

C:\Users\Paul\Documents\Projects\B5500\retro-b5500\source\B65SIM\LONGALG.alg_m				C:\Users\Paul\Documents\Projects\B5500\retro-b5500\source\B65SIM\LONGALG-NEW.alg_m			
1	%#####00001000			1	?REMOVE LONGALG/DISK, LONGALG/NEW, NEWSYM/LONGALG	00000100	
2	%00001010			2	?COMPILE LONGALG/NEW ALGOL LIBRARY	00000200	
3	%B-5700 ALGOL COMPILER	00001020		3	?ALGOL STACK=1000	00000300	
4	%MARK XIII.0	00001030		4	?ALGOL FILE TAPE=SYMBOL/ALGOL SERIAL	00000400	
5	%JULY 15, 1971	00001040		5	?ALGOL FILE NEWTAPE=NEWSYM/LONGALG SERIAL	00000450	
6	%00001050			6	?FILE LINE = LINE BACK UP DISK	00000500	
7	%#####00001060			7	?FILE NEWTAPE = "0CRDING" TAPE	00000600	
8	%00001070			8	?FILE PNCH = PNCH PUNCH	00000700	
9	COMMENT#####00001110			9	?DATA CARD	00000800	
10	ERROR MESSAGES	00001120		10	\$ TAPE CHECK NEW	00000900	
408	501 SEARCHLIB: LIBRARY IDENTIFIER NOT CONTAINED IN DIRECTORY.	00305020		11	%#####00001000		
409	502 SEARCHLIB: ILLEGAL LIBRARY START POINT.	00305030		12	%00001010		
410	503 SEARCHLIB: SEPARATOR REQUIRED BETWEEN START POINT AND LENGTH.	00305040		13	%THE SECOND COMING OF THE B-5500 LONGALG COMPILER	00001020	
411	504 SEARCHLIB: ILLEGAL LIBRARY LENGTH.	00305050		14	%MARK XIII.0	00001030	
412	505 SEARCHLIB: MISSING BRACKET.	00305060		15	%3 JUNE 2017	00001040	
413		00305070		16	%00001050		
414	507 SEARCHLIB: TAPE POSITIONING ERROR.	00305080		17	%#####00001060		
415	509 IODEC: NON-LITERAL FILE VALUE NOT GLOBAL TO FILE DECL.	00305100		18	%00001070		
416	;	00306000		19	COMMENT#####00001110		
417	BEGIN COMMENT OUTERMOST BLOCK;	00500000		20	ERROR MESSAGES	00001120	
418	INTEGER ERRORCOUNT; COMMENT NUMBER OF ERROR MSGS. MCP WILL TYPE	00501000		501	SEARCHLIB: LIBRARY IDENTIFIER NOT CONTAINED IN DIRECTORY.	00305020	
597	THE FIRST WORD OF ADDITIONAL INFO CONTAINS THE NUMBER OF	01102000		502	SEARCHLIB: ILLEGAL LIBRARY START POINT.	00305030	
598	DIMENSIONS(IN THE LOW ORDER PART).[40:8]	01103000		503	SEARCHLIB: SEPARATOR REQUIRED BETWEEN START POINT AND LENGTH.	00305040	
599	EACH SUCCEEDING WORD CONTAINS INFORMATION ABOUT EACH LOWER	01104000		504	SEARCHLIB: ILLEGAL LIBRARY LENGTH.	00305050	
600	BOUND IN ORDER OF APPEARANCE,ONE WORD FOR EACH LOWER BOUND.	01105000		505	SEARCHLIB: MISSING BRACKET.	00305060	
601	THESE WORDS ARE MADE UP AS FOLLOWS:	01106000		506	BLOCK: LONG APPEARS IMMEDIATELY BEFORE IDENTIFIER(NO TYPE).	00305070	
602				507	SEARCHLIB: TAPE POSITIONING ERROR.	00305080	
603	[23:12] =ADD OPERATOR SYLLABLE (0101) OR	01107000		509	IODEC: NON-LITERAL FILE VALUE NOT GLOBAL TO FILE DECL.	00305100	
604	SUB OPERATOR SYLLABLE (0301) CORRESPONDING	01108000		426	;	00306000	
605	RESPECTIVELY TO WHETHER THE LOWER BOUND IS	01109000		427	BEGIN COMMENT OUTERMOST BLOCK;	00500000	
606	TO BE ADDED TO THE SUBSCRIPT IN INDEXING OR	01110000		428	INTEGER ERRORCOUNT; COMMENT NUMBER OF ERROR MSGS. MCP WILL TYPE	00501000	
	SUBTRACTED.	01111000		607	THE FIRST WORD OF ADDITIONAL INFO CONTAINS THE NUMBER OF	01102000	
800	PROCV =14#, COMMENT 16;	01293000		608	DIMENSIONS(IN THE LOW ORDER PART).[40:8]	01103000	
801	ARRAYV =15#, COMMENT 17;	01294000		609	EACH SUCCEEDING WORD CONTAINS INFORMATION ABOUT EACH LOWER	01104000	
