

GAP 0 2281 SYMBOLS PERMITTED

ELI

BASIC COMPILER

ST1 0427
TRPBR DL TRPLOCDL CLNMVVDL VCMOV DL FNTMOVVDL VARMVVDL DIMMOVVDL ERMOV DL 10000
D FP EXL FP CTEM FP FLTR DL FLTM DL FLTX FP FZERO FP EXC FP 10020
FLTT FP FLTW FP MOVDL RND DL RND1 FP /2302 FP /2310 FP /2311 DL 10030
/2315 DL /2316 FP /2318 DL /2324 DL /2326 DL /2102 FP /2108 FP /2203 FP 10040
/2205 FP /2202 FP /2209 DL /2216 DL /2224 DL /2225 DL /2227 DL /2230 FP 10050
/2232 DL /6105 FP FCNE FP /6111 FP /6113 FP /6118 FP /6109 FP /6104 DL 10060
/6128 FP /6149 FP /5138 FP /5106 FP /5107 FP /5112 DL /5114 DL /5117 FP 10070
/5120 DL /5143 FP /5144 FP /5132 FP /5145 DL /5147 FP /5146 FP /5148 DL 10100
WORD FP ICHK1 FP BDCARGFP BDC40 FP BDC30 FP BDC43 DL BDC56 DL BDC57 DL 10110
XR10 DL NINF FP PINF FP TRPST FP FIXMINDL MTEMP DL MSTAB DL MAT DL 10120
MATB FP MATA FP MATC FP POWA FP POWB FP FMONE FP INTARGFP TEMP FP 10130
LOGARGFP RNDK DL SQT FP EXU FP LDCCN1DL 10140

NO REFERENCE
PLTY XROC
END OF PASS C

SAP 1 1183 SYMBOLS PERMITTED

ST2 05340 00000
 4BIT 003642ABS 002510APF 004720ARCTAN025443ARER1 023247ARER 023247 00010
 ARITH 022624ARP 006140ARR 004721ART120022700ARTH11022670ARTH12022672 00020
 ART13022711ARTH15022722ARTH17022654ARTH18022716ARTH1 022637ARTH21022756 00030
 ARTH22023042ARTH23023044ARTH24023050ARTH25023026ARTH26023024ARTH27023076 00040
 ARTH28023105ARTH29023146ARTH2 022656ARTH30023140ARTH31023155ARTH32023163 00050
 ARTH33023176ARTH3 022666ARTH40023562ARTH4 022744ARTH50023267ARTH51023304 00060
 ARTH52023316ARTH5 023255ARTH60023470ARTH61023452ARTH62023366ARTH63023375 00070
 ARTH64023404ARTH65023373ARTH66023413ARTH67023417ARTH68023460ARTH68023350 00100
 ARTH6 023333ARTH70023471ARTH71023504ARTH72023544ARTH73023512ARTH74023510 00110
 ARTH75023537ARTP 0047264RUL 004725ARU 006366ATANF 002603BASEZ 002346 00120
 BASS 006216BDC11 027174BDC14 027115BDC15 027201BDC16 027127BDC17 027124 00130
 BDC1 027167BDC2 027040BDC30 303114BDC3 027047BDC40 303134BDC42 003136 00140
 BDC43 103140BDC44 003142BDC45 003143BDC46 003144BDC47 003145BDC48 003146 00150
 SDC49 003147BDC4 027064BDC50 003150BDC54 003151BDC55 003152BDC56 103154 00160
 BDC57 103156BDC5 027172BDC61 006232BDC62 006233BDC63 006234BDC6 027055 00170
 BDC9 027054RDCARG306236BDCA 027020BDCOVF 027213BEGL 005042BL20 002670 00200
 BL2 003631BL32 002700BLANKS002700BLCR 003632BLEOM 002677BL 002671 00210
 + 007070CLNMOV103656C04P1 020337COMP2 020402COMP 020323CON1 024012 00220
 CON2 023715CON3 024017CON4 023731CON5A 023750CON5B 024004CON5 023734 00230
 CON6 024010CON8 024027CONHIT 023766CON 023713COSF 025664COS 002614 00240
 CRLF 002701CPT 002672CTEM 304734CXTEM 004736D12 030055D13 030066 00250
 DATA1 020711DATA1 020722DATA2 020741DATA3 020750DATA4 021040DATA5 020751 00260
 DATA6 020757DATA1 021014DATA1 007175DATAJ 007174DATAN 007136DATA 020701 00270
 UCHEK 021022DEF2 021127DE5 021043DEF7 004737DEFN 007176DIM2 021244 00300
 DIM3 021200DIMER2021253IMER 021252DIMLOC003475DIMMOV103652DIM 021133 00310
 DIMX 007636DL0C 002714DPNT 007601DREAD 002716DREC 007177D 307200 00320
 DS 017764DVDC 0017430VNUM 003171DWRITE 002715E12 030055E13 030066 00330
 S14 030105EEXP2 026127EL0C 003634EMPSTR022466ENDER 021274ENDF 005024 00340
 ENDL 004740END 021254ENTIRE004002ERO 027727ER10 030031ER11 030042 00350
 ER1 027733ER2 027746ER3 027756ER4 027762ER5 027777ER6 030006 00360
 ER7 030014ER8 030022ER9 030025ERIN 003630ERMOV 105012ERR10 025025 00370
 ERR20 025036ERR2 025047ERR30 025061ERR33 025051ERR44 025054ERR5 025056 00400
 ERROR 024760ER 007135E 004100EX32 002727EXC 301400EXIR 005634 00410
 EXLN 004741EXL 305522EXN10 002723EXN11 003204EXN1 002724EXN22 003226 00420
 EXN2 003164EXN30 003246EXN31 003247EXN3 003165EXN5 003167EXN6 003170 00430
 EXN7 003171EXOEND002660EX0LOC002703EXON 004001EXO 004100EXP2 002617 00440
 EXPRI 002403EXPR2 002376EXPR 002372EXP 002622EXPS 006217EXFSUB026111 00450
 EXPZ 002365EXSLA 002702EXSRA 002705EXULOC003476EXU 306004FILL2 002673 00460
 FILL 002676F1XMIN102654FLT10 024136FLT12 024224FLT13 024215FLT20 024227 00470
 FLT21 024245FLT22 024244FLT23 024250FLT24 024253FLT25 024333FLT26 024263 00500
 FLT27 024324FLT28 024343FLT29 024316FLT2 024067FLT30 024356FLT3 024074 00510
 FLT4 024116FLT5 024173FLT6 024110FLT70 024312FLT72 024302FLT73 024306 00520
 FLT74 024275FLT80 024362FLT81 024367FLT82 024203FLT8 024161FLT9 024152 00530
 FLTA 004760FLTC 004742FLTD 004743FLTER 024164FLTE 004744FLTEX 024211 00540
 FLTM 103522FLTN 004745FLTR 104746FLT 024040FLTS 004752FLTT 304754 00550
 FLTW 303500FLTX 304756FLTY 003524FMONE 302656FN 005000FNTLOC003477 00560
 FNTMOV103656FNT 007602FOR1 0031400FOR1 021450FOR2 021450FOR3 021450 00570
 FOR4 021450FOR5 021400FOR6 021365FOR7 021405FOR8 021450FOR9 021451 00600
 FORM11026536FORM12026541FORM13026557FORM14026571FORM20026607FORM21026620 00610
 FORM26026467FORM27026521FORM28026516FORM2 026524FORM30026662FORM31026652 00620
 FORM40026675FORM4 0265576FORM5 026650FORM6 026623FORM71026713FORM72026721 00630
 FORM73026724FORM7 026643FORM8 026626FORM9 026672FORMAT026431FORML 026433 00640

| | | | | | | | |
|--------|--------------|---------------|--------------|--------------|--------------|---------|-------|
| FOR | 021277F | 005200FXYIND | 301636FZB | 002675FZERO | 301402GG1 | 021460 | 00650 |
| GG2 | 021461GLOC | 003465GN | 305001G01 | 021547G021 | 021534G02 | 021500 | 00660 |
| G03 | 021546G0FR | 021546G0 | 321454G | 0067501CHK1 | 306256ICHKEX | 027016 | 00670 |
| ICHKL | 0026361CHXR | 0062551F1 | 021716IF20 | 022016IF21 | 022025IF22 | 022034 | 00700 |
| IF2 | 021721IF30 | 0216431F31 | 321622IF32 | 021617IF33 | 021645IF34 | 021646 | 00710 |
| IF35 | 021632IF36 | 021640IF4 | 321716IF50 | 022004IF5 | 021750IF6 | 021730 | 00720 |
| IF7 | 021737IF8 | 021716IF1 | 321565IF2 | 021566IF | 021561IFT | 005002 | 00730 |
| IME | 003643INC01 | 027371IN02 | 327375INCO | 027363INC1 | 027412INC2 | 027417 | 00740 |
| INC3 | 027421INCALL | 001701INCON | 302641INCONV | 027356INDONE | 001707INLOC | 002704 | 00750 |
| INP1 | 022053INP2 | 022073INP3 | 322077INPER | 027433INP | 022046INPUT8 | 020241 | 00760 |
| INRET | 027441INST2 | 024414INST3 | 3024400INST8 | 024416INST | 024372INSTT | 005003 | 00770 |
| INT2 | 002425INT3 | 002427INT4 | 302457INT5 | 002467INT6 | 002465INT7 | 002506 | 01000 |
| INT8 | 002503INTARG | 307070INTCHK | 325766INTEXP | 007072INTF | 007073INT | 002414 | 01010 |
| IR3 | 005005IRLOC | 003466IRN | 005006IR | 005004L12 | 000011L13 | 000017 | 01020 |
| LAB10 | 027612LAB11 | 027621LAB12 | 327630LAB13 | 027637LAB14 | 027646LAB15 | 027655 | 01030 |
| LAB16 | 027664LAB19 | 027673LAB1 | 327521LAB20 | 027702LAB21 | 027711LAB23 | 027720 | 01040 |
| LAB2 | 027530LAB3 | 027537LAB4 | 327546LAB5 | 027555LAB6 | 027564LAB7 | 027573 | 01050 |
| LAB8 | 027602LDCCN | 1105004LDY01 | 302706LENGTH | 004003LET1 | 022116LETER | 022136 | 01060 |
| LET | 022103LIST1 | 11020222LIST1 | 302024LIST3 | 020143LIST6 | 020173LISTR | 020231 | 01070 |
| LLOC | 003467LNSUR | 026261LOAD | 305000LOG2 | 026263LOGARG | 307070LOGB2 | 002630 | 01100 |
| LOGBE | 002625LOG | 002515LOGT | 305230LOGXR | 006212L | 005060M3 | 003470 | 01110 |
| MAR | 003474MAT10 | 002075MAT11 | 3002102MAT12 | 002104MAT13 | 002111MAT1 | 002130 | 01120 |
| MAT20 | 002113MAT2 | 002212MAT4 | 3002207MAT5 | 002156MAT6 | 002167MATA | 307120 | 01130 |
| MATB | 307122MATC | 307124MAT | 107116MATT | 007130MATTB | 007132MATT | 007126 | 01140 |
| MEXP | 002707MIN | 002725MOP | 303662MOVDS | 103660MSTAB | 102732MSXR | 006254 | 01150 |
| MTEMP | 136252N11 | 003204N12 | 303205N13 | 003206N14 | 003207N15 | 003210 | 01160 |
| N16 | 003211N17 | 003212N18 | 303213N19 | 003223N1 | 003163N20 | 003224 | 01170 |
| N21 | 003225N22 | 003226N24 | 303640N24 | 003230N25 | 003231N26 | 003232 | 01200 |
| N28 | 003244N2 | 003164N30 | 303246N31 | 003247N32 | 003250N36 | 003326 | 01210 |
| N37 | 003327N38 | 003330N39 | 303331N3 | 003165N40 | 003332N41 | 003333 | 01220 |
| N44 | 003336N4 | 003166N50 | 303344N51 | 003345N52 | 003346N55 | 003351 | 01230 |
| N59 | 003355N5 | 003167N60 | 303462N61 | 003357N62 | 003360N6 | 003170 | 01240 |
| N7 | 003171N8 | 003172N9 | 303173NEXT1 | 022303NEXT2 | 022304NEXT3 | 022240 | 01250 |
| NEXT4 | 022245NEXT | 022141N1NF | 302652NM2 | 002713NM6 | 003636NM8 | 003635 | 01260 |
| NN | 005007N | 006450NXT1 | 0221460200 | 0027120400 | 00271106000 | 003633 | 01270 |
| OFLNUM | 003172ONE | 003163OUT50 | 001452OUT52 | 002661OUT53 | 002663OUT54 | 002665 | 01300 |
| OUTPUT | 001406PEPR | 002237PER | 002667PIN | 302650PLIST | 007170PLOC | 003464 | 01310 |
| POP | 002244POW1 | 002303POW2 | 002331POW3 | 002322POW5 | 002317POWA | 306222 | 01320 |
| POWB | 306220POWER | 002254POWEX | 1002370POWEX | 002367POWSPB | 003627POWXR | 006215 | 01330 |
| PRT10 | 022435PRT12 | 022426PRT2 | 302352PRT30 | 022321PRT32 | 022371PRT3 | 022370 | 01340 |
| PRT40 | 022470PRT41 | 022474PRT4 | 302377PRT50 | 022364PRT5 | 022347PRT6 | 022366 | 01350 |
| PRT7 | 022406FRTd | 022411PRTER | 1022512PRTER | 022511PRT | 022307PRTX | 022314 | 01360 |
| P | 097724PUSH | 002227PUT | 303664Q2A | 023631Q2C | 023643Q2E | 023645 | 01370 |
| Q2EX | 023641Q2F | 023647Q2I | 023672Q2L | 023674Q2R | 023676Q2S | 023700 | 01400 |
| Q2T | 023711Q31A | 023213Q31 | 3023211Q32 | 023220Q33 | 023231Q34 | 023223 | 01410 |
| Q35 | 023237Q3 | 023203QAPS | 303552QATN | 003553QCOS | 003554QDE | 020455 | 01420 |
| ODI | 020466QD | 020437QE | 3020477QEXP | 003555QF | 020510QG | 020521 | 01430 |
| QINT | 003556Q1 | 020525QL1G | 303557QL | 020546QN | 020557QP | 020575 | 01440 |
| QRND | 003560QR | 020620Q | 302040QSIN | 003561QSQR | 003562QS | 020644 | 01450 |
| QTAN | 003563QT | 020662READ1 | 3022547READ | 022513READ | 005010READZ | 2003516 | 01460 |
| READZ | 3003517FFAQZ | 003520RELOC | 303625REM | 022550RET2 | 022564RETER | 002057 | 01470 |
| RET | 022555RM1 | 002022RMP | 3002054RMESS | 001757RND1 | 306246RNDK | 103160 | 01500 |
| RND | 102544RST | 006260RU10 | 3025231RUN1 | 025136RUN25 | 025124RUN2 | 025245 | 01510 |
| RUN3 | 025433RUN5A | 025412RU5 | 3025342RUN62 | 025166RUN63 | 025226RUN64 | 025172 | 01520 |

RUN6A 025337RUN6 025260RUN7 025145RUN8 025151RUN9 025237RUN 025064 01530
 /2102 307072/2105 002766/2107 002707/2108 307070/2109 002770/2110 007074 01540
 /2111 002726/2112 025641/2202 307070/2203 302772/2205 307072/2207 007076 01550
 /2208 007077/2209 101402/2210 007100/2211 007101/2212 002707/2213 025722 01560
 /2214 026073/2215 025732/2216 102766/2217 026107/2218 002774/2219 025773 01570
 /2220 025756/2221 025766/2222 025771/2223 025764/2224 101400/2225 102656 01600
 /2226 026001/2227 102776/2228 026010/2230 307074/2231 026023/2232 103000 01610
 /2233 026037/2234 026055/2235 003012/2236 026062/2238 026106/2302 307070 01620
 /2303 007100/2304 002707/2306 007076/2307 007077/2308 007101/2309 025466 01630
 /2310 307072/2311 101402/2312 025511/2313 003013/2314 025501/2315 103036 01640
 /2316 307074/2317 025612/2318 102776/2319 025526/2323 025551/2324 103014 01650
 /2325 025565/2326 103034/2327 025604/5106 301400/5107 307076/5112 107072 01660
 /5113 003112/5114 107074/5115 026400/5117 303076/5120 101402/5121 026330 01670
 /5123 003075/5124 025346/5127 026366/5138 307070/5143 307102/5144 303110 01700
 /5145 103104/5146 303100/5147 303102/5148 103106/5152 307100/6100 026133 01710
 /6101 026142/6104 101402/6105 307070/6109 307074/6111 303050/6113 303042 01720
 /6118 303046/6119 007102/6120 026233/6121 003040/6124 026173/6126 026206 01730
 /6127 026242/6128 307076/6131 026231/6132 026240/6134 007072/6136 003041 01740
 /6141 002724/6149 303052/6152 003074S2 003262S3 003362SAVLEN 005023 01750
 SIGN 002657SINF 025665SIV 002611SIXTY 002730SQF2 025621SQF 002606 01760
 SQR 002557SQRXR 006212SQT 307072S 003162START 020012STOP1 022576 01770
 STOP2 022602STOP 022566STX3 005011TAN 002572TEMP 306150TEN 003203 02000
 TENT 002717TFST2 002055TEST3 002072TEST 002063TFLAG 007107TIMCHK 022615 02010
 TIME 004000TCP 017777TRAN2 020301TRAN3 020274TRAN4 020317TRAN5 020321 02020
 TRAN6 020271TRANS 020244TRAP 001720TREF 007141TRP1 001746TRPBR 103644 02030
 TRPLOC 002057RFST 306250TRPXR 006213T 005030TWO 003164UFLNUM 003173 02040
 UFL 001734ULOC 005014UNFL1 006224UNFL2 006225UNFL3 006226UNFLT 8003113 02050
 UPSIT 002710U 000000UX 006000VAR10 024421VAR11 024445VAR13 024465 02060
 VAR1 024565VAR20 024574VAR21 024603VAR22 024612VAR23 024623VAR24 024643 02070
 VAR25 024632VAR26 024713VAR27 024704VAR28 024675VAR2 024471VAR30 024744 02100
 VAR31 024733VAR32 024525VAR3 024473VAR4 024531VAR7 005016VARER1 024537 02110
 VARER2 024701VARER 024537VARLOC 003463VARMOV1 03646VAR 024542VARTAB 017326 02120
 VART 005015VAVAL 005022VCMOV 103654VC 004720VINIT 003641VLAST 003464 02130
 WAI 007137WGRD 306240WORK 001400WS 006176XR00 000000XR01 000001 02140
 XR02 000002XR03 000003XR10 100004XR12 000006XR13 000007XR21 000011 02150
 XTEM 005633YCRT2 001575YCRT3 201625YCRT4 003247YCRT5 002676YCRT9 001607 02160
 YCRTB 001564YCRT 001572YIND 006214YINDT 006227YINT1 0027312YINT1 2027331 02170
 YINT2 027242YINT3 027232YINT4 027250YINT5 027302YINT6 027256YINT7 027257 02200
 YINT8 027304YINT9 027271YINT 027225YLAB 001651YLABXR 007104YODD 007140 02210
 YSHT 001630YTAB2 001521YTAB3 001543YTAB4 001553YTAB6 001556YTAB 001477 02220
 YTIME 002216YTLAS 027510YTSKP 027504YTST 002644YTSTUP 027444YUF2 026750 02230
 YUNF 002633YUNFU 026742ZAP 003534ZBARM 003606ZBARN 003610ZBARP 003605 02240
 ZBARZ 003607ZERU 003571ZBZ 002674ZCOX 003621ZCRTB 003570ZCRT 003567 02250
 ZDLD 003471ZER0 002726ZFAD1 003617ZFAD 003601ZFDV 003473ZFLD 003574 02260
 ZFLDT 003575ZFMF 003472ZEST 003576ZFSTT 2003600ZFSTT 003577ZFSU1 003620 02270
 ZFSU 003602ZFSUT 2003604ZFSUT 003603ZINCL 003665ZINCON 003666ZINDN 003667 02300
 ZLAB 003564ZMOV 003663ZNMP 003626ZOUT 003611ZPOP 003623ZPUSH 003622 02310
 ZRET 003573ZSHT 003637ZSPB0 003613ZSPB1 003572ZSTWR 003624ZTAB 003566 02320
 ZTIM 003616ZTST2 003615ZTST 003614ZUNF 003565 02330
 END OF PASS 1

| | | |
|-------|--|----------|
| REM | BASIC COMPILER | BAS00010 |
| REM | ***** | 00020 |
| REM | TELEBASIC REV. 1 | 00030 |
| REM | BASIC AND TEACH COMBINED | 00040 |
| REM | 8 FEB 65 | 00050 |
| REM | 3 | 00060 |
| REM | ON TAPE 13 | 00070 |
| REM | ***** | 00080 |
| REM | PRIMARY MEMORY ALLOCATION | 00090 |
| REM | COMPILE TIME STORAGE ALLOCATION | 00100 |
| REM | ***** | 00110 |
| REM | USE OF INDEX GROUPS | 00120 |
| REM | GROUP 0 IS THE STANDARD GROUP AND IS USED | 00130 |
| REM | BY ALMOST EVERYTHING. | 00140 |
| REM | GROUP 1 IS USED BY PRINT AND INPUT. IT | 00150 |
| REM | IS NOT PRESERVED. | 00160 |
| REM | GROUP 4 IS FREQUENTLY DESTROYED BY DATA | 00170 |
| REM | RUN-TIME USE OF INDEX GROUPS | 00180 |
| REM | GROUP 0 ALMOST EVERYTHING | 00190 |
| REM | GROUP 1-- REAL TIME INPUT | 00200 |
| REM | GROUP 2-- XR21 IS USED BY POP AND PUSH AND MUST BE | 00210 |
| REM | PRESERVED THROUGHOUT RUN-TIME | 00220 |
| REM | GROUP 4--DESTROYED BY DISK USE | 00230 |
| REM | | 00240 |
| 00205 | T#PLOC EQU 205 | 00250 |
| 01400 | WORK EQU 1400 | 00260 |
| 04000 | LOC 4000 | 00270 |
| 04000 | TIME BSS 1 | 00280 |
| 04001 | EXON BSS 1 | 00290 |
| 04002 | ENTIRE BSS 1 | 00300 |
| 04003 | LENGTH BSS 1 | 00310 |
| 06000 | UX EQU 6000 | 00320 |
| 04100 | LOC 4100 | 00330 |
| 04100 | E BSS 400 | 00340 |
| 04720 | VC BSS 72 | 00350 |
| 05030 | T BSS 24 | 00360 |
| 05050 | L BSS 80 | 00370 |
| 05200 | F BSS 480 | 00380 |
| | REM | 00390 |
| | REM | 00400 |
| 06140 | ARP BSS 150 | 00410 |
| 06365 | ARU BSS 50 | 00420 |
| 06450 | N BSS 42 | 00430 |
| | REM | 00440 |
| | REM | 00450 |
| | REM | 00460 |
| | REM | 00470 |
| | REM | 00480 |
| | REM | 00490 |
| 04100 | LOC 4100 | 00500 |
| 04100 | EXO BSS 860 | 00510 |
| 05634 | EXIR BSS 104 | 00520 |
| 06004 | EXU BSS 100 | 00530 |
| 06150 | TEMP BSS 22 | 00540 |
| | CUTPUT BUFFER | |
| | TEMP STORE FOR FOR LOOPS. 4 WORDS PER LOOP | |
| | TEMP STORE FOR ARITHMETIC STATEMENTS | |
| | TEMP STORE FOR STANDARD ROUTINES [SIN,ETC] | |

| | | | | |
|-------|---------|-----------|---|-------|
| 06176 | WS | BSS 50 | WORKING STORAGE FOR RUNTIME ROUTINES | 00550 |
| 06260 | RST | EQU * | STACK OF RETURN ADDRESS FOR GOSUBS | 00560 |
| | | REM | | 00570 |
| | | REM | REST OF 6K AREA USED IN COMMON BY COMPILE AND RUN | 00580 |
| 06522 | | ORG N+42 | | 00590 |
| 06522 | EXL | BSS 150 | GENERATED CONSTANTS | 00600 |
| 06750 | G | BSS 80 | GO-TABLE | 00610 |
| | | REM | DURING RUN BRANCHES, DURING COMPILE | 00620 |
| | | REM | BINARY LINE NO.S | 00630 |
| 07070 | B | BSS 42 | COMMUNICATION BETWEEN COMPILE AND RUN | 00640 |
| 07142 | | BSS 22 | UNUSED [HELD TO FORCE DATA TO MOD 64] | 00650 |
| 07170 | PLIST | BSS 4 | FILE CONTROL LIST FOR DATA I/O | 00660 |
| 07174 | DATAJ | BSS 1 | REGION POINTER [RANGE 0-255] | 00670 |
| 07175 | DATAI | BSS 1 | BUFFER POINTER [RANGE 0-127] | 00680 |
| 07176 | DEND | BSS 1 | LAST RECORD OF DATA | 00690 |
| 07177 | DREC | BSS 1 | LAST READ RECORD [NEXT TO BE PROCESSED] | 00700 |
| 07200 | D | BSS 256 | DATA REGION | 00710 |
| 07600 | | BSS 1 | RESERVED FOR DISK PARITY ERRORS | 00720 |
| 07601 | DPNT | BSS 1 | CURRENT DATA RECORD | 00730 |
| 07602 | FNT | BSS 28 | FUNCTION DEFINITION TRANSFER TABLE | 00740 |
| 07636 | DIMX | BSS 54 | DIMENSION TABLE. WORD PAIRS-- | 00750 |
| | | REM | WORD 1--ABS LOC OF 1ST ELEMENT | 00760 |
| | | REM | WORD 2-- # OF COL AT B89 | 00770 |
| | | REM | # OF ROWS AT B19 | 00780 |
| 07724 | P | EQU * | OBJECT AND VARIABLE AREA | 00790 |
| 17326 | VARTAB | EGO 17326 | SYMBOL TABLE, DESTROYED AT RUN TIME | 00800 |
| 17764 | DS | EGO 17764 | \$ VARIABLE PORTION OF SYMBOL TABLE | 00810 |
| 17777 | TOP | EGO 17777 | TOP OF LOWER MEMORY | 00820 |
| | | REM | ***** | 00830 |
| | | REM | ***** | 00840 |
| | | REM | HEADING FOR TIME SHARING EXECUTIVE | 00850 |
| | | LOC 20000 | | 00860 |
| 20000 | 0000000 | DEC 0 | THIS LOCATION IS FILLED IN BY THE EXEC | 00870 |
| 20001 | 2600012 | BRU START | INITIAL ENTRY POINT | 00880 |
| 20002 | 3777777 | DEC -1 | BRANCH TO CLEANUP IF SCRATCH DISK IS USED | 00890 |
| 20003 | 3777777 | DEC -1 | SAVED FOR FUTURE COMPATIBILITY | 00900 |
| 20004 | 0222162 | ALF BAS | SYSTEM NAME | 00910 |
| 20005 | 0000000 | DEC 0 | OVERLAY NUMBER | 00920 |
| 20006 | 0001400 | DEC WORK | TO LOCATION FOR INITIAL MOVE | 00930 |
| 20007 | 3775400 | DEC -1280 | THIS MAY WORDS | 00940 |
| 20010 | 0031400 | OCT 31400 | FROM THIS LOCATION | 00950 |
| 20011 | 0070002 | OCT 70002 | | 00960 |
| | | NAM | COMPILER INITIALIZATION | 00970 |

COMPILER INITIALIZATION

000002

| | | | | | |
|-------|---------|-------|---------------------------------|---|----------------------------------|
| 20012 | 2506016 | START | EJT SET PBK REM | AVOID INTERRUPT UNTIL LENGTH AND ENTIRE ARE PICKED UP | 00980 00990 |
| 20013 | 2506013 | | SXG 0 | MAIN INDEX GROUP | 01000 01010 |
| 20014 | 1003644 | | DLD TRPBR | INITIALIZE TRAP LOCATIONS | 01020 |
| 20015 | 1300206 | | DST TRPLOC+1 | | 01030 |
| 20016 | 0300205 | | STA TRPLOC REM REM REM | | 01040 |
| 20017 | 0004003 | | LDA LENGTH | THE NEXT DOZEN INSTRUCTIONS DETERMINE FROM THE SIGN OF LENGTH WHETHER THIS IS A TEACH OR BASIC RUN. LENGTH HAS A MINUS SIGN TACKED ON IF THE PROGRAM IS TO BE TEACH. | 01050 01060 01070 01080 |
| 20020 | 2511000 | | SRD 0 | LENGTH OF SOURCE OR PROGRAM TO BE TESTED PART SAVE THE SIGN IN Q | 01090 01100 |
| 20021 | 2002657 | | EXT SIGN | | 01110 |
| 20022 | 0300001 | | STA XR01 | HOLD IN XR UNTIL MEMORY HAS BEEN CLEARED | 01120 |
| 20023 | 2512200 | | SLD 0 | GET BACK THE SIGN BIT | 01130 |
| 20024 | 2510023 | | SRA 19 | SET A TO -1 OR 0 DEPENDING ON SIGN BIT | 01140 |
| 20025 | 0300002 | | STA XR02 | HOLD IN INDEX UNTIL 6K AREA IS CLEANED UP | 01150 |
| 20026 | 2516002 | | BNZ | | 01160 |
| 20027 | 2600032 | | BRU *+3 | | 01170 |
| 20030 | 0000001 | | LDA XR01 | LENGTH OF SOURCE IF THIS IS BASIC | 01180 |
| 20031 | 2600033 | | BRIJ *+2 | | 01190 |
| 20032 | 0004002 | | LDA ENTIRE | LENGTH OF PROG TO BE TESTED AND TESTER | 01200 |
| 20033 | 2512006 | | SLA 6 | | 01210 |
| 20034 | 2506015 | | SET PST | JOHN CAN NOW FUDGE UP THE SAV AREA | 01220 |
| 20035 | 2504522 | | NEG | | 01230 |
| 20036 | 2504004 | | LQA | GET READY FOR MOV | 01240 |
| 20037 | 0103463 | | ADD VARLOC | GIVES TO ADDRESS | 01250 |
| 20040 | 0300003 | | STA XR03 | POINTS TO BEGINNING OF SOURCE PROGRAM | 01260 |
| 20041 | 2406000 | | MOV UX | MOVE SOURCE PROGRAM UP | 01270 |
| 20042 | 0002726 | | LDA ZEPO | | 01280 |
| 20043 | 0304100 | | STA E | | 01290 |
| 20044 | 0306000 | | STA UX | | 01300 |
| 20045 | 0003633 | | LDA 06000 | LOCATION OF SOURCE UPON ENTRY | 01310 |
| 20046 | 2504032 | | ADD | | 01320 |
| 20047 | 2504004 | | LQA | TO ADDRESS FOR MOV | 01330 |
| 20050 | 0200003 | | SUB XR03 | SUBTRACT STARTING LOC OF RELOCATED SOURCE | 01340 |
| 20051 | 2504005 | | XAD | | 01350 |
| 20052 | 2406000 | | MOV UX | ZERO FROM 6000 TO START OF SOURCE | 01360 |
| 20053 | 1003656 | | DLD CLNMV | | 01370 |
| 20054 | 2404100 | | MOV E | ZERO FROM 4100 TO 6000 | 01380 |
| 20055 | 3100010 | | SET NFLPOINT | | BAS01390 |
| 20056 | 3500004 | | RIN | | 01400 |
| 20057 | 3200001 | | SET NTPMODE | DO NOT ENTER TRAP UNTIL RUN TIME | 01410 |
| | | | NAM | SOURCE PROGRAM INPUT AND TRANSLATION | 01420 |

