

TITLE DTIN20

/1 SUITE : PCB LAYOUT
/2 PROGRAM TITLE : REDAL 20
/3 ROUTINE TITLE : DTIN20

/ THIS PROGRAM SOURCE FILE IS SUPPLIED IN CONFIDENCE TO THE
/ CUSTOMER; THE CONTENTS OR DETAILS OF ITS OPERATION MAY ONLY
/ BE DISCLOSED TO PERSONS EMPLOYED BY THE CUSTOMER WHO REQUIRE
/ A KNOWLEDGE OF THE SOFTWARE CODING TO CARRY OUT THEIR JOB.
/ DISCLOSURE TO ANY OTHER PERSON MUST HAVE THE PRIOR AUTHORISATION
/ FROM THE DIRECTORS OF REDAC SOFTWARE LIMITED.

/6 PURPOSE : TO TRANSFER INITIAL DATA FROM PAPER TAPE OR
/ DECTAPE TO STORE.

/7 CALLING SEQUENCE AND DESCRIPTION OF ARGUMENTS:
/ CALL DTIN20(EOCADN,DEVAD,MODAD)
/ EOCADN - END OF CONNECTIONS
/ DEVAD - INDICATES WHICH DEVICE INPUT IS ON
/ MODAD - ONENTRY = 0 FOR CHECKING LIBRARY AND CONNECTIONS
/ = 1 TO READ CONNS ONLY AND INVENT LIBRARY
/ AND COMPS
/ OTHERWISE NORMAL INPUT OPERATION

/8 I/O DEVICES AND FUNCTIONS:
/ .DAT5 PAPERTAPE INPUT
/ .DAT3 DECTAPE INPUT
/ .DAT-2,-3 TT CONTROL AND ERROR MESSAGES

/9 REGISTERS USED: MQ, AIR 10

/10 COMMON AREAS: LIBRY,COMPS,BOARD,EOLBAD,EOCMAD,EOBRAD,SIZE

/12 GLOBALS : DTIN20,ADDCN3,.DA,SUBNOD,ASCIN,FNASK1

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/ MODIFIED FOR RL19 AND RL20 FROM RL07D VERSION
/ EDITS PRINCIPALLY CHANGES TO COOMMON AREAS

/ .IODEV 5,-3,-2,2
/ .GLOBL DTIN20,ADDCN3,.DA,SUBNOD,ASCIN,FNASK1

00000 R 000000 A LIBRY .CBD LIBRY 1
00001 R 000000 A COMPS .CBD COMPS 1
00002 R 000000 A BOARD .CBD BOARD 1
00003 R 000000 A EOLAD .CBD EOLBAD 1
00004 R 000000 A EOCAD .CBD EOCMAD 1
00005 R 000000 A EOBRAD .CBD EOBRAD 1
00006 R 000000 A SIZE .CBD SIZE 1

PAGE	2	DTIN20 SRC	DTIN20
53	00007 R 740040 A	DTIN20 XX	
54	00010 R 123173 E	JMS* .DA	
55	00011 R 600015 R	JMP .+1+3	
56		/ 1 TO STORE CONNS IN ROUTES ARRAY	
57	00012 R 000000 A	EOCADN 0	
58	00013 R 000000 A	DEVAD 0	
59	00014 R 000000 A	MODAD 0 / MODE=0 FOR CHECK ELSE NON ZERO	
60	00015 R 200006 R	LAC SIZE	
61	00016 R 723002 A	AAC 2	
62	00017 R 043150 R	DAC LIBSIZ*	
63	00020 R 723002 A	AAC 2	
64	00021 R 043143 R	DAC COMSIZ*	
65	00022 R 200012 R	LAC EOCADN	
66	00023 R 042122 R	DAC EOA / ARGUMENT FOR ADDCN3	
67	00024 R 220000 R	LAC* LIBRY	
68	00025 R 043146 R	DAC LIBADD*	
69	00026 R 220001 R	LAC* COMPS	
70	00027 R 043142 R	DAC COMPAD*	
71	00030 R 220002 R	LAC* BOARD	
72	00031 R 043136 R	DAC BORDAD*	
73	00032 R 220013 R	LAC* DEVAD	
74	00033 R 043076 R	DAC DEVI / DEVICE NUMBER	
75	00034 R 143132 R	DZM AFLG /SET INITIALISATION FLAG	
76	00035 R 220014 R	LAC* MODAD	
77	00036 R 740200 A	SZA	
78	00037 R 600042 R	JMP .+3	
79	00040 R 203174 R	LAC (SKP / CHECK MODE	
80	00041 R 741000 A	SKP	
81	00042 R 203175 R	LAC (NOP	
82	00043 R 043140 R	DAC CHEKK* / NOP OR SKP FOR CHECK	
83	00044 R 143075 R	START DZM FLAG / BUFFER INDICATOR	
84	00045 R 143120 R	DZM BUFF / CLEAR	
85	00046 R 143121 R	DZM BUFF+1 / ALL	
86	00047 R 143122 R	DZM BUFF+2 / THE	
87	00050 R 143123 R	DZM BUFF+3 / BUFFER	
88		.INIT 5,0,0	
	00051 R 000005 A *G	CAL+0*1000 5&777	
	00052 R 000001 A *G	1	
	00053 R 000000 A *G	0+0	
	00054 R 000000 A *G	0	
89		.INIT -2,0,START	
	00055 R 000776 A *G	CAL+0*1000 -2&777	
	00056 R 000001 A *G	1	
	00057 R 000044 R *G	START+0	
	00060 R 000000 A *G	0	
90		.INIT -3,1,START	
	00061 R 001775 A *G	CAL+1*1000 -3&777	
	00062 R 000001 A *G	1	
	00063 R 000044 R *G	START+0	
	00064 R 000000 A *G	0	
91		.INIT 2,0,START	
	00065 R 000002 A *G	CAL+0*1000 2&777	

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00066 R 000001 A *G      1
00067 R 000044 R *G      START+0
00070 R 000000 A *G      0
92 00071 R 220014 R      LAC* MODAD
93 00072 R 543176 R      SAD (1
94 00073 R 602416 R      JMP SPECC / SPECIAL 'CONNS ONLY' MODE
95 00074 R 203174 R      LAC (SKP
96 00075 R 043141 R      DAC CHEKK2*
97 00076 R 100125 R      JMS LIBRED / READ LIBRARY
98 00077 R 203175 R      LAC (NOP
99 00100 R 043161 R      DAC RRRRR* / SWITCH IN NUMBER
100 00101 R 101252 R      JMS COMPRD / READ COMPONENTS
101 00102 R 102043 R      JMS CONRED / READ CONNEXIONS
102 00103 R 403141 R      XCT CHEKK2
103 00104 R 600107 R      JMP ERXIT
104 00105 R 403140 R      XCT CHEKK / DONT READ BOARD IN CHECK MODE
105 00106 R 102132 R      JMS BORDRD / READ BOARD INTO BOARD ARRAY.UNPACKED.
106 00107 R 740000 A      ERXIT NOP
107 /
108 / CHECK FOR LAST INPUT TAPE
109 /
110 00110 R 102533 R      JMS NAME / LOOK FOR 'END'
111 00111 R 543177 R      SAD (202131
112 00112 R 741000 A      SKP
113 00113 R 600110 R      JMP .-3
114 00114 R 641002 A      LACQ
115 00115 R 543200 R      SAD (-135746
116 00116 R 741000 A      SKP
117 00117 R 600110 R      JMP .-7 / KEEP LOOKING
118 .CLOSE 5
00120 R 000005 A *G      CAL 5&777
00121 R 000006 A *G      6
119 .CLOSE 2
00122 R 000002 A *G      CAL 2&777
00123 R 000006 A *G      6
00124 R 620007 R      JMP* DTIN20 / EXIT INSTRUCTION
120 /
121 / SUB TO READ LIBRARY
122 /
123 /
124 00125 R 740040 A      LIBRED XX
125 00126 R 143151 R      DZM LREFNO
126 00127 R 102710 R      JMS CHAR
127 00130 R 543201 R      SAD (55 / LOOK FOR MINUS
128 00131 R 620125 R      JMP* LIBRED / EXIT
129 00132 R 543202 R      SAD (114 / LOOK FOR L
130 00133 R 600143 R      JMP LNEXT
131 00134 R 343203 R      TAD (-60
132 00135 R 741100 A      SPA
133 00136 R 600127 R      JMP LIBRED+2
134 00137 R 343204 R      TAD (-12
135 00140 R 741100 A      SPA
136 00141 R 600600 R      JMP LIBER2

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PAGE	4	DTIN20	SRC	DTIN20
137	00142	R	600127	R JMP LIBRED+2 / CONTINUE LOOKING
138	00143	R	203146	R LNEXT LAC LIBADD
139	00144	R	360003	R TAD* EOLAD / ADDR OF 2ND FREE WORD
140	00145	R	043077	R DAC SCAN / IN SCAN
141	00146	R	343205	R TAD (-1
142	00147	R	043103	R DAC LSTRT
143	00150	R	203175	R LAC (NOP
144	00151	R	043161	R DAC RRRRR
145	00152	R	102634	R JMS NUMBER
146	00153	R	543206	R SAD (-2 / CHECK FOR -1 READ
147	00154	R	620125	R JMP* LIBRED
148	00155	R	543205	R SAD (-1
149	00156	R	600143	R JMP LNEXT
150	00157	R	063077	R DAC* SCAN / LIB REF NO.
151	00160	R	043151	R DAC LREFNO* / STORE COPY OF REF NUMBER
152	00161	R	102010	R JMS FINLIB
153	00162	R	403140	R XCT CHEKK / NOP OR SKP FOR CHECK
154	00163	R	600172	R JMP .+1+6
155	00164	R	741200	A SNA
156	00165	R	601155	R JMP NOCHEK / NO LIB ITEM TO CHECK
157	00166	R	043103	R DAC LSTRT / ABS ADDRESS OF LIB COMP
158	00167	R	343176	R TAD (1
159	00170	R	043077	R DAC SCAN
160	00171	R	600175	R JMP .+1+3
161	00172	R	740200	A SZA
162	00173	R	602332	R JMP DUPLIB / DUPL LIB REF NO.
163	00174	R	203207	R LAC (3
164	00175	R	043100	R DAC WRDCNT / WORD COUNTER
165	00176	R	143153	R DZM NPSPEC
166	00177	R	143152	R DZM NGIVEN / SET UP ZEROS FOR POSSIBLE ERRORS
167	00200	R	203210	R LAC (JMP ERRLIB
168	00201	R	043161	R DAC RRRRR
169	00202	R	100406	R JMS STPAD / PACK & STORE TWO WORDS
170	00203	R	102634	R CR3 JMS NUMBER
171	00204	R	543206	R SAD (-2
172	00205	R	600454	R JMP LIBERR / -1 DETECTED PREMATURELY
173	00206	R	543205	R SAD (-1
174	00207	R	600203	R JMP CR3
175	00210	R	503211	R AND (?? / LIMIT NUMBER OF PADS TO 63
176	00211	R	043153	R DAC NPSPEC* / NUMBER OF SPECIFIED PADS
177	00212	R	143152	R DZM NGIVEN* / NUMBER OF DOCUMENTED PADS
178	00213	R	403140	R XCT CHEKK
179	00214	R	600230	R JMP .+1+13
180	00215	R	223103	R LAC* LSTRT / READ NO OF WORDS IN STORE
181	00216	R	343212	R TAD (-3
182	00217	R	043145	R DAC GRONG*
183	00220	R	744010	A RCL / *2
184	00221	R	343145	R TAD GRONG / *3
185	00222	R	744020	A RCR
186	00223	R	744020	A RCR / OVER 4
187	00224	R	043145	R DAC GRONG / EXPECTED NUMBER OF PADS
188	00225	R	543153	R SAD NPSPEC