802	FORMATV =16#, COMMENT 20;	01295000		610	BOUND IN ORDER OF APPEARANCE,ONE WORD FOR EACH LOWER BOUND.	01105000	
803	FILEV =17#, COMMENT 21;	01296000		611	THESE WORDS ARE MADE UP AS FOLLOWS:	01106000	
804	STREAMV =18#, COMMENT 22;	01297000		612	[22:1] =IF 1, THIS IS THE FINAL ROW OF A LONG ARRAY, WHICH	01106700	
805	DEFINEV =19#; COMMENT 23;	01298000		613	WILL REQUIRE DOUBLING OF THE RAW INDEX VALUE AND	01106800	
806	DEFINE ADES=0#,LDES=2#,PDES=1#,CHAR=3#;	01299000		614	AN EXTRA LEVEL OF INDEXING FOR LONGROWSZ-WORD ROWS.	01106900	
807	REAL TIME1;	01300000		615	[23:12] =ADD OPERATOR SYLLABLE (0101) OR	01107000	
808	INTEGER SCRAM;	01301000		616	SUB OPERATOR SYLLABLE (0301) CORRESPONDING	01108000	
809	COMMENT SCRAM CONTAINS THE SCRAMBLE INDEX FOR THE LAST IDENTIFIER	01302000		617	RESPECTIVELY TO WHETHER THE LOWER BOUND IS	01109000	
810	OR RESERVED WORD SCANNED;	01303000		618	TO BE ADDED TO THE SUBSCRIPT IN INDEXING OR	01110000	
811	ARRAY FILEATTRIBUTES[0:30] ;	01303500		619	SUBTRACTED.	01111000	
1239	BOOLEAN	01585000		813	PROCV =14#, COMMENT 16;	01293000	
1240	FUNCTOG, COMMENT TELLS WHETHER PROCEDURE BEING DECLARED IS A	01586000		814	ARRAYV =15#, COMMENT 17;	01294000	
1241	FUNCTION;	01587000		815	FORMATV =16#, COMMENT 20;	01295000	
				816	FILEV =17#, COMMENT 21;	01296000	
				817	STREAMV =18#, COMMENT 22;	01297000	
				818	DEFINEV =19#, COMMENT 23;	01298000	
				819	LONGV =20#; COMMENT 24;	01298100	
				820	DEFINE ADES=0#,LDES=2#,PDES=1#,CHAR=3#;	01299000	
				821	DEFINE LONGROWSZ=256#; % SIZE OF LONG-ARRAY SEGMENTED ROWS	01299300	
				822	REAL TIME1;	01300000	
				823	INTEGER SCRAM;	01301000	
				824	COMMENT SCRAM CONTAINS THE SCRAMBLE INDEX FOR THE LAST IDENTIFIER	01302000	
				825	OR RESERVED WORD SCANNED;	01303000	
				826	ARRAY FILEATTRIBUTES[0:30] ;	01303500	

File date: 5/31/2017 8:24:32 AM
File size: 993.2 KB (1017060)
File type: WIN TXT

File date: 6/4/2017 2:41:41 PM
File size: 1001.5 KB (1025524)
File type: WIN TXT

C:\Users\Paul\Documents\Projects\B5500\retro-b5500\source\B65SIM\LONGALG.alg_m				C:\Users\Paul\Documents\Projects\B5500\retro-b5500\source\B65SIM\LONGALG-NEW.alg_m			
1242	P2,	COMMENT GENERALLY TELLS WHETHER OWN WAS SEEN;	01588000	1257	P2,	COMMENT GENERALLY TELLS WHETHER OWN WAS SEEN;	01588000
1243	P3,	COMMENT TELLS WHETHER SAVE WAS SEEN;	01589000	1258	P3,	COMMENT TELLS WHETHER SAVE WAS SEEN;	01589000
1244	VONF,	COMMENT VALUE OR OWN FIELD OF ELBAT WORD;	01590000	1259	P5,	COMMENT TELLS WHETHER LONG WAS SEEN;	01589600
1245	FORMALF,	COMMENT FORMAL FIELD OF ELBAT WORD;	01591000	1260	VONF,	COMMENT VALUE OR OWN FIELD OF ELBAT WORD;	01590000
1246	PTOG,	COMMENT TELLS THAT FORMAL PARAPART IS BEING PROCESSED;	01592000	1261	FORMALF,	COMMENT FORMAL FIELD OF ELBAT WORD;	01591000
1247	SPECTOG,		01593000	1262	PTOG,	COMMENT TELLS THAT FORMAL PARAPART IS BEING PROCESSED;	01592000
1248	STOPENTRY,	COMMENT THIS MAKES THE ENTRY PROCEDURE ENTER ONLY	01594000	1263	SPECTOG,		01593000
1264				1264	STOPENTRY,	COMMENT THIS MAKES THE ENTRY PROCEDURE ENTER ONLY	01594000
