

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
101			JOB		FORTRAN COMPILER -- ARITH PHASE SIX -- PHASE 38								
102			CTL		6611								
103			*										
104			*		OPTIMIZATION OF TEMPORARY STORAGE AREAS TAKES PLACE.								
105			*		THESE AREAS ARE ASSIGNED DEFINITE LOCATIONS IN STORAGE.								
106			*										
107			*		ON ENTRY X1 IS AT THE BOTTOM OF THE BOTTOMMOST ASSIGNMENT								
108			*		STATEMENT IN LOW CORE, X2 IS AT THE AT THE BOTTOM OF THE								
109			*		BOTTOMMOST ASSIGNMENT STATEMENT IN HIGH CORE, AND X3 IS								
110			*		THE BOTTOM OF THE BOTTOM OF THE BOTTOMMOST STATEMENT IN								
111			*		HIGH CORE THAT IS NEITHER AN ASSIGNMENT NOR IF STATEMENT.								
112			*										
113			X1	EQU	89				0089				
114			X2	EQU	94				0094				
115			X3	EQU	99				0099				
116			*										
117			*		STUFF IN THE RESIDENT AREA								
118			*										
119			GLOBER	EQU	184 GLOBAL ERROR FLAG -- WM MEANS ERROR				0184				
120			IMOD	EQU	690 INTEGER MODULUS -- NUMBER OF DIGITS				0690				
121			MANTIS	EQU	692 FLOATING POINT MANTISSA DIGITS				0692				
122			*										
123					EXT00 SNAPSH, LOADNX, CDOVLY								MACRO
124			SNAPSH	EQU	333				0333				GEN
125			PHASLD	EQU	381				0381				GEN
126			SNAPEX	EQU	564				0564				GEN
127			LOADNX	EQU	700 CARD OVERLAY UNLESS NOP				0700				GEN
128			CDOVLY	EQU	700 1 IF LOADING FROM CARDS, N IF FROM TAPE				0700				GEN
129			TPREAD	EQU	704 LOAD OVERLAY FROM TAPE				0704				GEN
130			TPERR	EQU	728				0728				GEN
131			*										
132					EXT03 START, TOP OF PASE 3								MACRO
133			BEGIN3	EQU	838				0838				GEN
134			TOP3	EQU	2600				2600				GEN
135			*										
136			PHAS38	LDPH	ARITH SIX,LOADAD,BEGN38,,,38								MACRO
			*	PHAZ	LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]								GEN
			*	XFR	PHASZ PROHIBITED IN A MACRO								GEN
			*										GEN
			*	LOAD	A BLOCK								GEN
			*										GEN
137			)6J003	EQU	110 PHASE ID				0110				GEN
138			)6K003	EQU	700 LOAD NEXT PHASE				0700				GEN
139			)6L003	EQU	704 TAPE READ INSTRUCTION				0704				GEN
140			)6M003	EQU	728 TAPE ERROR HANDLER				0728				GEN
			*										GEN
141				ORG	201					0201			
142			PHAS38	BSS	)8J003,G		5	0201	B 257 G	GEN	1	257	
143				NOP	TO PATCH IN TRAPS FOR DEBUGGING		1	0206	N	GEN	1		
144			)0J003	EQU	*&1				0207	GEN			