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189 00226 R 741000 A
190 00227 R 601040 R JMP MISMAT
191 /
192 / CHECK THAT THERE IS ROOM IN LIBRARY
193 /
194 00230 R 403140 R XCT CHEKK / NOP OR SKP FOR CHECK MODE
195 00231 R 741000 A SKP
196 00232 R 600252 R JMP NOTLCH / NOT CHECK FOR SIZE
197 00233 R 203153 R LAC NPSPEC
198 00234 R 744010 A RCL
199 00235 R 744010 A RCL
200 00236 R 343213 R TAD (2
201 00237 R 652000 A LMQ
202 00240 R 754000 A CLL!CLA
203 00241 R 640323 A DIV
204 00242 R 000003 A 3
205 00243 R 641002 A LACQ
206 00244 R 360003 R TAD* EOLAD
207 00245 R 723006 A AAC 6
208 00246 R 740031 A TCA
209 00247 R 363150 R TAD* LIBSIZ
210 00250 R 741300 A SPAISNA
211 00251 R 600436 R JMP LIBFUL
212 00252 R 203153 R NOTLCH LAC NPSPEC
213 00253 R 741200 A SNA
214 00254 R 600374 R JMP LUPEND / NO OF PADS=0
215 00255 R 740001 A CMA
216 00256 R 343176 R TAD (1
217 00257 R 043101 R DAC PADCNT / PAD COUNTER
218 00260 R 203210 R LAC (JMP ERRLIB
219 00261 R 043161 R DAC RRRRR
220 00262 R 443077 R LIBLUP ISZ SCAN
221 00263 R 203077 R LAC SCAN
222 00264 R 043102 R DAC PADAD / P.T. ADDRESS IN LIB
223 00265 R 100406 R JMS STPAD / STORES PAD IN SCAN+1
224 00266 R 102634 R CR4 JMS NUMBER
225 00267 R 543206 R SAD (-2 / CHECK (-1)
226 00270 R 600454 R JMP LIBERR
227 00271 R 543205 R SAD (-1
228 00272 R 600266 R JMP CR4
229 00273 R 723740 A AAC -40
230 00274 R 740100 A SMA
231 00275 R 600756 R JMP MISPT
232 00276 R 723040 A AAC +40
233 00277 R 660714 A ALSS 14 / SHIFT 12
234 00300 R 403140 R XCT CHEKK
235 00301 R 600307 R JMP .+1+5
236 00302 R 263102 R XOR* PADAD
237 00303 R 503214 R AND (770000
238 00304 R 740200 A SZA
239 00305 R 600756 R JMP MISPT / MISMATCHED PAD TYPE
240 00306 R 741000 A SKP

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PAGE	6	DTIN20	SRC	DTIN20
241		00307	R 063102 R	DAC* PADAD
242		00310	R 443152 R	ISZ NGIVEN
243		00311	R 443100 R	ISZ WRDCNT
244		00312	R 443100 R	ISZ WRDCNT / PAD
245		00313	R 443101 R	ISZ PADCNT
246		00314	R 741000 A	SKP
247		00315	R 600374 R	JMP LUPEND
248		00316	R 100406 R	JMS STPAD
249		00317	R 102634 R	CR5 JMS NUMBER
250		00320	R 543206 R	SAD (-2
251		00321	R 600454 R	JMP LIBERR
252		00322	R 543205 R	SAD (-1
253		00323	R 600317 R	JMP CR5
254		00324	R 723740 A	AAC -40
255		00325	R 740100 A	SMA
256		00326	R 600756 R	JMP MISPT
257		00327	R 723040 A	AAC +40
258		00330	R 660706 A	ALSS 6 / SHIFT 6
259		00331	R 403140 R	XCT CHEKK
260		00332	R 600337 R	JMP .+1+4
261		00333	R 263102 R	XOR* PADAD
262		00334	R 503215 R	AND (7700
263		00335	R 740200 A	SZA
264		00336	R 600756 R	JMP MISPT
265		00337	R 363102 R	TAD* PADAD
266		00340	R 063102 R	DAC* PADAD
267		00341	R 443152 R	ISZ NGIVEN
268		00342	R 443100 R	ISZ WRDCNT
269		00343	R 443101 R	ISZ PADCNT
270		00344	R 741000 A	SKP
271		00345	R 600374 R	JMP LUPEND
272		00346	R 100406 R	JMS STPAD
273		00347	R 102634 R	CR6 JMS NUMBER
274		00350	R 543206 R	SAD (-2
275		00351	R 600454 R	JMP LIBERR
276		00352	R 543205 R	SAD (-1
277		00353	R 600347 R	JMP CR6
278		00354	R 723740 A	AAC -40
279		00355	R 740100 A	SMA
280		00356	R 600756 R	JMP MISPT
281		00357	R 723040 A	AAC +40
282		00360	R 403140 R	XCT CHEKK
283		00361	R 600366 R	JMP .+1+4
284		00362	R 263102 R	XOR* PADAD
285		00363	R 503211 R	AND (77
286		00364	R 740200 A	SZA
287		00365	R 600756 R	JMP MISPT
288		00366	R 363102 R	TAD* PADAD
289		00367	R 063102 R	DAC* PADAD
290		00370	R 443152 R	ISZ NGIVEN
291		00371	R 443100 R	ISZ WRDCNT
292		00372	R 443101 R	ISZ PADCNT

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293 00373 R 600262 R LIBLUP
294 00374 R 403140 R LIBEND XCT CHEKK
295 00375 R 741000 A SKP
296 00376 R 600127 R JMP LIBRED+2
297 00377 R 220003 R LAC* EOLAD / READ EOLIB
298 00400 R 343100 R TAD WRDCNT
299 00401 R 060003 R DAC* EOLAD / EOLIB UPDATED
300 00402 R 203100 R LAC WRDCNT
301 00403 R 063103 R DAC* LSTRT / NO OF WORDS STORED
302 00404 R 600127 R JMP LIBRED+2
303 00405 R 620125 R LIBEND JMP* LIBRED /EXIT FOR -1
304 00406 R 740040 A STPAD XX
305 00407 R 443077 R ISZ SCAN
306 00410 R 102634 R CR1 JMS NUMBER
307 00411 R 543206 R SAD (-2
308 00412 R 600454 R JMP LIBERR
309 00413 R 543205 R SAD (-1
310 00414 R 600410 R JMP CR1
311 00415 R 043104 R DAC X1
312 00416 R 102634 R CR2 JMS NUMBER
313 00417 R 543206 R SAD (-2
314 00420 R 600454 R JMP LIBERR
315 00421 R 543205 R SAD (-1
316 00422 R 600416 R JMP CR2
317 00423 R 043105 R DAC Y1
318 00424 R 203104 R LAC X1
319 00425 R 660711 A ALSS 11 /SHIFT 9
320 00426 R 343105 R TAD Y1
321 00427 R 403140 R XCT CHEKK
322 00430 R 600434 R JMP .+1+3
323 00431 R 563077 R SAD* SCAN
324 00432 R 600435 R JMP .+3
325 00433 R 600665 R JMP DIMER / DIMENSION ERROR
326 00434 R 063077 R DAC* SCAN
327 00435 R 620406 R JMP* STPAD
328 /
329 / LIBRARY ERROR ROUTINES
330 /
331 00436 R 203151 R LIBFUL LAC LREFNO
332 00437 R 101210 R JMS PACK
333 00440 R 040575 R DAC FUL1
334 00441 R 641002 A LACQ
335 00442 R 040576 R DAC FUL1+1
336 .WRITE -3,2,FULL1,34
00443 R 002775 A *G CAL+2*1000 -3&777
00444 R 000011 A *G 11
00445 R 000563 R *G FULL1
*G .DEC
00446 R 777736 A *G -34
337 .WAIT -3
00447 R 000775 A *G CAL -3&777
00450 R 000012 A *G 12

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PAGE	8	DTIN20	SRC	DTIN20
338		00451	R 600657	R JMP DUPLBK
339		00452	R 203216	R ERRLIB LAC (JMP LNEXT / L READ
340		00453	R 741000	A SKP
341		00454	R 203217	R LIBERR LAC (JMP* LIBRED
342		00455	R 043147	R DAC LIBEX* / EXIT
343				/
344		00456	R 203151	R LAC LREFNO
345		00457	R 101210	R JMS PACK
346		00460	R 040530	R DAC LIBM2
347		00461	R 641002	A LACQ
348		00462	R 040531	R DAC LIBM2+1
349				.WRITE -3,2,LIBM1,34
		00463	R 002775	A *G CAL+2*1000 -3&777
		00464	R 000011	A *G 11
		00465	R 000520	R *G LIBM1
				*G .DEC
		00466	R 777736	A *G -34
350				.WAIT -3
		00467	R 000775	A *G CAL -3&777
		00470	R 000012	A *G 12
351		00471	R 203153	R LAC NPSPEC
352		00472	R 101210	R JMS PACK
353		00473	R 040545	R DAC LIBM5
354		00474	R 641002	A LACQ
355		00475	R 040546	R DAC LIBM5+1
356				.WRITE -3,2,LIBM4,34
		00476	R 002775	A *G CAL+2*1000 -3&777
		00477	R 000011	A *G 11
		00500	R 000533	R *G LIBM4
				*G .DEC
		00501	R 777736	A *G -34
357				.WAIT -3
		00502	R 000775	A *G CAL -3&777
		00503	R 000012	A *G 12
358		00504	R 203152	R LAC NGIVEN
359		00505	R 101210	R JMS PACK
360		00506	R 040560	R DAC LIBM8
361		00507	R 641002	A LACQ
362		00510	R 040561	R DAC LIBM8+1
363				.WRITE -3,2,LIBM7,34
		00511	R 002775	A *G CAL+2*1000 -3&777
		00512	R 000011	A *G 11
		00513	R 000550	R *G LIBM7
				*G .DEC
		00514	R 777736	A *G -34
364				.WAIT -3
		00515	R 000775	A *G CAL -3&777
		00516	R 000012	A *G 12
365		00517	R 403147	R XCT LIBEX
366		00520	R 002002	A LIBM1 2002
367		00521	R 000000	A 0
368		00522	R 202311	A .ASCII / LIBRARY ITEM /

	00523 R 141244 A	
	00524 R 406453 A	
	00525 R 120222 A	
	00526 R 522131 A	
	00527 R 520000 A	
369	00530 R 000000 A	LIBM2 0
370	00531 R 000000 A	0
371	00532 R 064000 A	64000
372	00533 R 002002 A	LIBM4 2002
373	00534 R 000000 A	0
374	00535 R 202410 A	.ASCII / PADS SPECIFIED /
	00536 R 142246 A	
	00537 R 202472 A	
	00540 R 042606 A	
	00541 R 446151 A	
	00542 R 142610 A	
	00543 R 200000 A	
	00544 R 000000 A	
375	00545 R 000000 A	LIBM5 0
376	00546 R 000000 A	0
377	00547 R 064000 A	64000
378	00550 R 002002 A	LIBM7 2002
379	00551 R 000000 A	0
380	00552 R 202410 A	.ASCII / PADS CHECKED /
	00553 R 142246 A	
	00554 R 202071 A	
	00555 R 042606 A	
	00556 R 456130 A	
	00557 R 420000 A	
381	00560 R 000000 A	LIBM8 0
382	00561 R 000000 A	0
383	00562 R 064000 A	64000
384	00563 R 002002 A	FULL1 2002
385	00564 R 000000 A	0
386	00565 R 202311 A	.ASCII / LIBRARY ARRAY FULL /
	00566 R 141244 A	
	00567 R 406453 A	
	00570 R 120202 A	
	00571 R 512450 A	
	00572 R 154500 A	
	00573 R 432531 A	
	00574 R 446100 A	
387	00575 R 000000 A	FUL1 0
388	00576 R 000000 A	0
389	00577 R 064000 A	64000
390		/
391		/ ROUTINE FOR EXTRA NUMBERS IN DESCRIPTION
392		/
393	00600 R 203151 R	LIBER2 LAC LREFNO
394	00601 R 101210 R	JMS PACK
395	00602 R 040640 R	DAC LIBN2
396	00603 R 641002 A	LACQ

PAGE	10	DTIN20	SRC	DTIN20
397		00604	R 040641 R	DAC LIBN3
398				.WRITE -3,2,LIBN1,34
		00605	R 002775 A *G	CAL+2*1000 -3&777
		00606	R 000011 A *G	11
		00607	R 000622 R *G	LIBN1
			*G	.DEC
		00610	R 777736 A *G	-34
399				.WAIT -3
		00611	R 000775 A *G	CAL -3&777
		00612	R 000012 A *G	12
400				.WRITE -3,2,LIBN4,34
		00613	R 002775 A *G	CAL+2*1000 -3&777
		00614	R 000011 A *G	11
		00615	R 000643 R *G	LIBN4
			*G	.DEC
		00616	R 777736 A *G	-34
401				.WAIT -3
		00617	R 000775 A *G	CAL -3&777
		00620	R 000012 A *G	12
402		00621	R 600657 R	JMP DUPLBK
403				/
404		00622	R 002002 A	LIBN1 2002
405		00623	R 000000 A	0
406		00624	R 202133 A	.ASCII / EXCESSIVE SPEC FOR LIB ITEM /
		00625	R 041612 A	
		00626	R 516471 A	
		00627	R 153212 A	
		00630	R 202472 A	
		00631	R 042606 A	
		00632	R 202151 A	
		00633	R 751100 A	
		00634	R 462230 A	
		00635	R 220222 A	
		00636	R 522131 A	
		00637	R 520000 A	
407		00640	R 000000 A	LIBN2 0
408		00641	R 000000 A	LIBN3 0
409		00642	R 064000 A	64000
410		00643	R 002002 A	LIBN4 2002
411		00644	R 000000 A	0
412		00645	R 202133 A	.ASCII / EXTRA NUMBERS IGNORED<15>
		00646	R 052244 A	
		00647	R 405011 A	
		00650	R 652632 A	
		00651	R 412132 A	
		00652	R 251500 A	
		00653	R 446171 A	
		00654	R 647644 A	
		00655	R 426101 A	
		00656	R 500000 A	
413				/
414		00657	R 102710 R	DUPLBK JMS CHAR