1487	DI:=LOC DATER; SI:=LOC DATE; SI:=SI+2;		01825000	1503	DI:=LOC DATER; SI:=LOC DATE; SI:=SI+2;		01825000
1488	2(DS:=2 CHR; DS:=LIT"/"); DS:=2 CHR;		01826000	1504	2(DS:=2 CHR; DS:=LIT"/"); DS:=2 CHR;		01826000
1489	END OF DATER;		01827000	1505	END OF DATER;		01827000
1490	H:=TIME1 DIV 216000; MIN:=(TIME1 DIV 3600) MOD 60;		01828000	1506	H:=TIME1 DIV 216000; MIN:=(TIME1 DIV 3600) MOD 60;		01828000
1491	WRITE(LINE[DBL],		01829000	1507	WRITE(LINE[DBL],		01829000
1492	<X22,"BURROUGHS B-5700 ALGOL COMPILER MARK ",		01830000	1508	<X22,"RETRO-B5500 LONGALG COMPILER MARK ",		01830000
1493	"XIII.0"		01831000	1509	"XIII.0"		01831000
1494	" , "A6,"DAY,"0," , "I2,"":",A2,X1,A1,"M."/"/> ,		01832000	1510	" , "A6,"DAY,"0," , "I2,"":",A2,X1,A1,"M."/"/> ,		01832000
1495	TIME(6),DATER(TIME(5)),I2 REAL(Q:=H MOD 12=0)+Q,		01833000	1511	TIME(6),DATER(TIME(5)),I2 REAL(Q:=H MOD 12=0)+Q,		01833000
1496	Q:=MIN MOD 10+(MIN DIV 10) 64,		01834000	1512	Q:=MIN MOD 10+(MIN DIV 10) 64,		01834000
1497	IF H 12 THEN "P" ELSE "A");		01835000	1513	IF H 12 THEN "P" ELSE "A");		01835000
6919	OCT0130000000040000, "3ERF00",	OCT0000000012500000,%651	09214410	6935	OCT0130000000040000, "3ERF00",	OCT0000000012500000,%651	09214410
6920	OCT0130000000040000, "5GAMMA",	OCT0000000012600000,%654	09214415	6936	OCT0130000000040000, "5GAMMA",	OCT0000000012600000,%654	09214415
6921	OCT0130000000040000, "5LANGAM",	OCT0000000012700000,%657	09214420	6937	OCT0130000000040000, "5LANGAM",	OCT0000000012700000,%657	09214420
6922	OCT0130000000040000, "3TAN00",	OCT0000000011100000,%660	09214425	6938	OCT0130000000040000, "3TAN00",	OCT0000000011100000,%660	09214425
6923	OCT2000000000004050, COMMENT POWERS OF TEN ;	%663	09214430	6939	OCT2000000000004050, COMMENT POWERS OF TEN ;	%663	09214430
6924	0, COMMENT SORTA ;	%664	09214435	6940	OCT0430000240000000, "4LONG0",	%664	09214432
6925	" " ; COMMENT LASTSEQUENCE, LASTSEQROW ;	%665	09214440	6941	0, COMMENT SORTA ;	%666	09214435
6926	COMMENT NOW LINK THESE ENTRIES INTO STACKHEAD;		09214500	6942	" " ; COMMENT LASTSEQUENCE, LASTSEQROW ;	%667	09214440
6927	FOR NEXTINFO-512 STEP 2 UNTIL 534,537 STEP 3 UNTIL 546		09214510	6943	COMMENT NOW LINK THESE ENTRIES INTO STACKHEAD;		09214500
6928	,567STEP 3UNTIL 603,607STEP 4UNTIL 615,618,621STEP 4UNTIL 629,632,635,		09214515	6944	FOR NEXTINFO-512 STEP 2 UNTIL 534,537 STEP 3 UNTIL 546		09214510
6929	639STEP 3UNTIL 660		09214516	6945	,567STEP 3UNTIL 603,607STEP 4UNTIL 615,618,621STEP 4UNTIL 629,632,635,		09214515
6930	DO PUT (TAKE(NEXTINFO)&STACKHEAD[GT2-TAKE(NEXTINFO+1)MOD 125][35:35:13],		09214520	6946	639STEP 3UNTIL 660,664		09214516
6931	LASTINFO-STACKHEAD[GT2]-NEXTINFO);		09214530	6947	DO PUT (TAKE(NEXTINFO)&STACKHEAD[GT2-TAKE(NEXTINFO+1)MOD 125][35:35:13],		09214520
6932	NEXTINFO ~ LASTINFO ~ LASTSEQROW 256 + LASTSEQUENCE + 1;		09214980	6948	LASTINFO-STACKHEAD[GT2]-NEXTINFO);		09214530
6933	BUILDLINE.[45:1]-TRUE ;		09214985	6949	NEXTINFO ~ LASTINFO ~ LASTSEQROW 256 + LASTSEQUENCE + 1;		09214980
6934	PUTNBUMP(0);		09214990	6950	BUILDLINE.[45:1]-TRUE ;		09214985
8588	THEN M-0		13076000	6951	PUTNBUMP(0);		09214990
