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1 / SUBROUTINE MAIN (LIBRARY(1),EOLIB,COMPON(1),  
2 / EOCOMP,CONN(1),EOCONN,BOARD(1),EOBRD,DEVICE,MODE)  
3 / MODE = 0 FOR CHECKING LIBRARY AND CONNEXIONS  
4 / MODE = 1 TO READ CONNS ONLY AND INVENT LIB AND COMPS  
5 / ANY OTHER VALUE FOR MODE GIVES NORMAL INPUT OPERATION  
6 /
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PAGE	2	DATAIN SRC	DATAIN
7			.TITLE DATAIN
8			.IODEV 5,-3,-2
9			.GLOBL DATAIN,ADDCON,.DA,SUBNOD,SUBCON
10	00000 R 740040 A		DATAIN XX
11	00001 R 123241 E		JMS* .DA
12	00002 R 600015 R		JMP .+1+12
13	00003 R 000000 A		LIBADD 0 / LIB (1)
14	00004 R 000000 A		EOLAD 0 / EOLIB
15	00005 R 000000 A		COMPAD 0 / COMPON(1)
16	00006 R 000000 A		EOCAD 0 / EOCOMP
17	00007 R 000000 A		CONNAD 0 / CONNEX(1)
18	00010 R 000000 A		EOCADN 0 / EOCONN
19	00011 R 000000 A		BORDAD 0 / BOARD(1)
20	00012 R 000000 A		EOBAD 0 / EOBRD
21	00013 R 000000 A		DEVAD 0
22	00014 R 000000 A		MODAD 0 / MODE=0 FOR CHECK ELSE NON ZERO
23	00015 R 220013 R		LAC* DEVAD
24	00016 R 043162 R		DAC DEVI / DEVICE NUMBER
25	00017 R 143213 R		DZM ERFLG / ERROR FLAG SET IF ERROR OCCURS
26	00020 R 220004 R		LAC* EOLAD
27	00021 R 043220 R		DAC LLAD# / STORE END OF
28	00022 R 220006 R		LAC* EOCAD
29	00023 R 043216 R		DAC LCOM# / DATA POINTERS
30	00024 R 220012 R		LAC* EOBAD
31	00025 R 043215 R		DAC LBAD# / ON ENTRY
32	00026 R 220014 R		LAC* MODAD
33	00027 R 740200 A		SZA
34	00030 R 600033 R		JMP .+3
35	00031 R 203242 R		LAC (SKP / CHECK MODE
36	00032 R 741000 A		SKP
37	00033 R 203243 R		LAC (NOP
38	00034 R 043210 R		DAC CHEKK# / NOP OR SKP FOR CHECK
39	00035 R 143161 R		START DZM FLAG / BUFFER INDICATOR
40	00036 R 143204 R		DZM BUFF / CLEAR
41	00037 R 143205 R		DZM BUFF+1 / ALL
42	00040 R 143206 R		DZM BUFF+2 / THE
43	00041 R 143207 R		DZM BUFF+3 / BUFFER
44			.INIT 5,0,0
	00042 R 000005 A *G		CAL+0*1000 5&777
	00043 R 000001 A *G		1
	00044 R 000000 A *G		0+0
	00045 R 000000 A *G		0
45			.INIT -2,0,START
	00046 R 000776 A *G		CAL+0*1000 -2&777
	00047 R 000001 A *G		1
	00050 R 000035 R *G		START+0
	00051 R 000000 A *G		0
46			.INIT -3,1,START
	00052 R 001775 A *G		CAL+1*1000 -3&777
	00053 R 000001 A *G		1
	00054 R 000035 R *G		START+0
	00055 R 000000 A *G		0
47	00056 R 220014 R		LAC* MODAD

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48      00057 R 543244 R      SAD (1
49      00060 R 602514 R      JMP SPECCC / SPECIAL 'CONNS ONLY' MODE
50      00061 R 203242 R      LAC SKP
51      00062 R 043211 R      DAC CHEKK2*
52      00063 R 100144 R      JMS LIBRED / READ LIBRARY
53      00064 R 203243 R      LAC (NOP
54      00065 R 043230 R      DAC RRRRR# / SWITCH IN NUMBER
55      00066 R 101333 R      JMS COMPRD / READ COMPONENTS
56      00067 R 102201 R      JMS CONRED / READ CONNEXIONS
57      00070 R 403211 R      XCT CHEKK2
58      00071 R 600074 R      JMP ERXIT
59      00072 R 403210 R      XCT CHEKK / DONT READ BOARD IN CHECK MODE
60      00073 R 102313 R      JMS BORDRD / READ BOARD INTO BOARD ARRAY.UNPACKED.
61      00074 R 740000 A      ERXIT NOP
62      /
63      / CHECK FOR LAST INPUT TAPE
64      /
65      00075 R 102631 R      JMS NAME / LOOK FOR 'END'
66      00076 R 543245 R      SAD (202131
67      00077 R 741000 A      SKP
68      00100 R 600075 R      JMP .-3
69      00101 R 641002 A      LACQ
70      00102 R 543246 R      SAD (-135746
71      00103 R 741000 A      SKP
72      00104 R 600075 R      JMP .-7 / KEEP LOOKING
73      .CLOSE 5
      CAL 5&777
      6
74      /
75      / SECTION TO CLEAR CONNECTION MARKERS IF DATA GOOD
76      / OR RESET TO GOOD DATA IF BAD TAPE READ
77      /
78      00107 R 200005 R      LAC COMPAD
79      00110 R 040136 R      DAC CMPAD / PARAMETERS
80      00111 R 200006 R      LAC EOCAD
81      00112 R 040137 R      DAC EOCPD / FOR
82      00113 R 200007 R      LAC CONNAD
83      00114 R 040140 R      DAC CNNAD / SUBCON
84      00115 R 200010 R      LAC EOCADN
85      00116 R 040141 R      DAC EOCNAD
86      00117 R 203213 R      LAC ERFLG
87      00120 R 741200 A      SNA
88      00121 R 600131 R      JMP CONSCN
89      00122 R 203220 R      LAC LLAD
90      00123 R 060004 R      DAC* EOLAD / RESET TO
91      00124 R 203216 R      LAC LCOM
92      00125 R 060006 R      DAC* EOCAD / GOOD DATA
93      00126 R 203215 R      LAC LEAD
94      00127 R 060012 R      DAC* EOBAD / IF ERROR DETECTED
95      00130 R 750030 A      CLA! IAC
96      00131 R 723776 A      CONSCN AAC -2
97      00132 R 043213 R      DAC ERFLG
98      00133 R 123237 E      JMS* SUBCON

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PAGE	4	DATAIN SRC	DATAIN
99		00134 R 600143 R	JMP .+7
100		00135 R 000000 A	0 / D.F. ADDR NOT USED IN THIS MODE
101		00136 R 000000 A	CMPAD 0
102		00137 R 000000 A	EOCPD 0
103		00140 R 000000 A	CNNAD 0
104		00141 R 000000 A	EOCNAD 0
105		00142 R 003213 R	.DSA ERFLG / -1 TO DELETE MARKED CONNS,-2 TO CLEAR MARKERS
106		00143 R 620000 R	JMP* DATAIN / EXIT INSTRUCTION
107			/
108			/ SUB TO READ LIBRARY
109			/
110		00144 R 740040 A	LIBRED XX
111		00145 R 143221 R	DZM LREFNO
112		00146 R 103006 R	JMS CHAR
113		00147 R 543247 R	SAD (55 / LOOK FOR MINUS
114		00150 R 620144 R	JMP* LIBRED / EXIT
115		00151 R 543250 R	SAD (114 / LOOK FOR L
116		00152 R 600162 R	JMP LNEXT
117		00153 R 343251 R	TAD (-60
118		00154 R 741100 A	SPA
119		00155 R 600146 R	JMP LIBRED+2
120		00156 R 343252 R	TAD (-12
121		00157 R 741100 A	SPA
122		00160 R 600654 R	JMP LIBER2
123		00161 R 600146 R	JMP LIBRED+2 / CONTINUE LOOKING
124		00162 R 200003 R	LNEXT LAC LIBADD
125		00163 R 360004 R	TAD* EOLAD / ADDR OF 2ND FREE WORD
126		00164 R 043163 R	DAC SCAN / IN SCAN
127		00165 R 343253 R	TAD (-1
128		00166 R 043167 R	DAC LSTRT
129		00167 R 203243 R	LAC (NOP
130		00170 R 043230 R	DAC RRRRR
131		00171 R 102732 R	JMS NUMBER
132		00172 R 543254 R	SAD (-2 / CHECK FOR -1 READ
133		00173 R 620144 R	JMP* LIBRED
134		00174 R 543253 R	SAD (-1
135		00175 R 600162 R	JMP LNEXT
136		00176 R 063163 R	DAC* SCAN / LIB REF NO.
137		00177 R 043221 R	DAC LREFNO# / STORE COPY OF REF NUMBER
138		00200 R 102146 R	JMS FINLIB
139		00201 R 403210 R	XCT CHEKK / NOP OR SKP FOR CHECK
140		00202 R 600211 R	JMP .+1+6
141		00203 R 741200 A	SNA
142		00204 R 601234 R	JMP NOCHEK / NO LIB ITEM TO CHECK
143		00205 R 043167 R	DAC LSTRT / ABS ADDRESS OF LIB COMP
144		00206 R 343244 R	TAD (1
145		00207 R 043163 R	DAC SCAN
146		00210 R 600214 R	JMP .+1+3
147		00211 R 740200 A	SZA
148		00212 R 602426 R	JMP DUPLIB / DUPL LIB REF NO.
149		00213 R 203255 R	LAC (3
150		00214 R 043164 R	DAC WRDCNT / WORD COUNTER
151		00215 R 143223 R	DZM NPSPEC

PAGE	5	DATAIN	SRC	DATAIN
152		00216	R 143222	R DZM NGIVEN / SET UP ZEROS FOR POSSIBLE ERRORS
153		00217	R 203256	R LAC (JMP ERRLIB
154		00220	R 043230	R DAC RRRRR
155		00221	R 100410	R JMS STPAD / PACK & STORE TWO WORDS
156		00222	R 102732	R CR3 JMS NUMBER
157		00223	R 543254	R SAD (-2
158		00224	R 600464	R JMP LIBERR / -1 DETECTED PREMATURELY
159		00225	R 543253	R SAD (-1
160		00226	R 600222	R JMP CR3
161		00227	R 503257	R AND (77 / LIMIT NUMBER OF PADS TO 63
162		00230	R 043223	R DAC NPSPEC# / NUMBER OF SPECIFIED PADS
163		00231	R 143222	R DZM NGIVEN# / NUMBER OF DOCUMENTED PADS
164		00232	R 403210	R XCT CHEKK
165		00233	R 600247	R JMP .+1+13
166		00234	R 223167	R LAC* LSTRT / READ NO OF WORDS IN STORE
167		00235	R 343260	R TAD (-3
168		00236	R 043214	R DAC GRONG#
169		00237	R 744010	A RCL / *2
170		00240	R 343214	R TAD GRONG / *3
171		00241	R 744020	A RCR
172		00242	R 744020	A RCR / OVER 4
173		00243	R 043214	R DAC GRONG / EXPECTED NUMBER OF PADS
174		00244	R 543223	R SAD NPSPEC
175		00245	R 741000	A SKP
176		00246	R 601117	R JMP MISMAT
177				/
178				/ CHECK THAT THERE IS ROOM IN LIBRARY
179				/
180		00247	R 403210	R XCT CHEKK / NOP OR SKP FOR CHECK MODE
181		00250	R 741000	A SKP
182		00251	R 600270	R JMP NOTLCH / NOT CHECK FOR SIZE
183		00252	R 203223	R LAC NPSPEC
184		00253	R 744010	A RCL
185		00254	R 744010	A RCL
186		00255	R 343261	R TAD (2
187		00256	R 652000	A LMQ
188		00257	R 754000	A CLL!CLA
189		00260	R 640323	A DIV
190		00261	R 000003	A 3
191		00262	R 641002	A LACQ
192		00263	R 343255	R TAD (3 / NW=(NP*4+2)/3+3
193		00264	R 360004	R TAD* EOLAD
194		00265	R 343262	R TAD (-775 / LIB OF 511 LESS 3 FOR HEADER
195		00266	R 740100	A SMA
196		00267	R 600440	R JMP LIBFUL
197		00270	R 203223	R NOTLCH LAC NPSPEC
198		00271	R 741200	A SNA
199		00272	R 600376	R JMP LUPEND / NO OF PADS=0
200		00273	R 740001	A CMA
201		00274	R 343244	R TAD (1
202		00275	R 043165	R DAC PADCNT / PAD COUNTER
203		00276	R 203256	R LAC (JMP ERRLIB
204		00277	R 043230	R DAC RRRRR