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DTIN20 SRC DTIN20
415 00660 R 543201 R 00655 / READ
416 00661 R 620125 R JMP* LIBRED / EXIT
417 00662 R 543202 R SAD (114 / L READ
418 00663 R 600143 R JMP LNEXT / READ NEXT COMP
419 00664 R 600657 R JMP DUPLBK / KEEP LOOKING
420 /
421 /
422 /
423 00665 R 203151 R DIMER LAC LREFNO
424 00666 R 101210 R JMS PACK
425 00667 R 040732 R DAC ZZEK1
426 00670 R 641002 A LACQ
427 00671 R 040733 R DAC ZZEK1+1
428 00672 R 203152 R LAC NGIVEN
429 00673 R 101210 R JMS PACK
430 00674 R 040753 R DAC ZZEK3
431 00675 R 641002 A LACQ
432 00676 R 040754 R DAC ZZEK3+1
433 .WRITE -3,2,ZZEK0.34
00677 R 002775 A *G CAL+2*1000 -3&777
00700 R 000011 A *G 11
00701 R 000714 R *G ZZEK0
*G .DEC
00702 R 777736 A *G -34
434 .WAIT -3
00703 R 000775 A *G CAL -3&777
00704 R 000012 A *G 12
435 .WRITE -3,2,ZZEK5.34
00705 R 002775 A *G CAL+2*1000 -3&777
00706 R 000011 A *G 11
00707 R 000735 R *G ZZEK5
*G .DEC
00710 R 777736 A *G -34
436 .WAIT -3
00711 R 000775 A *G CAL -3&777
00712 R 000012 A *G 12
437 00713 R 600657 R JMP DUPLBK / LOOK FOR NEW L
438 00714 R 002002 A ZZEK0 2002
439 00715 R 000000 A 0
440 00716 R 202111 A .ASCII / DIMENSIONAL MISMATCH FOR L /
00717 R 146612 A
00720 R 472471 A
00721 R 147634 A
00722 R 406304 A
00723 R 046622 A
00724 R 516330 A
00725 R 152206 A
00726 R 441010 A
00727 R 647644 A
00730 R 202304 A
00731 R 000000 A
441 00732 R 000000 A ZZEK1 0

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PAGE	12	DTIN20	SRC	DTIN20
442		00733	R 000000 A	0
443		00734	R 064000 A	64000
444		00735	R 002002 A	ZZEK5 2002
445		00736	R 000000 A	0
446		00737	R 202352 A	.ASCII / NUMBER OF CHECKED PADS = /
		00740	R 546604 A	
		00741	R 426444 A	
		00742	R 047614 A	
		00743	R 202071 A	
		00744	R 042606 A	
		00745	R 456130 A	
		00746	R 420240 A	
		00747	R 406112 A	
		00750	R 320172 A	
		00751	R 200000 A	
		00752	R 000000 A	
447		00753	R 000000 A	ZZEK3 0
448		00754	R 000000 A	0
449		00755	R 064000 A	64000
450				/
451				/
452		00756	R 443152 R	MISPT ISZ NGIVEN
453		00757	R 203151 R	LAC LREFNO
454		00760	R 101210 R	JMS PACK
455		00761	R 041022 R	DAC ZEK1
456		00762	R 641002 A	LACQ
457		00763	R 041023 R	DAC ZEK1+1
458		00764	R 203152 R	LAC NGIVEN
459		00765	R 101210 R	JMS PACK
460		00766	R 041035 R	DAC ZEK3
461		00767	R 641002 A	LACQ
462		00770	R 041036 R	DAC ZEK3+1
463				.WRITE -3,2,ZEK0,34
		00771	R 002775 A *G	CAL+2*1000 -3&777
		00772	R 000011 A *G	11
		00773	R 001006 R *G	ZEK0
			*G	.DEC
		00774	R 777736 A *G	-34
464				.WAIT -3
		00775	R 000775 A *G	CAL -3&777
		00776	R 000012 A *G	12
465				.WRITE -3,2,ZEK5,34
		00777	R 002775 A *G	CAL+2*1000 -3&777
		01000	R 000011 A *G	11
		01001	R 001025 R *G	ZEK5
			*G	.DEC
		01002	R 777736 A *G	-34
466				.WAIT -3
		01003	R 000775 A *G	CAL -3&777
		01004	R 000012 A *G	12
467		01005	R 600657 R	JMP DUPLBK
468		01006	R 002002 A	ZEK0 2002

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469 01007 R 000000 A
470 01010 R 202132 A      .ASCII / ERROR IN PAD TYPE FOR L /
    01011 R 251236 A
    01012 R 511011 A
    01013 R 147100 A
    01014 R 502030 A
    01015 R 420250 A
    01016 R 546410 A
    01017 R 520214 A
    01020 R 476444 A
    01021 R 046100 A
471 01022 R 000000 A      ZEK1 0
472 01023 R 000000 A      0
473 01024 R 064000 A      64000
474 01025 R 002002 A      ZEK5 2002
475 01026 R 000000 A      0
476 01027 R 202410 A      .ASCII / PAD NUMBER /
    01030 R 142100 A
    01031 R 472531 A
    01032 R 541212 A
    01033 R 511000 A
    01034 R 000000 A
477 01035 R 000000 A      ZEK3 0
478 01036 R 000000 A      0
479 01037 R 064000 A      64000
480 /
481 /
482 01040 R 203145 R      MISMAT LAC GRONG / NUMBER OF PADS (IN STORE)
483 01041 R 101210 R      JMS PACK
484 01042 R 041133 R      DAC EK1
485 01043 R 641002 A      LACQ
486 01044 R 041134 R      DAC EK1+1
487 01045 R 203151 R      LAC LREFNO
488 01046 R 101210 R      JMS PACK
489 01047 R 041116 R      DAC EK3
490 01050 R 641002 A      LACQ
491 01051 R 041117 R      DAC EK3+1
492 01052 R 203153 R      LAC NPSPEC
493 01053 R 101210 R      JMS PACK
494 01054 R 041152 R      DAC EK5
495 01055 R 641002 A      LACQ
496 01056 R 041153 R      DAC EK5+1
497      .WRITE -3,2,XEK,34
    01057 R 002775 A *G      CAL+2*1000 -3&777
    01060 R 000011 A *G      11
    01061 R 001102 R *G      XEK
    *G      .DEC
    01062 R 777736 A *G      -34
498      .WAIT -3
    01063 R 000775 A *G      CAL -3&777
    01064 R 000012 A *G      12
499      .WRITE -3,2,XEK2,34

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	01065	R	002775	A	*G	CAL+2*1000 -3&777
	01066	R	000011	A	*G	11
	01067	R	001121	R	*G	XEK2
					*G	.DEC
	01070	R	777736	A	*G	-34
500						.WAIT -3
	01071	R	000775	A	*G	CAL -3&777
	01072	R	000012	A	*G	12
501						.WRITE -3,2,XEK3,34
	01073	R	002775	A	*G	CAL+2*1000 -3&777
	01074	R	000011	A	*G	11
	01075	R	001136	R	*G	XEK3
					*G	.DEC
	01076	R	777736	A	*G	-34
502						.WAIT -3
	01077	R	000775	A	*G	CAL -3&777
	01100	R	000012	A	*G	12
503	01101	R	600657	R		JMP DUPLBK / SEARCH FOR L
504	01102	R	002002	A		XEK 2002
505	01103	R	000000	A		0
506	01104	R	202071	A		.ASCII / CHECK NO OF PADS FOR L /
	01105	R	042606	A		
	01106	R	455011	A		
	01107	R	647500	A		
	01110	R	476144	A		
	01111	R	050202	A		
	01112	R	422464	A		
	01113	R	043236	A		
	01114	R	511011	A		
	01115	R	420000	A		
507	01116	R	000000	A		EK3 0
508	01117	R	000000	A		0
509	01120	R	064000	A		64000
510	01121	R	002002	A		XEK2 2002
511	01122	R	000000	A		0
512	01123	R	202372	A		.ASCII / ORIGINAL NUMBER = /
	01124	R	244616	A		
	01125	R	446350	A		
	01126	R	146100	A		
	01127	R	472531	A		
	01130	R	541212	A		
	01131	R	511007	A		
	01132	R	520000	A		
513	01133	R	000000	A		EK1 0
514	01134	R	000000	A		0
515	01135	R	064000	A		64000
516	01136	R	002002	A		XEK3 2002
517	01137	R	000000	A		0
518	01140	R	202350	A		.ASCII / NEW CHECKING NUMBER = /
	01141	R	553500	A		
	01142	R	416210	A		
	01143	R	541626	A		

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01144 R 446350 A
01145 R 720234 A
01146 R 526330 A
01147 R 242644 A
01150 R 201724 A
01151 R 000000 A
519 01152 R 000000 A EK5 0
520 01153 R 000000 A 0
521 01154 R 064000 A 64000
522 /
523 /
524 01155 R 203151 R NOCHEK LAC LREFNO
525 01156 R 101210 R JMS PACK
526 01157 R 041205 R DAC EK7
527 01160 R 641002 A LACQ
528 01161 R 041206 R DAC EK7+1
529 .WRITE -3,2,XEK4,34
01162 R 002775 A *G CAL+2*1000 -3&777
01163 R 000011 A *G 11
01164 R 001171 R *G XEK4
*G .DEC
01165 R 777736 A *G -34
530 .WAIT -3
01166 R 000775 A *G CAL -3&777
01167 R 000012 A *G 12
531 01170 R 600657 R JMP DUPLBK
532 01171 R 002002 A XEK4 2002
533 01172 R 000000 A 0
534 01173 R 202351 A .ASCII / NO ORIGINAL LIB ITEM /
01174 R 720236 A
01175 R 512230 A
01176 R 744634 A
01177 R 406304 A
01200 R 046222 A
01201 R 411011 A
01202 R 152212 A
01203 R 465000 A
01204 R 000000 A
535 01205 R 000000 A EK7 0
536 01206 R 000000 A 0
537 01207 R 064000 A 64000
538 /
539 /
540 / SUBROUTINE PACK. ENTER WITH NUMBER IN
541 / AC. EXIT WITH 5/7 ASCII IN AC AND MQ
542 /
543 01210 R 740040 A PACK XX
544 01211 R 652000 A LMQ
545 01212 R 201250 R LAC BLANK
546 01213 R 043071 R DAC ACST
547 01214 R 201251 R LAC BLANK+1
548 01215 R 043072 R DAC MQST

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PAGE	16	DTIN20	SRC	DTIN20
549		01216	R 754000 A	PALOUN CLLICLA
550		01217	R 640323 A	DIV
551		01220	R 000012 A	12
552		01221	R 343220 R	TAD (60
553		01222	R 660713 A	ALSS 13 / TOP 7 BITS
554		01223	R 043160 R	DAC PUNITS*
555		01224	R 641002 A	LACQ
556		01225	R 043157 R	DAC PTENS*
557		01226	R 203072 R	LAC MQST
558		01227	R 652000 A	LMQ
559		01230	R 203071 R	LAC ACST
560		01231	R 744000 A	CLL
561		01232	R 640507 A	LRS 7
562		01233	R 343160 R	TAD PUNITS
563		01234	R 043071 R	DAC ACST
564		01235	R 641002 A	LACQ
565		01236	R 043072 R	DAC MQST
566		01237	R 203157 R	LAC PTENS
567		01240	R 741200 A	SNA
568		01241	R 601244 R	JMP PAQED / DONE
569		01242	R 652000 A	LMQ
570		01243	R 601216 R	JMP PALOUN
571		01244	R 203072 R	PAQED LAC MQST
572		01245	R 652000 A	LMQ
573		01246	R 203071 R	LAC ACST
574		01247	R 621210 R	JMP* PACK
575		01250	R 201004 A	BLANK .ASCII / /
		01251	R 020100 A	
576				/
577				/ SUB TO READ COMPONENTS
578				/
579		01252	R 740040 A	COMPRD XX
580		01253	R 203142 R	CNEXT LAC COMPAD
581		01254	R 360004 R	TAD* EOCAD
582		01255	R 343205 R	TAD (-1
583		01256	R 043077 R	DAC SCAN / PTR TO FIRST FREE WORD
584		01257	R 163077 R	DZM* SCAN
585		01260	R 443077 R	ISZ SCAN / PTR TO NAME 1 WORD
586		01261	R 102533 R	JMS NAME
587		01262	R 101731 R	JMS FINCOM / CHECKS IF COMP THERE
588		01263	R 403140 R	XCT CHEKK
589		01264	R 601337 R	JMP OCOMPX / ORDINARY INPUT CASE
590		01265	R 741200 A	SNA
591		01266	R 601566 R	JMP NOCHCP / NO COMP TO CHECK
592		01267	R 343207 R	TAD (3 / PTS TO LIB ETC PTR
593		01270	R 043077 R	DAC SCAN
594		01271	R 102634 R	JMS NUMBER
595		01272	R 543205 R	SAD (-1
596		01273	R 601271 R	JMP .-2
597		01274	R 102010 R	JMS FINLIB
598		01275	R 741200 A	SNA
599		01276	R 601620 R	JMP DIFLIB / LIBRARY COMPONENT ABSENT