8589	ELSE J-J+1;K-J; STOPENTRY-NOT SPECTOG;		13077000	8605	THEN M-0		13076000
8590	DO		13078000	8606	ELSE J-J+1;K-J; STOPENTRY-NOT SPECTOG;		13077000
8591	BEGIN		13079000	8607	DO		13078000
8592	STOPDEFINE := TRUE ;		13079500	8608	BEGIN		13079000
8593	STEPIT; J-K;P2-P3-FALSE;GTA1[0]-0; GET7(ACCUM[1],FILID);		13080000	8609	STOPDEFINE := TRUE ;		13079500
8594	MULFID-0;TYPE-2; ENTER (FILEID);		13081000	8610	STEPIT; J-K;P2-P3-P5-FALSE;GTA1[0]-0; GET7(ACCUM[1],FILID);		13080000
8595	SAVADDRSF-ADDRSF ;		13081500	8611	MULFID-0;TYPE-2; ENTER (FILEID);		13081000
8596	IF SPECTOG THEN GO TO START;		13082000	8612	SAVADDRSF-ADDRSF ;		13081500
8597	EMITO(MKS);EMITL(0);EMITL(0);		13082500	8613	IF SPECTOG THEN GO TO START;		13082000
8598	IF ELCLASS=LITNO		13083000	8614	EMITO(MKS);EMITL(0);EMITL(0);		13082500
9016	LITC SAVON (SAVE OWN LITERAL FOR COM)		13445000	8615	IF ELCLASS=LITNO		13083000
9017	COM		13446000	9033	LITC SAVON (SAVE OWN LITERAL FOR COM)		13445000
9018	DESC XITR ;		13447000	9034	COM		13446000
9019	BEGIN		13448000	9035	DESC XITR ;		13447000
9020	REAL T1,T2,T3,K,LBJ,ARPROGS,SAVEDIM,T,T4,SAVEINFO,SAVEINFO2;		13449000	9036	BEGIN		13448000
9021	BOOLEAN LLITOG,ULITOG;		13450000	9037	REAL T1,T2,T3,K,LBJ,ARPROGS,SAVEDIM,T,T4,SAVEINFO,SAVEINFO2;		13449000
9022	REAL ADDCON;		13451000	9038	BOOLEAN LLITOG,ULITOG, LONGDIM;		13450000
9023	LABEL CSZ,BETA1,TWO,START,SLB,BETA2;		13452000	9039	REAL ADDCON;		13451000
9024	ARRAYFLAG ~ TRUE;		13452100	9040	LABEL CSZ,BETA1,TWO,START,SLB,BETA2;		13452000
9025	TYPEV-REALARRAYID;		13453000	9041	ARRAYFLAG ~ TRUE;		13452100
9026	IF T1-GTA1[J-J-1]=0 THEN J-J+1		13454000	9042	TYPEV-REALARRAYID;		13453000
9035	BEGIN		13463000	9043	IF T1-GTA1[J-J-1]=0 THEN J-J+1		13454000
9036	P3-TRUE;		13464000	9052	BEGIN		13463000
9037	IF SPECTOG THEN		13465000	9053	P3-TRUE;		13464000
9038	FLAG(014)		13466000	9054	IF SPECTOG THEN		13465000
9039	END		13467000	9055	FLAG(014)		13466000
				9056	END		13467000
				9057	ELSE IF T1=LONGV THEN		13467100
				9058	BEGIN		13467200

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9040	ELSE	13468000	9059	P5~TRUE;	13467300
9041	TYPEV ~REALID+T1;	13469000	9060	END	13467400
9042	IF NOT SPECTOG THEN EMITO(MKS); SAVEINFO~NEXTINFO;	13470000	9061	ELSE	13468000
9043	ENTER(TYPEV); SAVEINFO2~NEXTINFO~NEXTINFO+1;	13471000	9062	TYPEV ~REALID+T1;	13469000
9044	BETA1:	13472000	9063	IF NOT SPECTOG THEN EMITO(MKS); SAVEINFO~NEXTINFO;	13470000
			9064	ENTER(TYPEV); SAVEINFO2~NEXTINFO~NEXTINFO+1;	13471000
			9065	BETA1:	13472000
9094	END;	13522000	9115	END;	13522000
9095	ULITOG~FALSE;	13523000	9116	ULITOG~FALSE;	13523000
9096	AEXP;	13524000	9117	AEXP;	13524000
9097	EMITL(JUNK);	13525000	9118	EMITL(JUNK);	13525000
9098	EMITO(ISN);	13526000	9119	EMITO(ISN);	13526000
9099	CSZ: IF LLITOG AND ULITOG THEN	13527000	9120	CSZ:	13527000
9100	BEGIN	13528000	9121	LONGDIM:= P5 AND TABLE(I)=RTBRKET; % LAST DIM OF LONG ARRAY	13527100
9101	L~ARPROGS;	13529000	9122	IF LLITOG AND ULITOG THEN	13527200
9102	IF(T~IF ADDCON=ADDC THEN T4+T3+1 ELSE	13530000	9123	BEGIN	13528000
			9124	L~ARPROGS;	13529000