SOURCE PROGRAM INPUT AND TRANSLATION

000003

| | | | | |
|-------|---------|--------------|--|----------|
| 20060 | 2504202 | EJT | | 01430 |
| 20061 | 0304000 | LAC | START COUNTING TIME | 01440 |
| 20062 | 0003170 | STA TIME | | 01450 |
| 20063 | 2512006 | LDA N6 | INITIALIZE TIME REFERENCE | 01460 |
| 20064 | 0307141 | SLA 6 | | 01470 |
| 20065 | 0002726 | STA TREF | | 01480 |
| 20066 | 0304001 | LDA ZEPO | | 01490 |
| 20067 | 0307135 | STA EXON | | 01500 |
| 20068 | 0317320 | STA ER | | 01510 |
| 20069 | 0307602 | STA VARTAB | | 01520 |
| 20070 | 0304720 | STA FNT | | 01530 |
| 20071 | 1003654 | STA VC | | 01540 |
| 20072 | 2404720 | DLD VCMOV | ZERO COMPILE WORKING STORAGE | 01550 |
| 20073 | 1003650 | MOV VC | | 01560 |
| 20074 | 2407602 | DLD FNTMOV | ZERO FUNCTION TRANSFER TABLE | 01570 |
| 20075 | 1003650 | MOV FNT | | 01580 |
| 20076 | 1003646 | DLD VARMOV | ZERO SYMBOL TABLE | 01590 |
| 20100 | 2417326 | MOV VARTAB | | 01600 |
| 20101 | 0002725 | LDA MIN | | BAS01610 |
| 20102 | 0307636 | STA DIMX | | 01620 |
| 20103 | 1003652 | DLD DIMMOV | SET DIMX TABLE TO -1 | 01630 |
| 20104 | 2407636 | MOV DIMX | | 01640 |
| 20105 | 0003641 | LDA VINIT | INITIALIZE AVAILABLE SPACE POINTER | 01650 |
| 20106 | 0305022 | STA VAVAIL | | 01660 |
| 20107 | 1765014 | STY ULOC 3 | INITIALIZE POINTER TO BEGINNING OF SOURCE | 01670 |
| 20110 | 1747107 | STY TFLAG 2 | INIT TEACH FLAG | 01680 |
| 20111 | 0002715 | LDA DWRITE | INIT PLIST | 01690 |
| 20112 | 0307170 | STA PLIST | | 01700 |
| 20113 | 0002714 | LDA DLOC | | 01710 |
| 20114 | 0102712 | ADD 0200 | | 01720 |
| 20115 | 0307171 | STA PLIST+1 | | 01730 |
| 20116 | 2504022 | LDO | SET READ/WRITE INDICATOR TO SUCCESSFUL | 01740 |
| 20117 | 0307173 | STA PLIST+3 | | 01750 |
| 20120 | 2504002 | LDZ | INIT VARIOUS DATA POINTERS | 01760 |
| 20121 | 0307175 | STA DATAI | | 01770 |
| 20122 | 0307174 | STA DATAJ | | 01780 |
| 20123 | 0307601 | STA DPNT | | 01790 |
| 20124 | 0003626 | LDA ZNCP | SET NOP AT INTERFACE | 01800 |
| 20125 | 0317777 | STA TOP | | 01810 |
| 20126 | 0003171 | LDA N7 | INITIALIZE COMP TIME OUT BUFF POINTEER | 01820 |
| 20127 | 2504522 | NEG | | 01830 |
| 20130 | 2504004 | LQA | | 01840 |
| 20131 | 0002703 | LDA EXOLOC | INITIALIZE MOV CON FOR COMP TIME ERRORS | 01850 |
| 20132 | 2504032 | ADD | | 01860 |
| 20133 | 1305012 | DST ERMOV | | 01870 |
| 20134 | 0005014 | LDA ULCC | INITAILIZE BEGINNING OF LINE POINTER | 01880 |
| 20135 | 0305042 | STA BEGL | | 01890 |
| 20136 | 1725023 | STX SAVLEN 1 | SAVE THE LENGTH OF PROG TO BE TESTED FOR TEA | 01900 |
| 20137 | 0603163 | LDX ONE 0 | INITIALIZE INDEX REGISTERS | 01910 |
| 20140 | 0622726 | LDX ZERO 1 | | 01920 |
| 20141 | 0642726 | LDY ZERO 2 | | BAS01930 |
| | | REM | INITIALIZE COMPILER WORKING STORAGE | 01940 |
| | | REM | MOVE CHARACTERS OF ONE LINE OF SOURCE | 01950 |
| | | REM | TO THE L-REGION,ONE CHARACTER PER | 01960 |

| | | | | |
|--|--|---------------|--|----------|
| | | REM | WORD, | 01970 |
| | | REM | PERFORM CHARACTER TRANSLATION | 01980 |
| | | REM | DELETE BLANKS | 01990 |
| | | REM | STOP ON CARRIAGE RETURN | 02000 |
| | | REM | AFTER INITIAL ENTRY TO LIST ALL SUCCESSIVE | 02010 |
| | | REM | ENTRIES ARE MADE TO LIST1. | 02020 |
| | | REM | XREG USE - | 02030 |
| | | REM | XR0 = CHARACTER POINTER FOR U | 02040 |
| | | REM | XR1 = SPB | 02050 |
| | | REM | XR2 = L-REGION POINTER | 02060 |
| | | REM | XR3 = U-REGION POINTER | 02070 |
| | | 20142 1725031 | STX T+1 1 | 02080 |
| | | 20143 0060000 | LDA U 3 | BAS02090 |
| | | 20144 2510014 | SRA 12 * | BAS02100 |
| | | 20145 0305030 | STA T | BAS02110 |
| | | 20146 1400001 | INX 1 0 | BAS02120 |
| | | 20147 0720244 | SPB TRANS 1 | 02130 |
| | | 20150 0345060 | STA L 2 | BAS02140 |
| | | 20151 1440001 | INX 1 2 | BAS02150 |
| | | 20152 0060000 | LDA U 3 | 02160 |
| | | 20153 2510006 | SRA 6 | BAS02170 |
| | | 20154 2003470 | EXT M3 | BAS02180 |
| | | 20155 0305030 | STA T | BAS02190 |
| | | 20156 1400001 | INX 1 0 | BAS02200 |
| | | 20157 0720244 | SPB TRANS 1 | 02210 |
| | | 20160 0345060 | STA L 2 | BAS02220 |
| | | 20161 1440001 | INX 1 2 | BAS02230 |
| | | 20162 0060000 | LDA U 3 | 02240 |
| | | 20163 2003470 | EXT M3 | BAS02250 |
| | | 20164 0305030 | STA T | BAS02260 |
| | | 20165 0603163 | LDX ONE 0 | BAS02270 |
| | | 20166 1460001 | INX 1 3 | BAS02280 |
| | | 20167 0720244 | SPB TRANS 1 | 02290 |
| | | 20170 0345060 | STA L 2 | BAS02300 |
| | | 20171 1440001 | INX 1 2 | BAS02310 |
| | | 20172 2600143 | BRU LIST3 | BAS02320 |
| | | 20173 0005030 | LDA T | BAS02330 |
| | | 20174 0345060 | STA L 2 | BAS02340 |
| | | 20175 0000002 | LDA 2 | BAS02350 |
| | | 20176 0203163 | SUP ONE | BAS02360 |
| | | 20177 0304740 | STA ENDL | BAS02370 |
| | | 20200 0625031 | LDX T+1 1 | 02380 |
| | | 20201 1765005 | STX IR3 3 | BAS02390 |
| | | 20202 0607107 | LDX TFLAG 0 | 02400 |
| | | 20203 2600323 | BRU COMP | BAS02410 |
| | | 20204 0603163 | LDX ONE 0 | 02420 |
| | | 20205 0005005 | LDA IR3 | 02430 |
| | | 20206 0305042 | STA BEGL | 02440 |
| | | 20207 0300003 | STA XR03 | 02450 |
| | | 20210 0002726 | LDA ZERO | 02460 |
| | | 20211 0304720 | STA AFF | 02470 |
| | | 20212 0005014 | LDA ULOC | 02480 |
| | | 20213 0100003 | ADD XR03 | 02490 |
| | | 20214 0203464 | SUP PLOC | 02500 |
| | | | SET UP FLAG FOR EASY ACCESS | |
| | | | SET CHAR POINT TO FIRST CHAR | |
| | | | SAVE POINTER TO FIRST WORD OF LINE | |
| | | | INIT WORD POINTER | |
| | | | CHECK FOR OBJECT OVERLAPPING SOURCE | |

SOURCE PROGRAM INPUT AND TRANSLATION

000005

| | | | |
|-------|---------|-------------------|-------|
| 20215 | 0200001 | SUB XR01 | 02510 |
| 20216 | 2514001 | BMT | 02520 |
| 20217 | 2600241 | BRU INPUTS | 02530 |
| 20220 | 0642726 | LDX ZERO 2 | 02540 |
| 20221 | 2600142 | BRU LIST3-1 | 02550 |
| 20222 | 0005023 | LIST11 LDA SAVLEN | 02560 |
| 20223 | 2512006 | SLA 6 | 02570 |
| 20224 | 0105014 | ADD ULOC | 02580 |
| 20225 | 0305005 | STA IR3 | 02590 |
| 20226 | 2504022 | LDO | 02600 |
| 20227 | 0305004 | STA IR | 02610 |
| 20230 | 2600204 | BRU LIST1 | 02620 |
| 20231 | 1005012 | LISTER DLD ERMOV | 02630 |
| 20232 | 2427621 | MOV LAB11 | 02640 |
| 20233 | 0005012 | LDA ERMOV | 02650 |
| 20234 | 0103171 | ADD N7 | 02660 |
| 20235 | 0305012 | STA ERMOV | 02670 |
| 20236 | 0003163 | LDA ONE | 02680 |
| 20237 | 0307135 | STA ER | 02690 |
| 20240 | 2605064 | BRU RUN | 02700 |
| 20241 | 1005012 | INPUTS DLD ERMOV | 02710 |
| 20242 | 2427655 | MOV LAB15 | 02720 |
| 20243 | 2605061 | BRU ERR30 | 02730 |
| | | REM | 02740 |
| | | REM | 02750 |
| | | REM | 02760 |
| | | REM | 02770 |
| | | REM | 02780 |
| 20244 | 0004720 | TRANS LDA APF | 02790 |
| 20245 | 2514001 | BMT | 02800 |
| 20246 | 2600301 | — BRU TRAN2 | 02810 |
| 20247 | 1725035 | STX T+5 1 | 02820 |
| 20250 | 0625030 | LDX T 1 | 02830 |
| 20251 | 0023262 | LDA S2 1 | 02840 |
| 20252 | 0625035 | LDX T+5 1 | 02850 |
| 20253 | 2516001 | BPL | 02860 |
| 20254 | 2620001 | +BRU 1 1 | 02870 |
| 20255 | 0103205 | ADD N12 | 02880 |
| 20256 | 2514002 | BZE | 02890 |
| 20257 | 2600274 | BRU TRAN3 | 02900 |
| 20260 | 0103223 | ADD N19 | 02910 |
| 20261 | 2514002 | BZE | 02920 |
| 20262 | 2600173 | BRU LIST6 | 02930 |
| 20263 | 0103207 | ADD N14 | 02940 |
| 20264 | 2514002 | BZF | 02950 |
| 20265 | 2600267 | BRU **2 | 02960 |
| 20266 | 2620003 | BRU 3 1 | 02970 |
| 20267 | 0625031 | LDX T+1 1 | 02980 |
| 20270 | 2600231 | BRU LISTER | 02990 |
| 20271 | 0625031 | TRANS LDX T+1 1 | 03000 |
| 20272 | 1765005 | STX IR3 3 | 03010 |
| 20273 | 2602136 | BRU LETER | 03020 |
| 20274 | 0002725 | TRANS LDA MIN | 03030 |
| 20275 | 0204720 | SUB APF | 03040 |

TRANS IS THE SUBROUTINE USED BY LIST
TO PERFORM CHARACTER TRANSLATION
CHARACTERS ARE TRANSLATED THROUGH TABLE
S2.

SOURCE PROGRAM INPUT AND TRANSLATION

000006

XRF = -1 - RF

| | | | | |
|-------|---------|---------------|---|---|
| 20276 | 0304720 | STA APF | | 03050 |
| 20277 | 0003205 | LDA N12 | | 03060 |
| 20300 | 2620001 | BRU 1 | 1 | 03070 |
| 20301 | 0005030 | TRAN2 LDA T | | 03080 |
| 20302 | 2103205 | CAB N12 | | 03090 |
| 20303 | 2620001 | BRU 1 | 1 | 03100 |
| 20304 | 2600317 | BRU TRAN4 | | 03110 |
| 20305 | 2103244 | CAB N26 | < | 03120 |
| 20306 | 2620001 | BRU 1 | 1 | 03130 |
| 20307 | 2600274 | BRU TRAN3 | | 03140 |
| 20310 | 2103247 | CAB N31 | | 03150 |
| 20311 | 2620001 | BRU 1 | 1 | 03160 |
| 20312 | 2600271 | BRU TRAN6 | | 03170 |
| 20313 | 2103462 | CAB N60 | | 03180 |
| 20314 | 2620001 | BRU 1 | 1 | 03190 |
| 20315 | 2600321 | BRU TRAN5 | | 03200 |
| 20316 | 2620001 | BRU 1 | 1 | 03210 |
| 20317 | 0003357 | TRAN4 LDA N61 | | 03220 |
| 20320 | 2620001 | BRU 1 | 1 | 03230 |
| 20321 | 0003360 | TRAN5 LDA N62 | | 03240 |
| 20322 | 2620001 | BRU 1 | 1 | 03250 |
| | | REM | | 03260 |
| | | REM | | 03270 |
| | | REM | | 03280 |
| | | REM | | 03290 |
| | | REM | | 03300 |
| | | REM | | 03310 |
| | | REM | | 03320 |
| | | REM | | 03330 |
| | | REM | | 03340 |
| | | REM | | 03350 |
| | | REM | | 03360 |
| | | XREG USE -- | | 03370 |
| | | REM | | 03380 |
| | | REM | | 03390 |
| | | REM | | 03400 |
| 20323 | 0642726 | COMP LDY ZERO | 2 | BAS03410 |
| 20324 | 0764372 | SPR INST | 3 | BAS03420 |
| 20325 | 2604416 | BRU INST8 | | 03430 |
| 20326 | 0417777 | BXL 1 | 0 | IF THIS IS A BASIC PROGRAM THEN |
| 20327 | 2600337 | BRU COMP1 | | SKIP THIS FUDGING AROUND |
| 20330 | 2504004 | LQA | | HANG ON TO LINE NO. |
| 20331 | 0005024 | LDA ENDF | | 03440 |
| 20332 | 2514001 | RMI | | 03450 |
| 20333 | 2600337 | BRU ***4 | | 03460 |
| 20334 | 0557773 | BXH 5 | 2 | LINE # NO LONGER THAN 4 DIGITS FOR PTBT |
| 20335 | 2604416 | BRU INST8 | | 03470 |
| 20336 | 2504001 | LAC | | 03480 |
| 20337 | 0557772 | COMP1 BXH 6 | 2 | GET BIN. LINE NO. BACK IN A |
| 20340 | 2604416 | BRU INST8 | | ALLOW 5 DIG IN TESTER OR REGULAR BASIC |
| 20341 | 0665000 | LDY FN | 3 | 03490 |
| 20342 | 0365200 | STA F | 3 | 03500 |
| 20343 | 0327725 | STA P+1 | 1 | 03510 |
| 20344 | 0000001 | LDA 1 | | STORE LINE NO. IN OBJECT PROG |
| | | | | 03520 |
| | | | | 03530 |
| | | | | 03540 |
| | | | | 03550 |
| | | | | 03560 |
| | | | | 03570 |
| | | | | 03580 |

SOURCE PROGRAM INPUT AND TRANSLATION

000007

| | | | | | |
|-------|---------|------------|---|--------------------------------|----------|
| 20345 | 0365201 | STA F+1 | 3 | | 03590 |
| 20346 | 0103572 | ADD ZSPB1 | | | 03600 |
| 20347 | 0103464 | ADD PLOC | | | 03610 |
| 20350 | 0103164 | ADD TWO | | | 03620 |
| 20351 | 0327724 | STA P | 1 | GENERATE *SPB ++2,1 * | 03630 |
| 20352 | 0003624 | LDA ZSTWR | | STORE IN OBJECT PROG | 03640 |
| 20353 | 0327726 | STA P+2 | 1 | STORE A *STX WAI,1 * IN OBJECT | 03650 |
| 20354 | 0045060 | LDA L | 2 | | BAS03660 |
| 20355 | 2103247 | CAR N31 | | | 03670 |
| 20356 | 2600360 | BRU **2 | | | 03680 |
| 20357 | 2600204 | BRU LIST1 | | | 03690 |
| 20360 | 1420003 | INY 3 | 1 | INCREMENT OBJECT POINTER | 03700 |
| 20361 | 1460002 | INY 2 | 3 | | 03710 |
| 20362 | 1765000 | STY FN | 3 | | 03720 |
| 20363 | 0577037 | BXH 481 | 3 | | 03730 |
| 20364 | 2600241 | BRU INPUT8 | | | 03740 |
| 20365 | 0300003 | STA 3 | | | BAS03750 |
| 20366 | 1440001 | INY 1 | 2 | | BAS03760 |
| 20367 | 0063152 | LDA S | 3 | | BAS03770 |
| 20370 | 2514001 | BMI | | | BAS03780 |
| 20371 | 2600402 | BRU COMP2 | | | BAS03790 |
| 20372 | 0203203 | SUB TEN | | | BAS03800 |
| 20373 | 2514001 | RMI | | | BAS03810 |
| 20374 | 2600402 | BRU COMP2 | | | BAS03820 |
| 20375 | 0102710 | ADD UP8IT | | | 03830 |
| 20376 | 0300003 | STA 3 | | | BAS03840 |
| 20377 | 0045060 | LDA L | 2 | | BAS03850 |
| 20400 | 1440001 | INY 1 | 2 | | BAS03860 |
| 20401 | 2660405 | BRU Q | 3 | | BAS03870 |
| 20402 | 1005012 | DLQ ERMov | | | 03880 |
| 20403 | 2427546 | MOV LAB4 | | | 03890 |
| 20404 | 2604760 | BRU ERROR | | | 03900 |
| | | NAM | | COMPILE OF INSTRUCTIONS | 03910 |

COMPILE OF INSTRUCTIONS

000008

| | | | | | |
|-------|---------|-----------|-----------|----------|----------|
| | | EJT | 03920 | | |
| | | REM | 03930 | | |
| | | REM | 03940 | | |
| | | REM | 03950 | | |
| | | REM | 03960 | | |
| | | REM | 03970 | | |
| | | REM | 03980 | | |
| | | REM | 03990 | | |
| | | REM | 04000 | | |
| 20405 | 2600402 | Q | BAS04010 | | |
| 20406 | 2600402 | BRU COMP2 | BAS04020 | | |
| 20407 | 2600402 | BRU COMP2 | 04030 | | |
| 20410 | 2600437 | BRU QD | BAS04040 | | |
| 20411 | 2600477 | BRU QE | BAS04050 | | |
| 20412 | 2600510 | BRU QF | BAS04060 | | |
| 20413 | 2600521 | BRU QG | BAS04070 | | |
| 20414 | 2600402 | BRU COMP2 | BAS04080 | | |
| 20415 | 2600525 | BRU QI | BAS04090 | | |
| 20416 | 2600402 | BRU COMP2 | BAS04100 | | |
| 20417 | 2600402 | BRU COMP2 | BAS04110 | | |
| 20420 | 2600546 | BRU QL | BAS04120 | | |
| 20421 | 2600402 | BRU COMP2 | BAS04130 | | |
| 20422 | 2600557 | BRU QN | BAS04140 | | |
| 20423 | 2600402 | BRU COMP2 | BAS04150 | | |
| 20424 | 2600575 | BRU QP | BAS04160 | | |
| 20425 | 2600402 | BRU COMP2 | BAS04170 | | |
| 20426 | 2600620 | BRU OR | BAS04180 | | |
| 20427 | 2600644 | BRU OS | BAS04190 | | |
| 20430 | 2600662 | BRU OT | 04200 | | |
| 20431 | 2600402 | BRU COMP2 | BAS04210 | | |
| 20432 | 2600402 | BRU COMP2 | BAS04220 | | |
| 20433 | 2600402 | BRU COMP2 | BAS04230 | | |
| 20434 | 2600402 | BRU COMP2 | BAS04240 | | |
| 20435 | 2600402 | BRU COMP2 | BAS04250 | | |
| 20436 | 2600402 | BRU COMP2 | BAS04260 | | |
| | | REM | 04270 | | |
| | | REM | 04280 | | |
| | | REM | 04290 | | |
| | | REM | 04300 | | |
| | | REM | 04310 | | |
| | | REM | 04320 | | |
| | | REM | 04330 | | |
| | | REM | 04340 | | |
| | | REM | 04350 | | |
| | | REM | 04360 | | |
| 20437 | 0203212 | QD | SUB N17 | BAS04370 | |
| 20440 | 2516002 | | BNZ | BAS04380 | |
| 20441 | 2600466 | | BRU QDI | BAS04390 | |
| 20442 | 0045060 | | LDA L | 2 | BAS04400 |
| 20443 | 1440001 | | INX 1 | 2 | BAS04410 |
| 20444 | 0203345 | | SUB N51 | | BAS04420 |
| 20445 | 2516002 | | BNZ | | BAS04430 |
| 20446 | 2600402 | | BRU COMP2 | | BAS04440 |
| 20447 | 0045060 | | LDA L | 2 | BAS04450 |

THE FOLLOWING ROUTINES DECODE AND COMPILE
INSTRUCTIONS, LINE AT A TIME.

THE Q-JUMP TABLE IS ENTERED FROM COMP
ACCORDING TO THE FIRST LETTER OF AN
INSTRUCTION.
A JUMP IS MADE TO THE APPROPRIATE DECODING
ROUTINE.

THE FOLLOWING Q-ROUTINES ARE ENTERED FROM
THE Q-JUMP TABLE. A CHECK IS MADE FOR
ILLEGAL INSTRUCTION WORDS. IF AN
ILLEGAL INSTRUCTION IS ENCOUNTERED
A TRANSFER IS MADE TO THE ERROR EXIT
COMP2. IF THE INSTRUCTION WORD IS A
LEGAL COMMAND A TRANSFER IS MADE TO A
ROUTINE WHICH FURTHER DECODES THE
APPROPRIATE INSTRUCTION AND COMPILES
THE ASSOCIATED OBJECT INSTRUCTIONS.

COMPILED OF INSTRUCTIONS

000009

| | | | | | | |
|-------|---------|-----|-----------|---|----------------------------------|----------|
| 20450 | 1440001 | | INX 1 | 2 | | BAS04460 |
| 20451 | 0203212 | | SUB N17 | | | BAS04470 |
| 20452 | 2516002 | | BNZ | | | BAS04480 |
| 20453 | 2600402 | | BRU COMP2 | | | BAS04490 |
| 20454 | 2600701 | | BRU DATA | | | BAS04500 |
| 20455 | 0103166 | QDE | ADD N4 | | | 04510 |
| 20456 | 2516002 | | BNZ | | | 04520 |
| 20457 | 2600402 | | BRU COMP2 | | | 04530 |
| 20460 | 0045060 | | LDA L | 2 | | 04540 |
| 20461 | 1440001 | | INX 1 | 2 | | 04550 |
| 20462 | 0203226 | | SUB N22 | | | 04560 |
| 20463 | 2516002 | | BNZ | | | 04570 |
| 20464 | 2600402 | | BRU COMP2 | | | 04580 |
| 20465 | 2601043 | | BRU DEF | | | 04590 |
| 20466 | 0203172 | QDI | SUR N8 | | | BAS04600 |
| 20467 | 2516002 | | BNZ | | | BAS04610 |
| 20470 | 2600455 | | BRU QDE | | | 04620 |
| 20471 | 0045060 | | LDA L | 2 | | BAS04630 |
| 20472 | 1440001 | | INX 1 | 2 | | BAS04640 |
| 20473 | 0203326 | | SUB N36 | | | BAS04650 |
| 20474 | 2516002 | | BNZ | | | BAS04660 |
| 20475 | 2600402 | | BRU COMP2 | | | BAS04670 |
| 20476 | 2601133 | | BRU DIM | | | BAS04680 |
| 20477 | 0203327 | QE | SUR N37 | | | BAS04690 |
| 20500 | 2516002 | | BNZ | | | BAS04700 |
| 20501 | 2600402 | | BRU COMP2 | | | BAS04710 |
| 20502 | 0045060 | | LDA L | 2 | | BAS04720 |
| 20503 | 1440001 | | INX 1 | 2 | | BAS04730 |
| 20504 | 0203224 | | SUR N20 | | | BAS04740 |
| 20505 | 2516002 | | BNZ | | | BAS04750 |
| 20506 | 2600402 | | BRU COMP2 | | | BAS04760 |
| 20507 | 2601254 | | BRU END | | | BAS04770 |
| 20510 | 0203330 | QF | SUR N38 | | | BAS04780 |
| 20511 | 2516002 | | BNZ | | | BAS04790 |
| 20512 | 2600402 | | BRU COMP2 | | | BAS04800 |
| 20513 | 0045060 | | LDA L | 2 | | BAS04810 |
| 20514 | 1440001 | | INX 1 | 2 | | BAS04820 |
| 20515 | 0203333 | | SUR N41 | | | BAS04830 |
| 20516 | 2516002 | | BNZ | | | BAS04840 |
| 20517 | 2600402 | | BRU COMP2 | | | BAS04850 |
| 20520 | 2601277 | | BRU FOR | | | BAS04860 |
| 20521 | 0203330 | QG | SUR N38 | | | BAS04870 |
| 20522 | 2516002 | | BNZ | | | BAS04880 |
| 20523 | 2600402 | | BRU COMP2 | | | BAS04890 |
| 20524 | 2601454 | | BRU GO | | | BAS04900 |
| 20525 | 2103226 | QI | CAB N22 | | CHECK FOR F | 04910 |
| 20526 | 2600402 | | BRU COMP2 | | | 04920 |
| 20527 | 2601561 | | BRU IF | | | 04930 |
| 20530 | 2103327 | | CAB N37 | | CHECK FOR N | 04940 |
| 20531 | 2600402 | | BRU COMP2 | | | 04950 |
| 20532 | 2600534 | | BRU *+2 | | | 04960 |
| 20533 | 2600402 | | BRU COMP2 | | | 04970 |
| 20534 | 0045060 | | LDA L | 2 | CHECK NEXT THREE LETTERS FOR PUT | 04980 |
| 20535 | 2512006 | | SLA 6 | | | 04990 |

COMPILED OF INSTRUCTIONS

000010

| | | | | |
|-------|---------|-----------|---|----------|
| 20536 | 0145061 | ADD L+1 | 2 | 05000 |
| 20537 | 2512006 | SLA 6 | | 05010 |
| 20540 | 0145062 | ADD L+2 | 2 | 05020 |
| 20541 | 1440003 | INX 3 | 2 | 05030 |
| 20542 | 2103664 | CAP PUT | | 05040 |
| 20543 | 2600402 | BRU COMP2 | | 05050 |
| 20544 | 2602046 | BRU INP | | 05060 |
| 20545 | 2600402 | BRU COMP2 | | 05070 |
| 20546 | 0203225 | SUR N21 | | BAS05080 |
| 20547 | 2516002 | BNZ | | BAS05090 |
| 20550 | 2600402 | BRU COMP2 | | BAS05100 |
| 20551 | 0045060 | LDA L | 2 | BAS05110 |
| 20552 | 1440001 | INX 1 | 2 | BAS05120 |
| 20553 | 0203345 | SUR N51 | | BAS05130 |
| 20554 | 2516002 | BNZ | | BAS05140 |
| 20555 | 2600402 | BRU COMP2 | | BAS05150 |
| 20556 | 2602103 | BRU LET | | BAS05160 |
| 20557 | 0203225 | SUR N21 | | BAS05170 |
| 20560 | 2516002 | BNZ | | BAS05180 |
| 20561 | 2600402 | BRU COMP2 | | BAS05190 |
| 20562 | 0045060 | LDA L | 2 | BAS05200 |
| 20563 | 1440001 | INX 1 | 2 | BAS05210 |
| 20564 | 0203351 | SUR N55 | | BAS05220 |
| 20565 | 2516002 | BNZ | | BAS05230 |
| 20566 | 2600402 | BRU COMP2 | | BAS05240 |
| 20567 | 0045060 | LDA L | 2 | BAS05250 |
| 20570 | 1440001 | INX 1 | 2 | BAS05260 |
| 20571 | 0203345 | SUR N51 | | BAS05270 |
| 20572 | 2516002 | BNZ | | BAS05280 |
| 20573 | 2600402 | BRU COMP2 | | BAS05290 |
| 20574 | 2602141 | BRU NEXT | | BAS05300 |
| 20575 | 0203333 | SUR N41 | | BAS05310 |
| 20576 | 2516002 | BNZ | | BAS05320 |
| 20577 | 2600402 | BRU COMP2 | | BAS05330 |
| 20600 | 0045060 | LDA L | 2 | BAS05340 |
| 20601 | 1440001 | INY 1 | 2 | BAS05350 |
| 20602 | 0203231 | SUR N25 | | BAS05360 |
| 20603 | 2516002 | BNZ | | BAS05370 |
| 20604 | 2600402 | BRU COMP2 | | BAS05380 |
| 20605 | 0045060 | LDA L | 2 | BAS05390 |
| 20606 | 1440001 | INY 1 | 2 | BAS05400 |
| 20607 | 0203327 | SUR N37 | | BAS05410 |
| 20610 | 2516002 | BNZ | | BAS05420 |
| 20611 | 2600402 | BRU COMP2 | | BAS05430 |
| 20612 | 0045060 | LDA L | 2 | BAS05440 |
| 20613 | 1440001 | INY 1 | 2 | BAS05450 |
| 20614 | 0203345 | SUR N51 | | BAS05460 |
| 20615 | 2516002 | BNZ | | BAS05470 |
| 20616 | 2600402 | BRU COMP2 | | BAS05480 |
| 20617 | 2602307 | BRU FRT | | BAS05490 |
| 20620 | 0203225 | SUR N21 | | BAS05500 |
| 20621 | 2516002 | BNZ | | BAS05510 |
| 20622 | 2600402 | BRU COMP2 | | BAS05520 |
| 20623 | 0045060 | LDA L | 2 | BAS05530 |

COMPILE OF INSTRUCTIONS

000011.

