

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
101			JOB		FORTRAN COMPILER -- STMT NUMBERS THREE -- PHASE 29								
102			CTL		6611								
103			*										
104			*		THE THREE-CHARACTER EQUIVALENTS OF STATEMENT NUMBERS								
105			*		APPEARING WITHIN STATEMENTS (GENERATED BY STATEMENT								
106			*		NUMBERS PHASE ONE) ARE PLACED IN A TABLE.								
107			*										
108			*		ON ENTRY, 83 IS ONE BELOW THE BOTTOM OF THE NUMBERS, FORMATS								
109			*		AND I/O LISTS IN HIGH CORE, AND X1 AND X2 ARE THE TOP OF								
110			*		CODE IN LOW CORE.								
111			*										
112			X1	EQU	89			0089					
113			X2	EQU	94			0094					
114			X3	EQU	99			0099					
115			*										
116			*		STUFF IN THE RESIDENT AREA								
117			*										
118			NXBTM	EQU	83			0083					
119			TBLBOT	EQU	145 ONE BELOW NUMBERS, FORMATS, I/O LISTS			0145					
120			*										
121				EXT00	SNAPSH, LOADNX, CDOVLY								MACRO
122			SNAPSH	EQU	333			0333					GEN
123			PHASLD	EQU	381			0381					GEN
124			SNAPEX	EQU	564			0564					GEN
125			LOADNX	EQU	700 CARD OVERLAY UNLESS NOP			0700					GEN
126			CDOVLY	EQU	700 1 IF LOADING FROM CARDS, N IF FROM TAPE			0700					GEN
127			TPREAD	EQU	704 LOAD OVERLAY FROM TAPE			0704					GEN
128			TPERR	EQU	728			0728					GEN
129			*										
130				EXT28	STUFF IN PHASE 28								MACRO
131			TOPCD9	EQU	840 TOP OF CODE & 5 & X00 - 1			0840					GEN
132			DIFF16	EQU	846 16 * (BOTTAB - 1 - TOPCD9)			0846					GEN
133			BNDRY	EQU	849 TOPCD9 + 0.48 * (BOTTAB - 1 - TOPCD9)			0849					GEN
134			BOTTAB	EQU	852 BOTTOM OF TABLES			0852					GEN
135			MOVEDN	EQU	853			0853					GEN
136			BEGN28	EQU	937 TOP OF CODE			0937					GEN
137				EXT36	STUFF IN PHASE 36 -- NDRITH								MACRO
138			NDRITH	EQU	3132			3132					GEN
139			*										
140			110	DCW	@STNUM TRI@		9	0110					1
141			*										
142			PHAS29	LDPH	STNUM TRI, LOADAD, BEGN29, , , 29								MACRO
			*	PHAZ	LDPH [PHASID], LOADAD, ENTAD[, SKIPFG, SKIP], [NUMBER] [, HALT]								GEN
			*	XFR	PHASZ PROHIBITED IN A MACRO								GEN
			*										GEN
			*	LOAD	A BLOCK								GEN
			*										GEN
143			)6J004	EQU	110 PHASE ID			0110					GEN
144			)6K004	EQU	700 LOAD NEXT PHASE			0700					GEN
145			)6L004	EQU	704 TAPE READ INSTRUCTION			0704					GEN

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
146			)6M004	EQU	728 TAPE ERROR HANDLER			0728		GEN			
			*							GEN			
147				ORG	201				0201				
148			PHAS29	EQU	*&1			0201		GEN			
149				LCA	)9J004,)6J004	7		0201	L 252 110	GEN	2	252	110
150				BCE	)6K004,)6K004,1	8		0208	B 700 700 1	GEN	2	700	700
151				BCE	)6K004,)6L004&4,0	8		0216	B 700 708 0	GEN	2	700	708
152				RTW	1,LOADAD	8		0224	L %U1 937 R	GEN	2	%U1	937