9103	T4-T3+1){0 OR T>1023 THEN FLAG(59);	13531000	9125	T~IF ADDCON=ADDC THEN	13529500
			9126	T4+T3+1 ELSE T4-T3+1;	13529600
			9127	IF T{0 THEN FLAG(59);	13529700
			9128	IF NOT LONGDIM THEN	13529800
			9129	BEGIN	13529900
			9130	IF T>1023 THEN FLAG(59);	13530000
			9131	EMITL(T);	13530100
			9132	END	13530200
			9133	ELSE	13530300
9104	EMITL(T);	13531100	9134	BEGIN	13530400
			9135	% FOR A LONG ARRAY, DOUBLE THE SIZE OF	13530500
			9136	% THE LAST DIMENSION AND SPLIT IT INTO	13530600
			9137	% LONGROWSZ~WORD ROWS.	13530700
			9138	T~(2 T+LONGROWSZ-1) DIV LONGROWSZ;	13530800
			9139	EMITL(T); % # ROWS	13530900
			9140	EMITL(LONGROWSZ); % FINAL ROW SIZE	13531000
			9141	IF T>1023 THEN FLAG(59);	13531100
			9142	IF T<LONGROWSZ THEN % CHOOSE MAX SIZE	13531200
			9143	T~LONGROWSZ;	13531300
			9144	END;	13531400
9105	IF P3 THEN BEGIN SAVEDIM~SAVEDIM T;	13532000	9145	IF P3 THEN BEGIN SAVEDIM~SAVEDIM T;	13532000
9106	IF SAVEDIM>MAXSAVE	13533000	9146	IF SAVEDIM>MAXSAVE	13533000
9107	THEN MAXSAVE~SAVEDIM	13534000	9147	THEN MAXSAVE~SAVEDIM	13534000
9108	END	13535000	9148	END	13535000
9109	ELSE	13536000	9149	ELSE	13536000
9113	BEGIN IF NOT(LLITOG AND T3=0)	13540000	9153	BEGIN IF NOT(LLITOG AND T3=0)	13540000
9114	OR P2	13541000	9154	OR P2	13541000
9115	THEN	13542000	9155	THEN	13542000
9116	BEGIN	13543000	9156	BEGIN	13543000
9117	EMITO(XCH);EMITO(SUB)	13544000	9157	EMITO(XCH);EMITO(SUB)	13544000
9118	END;EMITL(1);EMITO(ADD)	13545000	9158	END;EMITL(1);EMITO(ADD);	13545000
			9159	IF LONGDIM THEN	13545100
			9160	BEGIN	13545200
			9161	EMITO(DUP);	13545300
			9162	EMITO(ADD); % DOUBLE THE SIZE	13545400
			9163	EMITL(LONGROWSZ-1);	13545500
			9164	EMITO(ADD); % ROUND UP TO LONGROWSZ	13545550
			9165	EMITL(LONGROWSZ);	13545600
			9166	EMITO(IDV); % # ROWS	13545650
			9167	EMITL(LONGROWSZ); % FINAL ROW SIZE	13545700
			9168	END;	13545800
9119	END;	13546000	9169	END;	13546000
9120	SLB:PUTNBUMP(T2);LBJ~LBJ+1;IF T~TABLE(I)=COMMA THEN GO TO TWO	13547000	9170	SLB: % IF LAST DIM OF LONG ARRAY, SET BIT 22 IN INFO DIMENSION WORD	13547000
9121	ELSE	13548000	9171	PUTNBUMP(T2 & REAL(LONGDIM)[22:47:1]);	13547100
9122	IF T!RTBRKET THEN FLAG(018);	13549000	9172	LBJ~LBJ+1;IF T~TABLE(I)=COMMA THEN GO TO TWO	13547200
9123	IF NOT SPECTOG THEN	13550000	9173	ELSE	13548000
9124	BEGIN	13551000	9174	IF T!RTBRKET THEN FLAG(018);	13549000
9125	COMMENT KEEP COUNT OF NO. OF ARRAYS DECLARED;	13551400	9175	IF NOT SPECTOG THEN	13550000
9126	NOOFARRAYS~NOOFARRAYS + GTA1[0];	13551500	9176	BEGIN	13551000
			9177	COMMENT KEEP COUNT OF NO. OF ARRAYS DECLARED;	13551400
			9178	NOOFARRAYS~NOOFARRAYS + GTA1[0];	13551500

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9127	EMITL(LBJ);EMITL(GTA1[0]);	13552000	9179	EMITL(LBJ+REAL(LONGDIM));EMITL(GTA1[0]);	13552000
9128	EMITL(REAL(P3) +2 REAL(P2));	13553000	9180	EMITL(REAL(P3) +2 REAL(P2));	13553000
9129	EMITV(5)	13554000	9181	EMITV(5)	13554000
9130	END;	13555000	9182	END;	13555000
9131	PUT(LBJ,SAVEINF02-1);	13556000	9183	PUT(LBJ,SAVEINF02-1);	13556000
9132	DO BEGIN	13557000	9184	DO BEGIN	13557000
9283	IF NOT P2	13722000	9335	IF NOT P2	13722000
