

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

FORTRAN COMPILER -- STATEMENT NUMBERS PHASE -- 22 PAGE 1

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101				JOB	FORTRAN COMPILER -- STATEMENT NUMBERS PHASE -- 22						
102				CTL	6611						
103				*							
104				*	ALL STATEMENT NUMBERS THAT APPEAR IN THE PROGRAM ARE REDUCED						
105				*	TO A UNIQUE THREE-CHARACTER REPRESENTATION. STATEMENT NUMBERS						
106				*	WITHIN THE STATEMENT ARE MOVED TO THE BEGINNING OF EACH SOURCE-						
107				*	PROGRAM STATEMENT (RIGHTMOST END OF STATEMENT IN STORAGE) THAT						
108				*	CONTAINS THOSE ELEMENTS.						
109				*							
110				*	ON ENTRY, X1 IS THE TOP OF THE PREFIX OF THE TOP STATEMENT,						
111				*	X2 IS ONE BELOW THE BOTTOM STATEMENT, AND 81-83 IS ONE BELOW						
112				*	THE BOTTOM OF THE NUMBER TABLE.						
113				*							
114				X1	EQU 89			0089			
115				X2	EQU 94			0094			
116				X3	EQU 99			0099			
117				*							
118				*	STUFF IN THE RESIDENT AREA						
119				*							
120				PHASID	EQU 110 PHASE ID, FOR SNAPSHOT DUMPS			0110			
121				GLOBER	EQU 184 GLOBAL ERROR FLAG -- WM MEANS ERROR			0184			
122				SNAPSH	EQU 333 CORE DUMP SNAPSHOT			0333			
123				LOADNX	EQU 700 LOAD NEXT OVERLAY			0700			
124				CLEARL	EQU 707 CS AT START OF OVERLAY LOADER			0707			
125				LOADXX	EQU 793 EXIT FROM OVERLAY LOADER			0793			
126				*							
127				ORG	838			0838			
128	838		BEGINN	CS	0&X2 CLEAR BELOW BOTTOM OF STATEMENTS	4	0838	/ 0!0			4
129	842			MCW	83,X2 BELOW NUMBER TABLE	7	0842	M 083 094			4
130	849			SW	GM	4	0849	, Y83			4
131	853			LCA	GM,0&X2	7	0853	L Y83 0!0			4
132	860			SBR	X2	4	0860	H 094			4
133	864	LOOP		BCE	DONE,0&X1,	8	0864	B Y52 0!0			4
134	872			LCA	0&X1,PREFIX	7	0872	L 0!0 Z62			5
135	879			SAR	X1	4	0879	Q 089			5
136	883			CW	1&X1	4	0883	) 0!1			5
137	887			SW	PREFIX-3	4	0887	, Z59			5
138	891			LCA	PREFIX,0&X2 MOVE UP ONLY SEQ NUMBER AND CODE	7	0891	L Z62 0!0			5
139	898			SBR	X2	4	0898	H 094			5
140	902			CW	1&X2	4	0902	) 0!1			5
141	906			BWZ	LBLDEF,PREFIX-4,2	8	0906	V !03 Z58 2			6
142	914	NOLABL		LCA	GM,0&X2	7	0914	L Y83 0!0			6
143	921			SBR	X2	4	0921	H 094			6
144	925			MCW	PREFIX-3,*&8	7	0925	M Z59 939			6
145	932			BCE	LBLREF,STMTS,0 DOES STATEMENT HAVE LABEL REFS?	8	0932	B !26 Z73 0			6
146	940			CHAIN	10					MACRO	
147				BCE		1	0940	B		GEN	6

