON		98
745				#01	1		3321	AREA		98
745		ORG		#01	1		3322	AREA		98
745		INPUT4		#01	1		3323	AREA		98
745		DA		£6	1		3324	LIT		98
745		LABEL		£96	1		3326	LIT		99
745		MNEMON		@a	2		3327	LIT		99
745		OPERND		a a	1		3328	LIT		99
781				@02000a	5		3333	LIT		99
782				£LO	32		3365	LIT		100
783				@000a	3		3358	LIT		100
784				@001001040040040040040040040040a	27		3395	LIT		101
785				#02	2		3397	AREA		101
786				#01	1		3398	AREA		101
786				#05	5		3403	AREA		101
786				@a	1		3404	LIT		101
786				£INPUT5£13	3		3407	ADCON		101
786				£80	2		3409	LIT		102
786				£INPUT4£12	3		3412	ADCON		102
786				3831						
786				1X86						
786				3,5						
786				6,11						
786				16,20						
786				21,72						
786							3831			102
786							3916			102
786							3835	FIELD		102
786							3841	FIELD		102
786							3850	FIELD		102
786							3902	FIELD		102

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION	TYPE	CARD
787 7 51	ALTNO		81,84					
788 7 52	IMAGE	EQU	INPUT4-1		3914		FIELD	103
789 7 53	FIXINP	EQU	IMAGE&87&X3		3830			
790 7 54	INPUTS	EQU	FIXINP&1&X0		3917	X		
791 7 55	PROSIZ	EQU	CTLSAV-9		3918			
792 7 56	BLANK1	EQU	BLANK4-3		3124			
793 7 57	HOLDH	EQU	HOLDDT-52		3073			
794 7 58	END		SSOP		3176			
						/ 333 080		104

CLEAR STORAGE 1 ,008015,022026,030037,044,049,053053N000000000001026  
 CLEAR STORAGE 2 L068116,105106,1101178101/19Z#071029C0290568026/B001/0991,001/00111710E  
 BOOTSTRAP ,008015,022029,036040,047054,061068,072/061039

1401 FORTRAN COMPILER TAPE GENERATOR

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101	1	01	003	JOB	1401 FORTRAN COMPILER TAPE GENERATOR						
102	1	02		CTL	645 11						
103	1	03		XINIT	X1,X2,X3						
104			X1	EQU	089	0089				GEN	4
105			089	DCW	000	0089				GEN	4
106			091	DC	00	0091				GEN	4
107			X2	EQU	094	0094				GEN	4
108			094	DCW	000	0094				GEN	4
109			096	DC	00	0096				GEN	4
110			X3	EQU	099	0099				GEN	4
111			099	DCW	000	0099				GEN	4
112			100	DC	0	0100				GEN	4
113			XBEGIN	EQU	838	0838					
114			005	ORG	6000			6000			
115			BEGIN	R							
116			007	SS	1	1					5
117			008	R							5
118			009	SS	1	1					5
119			110	R							5
120			111	SS	1	1					5
121			112	RWD	1	1					5
122			113	SW	1,40	7					6
123			114	SW	47,54	7					6
124			115	SW	61,68	7					6
125			116	SW	72	4					6
126			117	R		1					6
127			118	SS	1	2					6
128			119	C	4,a,015a	7					6
129			120	BE	COMPT	5					7
130			121	C	4,a a	7					7
131			122	BE	FUNCT	7					7
132			123	BWZ	*E5,44,2;	8					7
133			124	B	MOV	8					7
134			125	C	46,a111a	4					7
135			126	BH	NUTAP	7					7
136			127	MCW	46,LODE6	5					8
137			128	LCA	0,0	7					8
138			129	SBR	X1	4					8
139			130	MCW	TRAP,71	7					8
140			131	B	47	4					8
141			132	R		1					8
142			133	SS	1	1					8
143			134	RCE	CKFST,40,/	8					9
144			135	RCE	CKFST,68,B	8					9
145			136	MCW	TRAP,71	7					9
146			137	B	40	4					9
147			138	B	FIRST	4					9