9284	THEN IF P2~(G=OWNV)	13723000	9336	THEN IF P2~(G=OWNV)	13723000
9285	THEN G-GTA1[J~J-1];	13724000	9337	THEN G-GTA1[J~J-1];	13724000
9286	IF NOT P3	13725000	9338	IF NOT P3	13725000
9287	THEN IF P3~(G=SAVEV)	13726000	9339	THEN IF P3~(G=SAVEV)	13726000
			9340	THEN G-GTA1[J~J-1];	13726100
			9341	IF NOT P5	13726200
			9342	THEN IF P5~(G=LONGV)	13726300
9288	THEN G-GTA1[J~J-1]	13727000	9343	THEN G-GTA1[J~J-1]	13727000
9289	END;	13728000	9344	END;	13728000
9290	IF G!0 THEN FLAG(25) ELSE ENTRY(TYPE)	13729000	9345	IF G!0 THEN FLAG(25) ELSE ENTRY(TYPE)	13729000
9291	END;	13730000	9346	END;	13730000
9292	PROCEDURE HTTEOAP(GOTSTORAGE,RELAD,STOPPER,PRTAD);	13731000	9347	PROCEDURE HTTEOAP(GOTSTORAGE,RELAD,STOPPER,PRTAD);	13731000
9441	BEGIN	14012000	9496	BEGIN	14012000
9442	LABEL OWNERR,SAVERR,BOOLEANDEC,REALDEC,ALPHADEC,INTEGERDEC,	14013000	9497	LABEL OWNERR,SAVERR,BOOLEANDEC,REALDEC,ALPHADEC,INTEGERDEC,	14013000
9443	LABELDEC,DUMPDEC,LISTDEC,OUTDEC,INDEC,MONITORDEC,	14014000	9498	LABELDEC,DUMPDEC,LISTDEC,OUTDEC,INDEC,MONITORDEC,	14014000
9444	SWITCHDEC,PROCEDUREDEC,ARRAYDEC,FORMATDEC,FILEDEC,	14015000	9499	SWITCHDEC,PROCEDUREDEC,ARRAYDEC,FORMATDEC,FILEDEC,	14015000
9445	GOTSCHK,	14016000	9500	GOTSCHK,	14016000
9446	STREAMERR,DEFINEDEC,CALLSTATEMENT,HF,START;	14017000	9501	STREAMERR,DEFINEDEC, LONGERR,CALLSTATEMENT,HF,START;	14017000
9447	SWITCH DECLSW- OWNERR,SAVERR,BOOLEANDEC,REALDEC,ALPHADEC,INTEGERDEC,	14018000	9502	SWITCH DECLSW- OWNERR,SAVERR,BOOLEANDEC,REALDEC,ALPHADEC,INTEGERDEC,	14018000
9448	LABELDEC,DUMPDEC,LISTDEC,OUTDEC,INDEC,MONITORDEC,	14019000	9503	LABELDEC,DUMPDEC,LISTDEC,OUTDEC,INDEC,MONITORDEC,	14019000
9449	SWITCHDEC,PROCEDUREDEC,ARRAYDEC,FORMATDEC,FILEDEC,	14020000	9504	SWITCHDEC,PROCEDUREDEC,ARRAYDEC,FORMATDEC,FILEDEC,	14020000
9450	STREAMERR,DEFINEDEC;	14021000	9505	STREAMERR,DEFINEDEC, LONGERR;	14021000
9451	DEFINE NLOCS=10#,LOCBEGIN=PRTI#;	14022000	9506	DEFINE NLOCS=10#,LOCBEGIN=PRTI#;	14022000
9452	DEFINE LBP=[36:12]#;	14023000	9507	DEFINE LBP=[36:12]#;	14023000
9453	ARRAY TEDOC[0:7,0:127],LOCALS[0:NLOCS];	14024000	9508	ARRAY TEDOC[0:7,0:127],LOCALS[0:NLOCS];	14024000
9454	ARRAY TENIL[0:7,0:127];	14024100	9509	ARRAY TENIL[0:7,0:127];	14024100
9455	INTEGER OLDLASTADDRESS;	14024200	9510	INTEGER OLDLASTADDRESS;	14024200
9577	BEGIN	14128000	9632	BEGIN	14128000
9578	STOPDEFINE~(GTA1[J~J+1]-ELBAT[I].ADDRESS)!MONITORV AND	14129000	9633	STOPDEFINE~(GTA1[J~J+1]-ELBAT[I].ADDRESS)!MONITORV AND	14129000
9579	GTA1[J]!DUMPV;ERRORTOG=TRUE;	14130000	9634	GTA1[J]!DUMPV;ERRORTOG=TRUE;	14130000
9580	END;	14131000	9635	END;	14131000
9581	IF J =0 THEN GO TO CALLSTATEMENT;	14132000	9636	IF J =0 THEN GO TO CALLSTATEMENT;	14132000
9582	P2-P3-FALSE;	14133000	9637	P2-P3-P5-FALSE;	14133000
9583	GO TO DECLSW[GTA1[J]];	14134000	9638	GO TO DECLSW[GTA1[J]];	14134000
9584	OWNERR:FLAG(20);J~J+1;GO TO REALDEC;	14135000	9639	OWNERR:FLAG(20);J~J+1;GO TO REALDEC;	14135000
9585	SAVERR:FLAG(21);J~J+1;GO TO REALDEC;	14136000	9640	SAVERR:FLAG(21);J~J+1;GO TO REALDEC;	14136000
			9641	LONGERR:FLAG(506);J~J+1;GO TO REALDEC;	14136200