PAGE	6	DATAIN SRC	DATAIN
205	00300	R 443163	R LIBLUP ISZ SCAN
206	00301	R 203163	R LAC SCAN
207	00302	R 043166	R DAC PADAD / P.T. ADDRESS IN LIB
208	00303	R 100410	R JMS STPAD / STORES PAD IN SCAN+1
209	00304	R 102732	R CR4 JMS NUMBER
210	00305	R 543254	R SAD (-2 / CHECK (-1)
211	00306	R 600464	R JMP LIBERR
212	00307	R 543253	R SAD (-1
213	00310	R 600304	R JMP CR4
214	00311	R 660714	A ALSS 14 / SHIFT 12
215	00312	R 403210	R XCT CHEKK
216	00313	R 600321	R JMP .+1+5
217	00314	R 263166	R XOR* PADAD
218	00315	R 503263	R AND (770000
219	00316	R 740200	A SZA
220	00317	R 601033	R JMP MISPT / MISMATCHED PAD TYPE
221	00320	R 741000	A SKP
222	00321	R 063166	R DAC* PADAD
223	00322	R 443222	R ISZ NGIVEN
224	00323	R 443164	R ISZ WRDCNT
225	00324	R 443164	R ISZ WRDCNT / PAD
226	00325	R 443165	R ISZ PADCNT
227	00326	R 741000	A SKP
228	00327	R 600376	R JMP LUPEND
229	00330	R 100410	R JMS STPAD
230	00331	R 102732	R CR5 JMS NUMBER
231	00332	R 543254	R SAD (-2
232	00333	R 600464	R JMP LIBERR
233	00334	R 543253	R SAD (-1
234	00335	R 600331	R JMP CR5
235	00336	R 660706	A ALSS 6 / SHIFT 6
236	00337	R 403210	R XCT CHEKK
237	00340	R 600345	R JMP .+1+4
238	00341	R 263166	R XOR* PADAD
239	00342	R 503264	R AND (7700
240	00343	R 740200	A SZA
241	00344	R 601033	R JMP MISPT
242	00345	R 363166	R TAD* PADAD
243	00346	R 063166	R DAC* PADAD
244	00347	R 443222	R ISZ NGIVEN
245	00350	R 443164	R ISZ WRDCNT
246	00351	R 443165	R ISZ PADCNT
247	00352	R 741000	A SKP
248	00353	R 600376	R JMP LUPEND
249	00354	R 100410	R JMS STPAD
250	00355	R 102732	R CR6 JMS NUMBER
251	00356	R 543254	R SAD (-2
252	00357	R 600464	R JMP LIBERR
253	00360	R 543253	R SAD (-1
254	00361	R 600355	R JMP CR6
255	00362	R 403210	R XCT CHEKK
256	00363	R 600370	R JMP .+1+4
257	00364	R 263166	R XOR* PADAD

258	00365	R	503257	R	AND (??
259	00366	R	740200	A	SZ0
260	00367	R	601033	R	JMP ISPT
261	00370	R	363166	R	TAD PADAD
262	00371	R	063166	R	DAC* PADAD
263	00372	R	443222	R	ISZ NGIVEN
264	00373	R	443164	R	ISZ WRDCNT
265	00374	R	443165	R	ISZ PADCNT
266	00375	R	600300	R	JMP LIBLUP
267	00376	R	403210	R	LUPEND XCT CHEKK
268	00377	R	741000	A	SKP
269	00400	R	600146	R	JMP LIBRED+2
270	00401	R	220004	R	LAC* EOLAD / READ EOLIB
271	00402	R	343164	R	TAD WRDCNT
272	00403	R	060004	R	DAC* EOLAD / EOLIB UPDATED
273	00404	R	203164	R	LAC WRDCNT
274	00405	R	063167	R	DAC* LSTRT / NO OF WORDS STORED
275	00406	R	600146	R	JMP LIBRED+2
276	00407	R	620144	R	LIBEND JMP* LIBRED /EXIT FOR -1
277	00410	R	740040	A	STPAD XX
278	00411	R	443163	R	ISZ SCAN
279	00412	R	102732	R	CR1 JMS NUMBER
280	00413	R	543254	R	SAD (-2
281	00414	R	600464	R	JMP LIBERR
282	00415	R	543253	R	SAD (-1
283	00416	R	600412	R	JMP CR1
284	00417	R	043170	R	DAC X1
285	00420	R	102732	R	CR2 JMS NUMBER
286	00421	R	543254	R	SAD (-2
287	00422	R	600464	R	JMP LIBERR
288	00423	R	543253	R	SAD (-1
289	00424	R	600420	R	JMP CR2
290	00425	R	043171	R	DAC Y1
291	00426	R	203170	R	LAC X1
292	00427	R	660711	A	ALSS 11 /SHIFT 9
293	00430	R	343171	R	TAD Y1
294	00431	R	403210	R	XCT CHEKK
295	00432	R	600436	R	JMP .+1+3
296	00433	R	563163	R	SAD* SCAN
297	00434	R	600437	R	JMP .+3
298	00435	R	600742	R	JMP DIMER / DIMENSION ERROR
299	00436	R	063163	R	DAC* SCAN
300	00437	R	620410	R	JMP* STPAD
301					/
302					/ LIBRARY ERROR ROUTINES
303					/
304	00440	R	203221	R	LIBFUL LAC LREFNO
305	00441	R	101271	R	JMS PACK
306	00442	R	040651	R	DAC FUL1
307	00443	R	641002	A	LACQ
308	00444	R	040652	R	DAC FUL1+1
309					.WRITE -3,2,FULL1,34
	00445	R	002775	A	*G CAL+2*1000 -3&777

PAGE	8	DATAIN	SRC	DATAIN
		00446 R	000011 A *G	11
		00447 R	000635 R *G	FULL1
			*G	.DEC
		00450 R	777736 A *G	-34
310			.WAIT	-3
		00451 R	000775 A *G	CAL -3&777
		00452 R	000012 A *G	12
311			.WRITE	-3,2,LIBM10,34
		00453 R	002775 A *G	CAL+2*1000 -3&777
		00454 R	000011 A *G	11
		00455 R	000617 R *G	LIBM10
			*G	.DEC
		00456 R	777736 A *G	-34
312			.WAIT	-3
		00457 R	000775 A *G	CAL -3&777
		00460 R	000012 A *G	12
313		00461 R	600733 R	JMP DUPLBK
314		00462 R	203265 R	ERRLIB LAC (JMP LNEXT / L READ
315		00463 R	741000 A	SKP
316		00464 R	203266 R	LIBERR LAC (JMP* LIBRED
317		00465 R	043217 R	DAC LIBEX# / EXIT
318			/	
319		00466 R	203221 R	LAC LREFNO
320		00467 R	101271 R	JMS PACK
321		00470 R	040552 R	DAC LIBM2
322		00471 R	641002 A	LACQ
323		00472 R	040553 R	DAC LIBM2+1
324			.WRITE	-3,2,LIBM1,34
		00473 R	002775 A *G	CAL+2*1000 -3&777
		00474 R	000011 A *G	11
		00475 R	000536 R *G	LIBM1
			*G	.DEC
		00476 R	777736 A *G	-34
325			.WAIT	-3
		00477 R	000775 A *G	CAL -3&777
		00500 R	000012 A *G	12
326		00501 R	203223 R	LAC NPSPEC
327		00502 R	101271 R	JMS PACK
328		00503 R	040573 R	DAC LIBM5
329		00504 R	641002 A	LACQ
330		00505 R	040574 R	DAC LIBM5+1
331			.WRITE	-3,2,LIBM4,34
		00506 R	002775 A *G	CAL+2*1000 -3&777
		00507 R	000011 A *G	11
		00510 R	000555 R *G	LIBM4
			*G	.DEC
		00511 R	777736 A *G	-34
332			.WAIT	-3
		00512 R	000775 A *G	CAL -3&777
		00513 R	000012 A *G	12
333		00514 R	203222 R	LAC NGIVEN
334		00515 R	101271 R	JMS PACK
335		00516 R	040614 R	DAC LIBM8

336	00517 R 641002 A	LACQ
337	00520 R 040615 R	DAC LIBM8+1
338		.WRITE -3,2,LIBM7,34
	00521 R 002775 A *G	CAL+2*1000 -3&777
	00522 R 000011 A *G	11
	00523 R 000576 R *G	LIBM7
		*G .DEC
	00524 R 777736 A *G	-34
339		.WAIT -3
	00525 R 000775 A *G	CAL -3&777
	00526 R 000012 A *G	12
340		.WRITE -3,2,LIBM10,34
	00527 R 002775 A *G	CAL+2*1000 -3&777
	00530 R 000011 A *G	11
	00531 R 000617 R *G	LIBM10
		*G .DEC
	00532 R 777736 A *G	-34
341		.WAIT -3
	00533 R 000775 A *G	CAL -3&777
	00534 R 000012 A *G	12
342		XCT LIBEX
343	00536 R 002002 A	LIBM1 2002
344	00537 R 000000 A	0
345	00540 R 202132 A	.ASCII / ERROR IN LIB REF NO /
	00541 R 251236 A	
	00542 R 511011 A	
	00543 R 147100 A	
	00544 R 462230 A	
	00545 R 220244 A	
	00546 R 426144 A	
	00547 R 047236 A	
	00550 R 200000 A	
	00551 R 000000 A	
346	00552 R 000000 A	LIBM2 0
347	00553 R 000000 A	0
348	00554 R 064000 A	64000
349	00555 R 002002 A	LIBM4 2002
350	00556 R 000000 A	0
351	00557 R 202352 A	.ASCII / NUMBER OF PADS SPECIFIED = /
	00560 R 546604 A	
	00561 R 426444 A	
	00562 R 047614 A	
	00563 R 202410 A	
	00564 R 142246 A	
	00565 R 202472 A	
	00566 R 042606 A	
	00567 R 446151 A	
	00570 R 142610 A	
	00571 R 201724 A	
	00572 R 000000 A	
352	00573 R 000000 A	LIBM5 0
353	00574 R 000000 A	0
354	00575 R 064000 A	64000

PAGE	10	DATAIN SRC	DATAIN
355		00576 R 002002 A	LIBM7 2002
356		00577 R 000000 A	0
357		00600 R 202352 A	.ASCII / NUMBER OF PADS DESCRIBED = /
		00601 R 546604 A	
		00602 R 426444 A	
		00603 R 047614 A	
		00604 R 202410 A	
		00605 R 142246 A	
		00606 R 202110 A	
		00607 R 551606 A	
		00610 R 512230 A	
		00611 R 242610 A	
		00612 R 201724 A	
		00613 R 000000 A	
358		00614 R 000000 A	LIBM8 0
359		00615 R 000000 A	0
360		00616 R 064000 A	64000
361		00617 R 002002 A	LIBM10 2002
362		00620 R 000000 A	0
363		00621 R 202311 A	.ASCII / LIBRARY COMPONENT IGNORED <15>
		00622 R 141244 A	
		00623 R 406453 A	
		00624 R 120206 A	
		00625 R 476332 A	
		00626 R 047634 A	
		00627 R 426352 A	
		00630 R 420222 A	
		00631 R 436351 A	
		00632 R 751212 A	
		00633 R 421001 A	
		00634 R 500000 A	
364		00635 R 002002 A	FULL1 2002
365		00636 R 000000 A	0
366		00637 R 202311 A	.ASCII / LIBRARY OVERFLOW FOR /
		00640 R 141244 A	
		00641 R 406453 A	
		00642 R 120236 A	
		00643 R 532132 A	
		00644 R 243230 A	
		00645 R 476564 A	
		00646 R 043236 A	
		00647 R 511000 A	
		00650 R 000000 A	
367		00651 R 000000 A	FUL1 0
368		00652 R 000000 A	0
369		00653 R 064000 A	64000
370			/
371			/ ROUTINE FOR EXTRA NUMBERS IN DESCRIPTION
372			/
373		00654 R 203221 R	LIBER2 LAC LREFNO
374		00655 R 101271 R	JMS PACK
375		00656 R 040714 R	DAC LIBN2
376		00657 R 641002 A	LACQ

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377      00660 R 040715 R      DAC LIBN3
378      00661 R 002775 A *G      .WRITE -3,2,LIBN1,34
      00662 R 000011 A *G      CAL+2*1000 -3&777
      00663 R 000676 R *G      11
      *G      LIBN1
      *G      .DEC
      00664 R 777736 A *G      -34
379      *G      .WAIT -3
      00665 R 000775 A *G      CAL -3&777
      00666 R 000012 A *G      12
380      *G      .WRITE -3,2,LIBN4,34
      00667 R 002775 A *G      CAL+2*1000 -3&777
      00670 R 000011 A *G      11
      00671 R 000717 R *G      LIBN4
      *G      .DEC
      00672 R 777736 A *G      -34
381      *G      .WAIT -3
      00673 R 000775 A *G      CAL -3&777
      00674 R 000012 A *G      12
      00675 R 600733 R      JMP DUPLBK
382      /
383      LIBN1 2002
384      00676 R 002002 A
385      00677 R 000000 A      0
386      00700 R 202133 A      .ASCII / EXCESSIVE SPEC FOR LIB COMP /
      00701 R 041612 A
      00702 R 516471 A
      00703 R 153212 A
      00704 R 202472 A
      00705 R 042606 A
      00706 R 202151 A
      00707 R 751100 A
      00710 R 462230 A
      00711 R 220206 A
      00712 R 476332 A
      00713 R 020000 A
387      00714 R 000000 A      LIBN2 0
388      00715 R 000000 A      LIBN3 0
389      00716 R 064000 A      64000
390      00717 R 002002 A      LIBN4 2002
391      00720 R 000000 A      0
392      00721 R 202133 A      .ASCII / EXTRA NUMBERS IGNORED/<15>
      00722 R 052244 A
      00723 R 405011 A
      00724 R 652632 A
      00725 R 412132 A
      00726 R 251500 A
      00727 R 446171 A
      00730 R 647644 A
      00731 R 426101 A
      00732 R 500000 A
393      /
394      00733 R 443213 R      DUPLBK ISZ ERFLG#
395      00734 R 103006 R      JMS CHAR