| | | | | |
|-------|---------|---------------------|---|----------|
| 20624 | 1440001 | INX 1 | 2 | BAS05540 |
| 20625 | 0203345 | SUR N51 | | BAS05550 |
| 20626 | 2514002 | BZF | | BAS05560 |
| 20627 | 2602564 | BRU RET2 | | 05570 |
| 20630 | 0103210 | ADD N15 | | 05580 |
| 20631 | 2514002 | BZE | | 05590 |
| 20632 | 2602550 | BRU REM | | 05600 |
| 20633 | 0103223 | ADD N19 | | 05610 |
| 20634 | 2516002 | BNZ | | BAS05620 |
| 20635 | 2600402 | BRU COMP2 | | BAS05630 |
| 20636 | 0045060 | LDA L | 2 | BAS05640 |
| 20637 | 1440001 | INX 1 | 2 | BAS05650 |
| 20640 | 0203224 | SUR N20 | | BAS05660 |
| 20641 | 2516002 | BNZ | | BAS05670 |
| 20642 | 2600402 | BRU COMP2 | | BAS05680 |
| 20643 | 2602513 | BRU READ | | BAS05690 |
| 20644 | 0203345 | QS | | BAS05700 |
| 20645 | 2516002 | BNZ | | BAS05710 |
| 20646 | 2600402 | BRU COMP2 | | BAS05720 |
| 20647 | 0045060 | LDA L | 2 | BAS05730 |
| 20650 | 1440001 | INX 1 | 2 | BAS05740 |
| 20651 | 0203330 | SUR N38 | | BAS05750 |
| 20652 | 2516002 | BNZ | | BAS05760 |
| 20653 | 2600402 | BRU COMP2 | | BAS05770 |
| 20654 | 0045060 | LDA L | 2 | BAS05780 |
| 20655 | 1440001 | INX 1 | 2 | BAS05790 |
| 20656 | 0203331 | SUR N39 | | BAS05800 |
| 20657 | 2516002 | BNZ | | BAS05810 |
| 20660 | 2600402 | BRU COMP2 | | BAS05820 |
| 20661 | 2602566 | BRU STOP | | BAS05830 |
| 20662 | 0417777 | QT | | 05840 |
| 20663 | 2600402 | BXL 1 | 0 | 05850 |
| 20664 | 2512006 | BRU COMP2 | | 05860 |
| 20665 | 0145060 | SLA 6 | | 05870 |
| 20666 | 2512006 | ADD L | 2 | 05880 |
| 20667 | 0145061 | SLA 6 | | 05890 |
| 20670 | 1440002 | ADD L+1 | 2 | 05900 |
| 20671 | 2103643 | INX 2 | 2 | 05910 |
| 20672 | 2600402 | CAP IME | | 05920 |
| 20673 | 2600575 | BRU COMP2 | | 05930 |
| 20674 | 2600402 | BRU *+2 | | 05940 |
| 20675 | 0005024 | ILLEGAL INSTRUCTION | | 05950 |
| 20676 | 2514002 | BRU COMP2 | | 05960 |
| 20677 | 2600402 | LDA END | | 05970 |
| 20700 | 2602615 | SZF COMP2 | | |
| | | OK TO PROCESS | | |
| | | BRU TIMCHK | | |

| | | | | | |
|-------|---------|-------|-----------|--|-------|
| 20701 | 0000001 | DATA | EJT | | 05980 |
| 20702 | 0203165 | | LDA XR01 | OVERWRITE LINE NO. | 05990 |
| 20703 | 0300001 | | SUR N3 | | 06000 |
| 20704 | 0417777 | | STA XRC1 | | 06010 |
| 20705 | 2600711 | | BXL 1 | ALLOW DATA IN REGULAR BASIC | 06020 |
| 20706 | 0005024 | | BRU DAT1 | | 06030 |
| 20707 | 2514002 | | LDA ENDF | DO NOT ALLOW DATA IN TESTED PROGRAM | 06040 |
| 20710 | 2600204 | | BZE | | 06050 |
| 20711 | 2506033 | DATA1 | BRU LIST1 | | 06060 |
| 20712 | 0607175 | | SXG 1 | DISK POINTERS ARE IN GROUP 1 | 06070 |
| 20713 | 0647174 | | LDX DATA1 | WORDS IN BUFFER | 06080 |
| 20714 | 0667601 | | LDX DATAJ | INDEX RELATIVE TO D | 06090 |
| 20715 | 0577730 | | LDX DPNT | RECORD CURRENTLY IN MEMORY | 06100 |
| 20716 | 2601014 | | BXW 40 | TOO MUCH DATA | 06110 |
| 20717 | 2600757 | | BRU DATA7 | GET OUT | 06120 |
| 20720 | 2506013 | | BRU DATA6 | START BY LOOKING FOR A CARRIAGE RETURN | 06130 |
| 20721 | 0662720 | | SXG 0 | CONVERT NUMBER IN GROUP 0 | 06140 |
| 20722 | 0045060 | DATA1 | LDX ZERO | COUNT CHARACTERS ACCUMULATED | 06150 |
| 20723 | 2103355 | | LDA L | LOOK AT NEXT CHARACTER | 06160 |
| 20724 | 2600726 | | CAR N59 | CHECK FOR COMMA | 06170 |
| 20725 | 2600741 | | BRU **2 | | 06180 |
| 20726 | 0364769 | | BRU DATA2 | | 06190 |
| 20727 | 0000002 | | STA FLTA | SAVE FOR FLT ROUTINE | 06200 |
| 20730 | 1440001 | | LDA XR02 | CHECK FOR END OF LINE | 06210 |
| 20731 | 2104740 | | INX 1 | | 06220 |
| 20732 | 2600735 | | CAR ENDL | | 06230 |
| 20733 | 2600750 | | BRU **3 | | 06240 |
| 20734 | 2600750 | | BRU DATA3 | | 06250 |
| 20735 | 1460001 | | BRU DATA3 | | 06260 |
| 20736 | 0577760 | | INX 1 | | 06270 |
| 20737 | 2601040 | | BXW 16 | NO MORE THAN 16 CHAR PER NUMBER | 06280 |
| 20740 | 2600722 | | BRU DATA4 | ILLEGAL CONSTANT | 06290 |
| 20741 | 1440001 | DATA2 | BRU DATA1 | ACCUMULATE ANOTHER CHARACTER | 06300 |
| 20742 | 0000003 | | INX 1 | ENTER AFTER COMMA | 06310 |
| 20743 | 2514002 | | LDA XR03 | SKIP CONSECUTIVE COMMAS | 06320 |
| 20744 | 2600722 | | BZE | | 06330 |
| 20745 | 0203163 | | BRU DATA1 | | 06340 |
| 20746 | 0304745 | | SUR ONE | SET UP CHARACTER COUNT FOR FLT | 06350 |
| 20747 | 2600751 | | STA FLTN | | 06360 |
| 20750 | 1764745 | DATA3 | BRU DATA5 | | 06370 |
| 20751 | 0764040 | DATA5 | STX FLTN | ENTERED AT END OF LINE | 06380 |
| 20752 | 2601040 | | SPR FLT | GO CONVERT NUMBER TO NFLPOINT | 06390 |
| 20753 | 2506033 | | BRU DATA4 | ERROR RETURN | 06400 |
| 20754 | 3347200 | | SXG 1 | GET BACK TO POINTERS | 06410 |
| 20755 | 1400002 | | FST D | GET RID OF CONVERTED NUMBER | 06420 |
| 20756 | 1440002 | | INX 2 | | 06430 |
| 20757 | 2506013 | DATA6 | INX 2 | | 06440 |
| 20760 | 0045060 | | SXG 0 | | 06450 |
| 20761 | 2103247 | | LDA L | CHECK FOR CARRIAGE RETURN | 06460 |
| 20762 | 2600764 | | CAR N31 | | 06470 |
| 20763 | 2601014 | | BRU **2 | | 06480 |
| 20764 | 2506033 | | BRU DATA7 | | 06490 |
| 20765 | 0417600 | | SXG 1 | | 06500 |
| | | | PXL 128 | IF BUFFER NOT FULL GO PICK UP NUMBER | 06510 |

COMPILE OF INSTRUCTIONS

000013

| | | | | |
|-------|---------|-------------------|---|-------|
| 20766 | 2600720 | BRU DATA1-2 | | 06520 |
| 20767 | 0721022 | SPR DCHEK 1 | ELSE GET READY TO WRITE OUT BUFFER LOAD | 06530 |
| 20770 | 0000007 | LDA XR13 | PUT RECORD NUMBER IN PLIST | 06540 |
| 20771 | 0102657 | ADD SIGN | | 06550 |
| 20772 | 0307172 | STA PLIST+2 | | 06560 |
| 20773 | 0007171 | LDA PLIST+1 | FLIP BUFFERS | 06570 |
| 20774 | 2002711 | EXT 0400 | | 06580 |
| 20775 | 0102712 | ADD 0200 | | 06590 |
| 20776 | 0307171 | STA PLIST+1 | CALL DISK I/O ROUTINE | 06600 |
| 20777 | 0003167 | LDA N5 | | 06610 |
| 21000 | 2506113 | SXG 4 | | 06620 |
| 21001 | 0720000 | SPR 8192 1 | | 06630 |
| 21002 | 0007170 | DEC PLIST | | 06640 |
| 21003 | 2506015 | SET PST | | 06650 |
| 21004 | 2506033 | SXG 1 | | 06660 |
| 21005 | 1460002 | INX 2 3 | BUMP RECPD NUMBER | 06670 |
| 21006 | 0577730 | BXH 40 3 | CRUMP IF THAT WAS THE LAST AVAIL RECORD | 06680 |
| 21007 | 2601014 | BRU DATA7 | | 06690 |
| 21010 | 0602726 | LDX ZERO 0 | RESET BUFFER POINTER | 06700 |
| 21011 | 0557400 | BXH 256 2 | RESET D INDEX IF OUT OF RANGE | 06710 |
| 21012 | 0642726 | LDX ZERO 2 | | 06720 |
| 21013 | 2600720 | BRU DATA1-2 | BUFFER WORK ALL DONE - GO GET NEXT NUMBER | 06730 |
| 21014 | 2506033 | SXG 1 | CLOSE OUT | 06740 |
| 21015 | 1707175 | STX DATA1 0 | | 06750 |
| 21016 | 1747174 | STX DATAJ 2 | | 06760 |
| 21017 | 1767501 | STX DPNT 3 | | 06770 |
| 21020 | 2506013 | SXG 0 | | 06780 |
| 21021 | 2600204 | BRU LIST1 | | 06790 |
| 21022 | 0007173 | DCHEK LDA PLIST+3 | CHECK FLAG WORD | 06800 |
| 21023 | 2514000 | RD | | 06810 |
| 21024 | 2620001 | BRU 1 1 | EVERYTHING PERFECT | 06820 |
| 21025 | 2514002 | BZF | | 06830 |
| 21026 | 2601022 | BRU DCHEK | IF OP NOT COMPLETED WAIT FOR IT | 06840 |
| 21027 | 2506113 | SXG 4 | OTHERWISE I MUST HAVE BEEN CRUMPED BECAUSE OF | 06850 |
| 21030 | 0003164 | LDA N2 | TOO MANY TASKS. SO INTERMEDIATE OUTPUT TO | 06860 |
| 21031 | 0720000 | SPR 8192 1 | LET THINGS STRAIGHTEN OUT | 06870 |
| 21032 | 0003167 | LDA N5 | THEN REQUEST OP AGAIN | 06880 |
| 21033 | 0720000 | SPR 8192 1 | | 06890 |
| 21034 | 0007170 | DEC PLIST | | 06900 |
| 21035 | 2506015 | SET PST | | 06910 |
| 21036 | 2506033 | SXG 1 | | 06920 |
| 21037 | 2601022 | BRU DCHEK | WAIT AND HOPE | 06930 |
| 21040 | 1005012 | DLD ERMOV | | 06940 |
| 21041 | 2427530 | MOV LAB2 | *ILLEGAL CONSTANT* | 06950 |
| 21042 | 2604760 | BRU ERROR | GO TO ERROR BOOKKEEPING ROUTINE | 06960 |
| | | NAM | COMPILATION OF DEF | 06970 |

| | | | | | |
|-------|---------|-----|------------|---|-------|
| 21043 | 0045060 | DEF | EJT | | 06980 |
| 21044 | 0203226 | | LDA L | 2 | 06990 |
| 21045 | 2516002 | | SUR N22 | | 07000 |
| 21046 | 2601127 | | BNZ | | 07010 |
| 21047 | 1440001 | | BRU DEF2 | | 07020 |
| 21050 | 0045060 | | INX 1 | 2 | 07030 |
| 21051 | 0203327 | | LDA L | 2 | 07040 |
| 21052 | 2516002 | | SUR N37 | | 07050 |
| 21053 | 2601127 | | BNZ | | 07060 |
| 21054 | 0000001 | | BRU DEF2 | | 07070 |
| 21055 | 0203165 | | LDA XR01 | | 07080 |
| 21056 | 0300001 | | SUR N3 | | 07090 |
| 21057 | 0003476 | | STA XR01 | | 07100 |
| 21058 | 0103344 | | LDA EXULOC | | 07110 |
| 21059 | 0303476 | | ADD N50 | | 07120 |
| 21061 | 1440001 | | STA EXULOC | | 07130 |
| 21062 | 0045060 | | INX 1 | 2 | 07140 |
| 21063 | 0203203 | | LDA L | 2 | 07150 |
| 21064 | 0300003 | | STA 3 | | 07160 |
| 21065 | 0063162 | | LDA S | 3 | 07170 |
| 21066 | 2514001 | | SUR TEN | | 07180 |
| 21067 | 2601127 | | BMI | | 07190 |
| 21070 | 0300003 | | BRU DEF2 | | 07200 |
| 21071 | 1724737 | | STA 3 | | 07210 |
| 21072 | 1420001 | | STX DEFT | 1 | 07220 |
| 21073 | 0003571 | | INX 1 | 1 | 07230 |
| 21074 | 0103464 | | LDA ZBRU | | 07240 |
| 21075 | 0100001 | | ADD PLOC | | 07250 |
| 21076 | 0367602 | | ADD 1 | | 07260 |
| 21077 | 1440002 | | STA FNT | 3 | 07270 |
| 21100 | 0002725 | | INX 2 | 2 | 07280 |
| 21101 | 0305041 | | LDA MIN | | 07290 |
| 21102 | 0764542 | | STA T+9 | | 07300 |
| 21103 | 2601127 | | SPR VAR | 3 | 07310 |
| 21104 | 1440001 | | BRU DEF2 | | 07320 |
| 21105 | 0045060 | | INX 1 | 2 | 07330 |
| 21106 | 0203207 | | LDA L | 2 | 07340 |
| 21107 | 2516002 | | SUR N14 | | 07350 |
| 21110 | 2601127 | | BNZ | | 07360 |
| 21111 | 1440001 | | BRU DEF2 | | 07370 |
| 21112 | 0762624 | | INX 1 | 2 | 07380 |
| 21113 | 2601127 | | SPR ARITH | 3 | 07390 |
| 21114 | 0664737 | | RRU DEF2 | | 07400 |
| 21115 | 0003571 | | LDX DEFT | 3 | 07410 |
| 21116 | 0103464 | | LDA ZBRU | | 07420 |
| 21117 | 0103164 | | ADD PLOC | | 07430 |
| 21120 | 0100001 | | ADD TWO | | 07440 |
| 21121 | 0367724 | | ADD 1 | | 07450 |
| 21122 | 0003476 | | STA P | 3 | 07460 |
| 21123 | 0203344 | | LDA EXULOC | | 07470 |
| 21124 | 0303476 | | SUR N50 | | 07480 |
| 21125 | 2602555 | | STA EXULOC | | 07490 |
| 21126 | 0003476 | | BRU RET | | 07500 |
| 21127 | DEF2 | | LDA EXULOC | | 07510 |

BACK OFF OBJECT POINTER TO OVERWRITE
LINE NUMBER

COMPILATION OF DEF

000015

21130 0203344
21131 0303476
21132 2602136

SUB N50
STA EXULOC
BRU LETER
NAM

07520
07530
07540
07550

DIMENSION STATEMENTS

DIMENSION STATEMENTS

000016

| | | | | | | | |
|-------|---------|------|-----------|---|---------------------------------------|--|----------|
| | | | EJT | | | | 07560 |
| 21133 | 0000001 | DIM | LDA XR01 | | BACK OFF OBJECT POINTER | | 07570 |
| 21134 | 0203165 | | SUR N3 | | | | 07580 |
| 21135 | 0300001 | | STA XR01 | | | | 07590 |
| 21136 | 0045050 | | LDA L | 2 | GET VARIABLE TO BE DIMENSIONED | | 07600 |
| 21137 | 0300003 | | STA 3 | | | | BAS07610 |
| 21140 | 0063162 | | LDA S | 3 | | | BAS07620 |
| 21141 | 2103326 | | CAB N36 | | CHECK FOR \$ ARRAY | | 07630 |
| 21142 | 2601151 | | BRU ++7 | | NOT \$ | | 07640 |
| 21143 | 2601145 | | BRU ++2 | | | | 07650 |
| 21144 | 2601151 | | BRU ++5 | | | | 07660 |
| 21145 | 0005024 | | LDA ENDF | | PERMIT \$ ONLY IN TESTER | | 07670 |
| 21146 | 2514002 | | RZC VARER | | ILLEGAL VARIABLE | | 07680 |
| 21147 | 2604537 | | | | | | |
| 21150 | 0003326 | | LDA N36 | | RESTORE A REG | | 07690 |
| 21151 | 0203203 | | SUR TEN | | | | BAS07700 |
| 21152 | 2514001 | | RMI | | | | BAS07710 |
| 21153 | 2601252 | | BRU DIMER | | | | BAS07720 |
| 21154 | 2512001 | | SLA 1 | | | | BAS07730 |
| 21155 | 0300003 | | STA 3 | | | | BAS07740 |
| 21156 | 0103163 | | ADD ONE | | | | BAS07750 |
| 21157 | 0305030 | | STA T | | | | BAS07760 |
| 21160 | 1440001 | | INX 1 | 2 | | | BAS07770 |
| 21161 | 0045060 | | LDA L | 2 | | | BAS07780 |
| 21162 | 0203357 | | SUR N61 | | | | BAS07790 |
| 21163 | 2516002 | | RNZ | | | | BAS07800 |
| 21164 | 2601252 | | BRU DIMER | | | | BAS07810 |
| 21165 | 1440001 | | INX 1 | 2 | | | BAS07820 |
| 21166 | 0764372 | | SPP INST | 3 | | | BAS07830 |
| 21167 | 2601252 | | BRU DIMER | | | | BAS07840 |
| 21170 | 0103163 | | ADD ONE | | | | 07850 |
| 21171 | 0305031 | | STA T+1 | | | | BAS07860 |
| 21172 | 0045060 | | LDA L | 2 | | | BAS07870 |
| 21173 | 0203355 | | SUR N59 | | | | BAS07880 |
| 21174 | 2514002 | | RZC | | | | BAS07890 |
| 21175 | 2601244 | | BRU DIM2 | | | | BAS07900 |
| 21176 | 0003163 | | LDA ONE | | | | BAS07910 |
| 21177 | 0305032 | | STA T+2 | | | | BAS07920 |
| 21200 | 0045060 | DIM3 | LDA L | 2 | | | BAS07930 |
| 21201 | 0203360 | | SUR N62 | | | | BAS07940 |
| 21202 | 2516002 | | RNZ | | | | BAS07950 |
| 21203 | 2601252 | | BRU DIMER | | | | BAS07960 |
| 21204 | 1440001 | | INX 1 | 2 | | | BAS07970 |
| 21205 | 0665030 | | LDY T | 3 | | | 07980 |
| 21206 | 0005031 | | LDA T+1 | | | | 07990 |
| 21207 | 2512011 | | SLA 9 | | | | 08000 |
| 21210 | 0105032 | | ADD T+2 | | | | 08010 |
| 21211 | 0367636 | | STA DIMX | 3 | | | 08020 |
| 21212 | 0005032 | | LDA T+2 | | | | BAS08030 |
| 21213 | 2504006 | | MAO | | | | BAS08040 |
| 21214 | 1505031 | | MPY T+1 | | | | BAS08050 |
| 21215 | 2504005 | | XAO | | | | BAS08060 |
| 21216 | 2512001 | | SLA 1 | | | | BAS08070 |
| 21217 | 2504522 | | NER | | CALCULATE NEW AVAILABLE SPACE POINTER | | 08080 |

DIMENSION STATEMENTS

000017

| | | | | |
|-------|---------|-------------------|----------------------------|----------|
| 21220 | 0105022 | ADD VAVAIL | | 08090 |
| 21221 | 0305022 | STA VAVAIL | | 08100 |
| 21222 | 0103164 | ADD TWO | | 08110 |
| 21223 | 0367635 | STA DIMX+1 | 3 | 08120 |
| 21224 | 0203464 | SUR PLOC | | 08130 |
| 21225 | 2514001 | RMI | | 08140 |
| 21226 | 2601253 | BRU DIMER2 | | BAS08150 |
| 21227 | 0045060 | LDA L | 2 | BAS08160 |
| 21230 | 0203247 | SUR N31 | | BAS08170 |
| 21231 | 2514002 | RZE | | BAS08180 |
| 21232 | 2600204 | BRU LIST1 | | BAS08190 |
| 21233 | 0203244 | SUR N28 | | BAS08200 |
| 21234 | 2516002 | BNZ | | BAS08210 |
| 21235 | 2601252 | BRU DIMER | | BAS08220 |
| 21236 | 1440001 | INX 1 | 2 | BAS08230 |
| 21237 | 0045060 | LDA L | 2 | BAS08240 |
| 21240 | 0203247 | SUR N31 | | BAS08250 |
| 21241 | 2514002 | RZE | | BAS08260 |
| 21242 | 2600204 | BRU LIST1 | | BAS08270 |
| 21243 | 2601136 | BRU DIM+3 | | 08280 |
| 21244 | 1440001 | DIM2 INX 1 | 2 | BAS08290 |
| 21245 | 0764372 | SPR INST | 3 | BAS08300 |
| 21246 | 2601252 | BRU DIMER | | BAS08310 |
| 21247 | 0103163 | ADD ONE | | 08320 |
| 21250 | 0305032 | STA T+2 | | BAS08330 |
| 21251 | 2601200 | BRU DIM3 | | BAS08340 |
| 21252 | 2602136 | DIMER BRU LETER | | 08350 |
| 21253 | 2604701 | DIMER2 BRU VARER2 | | 08360 |
| | | NAM | | 08370 |
| | | | LOOP IF NO CARRIAGE RETURN | |
| | | | END STATEMENT | |

END STATEMENT

000018

| | | | | | | | |
|-------|---------|-------|-----|--------------|-------------------------|--|-------|
| 21254 | 0000001 | END | EJT | LDA XR01 | BACK OFF OBJECT POINTER | 08380 | |
| 21255 | 0203165 | | | SUR N3 | | 08390 | |
| 21256 | 0300001 | | | STA XR01 | | 08400 | |
| 21257 | 0665005 | | | LDX IR3 | 3 | 08410 | |
| 21260 | 0060000 | | | LDA U | 3 | 08420 | |
| 21261 | 0202677 | | | SUR BLEOM | | 08430 | |
| 21262 | 2516002 | | | RNZ ENDER | | 08440 | |
| 21263 | 2601274 | | | | | 08450 | |
| 21264 | 0417777 | | | BXL 1 | 0 | IN REGULAR BASIC GO SET UP FOR RUN-TIME | 08460 |
| 21265 | 2605064 | | | BRU RUN | | | 08470 |
| 21266 | 0005024 | | | LDA ENDF | | | 08480 |
| 21267 | 2514001 | | | BMI RUN | | AFTER SECOND END SET UP TO RUN | 08490 |
| 21270 | 2605064 | | | | | | |
| 21271 | 2504102 | | | LMO | | AFTER FIRST END SET UP TO COMPILE TESTER | 08500 |
| 21272 | 0305024 | | | STA ENDF | | | 08510 |
| 21273 | 2600222 | | | BRU LIST11 | | | 08520 |
| 21274 | 1005012 | ENDER | | DLD ERMOV | | END IS NOT LAST | 08530 |
| 21275 | 2427512 | | | MOV LAB10 | | | 08540 |
| 21276 | 2600233 | | | BRU LISTER+2 | | | 08550 |
| | | | | NAM | | FOR STATEMENTS | 08560 |

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|-------|---------|-----|------------|---|----------|
| 21277 | 0003163 | FOR | EJT | | 08570 |
| 21300 | 0305041 | | LDA ONE | | 08580 |
| 21301 | 0764421 | | STA T+9 | | 08590 |
| 21302 | 2601450 | | SPS VAR10 | 3 | 08600 |
| 21303 | 0665007 | | BRU FOR1 | | 08610 |
| 21304 | 0577731 | | LDX NN | 3 | 08620 |
| 21305 | 2601451 | | BXH 39 | 3 | 08630 |
| 21306 | 0005031 | | BRU FOR9 | | 08640 |
| 21307 | 0366450 | | LDA T+1 | | 08650 |
| 21310 | 0005006 | | STA N | 3 | 08660 |
| 21311 | 2102722 | | LDA IRN | | 08670 |
| 21312 | 2504012 | | CAR TENT+3 | | 08680 |
| 21313 | 2601315 | | NOP | | 08690 |
| 21314 | 2601451 | | BRU **2 | | 08700 |
| 21315 | 0366452 | | BRU FOR9 | | 08710 |
| 21316 | 0103466 | | STA N+2 | 3 | 08720 |
| 21317 | 0305032 | | ADD IRLOC | | BAS08730 |
| 21320 | 0103164 | | STA T+2 | | BAS08740 |
| 21321 | 0305033 | | ADD TWO | | BAS08750 |
| 21322 | 0005006 | | STA T+3 | | BAS08760 |
| 21323 | 0103166 | | LDA IRN | | 08770 |
| 21324 | 0305006 | | ADD N4 | | 08780 |
| 21325 | 0045060 | | STA IRN | | 08790 |
| 21326 | 0203207 | | LDA L | 2 | BAS08800 |
| 21327 | 2515002 | | SUP N14 | | BAS08810 |
| 21330 | 2601450 | | BNZ | | BAS08820 |
| 21331 | 1440001 | | BRU FOR2 | | BAS08830 |
| 21332 | 0762624 | | INX 1 | 2 | BAS08840 |
| 21333 | 2601450 | | SPS ARITH | 3 | BAS08850 |
| 21334 | 0003576 | | BRU FOR3 | | BAS08860 |
| 21335 | 0105031 | | LDA ZFST | | BAS08870 |
| 21336 | 0327724 | | ADD T+1 | | BAS08880 |
| 21337 | 1420001 | | STA P | 1 | BAS08890 |
| 21340 | 0045060 | | INX 1 | 1 | BAS08900 |
| 21341 | 0203345 | | LDA L | 2 | BAS08910 |
| 21342 | 2516002 | | SUP N51 | | 08920 |
| 21343 | 2601450 | | BNZ | | 08930 |
| 21344 | 1440001 | | BRU FOR4 | | 08940 |
| 21345 | 0045060 | | INX 1 | 2 | 08950 |
| 21346 | 0203330 | | LDA L | 2 | 08960 |
| 21347 | 2516002 | | SUP N38 | | 08970 |
| 21350 | 2601450 | | BNZ | | BAS08980 |
| 21351 | 1440001 | | BRU FOR4 | | BAS08990 |
| 21352 | 0762624 | | INX 1 | 2 | BAS09000 |
| 21353 | 2601450 | | SPS ARITH | 3 | BAS09010 |
| 21354 | 0003576 | | BRU FOR3 | | BAS09020 |
| 21355 | 0105032 | | LDA ZFST | | BAS09030 |
| 21356 | 0327724 | | ADD T+2 | | BAS09040 |
| 21357 | 1420001 | | STA P | 1 | BAS09050 |
| 21360 | 0000002 | | INX 1 | 1 | BAS09060 |
| 21361 | 0204740 | | LDA 2 | | BAS09070 |
| 21362 | 2514001 | | SUP ENDL | | BAS09080 |
| 21363 | 2601400 | | BMI | | BAS09090 |
| | | | BRU FOR5 | | BAS09100 |

DECIMAL 100, RUN TIME CONSTANT

FOR STATEMENTS

000020

| | | | | | |
|-------|---------|------|-----------|---|----------|
| 21364 | 0665007 | | LDX NN | 3 | 09110 |
| 21365 | 1460001 | FOR6 | INX 1 | 3 | 09120 |
| 21366 | 0003574 | | LDA ZFLD | | 09130 |
| 21367 | 0105031 | | ADD T+1 | | 09140 |
| 21370 | 0327724 | | STA P | 1 | 09150 |
| 21371 | 1420001 | | INX 1 | 1 | 09160 |
| 21372 | 0000001 | | LDA 1 | | 09170 |
| 21373 | 1420001 | | INX 1 | 1 | 09180 |
| 21374 | 0366450 | | STA N | 3 | 09190 |
| 21375 | 1460002 | | INX 2 | 3 | 09200 |
| 21376 | 1765007 | | STX NN | 3 | 09210 |
| 21377 | 2600204 | | BRU LIST1 | | 09220 |
| 21400 | 0045060 | FOR5 | LDA L | 2 | BAS09230 |
| 21401 | 0203355 | | SUR N59 | | BAS09240 |
| 21402 | 2516002 | | BNZ | | BAS09250 |
| 21403 | 2601405 | | BRU FOR7 | | BAS09260 |
| 21404 | 1440001 | | INX 1 | 2 | BAS09270 |
| 21405 | 0045060 | FOR7 | LDA L | 2 | BAS09280 |
| 21406 | 0203344 | | SUR N50 | | BAS09290 |
| 21407 | 2516002 | | BNZ | | BAS09300 |
| 21410 | 2601450 | | BRU FOR8 | | BAS09310 |
| 21411 | 1440001 | | INX 1 | 2 | 09320 |
| 21412 | 0045060 | | LDA L | 2 | 09330 |
| 21413 | 0203345 | | SUR N51 | | 09340 |
| 21414 | 2516002 | | BNZ | | 09350 |
| 21415 | 2601450 | | BRU FOR8 | | 09360 |
| 21416 | 1440001 | | INX 1 | 2 | 09370 |
| 21417 | 0045060 | | LDA L | 2 | 09380 |
| 21420 | 0203225 | | SUR N21 | | 09390 |
| 21421 | 2516002 | | BNZ | | 09400 |
| 21422 | 2601450 | | BRU FOR8 | | 09410 |
| 21423 | 1440001 | | INX 1 | 2 | 09420 |
| 21424 | 0045060 | | LDA L | 2 | 09430 |
| 21425 | 0203331 | | SUR N39 | | 09440 |
| 21426 | 2516002 | | BNZ | | 09450 |
| 21427 | 2601450 | | BRU FOR8 | | 09460 |
| 21430 | 1440001 | | INX 1 | 2 | 09470 |
| 21431 | 0762624 | | SPP ARITH | 3 | BAS09480 |
| 21432 | 2601450 | | BRU FOR8 | | BAS09490 |
| 21433 | 0045060 | | LDA L | 2 | 09500 |
| 21434 | 0203247 | | SUR N31 | | 09510 |
| 21435 | 2516002 | | BNZ | | 09520 |
| 21436 | 2602136 | | BRU LETER | | 09530 |
| 21437 | 0003576 | | LDA ZFST | | BAS09540 |
| 21440 | 0105033 | | ADD T+3 | | BAS09550 |
| 21441 | 0327724 | | STA P | 1 | 09560 |
| 21442 | 1420001 | | INX 1 | 1 | 09570 |
| 21443 | 0665007 | | LDY NN | 3 | 09580 |
| 21444 | 0066450 | | LDA N | 3 | 09590 |
| 21445 | 2504040 | | CHS | | 09600 |
| 21446 | 0366450 | | STA N | 3 | 09610 |
| 21447 | 2601365 | FOR1 | BRU FOR6 | | BAS09620 |
| 21450 | 2602136 | FOR2 | BRU LETER | | 09630 |
| 21450 | | | FQU FOR1 | | 09640 |

FOR STATEMENTS

000021.

| | | | | |
|-------|---------|------|----------------|-------|
| | 21450 | FOR3 | EQU FOR1 | 09650 |
| | 21450 | FOR4 | EQU FOR1 | 09660 |
| | 21450 | FOR8 | EQU FOR1 | 09670 |
| 21451 | 1005012 | FOR9 | DLD ERMOV | 09680 |
| 21452 | 2427673 | | MOV LAB19 | 09690 |
| 21453 | 2604760 | | BRU ERROR | 09700 |
| | | NAM | GOTO AND GOSUB | 09710 |