9586	STREAMERR:FLAG(22);J~J+1;GO TO PROCEDUREDEC;	14137000	9642	STREAMERR:FLAG(22);J~J+1;GO TO PROCEDUREDEC;	14137000
9587	REALDEC:P3~TRUE;ENTER(REALID);GO TO START;	14138000	9643	REALDEC:P3~TRUE;ENTER(REALID);GO TO START;	14138000
9588	ALPHADEC:P3~TRUE;ENTER(ALFAID);GO TO START;	14139000	9644	ALPHADEC:P3~TRUE;ENTER(ALFAID);GO TO START;	14139000
9589	BOOLEANDEC:P3~TRUE;ENTER(BOOID);GO TO START;	14140000	9645	BOOLEANDEC:P3~TRUE;ENTER(BOOID);GO TO START;	14140000
9590	INTEGERDEC:P3~TRUE;ENTER(INTID);GO TO START;	14141000	9646	INTEGERDEC:P3~TRUE;ENTER(INTID);GO TO START;	14141000
10349	DEPENDING ON OPBIT;	15210000	10405	DEPENDING ON OPBIT;	15210000
10350	BOOLEAN SPCLMON; COMMENT SPCLMON IS A BOOLEAN THAT	15211000	10406	BOOLEAN SPCLMON; COMMENT SPCLMON IS A BOOLEAN THAT	15211000
10351	IS SET TRUE IF THE VARIABLE IN	15212000	10407	IS SET TRUE IF THE VARIABLE IN	15212000
10352	TALL IS SPECIAL MONITORED.	15213000	10408	TALL IS SPECIAL MONITORED.	15213000
10353	;	15214000	10409	;	15214000
			10410	PROCEDURE INDEXER(TALL,J,BYNAME);	15214020
			10411	VALUE TALL,J,BYNAME;	15214040
			10412	REAL TALL,J;	15214060
			10413	BOOLEAN BYNAME;	15214080
			10414	BEGIN COMMENT	15214100
			10415	INDEXER HANDLES THE COMPLEXITIES OF INITIAL AND FINAL	15214120
			10416	INDEXING OF ARRAY DIMENSIONS WHERE DOUBLE-INDEXING OF THE	15214140
			10417	LAST DIMENSION OF A LONG ARRAY MAY BE INVOLVED. ON ENTRY,	15214160
			10418	ASSUMES THE RAW INDEX VALUE IS AT TOP OF STACK;	15214180
			10419		15214200
			10420	IF BOOLEAN(TAKE(GIT(TALL)+J).[22:1]) THEN	15214220
			10421	BEGIN % THIS IS THE LONG DIMENSION FOR A LONG ARRAY.	15214240

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			10422	EMITO(DUP);	15214260
			10423	EMITO(ADD);	% DOUBLE THE INDEX 15214280
			10424	EMITPAIR(JUNK,ISN);	% SAVE A COPY FOR THE COL INDEX 15214300
			10425	EMITL(LONGGROWSZ);	15214320
			10426	EMITO(IDV);	% COMPUTE THE SPLIT-ROW INDEX 15214340
			10427	IF J=1 THEN	15214360
			10428	EMITN(TALL.ADDRESS)	15214380
			10429	ELSE	15214400
			10430	EMITO(CDC);	15214420
			10431	EMITO(LOD);	% LOAD THE DESTINATION DESCRIPTOR 15214440
			10432	EMITV(JUNK);	% RETRIEVE THE SAVED INDEX VALUE 15214460
			10433	EMITL(LONGGROWSZ);	15214480
			10434	EMITO(RDV);	% COMPUTE THE SPLIT-COL INDEX 15214500
			10435	IF BYNAME THEN	15214520
			10436	EMITO(CDC)	15214540
			10437	ELSE	15214560
			10438	EMITO(COC);	15214580
			10439	END	15214600
			10440	ELSE IF J=1 THEN	15214620
			10441	IF BYNAME THEN	15214640
			10442	EMITN(TALL.ADDRESS)	15214660
			10443	ELSE	15214680
			10444	EMITV(TALL.ADDRESS)	15214700
			10445	ELSE	15214720
			10446	IF BYNAME THEN	15214740
			10447	EMITO(CDC)	15214760
			10448	ELSE	15214780
			10449	EMITO(COC);	15214800
			10450	END INDEXER;	15214820
10354	PROCEDURE M4(TALL,J);	15215000	10451	PROCEDURE M4(TALL,J);	15215000
10355	VALUE TALL,J ;	15216000	10452	VALUE TALL,J ;	15216000
10356	REAL TALL,J ;	15217000	10453	REAL TALL,J ;	15217000
10357	BEGIN STACKCT ~ 1;	%A 15217500	10454	BEGIN STACKCT ~ 1;	%A 15217500
10358	IF J = 1	15218000	10455	IF J = 1	15218000