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PAGE	12	DATAIN SRC	DATAIN
396	00735 R 543247 R	SAD (55 / -1 READ	
397	00736 R 620144 R	JMP* LIBRED / EXIT	
398	00737 R 543250 R	SAD (114 / L READ	
399	00740 R 600162 R	JMP LNEXT / READ NEXT COMP	
400	00741 R 600733 R	JMP DUPLBK / KEEP LOOKING	
401		/	
402		/	
403		/	
404	00742 R 203221 R	DIMER LAC LREFNO	
405	00743 R 101271 R	JMS PACK	
406	00744 R 041007 R	DAC ZZEK1	
407	00745 R 641002 A	LACQ	
408	00746 R 041010 R	DAC ZZEK1+1	
409	00747 R 203222 R	LAC NGIVEN	
410	00750 R 101271 R	JMS PACK	
411	00751 R 041030 R	DAC ZZEK3	
412	00752 R 641002 A	LACQ	
413	00753 R 041031 R	DAC ZZEK3+1	
414		.WRITE -3,2,ZZEK0,34	
	00754 R 002775 A *G	CAL+2*1000 -3&777	
	00755 R 000011 A *G	11	
	00756 R 000771 R *G	ZZEK0	
		*G	
		.DEC	
	00757 R 777736 A *G	-34	
415		.WAIT -3	
	00760 R 000775 A *G	CAL -3&777	
	00761 R 000012 A *G	12	
416		.WRITE -3,2,ZZEK5,34	
	00762 R 002775 A *G	CAL+2*1000 -3&777	
	00763 R 000011 A *G	11	
	00764 R 001012 R *G	ZZEK5	
		*G	
		.DEC	
	00765 R 777736 A *G	-34	
417		.WAIT -3	
	00766 R 000775 A *G	CAL -3&777	
	00767 R 000012 A *G	12	
418	00770 R 600733 R	JMP DUPLBK / LOOK FOR NEW L	
419	00771 R 002002 A	ZZEK0 2002	
420	00772 R 000000 A	0	
421	00773 R 202111 A	.ASCII / DIMENSIONAL MISMATCH FOR L /	
	00774 R 146612 A		
	00775 R 472471 A		
	00776 R 147634 A		
	00777 R 406304 A		
	01000 R 046622 A		
	01001 R 516330 A		
	01002 R 152206 A		
	01003 R 441010 A		
	01004 R 647644 A		
	01005 R 202304 A		
	01006 R 000000 A		
422	01007 R 000000 A	ZZEK1 0	
423	01010 R 000000 A	0	

425	01012 R 002002 A	ZZEK5 2002
426	01013 R 000000 A	0
427	01014 R 202352 A	. ASCII / NUMBER OF CHECKED PADS = /
	01015 R 546604 A	
	01016 R 426444 A	
	01017 R 047614 A	
	01020 R 202071 A	
	01021 R 042606 A	
	01022 R 456130 A	
	01023 R 420240 A	
	01024 R 406112 A	
	01025 R 320172 A	
	01026 R 200000 A	
	01027 R 000000 A	
428	01030 R 000000 A	ZZEK3 0
429	01031 R 000000 A	0
430	01032 R 064000 A	64000
431		/
432		/
433	01033 R 443222 R	MISPT ISZ NGIVEN
434	01034 R 203221 R	LAC LREFNO
435	01035 R 101271 R	JMS PACK
436	01036 R 041101 R	DAC ZEK1
437	01037 R 641002 A	LACQ
438	01040 R 041102 R	DAC ZEK1+1
439	01041 R 203222 R	LAC NGIVEN
440	01042 R 101271 R	JMS PACK
441	01043 R 041114 R	DAC ZEK3
442	01044 R 641002 A	LACQ
443	01045 R 041115 R	DAC ZEK3+1
444		.WRITE -3,2,ZEK0,34
	01046 R 002775 A *G	CAL+2*1000 -3&777
	01047 R 000011 A *G	11
	01050 R 001063 R *G	ZEK0
		*G .DEC
	01051 R 777736 A *G	-34
445		.WAIT -3
	01052 R 000775 A *G	CAL -3&777
	01053 R 000012 A *G	12
446		.WRITE -3,2,ZEK5,34
	01054 R 002775 A *G	CAL+2*1000 -3&777
	01055 R 000011 A *G	11
	01056 R 001104 R *G	ZEK5
		*G .DEC
	01057 R 777736 A *G	-34
447		.WAIT -3
	01060 R 000775 A *G	CAL -3&777
	01061 R 000012 A *G	12
448	01062 R 600733 R	JMP DUPLBK
449	01063 R 002002 A	ZEK0 2002
450	01064 R 000000 A	0
451	01065 R 202331 A	.ASCII / MISMATCHED PAD TYPE FOR L /

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01066 R 151632 A
01067 R 406510 A
01070 R 344212 A
01071 R 421012 A
01072 R 040610 A
01073 R 202513 A
01074 R 150212 A
01075 R 202151 A
01076 R 751100 A
01077 R 461000 A
01100 R 000000 A
452 01101 R 000000 A ZEK1 0
453 01102 R 000000 A 0
454 01103 R 064000 A 64000
455 01104 R 002002 A ZEK5 2002
456 01105 R 000000 A 0
457 01106 R 202410 A .ASCII / PAD NUMBER /
01107 R 142100 A
01110 R 472531 A
01111 R 541212 A
01112 R 511000 A
01113 R 000000 A
458 01114 R 000000 A ZEK3 0
459 01115 R 000000 A 0
460 01116 R 064000 A 64000
461 /
462 /
463 01117 R 203214 R MISMAT LAC GRONG / NUMBER OF PADS (IN STORE)
464 01120 R 101271 R JMS PACK
465 01121 R 041212 R DAC EK1
466 01122 R 641002 A LACQ
467 01123 R 041213 R DAC EK1+1
468 01124 R 203221 R LAC LREFNO
469 01125 R 101271 R JMS PACK
470 01126 R 041175 R DAC EK3
471 01127 R 641002 A LACQ
472 01130 R 041176 R DAC EK3+1
473 01131 R 203223 R LAC NPSPEC
474 01132 R 101271 R JMS PACK
475 01133 R 041231 R DAC EK5
476 01134 R 641002 A LACQ
477 01135 R 041232 R DAC EK5+1
478 .WRITE -3,2,XEK,34
01136 R 002775 A *G CAL+2*1000 -3&777
01137 R 000011 A *G 11
01140 R 001161 R *G XEK
*G .DEC
01141 R 777736 A *G -34
479 .WAIT -3
01142 R 000775 A *G CAL -3&777
01143 R 000012 A *G 12
480 .WRITE -3,2,XEK2,34
01144 R 002775 A *G CAL+2*1000 -3&777

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	01145	R	000011	A	*G	11
	01146	R	001200	R	*G	XEK
					*G	.D
	01147	R	777736	A	*G	-3
481						.WAIT -3
	01150	R	000775	A	*G	CAL -3&777
	01151	R	000012	A	*G	12
482						.WRITE -3,2,XEK3,34
	01152	R	002775	A	*G	CAL+2*1000 -3&777
	01153	R	000011	A	*G	11
	01154	R	001215	R	*G	XEK3
					*G	.DEC
	01155	R	777736	A	*G	-34
483						.WAIT -3
	01156	R	000775	A	*G	CAL -3&777
	01157	R	000012	A	*G	12
484	01160	R	600733	R		JMP DUPLBK / SEARCH FOR L
485	01161	R	002002	A		XEK 2002
486	01162	R	000000	A		0
487	01163	R	202071	A		.ASCII / CHECK NO OF PADS FOR L /
	01164	R	042606	A		
	01165	R	455011	A		
	01166	R	647500	A		
	01167	R	476144	A		
	01170	R	050202	A		
	01171	R	422464	A		
	01172	R	043236	A		
	01173	R	511011	A		
	01174	R	420000	A		
488	01175	R	000000	A		EK3 0
489	01176	R	000000	A		0
490	01177	R	064000	A		64000
491	01200	R	002002	A		XEK2 2002
492	01201	R	000000	A		0
493	01202	R	202372	A		.ASCII / ORIGINAL NUMBER = /
	01203	R	244616	A		
	01204	R	446350	A		
	01205	R	146100	A		
	01206	R	472531	A		
	01207	R	541212	A		
	01210	R	511007	A		
	01211	R	520000	A		
494	01212	R	000000	A		EK1 0
495	01213	R	000000	A		0
496	01214	R	064000	A		64000
497	01215	R	002002	A		XEK3 2002
498	01216	R	000000	A		0
499	01217	R	202350	A		.ASCII / NEW CHECKING NUMBER = /
	01220	R	553500	A		
	01221	R	416210	A		
	01222	R	541626	A		
	01223	R	446350	A		
	01224	R	720234	A		

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01225 R 526330 A
01226 R 242644 A
01227 R 201724 A
01230 R 000000 A
500 01231 R 000000 A      EK5 0
501 01232 R 000000 A      0
502 01233 R 064000 A      64000
503 /
504 /
505 01234 R 203221 R      NOCHEK LAC LREFNO
506 01235 R 101271 R      JMS PACK
507 01236 R 041266 R      DAC EK7
508 01237 R 641002 A      LACQ
509 01240 R 041267 R      DAC EK7+1
510 .WRITE -3,2,XEK4,34
      CAL+2*1000 -3&777
01241 R 002775 A *G      11
01242 R 000011 A *G      XEK4
01243 R 001250 R *G      .DEC
      *G      -34
01244 R 777736 A *G      .WAIT -3
511      CAL -3&777
01245 R 000775 A *G      12
01246 R 000012 A *G      JMP DUPLBK
512 01247 R 600733 R      XEK4 2002
513 01250 R 002002 A      0
514 01251 R 000000 A      .ASCII / NO ORIGINAL LIB COMPONENT /
515 01252 R 202351 A
01253 R 720236 A
01254 R 512230 A
01255 R 744634 A
01256 R 406304 A
01257 R 046222 A
01260 R 411010 A
01261 R 347632 A
01262 R 502371 A
01263 R 642634 A
01264 R 521000 A
01265 R 000000 A
516 01266 R 000000 A      EK7 0
517 01267 R 000000 A      0
518 01270 R 064000 A      64000
519 /
520 /
521 / SUBROUTINE PACK. ENTER WITH NUMBER IN
522 / AC. EXIT WITH 5/7 ASCII IN AC AND MQ
523 /
524 01271 R 740040 A      PACK XX
525 01272 R 652000 A      LMQ
526 01273 R 201331 R      LAC BLANK
527 01274 R 043155 R      DAC ACST
528 01275 R 201332 R      LAC BLANK+1
529 01276 R 043156 R      DAC MQST
530 01277 R 754000 A      PALOUP CLL!CLA

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PAGE	17	DATAIN SRC	DATAIN
531		01300 R 640323 A	DIM
532		01301 R 000012 A	12
533		01302 R 343267 R	TAD (60
534		01303 R 660713 A	ALSS 13 / TOP 7 BITS
535		01304 R 043227 R	DAC PUNITS#
536		01305 R 641002 A	LACQ
537		01306 R 043226 R	DAC PTENS#
538		01307 R 203156 R	LAC MQST
539		01310 R 652000 A	LMQ
540		01311 R 203155 R	LAC ACST
541		01312 R 744000 A	CLL
542		01313 R 640507 A	LRS 7
543		01314 R 343227 R	TAD PUNITS
544		01315 R 043155 R	DAC ACST
545		01316 R 641002 A	LACQ
546		01317 R 043156 R	DAC MQST
547		01320 R 203226 R	LAC PTENS
548		01321 R 741200 A	SNA
549		01322 R 601325 R	JMP PAGED / DONE
550		01323 R 652000 A	LMQ
551		01324 R 601277 R	JMP PALOUP
552		01325 R 203156 R	PAGED LAC MQST
553		01326 R 652000 A	LMQ
554		01327 R 203155 R	LAC ACST
555		01330 R 621271 R	JMP* PACK
556		01331 R 201004 A	BLANK .ASCII / /
		01332 R 020100 A	
557			/
558			/ SUB TO READ COMPONENTS
559			/
560		01333 R 740040 A	COMPRD XX
561		01334 R 200005 R	CNEXT LAC COMPAD
562		01335 R 360006 R	TAD* EOCAD
563		01336 R 343253 R	TAD (-1
564		01337 R 043163 R	DAC SCAN / PTR TO FIRST FREE WORD
565		01340 R 163163 R	DZM* SCAN
566		01341 R 443163 R	ISZ SCAN / PTR TO NAME 1 WORD
567		01342 R 102631 R	JMS NAME
568		01343 R 102067 R	JMS FINCOM / CHECKS IF COMP THERE
569		01344 R 403210 R	XCT CHEKK
570		01345 R 601420 R	JMP OCOMPX / ORDINARY INPUT CASE
571		01346 R 741200 A	SNA
572		01347 R 601712 R	JMP NOCHCP / NO COMP TO CHECK
573		01350 R 343255 R	TAD (3 / PTS TO LIB ETC PTR
574		01351 R 043163 R	DAC SCAN
575		01352 R 102732 R	JMS NUMBER
576		01353 R 543253 R	SAD (-1
577		01354 R 601352 R	JMP .-2
578		01355 R 102146 R	JMS FINLIB
579		01356 R 741200 A	SNA
580		01357 R 601744 R	JMP DIFLIB / LIBRARY COMPONENT ABSENT
581		01360 R 343244 R	TAD (1
582		01361 R 740001 A	CMA