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|-------|---------|------|------------|---|---------------------------------------|----------|-------|
| 21454 | 0417777 | G0 | EJT | | | | 09720 |
| 21455 | 2601460 | | RXL 1 | 0 | IN REGULAR BASIC SET UP NOP FOR | 09730 | |
| 21456 | 0003616 | | BRU GG1 | | INTERRUPTIBILITY | 09740 | |
| 21457 | 2601461 | | LDA ZTIM | | IN TEACH SET UP INF LOOP CATCHER | 09750 | |
| 21460 | 0003626 | GG1 | BRU GG2 | | | 09760 | |
| 21461 | 0327724 | GG2 | LDA ZNOP | | | 09770 | |
| 21462 | 1420001 | | STA P | 1 | | 09780 | |
| 21463 | 0045060 | | INX 1 | 1 | | 09790 | |
| 21464 | 0203344 | | LDA L | 2 | | 09800 | |
| 21465 | 2514002 | | SUR N50 | | | BAS09810 | |
| 21466 | 2601547 | | BZE | | | BAS09820 | |
| 21467 | 0203163 | | BRU G01 | | | BAS09830 | |
| 21470 | 2516002 | | SUR ONE | | | BAS09840 | |
| 21471 | 2601546 | | BNZ | | | BAS09850 | |
| 21472 | 1440001 | | BRU GOER | | | BAS09860 | |
| 21473 | 0045060 | G02 | INX 1 | 2 | | BAS09870 | |
| 21474 | 0203330 | | LDA L | 2 | | BAS09880 | |
| 21475 | 2516002 | | SUR N38 | | | BAS09890 | |
| 21476 | 2601546 | | BNZ | | | BAS09900 | |
| 21477 | 1440001 | | RRU GOER | | | BAS09910 | |
| 21500 | 0045060 | | INX 1 | 2 | | BAS09920 | |
| 21501 | 2103336 | | LDA L | 2 | CHECK FOR * | 09930 | |
| 21502 | 2601504 | | CAB N44 | | | 09940 | |
| 21503 | 2601534 | | BRU **2 | | | 09950 | |
| 21504 | 0764372 | | BRU G021 | | | 09960 | |
| 21505 | 2601546 | | SPP INST | 3 | CHECK TO SEE IF STAR IS LEGAL | 09970 | |
| 21506 | 0305031 | | BRU G03 | | NORMAL PATH | | |
| 21507 | 2102720 | | STA T+1 | | | BAS09980 | |
| 21510 | 2601515 | | CAB TENT+1 | | | BAS09990 | |
| 21511 | 2601512 | | BRU **5 | | MAKE SURE TESTED CANNOT GET TO TESTER | 10000 | |
| 21512 | 0005024 | | BRU **1 | | NO PROBLEM | 10010 | |
| 21513 | 2514002 | | LDA ENDF | | | 10020 | |
| 21514 | 2604416 | | RZE INST8 | | | 10030 | |
| 21515 | 0045060 | | LDA L | 2 | | 10040 | |
| 21516 | 0203247 | | SUR N31 | | | | |
| 21517 | 2516002 | | BNZ | | | | |
| 21520 | 2602136 | | BRU LETER | | | | |
| 21521 | 0665001 | | LDY GN | 3 | | | |
| 21522 | 0005001 | | LDA GN | | | | |
| 21523 | 0103465 | | ADD GLOC | | | | |
| 21524 | 0103571 | | ADD ZBRU | | | | |
| 21525 | 0327724 | | STA P | 1 | | | |
| 21526 | 0005031 | | LDA T+1 | | | | |
| 21527 | 0366750 | | STA G | 3 | | | |
| 21530 | 1460002 | | INX 1 | 3 | | | |
| 21531 | 1765001 | | STY GN | 3 | | | |
| 21532 | 1420001 | | INX 1 | 1 | | | |
| 21533 | 2600204 | | RRU LIST1 | | | | |
| 21534 | 0417777 | G021 | RXL 1 | 0 | NOT LEGAL IN REG BASIC | 10200 | |
| 21535 | 2604416 | | BRU INST8 | | | 10210 | |
| 21536 | 0005024 | | LDA ENDF | | CHECK FOR LEGAL IN TEACH | 10220 | |
| 21537 | 2514002 | | RZE INST8 | | ILLEGAL NUMBER FOR TESTED PROGRAM | 10230 | |
| 21540 | 2604416 | | | | | | |

| | | | | |
|-------|---------|---------------|-------------------------------|----------|
| 21541 | 0003571 | LDA ZBRU | FOR TESTER CONSTRUCT *BRU P* | 10240 |
| 21542 | 0103464 | ADD PLOC | | 10250 |
| 21543 | 0327724 | STA P . 1 | PLACE IN OBJECT | 10260 |
| 21544 | 1420001 | INX 1 . 1 | | 10270 |
| 21545 | 2600204 | BRU LIST1 | PROCESS NEXT LINE | 10280 |
| 21546 | 2600402 | BRU COMP2 | | 10290 |
| | 21546 | GOER | | 10300 |
| 21547 | 1440001 | G03 EQU GOER | | BAS10310 |
| 21550 | 0045060 | GO1 INX 1 . 2 | | BAS10320 |
| 21551 | 0203346 | LDA L . 2 | | 10330 |
| 21552 | 1440001 | SUR N52 | | 10340 |
| 21553 | 2516002 | INY 1 . 2 | | BAS10350 |
| 21554 | 2601546 | BNZ | | BAS10360 |
| 21555 | 0003622 | BRU GOER | | 10370 |
| 21556 | 0327724 | LDA ZPUSH | ST UP SPB TO PUSH DOWN RETURN | 10380 |
| 21557 | 1420001 | STA P . 1 | | 10390 |
| 21560 | 2601477 | INX 1 . 1 | | BAS10400 |
| | | BRU G02-1 | IF STATEMENTS | 10410 |
| | | NAM | | |

IF STATEMENTS

000024

| | | | | | |
|-------|---------|------|-----------|---|----------|
| 21561 | 0417777 | IF | RJT | | 10420 |
| 21562 | 2601565 | | BRU IFF1 | | 10430 |
| 21563 | 0003616 | | LDA ZTIM | | 10440 |
| 21564 | 2601566 | | BRU IFF2 | | 10450 |
| 21565 | 0003626 | IFF1 | LDA ZNCP | | 10460 |
| 21566 | 0327724 | IFF2 | STA P | 1 | 10470 |
| 21567 | 1420001 | | INY 1 | 1 | 10480 |
| 21570 | 0762624 | | SPR ARITH | 3 | 10490 |
| 21571 | 2601715 | | BRU IF1 | | 10500 |
| 21572 | 0003577 | | LDA ZFSTT | | BAS10510 |
| 21573 | 0327724 | | STA P | 1 | BAS10520 |
| 21574 | 1420001 | | INX 1 | 1 | BAS10530 |
| 21575 | 0045060 | | LDA L | 2 | BAS10540 |
| 21576 | 0203207 | | SUP N14 | | 10550 |
| 21577 | 2514002 | | RZP | | 10560 |
| 21600 | 2601643 | | BRU IF30 | | 10570 |
| 21601 | 0203211 | | SUB N16 | | 10580 |
| 21602 | 2514002 | | RZP | | 10590 |
| 21603 | 2601622 | | BRU IF31 | | 10600 |
| 21604 | 0203211 | | SUP N16 | | 10610 |
| 21605 | 2516002 | | RNZ | | 10620 |
| 21606 | 2601716 | | BRU IF4 | | 10630 |
| 21607 | 1440001 | | INX 1 | 2 | 10640 |
| 21610 | 0045060 | | LDA L | 2 | 10650 |
| 21611 | 0203207 | | SUB N14 | | 10660 |
| 21612 | 2516002 | | RNZ | | 10670 |
| 21613 | 2601617 | | BRU IF32 | | 10680 |
| 21614 | 0003167 | | LDA N5 | | 10690 |
| 21615 | 0305002 | | STA IFT | | 10700 |
| 21616 | 2601645 | | BRU IF33 | | 10710 |
| 21617 | 0003164 | IF32 | LDA TWO | | 10720 |
| 21620 | 0305002 | | STA IFT | | 10730 |
| 21621 | 2601646 | | BRU IF34 | | 10740 |
| 21622 | 1440001 | IF31 | INX 1 | 2 | 10750 |
| 21623 | 0045060 | | LDA L | 2 | 10760 |
| 21624 | 0203207 | | SUP N14 | | 10770 |
| 21625 | 2516002 | | RNZ | | 10780 |
| 21626 | 2601632 | | BRU IF35 | | 10790 |
| 21627 | 0003165 | | LDA N3 | | 10800 |
| 21630 | 0305002 | | STA IFT | | 10810 |
| 21631 | 2601645 | | BRU IF33 | | 10820 |
| 21632 | 0203250 | IF35 | SUP N32 | | 10830 |
| 21633 | 2516002 | | RNZ | | 10840 |
| 21634 | 2601640 | | BRU IF36 | | 10850 |
| 21635 | 0003166 | | LDA N4 | | 10860 |
| 21636 | 0305002 | | STA IFT | | 10870 |
| 21637 | 2601645 | | BRU IF33 | | 10880 |
| 21640 | 0003163 | IF36 | LDA ONE | | 10890 |
| 21641 | 0305002 | | STA IFT | | 10900 |
| 21642 | 2601646 | | BRU IF34 | | 10910 |
| 21643 | 0002726 | IF30 | LDA ZERO | | 10920 |
| 21644 | 0305002 | | STA IFT | | 10930 |
| 21645 | 1440001 | IF33 | INX 1 | 2 | 10940 |
| | | | | | 10950 |

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|-------|---------|------|------------|---|--|----------|
| 21646 | 0762624 | IF34 | SPR ARITH | 3 | | 10960 |
| 21647 | 2601716 | | BRU IF1 | | | BAS10970 |
| 21650 | 0003600 | | LDA ZFSTT2 | | | BAS10980 |
| 21651 | 0327724 | | STA P | 1 | | BAS10990 |
| 21652 | 1420001 | | INX 1 | 1 | | BAS11000 |
| 21653 | 0045060 | | LDA L | 2 | | |
| 21654 | 0203355 | | SUB N59 | | | 11010 |
| 21655 | 2514002 | | BZC | | | 11020 |
| 21656 | 1440001 | | INX 1 | 2 | | 11030 |
| 21657 | 0045060 | | LDA L | 2 | | 11040 |
| 21660 | 0203345 | | SUB N51 | | | 11050 |
| 21661 | 2516002 | | BNZ | | | 11060 |
| 21662 | 2602136 | | BRU LETER | | | 11070 |
| 21663 | 1440001 | | INX 1 | 2 | | 11080 |
| 21664 | 0045060 | | LDA L | 2 | | 11090 |
| 21665 | 0203230 | | SUB N24 | | | 11100 |
| 21666 | 2516002 | | BNZ | | | 11110 |
| 21667 | 2602136 | | BRU LETER | | | 11120 |
| 21670 | 1440001 | | INX 1 | 2 | | 11130 |
| 21671 | 0045060 | | LDA L | 2 | | 11140 |
| 21672 | 0203225 | | SUB N21 | | | 11150 |
| 21673 | 2516002 | | BNZ | | | 11160 |
| 21674 | 2602136 | | BRU LETER | | | 11170 |
| 21675 | 1440001 | | INX 1 | 2 | | 11180 |
| 21676 | 0045060 | | LDA L | 2 | | 11190 |
| 21677 | 0203327 | | SUB N37 | | | 11200 |
| 21700 | 2516002 | | BNZ | | | 11210 |
| 21701 | 2602136 | | BRU LETER | | | 11220 |
| 21702 | 1440001 | | INX 1 | 2 | | 11230 |
| 21703 | 0005002 | | LDA IFT | | | 11240 |
| 21704 | 2103163 | | CAR ONE | | | 11250 |
| 21705 | 2601721 | | BRU IF2 | | | 11260 |
| 21706 | 2601737 | | BRU IF7 | | | 11270 |
| 21707 | 2103165 | | CAR N3 | | | 11280 |
| 21710 | 2602016 | | BRU IF20 | | | 11290 |
| 21711 | 2601730 | | BRU IF6 | | | 11300 |
| 21712 | 0203166 | | SUB N4 | | | 11310 |
| 21713 | 2514002 | | BZC | | | 11320 |
| 21714 | 2602025 | | BRU IF21 | | | 11330 |
| 21715 | 2602034 | | BRU IF22 | | | 11340 |
| 21716 | 1005012 | IF4 | DLD ERMOV | | | 11350 |
| 21717 | 2427564 | | MOV LAB6 | | | 11360 |
| 21720 | 2604760 | | BRU ERROR | | | 11370 |
| | 21716 | IF8 | EQU IF4 | | | 11380 |
| | 21716 | IF1 | EQU IF4 | | | 11390 |
| 21721 | 0003603 | IF2 | LDA ZFSUT | | | 11400 |
| 21722 | 0327724 | | STA P | 1 | | BAS11410 |
| 21723 | 1420001 | | INX 1 | 1 | | BAS11420 |
| 21724 | 0003607 | | LDA ZBARZ | | | BAS11430 |
| 21725 | 0327724 | | STA P | 1 | | BAS11440 |
| 21726 | 1420001 | | INX 1 | 1 | | BAS11450 |
| 21727 | 2601750 | | BRU IF5 | | | BAS11460 |
| 21730 | 0003603 | IF6 | LDA ZFSUT | | | BAS11470 |
| 21731 | 0327724 | | STA P | 1 | | BAS11480 |
| | | | | | | BAS11490 |

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|-------|---------|---------------|---|--|
| 21732 | 1420001 | INX 1 | 1 | BAS11500 |
| 21733 | 0003605 | LDA ZBARP | | BAS11510 |
| 21734 | 0327724 | STA P | 1 | BAS11520 |
| 21735 | 1420001 | INX 1 | 1 | BAS11530 |
| 21736 | 2601750 | BRU IF5 | | BAS11540 |
| 21737 | 0003575 | IF7 LDA ZFLDT | | BAS11550 |
| 21740 | 0327724 | STA P | 1 | BAS11560 |
| 21741 | 1420001 | INX 1 | 1 | BAS11570 |
| 21742 | 0003604 | LDA ZFSUT2 | | BAS11580 |
| 21743 | 0327724 | STA P | 1 | BAS11590 |
| 21744 | 1420001 | INX 1 | 1 | BAS11600 |
| 21745 | 0003606 | LDA ZBARM | | BAS11610 |
| 21746 | 0327724 | STA P | 1 | BAS11620 |
| 21747 | 1420001 | INX 1 | 1 | BAS11630 |
| 21750 | 0045060 | IF5 LDA L | 2 | CHECK FOR * AFTER THEN 11640 |
| 21751 | 2103336 | CAR N44 | | 11650 |
| 21752 | 2601754 | BRU **+2 | | 11660 |
| 21753 | 2602004 | BRU IF50 | | 11670 |
| 21754 | 0764372 | SPR INST | 3 | CONVERT LINE NO. TO BINARY 11680 |
| 21755 | 2601716 | BRU IF8 | | BAS11690 |
| 21756 | 0305030 | STA T | | BAS11700 |
| 21757 | 2102720 | CAB TENT+1 | | DONT LET TESTED PROG USE LINE NO.S THIS BIG 11710 |
| 21760 | 2601765 | BRU **+5 | | NO SWEAT 11720 |
| 21761 | 2601762 | BRU **+1 | | 11730 |
| 21762 | 0005024 | LDA ENDF | | 11740 |
| 21763 | 2514002 | BZF INST8 | | ILLEGAL NUMBER FOR TESTED PROGRAM 11750 |
| 21764 | 2604416 | | | |
| 21765 | 0045060 | LDA L | 2 | 11760 |
| 21766 | 0203247 | SUR N31 | | 11770 |
| 21767 | 2516002 | BNZ | | 11780 |
| 21770 | 2602136 | BRU LETER | | 11790 |
| 21771 | 0005001 | LDA GN | | BAS11800 |
| 21772 | 0300003 | STA 3 | | BAS11810 |
| 21773 | 0103465 | ADD GLOC | | BAS11820 |
| 21774 | 0103571 | ADD ZBRU | | BAS11830 |
| 21775 | 0327724 | STA P | 1 | BAS11840 |
| 21776 | 1420001 | INX 1 | 1 | BAS11850 |
| 21777 | 0005030 | LDA T | | BAS11860 |
| 22000 | 0366750 | ST4 G | 3 | 11870 |
| 22001 | 1460001 | INX 1 | 3 | 11880 |
| 22002 | 1765001 | STX GN | 3 | 11890 |
| 22003 | 2600204 | BRU LIST1 | | 11900 |
| 22004 | 0417777 | IF50 BXI 1 | 0 | * NOT A LEGAL ADDRESS IN REG BASIC 11910 |
| 22005 | 2604416 | BRU INST8 | | 11920 |
| 22006 | 0005024 | LDA ENDF | | 11930 |
| 22007 | 2514002 | BZF INST8 | | 11940 |
| 22010 | 2604416 | | | |
| 22011 | 0003571 | LDA ZBRU | | 11950 |
| 22012 | 0103464 | ADD PL0C | | 11960 |
| 22013 | 0327724 | STA P | 1 | 11970 |
| 22014 | 1420001 | INX 1 | 1 | 11980 |
| 22015 | 2600204 | BRU LIST1 | | 11990 |
| 22016 | 0003603 | LDA ZFSUT | | 12000 |
| 22017 | 0327724 | STA P | 1 | 12010 |

IF STATEMENTS

000027

| | | | | |
|-------|---------|------------|---|-------|
| 22020 | 1420001 | INX 1 | 1 | |
| 22021 | 0003606 | LDA ZBARM | | 12020 |
| 22022 | 0327724 | STA P | 1 | 12030 |
| 22023 | 1420001 | INX 1 | 1 | 12040 |
| 22024 | 2601750 | BRU IF5 | | 12050 |
| 22025 | 0003603 | LDA ZFSUT | | 12060 |
| 22026 | 0327724 | STA P | 1 | 12070 |
| 22027 | 1420001 | INX 1 | 1 | 12080 |
| 22030 | 0003610 | LDA ZBARN | | 12090 |
| 22031 | 0327724 | STA P | 1 | 12100 |
| 22032 | 1420001 | INX 1 | 1 | 12110 |
| 22033 | 2601750 | BRU IF5 | | 12120 |
| 22034 | 0003575 | LDA ZFLDT | | 12130 |
| 22035 | 0327724 | STA P | 1 | 12140 |
| 22036 | 1420001 | INX 1 | 1 | 12150 |
| 22037 | 0003604 | LDA ZFSUT2 | | 12160 |
| 22040 | 0327724 | STA P | 1 | 12170 |
| 22041 | 1420001 | INX 1 | 1 | 12180 |
| 22042 | 0003605 | LDA ZBARP | | 12190 |
| 22043 | 0327724 | STA P | 1 | 12200 |
| 22044 | 1420001 | INX 1 | 1 | 12210 |
| 22045 | 2601750 | BRU IF5 | | 12220 |
| | | NAM | | 12230 |
| | | | | 12240 |

REAL TIME INPUT COMMAND

| | | | | | |
|-------|---------|------|------------|---|-------|
| | | EJT | | ROUTINE FOR COMPILING INPUT STATEMENTS | 12250 |
| | | REM | | THE FOLLOWING CODING IS GENERATED | 12260 |
| | | REM | | SPB INCALL,1 GO TO EXEC FOR INPUT | 12270 |
| | | REM | | THE NEXT 2 INSTRUCTIONS ARE REPEATED AS | 12280 |
| | | REM | | OFTEN AS NECESSARY TO CONVERT ALL | 12290 |
| | | REM | | INPUT AND STORE IT. | 12300 |
| | | REM | | SPB INCONV,1 FLOAT THE NEXT NUMBER | 12310 |
| | | REM | | FST ARG [ARRAY ELEMENTS GENERATE | 12320 |
| | | REM | | ENOUGH CODING TO LOCATE THE | 12330 |
| | | REM | | ELEMENT.] | 12340 |
| | | REM | | SPB INDONE,1 CHECK TO MAKE SURE THAT | 12350 |
| | | REM | | ALL NUMBERS INPUT HAVE | 12360 |
| | | REM | | FOUND A HOME. | 12370 |
| | | REM | | SET UP CALL AND INITIALIZATION | 12380 |
| 22046 | 0003665 | INP | LDA ZINCL | | 12390 |
| 22047 | 0327724 | | STA P | 1 | 12400 |
| 22050 | 2504102 | | LMD | | 12410 |
| 22051 | 0305041 | | STA T+9 | | 12420 |
| 22052 | 1420001 | | INX 1 | 1 | 12430 |
| 22053 | 0003666 | INP1 | LDA ZINCON | | 12440 |
| 22054 | 0327724 | | STA P | 1 | 12450 |
| 22055 | 1420001 | | INX 1 | 1 | 12460 |
| 22056 | 0764542 | | SPR VAR | 3 | 12470 |
| 22057 | 2602136 | | BRU LETER | | 12480 |
| 22060 | 0045060 | | LDA L | 2 | 12490 |
| 22061 | 2103355 | | CAR N59 | | 12500 |
| 22062 | 2602073 | | BRU INP2 | | 12510 |
| 22063 | 2602065 | | BRU **2 | | 12520 |
| 22064 | 2602136 | | BRU LETER | | 12530 |
| 22065 | 1440001 | | INX 1 | 2 | 12540 |
| 22066 | 0045060 | | LDA L | 2 | 12550 |
| 22067 | 2103247 | | CAR N31 | | 12560 |
| 22070 | 2602053 | | BRU INP1 | | 12570 |
| 22071 | 2602077 | | BRU INP3 | | 12580 |
| 22072 | 2602053 | | BRU INP1 | | 12590 |
| 22073 | 2103247 | INP2 | CAR N31 | | 12600 |
| 22074 | 2602136 | | BRU LETER | | 12610 |
| 22075 | 2602077 | | BRU INP3 | | 12620 |
| 22076 | 2602136 | | BRU LETER | | 12630 |
| 22077 | 0003667 | INP3 | LDA ZINDN | | 12640 |
| 22100 | 0327724 | | STA P | 1 | 12650 |
| 22101 | 1420001 | | INX 1 | 1 | 12660 |
| 22102 | 2600204 | | BRU LIST1 | | 12670 |
| | | NAM | | LET STATEMENT | 12680 |

LET STATEMENT

000029

| | | | | | | |
|-------|---------|-------|-----------|-----------|---|----------|
| 22103 | 1745031 | LET | EJT | STX T+1 | 2 | 12690 |
| 22104 | 1440001 | | | INX 1 | 2 | BAS12700 |
| 22105 | 0045060 | | | LDA L | 2 | BAS12710 |
| 22106 | 0203207 | | | SUB N14 | | BAS12720 |
| 22107 | 2514002 | | | BZP | | BAS12730 |
| 22110 | 2602116 | | | BRU LET1 | | BAS12740 |
| 22111 | 0000002 | | | LDA 2 | | BAS12750 |
| 22112 | 0204740 | | | SUB ENDL | | BAS12760 |
| 22113 | 2516001 | | | RPL | | BAS12770 |
| 22114 | 2602136 | | | BRU LETER | | BAS12780 |
| 22115 | 2602104 | | | BRU LET+1 | | BAS12790 |
| 22116 | 1440001 | LET1 | INX 1 | 2 | | BAS12800 |
| 22117 | 0762624 | | | SPR ARITH | 3 | BAS12810 |
| 22120 | 2602136 | | | BRU LETER | | BAS12820 |
| 22121 | 0045060 | | | LDA L | 2 | BAS12830 |
| 22122 | 0203247 | | | SUB N31 | | 12840 |
| 22123 | 2516002 | | | BNZ | | 12850 |
| 22124 | 2602136 | | | BRU LETER | | 12860 |
| 22125 | 0645031 | | | LDX T+1 | 2 | 12870 |
| 22126 | 0002725 | | | LDA MIN | | BAS12880 |
| 22127 | 0305041 | | | STA T+9 | | BAS12890 |
| 22130 | 0764542 | | | SPR VAR | 3 | BAS12900 |
| 22131 | 2602136 | | | BRU LETER | | BAS12910 |
| 22132 | 0045060 | | | LDA L | 2 | BAS12920 |
| 22133 | 0203207 | | | SUB N14 | | 12930 |
| 22134 | 2514002 | | | BZP | | 12940 |
| 22135 | 2600204 | | | BRU LIST1 | | 12950 |
| 22136 | 1005012 | LETER | DLO ERMov | | | BAS12960 |
| 22137 | 2427602 | | MOV LAR8 | | | 12970 |
| 22140 | 2604760 | | BRU ERROR | | | 12980 |
| | | | NAM | | | 12990 |
| | | | | | | 13000 |

NEXTSTATEMENT {SEE FOR}

| | | | | | | |
|-------|---------|------|-----------|---|---|----------|
| 22141 | 0417777 | NEXT | SJT | | | 13010 |
| 22142 | 2602146 | | SXL 1 | 0 | DO NOT PUT IN LOOP CATCHER IN REG BASIC | 13020 |
| 22143 | 0003616 | | BRU NXT1 | | | 13030 |
| 22144 | 0327724 | | LDA ZTIM | | | 13040 |
| 22145 | 1420001 | | STA P | 1 | | 13050 |
| 22146 | 2504022 | NXT1 | INX 1 | 1 | | 13060 |
| 22147 | 0305041 | | LDO | | | 13070 |
| 22150 | 0764421 | | STA T+9 | | | 13080 |
| 22151 | 2602303 | | SPR VAP10 | 3 | | 13090 |
| 22152 | 0005007 | | BRU NEXT1 | | | 13100 |
| 22153 | 2514002 | | LDA NN | | | 13110 |
| 22154 | 2602304 | | RZB | | | 13120 |
| 22155 | 0203165 | | BRU NEXT2 | | | 13130 |
| 22156 | 0300003 | | SUR N3 | | | 13140 |
| 22157 | 0066450 | | STA 3 | | | 13150 |
| 22160 | 0305030 | | LDA N | 3 | | 13160 |
| 22161 | 2514001 | | STA T | | | 13170 |
| 22162 | 2504040 | | BMI | | | 13180 |
| 22163 | 0205031 | | CHS | | | 13190 |
| 22164 | 2516002 | | SUR T+1 | | | 13200 |
| 22165 | 2602304 | | BNZ | | | 13210 |
| 22166 | 1765007 | | BRU NEXT2 | | | 13220 |
| 22167 | 1460001 | | STX NN | 3 | | 13230 |
| 22170 | 1725032 | | INX 1 | 3 | | 13240 |
| 22171 | 0066450 | | STX T+2 | 1 | | 13250 |
| 22172 | 0300001 | | LDA N | 3 | | 13260 |
| 22173 | 0003571 | | STA 1 | | | 13270 |
| 22174 | 0103464 | | LDA ZBRU | | | 13280 |
| 22175 | 0103165 | | ADD PL0C | | | 13290 |
| 22176 | 0105032 | | ADM N3 | | | 13300 |
| 22177 | 0327724 | | ADD T+2 | | | 13310 |
| 22200 | 0625032 | | STA P | 1 | | 13320 |
| 22201 | 0066451 | | LDX T+2 | 1 | | 13330 |
| 22202 | 0103466 | | LDA N+1 | 3 | | 13340 |
| 22203 | 0305032 | | ADD IRLOC | | | BAS13350 |
| 22204 | 0103164 | | STA T+2 | | | BAS13360 |
| 22205 | 0305C33 | | ADD TWO | | | BAS13370 |
| 22206 | 0003574 | | STA T+3 | | | BAS13380 |
| 22207 | 0105031 | | LDA ZFLD | | | BAS13390 |
| 22210 | 0327724 | | ADD T+1 | | | BAS13400 |
| 22211 | 1420001 | | STA P | 1 | | BAS13410 |
| 22212 | 0005030 | | INX 1 | 1 | | BAS13420 |
| 22213 | 2516001 | | LDA T | | | 13430 |
| 22214 | 2602220 | | SPL | | | 13440 |
| 22215 | 0003601 | | BRU **4 | | | 13450 |
| 22216 | 0105033 | | LDA ZFAD | | | 13460 |
| 22217 | 2602221 | | ADD T+3 | | | 13470 |
| 22220 | 0003617 | | BRU **2 | | | 13480 |
| 22221 | 0327724 | | LDA ZFAD1 | | | 13490 |
| 22222 | 1420001 | | STA P | 1 | | BAS13500 |
| 22223 | 0003576 | | INX 1 | 1 | | BAS13510 |
| 22224 | 0105031 | | LDA ZFST | | | BAS13520 |
| 22225 | 0327724 | | ADD T+1 | | | BAS13530 |
| | | | STA P | 1 | | BAS13540 |

NEXTSTATEMENT [SEE FOR]

000031

| | | | | |
|-------|---------|-----------------|---|----------|
| 22226 | 1420001 | INX 1 | 1 | |
| 22227 | 0003602 | LDA ZFSU | | BAS13550 |
| 22230 | 0105032 | ADD T+2 | | BAS13560 |
| 22231 | 0327724 | STA P | 1 | BAS13570 |
| 22232 | 1420001 | INX 1 | 1 | BAS13580 |
| 22233 | 0005030 | LDA T | | BAS13590 |
| 22234 | 2514001 | BMI | | 13600 |
| 22235 | 2602240 | BRU NEXT3 | | 13610 |
| 22236 | 0003615 | LDA ZTST2 | | 13620 |
| 22237 | 2602245 | BRU NEXT4 | | 13630 |
| 22240 | 0005033 | NEXT3 LDA T+3 | | 13640 |
| 22241 | 0103163 | ADD ONE | | 13650 |
| 22242 | 0327724 | STA P | 1 | 13660 |
| 22243 | 1420001 | INX 1 | 1 | 13670 |
| 22244 | 0003614 | LDA ZTST | | 13680 |
| 22245 | 0327724 | NEXT4 STA P | 1 | 13690 |
| 22246 | 1420001 | INX 1 | 1 | 13700 |
| 22247 | 0066450 | LDA N | 3 | 13710 |
| 22250 | 0103163 | ADD ONE | | 13720 |
| 22251 | 0103571 | ADD ZBRU | | 13730 |
| 22252 | 0103464 | ADD PLOC | | BAS13740 |
| 22253 | 0327724 | STA P | 1 | BAS13750 |
| 22254 | 1420001 | INX 1 | 1 | BAS13760 |
| 22255 | 0003574 | LDA ZFLD | | BAS13770 |
| 22256 | 0105031 | ADD T+1 | | BAS13780 |
| 22257 | 0327724 | STA P | 1 | BAS13790 |
| 22260 | 1420001 | INX 1 | 1 | BAS13800 |
| 22261 | 0005030 | LDA T | | BAS13810 |
| 22262 | 2514001 | BMI | | 13820 |
| 22263 | 2602266 | BRU **3 | | 13830 |
| 22264 | 0003620 | LDA ZFSU1 | | 13840 |
| 22265 | 2602270 | BRU *+3 | | 13850 |
| 22266 | 0003602 | LDA ZFSU | | 13860 |
| 22267 | 0105033 | ADD T+3 | | BAS13870 |
| 22270 | 0327724 | STA P | 1 | BAS13880 |
| 22271 | 1420001 | INX 1 | 1 | BAS13890 |
| 22272 | 0003576 | LDA ZFST | | BAS13900 |
| 22273 | 0105031 | ADD T+1 | | BAS13910 |
| 22274 | 0327724 | STA P | 1 | BAS13920 |
| 22275 | 1420001 | INX 1 | 1 | BAS13930 |
| 22276 | 0045060 | LDA L | 2 | BAS13940 |
| 22277 | 0203247 | SUB N31 | | 13950 |
| 22300 | 2516002 | RNZ | | 13960 |
| 22301 | 2602136 | BRU LETER | | 13970 |
| 22302 | 2600204 | BRU LIST1 | | 13980 |
| 22303 | 2602136 | NEXT1 BRU LETER | | BAS13990 |
| 22304 | 1005012 | NEXT2 DLD ERMOV | | 14000 |
| 22305 | 2427702 | MOV LAR20 | | 14010 |
| 22306 | 2604760 | BRU ERROR | | 14020 |
| | | NAM | | 14030 |
| | | | | 14040 |

PRINT STATEMENTS

PRINT STATEMENTS

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| | | | | | | | |
|-------|---------|-------|-----------|---|--|--|----------|
| 22307 | 0417777 | PRT | EJT | | | | 14050 |
| 22310 | 2602314 | | BXL 1 | 0 | | | 14060 |
| 22311 | 0005024 | | BRU PRTX | | | | 14070 |
| 22312 | 2514002 | | LDA ENDF | | | | 14080 |
| 22313 | 2600204 | | BZS LIST1 | | | | 14090 |
| 22314 | 0045060 | PRTX | LDA L | 2 | | | 14100 |
| 22315 | 0203247 | | SUB N31 | | | | 14110 |
| 22316 | 2516002 | | BNZ | | | | 14120 |
| 22317 | 2602321 | | BRU PRT30 | | | | 14130 |
| 22320 | 2602364 | | BRU PRT50 | | | | 14140 |
| 22321 | 0045060 | PRT30 | LDA L | 2 | | | 14150 |
| 22322 | 0203247 | | SUB N31 | | | | BAS14160 |
| 22323 | 2514002 | | BZS | | | | BAS14170 |
| 22324 | 2602352 | | BRU PRT2 | | | | BAS14180 |
| 22325 | 0203244 | | SUB N28 | | | | BAS14190 |
| 22326 | 2514002 | | BZS | | | | BAS14200 |
| 22327 | 2602370 | | BRU PRT3 | | | | BAS14210 |
| 22330 | 0045060 | | LDA L | 2 | | | 14220 |
| 22331 | 0203205 | | SUB N12 | | | | 14230 |
| 22332 | 2514002 | | BZS | | | | BAS14240 |
| 22333 | 2602377 | | BRU PRT4 | | | | BAS14250 |
| 22334 | 0203163 | | SUB ONE | | | | 14260 |
| 22335 | 2516002 | | BNZ | | | | 14270 |
| 22336 | 2602341 | | BRU **3 | | | | 14280 |
| 22337 | 0003637 | | LDA ZSHT | | | | 14290 |
| 22340 | 2602371 | | BRU PRT32 | | | | 14300 |
| 22341 | 0762624 | | SPR ARITH | 3 | | | BAS14310 |
| 22342 | 2602511 | | BRU PRTER | | | | BAS14320 |
| 22343 | 0003565 | | LDA ZUNF | | | | BAS14330 |
| 22344 | 0327724 | | STA P | 1 | | | BAS14340 |
| 22345 | 1420001 | | INX 1 | 1 | | | BAS14350 |
| 22346 | 2602321 | | BRU PRT30 | | | | 14360 |
| 22347 | 1420001 | PRT5 | INX 1 | 1 | | | BAS14370 |
| 22350 | 1440001 | | INX 1 | 2 | | | BAS14380 |
| 22351 | 2602321 | | BRU PRT30 | | | | 14390 |
| 22352 | 0000002 | PRT2 | LDA 2 | | | | 14400 |
| 22353 | 0203163 | | SUB ONE | | | | 14410 |
| 22354 | 0300002 | | STA 2 | | | | 14420 |
| 22355 | 0045060 | | LDA L | 2 | | | 14430 |
| 22356 | 1440001 | | INX 1 | 2 | | | 14440 |
| 22357 | 0203205 | | SUB N12 | | | | 14450 |
| 22360 | 2514002 | | BZS | | | | 14460 |
| 22361 | 2602364 | | BRU PRT50 | | | | 14470 |
| 22362 | 0003567 | | LDA ZCRT | | | | 14480 |
| 22363 | 2602365 | | BRU **2 | | | | 14490 |
| 22364 | 0003570 | PRT50 | LDA ZCRTB | | | | 14500 |
| 22365 | 0327724 | | STA P | 1 | | | 14510 |
| 22366 | 1420001 | PRT6 | INX 1 | 1 | | | BAS14520 |
| 22367 | 2600204 | | BRU LIST1 | | | | BAS14530 |
| 22370 | 0003566 | PRT3 | LDA ZTAB | | | | BAS14540 |
| 22371 | 0327724 | PRT32 | STA P | 1 | | | 14550 |
| 22372 | 0000002 | | LDA 2 | | | | BAS14560 |
| 22373 | 0204740 | | SUB ENDL | | | | BAS14570 |