10359	THEN BEGIN COMMENT FIRST TIME AROUND;	15219000	10456	THEN BEGIN COMMENT FIRST TIME AROUND;	15219000
10360	IF TALL < 0	15220000	10457	IF TALL < 0	15220000
10361	THEN BEGIN COMMENT TALL IS MONITORED;	15221000	10458	THEN BEGIN COMMENT TALL IS MONITORED;	15221000
10362	EMITV(JUNK); EMITO(XCH);	15222000	10459	EMITV(JUNK); EMITO(XCH);	15222000
10363	END;	15223000	10460	END;	15223000
10364	EMITN(TALL.ADDRESS)	15224000	10461	INDEXER(TALL,J,TRUE);	15224000
10365	END	15225000	10462	END	15225000
10366	ELSE BEGIN COMMENT NOT THE FIRST TIME AROUND;	15226000	10463	ELSE BEGIN COMMENT NOT THE FIRST TIME AROUND;	15226000
10367	EMITO(CDC);	15227000	10464	INDEXER(TALL,J,TRUE);	15227000
10368	IF TALL < 0	15228000	10465	IF TALL < 0	15228000
10369	THEN BEGIN COMMENT CALL SUBSCRIPT;	15229000	10466	THEN BEGIN COMMENT CALL SUBSCRIPT;	15229000
10370	EMITV(JUNK); EMITO(XCH);	15230000	10467	EMITV(JUNK); EMITO(XCH);	15230000
10371	END;	15231000	10468	END;	15231000
10372	END; END; %A	15232000	10469	END; END; %A	15232000
10500	IF ELCLASS=PERIOD THEN	15339000	10597	IF ELCLASS=PERIOD THEN	15339000
10501	BEGIN	15340000	10598	BEGIN	15340000
10502	IF DOTSYNTAX(T1,T2) THEN GO TO EXIT;	15341000	10599	IF DOTSYNTAX(T1,T2) THEN GO TO EXIT;	15341000
10503	IF STEPI = ASSIGNOP THEN IF P1=FS THEN GO TO LAST	15342000	10600	IF STEPI = ASSIGNOP THEN IF P1=FS THEN GO TO LAST	15342000
10504	ELSE BEGIN ERR(209); GO EXIT END;	15343000	10601	ELSE BEGIN ERR(209); GO EXIT END;	15343000
10505	IF J=1 THEN EMITV(TALL.ADDRESS)ELSE EMITO(COC);	15344000	10602	INDEXER(TALL,J,FALSE);	15344000
10506	END	15345000	10603	END	15345000
10507	ELSE	15346000	10604	ELSE	15346000
10508	COMMENT ***** MONITOR FUNCTION M10 GOES HERE ;	15347000	10605	COMMENT ***** MONITOR FUNCTION M10 GOES HERE ;	15347000
10509	BEGIN COMMENT MONITOR FUNCTION M10;	15348000	10606	BEGIN COMMENT MONITOR FUNCTION M10;	15348000
10510	SPCLMON-P1 = FP OR ELCLASS } AMPERSAND;	15349000	10607	SPCLMON-P1 = FP OR ELCLASS } AMPERSAND;	15349000
10511	IF J = 1	15350000	10608	INDEXER(TALL,J,NOT SPCLMON);	15350000
10512	THEN IF SPCLMON	15351000			
10513	THEN EMITV(TALL.ADDRESS)	15352000			
10514	ELSE EMITN(TALL.ADDRESS)	15353000			
10515	ELSE EMITO(IF SPCLMON	15354000			
10516	THEN COC	15355000			
10517	ELSE CDC);	15356000			
10518	IF TALL < 0	15357000	10609	IF TALL < 0	15357000
10519	THEN BEGIN COMMENT DO NOT MONITOR AFTER ALL;	15358000	10610	THEN BEGIN COMMENT DO NOT MONITOR AFTER ALL;	15358000
10520	EMITL(5);	15359000	10611	EMITL(5);	15359000

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10521	IF SPCLMON	15360000	10612	IF SPCLMON	15360000
10522	THEN EMITV(GNAT(PRINTI))	15361000	10613	THEN EMITV(GNAT(PRINTI))	15361000
11050	FINI: END STREAMMT;	16495000	11141	FINI: END STREAMMT;	16495000
11051		16496000	11142		16496000
11052	TIME1 ~ TIME(1); PROGRAM;	17000000	11143	TIME1 ~ TIME(1); PROGRAM;	17000000
11053	ENDOFITALL:END MAIN BLOCK	17000100	11144	ENDOFITALL:END MAIN BLOCK	17000100
11054	END.	17001000	11145	END.	17001000
11055	END;END. LAST CARD ON 0CRDING TAPE	99999999	11146	END;END. LAST CARD ON 0CRDING TAPE	99999990
11056			11147	?END	99999999
			11148		