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148				BCE		1		0941	B	GEN	6
149				BCE		1		0942	B	GEN	7
150				BCE		1		0943	B	GEN	7
151				BCE		1		0944	B	GEN	7
152				BCE		1		0945	B	GEN	7
153				BCE		1		0946	B	GEN	7
154				BCE		1		0947	B	GEN	7
155				BCE		1		0948	B	GEN	7
156				BCE		1		0949	B	GEN	8
157	950			BCE	ENDSTM,PREFIX-3,/	8		0950	B 981 Z59 /		8
158	958		MOVEUP	LCA	0&X1,0&X2 MOVE (REST OF) STATEMENT UP	7		0958	L 0 0 0!0		8
159	965			SAR	X1	4		0965	Q 089		8
160	969			C	0&X2	4		0969	C 0!0		8
161	973			SAR	X2	4		0973	Q 094		8
162	977			B	LOOP	4		0977	B 864		8
163				*							
164				*	END STATEMENT						
165				*							
166	981		ENDSTM	C	0&X1	4		0981	C 0 0		9
167	985			SAR	X1	4		0985	Q 089		9
168	989			MCM	4&X2	4		0989	P 0!4		9
169	993			MN		1		0993	D		9
170	994			MN		1		0994	D		9
171	995			SAR	X2	4		0995	Q 094		9
172	999			B	LOOP	4		0999	B 864		9
173				*							
174				*	GOT A STATEMENT LABEL DEFINITION						
175				*							
176	1 003		LBLDEF	LCA	PREFIX-4,LABEL	7		1003	L Z58 Z79		10
177	1 010			SBR	X3	4		1010	H 099		10
178	1 014			SW	2&X3	4		1014	, 0?2		10
179	1 018			B	CONV50	4		1018	B V63		10
180	1 022			B	NOLABL	4		1022	B 914		10
181				*							
182				*	STATEMENT IS ONE THAT CONTAINS LABEL REFERENCES						
183				*							
184	1 026		LBLREF	BCE	IF,PREFIX-3,E IF STATEMENT	8		1026	B T62 Z59 E		10
185	1 034			BCE	DO,PREFIX-3,D DO STATEMENT	8		1034	B S76 Z59 D		10
186	1 042			BCE	TAPE,PREFIX-3,5 READ INPUT TAPE STATEMENT	8		1042	B /30 Z59 5		11
187	1 050			BCE	TAPE,PREFIX-3,6 WRITE OUTPUT TAPE STATEMENT	8		1050	B /30 Z59 6		11
188	1 058			BCE	CGO,PREFIX-3,T COMPUTED GO TO STATEMENT	8		1058	B  90 Z59 T		11
189	1 066			BCE	IFSS,PREFIX-3,W IF ( SENSE SWITCH ... )	8		1066	B /93 Z59 W		11
190	1 074			BCE	IFSS,PREFIX-3,K IF ( SENSE LIGHT ... )	8		1074	B /93 Z59 K		12
191	1 082			B	SAVLAB PUNCH, PRINT, READ, GOTO	4		1082	B U73		12
192	1 086			B	MOVEUP	4		1086	B 958		12
193				*							
194				*	COMPUTED GO TO STATEMENT						
195				*							
196	1 090		CGO	B	SAVLAB	4		1090	B U73		12
197	1 094			BCE	CGOFIN,0&X1,)	8		1094	B /18 0 0 )		12

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	1	102		BCE	SYNTAX,0&X1,}	8		1102	B X55 0 0 }	GMARK	12
199	1	110		SBR	X1	4		1110	H 089		13
200	1	114		B	CGO	4		1114	B  90		13
201	1	118	CGOFIN	MN	0&X1	4		1118	D 0 0		13
202	1	122		SAR	X1	4		1122	Q 089		13