PAGE	18	DATAIN SRC	DATAIN
583	01362 R	300003 R	ADD LIBADD
584	01363 R	740001 A	CMA
585	01364 R	263163 R	XOR* SCAN
586	01365 R	503270 R	AND (777
587	01366 R	740200 A	SZA
588	01367 R	601744 R	JMP DIFLIB / LIB REF DIFFERS
589	01370 R	203154 R	LAC STAR
590	01371 R	660714 A	ALSS 14
591	01372 R	263163 R	XOR* SCAN
592	01373 R	503271 R	AND (10000 / 13TH BIT
593	01374 R	740200 A	SZA
594	01375 R	602001 R	JMP MIDMK / MISMATCHED IDENT MARKS
595	01376 R	203232 R	LAC STAR0
596	01377 R	740200 A	SZA
597	01400 R	601411 R	JMP FLUZX
598	01401 R	102732 R	JMS NUMBER
599	01402 R	543253 R	SAD (-1
600	01403 R	601411 R	JMP FLUZX / CR DETECTED
601	01404 R	203232 R	LAC STAR0
602	01405 R	740200 A	SZA
603	01406 R	601411 R	JMP FLUZX / CR DETECTED
604	01407 R	102732 R	JMS NUMBER
605	01410 R	543253 R	SAD (-1
606	01411 R	750000 A	FLUZX CLA
607	01412 R	660711 A	ALSS 11
608	01413 R	263163 R	XOR* SCAN / TEST SIDE INFORMATION
609	01414 R	503272 R	AND (3000
610	01415 R	740200 A	SZA
611	01416 R	602034 R	JMP SIDOPP / SIDES ICCOMPATABLE
612	01417 R	601334 R	JMP CNEXT
613	01420 R	740200 A	OCOMPX SZA
614	01421 R	602403 R	JMP DUPCOM
615			/
616			/ CHECK FOR COMPONENT ARRAY OVERFLOW
617			/
618	01422 R	220006 R	LAC* EOCAD
619	01423 R	343273 R	TAD (6
620	01424 R	343274 R	TAD (-4701 / -2497 DECIMAL
621	01425 R	740100 A	SMA
622	01426 R	601622 R	JMP COMFUL / COMPONENT ARRAY FULL
623	01427 R	202476 R	LAC NAME1
624	01430 R	063163 R	DAC* SCAN / AND CHECKS FOR 'END0
625	01431 R	443163 R	ISZ SCAN
626	01432 R	202477 R	LAC NAME2
627	01433 R	063163 R	DAC* SCAN
628	01434 R	443163 R	ISZ SCAN
629	01435 R	102732 R	CR7 JMS NUMBER
630	01436 R	543253 R	SAD (-1
631	01437 R	601435 R	JMP CR7
632	01440 R	102146 R	JMS FINLIB / CHECK LIB COMP THERE
633	01441 R	741200 A	SNA / SKIP NON ZERO
634	01442 R	602417 R	JMP LIBABS / LIB COMP ABSENT
635	01443 R	343244 R	TAD (1

PAGE	19	DATAIN SRC	DATAIN
636		01444 R 740001 A	CMA NEGATE L TS POINTER (ABSOLUTE)
637		01445 R 300003 R	ADD LIBADD / LIB(1) ADDR
638		01446 R 740001 A	CMA
639		01447 R 043172 R	DAC LIBREF
640		01450 R 203154 R	LAC STAR / PIN 1 MARKER
641		01451 R 660714 A	ALSS 14 / SHIFT 12
642		01452 R 343172 R	TAD LIBREF
643		01453 R 043172 R	DAC LIBREF
644			/
645			/ UPDATE EOCOMP
646			/
647		01454 R 220006 R	LAC* EOCAD
648		01455 R 343273 R	TAD (6
649		01456 R 060006 R	DAC* EOCAD
650		01457 R 203232 R	LAC STAR0#
651		01460 R 740200 A	SZA
652		01461 R 601616 R	JMP DETCR
653		01462 R 102732 R	CR8 JMS NUMBER
654		01463 R 543253 R	SAD (-1
655		01464 R 601616 R	JMP DETCR / C R DETECTED
656		01465 R 660720 A	ALSS 20 / SHIFT 16
657		01466 R 343172 R	TAD LIBREF / ORIENTATION
658		01467 R 043172 R	DAC LIBREF
659		01470 R 203232 R	LAC STAR0
660		01471 R 740200 A	SZA
661		01472 R 601616 R	JMP DETCR
662		01473 R 102732 R	CR9 JMS NUMBER
663		01474 R 543253 R	SAD (-1
664		01475 R 601616 R	JMP DETCR / C R DETECTED
665		01476 R 660711 A	ALSS 11 / SHIFT 9
666		01477 R 343172 R	TAD LIBREF / SIDE
667		01500 R 063163 R	DAC* SCAN / STORED
668		01501 R 443163 R	ISZ SCAN
669		01502 R 203232 R	LAC STAR0
670		01503 R 740200 A	SZA
671		01504 R 601612 R	JMP NULL
672		01505 R 102732 R	JMS NUMBER
673		01506 R 543253 R	SAD (-1
674		01507 R 601612 R	JMP NULL / CR DETECTED
675		01510 R 063163 R	DAC* SCAN
676		01511 R 443163 R	ISZ SCAN
677		01512 R 203232 R	LAC STAR0
678		01513 R 740200 A	SZA
679		01514 R 601517 R	JMP .+1+2
680		01515 R 102732 R	JMS NUMBER
681		01516 R 543253 R	SAD (-1
682		01517 R 750000 A	CLA
683		01520 R 063163 R	DAC* SCAN
684			/
685			/ BLOCK TO SHIFT COMP SO THAT X,Y IS FOR PAD 1
686			/
687			/ FIRST CHECK THAT PAD 1 EXISTS
688			/

PAGE	20	DATAIN SRC	DATAIN
689		01521 R 777776 A	LAW -2
690		01522 R 343163 R	TAD SCAN
691		01523 R 043175 R	DAC CSCAN
692		01524 R 223175 R	LAC* CSCAN
693		01525 R 503270 R	AND (777 / LIBRARY PTR
694		01526 R 340003 R	TAD LIBADD
695		01527 R 343253 R	TAD (-1
696		01530 R 043175 R	DAC CSCAN
697		01531 R 777774 A	LAW -4
698		01532 R 363175 R	TAD* CSCAN / NO OF WORDS IN LIB - 4
699		01533 R 741100 A	SPA
700		01534 R 601334 R	JMP CNEXT / NO PAD NUMBER 1
701			/
702			/ FIND X,Y OF PAD 1
703			/
704		01535 R 200005 R	LAC COMPAD
705		01536 R 041556 R	DAC SARG+2
706		01537 R 200003 R	LAC LIBADD
707		01540 R 041557 R	DAC SARG+3
708		01541 R 200005 R	LAC COMPAD
709		01542 R 740001 A	CMA
710		01543 R 343163 R	TAD SCAN
711		01544 R 652000 A	LMQ
712		01545 R 754000 A	CLL!CLA
713		01546 R 640323 A	DIV
714		01547 R 000006 A	6
715		01550 R 641002 A	LACQ / PTR TO COMP DIVIDED BY 6
716		01551 R 043175 R	DAC CSCAN
717		01552 R 123240 E	JMS* SUBNOD
718		01553 R 601562 R	JMP .+1+6
719		01554 R 003233 R	SARG .DSA X00# / X
720		01555 R 003234 R	.DSA Y00# / Y
721		01556 R 000000 A	0 / COMPAD
722		01557 R 000000 A	0 / LIBAD
723		01560 R 003175 R	.DSA CSCAN / POINTER
724		01561 R 003244 R	.DSA (1 / PAD NO 1
725			/
726			/ NOW SHIFT COMP SO THAT X,Y ARE CORRECT
727			/
728		01562 R 223163 R	LAC* SCAN
729		01563 R 740001 A	CMA
730		01564 R 343244 R	TAD (1
731		01565 R 343234 R	TAD Y00 / DISPLACEMENT OF PAD
732		01566 R 740001 A	CMA
733		01567 R 343244 R	TAD (1
734		01570 R 363163 R	TAD* SCAN
735		01571 R 741100 A	SPA
736		01572 R 750000 A	CLA
737		01573 R 063163 R	DAC* SCAN
738		01574 R 203163 R	LAC SCAN
739		01575 R 343253 R	TAD (-1
740		01576 R 043163 R	DAC SCAN
741		01577 R 223163 R	LAC* SCAN / X IN D.S.

PAGE	21	DATAIN SRC	DATAIN
742		01600 R 740001 A	CMA
743		01601 R 343244 R	TAD (1
744		01602 R 343233 R	TAD X00
745		01603 R 740001 A	CMA
746		01604 R 343244 R	TAD (1
747		01605 R 363163 R	TAD* SCAN
748		01606 R 741100 A	SPA
749		01607 R 750000 A	CLA
750		01610 R 063163 R	DAC* SCAN / NEW X POSITION STORED
751		01611 R 601334 R	JMP CNEXT / READ IN NEXT COMPONENT
752		01612 R 163163 R	NULL DZM* SCAN
753		01613 R 443163 R	ISZ SCAN
754		01614 R 163163 R	DZM* SCAN
755		01615 R 601334 R	COMEND JMP CNEXT
756		01616 R 203172 R	DETCR LAC LIBREF
757		01617 R 063163 R	DAC* SCAN
758		01620 R 443163 R	ISZ SCAN
759		01621 R 601612 R	JMP NULL
760			/
761			/
762			/ COMPONENT CHECKING ERRORS
763			/
764			/
765		01622 R 443213 R	COMFUL ISZ ERFLG
766		01623 R 202476 R	LAC NAME1
767		01624 R 041666 R	DAC FUL2
768		01625 R 202477 R	LAC NAME2
769		01626 R 041667 R	DAC FUL2+1
770			.WRITE -3,2,FULL2,34
		01627 R 002775 A *G	CAL+2*1000 -3&777
		01630 R 000011 A *G	11
		01631 R 001652 R *G	FULL2
			*G .DEC
		01632 R 777736 A *G	-34
771			.WAIT -3
		01633 R 000775 A *G	CAL -3&777
		01634 R 000012 A *G	12
772			.WRITE -3,2,FULL3,34
		01635 R 002775 A *G	CAL+2*1000 -3&777
		01636 R 000011 A *G	11
		01637 R 001670 R *G	FULL3
			*G .DEC
		01640 R 777736 A *G	-34
773			.WAIT -3
		01641 R 000775 A *G	CAL -3&777
		01642 R 000012 A *G	12
774			/
775			/ LOOK FOR 'END'
776			/
777		01643 R 102631 R	JMS NAME
778		01644 R 543245 R	SAD (202131
779		01645 R 601642 R	JMP .-3
780		01646 R 641002 A	LACQ

PAGE	22	DATAIN	SRC	DATAIN
781		01647	R 543246	R SAD (-135746
782		01650	R 621333	R JMP* COMPRD / EXIT
783		01651	R 601642	R JMP .-7
784		01652	R 002002	A FULL2 2002
785		01653	R 000000	A 0
786		01654	R 202071	A .ASCII / COMPONENT OVERFLOW WITH /
		01655	R 746640	A
		01656	R 476350	A
		01657	R 547250	A
		01660	R 202372	A
		01661	R 642644	A
		01662	R 432311	A
		01663	R 753500	A
		01664	R 536232	A
		01665	R 444100	A
787		01666	R 000000	A FULL2 0
788		01667	R 000000	A 0
789		01670	R 002002	A FULL3 2002
790		01671	R 000000	A 0
791		01672	R 202071	A .ASCII / COMP AND SUBSEQUENT COMPS IGNORED <15>
		01673	R 746640	A
		01674	R 202031	A
		01675	R 642100	A
		01676	R 516530	A
		01677	R 251612	A
		01700	R 506530	A
		01701	R 547250	A
		01702	R 202071	A
		01703	R 746640	A
		01704	R 515011	A
		01705	R 143634	A
		01706	R 476450	A
		01707	R 542100	A
		01710	R 064000	A
		01711	R 000000	A
792		01712	R 202476	R NOCHCP LAC NAME1
793		01713	R 041742	R DAC DC10
794		01714	R 202477	R LAC NAME2
795		01715	R 041743	R DAC DC10+1
796				.WRITE -3,2,DC9,34
		01716	R 002775	A *G CAL+2*1000 -3&777
		01717	R 000011	A *G 11
		01720	R 001726	R *G DC9
				*G .DEC
		01721	R 777736	A *G -34
797				.WAIT -3
		01722	R 000775	A *G CAL -3&777
		01723	R 000012	A *G 12
798		01724	R 102732	R JMS NUMBER / READ LIB
799		01725	R 602065	R JMP CNEX
800		01726	R 002002	A DC9 2002
801		01727	R 000000	A 0
802		01730	R 202351	A .ASCII / NO ORIGINAL COMPONENT /