ALL 11-5-8

3/40

SEQ PG LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
148	1 39	WTM	1,1&X1	8	6153	L %UI 0#1 W	10
149	1 40	BER	TPERR	5	6161	B K1# L	10
150	1 41	BLC	END	5	6166	B K7# A	10
151	1 42	CS	20	4	6171	/ 020	10
152	1 43	SW	1	4	6175	, 001	10
153	1 44	MCM	@R99@,X2	7	6179	M M3X 094	10
154	1 45	CS	0&X2	4	6186	/ 0-0	10
155	1 46	SBR	X2	4	6190	H 094	11
156	1 47	C	X2,@299@	7	6194	C 094 M4#	11
157	1 48	BU	CLEER	5	6201	B J8W /	11
158	1 49	B	NUTAP	4	6206	B -3Z	11
159	1 50	BSP	1	5	6210	U %UI B	11
160	1 51	SKP	1	5	6215	U %UI E	11
161	1 52	S	&1,COUNT	7	6220	S M4/ M1Z	11
162	1 53	BWZ	ERXT,COUNT,B	8	6227	V K6W M1Z B	12
163	1 54	MESSG	@BAD TAPE ONE - REPLACE AND RESTART@,65,1,1	2	6235	F 1	MACRO
164	1 54	CC	1	4	6237	/ 332	GEN
165	1 55	CS	332	1	6241	/	GEN
166	1 56	CS		7	6242	M M7V 265	GEN
167	1 57	MCM	@BAD TAPE ONE - REPLACE AND RESTART@,65&200	1	6249	2	GEN
168	1 58	W		2	6250	F 1	GEN
169	1 59	CC	1	7	6252	- /11 /11	13
170	1 55	H	1111,1111	7	6259	M M7X M1Z	13
171	1 56	MCM	&10,COUNT	4	6266	B J5T	13
172	1 57	B	PUT	5	6270	U %UI M	13
173	1 58	WTM	1	5	6275	U %UI R	13
174	1 59	RWD	1	2	6280	F 1	MACRO
175	1 60	MESSG	@1401 FORTRAN COMPILER GENERATED ON TU 1@,70,1,1	4	6282	/ 332	GEN
176	1 60	CC	1	1	6286	/	GEN
177	1 61	CS	332	7	6287	M N1W 270	GEN
178	1 62	CS		1	6294	2	GEN
179	1 63	MCM	@1401 FORTRAN COMPILER GENERATED ON TU 1@,70&200	2	6295	F 1	GEN
180	1 64	W		7	6297	, K22 K22	14
181	1 65	CC	1	4	6304	B K9X	14
182	1 61	H	2222,2222	4	6308	0 001	14
183	1 62	B	EOJ	7	6312	H K6Z L1Z	15
184	1 63	CH	1	7	6319	L N1X 080	15
185	1 64	CB	ERXT&3,LGM	8	6326	M %UI 001 W	15
186	1 65	SBR	@ @,80	5	6334	B K1# L	15
187	1 66	LCA	1,1	7	6339	C 004 N2/	15
188	1 67	WT	1,1	5	6346	B L5X S	15
189	1 68	BER	TPERR @	1	6351	1	16
190	1 69	C	4,@	5	6352	K L1Z 1	16
191	1 70	BE	NDFUN	4	6357	, 001	16
192	1 71	R	1	4	6361	0 080	16
193	1 72	SSB	LGM,1	7	6365	H K6Z J5T	16
194	1 73	SW	1	4	6372	B -3Z	16
195	1 74	CW	80	7	6376	M N2S J4Z	16
196	1 75	SBR	ERXT&3,PUT	7			16
197	1 76	B	NUTAP	7			16
197	1 76	MCW	@N@,CKFST	7			16

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	1	77		LCA	FIXED, I4	7		6383	L MIX 014		17
199	1	78		LCA		1		6390	L		17
200	1	79		LCA		1		6391	L		17
201	1	80		LCA		1		6392	L		17
202	1	81		B	PUT	4		6393	B J5T		17
203	1	82	COMPT	R		1		6397	I		17
204	1	83		SS	I	2		6398	K 1		17
205	1	84		B	NUTAP	4		6400	B -32		18
206	1	85		DCW	@B010La	5		6408			18
207	1	86		DCW	@Ba	1		6409			18
208	1	87		DC	XBEGIN	3		6412	838		18
209	1	88		DCW	a.010a	4		6416			18
210	1	89	FIXED	DCW	0	1		6419			18
211	1	90	COUNT	DCW	@Ba	2		6420			18
212	1	91		DCW	RETRN	3		6423	J1Z		19
213	1	92	TRAP	DC	a.015a	4		6427		LIT	19
				DCW	a	4		6431		LIT	19
					@111a	3		6434		LIT	19
					@R99a	3		6437		LIT	19
					@299a	3		6440		LIT	20
					xi	1		6441		LIT	20
167					@BAD TAPE ONE - REPLACE AND RESTARTa	34		6475		LIT	20
					xi0	2		6477		LIT	21
179					@1401 FORTRAN COMPILER GENERATED ON TU 1a	39		6516		LIT	22
					a a	1		6517		LIT	23
					a	4		6521		LIT	23
214	1	93		END	@Na	1		6522		LIT	23
					BEGIN				/ -0# 080		24