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600 01277 R 343176 R      (1
601 01300 R 740001 A      CMA
602 01301 R 303146 R      ADD LIBADD
603 01302 R 740001 A      CMA
604 01303 R 263077 R      XOR* SCAN
605 01304 R 503221 R      AND (777
606 01305 R 740200 A      SZA
607 01306 R 601620 R      JMP DIFLIB / LIB REF DIFFERS
608 01307 R 203070 R      LAC STAR
609 01310 R 660714 A      ALSS 14
610 01311 R 263077 R      XOR* SCAN
611 01312 R 503222 R      AND (10000 / 13TH BIT
612 01313 R 740200 A      SZA
613 01314 R 601655 R      JMP MIDMK / MISMATCHED IDENT MARKS
614 01315 R 203163 R      LAC STAR0
615 01316 R 740200 A      SZA
616 01317 R 601330 R      JMP FLUZX
617 01320 R 102634 R      JMS NUMBER
618 01321 R 543205 R      SAD (-1
619 01322 R 601330 R      JMP FLUZX / CR DETECTED
620 01323 R 203163 R      LAC STAR0
621 01324 R 740200 A      SZA
622 01325 R 601330 R      JMP FLUZX / CR DETECTED
623 01326 R 102634 R      JMS NUMBER
624 01327 R 543205 R      SAD (-1
625 01330 R 750000 A      FLUZX CLA
626 01331 R 660711 A      ALSS 11
627 01332 R 263077 R      XOR* SCAN / TEST SIDE INFORMATION
628 01333 R 503223 R      AND (3000
629 01334 R 740200 A      SZA
630 01335 R 601704 R      JMP SIDOPP / SIDES ICCOMPATABLE
631 01336 R 601253 R      JMP CNEXT
632 01337 R 740200 A      OCOMPX SZA
633 01340 R 602307 R      JMP DUPCOM
634 /
635 / CHECK FOR COMPONENT ARRAY OVERFLOW
636 /
637 01341 R 220004 R      LAC* EOCAD
638 01342 R 343224 R      TAD (6
639 01343 R 363143 R      TAD* COMSIZ
640 01344 R 741100 A      SPA
641 01345 R 601531 R      JMP COMFUL / COMPONENT ARRAY FULL
642 01346 R 202400 R      LAC NAME1
643 01347 R 063077 R      DAC* SCAN / AND CHECKS FOR 'END0
644 01350 R 443077 R      ISZ SCAN
645 01351 R 202401 R      LAC NAME2
646 01352 R 063077 R      DAC* SCAN
647 01353 R 443077 R      ISZ SCAN
648 01354 R 102634 R      CR7 JMS NUMBER
649 01355 R 543205 R      SAD (-1
650 01356 R 601354 R      JMP CR7
651 01357 R 102010 R      JMS FINLIB / CHECK LIB COMP THERE

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PAGE	18	DTIN20	SRC	DTIN20
652		01360	R 741200 A	SNA / SKIP NON ZERO
653		01361	R 602323 R	JMP LIBABS / LIB COMP ABSENT
654		01362	R 343176 R	TAD (1
655		01363	R 740001 A	CMA /NEGATE LIB POINTER (ABSOLUTE)
656		01364	R 303146 R	ADD LIBADD / LIB(1) ADDR
657		01365	R 740001 A	CMA
658		01366	R 043106 R	DAC LIBREF
659		01367	R 203070 R	LAC STAR / PIN 1 MARKER
660		01370	R 660714 A	ALSS 14 / SHIFT 12
661		01371	R 343106 R	TAD LIBREF
662		01372	R 043106 R	DAC LIBREF
663				/
664				/ UPDATE EOCOMP
665				/
666		01373	R 220004 R	LAC* EOCAD
667		01374	R 343224 R	TAD (6
668		01375	R 060004 R	DAC* EOCAD
669		01376	R 203163 R	LAC STAR0*
670		01377	R 740200 A	SZA
671		01400	R 601525 R	JMP DETCR
672		01401	R 102634 R	CR8 JMS NUMBER
673		01402	R 543205 R	SAD (-1
674		01403	R 601525 R	JMP DETCR / C R DETECTED
675		01404	R 660720 A	ALSS 20 / SHIFT 16
676		01405	R 343106 R	TAD LIBREF / ORIENTATION
677		01406	R 043106 R	DAC LIBREF
678		01407	R 203163 R	LAC STAR0
679		01410	R 740200 A	SZA
680		01411	R 601525 R	JMP DETCR
681		01412	R 102634 R	CR9 JMS NUMBER
682		01413	R 741100 A	SPA
683		01414	R 601525 R	JMP DETCR / C R DETECTED
684		01415	R 660711 A	ALSS 11 / SHIFT 9
685		01416	R 343106 R	TAD LIBREF / SIDE
686		01417	R 063077 R	DAC* SCAN / STORED
687		01420	R 443077 R	ISZ SCAN
688		01421	R 203163 R	LAC STAR0
689		01422	R 740200 A	SZA
690		01423	R 601521 R	JMP NULL
691		01424	R 102634 R	JMS NUMBER
692		01425	R 741100 A	SPA
693		01426	R 601521 R	JMP NULL
694		01427	R 063077 R	DAC* SCAN
695		01430	R 102634 R	JMS NUMBER
696		01431	R 741100 A	SPA
697		01432	R 601521 R	JMP NULL
698		01433	R 443077 R	ISZ SCAN
699		01434	R 063077 R	DAC* SCAN
700				/
701				/ BLOCK TO SHIFT COMP SO THAT X,Y IS FOR PAD 1
702				/
703				/ FIRST CHECK THAT PAD 1 EXISTS

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704
705      01435 R 777776 A      LAW -2
706      01436 R 343077 R      TAD SCAN
707      01437 R 043111 R      DAC CSCAN
708      01440 R 223111 R      LAC* CSCAN
709      01441 R 503221 R      AND (777 / LIBRARY PTR
710      01442 R 343146 R      TAD LIBADD
711      01443 R 343205 R      TAD (-1
712      01444 R 043111 R      DAC CSCAN
713      01445 R 777774 A      LAW -4
714      01446 R 363111 R      TAD* CSCAN / NO OF WORDS IN LIB - 4
715      01447 R 741100 A      SPA
716      01450 R 601253 R      JMP CNEXT / NO PAD NUMBER 1
717      /
718      / FIND X,Y OF PAD 1
719      /
720      01451 R 203142 R      LAC COMPAD
721      01452 R 203142 R      LAC COMPAD
722      01453 R 740001 A      CMA
723      01454 R 343077 R      TAD SCAN
724      01455 R 652000 A      LMQ
725      01456 R 754000 A      CLLICLA
726      01457 R 640323 A      DIV
727      01460 R 000006 A      6
728      01461 R 641002 A      LACQ / PTR TO COMP DIVIDED BY 6
729      01462 R 043111 R      DAC CSCAN
730      01463 R 123172 E      JMS* SUBNOD
731      01464 R 601471 R      JMP .+1+4
732      01465 R 003164 R      SARG .DSA X00* / X
733      01466 R 003165 R      .DSA Y00* / Y
734      01467 R 003111 R      .DSA CSCAN / POINTER
735      01470 R 003176 R      .DSA (1 / PAD NO 1
736      /
737      / NOW SHIFT COMP SO THAT X,Y ARE CORRECT
738      /
739      01471 R 223077 R      LAC* SCAN
740      01472 R 740001 A      CMA
741      01473 R 343176 R      TAD (1
742      01474 R 343165 R      TAD Y00 / DISPLACEMENT OF PAD
743      01475 R 740001 A      CMA
744      01476 R 343176 R      TAD (1
745      01477 R 363077 R      TAD* SCAN
746      01500 R 741100 A      SPA
747      01501 R 750000 A      CLA
748      01502 R 063077 R      DAC* SCAN
749      01503 R 203077 R      LAC SCAN
750      01504 R 343205 R      TAD (-1
751      01505 R 043077 R      DAC SCAN
752      01506 R 223077 R      LAC* SCAN / X IN D.S.
753      01507 R 740001 A      CMA
754      01510 R 343176 R      TAD (1
755      01511 R 343164 R      TAD X00

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PAGE	20	DTIN20	SRC	DTIN20
756		01512	R 740001 A	CMA
757		01513	R 343176 R	TAD (1
758		01514	R 363077 R	TAD* SCAN
759		01515	R 741100 A	SPA
760		01516	R 750000 A	CLA
761		01517	R 063077 R	DAC* SCAN / NEW X POSITION STORED
762		01520	R 601253 R	JMP CNEXT / READ IN NEXT COMPONENT
763		01521	R 163077 R	NULL DZM* SCAN
764		01522	R 443077 R	ISZ SCAN
765		01523	R 163077 R	DZM* SCAN
766		01524	R 601253 R	COMEND JMP CNEXT
767		01525	R 203106 R	DETCR LAC LIBREF
768		01526	R 063077 R	DAC* SCAN
769		01527	R 443077 R	ISZ SCAN
770		01530	R 601521 R	JMP NULL
771				/
772				/
773				/ COMPONENT CHECKING ERRORS
774				/
775				/
776		01531	R 202400 R	COMFUL LAC NAME1
777		01532	R 041564 R	DAC FUL2
778		01533	R 202401 R	LAC NAME2
779		01534	R 041565 R	DAC FUL2+1
780				.WRITE -3,2,FULL2,34
		01535	R 002775 A *G	CAL+2*1000 -3&777
		01536	R 000011 A *G	11
		01537	R 001552 R *G	FULL2
				*G
				.DEC
		01540	R 777736 A *G	-34
781				.WAIT -3
		01541	R 000775 A *G	CAL -3&777
		01542	R 000012 A *G	12
782				/
783				/ LOOK FOR 'END'
784				/
785		01543	R 102533 R	JMS NAME
786		01544	R 543177 R	SAD (202131
787		01545	R 601542 R	JMP .-3
788		01546	R 641002 A	LACQ
789		01547	R 543200 R	SAD (-135746
790		01550	R 621252 R	JMP* COMPRD / EXIT
791		01551	R 601542 R	JMP .-7
792		01552	R 002002 A	FULL2 2002
793		01553	R 000000 A	0
794		01554	R 202071 A	.ASCII / COMP ARRAY FULL /
		01555	R 746640 A	
		01556	R 202032 A	
		01557	R 251202 A	
		01560	R 545010 A	
		01561	R 652630 A	
		01562	R 461000 A	

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01563 R 000000 A
795 01564 R 000000 A FULL 0
796 01565 R 064000 A 64000 / CR TO STOP TT
797 01566 R 202400 R NOCHCP LAC NAME1
798 01567 R 041616 R DAC DC10
799 01570 R 202401 R LAC NAME2
800 01571 R 041617 R DAC DC10+1
801 .WRITE -3,2,DC9,34
01572 R 002775 A *G CAL+2*1000 -3&777
01573 R 000011 A *G 11
01574 R 001602 R *G DC9
*G .DEC
*G -34
01575 R 777736 A *G .WAIT -3
01576 R 000775 A *G CAL -3&777
01577 R 000012 A *G 12
803 01600 R 102634 R JMS NUMBER / READ LIB
804 01601 R 601253 R JMP CNEXT
805 01602 R 002002 A DC9 2002
806 01603 R 000000 A 0
807 01604 R 202351 A .ASCII / NO ORIGINAL COMPONENT /
01605 R 720236 A
01606 R 512230 A
01607 R 744634 A
01610 R 406304 A
01611 R 041636 A
01612 R 466411 A
01613 R 747212 A
01614 R 472504 A
01615 R 000000 A
808 01616 R 000000 A DC10 0
809 01617 R 000000 A 0
810 /
811 /
812 01620 R 202400 R DIFLIB LAC NAME1
813 01621 R 041653 R DAC DC1
814 01622 R 202401 R LAC NAME2
815 01623 R 041654 R DAC DC1+1
816 .WRITE -3,2,DC0,34
01624 R 002775 A *G CAL+2*1000 -3&777
01625 R 000011 A *G 11
01626 R 001633 R *G DC0
*G .DEC
*G -34
01627 R 777736 A *G .WAIT -3
817 01630 R 000775 A *G CAL -3&777
01631 R 000012 A *G 12
818 01632 R 601253 R JMP CNEXT
819 01633 R 002002 A DC0 2002
820 01634 R 000000 A 0
821 01635 R 202331 A .ASCII / MISMATCHED LIB REF NUMBERS FOR /
01636 R 151632 A