PRINT STATEMENTS

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| | | | | |
|-------|---------|----------------|-------------------------------------|----------|
| 22374 | 2516001 | RPL | | BAS14580 |
| 22375 | 2602366 | BRU PRT6 | | BAS14590 |
| 22376 | 2602347 | BRU PRT5 | | BAS14600 |
| 22377 | 1440001 | PRT4 INX 1 2 | SAVE OBJECT POINTER | BAS14610 |
| 22400 | 1725032 | STX T+2 1 | | 14620 |
| 22401 | 0000001 | LDA XR01 | | 14630 |
| 22402 | 2516000 | BEV | | 14640 |
| 22403 | 1420001 | INX 1 1 | IF PRESENT COUNTER IS EVEN | 14650 |
| 22404 | 1420003 | INX 3 1 | INCREMENT BY 4 | 14660 |
| 22405 | 0660001 | LDX XR01 3 | OTHERWISE INCREMENT BY 3 | 14670 |
| 22406 | 0002726 | PRT7 LDA ZERO | INITIALIZE XR03 | BAS14680 |
| 22407 | 0300000 | STA 0 | | BAS14690 |
| 22410 | 0327724 | STA P 1 | | 14700 |
| 22411 | 0045060 | PRT8 LDA L 2 | GET NEXT CHARACTER | 14710 |
| 22412 | 0203205 | SUR N12 | | 14720 |
| 22413 | 2514002 | BZF | | BAS14730 |
| 22414 | 2602470 | BRU PRT40 | | BAS14740 |
| 22415 | 0027724 | LDA P 1 | PACK THIS CHARACTER INTO THE STRING | 14750 |
| 22416 | 2512006 | SLA 6 | | BAS14760 |
| 22417 | 0145060 | ADD L | | BAS14770 |
| 22420 | 0327724 | STA P 1 | | 14780 |
| 22421 | 0517776 | BXH 2 0 | | BAS14790 |
| 22422 | 2602426 | BRU PRT12 | | BAS14800 |
| 22423 | 1400001 | INX 1 0 | | BAS14810 |
| 22424 | 1440001 | INX 1 2 | | BAS14820 |
| 22425 | 2602411 | BRU PRT8 | | BAS14830 |
| 22426 | 0000002 | PRT12 LDA 2 | | BAS14840 |
| 22427 | 0204740 | SUR ENDL | | BAS14850 |
| 22430 | 2516001 | SPL | | BAS14860 |
| 22431 | 2602512 | BRU PRTER1 | | BAS14870 |
| 22432 | 1420001 | INX 1 1 | INCREMENT OBJECT POINTER | 14880 |
| 22433 | 1440001 | INX 1 2 | | BAS14890 |
| 22434 | 2602406 | BRU PRT7 | | BAS14900 |
| 22435 | 0000001 | PRT10 LDA XR01 | LOAD FINAL VALUE OF OBJECT POINTER | 14910 |
| 22436 | 0200003 | SUR XR03 | SUBTRACT INITIAL VALUE | 14920 |
| 22437 | 2514002 | RZS | | 14930 |
| 22440 | 2602466 | BRU EMPSTR | | 14940 |
| 22441 | 2504522 | NEG | | 14950 |
| 22442 | 0367723 | STA P-1 3 | STORE LENGTH OF STRING IN OBJECT | 14960 |
| 22443 | 0000003 | LDA XR03 | GET BEGINNING ADDRESS OF STRING | 14970 |
| 22444 | 0103464 | ADD PL0C | MAKE ADDRESS ABSOLUTE | 14980 |
| 22445 | 2367722 | ORY P-2 3 | STORE IN OBJECT | 14990 |
| 22446 | 0000001 | LDA XR01 | LOAD NEXT LOCATION IN OBJECT | 15000 |
| 22447 | 0103464 | ADD PL0C | MAKE ABSOLUTE | 15010 |
| 22450 | 0103571 | ADD ZBRU | MAKE INTO A BRANCH | 15020 |
| 22451 | 2506033 | SXG 1 | I NEED ANOTHER INDEX GROUP | 15030 |
| 22452 | 0625032 | LDX T+2 1 | GET LOCATION WHERE WE STARTED | 15040 |
| 22453 | 0327724 | STA P 1 | PUT BRANCH AROUND STRING IN OBJECT | 15050 |
| 22454 | 2506013 | SXG 0 | BACK TO NORMAL INDEXING | 15060 |
| 22455 | 0000003 | LDA XR03 | CALCULATE LOCATION OF CODE WORDS | 15070 |
| 22456 | 0203164 | SUR TWO | | 15080 |
| 22457 | 0103464 | ADD PL0C | | 15090 |
| 22460 | 0103471 | ADD ZDLD | FORM LOAD | 15100 |
| 22461 | 0327724 | STA P 1 | STORE AFTER STRING IN OBJECT | 15110 |

PRINT STATEMENTS

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| | | | | | |
|-------|---------|------------------|---|--|----------|
| 22462 | 0003564 | LDA ZLAB | | GET *SPB YLAB,1* | 15120 |
| 22463 | 0327725 | STA P+1 | 1 | SOTRE | 15130 |
| 22464 | 1420002 | INX 2 | 1 | INCREMENT OBJECT POINTER | 15140 |
| 22465 | 2602350 | BRU PRT5+1 | | DONE WITH THIS LABEL | 15150 |
| 22466 | 0625032 | EMPSTR LDX T+2 | 1 | RESTORE OBJECT POINTER AND EXIT | 15160 |
| 22467 | 2602350 | BRU PRT5+1 | | | 15170 |
| 22470 | 2504002 | PRT40 LDZ | | ZERO OUT LOCATION WHERE LENGTH AND NO. | 15180 |
| 22471 | 0367722 | STA P-2 | 3 | OF FILLS IS STORED | 15190 |
| 22472 | 0417777 | BXL 1 | 0 | IF NO FILLS THEN SKIP | 15200 |
| 22473 | 2602435 | BRU PRT10 | | | BAS15210 |
| 22474 | 0027724 | PRT41 LDA P | 1 | | 15220 |
| 22475 | 2512006 | SLA 6 | | | BAS15230 |
| 22476 | 0102676 | ADD FILL | | FILL OUT LAST WORD WITH FILLS | 15240 |
| 22477 | 0327724 | STA P | 1 | | 15250 |
| 22500 | 0067722 | LDA P-2 | 3 | STORE NUMBER OF FILLS AT B15 | 15260 |
| 22501 | 0103642 | ADD 4BIT | | | 15270 |
| 22502 | 0367722 | STA P-2 | 3 | STORE IN STRING HEADER | 15280 |
| 22503 | 1400001 | INX 1 | 0 | | BAS15290 |
| 22504 | 0517775 | RXH 3 | 0 | | BAS15300 |
| 22505 | 2602507 | BRU **+2 | | | BAS15310 |
| 22506 | 2602474 | BRU PRT41 | | | BAS15320 |
| 22507 | 1420001 | INX 1 | 1 | STEP WORD COUNTER [OBJECT POINTER] | 15330 |
| 22510 | 2602435 | BRU PRT10 | | | BAS15340 |
| 22511 | 2603247 | PRTER BRU ARER | | | 15350 |
| 22512 | 2602136 | PRTER1 BRU LETER | | | 15360 |
| 22513 | 0002725 | READ LDA MIN | | | BAS15370 |
| 22514 | 0305010 | STA READX | | | BAS15380 |
| 22515 | 0003520 | LDA READZ | | | BAS15390 |
| 22516 | 0327724 | STA P | 1 | | BAS15400 |
| 22517 | 1420001 | INX 1 | 1 | | BAS15410 |
| 22520 | 0003516 | LDA READZ2 | | FETCH [FLD D.2] | 15420 |
| 22521 | 0327724 | STA P | 1 | | BAS15430 |
| 22522 | 1420001 | INX 1 | 1 | | BAS15440 |
| 22523 | 0003517 | LDA READZ3 | | | BAS15450 |
| 22524 | 0327724 | STA P | 1 | | BAS15460 |
| 22525 | 1420001 | INX 1 | 1 | | BAS15470 |
| 22526 | 0002725 | LDA MIN | | | BAS15480 |
| 22527 | 0305041 | STA T+9 | | | BAS15490 |
| 22530 | 0764542 | SPP VAR | 3 | | BAS15500 |
| 22531 | 2602547 | BRU READ1 | | | BAS15510 |
| 22532 | 0045060 | LDA L | 2 | | 15520 |
| 22533 | 0203355 | SUR N59 | | | 15530 |
| 22534 | 2516002 | BN7 | | | 15540 |
| 22535 | 2602544 | BRU **+7 | | | 15550 |
| 22536 | 1440001 | INX 1 | 2 | | 15560 |
| 22537 | 0045060 | LDA L | 2 | | 15570 |
| 22540 | 0203247 | SUP N31 | | | 15580 |
| 22541 | 2514002 | BZB | | | 15590 |
| 22542 | 2600204 | BRU LIST1 | | | 15600 |
| 22543 | 2602515 | BRU READ+2 | | | 15610 |
| 22544 | 0103244 | ADD N28 | | | 15620 |
| 22545 | 2514002 | BZB | | | 15630 |
| 22546 | 2600204 | BRU LIST1 | | | 15640 |
| 22547 | 2602136 | READ1 BRU LETER | | | 15650 |

PRINT STATEMENTS

000035

NAM

REM, RET, STOP, AND TIME

15660

| | | | | | | | |
|-------|---------|--------|------|------------|---|--|----------|
| 22550 | 0000001 | | EJT | LDA XR01 | | BACK OFF OBJECT POINTER | 15670 |
| 22551 | 0203165 | REM | | SUR N3 | | | 15680 |
| 22552 | 0300001 | | | STA XR01 | | | 15690 |
| 22553 | 2600204 | | | BRU LIST1 | | COMPILE NEXT LINE | 15700 |
| 22554 | 0367722 | | | STA P=2 | 3 | | 15710 |
| 22555 | 0002706 | RET | | LDA LDX01 | | | 15720 |
| 22556 | 0327724 | | | STA P | 1 | | 15730 |
| 22557 | 1420001 | | | INX 1 | 1 | | BAS15740 |
| 22558 | 0003573 | | | LDA ZRET | | | BAS15750 |
| 22559 | 0327724 | | | STA P | 1 | | BAS15760 |
| 22560 | 1420001 | | | INX 1 | 1 | | BAS15770 |
| 22561 | 0003573 | | | BRU LIST1 | | | BAS15780 |
| 22562 | 1420001 | | | RET2 | | SET UP SPB TO POP UP RETURN AND RETURN | BAS15790 |
| 22563 | 2600204 | | | LDA ZPOP | | | 15800 |
| 22564 | 0003623 | | | BRU RET2-3 | | | 15810 |
| 22565 | 2602561 | | STOP | LDA XR01 | | BACK OFF OBJECT POINTER | 15820 |
| 22566 | 0000001 | | | SUR N3 | | | 15830 |
| 22567 | 0203165 | | | STA XR01 | | | 15840 |
| 22568 | 0300001 | | | RXL 1 | 0 | ONLY 1 END IN REG BASIC | 15850 |
| 22569 | 0417777 | | | BRU STOP1 | | | 15860 |
| 22570 | 2602576 | | | LDA ENDF | | | 15870 |
| 22571 | 0005024 | | | BZP | | | 15880 |
| 22572 | 2514002 | | | BRU STOP2 | | | 15890 |
| 22573 | 2602602 | STOP1 | | LDA ZOUT | | SET UP BRU OUTPUT | 15900 |
| 22574 | 0003611 | | | STA P | 1 | | BAS15910 |
| 22575 | 0327724 | | | INX 1 | 1 | | BAS15920 |
| 22576 | 1420001 | | | BRU LIST1 | | | BAS15930 |
| 22577 | 2600204 | STOP2 | | LDX GN | 3 | COMPILE STOP IN TESTED AS GOTO 10000 | 15940 |
| 22578 | 0665001 | | | LDA GN | | | 15950 |
| 22579 | 0005001 | | | ADD GLOC | | | 15960 |
| 22580 | 0103465 | | | ADD ZBRU | | | 15970 |
| 22581 | 0103571 | | | STA P | 1 | | 15980 |
| 22582 | 0327724 | | | INX 1 | 1 | | 15990 |
| 22583 | 1420001 | | | LDA TENT+1 | | | 16000 |
| 22584 | 0002720 | | | LDA G | 3 | | 16010 |
| 22585 | 0366750 | | | INX 1 | 3 | | 16020 |
| 22586 | 1460001 | | | STX GN | 3 | | 16030 |
| 22587 | 1765001 | | | BRU LIST1 | | COMPILE NEXT LINE | 16040 |
| 22588 | 2600204 | REM | | | | | 16050 |
| 22589 | 0764372 | TIMCHK | SPS | INST | 3 | CONVERT COUNT OF SECONDS TO BINARY | 16060 |
| 22590 | 2604416 | | | BRU INST8 | | | 16070 |
| 22591 | 2504006 | | | MAQ | | | 16080 |
| 22592 | 1503170 | | | MPY N6 | | CONVERT TO SIXTHS | 16090 |
| 22593 | 2504005 | | | XAQ | | | 16100 |
| 22594 | 0307141 | | | STA TREF | | | 16110 |
| 22595 | 2600204 | | | BRU LIST1 | | | 16120 |
| 22596 | | | | NAM | | | 16130 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000037

| | | | SJT | ARITH COMPILES ARITHMETIC EXPRESSIONS | |
|-------|---------|--------|------------|---------------------------------------|----------|
| 22624 | 1704721 | ARITH | REM | | 16140 |
| 22625 | 1724722 | | STX ARR | 0 | 16150 |
| 22626 | 1764724 | | STX ARR+1 | 1 | BAS16160 |
| 22627 | 0002725 | | STX ARR+3 | 3 | BAS16170 |
| 22628 | 0306366 | | LDA MIN | | BAS16180 |
| 22629 | 0002726 | | STA ARU | | BAS16190 |
| 22630 | 0304725 | | LDA ZERO | | BAS16200 |
| 22631 | 0305041 | | STA 1 | | BAS16210 |
| 22632 | 0300001 | | STA ARUL | | BAS16220 |
| 22633 | 0304725 | | STA T+9 | | BAS16230 |
| 22634 | 0305041 | | STA 0 | | BAS16240 |
| 22635 | 0300000 | | STX 0 | | BAS16250 |
| 22636 | 1744730 | | STX ARTP+2 | 2 | BAS16260 |
| 22637 | 0045060 | ARTH1 | LDA L | 2 | BAS16270 |
| 22638 | 0300003 | | STA 3 | | 16280 |
| 22639 | 0063362 | | LDA S3 | 3 | 16290 |
| 22640 | 2102726 | | CAB ZERO | | 16300 |
| 22641 | 2602656 | | BRU ARTH2 | | 16310 |
| 22642 | 2602654 | | BRU ARTH17 | | 16320 |
| 22643 | 2103164 | | CAB TWO | | 16330 |
| 22644 | 2602670 | | BRU ARTH11 | | 16340 |
| 22645 | 2602672 | | BRU ARTH12 | | 16350 |
| 22646 | 2103166 | | CAR N4 | | 16360 |
| 22647 | 2602711 | | BRU ARTH13 | | 16370 |
| 22648 | 2602722 | | BRU ARTH15 | | 16380 |
| 22649 | 2602700 | | BRU ART120 | | 16390 |
| 22650 | 1440001 | ARTH17 | INX 1 | 2 | BAS16400 |
| 22651 | 2602637 | | BRU ARTH1 | | BAS16410 |
| 22652 | 0000000 | ARTH2 | LDA 0 | | BAS16420 |
| 22653 | 2516002 | | BNZ | | BAS16430 |
| 22654 | 2603247 | | BRU ARER | | BAS16440 |
| 22655 | 0045060 | | LDA L | 2 | BAS16450 |
| 22656 | 0304726 | | STA ARTP | | BAS16460 |
| 22657 | 1744727 | | STX ARTP+1 | 2 | BAS16470 |
| 22658 | 0003247 | | LDA N31 | | BAS16480 |
| 22659 | 0325060 | | STA L | 2 | BAS16490 |
| 22660 | 0644730 | ARTH3 | LDX ARTP+2 | 2 | BAS16500 |
| 22661 | 2602744 | | BRU ARTH4 | | BAS16510 |
| 22662 | 2602744 | | ARTH11 | INX 1 0 | BAS16520 |
| 22663 | 1400001 | | BRU ARTH17 | | BAS16530 |
| 22664 | 2602654 | | ARTH12 | LDA 0 | BAS16540 |
| 22665 | 0000000 | | SUR ONE | | BAS16550 |
| 22666 | 0203163 | | STA 0 | | BAS16560 |
| 22667 | 0300000 | | BMI | | 16570 |
| 22668 | 2514001 | | BRU ARER | | 16580 |
| 22669 | 2603247 | | BRU ARTH17 | | BAS16590 |
| 22670 | 2602654 | | ART120 | INX 1 2 | 16600 |
| 22671 | 1440001 | | LDA L | 2 | 16610 |
| 22672 | 0045060 | | SUS N24 | | 16620 |
| 22673 | 0203230 | | RZE | | 16630 |
| 22674 | 2514002 | | BRU ARTH18 | | 16640 |
| 22675 | 2602716 | | SUR N14 | | 16650 |
| 22676 | 0203207 | | SZE | | 16660 |
| 22677 | 2514002 | | BRU ARTH18 | | 16670 |
| 22678 | 2602716 | | | | |

COMPILE TIME GENERAL PURPOSE ROUTINES

000038

| | | | | |
|-------|---------|------------------|---|----------|
| 22710 | 2602637 | BRU ARTH1 | | 16680 |
| 22711 | 0000000 | ARTH13 LDA 0 | | BAS16690 |
| 22712 | 2514002 | BZP | | BAS16700 |
| 22713 | 2602656 | BRU ARTH2 | | BAS16710 |
| 22714 | 1440001 | INX 1 | 2 | BAS16720 |
| 22715 | 2602637 | BRU ARTH1 | | BAS16730 |
| 22716 | 0000002 | ARTH12 LDA 2 | | BAS16740 |
| 22717 | 0203163 | SUR ONE | | BAS16750 |
| 22720 | 0300002 | STA 2 | | BAS16760 |
| 22721 | 2602656 | BRU ARTH2 | | BAS16770 |
| 22722 | 1440001 | ARTH15 INX 1 | 2 | BAS16780 |
| 22723 | 0045060 | LDA L | 2 | BAS16790 |
| 22724 | 0203345 | SUR N51 | | BAS16800 |
| 22725 | 2516002 | BNZ | | BAS16810 |
| 22726 | 2602637 | BRU ARTH1 | | BAS16820 |
| 22727 | 1440001 | INX 1 | 2 | 16830 |
| 22730 | 0045060 | LDA L | 2 | 16840 |
| 22731 | 0203225 | SUR N21 | | 16850 |
| 22732 | 2516002 | BNZ | | 16860 |
| 22733 | 2602740 | BRU **5 | | 16870 |
| 22734 | 0000002 | LDA 2 | | 16880 |
| 22735 | 0203164 | SUR TWO | | 16890 |
| 22736 | 0300002 | STA 2 | | 16900 |
| 22737 | 2602656 | BRU ARTH2 | | 16910 |
| 22740 | 0000002 | LDA 2 | | 16920 |
| 22741 | 0203163 | SUR ONE | | 16930 |
| 22742 | 0300002 | STA 2 | | 16940 |
| 22743 | 2602637 | BRU ARTH1 | | 16950 |
| 22744 | 1744730 | ARTH4 STX ARTP+2 | 2 | BAS16960 |
| 22745 | 0002726 | LDA ZERO | | BAS16970 |
| 22746 | 0304731 | STA ARTP+3 | | BAS16980 |
| 22747 | 0045060 | LDA L | 2 | BAS16990 |
| 22750 | 0203357 | SUR N61 | | BAS17000 |
| 22751 | 2514002 | BZP | | BAS17010 |
| 22752 | 2602755 | BRU **3 | | BAS17020 |
| 22753 | 0602726 | LDX ZERO | 0 | BAS17030 |
| 22754 | 2602756 | BRU **2 | | BAS17040 |
| 22755 | 0603163 | LDX ONE | 0 | BAS17050 |
| 22756 | 1440001 | ARTH21 INY 1 | 2 | BAS17060 |
| 22757 | 0045060 | LDA L | 2 | BAS17070 |
| 22760 | 0300003 | STA 3 | | 17080 |
| 22761 | 0063162 | LDA S | 3 | 17090 |
| 22762 | 2516001 | SPL | | 17100 |
| 22763 | 2602756 | BRU ARTH21 | | 17110 |
| 22764 | 2103635 | CAR NM6 | | 17120 |
| 22765 | 2602756 | BRU ARTH21 | | 17130 |
| 22766 | 2603050 | BRU ARTH24 | | 17140 |
| 22767 | 2103636 | CAR NM6 | | 17150 |
| 22770 | 2603044 | BRU ARTH23 | | 17160 |
| 22771 | 2603042 | BRU ARTH22 | | 17170 |
| 22772 | 0517777 | RXH 1 | 0 | 17180 |
| 22773 | 2602755 | BRU ARTH21 | | 17190 |
| 22774 | 0103164 | ADD TWO | | 17200 |
| 22775 | 2514001 | PMT | | 17210 |

COMPILE TIME GENERAL PURPOSE ROUTINES

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| | | | |
|-------|---------|-------------------|----------|
| 22776 | 2603026 | BRU ARTH25 | 17220 |
| 22777 | 0000002 | LDA 2 | BAS17230 |
| 23000 | 0203163 | SUR ONE | BAS17240 |
| 23001 | 0300002 | STA 2 | BAS17250 |
| 23002 | 0045060 | LDA L 2 | BAS17260 |
| 23003 | 0203225 | SUR N21 | BAS17270 |
| 23004 | 2514002 | BZP | BAS17280 |
| 23005 | 2603010 | BRU *+3 | BAS17290 |
| 23006 | 1440001 | INX 1 2 | BAS17300 |
| 23007 | 2603026 | BRU ARTH25 | BAS17310 |
| 23010 | 0000002 | LDA 2 | BAS17320 |
| 23011 | 0203163 | SUR ONE | BAS17330 |
| 23012 | 0300002 | STA 2 | BAS17340 |
| 23013 | 0045060 | LDA L 2 | BAS17350 |
| 23014 | 0203203 | SUR TEN | BAS17360 |
| 23015 | 2514001 | BMI | BAS17370 |
| 23016 | 2603024 | BRU ARTH26 | BAS17380 |
| 23017 | 0203212 | SUR N17 | BAS17390 |
| 23020 | 2514002 | BZP | BAS17400 |
| 23021 | 2603024 | BRU ARTH26 | BAS17410 |
| 23022 | 1440002 | INX 2 2 | BAS17420 |
| 23023 | 2603026 | BRU ARTH25 | BAS17430 |
| 23024 | 1440002 | ARTH24 INX 2 2 | BAS17440 |
| 23025 | 2602756 | BRU ARTH21 | BAS17450 |
| 23026 | 0045060 | ARTH25 LDA L 2 | BAS17460 |
| 23027 | 0300003 | STA 3 | BAS17470 |
| 23030 | 0063162 | LDA S 3 | BAS17480 |
| 23031 | 0103172 | ADD N8 | BAS17490 |
| 23032 | 2510001 | SRA 1 | BAS17500 |
| 23033 | 0204731 | SUR ARTP+3 | BAS17510 |
| 23034 | 2514001 | BMI | BAS17520 |
| 23035 | 2602756 | BRU ARTH21 | BAS17530 |
| 23036 | 0104731 | ADD ARTP+3 | BAS17540 |
| 23037 | 0304731 | STA ARTP+3 | BAS17550 |
| 23040 | 1744732 | STX ARTP+4 2 | BAS17560 |
| 23041 | 2602756 | BRU ARTH21 | BAS17570 |
| 23042 | 1400001 | ARTH22 INX 1 0 | BAS17580 |
| 23043 | 2602756 | BRU ARTH21 | BAS17590 |
| 23044 | 0000000 | ARTH23 LDA 0 | BAS17600 |
| 23045 | 0203163 | SUR ONE | BAS17610 |
| 23046 | 0300000 | STA 0 | BAS17620 |
| 23047 | 2602756 | BRU ARTH21 | BAS17630 |
| 23050 | 0004731 | ARTH24 LDA ARTP+3 | BAS17640 |
| 23051 | 2514002 | BZP | BAS17650 |
| 23052 | 2603070 | BRU ARTH27 | BAS17660 |
| 23053 | 0644732 | LDX ARTP+4 2 | BAS17670 |
| 23054 | 0004725 | LDA ARUL | BAS17680 |
| 23055 | 0103163 | ADD ONE | BAS17690 |
| 23056 | 0304725 | STA ARUL | BAS17700 |
| 23057 | 0300003 | STA 3 | BAS17710 |
| 23060 | 0000002 | LDA 2 | BAS17720 |
| 23061 | 0103163 | ADD ONE | BAS17730 |
| 23062 | 0366366 | STA ARU 3 | BAS17740 |
| 23063 | 0000003 | LDA 3 | 17750 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000040

| | | | |
|-------|---------|---------------------|----------|
| 23064 | 2512001 | SLA 1 | BAS17760 |
| 23065 | 0103476 | ADD EXULOC | BAS17770 |
| 23066 | 0304723 | STA ARR+2 | BAS17780 |
| 23067 | 0045060 | LDA L 2 | BAS17790 |
| 23070 | 0300003 | STA 3 | BAS17800 |
| 23071 | 0002726 | LDA ZERO | BAS17810 |
| 23072 | 0263162 | SUB S 3 | BAS17820 |
| 23073 | 0102710 | ADD UPBIT | 17830 |
| 23074 | 0300003 | STA 3 | BAS17840 |
| 23075 | 2663203 | BRU Q3 3 | BAS17850 |
| 23076 | 0644730 | APTH27 LDX ARTP+2 2 | BAS17860 |
| 23077 | 0045060 | LDA L 2 | BAS17870 |
| 23100 | 0203357 | SUR N61 | BAS17880 |
| 23101 | 2516002 | BNZ | BAS17890 |
| 23102 | 2603105 | BRU ARTH28 | BAS17900 |
| 23103 | 1440001 | INX 1 2 | BAS17910 |
| 23104 | 2602744 | BRU ARTH4 | BAS17920 |
| 23105 | 0045060 | ARTH28 LDA L 2 | BAS17930 |
| 23106 | 0300003 | STA 3 | BAS17940 |
| 23107 | 0063162 | LDA S 3 | BAS17950 |
| 23110 | 0203203 | SUR TEN | BAS17960 |
| 23111 | 2514001 | BMI | BAS17970 |
| 23112 | 2603146 | BRU ARTH29 | BAS17980 |
| 23113 | 1440001 | INX 1 2 | BAS17990 |
| 23114 | 0045060 | LDA L 2 | BAS18000 |
| 23115 | 0203357 | SUB N61 | BAS18010 |
| 23116 | 2514002 | BZF | BAS18020 |
| 23117 | 2603333 | BRU ARTH6 | BAS18030 |
| 23120 | 0045060 | LDA L 2 | BAS18040 |
| 23121 | 0300003 | STA 3 | BAS18050 |
| 23122 | 0063162 | LDA S 3 | BAS18060 |
| 23123 | 0203203 | SUR TEN | BAS18070 |
| 23124 | 2514001 | BMI | BAS18080 |
| 23125 | 2603140 | BRU ARTH30 | BAS18090 |
| 23126 | 1440002 | INX 2 2 | 18100 |
| 23127 | 1744730 | STX ARTP+2 2 | 18110 |
| 23130 | 0045060 | LDA L 2 | 18120 |
| 23131 | 0203357 | SUR N61 | 18130 |
| 23132 | 2516002 | BNZ | 18140 |
| 23133 | 2603247 | BRU ARER | 18150 |
| 23134 | 0000002 | LDA 2 | 18160 |
| 23135 | 0203164 | SUR TWO | 18170 |
| 23136 | 0300002 | STA 2 | 18180 |
| 23137 | 2603562 | BRU ARTH40 | BAS18190 |
| 23140 | 0000002 | APTH30 LDA 2 | BAS18200 |
| 23141 | 0203163 | SUR ONE | BAS18210 |
| 23142 | 0300002 | STA 2 | BAS18220 |
| 23143 | 0764421 | SPR VAR10 3 | BAS18230 |
| 23144 | 2603247 | BRU ARER | BAS18240 |
| 23145 | 2603255 | BRU ARTH5 | BAS18250 |
| 23146 | 0063162 | ARTH29 LDA S 3 | BAS18260 |
| 23147 | 0103153 | ADD ONE | BAS18270 |
| 23150 | 2516002 | BNZ | BAS18280 |
| 23151 | 2603155 | BRU ARTH31 | BAS18290 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000041:

| | | | | |
|---|---------|------------------|---|----------|
| 23152 | 1440001 | INX 1 | 2 | BAS18300 |
| 23153 | 1744730 | STX ARTP+2 | 2 | BAS18310 |
| 23154 | 2603077 | BRU ARTH27+1 | | BAS18320 |
| 23155 | 0103163 | ARTH31 ADD ONE | | BAS18330 |
| 23156 | 2514002 | BZS | | BAS18340 |
| 23157 | 2603163 | BRU ARTH32 | | BAS18350 |
| 23160 | 0763713 | SPB CON | 3 | BAS18360 |
| 23161 | 2603247 | BRU ARER | | BAS18370 |
| 23162 | 2603255 | BRU ARTH5 | | BAS18380 |
| 23163 | 1440001 | ARTH32 INX 1 | 2 | BAS18390 |
| 23164 | 0003534 | LDA ZAR | | BAS18400 |
| 23165 | 0326140 | STA ARP | 1 | BAS18410 |
| 23166 | 1420001 | INX 1 | 1 | BAS18420 |
| 23167 | 0003535 | LDA ZAR+1 | | BAS18430 |
| 23170 | 0326140 | STA ARP | 1 | BAS18440 |
| 23171 | 1420001 | INX 1 | 1 | BAS18450 |
| 23172 | 0003536 | LDA ZAR+2 | | BAS18460 |
| 23173 | 0326140 | STA ARP | 1 | BAS18470 |
| 23174 | 1420001 | INX 1 | 1 | BAS18480 |
| 23175 | 2602744 | BRU ARTH4 | | BAS18490 |
| 23176 | 0004723 | ARTH33 LDA ARP+2 | | BAS18500 |
| 23177 | 0103572 | ADD ZSPB1 | | BAS18510 |
| 23200 | 0326140 | STA ARP | 1 | BAS18520 |
| 23201 | 1420001 | INX 1 | 1 | BAS18530 |
| 23202 | 2602666 | BRU ARTH3 | | BAS18540 |
| 23203 | 2603204 | Q3 BRU *+1 | | BAS18550 |
| 23204 | 2603211 | BRU Q31 | | BAS18560 |
| 23205 | 2603220 | BRU Q32 | | BAS18570 |
| 23206 | 2603231 | BRU Q33 | | BAS18580 |
| 23207 | 2603223 | BRU Q34 | | BAS18590 |
| 23210 | 2603237 | BRU Q35 | | BAS18600 |
| 23211 | 0004723 | Q31 LDA ARR+2 | | BAS18610 |
| 23212 | 0103601 | ADD ZFAD | | BAS18620 |
| 23213 | 0326140 | Q31A STA ARP | 1 | BAS18630 |
| 23214 | 1420001 | INX 1 | 1 | BAS18640 |
| 23215 | 0003247 | LDA N31 | | BAS18650 |
| 23216 | 0345060 | STA L | 2 | BAS18660 |
| 23217 | 2602666 | BRU ARTH3 | | BAS18670 |
| 23220 | 0004723 | Q32 LDA ARR+2 | | BAS18680 |
| 23221 | 0103602 | ADD ZFSU | | BAS18690 |
| 23222 | 2603213 | BRU Q31A | | BAS18700 |
| 23223 | 0004723 | Q34 LDA ARR+2 | | BAS18710 |
| 23224 | 0103473 | ADD ZFDV | | BAS18720 |
| 23225 | 0326140 | STA ARP | 1 | 18730 |
| 23226 | 1420001 | INX 1 | 1 | 18740 |
| 23227 | 0003621 | LDA ZCQX | | 18750 |
| 23230 | 2603213 | BRU Q31A | | BAS18760 |
| 23231 | 0004723 | Q33 LDA ARR+2 | | BAS18770 |
| 23232 | 0103472 | ADD ZFMP | | BAS18780 |
| 23233 | 0326140 | STA ARP | 1 | BAS18790 |
| 23234 | 1420001 | INX 1 | 1 | BAS18800 |
| 23235 | 0003537 | LDA ZAR+3 | | BAS18810 |
| 23236 | 2603213 | BRU Q31A | | BAS18820 |
| 23237 | 0003627 | Q35 LDA PCWSPB | | 18830 |
| \$\$\$\$\$ IN 225 SET UP XAQ, MAQ A [BACKWARDS] | | | | |
| Q35 HANDLES THE UP ARROW OPERATOR | | | | |