203	1	126		B	MOVEUP	4		1126	B 958		13
204			*								
205			* READ INPUT TAPE OR WRITE OUTPUT TAPE STATEMENT								
206			*								
207	1	130	TAPE	MCW	X1,STMFIN&3	7		1130	M 089 /77		13
208	1	137	GETCOM	BCE	GOTCOM,0&X1,, GET	8		1137	B /61 0 0 ,		13
209	1	145		BCE	SYNTAX,0&X1,} DOWN	8		1145	B X55 0 0 }	GMARK	14
210	1	153		SBR	X1 TO	4		1153	H 089		14
211	1	157		B	GETCOM COMMA	4		1157	B /37		14
212	1	161	GOTCOM	SW	1&X1	4		1161	, 0 1		14
213	1	165		MN		1		1165	D		14
214	1	166		SAR	X1	4		1166	Q 089		14
215	1	170		B	SAVLAB	4		1170	B U73		14
216			*								
217	1	174	STMFIN	LCA	0,0&X2	7		1174	L 000 0!0		15
218	1	181		SBR	X2	4		1181	H 094		15
219	1	185		CW	1&X2	4		1185	) 0!1		15
220	1	189		B	MOVEUP	4		1189	B 958		15
221			*								
222			* IF ( SENSE SWITCH ... ) OR IF ( SENSE LIGHT ... ) STATEMENT								
223			*								
224	1	193	IFSS	MCW	X1,STMFIN&3	7		1193	M 089 /77		15
225	1	200	GETRP	BCE	GOTRP,0&X1,) GET	8		1200	B S24 0 0 )		15
226	1	208		BCE	SYNTAX,0&X1,} DOWN	8		1208	B X55 0 0 }	GMARK	16
227	1	216		SBR	X1 TO RIGHT	4		1216	H 089		16
228	1	220		B	GETRP PARENTHESIS	4		1220	B S00		16
229	1	224	GOTRP	SW	1&X1	4		1224	, 0 1		16
230	1	228		MN		1		1228	D		16
231	1	229		SAR	X1	4		1229	Q 089		16
232	1	233		B	SAVLAB	4		1233	B U73		16
233	1	237		MN	0&X1	4		1237	D 0 0		17
234	1	241		SAR	X1	4		1241	Q 089		17
235	1	245		BCE	SYNTAX,0&X1,}	8		1245	B X55 0 0 }	GMARK	17
236	1	253		B	SAVLAB	4		1253	B U73		17
237	1	257	SETCOM	LCA	COMMA,0&X2	7		1257	L Z80 0!0		17
238	1	264		SBR	X2	4		1264	H 094		17
239	1	268		CW	1&X2	4		1268	) 0!1		17
240	1	272		B	STMFIN	4		1272	B /74		18
241			*								
242			* DO STATEMENT								
243			*								
244	1	276	DO	MCW	X1,X3	7		1276	M 089 099		18
245	1	283	GETEQ	BCE	GOTEQ,0&X3,# FIND THE	8		1283	B S99 0?0 #		18
246	1	291		SBR	X3 EQUAL SIGN	4		1291	H 099		18
247	1	295		B	GETEQ	4		1295	B S83		18

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
248	1	299	GOTEQ	MCW	3&X3,CH2	7		1299	M 0?3 Z81		18
249	1	306		MCW	COMMA,3&X3	7		1306	M Z80 0?3		19
250	1	313		SBR	W3,3&X3	7		1313	H Z84 0?3		19
251	1	320		B	SAVLAB	4		1320	B U73		19
252	1	324		C	W3,X1	7		1324	C Z84 089		19
253	1	331		BU	SYNTAX	5		1331	B X55 /		19
254	1	336		MCW	CH2,0&X1	7		1336	M Z81 0 0		19
255	1	343		LCA	COMMA,0&X2	7		1343	L Z80 0!0		20
256	1	350		SBR	X2	4		1350	H 094		20
257	1	354		CW	1&X2	4		1354	) 0!1		20