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01637 R 406510 A
01640 R 344212 A
01641 R 421011 A
01642 R 444604 A
01643 R 202450 A
01644 R 543100 A
01645 R 472531 A
01646 R 541212 A
01647 R 512464 A
01650 R 043236 A
01651 R 511000 A
01652 R 000000 A
822 01653 R 000000 A DC1 0
823 01654 R 000000 A 0
824 /
825 /
826 01655 R 202400 R MIDMK LAC NAME1
827 01656 R 041702 R DAC DC4
828 01657 R 202401 R LAC NAME2
829 01660 R 041703 R DAC DC4+1
830 .WRITE -3,2,DC3,34
01661 R 002775 A *G CAL+2*1000 -3&777
01662 R 000011 A *G 11
01663 R 001670 R *G DC3
      *G .DEC
01664 R 777736 A *G -34
831 .WAIT -3
01665 R 000775 A *G CAL -3&777
01666 R 000012 A *G 12
832 01667 R 601253 R JMP CNEXT
833 01670 R 002002 A DC3 2002
834 01671 R 000000 A 0
835 01672 R 202450 A .ASCII / REF CORNER MARKER /
01673 R 543100 A
01674 R 416372 A
01675 R 247212 A
01676 R 511011 A
01677 R 540644 A
01700 R 456132 A
01701 R 220000 A
836 01702 R 000000 A DC4 0
837 01703 R 000000 A 0
838 /
839 /
840 01704 R 202400 R SIDOPP LAC NAME1
841 01705 R 041727 R DAC DC7
842 01706 R 202401 R LAC NAME2
843 01707 R 041730 R DAC DC7+1
844 .WRITE -3,2,DC6,34
01710 R 002775 A *G CAL+2*1000 -3&777
01711 R 000011 A *G 11
01712 R 001717 R *G DC6

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      01713 R 777736 A *G .DEC
      01714 R 000775 A *G -34
      01715 R 000012 A *G .WAIT -3
      01716 R 601253 R *G CAL -3&777
      01717 R 002002 A *G 12
      01720 R 000000 A JMP CNEXT
      01721 R 202471 A DC6 2002
      01722 R 142212 A 0
      01723 R 202472 A .ASCII / SIDE SPEC /
      01724 R 042606 A
      01725 R 200000 A
      01726 R 000000 A
      01727 R 000000 A DC7 0
      01730 R 000000 A 0
      /
      /
      /
      / SUBROUTINE TO FIND A NAMED COMPONENT
      /
      01731 R 740040 A FINCOM XX
      01732 R 042400 R DAC NAME1
      01733 R 641002 A LACQ
      01734 R 042401 R DAC NAME2
      01735 R 543200 R SAD (-135746 / CHECK FOREND WITH 642032
      01736 R 602004 R JMP MAYEND
      01737 R 203142 R CORDIN LAC COMPAD
      01740 R 343176 R TAD (1
      01741 R 043111 R DAC CSCAN / PTR TO 2ND WORD
      01742 R 343205 R TAD (-1
      01743 R 360004 R TAD* EOCAD
      01744 R 043107 R DAC CEND / PTR TO 2ND FREE WORD
      01745 R 543111 R SAD CSCAN
      01746 R 601777 R JMP ERROR / NO COMPONENTS
      01747 R 203111 R COMLUP LAC CSCAN
      01750 R 343213 R TAD (2
      01751 R 043073 R DAC TOT
      01752 R 223073 R LAC* TOT
      01753 R 741200 A SNA
      01754 R 601760 R JMP NOCOMP / DELETED COMPONENT
      01755 R 223111 R LAC* CSCAN
      01756 R 542400 R SAD NAME1
      01757 R 601766 R JMP TEST / 1ST WORDS IDENTICAL
      01760 R 203111 R NOCOMP LAC CSCAN
      01761 R 343224 R TAD (6
      01762 R 043111 R RENTER DAC CSCAN
      01763 R 543107 R SAD CEND
      01764 R 601777 R JMP ERROR
      01765 R 601747 R JMP COMLUP
      01766 R 443111 R TEST ISZ CSCAN / 2ND NAME WORD
      01767 R 223111 R LAC* CSCAN

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PAGE	24	DTIN20	SRC	DTIN20
888	01770	R	242401	R XOR NAME2
889	01771	R	503225	R AND (777400 / TOP 10 BITS
890	01772	R	741200	A SNA
891	01773	R	602001	R JMP FOUND
892	01774	R	203111	R LAC CSCAN
893	01775	R	343226	R TAD (5
894	01776	R	601762	R JMP RENTER
895	01777	R	750000	A ERROR CLA
896	02000	R	621731	R JMP* FINCOM / COMP NOT FOUND
897	02001	R	203111	R FOUND LAC CSCAN
898	02002	R	343206	R TAD (-2
899	02003	R	621731	R JMP* FINCOM
900	02004	R	202400	R MAYEND LAC NAME1
901	02005	R	543177	R SAD (202131
902	02006	R	621252	R JMP* COMPRD / 'END@ ENCOUNTERED
903	02007	R	601737	R JMP CORDIN
904				/
905				/ SUBROUTINE TO FIND A NUMBERED LIBRARY ITEM
906				/
907	02010	R	740040	A FINLIB XX
908	02011	R	043113	R DAC NAME3
909	02012	R	203146	R LAC LIBADD
910	02013	R	043112	R DAC LSCAN
911	02014	R	360003	R TAD* EOLAD
912	02015	R	343205	R TAD (-1
913	02016	R	043110	R DAC LEND / FIRST FREE WORD
914	02017	R	543112	R SAD LSCAN
915	02020	R	602036	R JMP LERROR / NO LIBRARY
916	02021	R	223112	R LYBLP LAC* LSCAN
917	02022	R	043100	R DAC WRDCNT / NO OF WORDS IN LIB REF
918	02023	R	443112	R ISZ LSCAN
919	02024	R	223112	R LAC* LSCAN
920	02025	R	543113	R SAD NAME3
921	02026	R	602040	R JMP LFOND / FOUND
922	02027	R	203112	R LAC LSCAN
923	02030	R	343100	R TAD WRDCNT
924	02031	R	343205	R TAD (-1
925	02032	R	043112	R DAC LSCAN / UPDATE POINTER
926	02033	R	543110	R SAD LEND
927	02034	R	602036	R JMP LERROR / NOT FOUND
928	02035	R	602021	R JMP LYBLP / CONTINUE
929	02036	R	750000	A LERROR CLA
930	02037	R	622010	R JMP* FINLIB / RETURN AC=0
931	02040	R	203112	R LFOND LAC LSCAN .
932	02041	R	343205	R TAD (-1
933	02042	R	622010	R JMP* FINLIB / RETURN AC=LIB ADDR
934				/
935				/ SUB TO READ CONNEXIONS. CALLS ADDCN3.
936				/
937	02043	R	740040	A CONRED XX
938	02044	R	203176	R LAC (1
939	02045	R	043163	R DAC STAR0 / SET FOR FIRST ENTRY


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940 02046 R 203213 R DAC (2
941 02047 R 043117 R DAC WIDTH
942 02050 R 203163 R CONEXT LAC STAR0 / SET NEW LINE FLAG
943 02051 R 043144 R DAC CRFLAG*
944 02052 R 102533 R JMS NAME
945 02053 R 543177 R SAD (202131 /CHECK FOR END
946 02054 R 602270 R JMP ENDMAY
947 02055 R 543227 R NOTND SAD (-241550 /CHECK FOR WIDTH
948 02056 R 602277 R JMP WIDCH
949 02057 R 042400 R DAC NAME1
950 02060 R 641002 A LACQ
951 02061 R 042401 R WIDE DAC NAME2 /STORE 2ND PART OF NAME
952 02062 R 102634 R CR10 JMS NUMBER
953 02063 R 543205 R SAD (-1
954 02064 R 602062 R JMP CR10
955 02065 R 043115 R DAC PIN1 / PIN NO ON 1ST COMP
956 /
957 /REPEAT FOR 2ND COMP
958 /
959 02066 R 203144 R LAC CRFLAG / DID LAST NAME START ON A NEW LINE?
960 02067 R 741200 A SNA
961 02070 R 602101 R JMP CR11+4 / NO. ADD TO TREE
962 02071 R 102533 R JMS NAME
963 02072 R 043113 R DAC NAME3
964 02073 R 641002 A LACQ
965 02074 R 043114 R DAC NAME4
966 02075 R 102634 R CR11 JMS NUMBER
967 02076 R 543205 R SAD (-1
968 02077 R 602075 R JMP CR11
969 02100 R 043116 R DAC PIN2
970 /
971 / CHECK NAME3,4 IS NOT 'END'
972 /
973 02101 R 203113 R LAC NAME3
974 02102 R 543177 R SAD (202131
975 02103 R 741000 A SKP
976 02104 R 602110 R JMP .+1+3
977 02105 R 203114 R LAC NAME4
978 02106 R 543200 R SAD (-135746
979 02107 R 622043 R JMP* CONRED / END DETECTED
980 02110 R 403141 R XCT CHEKK2 / SKP OR NOP FOR CONNS ONLY
981 02111 R 102453 R JMS NCHEKX / CHECK NAMES ARE OK
982 02112 R 123167 E JMS* ADDCN3
983 02113 R 602123 R JMP .+10
984 02114 R 002400 R .DSA NAME1
985 02115 R 003115 R .DSA PIN1
986 02116 R 003113 R .DSA NAME3
987 02117 R 003116 R .DSA PIN2
988 02120 R 003117 R .DSA WIDTH
989 02121 R 003176 R .DSA (1
990 02122 R 000000 A EOA 0 / END OF DATA POINTER
991 02123 R 202400 R LAC NAME1

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092      02124 R 043113 R    DAC NAME3
093      02125 R 202401 R    LAC NAME2
094      02126 R 043114 R    DAC NAME4
095      02127 R 203115 R    LAC PIN1
096      02130 R 043116 R    DAC PIN2
097      02131 R 602050 R    JMP CONEXT
098
099      / SUB TO READ BOARD
1000
1001      02132 R 740040 A    BORDRD XX
1002      02133 R 220005 R    LAC* EOBAD      /SAVE THE PRESENT END OF BOARD MARKER
1003      02134 R 043154 R    DAC OLEBD*
1004      02135 R 203136 R    LAC BORDAD
1005      02136 R 360005 R    TAD* EOBAD
1006      02137 R 343206 R    TAD (-2
1007      02140 R 063230 R    DAC* (10 / BASE ADDRESS IN AUTO INDEX REG
1008      02141 R 143135 R    DZM BORCNT
1009      02142 R 143137 R    DZM BORDNO
1010      02143 R 102634 R    B1 JMS NUMBER
1011      02144 R 543205 R    SAD (-1
1012      02145 R 602143 R    JMP B1
1013      02146 R 543206 R    SAD (-2
1014      02147 R 602212 R    JMP BOREND
1015      02150 R 043073 R    DAC DUMP
1016      02151 R 744010 A    CLLRAL / *2
1017      02152 R 360005 R    TAD* EOBAD
1018      02153 R 343231 R    TAD (-62 / CHECK FOR > 50
1019      02154 R 740100 A    SMA
1020      02155 R 602233 R    JMP TOOBIG / EXIT.BOARD TOO BIG
1021      02156 R 203073 R    LAC DUMP
1022      02157 R 060010 A    DAC* 10 / CORNER COUNT STORED
1023      02160 R 343135 R    TAD BORCNT*
1024      02161 R 043135 R    DAC BORCNT
1025      02162 R 460005 R    ISZ* EOBAD
1026      02163 R 203073 R    LAC DUMP
1027      02164 R 740031 A    TCA
1028      02165 R 043074 R    DAC CNTR / -NO OF CORNERS
1029      02166 R 443137 R    ISZ BORDNO*
1030      02167 R 102634 R    BLOOP JMS NUMBER
1031      02170 R 543205 R    SAD (-1
1032      02171 R 602167 R    JMP BLOOP
1033      02172 R 543206 R    SAD (-2
1034      02173 R 602212 R    JMP BOREND
1035      02174 R 460005 R    ISZ* EOBAD
1036      02175 R 503232 R    AND (1777
1037      02176 R 060010 A    DAC* 10 / X VAL STORED
1038      02177 R 102634 R    B2 JMS NUMBER
1039      02200 R 543205 R    SAD (-1
1040      02201 R 602177 R    JMP B2
1041      02202 R 543206 R    SAD (-2
1042      02203 R 602212 R    JMP BOREND
1043      02204 R 460005 R    ISZ* EOBAD