153				BER	)6M004	5		0232	B 728 L	GEN	2	728	
154				CS	BEGN29,)9R004	7		0237	/ /55 256	GEN	3	1155	256
155			)9J004	DCW	@STNUM TRI@	9		0252		GEN	3		
156				DC	#1	1		0253		GEN	3		
157				DC	@29@	2		0255		GEN	3		
158			)9R004	DCW	@}@	1		0256		GEN	3		
159				XFR	PHAS29				B 201		3	201	
160			*										
161				ORG	BEGN28				0937				
162			LOADAD	EQU	*&1			0937					
163			*										
164			*	MOVE	EITHER PREFIX OR STATEMENT UP								
165			*										
166	*	937	MOVE	SBR	MOVEX&3	4		0937	H 963		4	963	
167		941		LCA	0&X1,0&X2	7		0941	L 0 0 0!0		4	000+1	000+2
168		948		SAR	X1	4		0948	Q 089		4	089	
169		952		C	0&X2	4		0952	C 0!0		4	000+2	
170		956		SAR	X2	4		0956	Q 094		4	094	
171		960	MOVEX	B	0	4		0960	B 000		4	000	
172			*										
173			*	COMPUTE	HASH PROBE FOR SOUGHT AND LEAVE IT IN X1. SAVE								
174			*		-3&X1 IN SX1A.								
175			*										
176	*	964	HASH	SBR	HASHX&3	4		0964	H  47		4	1047	
177		968		MCW	0&X1,SOUGHT	7		0968	M 0 0  51		5	000+1	1051
178		975		SAR	SX1A	4		0975	Q  54		5	1054	
179		979		MN	SOUGHT,W4	7		0979	D  51  58		5	1051	1058
180		986		MN		1		0986	D		5		
181		987		MN		1		0987	D		5		
182		988		MN		1		0988	D		5		
183		989		S	DIFF16-2,W4	7		0989	S 844  58		5	844	1058
184		996		BWZ	*-14,W4,B	8		0996	V 989  58 B		6	989	1058
185	1	004		A	DIFF16-2,W4	7		1004	A 844  58		6	844	1058
186	1	011		MZ	*-4,W4	7		1011	Y  13  58		6	1013	1058
187	1	018		MCW	W4,X1	7		1018	M  58 089		6	1058	089
188	1	025		A	X1	4		1025	A 089		6	089	
189	1	029		A	W4,X1	7		1029	A  58 089		7	1058	089
190	1	036	SAVTOP	NOP	0-0 WHY NOT JUST	4		1036	N 000		7	000	
191	1	040		SAR	X1 SBR X1,0-0 ?	4		1040	Q 089		7	089	
192	1	044	HASHX	B	0	4		1044	B 000		7	000	
193			*										
194	1	048		DCW	#1	1		1048			7		



SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
245					* FORMAT LABEL.								
246					*								
247					* ??? THIS DOESN'T WORK FOR COMPUTED GOTO, BECAUSE IT DOESN'T								
248					* HAVE A COMMA. IT ENDS UP PUTTING THE VARIABLE IN THE LABEL								
249					* TABLE. ???								
250					*								
251	1	321	LABELS	B	HASH	4		1289	B 964		16	964	
252	1	325		B	LOOKUP	4		1293	B V01		16	1501	
253	1	329		MCW	X3,0&X2 MOVE TABLE ADDRESS TO CODE	7		1297	M 099 0!0		16	099	000+2
254	1	336		SBR	X2	4		1304	H 094		16	094	
255	1	340		MCW	SX1A,X1	7		1308	M  54 089		16	1054	089
256	1	347		BCE	CONT,0&X1,}	8		1315	B S81 0 0 } GMARK		17	1281	000+1
257	1	355		BCE	CONT,0&X1,,	8		1323	B S81 0 0 ,		17	1281	000+1
258	1	363		B	LABELS	4		1331	B S89		17	1289	
259					*								
260					* COMPUTED GOTO								
261					* ??? THIS LOOKS BUGGY. COMPUTED GOTO DOESN'T HAVE								
262					* A COMMA IN IT, AND X3 IS OFF BY ONE. ???								