COMPILE TIME GENERAL PURPOSE ROUTINES

000042

| | | | | | |
|-------|---------|----------------|---|---|----------|
| | | REM | | A**B IS COMPILED AS A [FLD A], MAQ A, FLD B, SPB POWER 1 | 18840 |
| 23240 | 0326140 | STA ARP | 1 | | 18850 |
| 23241 | 0003574 | LDA ZFLD | | | 18860 |
| 23242 | 0104723 | ADD ARR+2 | | | 18870 |
| 23243 | 0326141 | STA ARP+1 | 1 | | 18880 |
| 23244 | 0003537 | LDA ZAR+3 | | MAQA | 18890 |
| 23245 | 1420002 | INY 2 | 1 | | 18900 |
| 23246 | 2603213 | BRU Q31A | | | 18910 |
| 23247 | 0604721 | ARER LDX ARR | 0 | | 18920 |
| 23250 | 0624722 | LDX ARR+1 | 1 | | BAS18930 |
| 23251 | 0664724 | LDX ARR+3 | 3 | | BAS18940 |
| 23252 | 1005012 | DLD ERMov | | | BAS18950 |
| 23253 | 2427537 | MOV LAB3 | | | 18960 |
| 23254 | 2604760 | BRU ERROR | | | 18970 |
| 23255 | 0664725 | ARTH5 LDX ARUL | 3 | | 18980 |
| 23256 | 0045060 | LDA L | 2 | | BAS18990 |
| 23257 | 0203360 | SUR N62 | | | 19000 |
| 23260 | 2516002 | ANZ | | | 19010 |
| 23261 | 2603264 | BRU **3 | | | 19020 |
| 23262 | 1440001 | INX 1 | 2 | | 19030 |
| 23263 | 2603255 | BRU **5 | | | 19040 |
| 23264 | 0103247 | ADD N31 | | | 19050 |
| 23265 | 2516002 | BNZ | | | 19060 |
| 23266 | 2603247 | BRU ARER | | | 19070 |
| 23267 | 0056366 | ARTH50 LDA ARU | 3 | | 19080 |
| 23270 | 2514001 | BMI | | | BAS19090 |
| 23271 | 2603304 | BRU ARTH51 | | | BAS19100 |
| 23272 | 0300002 | STA 2 | | | BAS19110 |
| 23273 | 0002725 | LDA MIN | | | BAS19120 |
| 23274 | 0366366 | STA ARU | 3 | | BAS19130 |
| 23275 | 0000003 | LDA 3 | | | BAS19140 |
| 23276 | 2512001 | SLA 1 | | | BAS19150 |
| 23277 | 0103476 | ADD EXULOC | | | BAS19160 |
| 23300 | 0103576 | ADD ZFST | | | BAS19170 |
| 23301 | 0326140 | STA ARP | 1 | | BAS19180 |
| 23302 | 1420001 | INX 1 | 1 | | BAS19190 |
| 23303 | 2602744 | BRU ARTH4 | | | BAS19200 |
| 23304 | 0000003 | ARTH51 LDA 3 | | | BAS19210 |
| 23305 | 0203163 | SUR ONE | | | BAS19220 |
| 23306 | 0300003 | STA 3 | | | BAS19230 |
| 23307 | 2516001 | BPL | | | BAS19240 |
| 23310 | 2603267 | BRU ARTH50 | | | BAS19250 |
| 23311 | 0000001 | LDA 1 | | | BAS19260 |
| 23312 | 0203163 | SUR ONE | | | BAS19270 |
| 23313 | 0300003 | STA 3 | | | BAS19280 |
| 23314 | 0604721 | LDX ARR | 0 | | BAS19290 |
| 23315 | 0624722 | LDX ARR+1 | 1 | | BAS19300 |
| 23316 | 0066140 | ARTH52 LDA ARP | 3 | | BAS19310 |
| 23317 | 0327724 | STA P | 1 | | BAS19320 |
| 23320 | 1420001 | INX 1 | 1 | | BAS19330 |
| 23321 | 0000003 | LDA 3 | | | BAS19340 |
| 23322 | 0203163 | SUR ONE | | | BAS19350 |
| 23323 | 0300003 | STA 3 | | | BAS19360 |
| | | | | | BAS19370 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000043

| | | | |
|-------|---------|----------------|----------|
| 23324 | 2516001 | SPL | BAS19380 |
| 23325 | 2603316 | BRU ARTH52 | BAS19390 |
| 23326 | 0664724 | LDX ARR+3 | BAS19400 |
| 23327 | 0644727 | LDX ARTP+1 | BAS19410 |
| 23330 | 0004726 | LDA ARTP | BAS19420 |
| 23331 | 0345060 | STA L | BAS19430 |
| 23332 | 2660002 | BRU 2 | BAS19440 |
| 23333 | 0063162 | ARTH6 LDA S | BAS19450 |
| 23334 | 0203203 | SUB TEN | BAS19460 |
| 23335 | 2103232 | CAR N26 | 19470 |
| 23336 | 2603350 | BRU ARTH6B | 19480 |
| 23337 | 2603341 | BRU **2 | 19490 |
| 23340 | 2603350 | BRU ARTH6B | 19500 |
| 23341 | 0007107 | LDA TFLAG | 19510 |
| 23342 | 2514002 | BZP | 19520 |
| 23343 | 2604465 | BRU VAR13 | 19530 |
| 23344 | 0005024 | LDA ENDF | 19540 |
| 23345 | 2514002 | BZP VAR13 | 19550 |
| 23346 | 2604465 | | |
| 23347 | 0003232 | ARTH6A LDA N26 | 19560 |
| 23350 | 2512001 | SLA 1 | 19570 |
| 23351 | 0300003 | STA 3 | BAS19580 |
| 23352 | 0103475 | ADR DIMLOC | BAS19590 |
| 23353 | 0304733 | STA ARTP+5 | BAS19600 |
| 23354 | 0067636 | LDA DIMX | BAS19610 |
| 23355 | 2514001 | BMI | BAS19620 |
| 23356 | 2603470 | BRU ARTH60 | BAS19630 |
| 23357 | 1460001 | INX 1 | BAS19640 |
| 23360 | 0067636 | LDA DIMX | BAS19650 |
| 23361 | 2003474 | EXT MAR | BAS19660 |
| 23362 | 0203163 | SUR ONE | .19670 |
| 23363 | 2514002 | BZP | BAS19680 |
| 23364 | 2603452 | BRU ARTH61 | BAS19690 |
| 23365 | 0602726 | LDX ZERO | BAS19700 |
| 23366 | 0045060 | ARTH62 LDA L | BAS19710 |
| 23367 | 0203357 | SUR N61 | BAS19720 |
| 23370 | 2516002 | BNZ | BAS19730 |
| 23371 | 2603375 | BRU ARTH63 | BAS19740 |
| 23372 | 1400001 | INX 1 | BAS19750 |
| 23373 | 1440001 | ARTH65 INX 1 | BAS19760 |
| 23374 | 2603366 | BRU ARTH62 | BAS19770 |
| 23375 | 0203163 | ARTH63 SUR ONE | BAS19780 |
| 23376 | 2516002 | BNZ | BAS19790 |
| 23377 | 2603464 | BRU ARTH64 | BAS19800 |
| 23400 | 0000000 | LDA 0 | BAS19810 |
| 23401 | 0203163 | SUR ONE | BAS19820 |
| 23402 | 0300000 | STA 0 | BAS19830 |
| 23403 | 2603373 | BRU ARTH65 | BAS19840 |
| 23404 | 0103165 | ARTH64 ADD N3 | BAS19850 |
| 23405 | 2514002 | BZP | BAS19860 |
| 23406 | 2603413 | BRU ARTH66 | BAS19870 |
| 23407 | 0103244 | ADD N28 | BAS19880 |
| 23410 | 2514002 | BZP | BAS19890 |
| 23411 | 2603247 | BRU ARER | BAS19900 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000044

| | | | |
|-------|---------|-------------------|----------|
| 23412 | 2603373 | BRU ARTH65 | BAS19910 |
| 23413 | 0000000 | ARTH66 LDA 0 | BAS19920 |
| 23414 | 0203163 | SUB ONE | BAS19930 |
| 23415 | 2516002 | BNZ | BAS19940 |
| 23416 | 2603373 | BRU ARTH65 | BAS19950 |
| 23417 | 0003247 | ARTH67 LDA N31 | BAS19960 |
| 23420 | 0345060 | STA L 2 | BAS19970 |
| 23421 | 0004725 | LDA ARUL | BAS19980 |
| 23422 | 0103163 | ADD ONE | BAS19990 |
| 23423 | 0304725 | STA ARUL | BAS20000 |
| 23424 | 0300003 | STA 3 | BAS20010 |
| 23425 | 0000002 | LDA 2 | BAS20020 |
| 23426 | 0103163 | ADD ONE | BAS20030 |
| 23427 | 0366366 | STA ARU 3 | BAS20040 |
| 23430 | 0000003 | LDA 3 | BAS20050 |
| 23431 | 2512001 | SLA 1 | BAS20060 |
| 23432 | 0103476 | ADD EXULOC | BAS20070 |
| 23433 | 0304723 | STA ARR+2 | BAS20080 |
| 23434 | 0003543 | LDA ZAR+7 | BAS20090 |
| 23435 | 0326140 | STA ARP 1 | BAS20100 |
| 23436 | 1420001 | INX 1 1 | BAS20110 |
| 23437 | 0004733 | LDA ARTP+5 | BAS20120 |
| 23440 | 0103471 | ADD ZDLD | BAS20130 |
| 23441 | 0326140 | STA ARP 1 | BAS20140 |
| 23442 | 1420001 | INX 1 1 | BAS20150 |
| 23443 | 0003546 | LDA ZAR+10 | BAS20160 |
| 23444 | 0326140 | STA ARP 1 | BAS20170 |
| 23445 | 1420001 | INX 1 1 | BAS20180 |
| 23446 | 0004723 | LDA ARR+2 | BAS20190 |
| 23447 | 0103471 | ADD ZDLD | BAS20200 |
| 23450 | 0326140 | STA ARP 1 | BAS20210 |
| 23451 | 2603460 | BRU ARTH68 | BAS20220 |
| 23452 | 0003542 | ARTH61 LDA ZAR+6 | BAS20230 |
| 23453 | 0326140 | STA ARP 1 | BAS20240 |
| 23454 | 1420001 | INX 1 1 | BAS20250 |
| 23455 | 0004733 | LDA ARTP+5 | BAS20260 |
| 23456 | 0103471 | ADD ZDLD | BAS20270 |
| 23457 | 0326140 | STA ARP 1 | BAS20280 |
| 23460 | 1420001 | ARTH65 INX 1 1 | BAS20290 |
| 23461 | 0003547 | LDA ZAR+11 | BAS20300 |
| 23462 | 0326140 | STA ARP 1 | BAS20310 |
| 23463 | 1420001 | INX 1 1 | BAS20320 |
| 23464 | 0004730 | LDA ARTP+2 | BAS20330 |
| 23465 | 0103164 | ADD TWO | BAS20340 |
| 23466 | 0300002 | STA 2 | BAS20350 |
| 23467 | 2602744 | BRU ARTH4 | BAS20360 |
| 23470 | 0602726 | ARTH60 LDX ZERO 0 | 20370 |
| 23471 | 0045060 | ARTH70 LDA L 2 | BAS20380 |
| 23472 | 0203360 | SUB N62 | BAS20390 |
| 23473 | 2516002 | BNZ | BAS20400 |
| 23474 | 2603504 | BRU ARTH71 | BAS20410 |
| 23475 | 0000000 | LDA 0 | BAS20420 |
| 23476 | 0203163 | SUB ONE | BAS20430 |
| 23477 | 0300000 | STA 0 | BAS20440 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000045

| | | | | |
|-------|---------|----------------|---|----------|
| 23500 | 2514002 | BZE | | BAS20450 |
| 23501 | 2603544 | BRU ARTH72 | | BAS20460 |
| 23502 | 1440001 | INX 1 | 2 | BAS20470 |
| 23503 | 2603471 | BRU ARTH70 | | BAS20480 |
| 23504 | 0103163 | ARTH71 ADD ONE | | BAS20490 |
| 23505 | 2516002 | BNZ | | BAS20500 |
| 23506 | 2603512 | BRU ARTH73 | | BAS20510 |
| 23507 | 1440001 | INX 1 | 0 | BAS20520 |
| 23510 | 1440001 | ARTH74 INX 1 | 2 | BAS20530 |
| 23511 | 2603471 | BRU ARTH70 | | BAS20540 |
| 23512 | 0103164 | ARTH73 ADD TWO | | BAS20550 |
| 23513 | 2516002 | BNZ | | BAS20560 |
| 23514 | 2603537 | BRU ARTH75 | | BAS20570 |
| 23515 | 0000000 | LDA 0 | | BAS20580 |
| 23516 | 0203163 | SUR ONE | | BAS20590 |
| 23517 | 2516002 | BNZ | | BAS20600 |
| 23520 | 2603537 | BRU ARTH75 | | BAS20610 |
| 23521 | 0003204 | LDA N11 | | 20620 |
| 23522 | 2512011 | SLA 9 | | 20630 |
| 23523 | 0103204 | ADD N11 | | 20640 |
| 23524 | 0367637 | STA DIMX+1 | 3 | 20650 |
| 23525 | 0005022 | LDA VAVAIL | | 20660 |
| 23526 | 0203640 | SUB N242 | | 20670 |
| 23527 | 0305022 | STA VAVAIL | | 20680 |
| 23530 | 0103164 | ADD TWO | | 20690 |
| 23531 | 0367636 | STA DIMX | 3 | 20700 |
| 23532 | 0003464 | LDA VLAST | | 20710 |
| 23533 | 0205022 | SUB VAVAIL | | 20720 |
| 23534 | 2516001 | BPL | | 20730 |
| 23535 | 2603247 | BRU ARER1 | | BAS20740 |
| 23536 | 2603417 | BRU ARTH67 | | BAS20750 |
| 23537 | 0045060 | ARTH75 LDA L | 2 | BAS20760 |
| 23540 | 0203247 | SUR N31 | | BAS20770 |
| 23541 | 2514002 | BZE | | BAS20780 |
| 23542 | 2603247 | BRU ARER | | BAS20790 |
| 23543 | 2603510 | BRU ARTH74 | | BAS20800 |
| 23544 | 0003204 | ARTH72 LDA N11 | | 20810 |
| 23545 | 2512011 | SLA 9 | | BAS20820 |
| 23546 | 0103163 | ADD ONE | | BAS20830 |
| 23547 | 0367637 | STA DIMX+1 | 3 | 20840 |
| 23550 | 0005022 | LDA VAVAIL | | 20850 |
| 23551 | 0203226 | SUR N22 | | 20860 |
| 23552 | 0305022 | STA VAVAIL | | 20870 |
| 23553 | 0103164 | ADD TWO | | 20880 |
| 23554 | 0367636 | STA DIMX | 3 | 20890 |
| 23555 | 0003464 | LDA VLAST | | 20900 |
| 23556 | 0205022 | SUB VAVAIL | | 20910 |
| 23557 | 2516001 | BPL ARER | | 20920 |
| 23560 | 2603247 | | | |
| 23561 | 2603452 | BRU ARTH61 | | 20930 |
| 23562 | 1440001 | ARER1 EQU ARER | | BAS20940 |
| 23563 | 0045060 | ARTH40 INX 1 | 2 | BAS20950 |
| 23564 | 0300003 | LDA L | 2 | BAS20960 |
| | | STA 3 | | BAS20970 |

COMPILE TIME GENERAL PURPOSE ROUTINES

| | | | | |
|-------|---------|------------|-----------|----------|
| 23565 | 0063162 | LDA S | 3 | BAS20980 |
| 23566 | 0203203 | SUR TEN | | BAS20990 |
| 23567 | 2514001 | BMI | | BAS21000 |
| 23570 | 2603247 | BRU ARER | | BAS21010 |
| 23571 | 0000002 | LDA 2 | | BAS21020 |
| 23572 | 0203164 | SUR TWO | | BAS21030 |
| 23573 | 0300002 | STA 2 | | BAS21040 |
| 23574 | 0045060 | LDA L | 2 | BAS21050 |
| 23575 | 0203212 | SUR N17 | | BAS21060 |
| 23576 | 2514002 | BZE | | BAS21070 |
| 23577 | 2603631 | BRU Q2A | | BAS21080 |
| 23600 | 0203164 | SUR TWO | | BAS21090 |
| 23601 | 2514002 | BZE | | BAS21100 |
| 23602 | 2603643 | BRU Q2C | | BAS21110 |
| 23603 | 0203164 | SUR TWO | | BAS21120 |
| 23604 | 2514002 | BZE | | BAS21130 |
| 23605 | 2603645 | BRU Q2E | | BAS21140 |
| 23606 | 0203163 | SUR ONE | | 21150 |
| 23607 | 2514002 | BZE | | 21160 |
| 23610 | 2603647 | BRU Q2F | | 21170 |
| 23611 | 0203165 | SUR N3 | | 21180 |
| 23612 | 2514002 | BZE | | 21190 |
| 23613 | 2603672 | BRU Q2I | | 21200 |
| 23614 | 0203203 | SUR TEN | | 21210 |
| 23615 | 2514002 | BZF | | BAS21220 |
| 23616 | 2603674 | BRU Q2L | | BAS21230 |
| 23617 | 0203170 | SUR N6 | | BAS21240 |
| 23620 | 2514002 | BZE | | BAS21250 |
| 23621 | 2603676 | BRU Q2R | | BAS21260 |
| 23622 | 0203203 | SUR TEN | | BAS21270 |
| 23623 | 2514002 | BZE | | BAS21280 |
| 23624 | 2603711 | BRU Q2T | | BAS21290 |
| 23625 | 0103163 | ADD ONE | | BAS21300 |
| 23626 | 2514002 | BZE | | BAS21310 |
| 23627 | 2603700 | BRU Q2S | | BAS21320 |
| 23630 | 2603247 | BRU ARER | | BAS21330 |
| 23631 | 1440001 | Q2A | 2 | BAS21340 |
| 23632 | 0045060 | INX 1 | 2 | BAS21350 |
| 23633 | 0203213 | LDA L | 2 | BAS21360 |
| 23634 | 2514002 | SUR N18 | | BAS21370 |
| 23635 | 2603640 | BZE | | BAS21380 |
| 23636 | 0003553 | BRU ++3 | | BAS21390 |
| 23637 | 2603641 | LDA QATN | | BAS21400 |
| 23640 | 0003552 | BRU Q2EX | | BAS21410 |
| 23641 | 0304723 | LDA QABS | | BAS21420 |
| 23642 | 2603176 | Q2EX | STA ARP+2 | BAS21430 |
| 23643 | 0003554 | BRU ARTH33 | | BAS21440 |
| 23644 | 2603641 | Q2C | LDA QCOS | BAS21450 |
| 23645 | 0003555 | BRU Q2EX | | BAS21460 |
| 23646 | 2603641 | Q2E | LDA QEPR | BAS21470 |
| 23647 | 1440002 | BRU Q2EX | INX 2 | 21480 |
| 23650 | 0045060 | INX 2 | LDA L | 21490 |
| 23651 | 0300003 | 2 | STA 3 | 21500 |
| 23652 | 0063162 | 2 | LDA S | 21510 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000047

| | | | |
|-------|---------|--------------|----------|
| 23653 | 0203203 | SUB TEN | 21520 |
| 23654 | 2514001 | BMI | 21530 |
| 23655 | 2603247 | BRU ARER | 21540 |
| 23656 | 0300003 | STA 3 | 21550 |
| 23657 | 0067602 | LDA FNT 3 | 21560 |
| 23660 | 2516002 | BNZ | 21570 |
| 23661 | 2603664 | BRU **3 | 21580 |
| 23662 | 0002725 | LDA MIN | 21590 |
| 23663 | 0367602 | STA FNT 3 | 21600 |
| 23664 | 3000003 | LDA 3 | 21610 |
| 23665 | 0103477 | ADD FNTLOC | 21620 |
| 23666 | 0103613 | ADD ZSPB0 | 21630 |
| 23667 | 0326140 | STA ARP 1 | 21640 |
| 23670 | 1420001 | INX 1 1 | 21650 |
| 23671 | 2602666 | BRU ARTH3 | 21660 |
| 23672 | 0003556 | Q2I LDA QINT | 21670 |
| 23673 | 2603641 | BRU Q2EX | 21680 |
| 23674 | 0003557 | Q2L LDA QLOG | 21690 |
| 23675 | 2603641 | BRU Q2EX | BAS21700 |
| 23676 | 0003560 | Q2R LDA QRND | BAS21710 |
| 23677 | 2603641 | BRU Q2EX | BAS21720 |
| 23700 | 1440001 | Q2S INX 1 2 | BAS21730 |
| 23701 | 0045060 | LDA L 2 | BAS21740 |
| 23702 | 0203231 | SUB N25 | BAS21750 |
| 23703 | 2514002 | BZE | BAS21760 |
| 23704 | 2603707 | BRU **3 | BAS21770 |
| 23705 | 0003562 | LDA QSQR | BAS21780 |
| 23706 | 2603641 | BRU Q2EX | BAS21790 |
| 23707 | 0003561 | LDA QSIN | BAS21800 |
| 23710 | 2603641 | BRU Q2EX | BAS21810 |
| 23711 | 0003563 | Q2T LDA QTAN | BAS21820 |
| 23712 | 2603641 | BRU Q2EX | BAS21830 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000048

| | | | | | | | |
|-------|---------|--------|------------|---|--|--|----------|
| | | | EJT | | | | 21840 |
| | | | REM | | | | 21850 |
| | | | REM | | | | 21860 |
| | | | REM | | | | 21870 |
| | | | REM | | | LATEST CHANGE CHECKS TO AVOID DUPLICATIO | 021880 |
| | | | REM | | | OF CONSTANTS | 21890 |
| 23713 | 1765040 | CON | STX T+8 | 3 | | | BAS21900 |
| 23714 | 0662726 | | LDX ZERO | 3 | | | BAS21910 |
| 23715 | 0045060 | CON2 | LDA L | 2 | | | BAS21920 |
| 23716 | 0203203 | | SUS TEN | | | | BAS21930 |
| 23717 | 2514001 | | BMI | | | | BAS21940 |
| 23720 | 2604012 | | BRU CON1 | | | | BAS21950 |
| 23721 | 0203212 | | SUB N17 | | | | BAS21960 |
| 23722 | 2514002 | | BZE | | | | BAS21970 |
| 23723 | 2604012 | | BRU CON1 | | | | BAS21980 |
| 23724 | 0045060 | | LDA L | 2 | | | BAS21990 |
| 23725 | 0203225 | | SUB N21 | | | | BAS22000 |
| 23726 | 2514002 | | BZE | | | | BAS22010 |
| 23727 | 2604017 | | BRU CON3 | | | | BAS22020 |
| 23730 | 2603734 | | BRU CON5 | | | | BAS22030 |
| 23731 | 0000002 | CON4 | LDA 2 | | | | BAS22040 |
| 23732 | 0203163 | | SUR ONE | | | | BAS22050 |
| 23733 | 0300002 | | STA 2 | | | | BAS22060 |
| 23734 | 0000003 | CON5 | LDA 3 | | | | BAS22070 |
| 23735 | 2514002 | | BZE | | | | 22080 |
| 23736 | 2603247 | | BRU ARER | | | | 22090 |
| 23737 | 0203163 | | SUR ONE | | | | BAS22100 |
| 23740 | 0304745 | | STA FLTN | | | | BAS22110 |
| 23741 | 0764040 | | SPR FLT | 3 | | | BAS22120 |
| 23742 | 2604010 | | BRU CON6 | | | | BAS22130 |
| 23743 | 0664741 | | LDX EXLN | 3 | | LOAD XR03 WITH CONSTANT TABLE POINTER | 22140 |
| 23744 | 1764736 | | STX CXTEM | 3 | | SAVE LAST LOCATION OF TABLE | 22150 |
| 23745 | 3366522 | | FST EXL | 3 | | STORE CONSTANT AT END OF TABLE | 22160 |
| 23746 | 1066522 | | DLD EXL | 3 | | LOAD TARGET NUMBER | 22170 |
| 23747 | 0662726 | | LDX ZERO | 3 | | RESET INDEX | 22180 |
| 23750 | 2266522 | CON5A | DCR EXL | 3 | | SEARCH TABLE | 22190 |
| 23751 | 2603753 | | BRU **2 | | | | 22200 |
| 23752 | 2603766 | | BRU CONHIT | | | UNDER PRESENT SYSTEM NEGATIVE CONSTANTS | 22210 |
| | | | REM | | | ARE NEVER STORED IN THE EXL TABLE, | 22220 |
| | | | REM | | | WHEN THIS IS FIXED THE ABOVE BRU CONHIT | 22230 |
| | | | REM | | | SHOULD BE CHANGED TO A BRU**3 TO CHECK | 22240 |
| | | | REM | | | THE SIGN OF THE MANTISSA (DAMN DCB) | 22250 |
| 23753 | 1460002 | | INX 2 | 3 | | NOT FOUND | 22260 |
| 23754 | 2603753 | | BRU CON5A | | | | 22270 |
| 23755 | 1066522 | | DLD EXL | 3 | | LOAD POSSIBLE HIT | 22280 |
| 23756 | 2504005 | | XAO | | | | 22290 |
| 23757 | 2516001 | | BPL | | | COMPARE SIGNS WITH TARGET | 22300 |
| 23760 | 2603764 | | BRU **4 | | | | 22310 |
| 23761 | 2516721 | | BAR BPL | 7 | | | 22320 |
| 23762 | 2604004 | | BRU CON5B | | | FALSE ALARM | 22330 |
| 23763 | 2603766 | | BRU **3 | | | POSITIVE FIND | 22340 |
| 23764 | 2514721 | | BAR RMI | 7 | | | 22350 |
| 23765 | 2604004 | | BRU CON5B | | | FALSE ALARM | 22360 |
| 23766 | 0000003 | CONHIT | LDA XR03 | | | LOAD LOCATION OF HIT | 22370 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000049

| | | | | |
|-------|---------|----------------|-------------------------------------|----------|
| 23767 | 0204736 | SUB CXTEM | COMPARE WITH LAST LOCATION OF TABLE | 22380 |
| 23770 | 2516002 | BNZ *+5 | NOT NECESSARY TO INCREMENT POINTER | 22390 |
| 23771 | 2603775 | | | |
| 23772 | 0004741 | LDA EXLN | INCREMENT POINTER | 22400 |
| 23773 | 0103164 | ADD TWO | | 22410 |
| 23774 | 0304741 | STA EXLN | | 22420 |
| 23775 | 0000003 | LDA XR03 | GENERATE FLOATING LOAD | 22430 |
| 23776 | 0103467 | ADD LLOC | | 22440 |
| 23777 | 0103574 | ADD ZFLD | | 22450 |
| 24000 | 0326140 | STA ARP | STORE IN ARITH COMPILING AREA | 22460 |
| 24001 | 1420001 | INX 1 | STEP ARITH OBJECT POINTER | 22470 |
| 24002 | 0665040 | LDX T+8 | RESETRE EXIT | 22480 |
| 24003 | 2660002 | BRU 2 | EXIT | 22490 |
| 24004 | 3304734 | CON5B FST CTEM | RESTORE ARG TO AX | 22500 |
| 24005 | 1004734 | DLD CTEM | | 22510 |
| 24006 | 1460002 | INX 2 | | 22520 |
| 24007 | 2603750 | BRU CON5A | | 22530 |
| 24010 | 0665040 | CON6 LDX T+8 | | BAS22540 |
| 24011 | 2660001 | BRU 1 | | BAS22550 |
| 24012 | 0045060 | CON1 LDA L | | BAS22560 |
| 24013 | 0364760 | STA FLTA | | BAS22570 |
| 24014 | 1440001 | INX 1 | | BAS22580 |
| 24015 | 1460001 | INX 1 | | BAS22590 |
| 24016 | 2603715 | BRU CON2 | | BAS22600 |
| 24017 | 1440001 | CON3 INX 1 | | BAS22610 |
| 24020 | 0045060 | LDA L | | BAS22620 |
| 24021 | 0203332 | SUB N40 | | BAS22630 |
| 24022 | 2514002 | BZE | | BAS22640 |
| 24023 | 2603731 | BRU CON4 | | BAS22650 |
| 24024 | 0003225 | LDA N21 | | BAS22660 |
| 24025 | 0364760 | STA FLTA | | BAS22670 |
| 24026 | 1460001 | INX 1 | | BAS22680 |
| 24027 | 0045060 | CON8 LDA L | | BAS22690 |
| 24030 | 0364760 | STA FLTA | | BAS22700 |
| 24031 | 1440001 | INX 1 | | BAS22710 |
| 24032 | 1460001 | INX 1 | | BAS22720 |
| 24033 | 0045060 | LDA L | | BAS22730 |
| 24034 | 0203203 | SUB TEN | | BAS22740 |
| 24035 | 2514001 | BMI | | BAS22750 |
| 24036 | 2604027 | BRU CON8 | | BAS22760 |
| 24037 | 2603734 | BRU CON5 | | BAS22770 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000050