PAGE	23	DATAIN SRC	DATAIN
		01731 R 720236 A	
		01732 R 512230 A	
		01733 R 744634 A	
		01734 R 406304 A	
		01735 R 041636 A	
		01736 R 466411 A	
		01737 R 747212 A	
		01740 R 472504 A	
		01741 R 000000 A	
803		01742 R 000000 A	DC10 0
804		01743 R 000000 A	0
805			/
806			/
807		01744 R 202476 R	DIFLIB LAC NAME1
808		01745 R 041777 R	DAC DC1
809		01746 R 202477 R	LAC NAME2
810		01747 R 042000 R	DAC DC1+1
811			.WRITE -3,2,DC0,34
		01750 R 002775 A *G	CAL+2*1000 -3&777
		01751 R 000011 A *G	11
		01752 R 001757 R *G	DC0
			*G
			.DEC
		01753 R 777736 A *G	-34
812			.WAIT -3
		01754 R 000775 A *G	CAL -3&777
		01755 R 000012 A *G	12
813		01756 R 602065 R	JMP CNEX
814		01757 R 002002 A	DC0 2002
815		01760 R 000000 A	0
816		01761 R 202331 A	.ASCII / MISMATCHED LIB REF NUMBERS FOR /
		01762 R 151632 A	
		01763 R 406510 A	
		01764 R 344212 A	
		01765 R 421011 A	
		01766 R 444604 A	
		01767 R 202450 A	
		01770 R 543100 A	
		01771 R 472531 A	
		01772 R 541212 A	
		01773 R 512464 A	
		01774 R 043236 A	
		01775 R 511000 A	
		01776 R 000000 A	
817		01777 R 000000 A	DC1 0
818		02000 R 000000 A	0
819			/
820			/
821		02001 R 202476 R	MIDMK LAC NAME1
822		02002 R 042032 R	DAC DC4
823		02003 R 202477 R	LAC NAME2
824		02004 R 042033 R	DAC DC4+1
825			.WRITE -3,2,DC3,34
		02005 R 002775 A *G	CAL+2*1000 -3&777

PAGE	24	DATAIN SRC	DATAIN
		02006 R 000011 A *G	11
		02007 R 002014 R *G	DC3
			*G
			.DEC
		02010 R 777736 A *G	-34
826			.WAIT -3
		02011 R 000775 A *G	CAL -3&777
		02012 R 000012 A *G	12
827		02013 R 602065 R	JMP CNEX
828		02014 R 002002 A	DC3 2002
829		02015 R 000000 A	0
830		02016 R 202071 A	.ASCII / CHECK REF CORNER IDENT FOR /
		02017 R 042606 A	
		02020 R 455012 A	
		02021 R 242614 A	
		02022 R 202071 A	
		02023 R 751234 A	
		02024 R 426444 A	
		02025 R 044610 A	
		02026 R 426352 A	
		02027 R 420214 A	
		02030 R 476444 A	
		02031 R 000000 A	
831		02032 R 000000 A	DC4 0
832		02033 R 000000 A	0
833			/
834			/
835		02034 R 202476 R	SIDOPP LAC NAME1
836		02035 R 042063 R	DAC DC7
837		02036 R 202477 R	LAC NAME2
838		02037 R 042064 R	DAC DC7+1
839			.WRITE -3,2,DC6,34
		02040 R 002775 A *G	CAL+2*1000 -3&777
		02041 R 000011 A *G	11
		02042 R 002047 R *G	DC6
			*G
			.DEC
			-34
840		02043 R 777736 A *G	.WAIT -3
		02044 R 000775 A *G	CAL -3&777
		02045 R 000012 A *G	12
841		02046 R 602065 R	JMP CNEX
842		02047 R 002002 A	DC6 2002
843		02050 R 000000 A	0
844		02051 R 202071 A	.ASCII / CHECK SIDE SPEC FOR /
		02052 R 042606 A	
		02053 R 455012 A	
		02054 R 344610 A	
		02055 R 425012 A	
		02056 R 350212 A	
		02057 R 415010 A	
		02060 R 647644 A	
		02061 R 200000 A	
		02062 R 000000 A	
845		02063 R 000000 A	DC7 0

PAGE	25	DATAIN SRC	DATAIN
846		02064 R 000000 A	0
847			/
848		02065 R 443213 R	CNEX ISZ ERFLG
849		02066 R 601334 R	JMP CNEXT
850			/
851			/
852			/ SUBROUTINE TO FIND A NAMED COMPONENT
853			/
854		02067 R 740040 A	FINCOM XX
855		02070 R 042476 R	DAC NAME1
856		02071 R 641002 A	LACQ
857		02072 R 042477 R	DAC NAME2
858		02073 R 543246 R	SAD (-135746 / CHECK FOREND WITH 642032
859		02074 R 602142 R	JMP MAYEND
860		02075 R 200005 R	CORDIN LAC COMPAD
861		02076 R 343244 R	TAD (1
862		02077 R 043175 R	DAC CSCAN / PTR TO 2ND WORD
863		02100 R 343253 R	TAD (-1
864		02101 R 360006 R	TAD* EOCAD
865		02102 R 043173 R	DAC CEND / PTR TO 2ND FREE WORD
866		02103 R 543175 R	SAD CSCAN
867		02104 R 602135 R	JMP ERROR / NO COMPONENTS
868		02105 R 203175 R	COMLUP LAC CSCAN
869		02106 R 343261 R	TAD (2
870		02107 R 043157 R	DAC TOT
871		02110 R 223157 R	LAC* TOT
872		02111 R 741200 A	SNA
873		02112 R 602116 R	JMP NOCOMP / DELETED COMPONENT
874		02113 R 223175 R	LAC* CSCAN
875		02114 R 542476 R	SAD NAME1
876		02115 R 602124 R	JMP TEST / 1ST WORDS IDENTICAL
877		02116 R 203175 R	NOCOMP LAC CSCAN
878		02117 R 343273 R	TAD (6
879		02120 R 043175 R	RENTER DAC CSCAN
880		02121 R 543173 R	SAD CEND
881		02122 R 602135 R	JMP ERROR
882		02123 R 602105 R	JMP COMLUP
883		02124 R 443175 R	TEST ISZ CSCAN / 2ND NAME WORD
884		02125 R 223175 R	LAC* CSCAN
885		02126 R 242477 R	XOR NAME2
886		02127 R 503275 R	AND (777400 / TOP 10 BITS
887		02130 R 741200 A	SNA
888		02131 R 602137 R	JMP FOUND
889		02132 R 203175 R	LAC CSCAN
890		02133 R 343276 R	TAD (5
891		02134 R 602120 R	JMP RENTER
892		02135 R 750000 A	ERROR CLA
893		02136 R 622067 R	JMP* FINCOM / COMP NOT FOUND
894		02137 R 203175 R	FOUND LAC CSCAN
895		02140 R 343254 R	TAD (-2
896		02141 R 622067 R	JMP* FINCOM
897		02142 R 202476 R	MAYEND LAC NAME1
898		02143 R 543245 R	SAD (202131

PAGE	26	DATAIN SRC	DATAIN
899		02144 R 621333 R	JMP* COMPRD / 'END0 ENCOUNTERED
900		02145 R 602075 R	JMP CORDIN
901			/
902			/ SUBROUTINE TO FIND A NUMBERED LIBRARY ITEM
903			/
904		02146 R 740040 A	FINLIB XX
905		02147 R 043177 R	DAC NAME3
906		02150 R 200003 R	LAC LIBADD
907		02151 R 043176 R	DAC LSCAN
908		02152 R 360004 R	TAD* EOLAD
909		02153 R 343253 R	TAD (-1
910		02154 R 043174 R	DAC LEND / FIRST FREE WORD
911		02155 R 543176 R	SAD LSCAN
912		02156 R 602174 R	JMP LERROR / NO LIBRARY
913		02157 R 223176 R	LYBLP LAC* LSCAN
914		02160 R 043164 R	DAC WRDCNT / NO OF WORDS IN LIB REF
915		02161 R 443176 R	ISZ LSCAN
916		02162 R 223176 R	LAC* LSCAN
917		02163 R 543177 R	SAD NAME3
918		02164 R 602176 R	JMP LFOND / FOUND
919		02165 R 203176 R	LAC LSCAN
920		02166 R 343164 R	TAD WRDCNT
921		02167 R 343253 R	TAD (-1
922		02170 R 043176 R	DAC LSCAN / UPDATE POINTER
923		02171 R 543174 R	SAD LEND
924		02172 R 602174 R	JMP LERROR / NOT FOUND
925		02173 R 602157 R	JMP LYBLP / CONTINUE
926		02174 R 750000 A	LERROR CLA
927		02175 R 622146 R	JMP* FINLIB / RETURN AC=0
928		02176 R 203176 R	LFOND LAC LSCAN
929		02177 R 343253 R	TAD (-1
930		02200 R 622146 R	JMP* FINLIB / RETURN AC=LIB ADDR
931			/
932			/ SUB TO READ CONNEXIONS. CALLS ADDCON.
933			/
934		02201 R 740040 A	CONRED XX
935		02202 R 203244 R	LAC (1
936		02203 R 043232 R	DAC STAR0 / SET FOR FIRST ENTRY
937		02204 R 203261 R	LAC (2
938		02205 R 043203 R	DAC WIDTH
939		02206 R 203232 R	CONEXT LAC STAR0 / SET NEW LINE FLAG
940		02207 R 043212 R	DAC CRFLAG#
941		02210 R 102631 R	JMS NAME
942		02211 R 543245 R	SAD (202131 /CHECK FOR END
943		02212 R 602364 R	JMP ENDMAY
944		02213 R 543277 R	NOTND SAD (-241550 /CHECK FOR WIDTH
945		02214 R 602373 R	JMP WIDCH
946		02215 R 042476 R	DAC NAME1
947		02216 R 641002 A	LACQ
948		02217 R 042477 R	WIDE DAC NAME2 /STORE 2ND PART OF NAME
949		02220 R 102732 R	CR10 JMS NUMBER
950		02221 R 343253 R	SAD (-1
951		02222 R 602220 R	JMP CR10

PAGE	27	DATAIN SRC	DATAIN
952	02223 R 043201 R	DAC PIN1 / PIN2 ON 1ST COMP	
953		/	
954		/REPEAT FOR 2ND COMP	
955		/	
956	02224 R 203212 R	LAC CRFLAG / DID LAST NAME START ON A NEW LINE?	
957	02225 R 741200 A	SNA	
958	02226 R 602237 R	JMP CR11+4 / NO. ADD TO TREE	
959	02227 R 102631 R	JMS NAME	
960	02230 R 043177 R	DAC NAME3	
961	02231 R 641002 A	LACQ	
962	02232 R 043200 R	DAC NAME4	
963	02233 R 102732 R	CR11 JMS NUMBER	
964	02234 R 543253 R	SAD (-1	
965	02235 R 602233 R	JMP CR11	
966	02236 R 043202 R	DAC PIN2	
967	02237 R 200005 R	LAC COMPAD	
968	02240 R 042272 R	DAC ARG5	
969	02241 R 200006 R	LAC EOCAD	
970	02242 R 042273 R	DAC ARG5+1	
971	02243 R 200007 R	LAC CONNAD	
972	02244 R 042274 R	DAC ARG5+2	
973	02245 R 200010 R	LAC EOCADN	
974	02246 R 042275 R	DAC ARG5+3	
975	02247 R 200003 R	LAC LIBADD	
976	02250 R 042276 R	DAC ARG5+4	
977	02251 R 200004 R	LAC EOLAD	
978	02252 R 042277 R	DAC ARG5+5	
979		/	
980		/ CHECK NAME3,4 IS NOT 'END'	
981		/	
982	02253 R 203177 R	LAC NAME3	
983	02254 R 543245 R	SAD (202131	
984	02255 R 741000 A	SKP	
985	02256 R 602262 R	JMP .+1+3	
986	02257 R 203200 R	LAC NAME4	
987	02260 R 543246 R	SAD (-135746	
988	02261 R 622201 R	JMP* CONRED / END DETECTED	
989	02262 R 403211 R	XCT CHEKK2 / SKP OR NOP FOR CONNS ONLY	
990	02263 R 102551 R	JMS NCHEKX / CHECK NAMES ARE OK	
991	02264 R 123236 E	JMS* ADDCON	
992	02265 R 602302 R	JMP .+1+14	
993	02266 R 002476 R	.DSA NAME1	
994	02267 R 003201 R	.DSA PIN1	
995	02270 R 003177 R	.DSA NAME3	
996	02271 R 003202 R	.DSA PIN2	
997	02272 R 000000 A	ARG5 0 / COMP(1) ADDR	
998	02273 R 000000 A	0 / EOCOMP ADDR	
999	02274 R 000000 A	0 / CONN(1) ADDR	
1000	02275 R 000000 A	0 / EOCONN ADDR	
1001	02276 R 000000 A	0 / LIB(1) ADDR	
1002	02277 R 000000 A	0 / EOLIB ADDR	
1003	02300 R 003203 R	.DSA WIDTH	
1004	02301 R 003253 R	.DSA (-1 / MODE TO MARK ADDED CONNECTION	