263					*								
264	1	367	COMPGO	C	0&X1 GET TO TOP OF BODY	4		1335	C 0 0		17	000+1	
265	1	371		MN		1		1339	D		17		
266	1	372		SAR	X3	4		1340	Q 099		17	099	
267	1	376		S	W3B	4		1344	S W45		17	1645	
268	1	380	COMPL1	MN	0&X3	4		1348	D 0?0		18	000+3	
269	1	384		MN		1		1352	D		18		
270	1	385		MN		1		1353	D		18		
271	1	386		SAR	X3	4		1354	Q 099		18	099	
272	1	390		A	K1,W3B	7		1358	A W46 W45		18	1646	1645
273	1	397		BCE	*&5,1&X3,,	8		1365	B T77 0?1 ,		18	1377	001+3
274	1	405		B	COMPL1	4		1373	B T48		18	1348	
275	1	409		S	KP11,W3B	7		1377	S W48 W45		19	1648	1645
276	1	416		BWZ	COMPG2,W3B,B	8		1384	V U04 W45 B		19	1404	1645
277	1	424		B	MOVE	4		1392	B 937		19	937	
278	1	428	COMPFN	B	MOVE	4		1396	B 937		19	937	
279	1	432		B	NXSTMT	4		1400	B /97		19	1197	
280	1	436	COMP2	MN	0&X1	4		1404	D 0 0		19	000+1	
281	1	440		MN		1		1408	D		19		
282	1	441		MN		1		1409	D		20		
283	1	442		MCW	KH	4		1410	M W49		20	1649	
284	1	446		B	MOVE	4		1414	B 937		20	937	
285	1	450		MCW	X3,SX3	7		1418	M 099 W52		20	099	1652
286	1	457		MN	0&X3	4		1425	D 0?0		20	000+3	
287	1	461		MN		1		1429	D		20		
288	1	462		SAR	X1	4		1430	Q 089		20	089	
289	1	466		A	KP9,W3B	7		1434	A W53 W45		21	1653	1645
290	1	473	COMPL2	SBR	X1,6&X1	7		1441	H 089 0 6		21	089	006+1
291	1	480		B	HASH	4		1448	B 964		21	964	
292	1	484		B	LOOKUP	4		1452	B V01		21	1501	
293	1	488		MCW	SX1A,X1	7		1456	M  54 089		21	1054	089
294	1	495		BCE	*&5,4&X1,} END OF STATEMENT?	8		1463	B U75 0 4 } GMARK		21	1475	004+1

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
295	1	503		B	COMPL2	4		1471	B U41		22	1441	
296	1	507		MCW	SAVBOT,0&X2	7		1475	M  65 0!0		22	1065	000+2
297	1	514		MCW	W3B	4		1482	M W45		22	1645	
298	1	518		SBR	X2	4		1486	H 094		22	094	
299	1	522		MCW	SX3,X1	7		1490	M W52 089		22	1652	089
300	1	529		B	COMPFN	4		1497	B T96		22	1396	
301				*									
302				*	LOOKUP SOUGHT IN THE HASH TABLE. INSERT BOTTOM OF TABLES								
303				*	ADDRESS IN HASH TABLE IF NOT FOUND, COPY SOUGHT TO								
304				*	BOTTOM OF TABLES, AND DECREMENT BOTTOM OF TABLES ADDRESS.								