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
145				LCA	)9J003,)6J003	7		0207	L 281 110	GEN	1	281	110
146				BCE	)1J003,)6K003,1	8		0214	B 250 700 1	GEN	1	250	700
147				BCE	)1J003,)6L003&4,0	8		0222	B 250 708 0	GEN	1	250	708
148				RTW	1,LOADAD	8		0230	L %U1 838 R	GEN	1	%U1	838
149				BER	)6M003	5		0238	B 728 L	GEN	2	728	
150				CS	BEGN38,)9R003	7		0243	/ 838 285	GEN	2	838	285
151			)1J003	CS	)6K003,)9R003	7		0250	/ 700 285	GEN	2	700	285
152			)8J003	SW	)9R003	4		0257	, 285	GEN	2	285	
153				MU	%T0,)8K003,W	8		0261	M %T0 273 W	GEN	2	%T0	273
154				H	)0J003	4		0269	. 207	GEN	2	207	
155			)8K003	EQU	*&1			0273		GEN			
156			)9J003	DCW	@ARITH SIX@	9		0281		GEN	3		
157				DCW	#1	1		0282		GEN	3		
158				DC	@38@	2		0284		GEN	3		
159			)9R003	DCW	@}@	1		0285		GEN	3		
160				XFR	PHAS38				B 201		4	201	
161			*										
162				ORG	BEGIN3				0838				
163			LOADAD	EQU	*&1			0838					
164	838		BEGN38	BCE	DONE,X2,.	8		0838	B S51 094 .		5	1251	094
165	846			SBR	SX2,0&X2	7		0846	H N31 0!0		5	2531	000+2
166	853			MN	0&X3	4		0853	D 0?0		5	000+3	
167	857			MN		1		0857	D		5		
168	858			SAR	SX3	4		0858	Q N34		5	2534	
169	862			SBR	SX1,0&X1	7		0862	H N37 0!0		5	2537	000+1
170	869			MCW	86,S86	7		0869	M 086 N66		5	086	2566
171	876			MCW	MANTIS,NUMWID	7		0876	M 692 N40		6	692	2540
172	883			MN	KPZERO,NUMWID-2	7		0883	D N41 N38		6	2541	2538
173	890			A	KP2,NUMWID	7		0890	A N42 N40		6	2542	2540
174	897			C	NUMWID,IMOD	7		0897	C N40 690		6	2540	690
175	904			BL	*&8	5		0904	B 916 T		6	916	
176	909			MCW	IMOD,NUMWID	7		0909	M 690 N40		7	690	2540
177	916	LOOP		C	X2,SX3	7		0916	C 094 N34		7	094	2534
178	923			BE	ALMOST	5		0923	B S21 S		7	1221	
179	928			MCW	WORK,WORK-1	7		0928	M M94 M93		7	2494	2493
180	935	GETLES		BCE	GOTLES,2&X2,<	8		0935	B 959 0!2 <		7	959	002+2
181	943			SBR	X2	4		0943	H 094		7	094	
182	947			BCE	ENDSTM,1&X2,}	8		0947	B S10 0!1 }	GMARK	8	1210	001+2
183	955			B	GETLES	4		0955	B 935		8	935	
184	959	GOTLES		MN	4&X2,W3	7		0959	D 0!4 N45		8	004+2	2545
185	966			MN		1		0966	D		8		
186	967			MCW	KZERO	4		0967	M N46		8	2546	
187	971			BWZ	ZONEX3,4&X2,2	8		0971	V  16 0!4 2		8	1016	004+2
188	979			A	KP100,W3	7		0979	A N49 N45		8	2549	2545
189	986			BWZ	ZONEX3,4&X2,S	8		0986	V  16 0!4 S		9	1016	004+2
190	994			A	KP100,W3	7		0994	A N49 N45		9	2549	2545
191	1 001			BWZ	ZONEX3,4&X2,K	8		1001	V  16 0!4 K		9	1016	004+2
192	1 009			A	KP100,W3	7		1009	A N49 N45		9	2549	2545
193	1 016	ZONEX3		MCW	W3,X3	7		1016	M N45 099		9	2545	099
194	1 023			A	X3	4		1023	A 099		10	099	



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
245					* PROGRAM IS TOO BIG								
246					*								
247	1	274	TOOBIG	BW	NOTBIG, PRINTD	8		1255	V /99 M95 1		16	1199	2495
248	1	282		CS	332	4		1263	/ 332		17	332	
249	1	286		CS		1		1267	/		17		
250	1	287		MCW	ERROR2, 270	7		1268	M 002 270		17	2602	270
251	1	294		W		1		1275	2		17		
252	1	295		SW	GLOBER, PRINTD	7		1276	, 184 M95		17	184	2495
253	1	302		B	NOTBIG	4		1283	B /99		17	1199	
254					*								
255	1	305	WRKBOT	EQU	*			1286					
256	1	355		DCW	@	@	50	1336			19		
257				ORG	2329				2329				
258	2	328	WRKMID	EQU	*			2328					
259	2	378		DCW	@	@	50	2378			21		
260	2	428		DC	@	@	50	2428			23		
261	2	478		DC	@	@	50	2478			25		
262	2	494	WORK	DC	@  @		16	2494			25		
263	2	495	PRINTD	DC	@ @ WM MEANS *TOO BIG* MESSAGE HAS BEEN PRINTED		1	2495			25		
264	2	497	KB9	DCW	@ 9@		2	2497			25		
265	2	498	ZONES	EQU	*&1			2498					
266	2	528		DCW	@9Z9R9I99ZZRZIZ9RZRRRIR9IZIRIII@	31		2528			26		
267	2	531	SX2	DCW	#3		3	2531			26		
268	2	534	SX3	DCW	#3		3	2534			26		
269	2	537	SX1	DCW	#3		3	2537			27		
270	2	540	NUMWID	DCW	#3		3	2540			27		
271	2	541	KPZERO	DCW	@?@		1	2541			27		
272	2	542	KP2	DCW	&2		1	2542			27		
273	2	545	W3	DCW	#3		3	2545			27		
274	2	546	KZERO	DCW	0		1	2546			27		
275	2	549	KP100	DCW	&100		3	2549			27		
276	2	550	RM	DCW	@ @		1	2550			28		
277	2	553	A13671	DSA	13671		3	2553	W7A		28	13671	
278	2	560	W7	DCW	#7		7	2560			28		
279	2	563	W3B	DCW	#3		3	2563			28		
280	2	566	S86	DCW	#3		3	2566			28		
281	2	609	ERROR2	DCW	@MESSAGE 2 - OBJECT PROGRAM TOO LARGE@	36		2602			29		
282	2	610	BIGTST	BWZ	TOOBIG, S86-2, 2 UNDER 1K?	V3M4	8	2603	V S55 N64 2		30	1255	2564
283	2	618		BIN	NOTBIG,	V3M4	5	2611	B /99		30	1199	
284	2	623	GMWM	DCW	@}@		1	2616		GMARK	30		
285				XFR	BEGN38				B 838		31	838	
286			CLRME	CLRA	BEGN38, GMWM, D					MACRO			
			*	CLRA	CLRBOT, CLRTOP [, SS, HERE, GWMAD]					GEN			
			*							GEN			
			*	CLEAR CORE	AFTER A PHASE USING THE CLRTOP ADDRESS					GEN			
			*							GEN			
287				ORG	201				0201				
			*							GEN			
			*	CLEAR DOWN	TO CLRBOT & X00 THE EASY WAY					GEN			
			*							GEN			