| | | | | | |
|-------|---------|------|------------|--------------------------------------|-------|
| | | | EJT | CON Converts BCD numbers to NFLPOINT | 22780 |
| 24040 | 1000000 | FLT | REM | | 22790 |
| 24041 | 1304746 | | DLD 0 | | 22800 |
| 24042 | 1000002 | | DST FLTR | | 22810 |
| 24043 | 1304750 | | DLD 2 | | 22820 |
| 24044 | 3500004 | | DST FLTR+2 | | 22830 |
| 24045 | 0002726 | | RIN | | 22840 |
| 24046 | 0300001 | | LDA ZERO | | 22850 |
| 24047 | 0300002 | | STA 1 | | 22860 |
| 24050 | 0300003 | | STA 2 | | 22870 |
| 24051 | 0304742 | | STA 3 | | 22880 |
| 24052 | 0304743 | | STA FLTC | | 22890 |
| 24053 | 0304752 | | STA FLTD | | 22900 |
| 24054 | 0304756 | | STA FLTS | | 22910 |
| 24055 | 0304757 | | STA FLTX | | 22920 |
| 24056 | 0004760 | | STA FLTX+1 | | 22930 |
| 24057 | 0203211 | | LDA FLTA | | 22940 |
| 24060 | 2514002 | | SUR N16 | | 22950 |
| 24061 | 2604067 | | BZE | | 22960 |
| 24062 | 0203211 | | BRU FLT2 | | 22970 |
| 24063 | 2516002 | | SUR N16 | | 22980 |
| 24064 | 2604074 | | BNZ | | 22990 |
| 24065 | 0002725 | | BRU FLT3 | | 23000 |
| 24066 | 0304752 | | LDA MIN | | 23010 |
| 24067 | 1003522 | FLT2 | STA FLTS | | 23020 |
| 24070 | 2404761 | | DLD FLTM | | 23030 |
| 24071 | 0004745 | | MOV FLTA+1 | | 23040 |
| 24072 | 0203163 | | LDA FLTN | | 23050 |
| 24073 | 0304745 | | SUR ONE | | 23060 |
| 24074 | 0064760 | FLT3 | STA FLTN | | 23070 |
| 24075 | 0203203 | | LDA FLTA 3 | | 23080 |
| 24076 | 2514001 | | SUR TEN | | 23090 |
| 24077 | 2604116 | | BMI | | 23100 |
| 24100 | 0203212 | | BRU FLT4 | | 23110 |
| 24101 | 2516002 | | SUR N17 | | 23120 |
| 24102 | 2604136 | | BNZ | | 23130 |
| 24103 | 0004743 | | BRU FLT10 | | 23140 |
| 24104 | 2516002 | | LDA FLTD | | 23150 |
| 24105 | 2604164 | | BNZ | | 23160 |
| 24106 | 0002725 | | BRU FILTER | | 23170 |
| 24107 | 0304743 | | LDA MIN | | 23180 |
| 24110 | 0000003 | FLT6 | STA FLTD | | 23190 |
| 24111 | 0204745 | | LDA 3 | | 23200 |
| 24112 | 2516001 | | SUR FLTN | | 23210 |
| 24113 | 2604136 | | BPL | | 23220 |
| 24114 | 1460001 | | BRU FLT10 | | 23230 |
| 24115 | 2604074 | | INX 1 3 | | 23240 |
| 24116 | 1440001 | FLT4 | BRU FLT3 | | 23250 |
| 24117 | 0557766 | | INX 1 2 | | 23260 |
| 24120 | 2604164 | | BXH 10 2 | | 23270 |
| 24121 | 0004743 | | BRU FILTER | | 23280 |
| 24122 | 2514001 | | LDA FLTD | | 23290 |
| 24123 | 1420001 | | RMI | | 23300 |
| | | | INX 1 1 | | 23310 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000051

| | | | |
|-------|---------|------------------|----------|
| 24124 | 1004756 | DLD FLTX | 23320 |
| 24125 | 2512202 | SLD 2 | 23330 |
| 24126 | 1104756 | DAD FLTX | 23340 |
| 24127 | 2512201 | SLD 1 | 23350 |
| 24130 | 1304756 | DST FLTX | 23360 |
| 24131 | 0064760 | LDA FLTA 3 | 23370 |
| 24132 | 2504006 | MAD | 23380 |
| 24133 | 1104756 | DAD FLTX | 23390 |
| 24134 | 1304756 | DST FLTX | 23400 |
| 24135 | 2604110 | BRU FLT6 | 23410 |
| 24136 | 0002726 | FLT10 LDA ZERO | 23420 |
| 24137 | 0200001 | SUB 1 | 23430 |
| 24140 | 0304742 | STA FLTC | 23440 |
| 24141 | 1004756 | DLD FLTX | 23450 |
| 24142 | 2514002 | BZR | 23460 |
| 24143 | 2604161 | BRU FLT8 | 23470 |
| 24144 | 2513223 | DNO 19 | 23480 |
| 24145 | 0304756 | STA FLTX | 23490 |
| 24146 | 0000000 | LDA 0 | 23500 |
| 24147 | 0103223 | ADD N19 | 23510 |
| 24150 | 0300000 | STA 0 | 23520 |
| 24151 | 0004756 | LDA FLTX | 23530 |
| 24152 | 2511010 | FLT9 SRD 8 | 23540 |
| 24153 | 1304756 | DST FLTX | 23550 |
| 24154 | 0000000 | LDA 0 | 23560 |
| 24155 | 2512013 | SLA 11 | 23570 |
| 24156 | 0104756 | ADD FLTX | 23580 |
| 24157 | 0304756 | STA FLTX | 23590 |
| 24160 | 2604173 | BRU FLT5 | 23600 |
| 24161 | 2504005 | FLT8 XAO | 23610 |
| 24162 | 2513223 | DNO 19 | 23620 |
| 24163 | 2604152 | BRU FLT9 | 23630 |
| 24164 | 1004746 | FLTER DLD FLTR | 23640 |
| 24165 | 1300000 | DST 0 | 23650 |
| 24166 | 1004750 | DLD FLTR+2 | 23660 |
| 24167 | 1300002 | DST 2 | 23670 |
| 24170 | 3500004 | RIN | 23680 |
| 24171 | 3100001 | SET TRPMODE | 23690 |
| 24172 | 2660001 | BRU 1 3 | 23700 |
| 24173 | 2504012 | FLT5 NOP | 23710 |
| 24174 | 0004742 | LDA FLTC | 23720 |
| 24175 | 2516002 | BNZ | 23730 |
| 24176 | 2604362 | BRU FLT80 | 23740 |
| 24177 | 0000003 | LDA 3 | BAS23750 |
| 24200 | 0204745 | SUB FLTN | BAS23760 |
| 24201 | 2516001 | BPL | BAS23770 |
| 24202 | 2604211 | BRU FLTEX | BAS23780 |
| 24203 | 0064760 | FLT82 LDA FLTA 3 | 23790 |
| 24204 | 0203225 | SUB N21 | 23800 |
| 24205 | 2516002 | BNZ | 23810 |
| 24206 | 2604164 | BRU FILTER | 23820 |
| 24207 | 1460001 | INX 1 3 | BAS23830 |
| 24210 | 2604227 | BRU FLT20 | BAS23840 |
| 24211 | 0004752 | FLTEX LDA FLTS | BAS23850 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000052

| | | | | |
|-------|---------|------------------|--|----------|
| 24212 | 2514001 | BMI | | BAS23860 |
| 24213 | 2604224 | BRU FLT12 | | BAS23870 |
| 24214 | 3004756 | FLD FLTX | | BAS23880 |
| 24215 | 1004746 | FLT13 DLD FLTR | | 23890 |
| 24216 | 1300000 | DST 0 | | 23900 |
| 24217 | 1004750 | DLD FLTR*2 | | 23910 |
| 24220 | 1300002 | DST 2 | | 23920 |
| 24221 | 3500004 | RIN | | 23930 |
| 24222 | 3100001 | SET TRPMODE | | 23940 |
| 24223 | 2660002 | BRU 2 3 | | BAS23950 |
| 24224 | 3001402 | FLT12 FLD FZERO | | 23960 |
| 24225 | 3204756 | FSU FLTX | | BAS23970 |
| 24226 | 2604215 | BRU FLT13 | | BAS23980 |
| 24227 | 0064760 | FLT20 LDA FLTA 3 | | BAS23990 |
| 24230 | 0203203 | SUR TEN | | BAS24000 |
| 24231 | 2514001 | BMI | | BAS24010 |
| 24232 | 2604245 | BRU FLT21 | | BAS24020 |
| 24233 | 0064760 | LDA FLTA 3 | | BAS24030 |
| 24234 | 0203211 | SUR N16 | | BAS24040 |
| 24235 | 2514002 | BZE | | BAS24050 |
| 24236 | 2604244 | BRU FLT22 | | BAS24060 |
| 24237 | 0064760 | LDA FLTA 3 | | BAS24070 |
| 24240 | 0203250 | SUR N32 | | BAS24080 |
| 24241 | 2514002 | BZE | | BAS24090 |
| 24242 | 2604250 | BRU FLT23 | | BAS24100 |
| 24243 | 2604164 | BRU FLTER | | BAS24110 |
| 24244 | 1460001 | FLT22 INX 1 3 | | BAS24120 |
| 24245 | 0002726 | FLT21 LDA ZERO | | BAS24130 |
| 24246 | 0304753 | STA FLTS*1 | | BAS24140 |
| 24247 | 2604253 | BRU FLT24 | | BAS24150 |
| 24250 | 0002725 | FLT23 LDA MIN | | BAS24160 |
| 24251 | 0304753 | STA FLTS*1 | | BAS24170 |
| 24252 | 1460001 | FLT24 INX 1 3 | | BAS24180 |
| 24253 | 0000003 | LDA 3 | | BAS24190 |
| 24254 | 0204745 | SUR FLTN | | BAS24200 |
| 24255 | 2514001 | BMI | | BAS24210 |
| 24256 | 2604333 | BRU FLT25 | | BAS24220 |
| 24257 | 2516002 | BNZ | | 24230 |
| 24260 | 2604164 | BRU FLTER | | 24240 |
| 24261 | 0064760 | LDA FLTA 3 | | BAS24250 |
| 24262 | 0304744 | STA FLTE | | BAS24260 |
| 24263 | 0000003 | FLT26 LDA 3 | | BAS24270 |
| 24264 | 0204745 | SUR FLTN | | BAS24280 |
| 24265 | 2514001 | BMI | | BAS24290 |
| 24266 | 2604164 | BRU FLTER | | BAS24300 |
| 24267 | 0004753 | LDA FLTS*1 | | 24310 |
| 24270 | 2514002 | BZE | | 24320 |
| 24271 | 2604302 | BRU FLT72 | | 24330 |
| 24272 | 0004742 | LDA FLTC | | 24340 |
| 24273 | 0204744 | SUR FLTE | | 24350 |
| 24274 | 0304744 | STA FLTE | | 24360 |
| 24275 | 2514001 | BMI | | 24370 |
| 24276 | 2604306 | BRU FLT73 | | 24380 |
| 24277 | 0002726 | LDA ZERO | | 24390 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000053

| | | | | | |
|-------|---------|-------|-------------|---|----------|
| 24300 | 0304753 | | STA FLTS+1 | | 24400 |
| 24301 | 2604312 | | BRU FLT70 | | 24410 |
| 24302 | 0004742 | FLT72 | LDA FLT0 | | 24420 |
| 24303 | 0104744 | | ADD FLTE | | 24430 |
| 24304 | 0304744 | | STA FLTE | | 24440 |
| 24305 | 2604275 | | BRU FLT74 | | 24450 |
| 24306 | 2504522 | FLT73 | NEG | | 24460 |
| 24307 | 0304744 | | STA FLTE | | 24470 |
| 24310 | 0002725 | | LDA MIN | | 24480 |
| 24311 | 0304753 | | STA FLTS+1 | | 24490 |
| 24312 | 0662726 | FLT70 | LDX ZERO | 3 | 24500 |
| 24313 | 1001400 | | DLD EXC | | BAS24510 |
| 24314 | 1304754 | | DST FLTT | | BAS24520 |
| 24315 | 0004744 | | LDA FLTE | | BAS24530 |
| 24316 | 2516000 | FLT29 | BEV | | BAS24540 |
| 24317 | 2604324 | | BRU FLT27 | | BAS24550 |
| 24320 | 3004754 | | FLD FLTT | | BAS24560 |
| 24321 | 3100002 | | MAQ | A | BAS24570 |
| 24322 | 3563500 | | FMP FLTW | 3 | BAS24580 |
| 24323 | 3304754 | | FST FLTT | | BAS24590 |
| 24324 | 0577764 | FLT27 | RXH 12 | 3 | BAS24600 |
| 24325 | 2604343 | | BRU FLT28 | | BAS24610 |
| 24326 | 1460002 | | INX 2 | 3 | BAS24620 |
| 24327 | 0004744 | | LDA FLTE | | BAS24630 |
| 24330 | 2510001 | | SRA 1 | | BAS24640 |
| 24331 | 0304744 | | STA FLTE | | BAS24650 |
| 24332 | 2504316 | | BRU FLT29 | | BAS24660 |
| 24333 | 0064760 | FLT25 | LDA FLTA | 3 | BAS24670 |
| 24334 | 2512002 | | SLA 2 | | BAS24680 |
| 24335 | 0164760 | | ADD FLTA | 3 | BAS24690 |
| 24336 | 2512001 | | SLA 1 | | BAS24700 |
| 24337 | 1460001 | | INX 1 | 3 | BAS24710 |
| 24340 | 0164760 | | ADD FLTA | 3 | BAS24720 |
| 24341 | 0304744 | | STA FLTE | | BAS24730 |
| 24342 | 2604263 | | BRU FLT26 | | BAS24740 |
| 24343 | 0004753 | FLT28 | LDA FLTS+1 | | BAS24750 |
| 24344 | 2514001 | | BMI | | BAS24760 |
| 24345 | 2604356 | | BRU FLT30 | | BAS24770 |
| 24346 | 3004756 | | FLD FLTX | | BAS24780 |
| 24347 | 3100002 | | MAQ | A | BAS24790 |
| 24350 | 3200001 | | SET NTPMODE | | 24800 |
| 24351 | 3504754 | | FMP FLTT | | BAS24810 |
| 24352 | 3304756 | | FST FLTX | | BAS24820 |
| 24353 | 2514725 | | BAR 800 | 7 | 24830 |
| 24354 | 2604164 | | BRU FILTER | | 24840 |
| 24355 | 2604211 | | BRU FLTEX | | BAS24850 |
| 24356 | 3004756 | FLT30 | FLD FLTX | | BAS24860 |
| 24357 | 3604754 | | FDV FLTT | | BAS24870 |
| 24360 | 3304756 | | FST FLTX | | BAS24880 |
| 24361 | 2604211 | | BRU FLTEX | | BAS24890 |
| 24362 | 0000003 | FLT80 | LDA 3 | | 24900 |
| 24363 | 0204745 | | SUB FLTN | | 24910 |
| 24364 | 2516001 | | BPL | | 24920 |
| 24365 | 2604367 | | BRU FLT81 | | 24930 |

TURN OFF TRAP INTERRUPT

CONSTANT OUT OF RANGE
GENERATE ERROR RETURN

COMPILE TIME GENERAL PURPOSE ROUTINES

000054

| | | | | | |
|-------|---------|-------|-------|-------|-------|
| 24366 | 2604203 | BRU | FLT82 | 24940 | |
| 24367 | 0004742 | FLT81 | LDA | FLT0 | 24950 |
| 24370 | 0304744 | | STA | FLT0 | 24960 |
| 24371 | 2604275 | | BRU | FLT74 | 24970 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000055

| | | | | |
|-------|---------|-------|-----------|----------|
| | | EJT | | 24980 |
| | | REM | | 24990 |
| | | REM | | 25000 |
| 24372 | 0045060 | INST | LDA L 2 | BAS25010 |
| 24373 | 0203203 | | SUR TEN | BAS25020 |
| 24374 | 2516001 | | BPL | BAS25030 |
| 24375 | 2604416 | | BRU INST8 | 25040 |
| 24376 | 0103203 | | ADD TEN | BAS25050 |
| 24377 | 0305003 | | STA INSTT | BAS25060 |
| 24400 | 1440001 | INST3 | INX 1 2 | BAS25070 |
| 24401 | 0045060 | | LDA L 2 | BAS25080 |
| 24402 | 0203203 | | SUR TEN | BAS25090 |
| 24403 | 2516001 | | BPL | BAS25100 |
| 24404 | 2604414 | | BRU INST2 | BAS25110 |
| 24405 | 0005003 | | LDA INSTT | BAS25120 |
| 24406 | 2512002 | | SLA 2 | BAS25130 |
| 24407 | 0105003 | | ADD INSTT | BAS25140 |
| 24410 | 2512001 | | SLA 1 | BAS25150 |
| 24411 | 0145060 | | ADD L 2 | BAS25160 |
| 24412 | 0305003 | | STA INSTT | BAS25170 |
| 24413 | 2604400 | | BRU INST3 | BAS25180 |
| 24414 | 0005003 | INST2 | LDA INSTT | BAS25190 |
| 24415 | 2660002 | | BRU 2 3 | BAS25200 |
| 24416 | 1005012 | INST8 | DLD ERMQV | 25210 |
| 24417 | 2427555 | | MOV LAB5 | 25220 |
| 24420 | 2604760 | | BRU ERROR | 25230 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000056

| | | | | | |
|-------|---------|-------|-------------|---------------------------------|----------|
| | | | EJT | | 25240 |
| | | | REM | | 25250 |
| | | | REM | | 25260 |
| | | | REM | | 25270 |
| 24421 | 1765011 | VAR10 | STX STX3 | 3 | 25280 |
| 24422 | 0045060 | | LDA L | 2 | BAS25290 |
| 24423 | 0300003 | | STA 3 | | BAS25300 |
| 24424 | 0063162 | | LDA S | 3 | BAS25310 |
| 24425 | 2514001 | | BMI | | BAS25320 |
| 24426 | 2604537 | | BRU VARER | | BAS25330 |
| 24427 | 0203203 | | SUR TEN | | BAS25340 |
| 24430 | 2514001 | | BMI | | BAS25350 |
| 24431 | 2604537 | | BRU VARER | | BAS25360 |
| 24432 | 0305040 | | STA T+8 | | BAS25370 |
| 24433 | 2103232 | | CAR N26 | | 25380 |
| 24434 | 2604444 | | BRU VAR11-1 | | 25390 |
| 24435 | 2604436 | | BRU *+1 | | 25400 |
| 24436 | 0007107 | | LDA TFLAG | | 25410 |
| 24437 | 2514002 | | BZE | | 25420 |
| 24440 | 2604465 | | BRU VAR13 | | 25430 |
| 24441 | 0005024 | | LDA ENDF | | 25440 |
| 24442 | 2514002 | | BZE VAR13 | | 25450 |
| 24443 | 2604465 | | | | |
| 24444 | 1440001 | | INX 1 | 2 | BAS25460 |
| 24445 | 0004740 | VAR11 | LDA ENDL | | BAS25470 |
| 24446 | 0200002 | | SUR 2 | | BAS25480 |
| 24447 | 2514001 | | BMI | | BAS25490 |
| 24450 | 2604471 | | BRU VAR2 | | BAS25500 |
| 24451 | 0045060 | | LDA L | 2 | BAS25510 |
| 24452 | 0203203 | | SUR TEN | | BAS25520 |
| 24453 | 2516001 | | BPL | | BAS25530 |
| 24454 | 2604471 | | BRU VAR2 | | BAS25540 |
| 24455 | 0045060 | | LDA L | 2 | BAS25550 |
| 24456 | 0305037 | | STA T+7 | | BAS25560 |
| 24457 | 1440001 | | INX 1 | 2 | BAS25570 |
| 24460 | 0045060 | | LDA L | 2 | 25580 |
| 24461 | 0203203 | | SUR TEN | | 25590 |
| 24462 | 2514001 | | BMI | | 25600 |
| 24463 | 2604537 | | BRU VARER | | 25610 |
| 24464 | 2604473 | | BRU VAR3 | | BAS25620 |
| 24465 | 0604721 | VAR13 | LDX ARR | 0 | 25630 |
| 24466 | 0624722 | | LDX ARR+1 | 1 | 25640 |
| 24467 | 0664724 | | LDX ARR+3 | 3 | 25650 |
| 24470 | 2604537 | | BRU VARER | | 25660 |
| 24471 | 0003203 | VAR2 | LDA TEN | | BAS25670 |
| 24472 | 0305037 | | STA T+7 | | BAS25680 |
| 24473 | 0005040 | VAR3 | LDA T+8 | | BAS25690 |
| 24474 | 2504004 | | LQA | | 25700 |
| 24475 | 0005037 | | LDA T+7 | | 25710 |
| 24476 | 1503204 | | MPY N11 | | BAS25720 |
| 24477 | 2504001 | | LAQ | | 25730 |
| 24500 | 0300003 | | STA XR03 | | 25740 |
| 24501 | 0077326 | | LDA VARTAB | 3 | 25750 |
| 24502 | 2516002 | | RNZ | | 25760 |
| | | | | CHECK TO SEE IF ALREADY DEFINED | |

COMPILE TIME GENERAL PURPOSE ROUTINES

000057

| | | | | |
|-------|---------|-----------------|----------------------------------|----------|
| 24503 | 2604511 | BRU **6 | | 25770 |
| 24504 | 0005022 | LDA VAVAIL | ALREADY DEFINED | 25780 |
| 24505 | 0377326 | STA VARTAB 3 | DEFINE NOW | 25790 |
| 24506 | 0203164 | SUB TWO | STORE DEF IN TABLE | 25800 |
| 24507 | 0305022 | STA VAVAIL | DECREMENT AVAIL SPACE POINTER | 25810 |
| 24510 | 0103164 | ADD TWO | | 25820 |
| 24511 | 0305040 | STA T+8 | RESET A TO LOCATION OF VARIABLE | BAS25830 |
| 24512 | 0005041 | LDA T+9 | | BAS25840 |
| 24513 | 2514001 | RMI | | BAS25850 |
| 24514 | 2604531 | BRU VAR4 | | BAS25860 |
| 24515 | 2516002 | BNZ | | 25870 |
| 24516 | 2604525 | BRU VAR32 | | 25880 |
| 24517 | 0003574 | LDA ZFLD | | BAS25890 |
| 24520 | 0105040 | ADD T+8 | | BAS25900 |
| 24521 | 0326140 | STA ARP 1 | | BAS25910 |
| 24522 | 1420001 | INX 1 | | BAS25920 |
| 24523 | 0665011 | LDX STX3 3 | | BAS25930 |
| 24524 | 2660002 | BRU 2 | | BAS25940 |
| 24525 | 0005040 | VAR32 LDA T+8 | | 25950 |
| 24526 | 0305031 | STA T+1 | | 25960 |
| 24527 | 0665011 | LDX STX3 3 | | 25970 |
| 24530 | 2660002 | BRU 2 | | 25980 |
| 24531 | 0003576 | VAR4 LDA ZFST | | BAS25990 |
| 24532 | 0105040 | ADD T+8 | | BAS26000 |
| 24533 | 0327724 | STA P 1 | | BAS26010 |
| 24534 | 1420001 | INY 1 | | BAS26020 |
| 24535 | 0665016 | LDX VAR7 3 | | BAS26030 |
| 24536 | 2660002 | BRU 2 | | BAS26040 |
| 24537 | 1005012 | VARER DLD ERMOV | | 26050 |
| 24540 | 2427573 | MOV LAB7 | | 26060 |
| 24541 | 2604760 | BRU ERROR | | 26070 |
| 24542 | 1765015 | VAR STX VART 0 | | 26080 |
| 24543 | 1765016 | STX VART+1 3 | | BAS26090 |
| 24544 | 0045060 | LDA L 2 | | BAS26100 |
| 24545 | 0300003 | STA 3 | | BAS26110 |
| 24546 | 0063162 | LDA S 3 | | BAS26120 |
| 24547 | 0203203 | SUP TEN | | BAS26130 |
| 24550 | 2514001 | RMI | | BAS26140 |
| 24551 | 2604537 | BRU VARER1 | | BAS26150 |
| 24552 | 0305040 | STA T+8 | | BAS26160 |
| 24553 | 2103232 | CAP N26 | CHECK FOR \$ | 26170 |
| 24554 | 2604565 | BRU VAR1 | | 26180 |
| 24555 | 2604557 | BRU **2 | | 26190 |
| 24556 | 2604565 | BRU VAR1 | | 26200 |
| 24557 | 0007107 | LDA TFLAG | \$ NOT LEGAL IN REGULAR BASIC | 26210 |
| 24560 | 2514002 | BZE | | 26220 |
| 24561 | 2604537 | BRU VARER | | 26230 |
| 24562 | 0005024 | LDA ENDF | | 26240 |
| 24563 | 2514002 | BZE VARER | ILLEGAL VARIABLE FOR TESTED PROG | 26250 |
| 24564 | 2604537 | | | |
| 24565 | 1440001 | VAR1 INX 1 2 | | 26260 |
| 24566 | 0045060 | LDA L 2 | | BAS26270 |
| 24567 | 0203357 | SUB N61 | | BAS26280 |
| 24570 | 2514002 | BZE | | BAS26290 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000058

| | | | |
|-------|---------|------------------|----------|
| 24571 | 2604574 | BRU VAR20 | BAS26300 |
| 24572 | 0665015 | LDX VART+1 3 | BAS26310 |
| 24573 | 2604445 | BRU VAR11 | BAS26320 |
| | 24537 | VARER1 EQU VARER | 26330 |
| 24574 | 0603163 | VAR20 LDX ONE 0 | BAS26340 |
| 24575 | 0002726 | LDA ZERO | BAS26350 |
| 24576 | 0305036 | STA T+6 | BAS26360 |
| 24577 | 1745017 | STX VART+2 2 | BAS26370 |
| 24500 | 0003550 | LDA ZAR+12 | BAS26380 |
| 24601 | 0327724 | STA P 1 | BAS26390 |
| 24602 | 1420001 | INX 1 1 | BAS26400 |
| 24603 | 1440001 | VAR21 INX 1 2 | BAS26410 |
| 24604 | 0045060 | LDA L 2 | BAS26420 |
| 24605 | 0203357 | SUR N61 | BAS26430 |
| 24606 | 2516002 | BNZ | BAS26440 |
| 24607 | 2604612 | BRU VAR22 | BAS26450 |
| 24610 | 1400001 | INX 1 0 | BAS26460 |
| 24611 | 2604603 | BRU VAR21 | BAS26470 |
| 24612 | 0203163 | VAR22 SUR ONE | BAS26480 |
| 24613 | 2516002 | BNZ | BAS26490 |
| 24614 | 2604623 | BRU VAR23 | BAS26500 |
| 24615 | 0000000 | LDA 0 | BAS26510 |
| 24616 | 0203163 | SUR ONE | BAS26520 |
| 24617 | 0300000 | STA 0 | BAS26530 |
| 24620 | 2514002 | BZE | BAS26540 |
| 24621 | 2604643 | BRU VAR24 | BAS26550 |
| 24622 | 2604603 | BRU VAR21 | BAS26560 |
| 24623 | 0103165 | VAR23 ADD N3 | BAS26570 |
| 24624 | 2514002 | BZE | BAS26580 |
| 24625 | 2604632 | BRU VAR25 | BAS26590 |
| 24626 | 0103244 | ADD N28 | BAS26600 |
| 24627 | 2514002 | BZE | BAS26610 |
| 24630 | 2604537 | BRU VARER1 | BAS26620 |
| 24631 | 2604603 | BRU VAR21 | BAS26630 |
| 24632 | 0000000 | VAR25 LDA 0 | BAS26640 |
| 24633 | 0203163 | SUR ONE | BAS26650 |
| 24634 | 2516002 | BNZ | BAS26660 |
| 24635 | 2604603 | BRU VAR21 | BAS26670 |
| 24636 | 0002725 | LDA MIN | BAS26680 |
| 24637 | 0305036 | STA T+6 | BAS26690 |
| 24640 | 0003247 | LDA N31 | BAS26700 |
| 24641 | 0345060 | STA L 2 | BAS26710 |
| 24642 | 2604603 | BRU VAR21 | BAS26720 |
| 24643 | 0003247 | VAR24 LDA N31 | BAS26730 |
| 24644 | 0345060 | STA L 2 | BAS26740 |
| 24645 | 0000002 | LDA 2 | BAS26750 |
| 24646 | 0103163 | ADD ONE | BAS26760 |
| 24647 | 0305020 | STA VART+3 | BAS26770 |
| 24650 | 0005040 | LDA T+8 | BAS26780 |
| 24651 | 2512001 | SLA 1 | BAS26790 |
| 24652 | 0300003 | STA 3 | BAS26800 |
| 24653 | 0103475 | ADD DIMLOC | BAS26810 |
| 24654 | 0305021 | STA VART+4 | BAS26820 |
| 24655 | 0067636 | LDA DIMX 3 | BAS26830 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000059

| | | | | |
|-------|---------|--------------------|--------------------------------------|----------|
| 24656 | 2516001 | BPL | | BAS26840 |
| 24657 | 2604713 | BRU VAR26 | | BAS26850 |
| 24660 | 0005036 | LDA T*6 | | BAS26860 |
| 24661 | 2514001 | BMI | | BAS26870 |
| 24662 | 2604704 | BRU VAR27 | | BAS26880 |
| 24663 | 0003204 | LDA N11 | | 26890 |
| 24664 | 2512011 | SLA 9 | | BAS26900 |
| 24665 | 0103163 | ADD ONE | | BAS26910 |
| 24666 | 0367637 | STA DIMX+1 3 | STORE SUBSCRIPT INFORMATION | 26920 |
| 24667 | 0005022 | LDA VAVAIL | CALCULATE NEW VALUE OF VAVAIL | 26930 |
| 24670 | 0203226 | SUR N22 | | 26940 |
| 24671 | 0305022 | STA VAVAIL | | 26950 |
| 24672 | 0103164 | ADD TWO | | 26960 |
| 24673 | 0367636 | STA DIMX 3 | CALCULATE LOCATION OF ARRAY | 26970 |
| 24674 | 1460002 | INX 2 3 | STORE IN TABLE | 26980 |
| 24675 | 0003464 | VAR28 LDA VLAST | | BAS26990 |
| 24676 | 0205022 | SUR VAVAIL | CHECK FOR BLATANT OVERFLOW | 27000 |
| 24677 | 2514001 | BMI | | 27010 |
| 24700 | 2604713 | BRU VAR26 | | BAS27020 |
| 24701 | 1005012 | VARER2 DLD ERMov | | 27030 |
| 24702 | 2427521 | MOV LAB1 | | 27040 |
| 24703 | 2604760 | BRU ERROR | | 27050 |
| 24704 | 0003204 | VAR27 LDA N11 | | 27060 |
| 24705 | 2512011 | SLA 9 | | 27070 |
| 24706 | 0103204 | ADD N11 | | 27080 |
| 24707 | 0367637 | STA DIMX+1 3 | | 27090 |
| 24710 | 0005022 | LDA VAVAIL | COMPUTE NEW POINTER AND LOCATION FOR | 27100 |
| 24711 | 0203640 | SUR N242 | STANDARD 10X10 ARAY [11X11] | 27110 |
| 24712 | 2604671 | BRU VAR28+4 | | 27120 |
| 24713 | 0645017 | VAR26 LDX VART+2 2 | | BAS27130 |
| 24714 | 1440001 | INX 1 2 | | BAS27140 |
| 24715 | 0762624 | SPR ARITH 3 | | BAS27150 |
| 24716 | 2604537 | BRU VARER1 | | BAS27160 |
| 24717 | 0003547 | LDA ZAR+11 | | BAS27170 |
| 24720 | 0327724 | STA P 1 | | BAS27180 |
| 24721 | 1420001 | INX 1 1 | | BAS27190 |
| 24722 | 0005036 | LDA T*6 | | BAS27200 |
| 24723 | 2514001 | BMI | | BAS27210 |
| 24724 | 2604744 | BRU VAR30 | | BAS27220 |
| 24725 | 0005021 | LDA VART+4 | | BAS27230 |
| 24726 | 0103471 | ADD ZDLD | | BAS27240 |
| 24727 | 0327724 | STA P 1 | | BAS27250 |
| 24730 | 1420001 | INX 1 1 | | BAS27260 |
| 24731 | 0003544 | LDA ZAR+8 | | BAS27270 |
| 24732 | 0327724 | STA P 1 | | BAS27280 |
| 24733 | 1420001 | VAR31 INX 1 1 | | BAS27290 |
| 24734 | 0045060 | LDA L 2 | | 27300 |
| 24735 | 0203247 | SUR N31 | | 27310 |
| 24736 | 2516002 | BNZ | | 27320 |
| 24737 | 2604537 | BRU VARER | | 27330 |
| 24740 | 0645020 | LDX VART+3 2 | | BAS27340 |
| 24741 | 0605015 | LDX VART 0 | | BAS27350 |
| 24742 | 0665016 | LDX VART+1 3 | | BAS27360 |
| 24743 | 2660002 | BRU 2 3 | | BAS27370 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000060

| | | | | | |
|-------|---------|-------|-------------|---|----------|
| 24744 | 1440001 | VAR30 | INX 1 | 2 | BAS27380 |
| 24745 | 0762624 | | SPR ARITH | 3 | BAS27390 |
| 24746 | 2604537 | | BRU VARER1 | | BAS27400 |
| 24747 | 0003551 | | LDA ZAR+13 | | BAS27410 |
| 24750 | 0327724 | | STA P | 1 | BAS27420 |
| 24751 | 1420001 | | INX 1 | 1 | BAS27430 |
| 24752 | 0005021 | | LDA VART+4 | | BAS27440 |
| 24753 | 0103471 | | ADD ZDLD | | BAS27450 |
| 24754 | 0327724 | | STA P | 1 | BAS27460 |
| 24755 | 1420001 | | INX 1 | 1 | BAS27470 |
| 24756 | 0003545 | | LDA ZAR+9 | | BAS27480 |
| 24757 | 2604732 | | BRU VAR31+1 | | BAS27490 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000061