PAGE	28	DATAIN SRC	DATAIN
1005	02302 R 741200 A	SNA	
1006	02303 R 443213 R	ISZ ERFLG	
1007	02304 R 202476 R	LAC NAME1	
1008	02305 R 043177 R	DAC NAME3	
1009	02306 R 202477 R	LAC NAME2	
1010	02307 R 043200 R	DAC NAME4	
1011	02310 R 203201 R	LAC PIN1	
1012	02311 R 043202 R	DAC PIN2	
1013	02312 R 602206 R	JMP CONEXT	
1014		/	
1015		/ SUB TO READ BOARD	
1016		/	
1017	02313 R 740040 A	BORDRD XX	
1018	02314 R 200011 R	LAC BORDAD	
1019	02315 R 360012 R	TAD* EOBAD	
1020	02316 R 343254 R	TAD (-2	
1021	02317 R 063300 R	DAC* 10 / BASE ADDRESS IN AUTO INDEX REG	
1022	02320 R 102732 R	B1 JMS NUMBER	
1023	02321 R 543253 R	SAD (-1	
1024	02322 R 602320 R	JMP B1	
1025	02323 R 543254 R	SAD (-2	
1026	02324 R 622313 R	JMP* BORDRD	
1027	02325 R 043157 R	DAC DUMP	
1028	02326 R 744010 A	CLL!RAL / *2	
1029	02327 R 360012 R	TAD* EOBAD	
1030	02330 R 343301 R	TAD (-62 / CHECK FOR > 50	
1031	02331 R 740100 A	SMA	
1032	02332 R 622313 R	JMP* BORDRD / EXIT.BOARD TOO BIG	
1033	02333 R 203157 R	LAC DUMP	
1034	02334 R 060010 A	DAC* 10 / CORNER COUNT STORED	
1035	02335 R 460012 R	ISZ* EOBAD	
1036	02336 R 740001 A	CMA	
1037	02337 R 343244 R	TAD (1	
1038	02340 R 043160 R	DAC CNTR / -NO OF CORNERS	
1039	02341 R 102732 R	BLOOP JMS NUMBER	
1040	02342 R 543253 R	SAD (-1	
1041	02343 R 602341 R	JMP BLOOP	
1042	02344 R 543254 R	SAD (-2	
1043	02345 R 622313 R	JMP* BORDRD	
1044	02346 R 460012 R	ISZ* EOBAD	
1045	02347 R 503302 R	AND (1777	
1046	02350 R 060010 A	DAC* 10 / X VAL STORED	
1047	02351 R 102732 R	B2 JMS NUMBER	
1048	02352 R 543253 R	SAD (-1	
1049	02353 R 602351 R	JMP B2	
1050	02354 R 543254 R	SAD (-2	
1051	02355 R 622313 R	JMP* BORDRD	
1052	02356 R 460012 R	ISZ* EOBAD	
1053	02357 R 503302 R	AND (1777	
1054	02360 R 060010 A	DAC* 10 / Y VAL STORED	
1055	02361 R 443160 R	ISZ CNTR	
1056	02362 R 602341 R	JMP BLOOP	
1057	02363 R 602320 R	JMP B1	

PAGE	29	DATAIN SRC	DATAIN
1058			/
1059			/ SUBS TO CHECK FOR END AND WIDTH COMMANDS
1060			/
1061	02364 R	042476 R	ENDMAY DAC NAME1
1062	02365 R	641002 A	LACQ
1063	02366 R	543246 R	SAD (-135746
1064	02367 R	622201 R	JMP* CONRED
1065	02370 R	652000 A	LMQ
1066	02371 R	202476 R	LAC NAME1
1067	02372 R	602213 R	JMP NOTND
1068			/
1069	02373 R	042476 R	WIDCH DAC NAME1
1070	02374 R	641002 A	LACQ
1071	02375 R	543303 R	SAD (-325746
1072	02376 R	741000 A	SKP
1073	02377 R	602217 R	JMP WIDE
1074	02400 R	102732 R	JMS NUMBER
1075	02401 R	043203 R	DAC WIDTH
1076	02402 R	602206 R	JMP CONEXT
1077			/
1078			/ LIST OF ERROR MESSAGES
1079			/
1080	02403 R	202476 R	DUPCOM LAC NAME1
1081	02404 R	042512 R	DAC ZNAME1
1082	02405 R	202477 R	LAC NAME2
1083	02406 R	042513 R	DAC ZNAME2
1084			.WRITE -3,2,DPCOM,34
	02407 R	002775 A *G	CAL+2*1000 -3&777
	02410 R	000011 A *G	11
	02411 R	002500 R *G	DPCOM
		*G	.DEC
	02412 R	777736 A *G	-34
1085			.WAIT -3
	02413 R	000775 A *G	CAL -3&777
	02414 R	000012 A *G	12
1086	02415 R	102732 R	JMS NUMBER / READ LIB
1087	02416 R	602065 R	JMP CNEX
1088	02417 R		LIBABS .WRITE -3,2,LIBAB,34
	02417 R	002775 A *G	CAL+2*1000 -3&777
	02420 R	000011 A *G	11
	02421 R	002462 R *G	LIBAB
		*G	.DEC
	02422 R	777736 A *G	-34
1089			.WAIT -3
	02423 R	000775 A *G	CAL -3&777
	02424 R	000012 A *G	12
1090	02425 R	602065 R	JMP CNEX
1091	02426 R	203221 R	DUPLIB LAC LREFNO
1092	02427 R	101271 R	JMS PACK
1093	02430 R	042457 R	DAC LIBM11
1094	02431 R	641002 A	LACQ
1095	02432 R	042460 R	DAC LIBM12
1096			.WRITE -3,2,DUPLYB,34

PAGE	30	DATAIN	SRC	DATAIN
		02433 R	002775 A *G	CAL+2*1000 -3&777
		02434 R	000011 A *G	11
		02435 R	002443 R *G	DUPLYB
			*G	.DEC
		02436 R	777736 A *G	-34
1097				.WAIT -3
		02437 R	000775 A *G	CAL -3&777
		02440 R	000012 A *G	12
1098		02441 R	600733 R	JMP DUPLBK
1099		02442 R	600074 R	JMP ERXIT
1100		02443 R	002002 A	DUPLYB 2002; 0
		02444 R	000000 A	
1101		02445 R	202112 A	.ASCII / DUPL LIB COMP REF NO /
		02446 R	550230 A	
		02447 R	202311 A	
		02450 R	141100 A	
		02451 R	416371 A	
		02452 R	550100 A	
		02453 R	512130 A	
		02454 R	620234 A	
		02455 R	475000 A	
		02456 R	000000 A	
1102		02457 R	000000 A	LIBM11 0
1103		02460 R	000000 A	LIBM12 0
1104		02461 R	064000 A	64000 / CR TO STOP TELETYPE
1105		02462 R	002002 A	LIBAB 2002; 0
		02463 R	000000 A	
1106		02464 R	202311 A	.ASCII / LIB. COMP ABSENT FOR /
		02465 R	141134 A	
		02466 R	202071 A	
		02467 R	746640 A	
		02470 R	202030 A	
		02471 R	251612 A	
		02472 R	472504 A	
		02473 R	043236 A	
		02474 R	511000 A	
		02475 R	000000 A	
1107		02476 R	000000 A	NAME1 0
1108		02477 R	000000 A	NAME2 0
1109		02500 R	002002 A	DPCOM 2002; 0
		02501 R	000000 A	
1110		02502 R	202112 A	.ASCII / DUPL COMP NAME /
		02503 R	550230 A	
		02504 R	202071 A	
		02505 R	746640 A	
		02506 R	202350 A	
		02507 R	146612 A	
		02510 R	200000 A	
		02511 R	000000 A	
1111		02512 R	000000 A	ZNAME1 0
1112		02513 R	000000 A	ZNAME2 0
1113				/
1114				/

PAGE	31	DATAIN SRC	DATAIN
1115			/ SPECIAL INPUT ROUTINE CALLED WHEN CONNS ONLY WANTED
1116			/
1117			/
1118	02514 R 203304 R		SPECCC LAC (131 / 89 WORDS = 64 PADS
1119	02515 R 060003 R		DAC* LIBADD
1120	02516 R 343244 R		TAD (1
1121	02517 R 060004 R		DAC* EOLAD
1122	02520 R 200003 R		LAC LIBADD
1123	02521 R 063300 R		DAC* (10
1124	02522 R 203244 R		LAC (1
1125	02523 R 060010 A		DAC* 10 / LIB REFERENCE NUMBER
1126	02524 R 060006 R		DAC* EOCAD / DELETE ALL COMPONENTS
1127	02525 R 060010 R		DAC* EOCADN / DELETE ALL CONNEXIONS
1128	02526 R 777656 A		LAW -122
1129	02527 R 043231 R		DAC SPXCNX#
1130	02530 R 160010 A		DZM* 10
1131	02531 R 443231 R		ISZ SPXCNX
1132	02532 R 602530 R		JMP .-2 / FILL LIB WITH ZEROS
1133	02533 R 203243 R		LAC (NOP
1134	02534 R 043211 R		DAC CHEKK2
1135			/
1136			/ WE HAVE NOW CREATED A SUITABLE COMPONENT.
1137			/ SCAN THE TAPE AND STOP AFTER READING END
1138			/
1139	02535 R 102631 R		JMS NAME
1140	02536 R 543245 R		SAD (202131
1141	02537 R 741000 A		SKP
1142	02540 R 602535 R		JMP .-3 / NOT END
1143	02541 R 641002 A		LACQ
1144	02542 R 543246 R		SAD (-135746
1145	02543 R 741000 A		SKP
1146	02544 R 602535 R		JMP .-7 / NOT END
1147			/
1148			/ NOW READ THE CONNEXIONS AND CREATE
1149			/ COMPONENTS WHERE NECESSARY (LIB PTR = 1)
1150			/
1151	02545 R 203243 R		LAC (NOP
1152	02546 R 043211 R		DAC CHEKK2
1153	02547 R 043230 R		DAC RRRRR
1154	02550 R 600067 R		JMP ERXIT-5 / JMS CONRED
1155			/
1156			/ SUBROUTINE TO CREATE COMPONENTS IN THE
1157			/ COMPONENTS ARRAY.(IF REQUIRED)
1158			/
1159	02551 R 740040 A		NCHEKX XX
1160	02552 R 202477 R		LAC NAME2
1161	02553 R 043156 R		DAC MQST
1162	02554 R 652000 A		LMQ
1163	02555 R 202476 R		LAC NAME1
1164	02556 R 043155 R		DAC ACST / STORE COPY OF NAME1.2
1165	02557 R 102067 R		JMS FINCOM
1166	02560 R 740200 A		SZA
1167	02561 R 602566 R		JMP NAMNM2 / CHECK NEXT NAME

PAGE	32	DATAIN	SRC	DATAIN
1168		02562	R 202477	R LAC NAME2
1169		02563	R 652000	A LMQ
1170		02564	R 202476	R LAC NAME1
1171		02565	R 102605	R JMS CREATE / CREATE A COMPONENT
1172		02566	R 203200	R NAMNM2 LAC NAME4
1173		02567	R 652000	A LMQ
1174		02570	R 203177	R LAC NAME3
1175		02571	R 102067	R JMS FINCOM
1176		02572	R 740200	A SZA
1177		02573	R 602600	R JMP .+1+4
1178		02574	R 203200	R LAC NAME4
1179		02575	R 652000	A LMQ
1180		02576	R 203177	R LAC NAME3
1181		02577	R 102605	R JMS CREATE
1182		02600	R 203156	R LAC MQST
1183		02601	R 042477	R DAC NAME2
1184		02602	R 203155	R LAC ACST
1185		02603	R 042476	R DAC NAME1
1186		02604	R 622551	R JMP* NCHEKX
1187				/
1188				/
1189		02605	R 740040	A CREATE XX
1190		02606	R 043157	R DAC TOT / STORE TOP OF NAME
1191		02607	R 200005	R LAC COMPAD
1192		02610	R 360006	R TAD* EOCAD
1193		02611	R 343253	R TAD (-1
1194		02612	R 043163	R DAC SCAN
1195		02613	R 163163	R DZM* SCAN
1196		02614	R 443163	R ISZ SCAN
1197		02615	R 203157	R LAC TOT
1198		02616	R 063163	R DAC* SCAN
1199		02617	R 443163	R ISZ SCAN
1200		02620	R 641002	A LACQ
1201		02621	R 063163	R DAC* SCAN
1202		02622	R 443163	R ISZ SCAN
1203		02623	R 203244	R LAC (1
1204		02624	R 063163	R DAC* SCAN / LIB REF NUMBER
1205		02625	R 220006	R LAC* EOCAD
1206		02626	R 343273	R TAD (6
1207		02627	R 060006	R DAC* EOCAD
1208		02630	R 622605	R JMP* CREATE
1209				/
1210				/
1211				/ SUBROUTINE NAME
1212		02631	R 740040	A NAME XX
1213		02632	R 143154	R DZM STAR
1214		02633	R 203305	R LAC (201004 /5/7 ASCII 5 BLANKS
1215		02634	R 043155	R DAC ACST
1216		02635	R 203306	R LAC (020100
1217		02636	R 043156	R DAC MQST
1218		02637	R 103006	R NAMM JMS CHAR
1219		02640	R 543307	R SAD (15 / LOOK FOR CR
1220		02641	R 443212	R ISZ CRFLAG