305				*									
306	1	533	LOOKUP	SBR	LOOKX&3	4		1501	H W12		22	1612	
307	1	537		MCW	NOP,SWITCH INDICATE FIRST TIME	7		1505	M W54 W13		23	1654	1613
308	1	544	LOOKL	MCW	0&X1,X3	7		1512	M 0 0 099		23	000+1	099
309	1	551		SAR	X1	4		1519	Q 089		23	089	
310	1	555		BCE	EMPTY,3&X1,	8		1523	B V74 0 3		23	1574	003+1
311	1	563		BCE	SWITCH,3&X1,<	8		1531	B W13 0 3 <		23	1613	003+1
312	1	571		C	0&X3,SOUGHT	7		1539	C 0?0  51		24	000+3	1051
313	1	578		BU	LOOKL	5		1546	B V12 /		24	1512	
314	1	583	SWICH2	NOP	LOOKX	4		1551	N W09		24	1609	
315	1	587		MCW	SAVBOT,0&X3	7		1555	M  65 0?0		24	1065	000+3
316	1	594		SBR	X3	4		1562	H 099		24	099	
317	1	598		MZ	KBA,2&X3	7		1566	Y W56 0?2		24	1656	002+3
318	1	605		CW		1		1573	)		24		
319	1	606	EMPTY	LCA	SAVBOT,3&X1	7		1574	L  65 0 3		25	1065	003+1
320	1	613		MCW	SAVBOT,X3	7		1581	M  65 099		25	1065	099
321	1	620		BCE	TOOBIG,0&X3,<	8		1588	B  66 0?0 <		25	1066	000+3
322	1	628		B		1		1596	B		25		
323	1	629		B		1		1597	B		25		
324	1	630		LCA	SOUGHT,0&X3	7		1598	L  51 0?0		25	1051	000+3
325	1	637		SBR	SAVBOT	4		1605	H  65		25	1065	
326	1	641	LOOKX	B	0	4		1609	B 000		26	000	
327				*									
328	1	645	SWITCH	NOP	TOOBIG	4		1613	N  66		26	1066	
329	1	649		MCW	BRANCH,SWITCH	7		1617	M W36 W13		26	1636	1613
330	1	656		MCW	BNDRY,X1	7		1624	M 849 089		26	849	089
331	1	663		B	LOOKL	4		1631	B V12		26	1512	
332				*									
333	1	667	X1ZONE	DCW	@S@	1		1635			26		
334	1	668	BRANCH	B		1		1636	B		26		
335	1	674	STMTS	DCW	@WTDEGK@ CODES FOR STATEMENTS WITH LABELS	6		1642			27		
336	1	677	W3B	DCW	#3	3		1645			27		
337	1	678	K1	DCW	1	1		1646			27		
338	1	680	KP11	DCW	&11	2		1648			27		
339	1	681	KH	DCW	@H@	1		1649			27		
340	1	684	SX3	DCW	#3	3		1652			27		
341	1	685	KP9	DCW	&9	1		1653			27		
342	1	686	NOP	NOP		1		1654	N		28		
343	1	688	KBA	DCW	@ A@	2		1656			28		
344	1	689	GMWM	DCW	@}@	1		1657		GMARK	28		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD	A-ADDR	B-ADDR
345				ORG	NDRITH&X00 MOKOTOFF V3M0.LST LINE 6191				3200				
346				ORG	*-5 THIS DOESN'T GET ONTO THE TAPE				3195				
347				DCW	#5 WHAT WAS IT FOR? JUST LEFTOVER JUNK?	5		3199				29	
348	*		SAUCE	EQU	*&1			3200					
349				XFR	BEGN29				B /55			29	1155
350			CLRME	CLRA	BEGN29,GMWM					MACRO			
			*	CLRA	CLRBOT,CLRTOP[,ORG,GMWMAD]					GEN			
			*							GEN			
			*		CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS					GEN			
			*							GEN			
351				ORG	201				0201				
			*							GEN			
			*		CLEAR DOWN TO CLRBOT & X00 THE EASY WAY					GEN			