258	1	358		B	MOVEUP	4		1358	B 958		20
259			*								
260			* IF STATEMENT								
261			*								
262	1	362	IF	MCW	X1,STMFIN&3	7		1362	M 089 /77		20
263	1	369	IFLOOP	BCE	IFRP,0&X1,)	8		1369	B T93 0 0 )		20
264	1	377		BCE	SYNTAX,0&X1,}	8		1377	B X55 0 0 } GMARK		21
265	1	385		SBR	X1	4		1385	H 089		21
266	1	389		B	IFLOOP	4		1389	B T69		21
267	1	393	IFRP	MN	0&X1	4		1393	D 0 0		21
268	1	397		SAR	X1	4		1397	Q 089		21
269	1	401		BWZ	*&5,0&X1,2 FOLLOWED BY A DIGIT	8		1401	V U13 0 0 2		21
270	1	409		B	IFLOOP	4		1409	B T69		21
271	1	413		BCE	IFLOOP,0&X1,@	8		1413	B T69 0 0 @		22
272	1	421		SW	1&X1	4		1421	, 0 1		22
273	1	425		B	SAVLAB	4		1425	B U73		22
274	1	429		BCE	SYNTAX2,0&X1,}	V3M4	8	1429	B Y01 0 0 } GMARK		22
275	1	437		MN	0&X1	V3M4	4	1437	D 0 0		22
276	1	441		SAR	X1	V3M4	4	1441	Q 089		22
277	1	445		B	SAVLAB	4		1445	B U73		22
278	1	449		BCE	SYNTAX2,0&X1,}	V3M4	8	1449	B Y01 0 0 } GMARK		23
279	1	457		MN	0&X1	V3M4	4	1457	D 0 0		23
280	1	461		SAR	X1	V3M4	4	1461	Q 089		23
281	1	465		B	SAVLAB	4		1465	B U73		23
282	1	469		B	SETCOM	4		1469	B S57		23
283			*								
284			* MOVE THE LABEL TO THE LABEL WORK AREA								
285			*								
286	1	473	SAVLAB	SBR	SAVLBX&3	4		1473	H V62		23
287	1	477		MCW	X1,LABMOV&3	7		1477	M 089 V47		23
288	1	484		BWZ	*&5,0&X1,2	8		1484	V U96 0 0 2		24
289	1	492		B	SYNTAX2	4		1492	B Y01		24
290	1	496	SAVLL	MN	0&X1	4		1496	D 0 0		24
291	1	500		SAR	X1	4		1500	Q 089		24
292	1	504		BWZ	SAVLL,0&X1,2	8		1504	V U96 0 0 2		24
293	1	512		BCE	ENDLAB,0&X1,,	8		1512	B V40 0 0 ,		24
294	1	520		BCE	ENDLAB,0&X1,}	8		1520	B V40 0 0 } GMARK		25
295	1	528		BCE	ENDLAB,0&X1,)	8		1528	B V40 0 0 )		25
296	1	536		B	SYNTAX2	4		1536	B Y01		25
297	1	540	ENDLAB	B	2059	V3M4	4	1540	B !59		25

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
298	1	544	LABMOV	LCA	0,LABEL	7		1544	L 000 Z79		25
299	1	551		CW	1&X1	4		1551	) 0 1		25
300	1	555		B	CONV50	4		1555	B V63		25
301	1	559	SAVLBX	B	0	4		1559	B 000		26
302				*							
303				*	CONVERT LABELS TO BASE 50						
304				*							
305	1	563	CONV50	SBR	CONV5X&3	4		1563	H X54		26
306	1	567		LCA	KZ6,LBLWRK	7		1567	L Z52 Y90		26
307	1	574		C	KZ6,LABEL	7		1574	C Z52 Z79		26
308	1	581		BU	*&5	5		1581	B V90 /		26
309	1	586		B	ZLAB LABEL IS ZERO	4		1586	B W24		26
310	1	590		SBR	X3,LABEL&1	7		1590	H 099 Z80		26
311	1	597	ZTRIM	MN	0&X3 TRIM	4		1597	D 0?0		27