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
288			CLRME	EQU	*&1			0201		GEN			
289				BSS	SNAPSH,D	5		0201	B 333 D	GEN	32	333	
290			)0J004	CS	GMWM CLEAR FROM CLRTOP	4		0206	/ 016	GEN	32	2616	
291				SBR	)0J004&3	4		0210	H 209	GEN	32	209	
292				SBR	)0L004&6	4		0214	H 255	GEN	32	255	
293				C	)0J004&3,)0M004 DOWN TO CLRBOT & X00?	7		0218	C 209 266	GEN	32	209	266
294				BU	)0J004	5		0225	B 206 /	GEN	32	206	
			*							GEN			
			*		NOW CLEAR DOWN TO CLRBOT THE HARD WAY					GEN			
			*							GEN			
295			)0K004	C	)0L004&6,)0N004	7		0230	C 255 269	GEN	32	255	269
296				BU	)0L004	5		0237	B 249 /	GEN	33	249	
297				CS	LOADNX,)0Q004 LOAD THE NEXT BLOCK AT 1	7		0242	/ 700 276	GEN	33	700	276
298			)0L004	LCA	)0P004,0-0 CLEAR WITH BLANK AND WORD MARK	7		0249	L 270 000	GEN	33	270	000
299				SBR	)0L004&6	4		0256	H 255	GEN	33	255	
300				B	)0K004	4		0260	B 230	GEN	33	230	
301			)0M004	DSA	)0R004 CLRBOT & X00 - 1	3		0266	899	GEN	33	899	
302			)0N004	DSA	BEGN38 CLRBOT	3		0269	838	GEN	33	838	
303			)0P004	DCW	#1	1		0270		GEN	34		
304				DC	@CLRA @ IDENTIFY IN A DECK, TAPE, OR DUMP	5		0275		GEN	34		
305			)0Q004	DCW	@}@	1		0276		GEN	34		
306				ORG	BEGN38&X00				0900				
307			)0R004	EQU	* CLRBOT & X00 - 1			0899		GEN			
308				XFR	CLRME				B 201		35	201	

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J003	0207: 0	)0J004	0206: 0	)0K004	0230: 0	)0L004	0249: 0	)0M004	0266: 0	)0N004	0269: 0
)0P004	0270: 0	)0Q004	0276: 0	)0R004	0899: 0	)1J003	0250: 0	)6J003	0110: 0	)6K003	0700: 0
)6L003	0704: 0	)6M003	0728: 0	)8J003	0257: 0	)8K003	0273: 0	)9J003	0281: 0	)9R003	0285: 0
A13671	2553: 0	ALMOST	1221: 0	BEGIN3	0838: 0	BEGN38	0838: 0	BIGTST	2603: 0	CDOVLY	0700: 0
CLRME	0201: 0	DONE	1251: 0	ENDSTM	1210: 0	ERROR2	2602: 0	GETLES	0935: 0	GLOBER	0184: 0
GMWM	2616: 0	GOTASG	1060: 0	GOTLES	0959: 0	IMOD	0690: 0	KB9	2497: 0	KP100	2549: 0
KP2	2542: 0	KPZERO	2541: 0	KZERO	2546: 0	LOADAD	0838: 0	LOADNX	0700: 0	LOOP	0916: 0
MANTIS	0692: 0	NOTASG	1089: 0	NOTBIG	1199: 0	NUMWID	2540: 0	PHAS38	0201: 0	PHASLD	0381: 0
PRINTD	2495: 0	RM	2550: 0	S86	2566: 0	SNAPEX	0564: 0	SNAPSH	0333: 0	SX1	2537: 0
SX2	2531: 0	SX3	2534: 0	TOOBIG	1255: 0	TOP3	2600: 0	TPERR	0728: 0	TPREAD	0704: 0
W3	2545: 0	W3B	2563: 0	W7	2560: 0	WORK	2494: 0	WRKBOT	1286: 0	WRKMID	2328: 0
X1	0089: 0	X2	0094: 0	X3	0099: 0	ZONES	2498: 0	ZONEX3	1016: 0		

## UNREFERENCED SYMBOLS

CDOVLY KB9 PHASLD SNAPEX TOP3 TPERR TPREAD