PAGE	33	DATAIN	SRC	DATAIN
1221		02642	R 740000 A	NOF
1222		02643	R 343310 R	TAD (-101
1223		02644	R 741100 A	SPA / AC > OR = 0
1224		02645	R 602637 R	JMP NAMM
1225		02646	R 343311 R	TAD (-32
1226		02647	R 740100 A	SMA
1227		02650	R 602637 R	JMP NAMM
1228		02651	R 343312 R	TAD (133 / LETTER IN AC
1229		02652	R 744010 A	CLL!RAL
1230		02653	R 043157 R	DAC DUMP
1231		02654	R 203313 R	LAC (-4 /SET NAME COUNTER
1232		02655	R 043160 R	DAC CNTR
1233		02656	R 602701 R	JMP INSIDE
1234		02657	R 103006 R	NAMLUP JMS CHAR
1235		02660	R 543314 R	SAD (52
1236		02661	R 602716 R	JMP STARR / ENDED BY STAR
1237		02662	R 744010 A	RCL
1238		02663	R 043157 R	DAC DUMP
1239		02664	R 744020 A	RCR / RESTORE
1240		02665	R 343251 R	TAD (-60
1241		02666	R 741100 A	SPA
1242		02667	R 602717 R	JMP NAMEX / TOO SMALL
1243		02670	R 343252 R	TAD (-12
1244		02671	R 741100 A	SPA
1245		02672	R 602701 R	JMP INSIDE / CHAR IS A NUMBER
1246		02673	R 343315 R	TAD (-7 / A
1247		02674	R 741100 A	SPA
1248		02675	R 602717 R	JMP NAMEX
1249		02676	R 343316 R	TAD (-33 / Z+1
1250		02677	R 740100 A	SMA
1251		02700	R 602717 R	JMP NAMEX
1252		02701	R 203156 R	INSIDE LAC MQST
1253		02702	R 652000 A	LMQ
1254		02703	R 203155 R	LAC ACST
1255		02704	R 744000 A	CLL
1256		02705	R 640607 A	LLS 7
1257		02706	R 043155 R	DAC ACST
1258		02707	R 641002 A	LACQ
1259		02710	R 343157 R	TAD DUMP
1260		02711	R 043156 R	DAC MQST
1261		02712	R 443160 R	ISZ CNTR
1262		02713	R 602657 R	JMP NAMLUP / CONTINUE
1263		02714	R 103006 R	NAMED JMS CHAR / LOOK FOR *
1264		02715	R 543314 R	SAD (52
1265		02716	R 443154 R	STARR ISZ STAR
1266		02717	R 203156 R	NAMEX LAC MQST
1267		02720	R 652000 A	LMQ
1268		02721	R 203155 R	LAC ACST
1269		02722	R 744000 A	CLL
1270		02723	R 640607 A	LLS 7
1271		02724	R 043155 R	DAC ACST
1272		02725	R 641002 A	LACQ
1273		02726	R 343317 R	TAD (32 / CR*2

PAGE	34	DATAIN	SRC	DATAIN
1274		02727	R 652000	A LMQ
1275		02730	R 203155	R LAC ACST
1276		02731	R 622631	R JMP* NAME / RETURN WITH NAME IN AC & MQ
1277				/ SUBROUTINE NUMBER
1278		02732	R 740040	A NUMBER XX
1279		02733	R 203253	R LAC (-1
1280		02734	R 043157	R DAC TOT
1281		02735	R 143232	R DZM STAR0
1282		02736	R 103006	R NUMBA JMS CHAR
1283		02737	R 543307	R SAD (15 / CHECK FOR CR
1284		02740	R 603004	R JMP ENDLYN / C R DETECTED
1285		02741	R 543247	R SAD (55 /CHECK FOR -1 READ
1286		02742	R 603001	R JMP MINUS
1287		02743	R 543250	R SAD (114 / LOOK FOR L
1288		02744	R 403230	R XCT RRRRR / JMP TO LIBERR OR NOP
1289		02745	R 343251	R TAD (-60 /+VE FOR NUMBERS
1290		02746	R 741100	A SPA / SKIP + OR 0
1291		02747	R 602736	R JMP NUMBA
1292		02750	R 343252	R TAD (-12 / -VE FOR NO
1293		02751	R 740100	A SMA
1294		02752	R 602736	R JMP NUMBA
1295		02753	R 343320	R TAD (12 / NO IN AC
1296		02754	R 043157	R DAC TOT
1297		02755	R 103006	R NUMLUP JMS CHAR
1298		02756	R 543307	R SAD (15
1299		02757	R 443232	R ISZ STAR0
1300		02760	R 343251	R TAD (-60
1301		02761	R 741100	A SPA
1302		02762	R 602777	R JMP GOTIT
1303		02763	R 343252	R TAD (-12
1304		02764	R 740100	A SMA
1305		02765	R 602777	R JMP GOTIT
1306		02766	R 343320	R TAD (12
1307		02767	R 043155	R DAC DIGIT
1308		02770	R 203157	R LAC TOT
1309		02771	R 746010	A CLL!RTL /*4
1310		02772	R 343157	R TAD TOT /*5
1311		02773	R 744010	A CLL!RAL /*10
1312		02774	R 343155	R TAD DIGIT
1313		02775	R 043157	R DAC TOT
1314		02776	R 602755	R JMP NUMLUP
1315		02777	R 203157	R GOTIT LAC TOT
1316		03000	R 622732	R JMP* NUMBER / EXIT
1317		03001	R 203157	R MINUS LAC TOT
1318		03002	R 343157	R TAD TOT
1319		03003	R 622732	R JMP* NUMBER /EXIT FOR -1 READ
1320		03004	R 203157	R ENDLYN LAC TOT
1321		03005	R 622732	R JMP* NUMBER
1322				/
1323				/
1324				/ SUBROUTINE CHAR. READS A SINGLE CHARACTER FROM THE
1325				/ INPUT DEVICE AND CHECKS FOR ANY PARITY ERRORS
1326				/ DELETE CHARS AND BLANK TAPE ARE IGNORED

PAGE	35	DATAIN	SRC	DATAIN
1327				/
1328		03006 R 740040 A		CHAR XX
1329		03007 R 203162 R		LAC DEVI
1330		03010 R 543276 R		SAD (5 / PRA = 5
1331		03011 R 603021 R		JMP PAPTAP / INPUT ON PAPER TAPE
1332				.READ -2,3,BUFF,3
		03012 R 003776 A *G		CAL+3*1000 -2&777
		03013 R 000010 A *G		10
		03014 R 003204 R *G		BUFF
				*G .DEC
		03015 R 777775 A *G		-3
1333				.WAIT -2
		03016 R 000776 A *G		CAL -2&777
		03017 R 000012 A *G		12
1334		03020 R 603027 R		JMP BOTH
1335		03021 R		PAPTAP .READ 5,3,BUFF,3
		03021 R 003005 A *G		CAL+3*1000 5&777
		03022 R 000010 A *G		10
		03023 R 003204 R *G		BUFF
				*G .DEC
		03024 R 777775 A *G		-3
1336				.WAIT 5
		03025 R 000005 A *G		CAL 5&777
		03026 R 000012 A *G		12
1337		03027 R 203204 R		BOTH LAC BUFF
1338		03030 R 503321 R		AND (7
1339		03031 R 343322 R		TAD (-6
1340		03032 R 740200 A		SZA
1341		03033 R 603053 R		JMP NOTEND
1342				/
1343				/ ROUTINE FOR FINDING THE START OF NEW TAPES
1344				/
1345				.WRITE -3,2,ENDOT,34
		03034 R 002775 A *G		CAL+2*1000 -3&777
		03035 R 000011 A *G		11
		03036 R 003140 R *G		ENDOT
				*G .DEC
		03037 R 777736 A *G		-34
1346				.WAIT -3
		03040 R 000775 A *G		CAL -3&777
		03041 R 000012 A *G		12
1347		03042 R 750004 A		LAS
1348		03043 R 043161 R		DAC FLAG
1349		03044 R 750004 A		LAS / WAIT LOOP
1350		03045 R 543161 R		SAD FLAG
1351		03046 R 603044 R		JMP ,-2 / CONTINUE
1352		03047 R 143161 R		DZM FLAG / RESET PARITY IND
1353		03050 R 403211 R		XCT CHEKK2 / SKP OR NOP FOR 'CONNS ONLY' MODE
1354		03051 R 602535 R		JMP NCHEKX-14 / JMS NAME IN CONNS ONLY MODE
1355		03052 R 600063 R		JMP ERXIT-11 / READ LIB ON NEW TAPE
1356		03053 R 203206 R		NOTEND LAC BUFF+2
1357		03054 R 103065 R		JMS PARITI / CHECK FOR PARITY ERRORS
1358		03055 R 503323 R		AND (177

PAGE	36	DATAIN	SRC	DATAIN
1359		03056 R	543323 R	SAD (177
1360		03057 R	603007 R	JMP CHAR+1 / IGNORE DELETE
1361		03060 R	741200 A	SNA
1362		03061 R	603007 R	JMP CHAR+1 / IGNORE BLANK TAPE
1363		03062 R	543320 R	SAD (12 / CHECK FOR NEW LINE
1364		03063 R	203307 R	LAC (15 / AND REPLACE WITH C.R.
1365		03064 R	623006 R	JMP* CHAR
1366				/
1367				/
1368		03065 R	740040 A	PARITI XX
1369		03066 R	043235 R	DAC ZAGZ# / STORE CHARACTER
1370		03067 R	203161 R	LAC FLAG
1371		03070 R	740200 A	SZA
1372		03071 R	603122 R	JMP PAROUT
1373		03072 R	203162 R	LAC DEVI
1374		03073 R	543276 R	SAD (5
1375		03074 R	741000 A	SKP
1376		03075 R	603122 R	JMP PAROUT / DONT CHECK PARITY ON TTY INPUT
1377		03076 R	777770 A	LAW -10
1378		03077 R	043224 R	DAC PARCNT#
1379		03100 R	203235 R	LAC ZAGZ
1380		03101 R	143225 R	DZM PARCN2#
1381		03102 R	744020 A	PARLP RCR
1382		03103 R	741400 A	SZL
1383		03104 R	443225 R	ISZ PARCN2
1384		03105 R	443224 R	ISZ PARCNT
1385		03106 R	603102 R	JMP PARLP
1386		03107 R	203225 R	LAC PARCN2
1387		03110 R	503244 R	AND (1
1388		03111 R	741200 A	SNA
1389		03112 R	603122 R	JMP PAROUT
1390		03113 R	443161 R	ISZ FLAG
1391				.WRITE -3,2,PARITY,34
		03114 R	002775 A *G	CAL+2*1000 -3&777
		03115 R	000011 A *G	11
		03116 R	003124 R *G	PARITY
			*G	.DEC
				-34
1392		03117 R	777736 A *G	.WAIT -3
				CAL -3&777
		03120 R	000775 A *G	12
1393		03121 R	000012 A *G	PAROUT LAC ZAGZ
1394		03122 R	203235 R	JMP* PARITI
1395				/
1396		03124 R	002002 A	PARITY 2002; 0
		03125 R	000000 A	
1397		03126 R	202111 A	.ASCII / DISPARITE INPUT DATA /<15>
		03127 R	151640 A	
		03130 R	406451 A	
		03131 R	152212 A	
		03132 R	202231 A	
		03133 R	650252 A	
		03134 R	521010 A	