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1044 02205 R 503232 R 1777
1045 02206 R 060010 A DAC* 10 / Y VAL STORED
1046 02207 R 443074 R ISZ CNTR
1047 02210 R 602167 R JMP BLOOP
1048 02211 R 602143 R JMP B1
1049 02212 R 203135 R BOREND LAC BORCNT
1050 02213 R 744010 A RCL
1051 02214 R 343137 R TAD BORDNO
1052 02215 R 343154 R TAD OLEBD
1053 02216 R 740031 A TCA
1054 02217 R 360005 R TAD* EOBAD
1055 02220 R 741200 A SNA
1056 02221 R 622132 R JMP* BORDRD / EXIT CORNER COUNT OK
1057 02222 R 002775 A *G .WRITE -3,2,CORS,34
02223 R 000011 A *G CAL+2*1000 -3&777
02224 R 002242 R *G 11
02225 R 777736 A *G *G CORS
02226 R 000775 A *G .DEC
02227 R 000012 A *G -34
1058 02228 R 750030 A *G .WAIT -3
02229 R 000012 A *G CAL -3&777
1059 02230 R 750030 A *G 12
1060 02231 R 060005 R BORERR CLAI!AC
1061 02232 R 622132 R DAC* EOBAD
1062 02233 R 002775 A *G JMP* BORDRD
02234 R 000011 A *G TOOBIG .WRITE -3,2,BIGBRD,34
02235 R 002256 R *G CAL+2*1000 -3&777
02236 R 777736 A *G 11
02237 R 000775 A *G BIGBRD
02238 R 000012 A *G .DEC
02239 R 002230 R *G -34
1063 02240 R 000012 A *G .WAIT -3
02241 R 602230 R *G CAL -3&777
02242 R 002002 A *G 12
1064 02243 R 000000 A JMP BORERR
1065 02244 R 202511 A CORS 2002; 0; .ASCII / TOO MANY BOARD CORNERS <<15>
02245 R 747500 A
02246 R 466031 A
02247 R 654500 A
02250 R 412370 A
02251 R 151210 A
02252 R 202071 A
02253 R 751234 A
02254 R 426452 A
02255 R 320032 A
1066 02256 R 002002 A BIGBRD 2002; 0; .ASCII / BOARD ARRAY FULL <<15>
02257 R 000000 A
02260 R 202051 A
02261 R 740644 A
02262 R 421010 A

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PAGE	28	DTIN20	SRC	DTIN20
		02263	R 151244	A
		02264	R 406624	A
		02265	R 043252	A
		02266	R 462304	A
		02267	R 006400	A
1067				/
1068				/ SUBS TO CHECK FOR END AND WIDTH COMMANDS
1069				/
1070		02270	R 042400	R ENDMAY DAC NAME1
1071		02271	R 641002	A LACQ
1072		02272	R 543200	R SAD (-135746
1073		02273	R 622043	R JMP* CONRED
1074		02274	R 652000	A LMQ
1075		02275	R 202400	R LAC NAME1
1076		02276	R 602055	R JMP NOTND
1077				/
1078		02277	R 042400	R WIDCH DAC NAME1
1079		02300	R 641002	A LACQ
1080		02301	R 543233	R SAD (-325746
1081		02302	R 741000	A SKP
1082		02303	R 602061	R JMP WIDE
1083		02304	R 102634	R JMS NUMBER
1084		02305	R 043117	R DAC WIDTH
1085		02306	R 602050	R JMP CONEXT
1086				/
1087				/ LIST OF ERROR MESSAGES
1088				/
1089		02307	R 202400	R DUPCOM LAC NAME1
1090		02310	R 042414	R DAC ZNAME1
1091		02311	R 202401	R LAC NAME2
1092		02312	R 042415	R DAC ZNAME2
1093				.WRITE -3,2,DPCOM,34
		02313	R 002775	A *G CAL+2*1000 -3&777
		02314	R 000011	A *G 11
		02315	R 002402	R *G DPCOM
				*G .DEC
		02316	R 777736	A *G -34
1094				.WAIT -3
		02317	R 000775	A *G CAL -3&777
		02320	R 000012	A *G 12
1095		02321	R 102634	R JMS NUMBER / READ LIB
1096		02322	R 601253	R JMP CNEXT
1097		02323	R	LIBABS .WRITE -3,2,LIBAB,34
		02323	R 002775	A *G CAL+2*1000 -3&777
		02324	R 000011	A *G 11
		02325	R 002364	R *G LIBAB
				*G .DEC
		02326	R 777736	A *G -34
1098				.WAIT -3
		02327	R 000775	A *G CAL -3&777
		02330	R 000012	A *G 12
1099		02331	R 601253	R JMP CNEXT

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1100 02332 R 203151 R DUB LIB LAC LREFNO
1101 02333 R 101210 R JMS PACK
1102 02334 R 042361 R DAC LIBM11
1103 02335 R 641002 A LACQ
1104 02336 R 042362 R DAC LIBM12
1105 .WRITE -3,2,DUPLYB,34
      02337 R 002775 A *G CAL+2*1000 -3&777
      02340 R 000011 A *G 11
      02341 R 002347 R *G DUPLYB
      *G .DEC
      02342 R 777736 A *G -34
1106 .WAIT -3
      02343 R 000775 A *G CAL -3&777
      02344 R 000012 A *G 12
1107 02345 R 600657 R JMP DUPLBK
1108 02346 R 600107 R JMP ERXIT
1109 02347 R 002002 A DUPLYB 2002; 0
      02350 R 000000 A
1110 02351 R 202112 A .ASCII / DUPL LIB REF NO /
      02352 R 550230 A
      02353 R 202311 A
      02354 R 141100 A
      02355 R 202450 A
      02356 R 543100 A
      02357 R 472364 A
      02360 R 000000 A
1111 02361 R 000000 A LIBM11 0
1112 02362 R 000000 A LIBM12 0
1113 02363 R 064000 A 64000 / CR TO STOP TELETYPE
1114 02364 R 002002 A LIBAB 2002; 0
      02365 R 000000 A
1115 02366 R 202311 A .ASCII / LIB ITEM ABSENT FOR /
      02367 R 141100 A
      02370 R 446510 A
      02371 R 546500 A
      02372 R 406052 A
      02373 R 342634 A
      02374 R 521010 A
      02375 R 647644 A
      02376 R 200000 A
      02377 R 000000 A
1116 02400 R 000000 A NAME1 0
1117 02401 R 000000 A NAME2 0
1118 02402 R 002002 A DPCOM 2002; 0
      02403 R 000000 A
1119 02404 R 202112 A .ASCII / DUPL COMP NAME /
      02405 R 550230 A
      02406 R 202071 A
      02407 R 746640 A
      02410 R 202350 A
      02411 R 146612 A
      02412 R 200000 A

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PAGE	30	DTIN20	SRC	DTIN20
		02413	R 000000 A	
1120		02414	R 000000 A	ZNAME1 0
1121		02415	R 000000 A	ZNAME2 0
1122				/
1123				/
1124				/ SPECIAL INPUT ROUTINE CALLED WHEN CONNS ONLY WANTED
1125				/
1126				/
1127		02416	R 203234 R	SPECCC LAC (131 / 89 WORDS = 64 PADS
1128		02417	R 063146 R	DAC* LIBADD
1129		02420	R 343176 R	TAD (1
1130		02421	R 060003 R	DAC* EOLAD
1131		02422	R 203146 R	LAC LIBADD
1132		02423	R 063230 R	DAC* (10
1133		02424	R 203176 R	LAC (1
1134		02425	R 060010 A	DAC* 10 / LIB REFERENCE NUMBER
1135		02426	R 060004 R	DAC* EOCAD / DELETE ALL COMPONENTS
1136		02427	R 060012 R	DAC* EOCADN / DELETE ALL CONNEXIONS
1137		02430	R 777656 A	LAW -122
1138		02431	R 043162 R	DAC SPXCNX*
1139		02432	R 160010 A	DZM* 10
1140		02433	R 443162 R	ISZ SPXCNX
1141		02434	R 602432 R	JMP .-2 / FILL LIB WITH ZEROS
1142		02435	R 203175 R	LAC (NOP
1143		02436	R 043141 R	DAC CHEKK2
1144				/
1145				/ WE HAVE NOW CREATED A SUITABLE COMPONENT.
1146				/ SCAN THE TAPE AND STOP AFTER READING END
1147				/
1148		02437	R 102533 R	JMS NAME
1149		02440	R 543177 R	SAD (202131
1150		02441	R 741000 A	SKP
1151		02442	R 602437 R	JMP .-3 / NOT END
1152		02443	R 641002 A	LACQ
1153		02444	R 543200 R	SAD (-135746
1154		02445	R 741000 A	SKP
1155		02446	R 602437 R	JMP .-7 / NOT END
1156				/
1157				/ NOW READ THE CONNEXIONS AND CREATE
1158				/ COMPONENTS WHERE NECESS
1159	ARY (LIB PTR = 1)			/
1160		02447	R 203175 R	LAC (NOP
1161		02450	R 043141 R	DAC CHEKK2
1162		02451	R 043161 R	DAC RRRRR
1163		02452	R 600102 R	JMP ERXIT-5 / JMS CONRED
1164				/
1165				/ SUBROUTINE TO CREATE COMPONENTS IN THE
1166				/ COMPONENTS ARRAY.(IF REQUIRED)
1167				/
1168		02453	R 740040 A	NCHEKX XX
1169		02454	R 202401 R	LAC NAME2
1170		02455	R 043072 R	DAC MQST

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1171 02456 R 652000 A LAC NAME1
1172 02457 R 202400 R LAC NAME1
1173 02460 R 043071 R DAC ACST / STORE COPY OF NAME1,2
1174 02461 R 101731 R JMS FINCOM
1175 02462 R 740200 A SZL
1176 02463 R 602470 R JMP NAMNM2 / CHECK NEXT NAME
1177 02464 R 202401 R LAC NAME2
1178 02465 R 652000 A LMQ
1179 02466 R 202400 R LAC NAME1
1180 02467 R 102507 R JMS CREATE / CREATE A COMPONENT
1181 02470 R 203114 R NAMNM2 LAC NAME4
1182 02471 R 652000 A LMQ
1183 02472 R 203113 R LAC NAME3
1184 02473 R 101731 R JMS FINCOM
1185 02474 R 740200 A SZL
1186 02475 R 602502 R JMP .+1+4
1187 02476 R 203114 R LAC NAME4
1188 02477 R 652000 A LMQ
1189 02500 R 203113 R LAC NAME3
1190 02501 R 102507 R JMS CREATE
1191 02502 R 203072 R LAC MQST
1192 02503 R 042401 R DAC NAME2
1193 02504 R 203071 R LAC ACST
1194 02505 R 042400 R DAC NAME1
1195 02506 R 622453 R JMP* NCHEKX
1196 /
1197 /
1198 02507 R 740040 A CREATE XX
1199 02510 R 043073 R DAC TOT / STORE TOP OF NAME
1200 02511 R 203142 R LAC COMPAD
1201 02512 R 360004 R TAD* EOCAD
1202 02513 R 343205 R TAD (-1
1203 02514 R 043077 R DAC SCAN
1204 02515 R 163077 R DZM* SCAN
1205 02516 R 443077 R ISZ SCAN
1206 02517 R 203073 R LAC TOT
1207 02520 R 063077 R DAC* SCAN
1208 02521 R 443077 R ISZ SCAN
1209 02522 R 641002 A LACQ
1210 02523 R 063077 R DAC* SCAN
1211 02524 R 443077 R ISZ SCAN
1212 02525 R 203176 R LAC (1
1213 02526 R 063077 R DAC* SCAN / LIB REF NUMBER
1214 02527 R 220004 R LAC* EOCAD
1215 02530 R 343224 R TAD (6
1216 02531 R 060004 R DAC* EOCAD
1217 02532 R 622507 R JMP* CREATE
1218 /
1219 /
1220 / SUBROUTINE NAME
1221 02533 R 740040 A NAME XX
1222 02534 R 143070 R DZM STAR

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PAGE	32	DTIN20	SRC	DTIN20
1223	02535	R	203235	R LAC (201004 /5/7 ASCII 5 BLANKS
1224	02536	R	043071	R DAC ACST
1225	02537	R	203236	R LAC (020100
1226	02540	R	043072	R DAC MQST
1227	02541	R	102710	R NAMM JMS CHAR
1228	02542	R	543237	R SAD (15 / LOOK FOR CR
1229	02543	R	443144	R ISZ CRFLAG
1230	02544	R	740000	A NOP
1231	02545	R	343240	R TAD (-101
1232	02546	R	741100	A SPA / AC > OR = 0
1233	02547	R	602541	R JMP NAMM
1234	02550	R	343241	R TAD (-32
1235	02551	R	740100	A SMA
1236	02552	R	602541	R JMP NAMM
1237	02553	R	343242	R TAD (133 / LETTER IN AC
1238	02554	R	744010	A CLLIRAL
1239	02555	R	043073	R DAC DUMP
1240	02556	R	203243	R LAC (-4 /SET NAME COUNTER
1241	02557	R	043074	R DAC CNTR
1242	02560	R	602603	R JMP INSIDE
1243	02561	R	102710	R NAMLUP JMS CHAR
1244	02562	R	543244	R SAD (52
1245	02563	R	602620	R JMP STARR / ENDED BY STAR
1246	02564	R	744010	A RCL
1247	02565	R	043073	R DAC DUMP
1248	02566	R	744020	A RCR / RESTORE
1249	02567	R	343203	R TAD (-60
1250	02570	R	741100	A SPA
1251	02571	R	602621	R JMP NAMEX / TOO SMALL
1252	02572	R	343204	R TAD (-12
1253	02573	R	741100	A SPA
1254	02574	R	602603	R JMP INSIDE / CHAR IS A NUMBER
1255	02575	R	343245	R TAD (-7 / A
1256	02576	R	741100	A SPA
1257	02577	R	602621	R JMP NAMEX
1258	02600	R	343246	R TAD (-33 / Z+1
1259	02601	R	740100	A SMA
1260	02602	R	602621	R JMP NAMEX
1261	02603	R	203072	R INSIDE LAC MQST
1262	02604	R	652000	A LMQ
1263	02605	R	203071	R LAC ACST
1264	02606	R	744000	A CLL
1265	02607	R	640607	A LLS 7
1266	02610	R	043071	R DAC ACST
1267	02611	R	641002	A LACQ
1268	02612	R	343073	R TAD DUMP
1269	02613	R	043072	R DAC MQST
1270	02614	R	443074	R ISZ CNTR
1271	02615	R	602561	R JMP NAMLUP / CONTINUE
1272	02616	R	102710	R NAMED JMS CHAR / LOOK FOR *
1273	02617	R	543244	R SAD (52
1274	02620	R	443070	R STARR ISZ STAR