			*							GEN			
352			CLRME	EQU	*&1			0201		GEN			
353			)0J005	CS	GMWM CLEAR FROM CLRTOP	4		0201	/ W57	GEN	30	1657	
354				SBR	)0J005&3	4		0205	H 204	GEN	30	204	
355				SBR	)0L005&6	4		0209	H 250	GEN	30	250	
356				C	)0J005&3,)0M005 DOWN TO CLRBOT & X00?	7		0213	C 204 261	GEN	30	204	261
357				BU	)0J005	5		0220	B 201 /	GEN	30	201	
			*							GEN			
			*		NOW CLEAR DOWN TO CLRBOT THE HARD WAY					GEN			
			*							GEN			
358			)0K005	C	)0L005&6,)0N005	7		0225	C 250 264	GEN	30	250	264
359				BU	)0L005	5		0232	B 244 /	GEN	30	244	
360				CS	LOADNX,)0Q005 LOAD THE NEXT BLOCK AT 1	7		0237	/ 700 271	GEN	31	700	271
361			)0L005	LCA	)0P005,0-0 CLEAR WITH BLANK AND WORD MARK	7		0244	L 265 000	GEN	31	265	000
362				SBR	)0L005&6	4		0251	H 250	GEN	31	250	
363				B	)0K005	4		0255	B 225	GEN	31	225	
364			)0M005	DSA	)0R005 CLRBOT & X00 - 1	3		0261	/99	GEN	31	1199	
365			)0N005	DSA	BEGN29 CLRBOT	3		0264	/55	GEN	31	1155	
366			)0P005	DCW	#1	1		0265		GEN	31		
367				DC	@CLRA @ IDENTIFY IN A DECK, TAPE, OR DUMP	5		0270		GEN	31		
368			)0Q005	DCW	@}@	1		0271		GEN	32		
369				ORG	BEGN29&X00				1200				
370			)0R005	EQU	* CLRBOT & X00 - 1			1199		GEN			
371				XFR	CLRME				B 201		32	201	

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J005	0201: 0	)0K005	0225: 0	)0L005	0244: 0	)0M005	0261: 0	)0N005	0264: 0	)0P005	0265: 0
)0Q005	0271: 0	)0R005	1199: 0	)6J004	0110: 0	)6K004	0700: 0	)6L004	0704: 0	)6M004	0728: 0
)9J004	0252: 0	)9R004	0256: 0	BEGN28	0937: 0	BEGN29	1155: 0	BNDRY	0849: 0	BOTTAB	0852: 0
BRANCH	1636: 0	CDOVLY	0700: 0	CLRME	0201: 0	COMPFN	1396: 0	COMPG2	1404: 0	COMPGO	1335: 0
COMPL1	1348: 0	COMPL2	1441: 0	CONT	1281: 0	DIFF16	0846: 0	DONE	1100: 0	EMPTY	1574: 0
ERR2	1154: 0	GMWM	1657: 0	HALT	1096: 0	HASH	0964: 0	HASHX	1044: 0	K1	1646: 0
KBA	1656: 0	KH	1649: 0	KP11	1648: 0	KP9	1653: 0	LABELS	1289: 0	LOADAD	0937: 0
LOADNX	0700: 0	LOOKL	1512: 0	LOOKUP	1501: 0	LOOKX	1609: 0	MOVE	0937: 0	MOVEDN	0853: 0
MOVEX	0960: 0	NDRITH	3132: 0	NOP	1654: 0	NXBTM	0083: 0	NXSTMT	1197: 0	PHAS29	0201: 0
PHASLD	0381: 0	SAUCE	3200: 0	SAVBOT	1065: 0	SAVTOP	1036: 0	SEQCOD	1062: 0	SNAPEX	0564: 0
SNAPSH	0333: 0	SOUGHT	1051: 0	STMTS	1642: 0	SWICH2	1551: 0	SWITCH	1613: 0	SX1	1118: 0
SX1A	1054: 0	SX3	1652: 0	TBLBOT	0145: 0	TOOBIG	1066: 0	TOPCD9	0840: 0	TPERR	0728: 0
TPREAD	0704: 0	TSTEND	1242: 0	W3B	1645: 0	W4	1058: 0	X1	0089: 0	X1ZONE	1635: 0
X2	0094: 0	X3	0099: 0								

## UNREFERENCED SYMBOLS

PHASLD SAUCE SNAPEX TPERR TPREAD