312	1	601		SAR	X3 LEADING ZEROS	4		1601	Q 099		27
313	1	605		BCE	ZTRIM,0&X3,0 FROM LABEL	8		1605	B V97 0?0 0		27
314	1	613		MCW	0&X3,LBLWRK NONZERO DIGITS OF LABEL	7		1613	M 0?0 Y90		27
315	1	620		MCW	K1 AND 1	4		1620	M Z85		27
316	1	624	ZLAB	SW	LBLWRK-1	4		1624	, Y89		27
317	1	628		CW		1		1628	)		27
318	1	629		SW		1		1629	,		28
319	1	630		CW		1		1630	)		28
320	1	631		SW		1		1631	,		28
321	1	632		S	K5050,LBLWRK	7		1632	S Z89 Y90		28
322	1	639		S		1		1639	S		28
323	1	640		BM	*&8,LBLWRK	8		1640	V W55 Y90 K		28
324	1	648		A	K1,LBLWRK-5	7		1648	A Z85 Y85		28
325	1	655		BM	*&8,LBLWRK-2	8		1655	V W70 Y88 K		29
326	1	663		A	K2,LBLWRK-5	7		1663	A Z90 Y85		29
327	1	670		MZ	X1TAGS,LBLWRK	7		1670	Y Z96 Y90		29
328	1	677		CHAIN	5					MACRO	
329				MZ		1		1677	Y	GEN	29
330				MZ		1		1678	Y	GEN	29
331				MZ		1		1679	Y	GEN	29
332				MZ		1		1680	Y	GEN	29
333				MZ		1		1681	Y	GEN	30
334	1	682		MCW	X1, SX1	7		1682	M 089 Y94		30
335	1	689		MCW	ACHARS, X1	7		1689	M Z99 089		30
336	1	696		MCW	ALBLWK, X3	7		1696	M !02 099		30
337	1	703	CONV5L	MCW	0&X3, *&8	7		1703	M 0?0 X17		30
338	1	710		SAR	X3	4		1710	Q 099		30
339	1	714		MCW	0-0, CH	7		1714	M 000 Y91		31
340	1	721		LCA	CH, 0&X2	7		1721	L Y91 0!0		31
341	1	728		SBR	X2	4		1728	H 094		31
342	1	732		CW	1&X2	4		1732	) 0!1		31
343	1	736		BWZ	CONV5L, 0&X3, 2	8		1736	V X03 0?0 2		31
344	1	744		MCW	SX1, X1	7		1744	M Y94 089		31
345	1	751	CONV5X	B	0	4		1751	B 000		32
346				*							
347				*	STATEMENT NUMBER SYNTAX ERROR						

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
348					*						
349	1	755	SYNTAX	CS	332	4		1755	/ 332		32
350	1	759		CS		1		1759	/		32
351	1	760		SW	GLOBER	4		1760	, 184		32
352	1	764		MN	PREFIX,249	7		1764	D Z62 249		32
353	1	771		MN		1		1771	D		32
354	1	772		MN		1		1772	D		32
355	1	773		MCW	ERR13	4		1773	M !48		33
356	1	777		W		1		1777	2		33
357	1	778		BCV	*&5	5		1778	B X87 @		33
358	1	783		B	*&3	4		1783	B X89		33
359	1	787		CC	1	2		1787	F 1		33
360	1	789		BW	MORE,FLAG	8		1789	V Y09 Y95 1		33
361	1	797		B	GETUP	4		1797	B Y30		33
362	1	801	SYNTAX2	SW	FLAG	4		1801	, Y95		34
363	1	805		B	SYNTAX	4		1805	B X55		34
364	1	809	MORE	MCM	1&X2	4		1809	P 0!1		34
365	1	813		MN		1		1813	D		34
366	1	814		SAR	X2	4		1814	Q 094		34
367	1	818		BCE	MORE,0&X2,	8		1818	B Y09 0!0		34
368	1	826		CW	FLAG	4		1826	) Y95		34
369	1	830	GETUP	MCM	4&X2 MOVE X2 UP TO GMWM	4		1830	P 0!4		35