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1275 02621 R 203072 R N LAC MOST
1276 02622 R 652000 A LMQ
1277 02623 R 203071 R LAC ACST
1278 02624 R 744000 A CLL
1279 02625 R 640607 A LLS ?
1280 02626 R 043071 R DAC ACST
1281 02627 R 641002 A LACQ
1282 02630 R 343247 R TAD (32 / CR*2
1283 02631 R 652000 A LMQ
1284 02632 R 203071 R LAC ACST
1285 02633 R 622533 R JMP* NAME / RETURN WITH NAME IN AC & MQ
1286 / SUBROUTINE NUMBER
1287 02634 R 740040 A NUMBER XX
1288 02635 R 203205 R LAC (-1
1289 02636 R 043073 R DAC TOT
1290 02637 R 143163 R DZM STAR0
1291 02640 R 102710 R NUMBA JMS CHAR
1292 02641 R 543237 R SAD (15 / CHECK FOR CR
1293 02642 R 602706 R JMP ENDLIN / C R DETECTED
1294 02643 R 543201 R SAD (55 /CHECK FOR -1 READ
1295 02644 R 602703 R JMP MINUS
1296 02645 R 543202 R SAD (114 / LOOK FOR L
1297 02646 R 403161 R XCT RRRRR / JMP TO LIBERR OR NOP
1298 02647 R 343203 R TAD (-60 /+VE FOR NUMBERS
1299 02650 R 741100 A SPA / SKIP + OR 0
1300 02651 R 602640 R JMP NUMBA
1301 02652 R 343204 R TAD (-12 / -VE FOR NO
1302 02653 R 740100 A SMA
1303 02654 R 602640 R JMP NUMBA
1304 02655 R 343250 R TAD (12 / NO IN AC
1305 02656 R 043073 R DAC TOT
1306 02657 R 102710 R NUMLUP JMS CHAR
1307 02660 R 543237 R SAD (15
1308 02661 R 443163 R ISZ STAR0
1309 02662 R 343203 R TAD (-60
1310 02663 R 741100 A SPA
1311 02664 R 602701 R JMP GOTIT
1312 02665 R 343204 R TAD (-12
1313 02666 R 740100 A SMA
1314 02667 R 602701 R JMP GOTIT
1315 02670 R 343250 R TAD (12
1316 02671 R 043071 R DAC DIGIT
1317 02672 R 203073 R LAC TOT
1318 02673 R 746010 A CLL RTL /*4
1319 02674 R 343073 R TAD TOT /*5
1320 02675 R 744010 A CLL RAL /*10
1321 02676 R 343071 R TAD DIGIT
1322 02677 R 043073 R DAC TOT
1323 02700 R 602657 R JMP NUMLUP
1324 02701 R 203073 R GOTIT LAC TOT
1325 02702 R 622634 R JMP* NUMBER / EXIT
1326 02703 R 203073 R MINUS LAC TOT

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PAGE	34	DTIN20	SRC	DTIN20
1327		02704	R 343073 R	TAD TOT
1328		02705	R 622634 R	JMP* NUMBER /EXIT FOR -1 READ
1329		02706	R 203073 R	ENDLYN LAC TOT
1330		02707	R 622634 R	JMP* NUMBER
1331				/
1332				/
1333				/ SUBROUTINE CHAR. READS A SINGLE CHARACTER FROM THE
1334				/ INPUT DEVICE AND CHECKS FOR ANY PARITY ERRORS
1335				/ DELETE CHARS AND BLANK TAPE ARE IGNORED
1336				/
1337		02710	R 740040 A	CHAR XX
1338		02711	R 203076 R	LAC DEVI
1339		02712	R 543226 R	SAD (5 / PRA = 5
1340		02713	R 602726 R	JMP PAPTAP /INPUT ON PAPERTAPE
1341		02714	R 203132 R	DECT LAC AFLG /INPUT ON DECTAPE
1342		02715	R 741200 A	SNA
1343		02716	R 602752 R	JMP INIDT
1344		02717	R 123170 E	JMS* ASCIN
1345		02720	R 602724 R	JMP .+4
1346		02721	R 003251 R	.DSA (0
1347		02722	R 003122 R	.DSA BUFF+2
1348		02723	R 003134 R	.DSA IFLG
1349		02724	R 203134 R	LAC IFLG
1350		02725	R 602735 R	JMP BOTH
1351		02726	R	PAPTAP .READ 5,3,BUFF,3
		02726	R 003005 A *G	CAL+3*1000 5&777
		02727	R 000010 A *G	10
		02730	R 003120 R *G	BUFF
			*G	.DEC
		02731	R 777775 A *G	-3
1352				.WAIT 5
		02732	R 000005 A *G	CAL 5&777
		02733	R 000012 A *G	12
1353		02734	R 203120 R	LAC BUFF
1354		02735	R 503252 R	BOTH AND (7
1355		02736	R 343253 R	TAD (-6
1356		02737	R 740200 A	SZA
1357		02740	R 602773 R	JMP NOTEND
1358				/
1359				/ ROUTINE FOR FINDING THE START OF NEW TAPES
1360				/
1361		02741	R	NOTINI .WRITE -3,2,ENDOT,34
		02741	R 002775 A *G	CAL+2*1000 -3&777
		02742	R 000011 A *G	11
		02743	R 003054 R *G	ENDOT
			*G	.DEC
		02744	R 777736 A *G	-34
1362				.WAIT -3
		02745	R 000775 A *G	CAL -3&777
		02746	R 000012 A *G	12
1363		02747	R 203076 R	LAC DEVI
1364		02750	R 543226 R	SAD (5

1365	02751 R	602762 R	INIPT
1366	02752 R	123171 E	INIT JMS* FNASK1
1367	02753 R	123170 E	JMS* ASCIN / INITIALISE ASCIN READ
1368	02754 R	602760 R	JMP .+4
1369	02755 R	003205 R	.DSA (-1
1370	02756 R	003122 R	.DSA BUFF+2
1371	02757 R	003134 R	.DSA IFLG
1372	02760 R	443132 R	ISZ AFLG / SET INITIALISATION FLAG
1373	02761 R	602767 R	JMP .+6
1374	02762 R	750004 A	INIPT LAS
1375	02763 R	043075 R	DAC FLAG
1376	02764 R	750004 A	LAS / WAIT LOOP
1377	02765 R	543075 R	SAD FLAG
1378	02766 R	602764 R	JMP .-2 / CONTINUE
1379	02767 R	143075 R	DZM FLAG / RESET PARITY IND
1380	02770 R	403141 R	XCT CHEKK2 / SKP OR NOP FOR 'CONNS ONLY' MODE
1381	02771 R	602437 R	JMP NCHEKX-14 / JMS NAME IN CONNS ONLY MODE
1382	02772 R	600076 R	JMP ERXIT-11 / READ LIB ON NEW TAPE
1383	02773 R	203122 R	NOTEND LAC BUFF+2
1384	02774 R	103005 R	JMS PARITI / CHECK FOR PARITY ERRORS
1385	02775 R	503254 R	AND (177
1386	02776 R	543254 R	SAD (177
1387	02777 R	602711 R	JMP CHAR+1 / IGNORE DELETE
1388	03000 R	741200 A	SNA
1389	03001 R	602711 R	JMP CHAR+1 / IGNORE BLANK TAPE
1390	03002 R	543250 R	SAD (12 / CHECK FOR NEW LINE
1391	03003 R	203237 R	LAC (15 / AND REPLACE WITH C.R.
1392	03004 R	622710 R	JMP* CHAR
1393			/
1394			/
1395	03005 R	740040 A	PARITI XX
1396	03006 R	043166 R	DAC ZAGZ* / STORE CHARACTER
1397	03007 R	203075 R	LAC FLAG
1398	03010 R	740200 A	SZA
1399	03011 R	603042 R	JMP PAROUT
1400	03012 R	203076 R	LAC DEVI
1401	03013 R	543226 R	SAD (5
1402	03014 R	741000 A	SKP
1403	03015 R	603042 R	JMP PAROUT / DONT CHECK PARITY ON TTY INPUT
1404	03016 R	777770 A	LAW -10
1405	03017 R	043155 R	DAC PARCNT*
1406	03020 R	203166 R	LAC ZAGZ
1407	03021 R	143156 R	DZM PARCN2*
1408	03022 R	744020 A	PARLP RCR
1409	03023 R	741400 A	SZL
1410	03024 R	443156 R	ISZ PARCN2
1411	03025 R	443155 R	ISZ PARCNT
1412	03026 R	603022 R	JMP PARLP
1413	03027 R	203156 R	LAC PARCN2
1414	03030 R	503176 R	AND (1
1415	03031 R	741200 A	SNA
1416	03032 R	603042 R	JMP PAROUT

PAGE	36	DTIN20	SRC	DTIN20
1417		03033	R 443075 R	ISZ FLAG
1418				.WRITE -3,2,PARITY,34
		03034	R 002775 A *G	CAL+2*1000 -3&777
		03035	R 000011 A *G	11
		03036	R 003044 R *G	PARITY
			*G	.DEC
		03037	R 777736 A *G	-34
1419				.WAIT -3
		03040	R 000775 A *G	CAL -3&777
		03041	R 000012 A *G	12
1420		03042	R 203166 R	PAROUT LAC ZAGZ
1421		03043	R 623005 R	JMP* PARITI
1422				/
1423		03044	R 002002 A	PARITY 2002: 0
		03045	R 000000 A	
1424		03046	R 202410 A	.ASCII / PARITY ERROR <15>
		03047	R 151222 A	
		03050	R 522624 A	
		03051	R 042644 A	
		03052	R 512372 A	
		03053	R 220032 A	
1425		03054	R 002002 A	ENDOT 2002: 0
		03055	R 000000 A	
1426		03056	R 202411 A	.ASCII / PLEASE LOAD NEXT TAPE <15>
		03057	R 442602 A	
		03060	R 516124 A	
		03061	R 046236 A	
		03062	R 406104 A	
		03063	R 047212 A	
		03064	R 542504 A	
		03065	R 052202 A	
		03066	R 502124 A	
		03067	R 006400 A	
1427				/
1428				/ SYMBOL TABLE
1429				/
1430		03070	R 740040 A	STAR XX
1431		03071	R 740040 A	ACST XX
1432		03072	R 740040 A	MQST XX
1433		03073	R 740040 A	DUMP XX
1434		03074	R 740040 A	CNTR XX
1435			003073 R	TOT=DUMP
1436			003071 R	DIGIT=ACST
1437		03075	R 740040 A	FLAG XX
1438		03076	R 740040 A	DEVI XX
1439		03077	R 740040 A	SCAN XX
1440		03100	R 740040 A	WRDCNT XX
1441		03101	R 740040 A	PADCNT XX
1442		03102	R 740040 A	PADAD XX
1443		03103	R 740040 A	LSTRT XX
1444		03104	R 740040 A	X1 XX
1445		03105	R 740040 A	Y1 XX