PAGE	37	DATAIN SRC	DATAIN
		03135 R 440650 A	
		03136 R 405001 A	
		03137 R 500000 A	
1398		03140 R 002002 A	ENDOT 2002: 0
		03141 R 000000 A	
1399		03142 R 202411 A	.ASCII / PLEASE LOAD NEXT TAPE /<15>
		03143 R 442602 A	
		03144 R 516124 A	
		03145 R 046236 A	
		03146 R 406104 A	
		03147 R 047212 A	
		03150 R 542504 A	
		03151 R 052202 A	
		03152 R 502124 A	
		03153 R 006400 A	
1400			/
1401			/ SYMBOL TABLE
1402			/
1403		03154 R 740040 A	STAR XX
1404		03155 R 740040 A	ACST XX
1405		03156 R 740040 A	MQST XX
1406		03157 R 740040 A	DUMP XX
1407		03160 R 740040 A	CNTR XX
1408		003157 R	TOT=DUMP
1409		003155 R	DIGIT=ACST
1410		03161 R 740040 A	FLAG XX
1411		03162 R 740040 A	DEV1 XX
1412		03163 R 740040 A	SCAN XX
1413		03164 R 740040 A	WRDCNT XX
1414		03165 R 740040 A	PADCNT XX
1415		03166 R 740040 A	PADAD XX
1416		03167 R 740040 A	LSTRT XX
1417		03170 R 740040 A	X1 XX
1418		03171 R 740040 A	Y1 XX
1419		03172 R 740040 A	LIBREF XX
1420		03173 R 740040 A	CEND XX
1421		03174 R 740040 A	LEND XX
1422		03175 R 740040 A	CSCAN XX
1423		03176 R 740040 A	LSCAN XX
1424		03177 R 740040 A	NAME3 XX
1425		03200 R 740040 A	NAME4 XX
1426		03201 R 740040 A	PIN1 XX
1427		03202 R 740040 A	PIN2 XX
1428		03203 R 740040 A	WIDTH XX
1429		03204 R	BUFF .BLOCK 4 / INPUT BUFFER
1430		000000 A	.END
		03236 R 003236 E	*E
		03237 R 003237 E	*E
		03240 R 003240 E	*E
		03241 R 003241 E	*E
		03242 R 741000 A	*L
		03243 R 740000 A	*L
		03244 R 000001 A	*L

03245 R 202131 A *L
03246 R 642032 A *L
03247 R 000055 A *L
03250 R 000114 A *L
03251 R 777720 A *L
03252 R 777766 A *L
03253 R 777777 A *L
03254 R 777776 A *L
03255 R 000003 A *L
03256 R 600462 R *L
03257 R 000077 A *L
03260 R 777775 A *L
03261 R 000002 A *L
03262 R 777003 A *L
03263 R 770000 A *L
03264 R 007700 A *L
03265 R 600162 R *L
03266 R 620144 R *L
03267 R 000060 A *L
03270 R 000777 A *L
03271 R 010000 A *L
03272 R 003000 A *L
03273 R 000006 A *L
03274 R 773077 A *L
03275 R 777400 A *L
03276 R 000005 A *L
03277 R 536230 A *L
03300 R 000010 A *L
03301 R 777716 A *L
03302 R 001777 A *L
03303 R 452032 A *L
03304 R 000131 A *L
03305 R 201004 A *L
03306 R 020100 A *L
03307 R 000015 A *L
03310 R 777677 A *L
03311 R 777746 A *L
03312 R 000133 A *L
03313 R 777774 A *L
03314 R 000052 A *L
~~03315 R 777771 A *L~~
03316 R 777745 A *L
03317 R 000032 A *L
03320 R 000012 A *L
03321 R 000007 A *L
03322 R 777772 A *L
03323 R 000177 A *L

ACST	03155	527	540	544	554	1164	116	1215	1254	1257
		1268	1271	1275	1404*	1409				
ADDCON	03236	9	991							
ARG5	02272	968	970	972	974	976	978	997*		
BLANK	01331	526	528	556*						
BLOOP	02341	1039*	1041	1056						
BORDAD	00011	19*	1018							
BORDRD	02313	60	1017*	1026	1032	1043	1051			
BOTH	03027	1334	1337*							
BUFF	03204	40	41	42	43	1332	1335	1337	1356	1429*
B1	02320	1022*	1024	1057						
B2	02351	1047*	1049							
CEND	03173	865	880	1420*						
CHAR	03006	112	395	1218	1234	1263	1282	1297	1328*	1360
		1362	1365							
CHEKK	03210	38	59	139	164	180	215	236	255	267
		294	569							
CHEKK2	03211	51	57	989	1134	1152	1353			
CMPAD	00136	79	101*							
CNEX	02065	799	813	827	841	848*	1087	1090		
CNEXT	01334	561*	612	700	751	755	849			
CNNAD	00140	83	103*							
CNTR	03160	1038	1055	1232	1261	1407*				
COMEND	01615	755*								
COMFUL	01622	622	765*							
COMLUP	02105	868*	882							
COMPAD	00005	15*	78	561	704	708	860	967	1191	
COMPRD	01333	55	560*	782	899					
CONEXT	02206	939*	1013	1076						
CONNAD	00007	17*	82	971						
CONRED	02201	56	934*	988	1064					
CONSCN	00131	88	96*							
CORDIN	02075	860*	900							
CREATE	02605	1171	1181	1189*	1208					
CRFLAG	03212	940	956	1220						
CR1	00412	279*	283							
CR10	02220	949*	951							
CR11	02233	958	963*	965						
CR2	00420	285*	289							
CR3	00222	156*	160							
CR4	00304	209*	213							
CR5	00331	230*	234							
CR6	00355	250*	254							
CR7	01435	629*	631							
CR8	01462	653*								
CR9	01473	662*								
CSCAN	03175	691	692	696	698	716	723	862	866	868
		874	877	879	883	884	889	894	1422*	
DATRAIN	00000	7	9	10*	106					
DC0	01757	811	814*							
DC1	01777	808	810	817*						
DC10	01742	793	795	803*						
DC3	02014	825	828*							
DC4	02032	822	824	831*						

DC6	02047	839	842*							
DC7	02063	836	838	845*						
DC9	01726	796	800*							
DETCR	01616	652	655	661	664	756*				
DELAD	00013	21*	23							
DE/I	03162	24	1329	1373	1411*					
DIFLIB	01744	580	588	807*						
DIGIT	003155	1307	1312	1409*						
DIMER	00742	298	404*							
DPCOM	02500	1084	1109*							
DUMP	03157	1027	1033	1230	1238	1259	1406*	1408		
DUPCOM	02403	614	1080*							
DUPLBK	00733	313	382	394*	400	418	448	484	512	1098
DUPLIB	02426	148	1091*							
DUPLYB	02443	1096	1100*							
EK1	01212	465	467	494*						
EK3	01175	470	472	488*						
EK5	01231	475	477	500*						
EK7	01266	507	509	516*						
ENDLYN	03004	1284	1320*							
ENDMAY	02364	943	1061*							
ENDOT	03140	1345	1398*							
EOBAD	00012	20*	30	94	1019	1029	1035	1044	1052	
EOCAD	00006	16*	28	80	92	562	618	647	649	864
		969	1126	1192	1205	1207				
EOCADN	00010	18*	84	973	1127					
EOCNAD	00141	85	104*							
EOCPD	00137	81	102*							
EOLAD	00004	14*	26	90	125	193	270	272	908	977
		1121								
ERFLG	03213	25	86	97	105	394	765	848	1006	
ERRLIB	00462	153	203	314*						
ERROR	02135	867	881	892*						
EXXIT	00074	58	61*	1099	1154	1355				
FINCOM	02067	568	854*	893	896	1165	1175			
FINLIB	02146	138	578	632	904*	927	930			
FLAG	03161	39	1348	1350	1352	1370	1390	1410*		
FLUZX	01411	597	600	603	606*					
FOUND	02137	888	894*							
FULL1	00635	309	364*							
FULL2	01652	770	784*							
FULL3	01670	772	789*							
FUL1	00651	306	308	367*						
FUL2	01666	767	769	787*						
GOTIT	02777	1302	1305	1315*						
GRONG	03214	168	170	173	463					
INSIDE	02701	1233	1245	1252*						
LBAO	03215	31	93							
LCOM	03216	29	91							
LEND	03174	910	923	1421*						
LError	02174	912	924	926*						
LFOND	02176	918	928*							
LIBAB	02462	1088	1105*							
LIBABS	02417	634	1088*							

LIBADD	00003	13*	124	583	637	694	7	906	975	1119
		1122								
LIBEND	00407	276*								
LIBERR	00464	158	211	232	252	281	287	316*		
LIBER2	00654	122	373*							
LIBEX	03217	317	342							
LIBFUL	00440	196	304*							
LIBLUP	00300	205*	266							
LIBM1	00536	324	343*							
LIBM10	00617	311	340	361*						
LIBM11	02437	1093	1102*							
LIBM12	02460	1095	1103*							
LIBM2	00552	321	323	346*						
LIBM4	00555	331	349*							
LIBM5	00573	328	330	352*						
LIBM7	00576	338	355*							
LIBM8	00614	335	337	358*						
LIBN1	00676	378	384*							
LIBN2	00714	375	387*							
LIBN3	00715	377	388*							
LIBN4	00717	380	390*							
LIBRED	00144	52	110*	114	119	123	133	269	275	276
		316	397							
LIBREF	03172	639	642	643	657	658	666	756	1419*	
LLAD	03220	27	89							
LNEXT	00162	116	124*	135	314	399				
LREFNO	03221	111	137	304	319	373	404	434	468	505
		1091								
LSCAN	03176	907	911	913	915	916	919	922	928	1423*
LSTRT	03167	128	143	166	274	1416*				
LUPEND	00376	199	228	248	267*					
LYBLP	02157	913*	925							
MAYEND	02142	859	897*							
MIDMK	02001	594	821*							
MINUS	03001	1286	1317*							
MISMAT	01117	176	463*							
MISPT	01033	220	241	260	433*					
MODAD	00014	22*	32	47						
MQST	03156	529	538	546	552	1161	1182	1217	1252	1260
		1266	1405*							
NAME	02631	65	567	777	941	959	1139	1212*	1276	
NAMED	02714	1263*								
NAMEX	02717	1242	1248	1251	1266*					
NAME1	02476	623	766	792	807	821	835	855	875	897
		946	993	1007	1061	1066	1069	1080	1107*	1163
		1170	1185							
NAME2	02477	626	768	794	809	823	837	857	885	948
		1009	1082	1108*	1160	1168	1183			
NAME3	03177	905	917	960	982	995	1008	1174	1180	1424*
NAME4	03200	962	986	1010	1172	1178	1425*			
NAMLUP	02657	1234*	1262							
NAMM	02637	1218*	1224	1227						
NAMNM2	02566	1167	1172*							
NCHEKX	02551	990	1159*	1186	1354					

NGIVEN	03222	152	163	223	244	263	333	409	433	439
NOCHCP	01712	572	792*							
NOCHEK	01234	142	505*							
NOCOMP	02116	873	877*							
NOTEND	03053	1341	1356*							
NOTLCH	00270	182	197*							
NOTND	02213	944*	1067							
NPSPEC	03223	151	162	174	183	197	326	473		
NULL	01612	671	674	752*	759					
NUMBA	02736	1282*	1291	1294						
NUMBER	02732	131	156	209	230	250	279	285	575	598
		604	629	653	662	672	680	798	949	963
		1022	1039	1047	1074	1086	1278*	1316	1319	1321
NUMLUP	02755	1297*	1314							
OCOMPX	01420	570	613*							
PACK	01271	305	320	327	334	374	405	410	435	440
		464	469	474	506	524*	555	1092		
PADAD	03166	207	217	222	238	242	243	257	261	262
		1415*								
PADCNT	03165	202	226	246	265	1414*				
PALoup	01277	530*	551							
PAPTAP	03021	1331	1335*							
PAQED	01325	549	552*							
PARCNT	03224	1378	1384							
PARCN2	03225	1380	1383	1386						
PARITI	03065	1357	1368*	1394						
PARITY	03124	1391	1396*							
PARLP	03102	1381*	1385							
PAROUT	03122	1372	1376	1389	1393*					
PIN1	03201	952	994	1011	1426*					
PIN2	03202	966	996	1012	1427*					
PTENS	03226	537	547							
PUNITS	03227	535	543							
RENTER	02120	879*	891							
RRRRR	03230	54	130	154	204	1153	1288			
SARG	01554	705	707	719*						
SCAN	03163	126	136	145	205	206	278	296	299	564
		565	566	574	585	591	608	624	625	627
		628	667	668	675	676	683	690	710	728
		734	737	738	740	741	747	750	752	753
		754	757	758	1194	1195	1196	1198	1199	1201
		1202	1204	1412*						
SIDOPP	02034	611	835*							
SPECCC	02514	49	1118*							
SPXCNX	03231	1129	1131							
STAR	03154	589	640	1213	1265	1403*				
STARR	02716	1236	1265*							
START	00035	39*	45	46						
STAR0	03232	595	601	650	659	669	677	936	939	1281
		1299								
STPAD	00410	155	208	229	249	277*	300			
SUBCON	03237	9	98							
SUBNOD	03240	9	717							
TEST	02124	876	883*							

TOT	003157	870	871	1190	1197	1280	12	1308	1310	1313
		1315	1317	1318	1320	408*				
WIDCH	02373	945	1069*							
WIDE	02217	948*	1073							
WIDTH	03203	938	1003	1075	1428*					
WRDCNT	03164	150	224	225	245	264	271	273	914	920
		1413*								
XEK	01161	478	485*							
XEK2	01200	480	491*							
XEK3	01215	482	497*							
XEK4	01250	510	513*							
X00	03233	719	744							
X1	03170	284	291	1417*						
Y00	03234	720	731							
Y1	03171	290	293	1418*						
ZAGZ	03235	1369	1379	1393						
ZEK0	01063	444	449*							
ZEK1	01101	436	438	452*						
ZEK3	01114	441	443	458*						
ZEK5	01104	446	455*							
ZNAME2	02513	1083	1112*							
ZZEK0	00771	414	419*							
ZZEK1	01007	406	408	422*						
ZZEK3	01030	411	413	428*						
ZZEK5	01012	416	425*							
.DA	03241	9	11							