370	1	834		MN		1		1834	D		35
371	1	835		MN		1		1835	D		35
372	1	836		SAR	X2	4		1836	Q 094		35
373	1	840		C	0&X1 GET X1 DOWN TO WM	4		1840	C 0 0		35
374	1	844		SAR	X1	4		1844	Q 089		35
375	1	848		B	LOOP	4		1848	B 864		35
376					*						
377					* REACHED BOTTOM OF STATEMENTS						
378					*						
379	1	852	DONE	BSS	SNAPSH,C	5		1852	B 333 C		36
380	1	857		SBR	LOADXX&3,980	7		1857	H 796 980		36
381	1	864		SBR	CLEARL&3,1599	7		1864	H 710 V99		36
382	1	871		LCA	FORMT1,PHASID	7		1871	L !58 110		36
383	1	878		B	LOADNX	4		1878	B 700		36
384					*						
385					* DONE						
386					*						
387	1	882		DCW	#1	1		1882			36
388	1	883	GM	DC	@}@	1		1883		GMARK	36
389	1	884	DOT	DC	@.@	1		1884			36
390	1	890	LBLWRK	DCW	#6	6		1890			36
391	1	891	CH	DCW	#1	1		1891			37
392	1	894	SX1	DCW	#3	3		1894			37
393	1	895	FLAG	DC	#1	1		1895			37
394			CHARS	EQU	*&1			1896			37
395	1	941		DC	@. " )&\$*~%#@?ABCDEFGHIJKLMN_PQR_/STUVWXYZ012345@	46		1941			39
396	1	946		DC	@6789.@	5		1946			39
397	1	952	KZ6	DCW	@000000@	6		1952			39

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
398	1	962	PREFIX	DCW	#10	10	1962				39
399	1	973	STMTS	DCW	@WT65UPLDEGK@ CODES FOR STATEMENTS HAVING LABELS	11	1973				39
400	1	979	LABEL	DCW	#6	6	1979				40
401	1	980	COMMA	DCW	@,@	1	1980				40
402	1	981	CH2	DCW	#1	1	1981				40
403	1	984	W3	DCW	#3	3	1984				40
404	1	985	K1	DCW	1	1	1985				40
405	1	989	K5050	DCW	5050	4	1989				40
406	1	990	K2	DCW	2	1	1990				40
407	1	996	X1TAGS	DCW	@Z Z Z @	6	1996				41
408	1	999	ACHARS	DSA	CHARS	3	1999	Y96			41
409	2	002	ALBLWK	DSA	LBLWRK	3	2002	Y90			41
410	2	048	ERR13	DCW	@ERROR 13 - STATEMENT NUMBER SYNTAX, STATEMENT @	46	2048				43
411	2	058	FORMT1	DCW	@TAMROF ONE@	10	2058				43
412			*								
413			* PATCH IN V3M4								
414			*								
415	2	059		SW	1&X1	V3M4	4	2059	, 0 1		43
416	2	063		SW	MOVTST&1	V3M4	4	2063	, !79		43
417	2	067		MCW	LABMOV&3,MOVTST&3	V3M4	7	2067	M V47 !81		43
418	2	074		CW	MOVTST&1	V3M4	4	2074	) !79		44
419	2	078	MOVTST	MCW	0,TEST	V3M4	7	2078	M 000 J09		44
420	2	085		BCE	LABMOV,TEST-5,:	V3M4	8	2085	B V44 J04 :		44
421	2	093		MCW	*-7,TEST-5	V3M4	7	2093	M !92 J04		44
422	2	100		B	SYNTAX2	V3M4	4	2100	B Y01		44
423	2	109	TEST	DCW	@: @	V3M4	6	2109			44
424	2	110		DCW	@}@	V3M4	1	2110		GMARK	44
425				EX	BEGINN				B 838		45
426				END					/ 000 080		