1446	03106	R	740040	A	LEND XX
1447	03107	R	740040	A	CEND XX
1448	03110	R	740040	A	LEND XX
1449	03111	R	740040	A	CSCAN XX
1450	03112	R	740040	A	LSCAN XX
1451	03113	R	740040	A	NAME3 XX
1452	03114	R	740040	A	NAME4 XX
1453	03115	R	740040	A	PIN1 XX
1454	03116	R	740040	A	PIN2 XX
1455	03117	R	740040	A	WIDTH XX
1456	03120	R		A	BUFF .BLOCK 4 / INPUT BUFFER
1457	03124	R		A	NAM .BLOCK 6
1458	03132	R	740040	A	AFLG XX
1459	03133	R	740040	A	IG XX
1460	03134	R	740040	A	IFLG XX
1461			000000	A	.END
	03167	R	003167	E	*E
	03170	R	003170	E	*E
	03171	R	003171	E	*E
	03172	R	003172	E	*E
	03173	R	003173	E	*E
	03174	R	741000	A	*L
	03175	R	740000	A	*L
	03176	R	000001	A	*L
	03177	R	202131	A	*L
	03200	R	642032	A	*L
	03201	R	000055	A	*L
	03202	R	000114	A	*L
	03203	R	777720	A	*L
	03204	R	777766	A	*L
	03205	R	777777	A	*L
	03206	R	777776	A	*L
	03207	R	000003	A	*L
	03210	R	600452	R	*L
	03211	R	000077	A	*L
	03212	R	777775	A	*L
	03213	R	000002	A	*L
	03214	R	770000	A	*L
	03215	R	007700	A	*L
	03216	R	600143	R	*L
	03217	R	620125	R	*L
	03220	R	000060	A	*L
	03221	R	000777	A	*L
	03222	R	010000	A	*L
	03223	R	003000	A	*L
	03224	R	000006	A	*L
	03225	R	777400	A	*L
	03226	R	000005	A	*L
	03227	R	536230	A	*L
	03230	R	000010	A	*L
	03231	R	777716	A	*L
	03232	R	001777	A	*L

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03233 R 452032 A *L
03234 R 000131 A *L
03235 R 201004 A *L
03236 R 020100 A *L
03237 R 000015 A *L
03240 R 777677 A *L
03241 R 777746 A *L
03242 R 000133 A *L
03243 R 777774 A *L
03244 R 000052 A *L
03245 R 777771 A *L
03246 R 777745 A *L
~~03247~~ R 000032 A *L
03250 R 000012 A *L
03251 R 000000 A *L
03252 R 000007 A *L
03253 R 777772 A *L
03254 R 000177 A *L

SIZE=03256

NO ERROR LINES

ACST	03071	546	559	563	573	1173	1193	1224	1263
		1266	1277	1280	1284	1431*	1436		
ADDCN3	03167	45	982						
AFLG	03132	75	1341	1372	1458*				
ASCIN	03170	45	1344	1367					
BIGBRD	02256	1062	1066*						
BLANK	01250	545	547	575*					
BLOOF	02167	1030*	1032	1047					
BOARD	00002	48*	48	71					
BORCNT	03135	1008	1023	1024	1049				
BORDAD	03136	72	1004						
BORDNO	03137	1009	1029	1051					
BORDRD	02132	105	1001*	1056	1061				
BOREND	02212	1014	1034	1042	1049*				
BORERR	02230	1059*	1064						
BOTH	02735	1350	1354*						
BUFF	03120	84	85	86	87	1347	1351	1353	1370
		1383	1456*						
B1	02143	1010*	1012	1048					
B2	02177	1038*	1040						
CEND	03107	868	883	1447*					
CHAR	02710	126	414	1227	1243	1272	1291	1306	1337*
		1387	1389	1392					
CHEKK	03140	82	104	153	178	194	234	259	282
		294	321	588					
CHEKK2	03141	96	102	980	1143	1161	1380		
CNEXT	01253	580*	631	716	762	766	804	818	832
		846	1096	1099					
CNTR	03074	1028	1046	1241	1270	1434*			
COMEND	01524	766*							
COMFUL	01531	641	776*						
COMLUP	01747	871*	885						
COMPAD	03142	70	580	720	721	863	1200		
COMPRD	01252	100	579*	790	902				
COMPS	00001	47*	47	69					
COMSIZ	03143	64	639						
CONEXT	02050	942*	997	1085					
CONRED	02043	101	937*	979	1073				
CORDIN	01737	863*	903						
CORS	02242	1057	1065*						
CREATE	02507	1180	1190	1198*	1217				
CRFLAG	03144	943	959	1229					
CR1	00410	306*	310						
CR10	02062	952*	954						
CR11	02075	961	966*	968					
CR2	00416	312*	316						
CR3	00203	170*	174						
CR4	00266	224*	228						
CR5	00317	249*	253						
CR6	00347	273*	277						
CR7	01354	648*	650						
CR8	01401	672*							
CR9	01412	681*							

CSCAN	03111	707 871 1449*	708 877	712 880	714 882	729 886	734 887	865 892	869 897
DC0	01633	816	819*						
DC1	01653	813	815	822*					
DC10	01616	798	800	808*					
DC3	01670	830	833*						
DC4	01702	827	829	836*					
DC6	01717	844	847*						
DC7	01727	841	843	850*					
DC9	01602	801	805*						
DECT	02714	1341*							
DETCR	01525	671	674	680	683	767*			
DEWAD	00013	58*	73						
DEV1	03076	74	1338	1363	1400	1438*			
DIFLIB	01620	599	607	812*					
DIGIT	003071	1316	1321	1436*					
DIMER	00665	325	423*						
DPCOM	02402	1093	1118*						
DTIN20	00007	1	45	53*	120				
DUMP	03073	1015	1021	1026	1239	1247	1268	1433*	1435
DUPCOM	02307	633	1089*						
DUPLBK	00657	338	402	414*	419	437	467	503	531
		1107							
DUPLIB	02332	162	1100*						
DUPLYB	02347	1105	1109*						
EK1	01133	484	486	513*					
EK3	01116	489	491	507*					
EK5	01152	494	496	519*					
EK7	01205	526	528	535*					
ENDLYN	02706	1293	1329*						
ENDMAY	02270	946	1070*						
ENDOT	03054	1361	1425*						
EOA	02122	66	990*						
EOBAD	00005	51*	1002	1005	1017	1025	1035	1043	1054
		1060							
EOCAD	00004	50*	581	637	666	668	867	1135	1201
		1214	1216						
EOCADN	00012	57*	65	1136					
EOLAD	00003	49*	139	206	297	299	911	1130	
ERRLIB	00452	167	218	339*					
ERROR	01777	870	884	895*					
ERXIT	00107	103	106*	1108	1163	1382			
FINCOM	01731	587	857*	896	899	1174	1184		
FINLIB	02010	152	597	651	907*	930	933		
FLAG	03075	83	1375	1377	1379	1397	1417	1437*	
FLUZX	01330	616	619	622	625*				
FNASK1	03171	45	1366						
FOUND	02001	891	897*						
FULL1	00563	336	384*						
FULL2	01552	780	792*						
FULL	00575	333	335	387*					
FULL	01564	777	779	795*					

GOTIT	02701	1311	1314	1324					
GRONG	03145	182	184	187	482				
IFLG	03134	1348	1349	1371	1460*				
IG	03133	1459*							
INIDT	02752	1343	1366*						
INIPT	02762	1365	1374*						
INSIDE	02603	1242	1254	1261*					
LEND	03110	913	926	1448*					
LError	02036	915	927	929*					
LFOND	02040	921	931*						
LIBAB	02364	1097	1114*						
LIBABS	02323	653	1097*						
LIBADD	03146	68	138	602	656	710	909	1128	1131
LIBEND	00405	303*							
LIBERR	00454	172	226	251	275	308	314	341*	
LIBER2	00600	136	393*						
LIBEX	03147	342	365						
LIBFUL	00436	211	331*						
LIBLUP	00262	220*	293						
LIBM1	00520	349	366*						
LIBM11	02361	1102	1111*						
LIBM12	02362	1104	1112*						
LIBM2	00530	346	348	369*					
LIBM4	00533	356	372*						
LIBM5	00545	353	355	375*					
LIBM7	00550	363	378*						
LIBM8	00560	360	362	381*					
LIBN1	00622	398	404*						
LIBN2	00640	395	407*						
LIBN3	00641	397	408*						
LIBN4	00643	400	410*						
LIBRED	00125	97	124*	128	133	137	147	296	302
		303	341	416					
LIBREF	03106	658	661	662	676	677	685	767	1446*
LIBRY	00000	46*	46	67					
LIBSIZ	03150	62	209						
LNEXT	00143	130	138*	149	339	418			
LREFNO	03151	125	151	331	344	393	423	453	487
		524	1100						
LSCAN	03112	910	914	916	918	919	922	925	931
		1450*							
LSTRT	03103	142	157	180	301	1443*			
LUPEND	00374	214	247	271	294*				
LYBLP	02021	916*	928						
MAYEND	02004	862	900*						
MIDMK	01655	613	826*						
MINUS	02703	1295	1326*						
MISMAT	01040	190	482*						
MISPT	00756	231	239	256	264	280	287	452*	
MODAD	00014	59*	76	92					
MQST	03072	548	557	565	571	1170	1191	1226	1261
		1269	1275	1432*					
NAM	03124	1457*							

NAME	02533	110	586	785	944	962	1148	1221*	1285
NAMED	02616	1272*							
NAMEX	02621	1251	1257	1260	1275*				
NAME1	02400	642	776	797	812	826	840	858	878
		900	949	984	991	1070	1075	1078	1089
		1116*	1172	1179	1194				
NAME2	02401	645	778	799	814	828	842	860	888
		951	993	1091	1117*	1169	1177	1192	
NAME3	03113	908	920	963	973	986	992	1183	1189
		1451*							
NAME4	03114	965	977	994	1181	1187	1452*		
NAMLUP	02561	1243*	1271						
NAMM	02541	1227*	1233	1236					
NAMNM2	02470	1176	1181*						
NOCHKX	02453	981	1168*	1195	1381				
NOGIVEN	03152	166	177	242	267	290	358	428	452
		458							
NOCHCP	01566	591	797*						
NOCHEK	01155	156	524*						
NOCOMP	01760	876	880*						
NOTEND	02773	1357	1383*						
NOTINI	02741	1361*							
NOTLCH	00252	196	212*						
NOTND	02055	947*	1076						
NPSPEC	03153	165	176	188	197	212	351	492	
NULL	01521	690	693	697	763*	770			
NUMBA	02640	1291*	1300	1303					
NUMBER	02634	145	170	224	249	273	306	312	594
		617	623	648	672	681	691	695	803
		952	966	1010	1030	1038	1083	1095	1287*
		1325	1328	1330					
NUMLUP	02657	1306*	1323						
OCOMPX	01337	589	632*						
OLEBD	03154	1003	1052						
PACK	01210	332	345	352	359	394	424	429	454
		459	483	488	493	525	543*	574	1101
PADAD	03102	222	236	241	261	265	266	284	288
		289	1442*						
PADCNT	03101	217	245	269	292	1441*			
PALoup	01216	549*	570						
PAPTAP	02726	1340	1351*						
PAGED	01244	568	571*						
PARCNT	03155	1405	1411						
PARCN2	03156	1407	1410	1413					
PARIT1	03005	1384	1395*	1421					
PARITY	03044	1418	1423*						
PARLP	03022	1408*	1412						
PAROUT	03042	1399	1403	1416	1420*				
PIN1	03115	955	985	995	1453*				
PIN2	03116	969	987	996	1454*				
PTENS	03157	556	566						
PUNITS	03160	554	562						
RENTER	01762	882*	894						

RRRRR	03161	99	144	168	219	1162	1297		
SARG	01465	732*							
SCAN	03077	140	150	159	220	221	305	323	326
		583	584	585	593	604	610	627	643
		644	646	647	686	687	694	698	699
		706	723	739	745	748	749	751	752
		758	761	763	764	765	768	769	1203
		1204	1205	1207	1208	1210	1211	1213	1439*
SIDOPP	01704	630	840*						
SIZE	00006	52*	52	60					
SPECCC	02416	94	1127*						
SPXCNX	03162	1138	1140						
STAR	03070	608	659	1222	1274	1430*			
STARR	02620	1245	1274*						
START	00044	83*	89	90	91				
STAR0	03163	614	620	669	678	688	939	942	1290
		1308							
STPAD	00406	169	223	248	272	304*	327		
SUBNOD	03172	45	730						
TEST	01766	879	886*						
TOOBIG	02233	1020	1062*						
TOT	003073	873	874	1199	1206	1289	1305	1317	1319
		1322	1324	1326	1327	1329	1435*		
WIDCH	02277	948	1078*						
WIDE	02061	951*	1082						
WIDTH	03117	941	988	1084	1455*				
WRDCNT	03100	164	243	244	268	291	298	300	917
		923	1440*						
XEK	01102	497	504*						
XEK2	01121	499	510*						
XEK3	01136	501	516*						
XEK4	01171	529	532*						
X00	03164	732	755						
X1	03104	311	318	1444*					
Y00	03165	733	742						
Y1	03105	317	320	1445*					
ZAGZ	03166	1396	1406	1420					
ZBK0	01006	463	468*						
ZBK1	01022	455	457	471*					
ZEK3	01035	460	462	477*					
ZEK5	01025	465	474*						
ZNAME1	02414	1090	1120*						
ZNAME2	02415	1092	1121*						
ZZEK0	00714	433	436*						
ZZEK1	00732	425	427	441*					
ZZEK3	00753	430	432	447*					
ZZEK5	00735	435	444*						
.DA	03173	45	54						