| | | | | | |
|-------|---------|-------|-----------|---|-------|
| | | | EJT | | 27500 |
| | | | REM | | 27510 |
| | | | REM | | 27520 |
| 24760 | 0665012 | ERROR | LDX ERMOV | 3 | 27530 |
| 24761 | 1460007 | | INX 7 | 3 | 27540 |
| 24762 | 0003630 | | LDA ERIN | | 27550 |
| 24763 | 0360000 | | STA 0 | 3 | 27560 |
| 24764 | 0005060 | | LDA L | | 27570 |
| 24765 | 2512014 | | SLA 12 | | 27580 |
| 24766 | 0305030 | | STA T | | 27590 |
| 24767 | 0005061 | | LDA L+1 | | 27600 |
| 24770 | 0203203 | | SUB TEN | | 27610 |
| 24771 | 2516001 | | BPL | | 27620 |
| 24772 | 2605047 | | BRU ERR2 | | 27630 |
| 24773 | 0005061 | | LDA L+1 | | 27640 |
| 24774 | 2512006 | | SLA 6 | | 27650 |
| 24775 | 0105030 | | ADD T | | 27660 |
| 24776 | 0305030 | | STA T | | 27670 |
| 24777 | 0005052 | | LDA L+2 | | 27680 |
| 25000 | 0203203 | | SUB TEN | | 27690 |
| 25001 | 2516001 | | BPL | | 27700 |
| 25002 | 2605051 | | BRU ERR33 | | 27710 |
| 25003 | 0005062 | | LDA L+2 | | 27720 |
| 25004 | 0105030 | | ADD T | | 27730 |
| 25005 | 0360001 | | STA 1 | 3 | 27740 |
| 25006 | 0005063 | | LDA L+3 | | 27750 |
| 25007 | 0203203 | | SUB TEN | | 27760 |
| 25010 | 2516001 | | BPL | | 27770 |
| 25011 | 2605054 | | BRU ERR44 | | 27780 |
| 25012 | 0005063 | | LDA L+3 | | 27790 |
| 25013 | 2512014 | | SLA 12 | | 27800 |
| 25014 | 0305030 | | STA T | | 27810 |
| 25015 | 0005064 | | LDA L+4 | | 27820 |
| 25016 | 0203203 | | SUB TEN | | 27830 |
| 25017 | 2516001 | | BPL | | 27840 |
| 25020 | 2605056 | | BRU ERR5 | | 27850 |
| 25021 | 0005064 | | LDA L+4 | | 27860 |
| 25022 | 2512006 | | SLA 6 | | 27870 |
| 25023 | 0105030 | | ADD T | | 27880 |
| 25024 | 0103247 | | ADD N31 | | 27890 |
| 25025 | 0360002 | ERR10 | STA 2 | 3 | 27900 |
| 25026 | 1460003 | | INX 3 | 3 | 27910 |
| 25027 | 1765012 | | STX ERMOV | 3 | 27920 |
| 25030 | 0007135 | | LDA ER | | 27930 |
| 25031 | 0103153 | | ADD ONE | | 27940 |
| 25032 | 0307135 | | STA ER | | 27950 |
| 25033 | 2103203 | | CAR TEN | | 27960 |
| 25034 | 2600204 | | BRU LIST1 | | 27970 |
| 25035 | 2504012 | | NOP | | 27980 |
| 25036 | 0003247 | ERR20 | LDA N31 | | 27990 |
| 25037 | 0303247 | | STA YCRT4 | | 28000 |
| 25040 | 0000003 | | LDA 3 | | 28010 |
| 25041 | 0203634 | | SUB FLOC | | 28020 |
| 25042 | 0304001 | | STA EXON | | 28030 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000062

| | | | |
|-------|---------|-----------------|-------|
| 25043 | 0002672 | LDA CRT | 28040 |
| 25044 | 0304100 | STA EXO | 28050 |
| 25045 | 0622726 | LDX ZERO | 28060 |
| 25046 | 2621406 | BRU OUTPUT | 28070 |
| 25047 | 0003631 | ERR2 LDA BL2 | 28080 |
| 25050 | 2605052 | BRU *+2 | 28090 |
| 25051 | 0002671 | ERR33 LDA BL | 28100 |
| 25052 | 0105030 | ADD T | 28110 |
| 25053 | 0360001 | STA 1 | 28120 |
| 25054 | 0002672 | ERR44 LDA CRT | 28130 |
| 25055 | 2605025 | BRU ERR10 | 28140 |
| 25056 | 0003632 | ERR5 LDA BLGR | 28150 |
| 25057 | 0105030 | ADD T | 28160 |
| 25060 | 2605025 | BRU ERR10 | 28170 |
| 25061 | 0665012 | ERR30 LDX ERMOV | 28180 |
| 25062 | 1460007 | INY 7 | 28190 |
| 25063 | 2605036 | BRU ERR20 | 28200 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000063

| | | | | |
|-------|---------|-------|------------|----------|
| | | EJT | | 28210 |
| | | REM | | 28220 |
| | | REM | | 28230 |
| | | REM | | 28240 |
| | | REM | | 28250 |
| | | REM | | 28260 |
| 25064 | 0645001 | RUN | LDX GN | 28270 |
| 25065 | 0557657 | | BXH 81 | 28280 |
| 25066 | 2600241 | | BRU INPUT8 | 28290 |
| 25067 | 0644741 | | LDX EXLN | 28300 |
| 25070 | 0557551 | | BXH 151 | 28310 |
| 25071 | 2600241 | | BRU INPUT8 | 28320 |
| 25072 | 0647601 | | LDX DPNT | 28330 |
| 25073 | 0457730 | | BXL 40 | 28340 |
| 25074 | 2605100 | | BRU **4 | 28350 |
| 25075 | 1005012 | | DLD ERMOV | 28360 |
| 25076 | 2427564 | | MOV LAB16 | 28370 |
| 25077 | 2605061 | | BRU ERR30 | 28380 |
| 25100 | 0005007 | | LDA NN | 28390 |
| 25101 | 2514002 | | BZE | 28400 |
| 25102 | 2605112 | | BRU **8 | 28410 |
| 25103 | 1005012 | | DLD ERMOV | 28420 |
| 25104 | 2427711 | | MOV LAB21 | 28430 |
| 25105 | 0005012 | | LDA ERMOV | 28440 |
| 25106 | 0103171 | | ADD N7 | 28450 |
| 25107 | 0305012 | | STA ERMOV | 28460 |
| 25110 | 0003163 | | LDA ONE | 28470 |
| 25111 | 0307135 | | STA ER | 28480 |
| 25112 | 0003464 | | LDA PLOC | 28490 |
| 25113 | 0100001 | | ADD 1 | 28500 |
| 25114 | 0205022 | | SUR VAVAIL | 28510 |
| 25115 | 2514001 | | BMI | 28520 |
| 25116 | 2605123 | | BRU **4 | 28530 |
| 25117 | 1005012 | | DLD ERMOV | 28540 |
| 25120 | 2427720 | | MOV LAB23 | 28550 |
| 25121 | 2605061 | | BRU ERR30 | 28560 |
| 25122 | 0642726 | | LDX ZERO | 28570 |
| 25123 | 0662726 | | LDX ZERO | 28580 |
| 25124 | 0067602 | RUN25 | LDA FNT | 28590 |
| 25125 | 0103163 | | ADD ONE | 28600 |
| 25126 | 2514002 | | BZF | 28610 |
| 25127 | 2605433 | | BRU RUN3 | 28620 |
| 25130 | 1460001 | | INX 1 | 28630 |
| 25131 | 0477746 | | BXL 26 | 28640 |
| 25132 | 2605124 | | BRU RUN25 | 28650 |
| 25133 | 0005001 | | LDA GN | BAS28660 |
| 25134 | 2514002 | | BZF | BAS28670 |
| 25135 | 2605245 | | BRU RUN2 | BAS28680 |
| 25136 | 0000002 | RUN1 | LDA 2 | BAS28690 |
| 25137 | 0205001 | | SUR GN | BAS28700 |
| 25140 | 2516001 | | RPL | BAS28710 |
| 25141 | 2605242 | | BRU RUN2 | BAS28720 |
| 25142 | 0046750 | | LDA G | BAS28730 |
| 25143 | 0305030 | | STA T | 28740 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000064

| | | | | | | |
|-------|---------|-------|-----------|---|--|-------|
| 25144 | 0662726 | | LDX ZERO | 3 | | 28750 |
| 25145 | 0065200 | RUN7 | LDA F | 3 | | 28760 |
| 25146 | 2105030 | | CAB T | | | 28770 |
| 25147 | 2605231 | | BRU RUN10 | | | 28780 |
| 25150 | 2605237 | | BRU RUN9 | | | 28790 |
| 25151 | 1005012 | RUN8 | DLD ERMOV | | | 28800 |
| 25152 | 2427646 | | MOV LAB14 | | | 28810 |
| 25153 | 0005012 | | LDA ERMOV | | | 28820 |
| 25154 | 0103170 | | ADD N6 | | | 28830 |
| 25155 | 0305012 | | STA ERMOV | | | 28840 |
| 25156 | 0007135 | | LDA ER | | | 28850 |
| 25157 | 0103163 | | ADD ONE | | | 28860 |
| 25160 | 0307135 | | STA ER | | | 28870 |
| 25161 | 0602726 | | LDX ZERO | 0 | | 28880 |
| 25162 | 0046750 | | LDA G | 2 | | 28890 |
| 25163 | 2504006 | | MAN | | | 28900 |
| 25164 | 1725030 | | STX T | 1 | | 28910 |
| 25165 | 0623163 | | LDX ONE | 1 | | 28920 |
| 25166 | 1622717 | RUN62 | DVD TENT | 1 | | 28930 |
| 25167 | 2514002 | | SZE | | | 28940 |
| 25170 | 2605226 | | BRU RUN63 | | | 28950 |
| 25171 | 1400001 | | INX 1 | 0 | | 28960 |
| 25172 | 0325030 | RUN64 | STA T | 1 | | 28970 |
| 25173 | 0002726 | | LDA ZERO | | | 28980 |
| 25174 | 1420001 | | INX 1 | 1 | | 28990 |
| 25175 | 0437772 | | BXL 6 | 1 | | 29000 |
| 25176 | 2605165 | | BRU RUN62 | | | 29010 |
| 25177 | 0625012 | | LDX ERMOV | 1 | | 29020 |
| 25200 | 0002673 | | LDA FILL2 | | | 29030 |
| 25201 | 0105031 | | ADD T+1 | | | 29040 |
| 25202 | 2512006 | | SLA 6 | | | 29050 |
| 25203 | 0105032 | | ADD T+2 | | | 29060 |
| 25204 | 0320000 | | STA 0 | 1 | | 29070 |
| 25205 | 0005033 | | LDA T+3 | | | 29080 |
| 25206 | 2512006 | | SLA 6 | | | 29090 |
| 25207 | 0105034 | | ADD T+4 | | | 29100 |
| 25210 | 2512006 | | SLA 6 | | | 29110 |
| 25211 | 0105035 | | ADD T+5 | | | 29120 |
| 25212 | 0320001 | | STA 1 | 1 | | 29130 |
| 25213 | 0002672 | | LDA CRT | | | 29140 |
| 25214 | 0320002 | | STA 2 | 1 | | 29150 |
| 25215 | 1420003 | | INX 3 | 1 | | 29160 |
| 25216 | 1725012 | | STX ERMOV | 1 | | 29170 |
| 25217 | 0625030 | | LDX T | 1 | | 29180 |
| 25220 | 1440001 | | INX 1 | 2 | | 29190 |
| 25221 | 0007135 | | LDA ER | | | 29200 |
| 25222 | 0203203 | | SUR TEN | | | 29210 |
| 25223 | 2514001 | | BMI | | | 29220 |
| 25224 | 2605136 | | BRU RUN1 | | | 29230 |
| 25225 | 2605245 | | BRU RUN2 | | | 29240 |
| 25226 | 0417777 | RUN63 | BXL 1 | 0 | | 29250 |
| 25227 | 0002676 | | LDA FILL | | | 29260 |
| 25230 | 2605172 | | BRU RUN64 | | | 29270 |
| 25231 | 1460002 | RUN10 | INX 2 | 3 | | 29280 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000665

| | | | |
|-------|---------|----------------|--|
| 25232 | 0000003 | LDA 3 | 29290 |
| 25233 | 0205000 | SUB FN | 29300 |
| 25234 | 2514001 | BMI | 29310 |
| 25235 | 2605145 | BRU RUN7 | 29320 |
| 25236 | 2605151 | BRU RUN8 | 29330 |
| 25237 | 0065201 | RUN9 LDA F+1 3 | 29340 |
| 25240 | 0103571 | ADD ZBRU | BAS29350 |
| 25241 | 0103464 | ADD PLOC | BAS29360 |
| 25242 | 0346750 | STA G 2 | BAS29370 |
| 25243 | 1440001 | INX 1 2 | BAS29380 |
| 25244 | 2605136 | BRU RUN1 | BAS29390 |
| 25245 | 0003611 | RUN2 LDA ZOUT | 29400 |
| 25246 | 0327724 | STA P 1 | 29410 |
| 25247 | 0005010 | LDA READX | 29420 |
| 25250 | 2516001 | BPL | 29430 |
| 25251 | 2605342 | BRU RUN5 | 29440 |
| 25252 | 0007175 | LDA DATA1 | 29450 |
| 25253 | 2516002 | BNZ | 29460 |
| 25254 | 2605260 | BRU RUN6 | 29470 |
| 25255 | 1005012 | DLD ERMOV | 29480 |
| 25256 | 2427630 | MOV LAB12 | 29490 |
| 25257 | 2605061 | BRU ERR30 | 29500 |
| 25260 | 0307136 | RUN6 STA DATAN | WORD AFTER LAST ENTRY IN LAST DATA RECORD 29510 |
| 25261 | 0002713 | LDA NM2 | 29520 |
| 25262 | 0307175 | STA DATA1 | 29530 |
| 25263 | 0007661 | LDA DPNT | 29540 |
| 25264 | 0307176 | STA DEND | 29550 |
| 25265 | 2103164 | CAR TWO | 29560 |
| 25266 | 2605337 | BRU RUN6A | 29570 |
| 25267 | 2605337 | BRU RUN6A | 29580 |
| 25270 | 2506033 | SXG 1 | ELSE WRITE OUT LAST RECORD AND READ IN FIRST 29590 |
| 25271 | 0721022 | SPR DCHEK 1 | CHECK LAST DISK OP 29600 |
| 25272 | 0007176 | LDA DEND | 29610 |
| 25273 | 0102657 | ADD SIGN | 29620 |
| 25274 | 0307172 | STA PLIST+2 | 29630 |
| 25275 | 0007171 | LDA PLIST+1 | 29640 |
| 25276 | 2002711 | EXT 0400 | 29650 |
| 25277 | 0102712 | ADD 0200 | 29660 |
| 25300 | 0307171 | STA PLIST+1 | 29670 |
| 25301 | 2506113 | SXG 4 | 29680 |
| 25302 | 0003167 | LDA N5 | 29690 |
| 25303 | 0720000 | SPR 8192 1 | GO WRITE 29700 |
| 25304 | 0007179 | DEC PLIST | 29710 |
| 25305 | 2516015 | SET PST | 29720 |
| 25306 | 2506033 | SXG 1 | 29730 |
| 25307 | 0721022 | SPR DCHEK 1 | WAIT FOR WRITE TO BE COMPLETED 29740 |
| 25310 | 0002715 | LDA DREAD | CHANGE PLIST TO READ AND INITIALIZE 29750 |
| 25311 | 0307170 | STA PLIST | 29760 |
| 25312 | 0002714 | LDA DLOC | 29770 |
| 25313 | 0307171 | STA PLIST+1 | 29780 |
| 25314 | 2504002 | LDZ | 29790 |
| 25315 | 2504040 | CHS | 29800 |
| 25316 | 0307172 | STA PLIST+2 | 1ST READ WILL BRING IN 256 WORDS 29810 |
| 25317 | 0003167 | LDA N5 | 29820 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000066

| | | | | | |
|-------|---------|---------------------|---|---|-------|
| 25320 | 2506113 | SXG 4 | | 29830 | |
| 25321 | 0720000 | SPR 8192 | 1 | 29840 | |
| 25322 | 0007170 | DEC PLIST | | 29850 | |
| 25323 | 2506015 | SET PST | | 29860 | |
| 25324 | 2506033 | SXG 1 | | 29870 | |
| 25325 | 0721022 | SPR DCHEK | 1 | 29880 | |
| 25326 | 0007170 | LDA PLIST | | 29890 | |
| 25327 | 0203164 | SUR N2 | | 29900 | |
| 25328 | 0307170 | STA PLIST | | 29910 | |
| 25329 | 0007171 | LDA PLIST*1 | | 29920 | |
| 25330 | 2002711 | EXT 0400 | | 29930 | |
| 25331 | 0102712 | ADD 0200 | | 29940 | |
| 25332 | 0307171 | STA PLIST*1 | | 29950 | |
| 25333 | 0003164 | LDA N2 | | 29960 | |
| 25334 | 2506013 | SXG 0 | | 29970 | |
| 25335 | 0307177 | RUN6A STA DREC | | 29980 | |
| 25336 | 2504002 | LDZ | | 29990 | |
| 25337 | 0307601 | STA DPNT | | 30000 | |
| 25338 | 0007135 | RUN5 LDA ER | | BAS30010 | |
| 25339 | 2514002 | BZE | | 30020 | |
| 25340 | 2605347 | BRU **3 | | 30030 | |
| 25341 | 0665012 | LDX ERMQV | 3 | 30040 | |
| 25342 | 2605036 | BRU ERR20 | | 30050 | |
| 25343 | 0007107 | LDA TFLAG | | 30060 | |
| 25344 | 2514002 | BZE | | 30070 | |
| 25345 | 2605412 | BRU RUN5A | | 30080 | |
| 25346 | 1003660 | DLD MOVDS | | 30090 | |
| 25347 | 2417764 | MOV DS | | PICK UP THE DOLLAR SIGN PART OF THE SYM TAB | |
| 25348 | 0622726 | LDY ZERO | 1 | 30100 | |
| 25349 | 3001402 | FLD FZERO | | 30110 | |
| 25350 | 0024720 | LDA VC | 1 | 30120 | |
| 25351 | 2514002 | BZE **4 | | PICK UP ENTRY FROM SYMBOL TABLE | |
| 25352 | 2605363 | SET UP XR FCR STORE | | 30130 | |
| 25353 | 0300002 | FST 0 | 2 | ZERO ONE VARIABLE | 30140 |
| 25354 | 3340003 | INX 1 | 1 | | 30150 |
| 25355 | 1420001 | BXL 11 | 1 | | 30160 |
| 25356 | 0437765 | BRU **7 | | GO THRU ALL \$ VARIABLES | 30170 |
| 25357 | 2605356 | LDA DIMX*53 | | | 30180 |
| 25358 | 0007723 | RMI | | ZERO \$ ARRAY | 30190 |
| 25359 | 2514001 | BRU RUN5A | | | 30200 |
| 25360 | 2605412 | SRO 9 | | SKIP IF \$ ARRAY NOT USED | 30210 |
| 25361 | 2511011 | XAO | | DETERMINE NO. OF ELEMENTS | 30220 |
| 25362 | 2504005 | SRA 9 | | | 30230 |
| 25363 | 2510011 | STA T | | IMPLICIT MPY BY 2 AT THIS STEP | 30240 |
| 25364 | 0305030 | LDZ | | | 30250 |
| 25365 | 2504002 | MPY T | | | 30260 |
| 25366 | 1505030 | LAQ | | | 30270 |
| 25367 | 2504001 | ADO | | NUMBER OF ELEMENTS*2 | 30280 |
| 25368 | 2504032 | NEG | | SET UP MOV | 30290 |
| 25369 | 2504522 | LQA | | | 30300 |
| 25370 | 2504004 | LDY DIMX*56 | 3 | | 30310 |
| 25371 | 0667726 | FST 0 | 3 | ZERO FIRST ELEMENT TO PRIME THE MOV | 30320 |
| 25372 | 3360000 | LDA XR03 | | LOCATION OF FIRST ELEMENT OF ARRAY | 30330 |
| A | 0000003 | | | | 30340 |
| A | | | | | 30350 |

COMPILE TIME GENERAL PURPOSE ROUTINES

000067

| | | | | |
|-------|---------|-------------|---|----------|
| 25406 | 2506016 | SET PBK | | 30360 |
| 25407 | 2705411 | STO *#2 | | 30370 |
| 25410 | 2504032 | ADD | CONSTRUCT THE MOV TO ADDRESS | 30380 |
| 25411 | 2400000 | MOV -- | ##### CONSTRUCTED | 30390 |
| 25412 | 2506015 | SET PST | | 30400 |
| 25413 | 0642726 | LDX ZERO | 2 | 30410 |
| 25414 | 0603464 | LDX PLOC | 0 | 30420 |
| 25415 | 0623464 | LDX PLOC | 1 | 30430 |
| 25416 | 0662726 | LDX ZERO | 3 | BAS30440 |
| 25417 | 0003625 | LDA RELOC | | 30450 |
| 25420 | 0306260 | STA RST | INITIALIZE RETURN STACK TO ERROR TRAP | 30460 |
| 25421 | 2504022 | LDQ | INITAILIZE RETURN STACK POINTER | 30470 |
| 25422 | 0300011 | STA XR21 | | 30480 |
| 25423 | 2504002 | LDZ | | 30490 |
| 25424 | 0306214 | STA YIND | SET NO. OF WORDS IN LINE TO ZERO | 30500 |
| 25425 | 0307140 | STA YODD | INIT ODD CHARACTER COUNTER | 30510 |
| 25426 | 1002544 | OLD RND | INITIALIZE RANDOM | 30520 |
| 25427 | 1306246 | DST RND1 | | 30530 |
| 25430 | 3500004 | RIN | | 30540 |
| 25431 | 3100001 | SET TRPMODE | ENTER TRAP | 30550 |
| 25432 | 2647724 | BRU P | 2 | 30560 |
| 25433 | 1005012 | OLD ERMOV | | 30570 |
| 25434 | 2427637 | MOV LAB13 | | 30580 |
| 25435 | 0005012 | LDA ERMOV | | 30590 |
| 25436 | 0103171 | ADD N7 | | 30600 |
| 25437 | 0305012 | STA ERMOV | | 30610 |
| 25440 | 0003163 | LDA ONE | | 30620 |
| 25441 | 0307135 | STA ER | | 30630 |
| 25442 | 2605136 | BRU RUM1 | | 30640 |
| | | NAM | RUN-TIME, UPPER MEM. ARITHMETIC SUBROUTINES | 30650 |

| | | | | | |
|-------|---------|--------|-------------|-----|----------|
| | | EJT | | | 30660 |
| | | REM | | | BAS30670 |
| | | REM | | | BAS30680 |
| | | REM | | | BAS30690 |
| | | REM | | | BAS30700 |
| 25443 | 0627070 | ARCTAN | LDX B | 1 | 30710 |
| 25444 | 3307070 | | FST /2302 | | 30720 |
| 25445 | 1007070 | | DLD /2302 | | BAS30730 |
| 25446 | 2510013 | | SRA 11 | | BAS30740 |
| 25447 | 0307100 | | STA /2303 | | BAS30750 |
| 25450 | 0007070 | | LDA /2302 | | BAS30760 |
| 25451 | 2002707 | | EXT /2304 | | BAS30770 |
| 25452 | 2512200 | | SLD 0 | | BAS30780 |
| 25453 | 2514002 | | RZF | | BAS30790 |
| 25454 | 2620001 | | BRU 1 | 1 | BAS30800 |
| 25455 | 1707076 | | STX /2306 | 0 | 30810 |
| 25456 | 1747077 | | STX /2307 | 2 | BAS30820 |
| 25457 | 0307101 | | STA /2308 | | BAS30830 |
| 25460 | 2516001 | | BPL | | BAS30840 |
| 25461 | 2605466 | | BRU /2309 | | BAS30850 |
| 25462 | 1307072 | | DST /2310 | | BAS30860 |
| 25463 | 1001402 | | DLD /2311 | | BAS30870 |
| 25464 | 1207072 | | DSU /2310 | | BAS30880 |
| 25465 | 2002707 | | EXT /2304 | | BAS30890 |
| 25466 | 2512206 | | SLD 6 | | BAS30900 |
| 25467 | 1307072 | | DST /2310 | | BAS30910 |
| 25470 | 0007100 | | LDA /2303 | | BAS30920 |
| 25471 | 2514001 | | BMI | | BAS30930 |
| 25472 | 2605511 | | BRU /2312 | | BAS30940 |
| 25473 | 0300002 | | STA 2 | | BAS30950 |
| 25474 | 0457743 | | BXL 29 | 2 | BAS30960 |
| 25475 | 2605501 | | BRU /2314 | | BAS30970 |
| 25476 | 1003036 | | DLD /2315 | | BAS30980 |
| 25477 | 1307074 | | DST /2316 | | BAS30990 |
| 25500 | 2605572 | | BRU /2325+5 | | BAS31000 |
| 25501 | 1002776 | | DLD /2318 | | BAS31010 |
| 25502 | 2551000 | | SRD 0 | 2 | BAS31020 |
| 25503 | 1307074 | | DST /2316 | | BAS31030 |
| 25504 | 1107072 | | DAD /2310 | | BAS31040 |
| 25505 | 1307070 | | DST /2302 | | BAS31050 |
| 25506 | 1007072 | | DLD /2310 | | BAS31060 |
| 25507 | 1207074 | | DSU /2316 | | BAS31070 |
| 25510 | 2605526 | | BRU /2319 | | BAS31080 |
| 25511 | 2504522 | | NEG | | BAS31090 |
| 25512 | 0300002 | | STA 2 | | BAS31100 |
| 25513 | 0457770 | | BXL 8 | 2 | BAS31110 |
| 25514 | 2605517 | | BRU *+3 | | BAS31120 |
| 25515 | 3307074 | | FST /2316 | | BAS31130 |
| 25516 | 2605513 | | BRU /2317+1 | | BAS31140 |
| 25517 | 1007072 | | DLD /2310 | | BAS31150 |
| 25520 | 2551000 | | SRD 0 | 2 | BAS31160 |
| 25521 | 1307072 | | DST /2310 | | BAS31170 |
| 25522 | 1102776 | | DAD /2318 | | BAS31180 |
| 25523 | 1307070 | | DST /2302 | X*1 | BAS31190 |

CD22502.010 - FL-FT ARCTAN - AAU.
GENERAL ELECTRIC CO COMP DEPT. PHX,
COR 7 AUG 62.
141 SOURCE LANGUAGE CARDS.

| | | | |
|-------|---------|-----------------|----------|
| 25524 | 1007072 | DLD /2310 | BAS31200 |
| 25525 | 1202776 | DSU /2318 | BAS31210 |
| 25526 | 1307072 | DST /2310 | BAS31220 |
| 25527 | 3500010 | SET FIXPOINT | BAS31230 |
| 25530 | 3100002 | MAC A | BAS31240 |
| 25531 | 3100002 | MAC A | BAS31250 |
| 25532 | 3007072 | FLD /2310 | BAS31260 |
| 25533 | 3607070 | FDV /2302 | BAS31270 |
| 25534 | 3307072 | FST /2310 | BAS31280 |
| 25535 | 3100002 | XAO A | BAS31290 |
| 25536 | 3507072 | FMP /2310 | BAS31300 |
| 25537 | 1007072 | DLD /2310 | BAS31310 |
| 25540 | 2511002 | SRD 2 | BAS31320 |
| 25541 | 1307072 | DST /2310 | BAS31330 |
| 25542 | 1001402 | DLD /2311 | BAS31340 |
| 25543 | 1307074 | DST /2316 | BAS31350 |
| 25544 | 0300002 | STA 2 | BAS31360 |
| 25545 | 3307070 | FST /2302 | BAS31370 |
| 25546 | 1007070 | DLD /2302 | BAS31380 |
| 25547 | 2511002 | SRD 2 | BAS31390 |
| 25550 | 1307070 | DST /2302 | BAS31400 |
| 25551 | 1007074 | DLD /2316 | BAS31410 |
| 25552 | 2512202 | SLD 2 | BAS31420 |
| 25553 | 1143014 | DAO /2324 2 | BAS31430 |
| 25554 | 1307074 | DST /2316 | BAS31440 |
| 25555 | 3007074 | FLD /2316 | BAS31450 |
| 25556 | 3100002 | MAC A | BAS31460 |
| 25557 | 0557762 | RXH 14 2 | BAS31470 |
| 25558 | 2605555 | BRU /2325 | BAS31480 |
| 25561 | 3507070 | FMP /2302 | BAS31490 |
| 25562 | 1440002 | INY 2 2 | BAS31500 |
| 25563 | 3307074 | FST /2316 | BAS31510 |
| 25564 | 2605551 | BRU /2323 | BAS31520 |
| 25565 | 3507072 | FMP /2310 | BAS31530 |
| 25566 | 3307074 | FST /2316 | BAS31540 |
| 25567 | 1007074 | DLD /2316 | BAS31550 |
| 25570 | 2512202 | SLD 2 | BAS31560 |
| 25571 | 1103034 | DAD /2326 | BAS31570 |
| 25572 | 2513237 | DNO 31 | BAS31580 |
| 25573 | 2511010 | SRD 6 | BAS31590 |
| 25574 | 1307074 | DST /2316 | BAS31600 |
| 25575 | 0007101 | LDA /2308 | BAS31610 |
| 25576 | 2516001 | RPL | BAS31620 |
| 25577 | 2605604 | BRU /2327 | BAS31630 |
| 25600 | 1001402 | DLD /2311 | BAS31640 |
| 25601 | 1217074 | DSU /2316 | BAS31650 |
| 25602 | 2002707 | EXT /2304 | BAS31660 |
| 25603 | 1307074 | DST /2316 | BAS31670 |
| 25604 | 1001402 | DLD /2311 | BAS31680 |
| 25605 | 0000000 | LDA 000 | BAS31690 |
| 25606 | 0203013 | SUR /2313 | BAS31700 |
| 25607 | 2511010 | SKD 8 | BAS31710 |
| 25610 | 2504005 | XAO | BAS31720 |
| 25611 | 2307074 | ORY /2316 | BAS31730 |
| | | PUT ON EXPONENT | |

RUN-TIME, UPPER MEM. ARITHMETIC SUBROUTINES

000070

| | | | | |
|-------|---------|-------|--|----------------------------|
| 25612 | 3100010 | /2317 | SET NFLPOINT | BAS31740 |
| 25613 | 3100002 | | MAQ A | BAS31750 |
| 25614 | 3100002 | | MAQ A | BAS31760 |
| 25615 | 3007074 | | FLD /2316 | BAS31770 |
| 25616 | 0647077 | | LDX /2307 2 | BAS31780 |
| 25617 | 0607076 | | LDX /2306 0 | 31790 |
| 25620 | 2620001 | | BRU 1 1 | BAS31800 |
| | | | REM | BAS31810 |
| | | | REM | BAS31820 |
| | | | REM | BAS31830 |
| | | | REM | BAS31840 |
| | | | REM | BAS31850 |
| 25621 | 3307072 | SQF2 | FST /2102 | 31860 |
| 25622 | 0627070 | | LDX B 1 | 31870 |
| 25623 | 1007072 | | DLD /2102 | 31880 |
| 25624 | 2002707 | | EXT /2107 | BAS31890 |
| 25625 | 2514002 | | BZB | BAS31900 |
| 25626 | 2620001 | | BRU 1 1 | BAS31910 |
| 25627 | 0202707 | | SUR /2107 | BAS31920 |
| 25630 | 2511001 | | SRD 1 | BAS31930 |
| 25631 | 1307070 | | DST /2108 | BAS31940 |
| 25632 | 0007072 | | LDA /2102 | BAS31950 |
| 25633 | 2002770 | | EXT /2109 | BAS31960 |
| 25634 | 0202707 | | SUR /2107 | BAS31970 |
| 25635 | 2510001 | | SRA 1 | BAS31980 |
| 25636 | 2307070 | | ORY /2108 | BAS31990 |
| 25637 | 1727074 | | STX /2110 1 | BAS32000 |
| 25640 | 0622726 | | LDX /2111 1 | BAS32010 |
| 25641 | 3100002 | /2112 | MAQ A | BAS32020 |
| 25642 | 3100002 | | MAQ A | BAS32030 |
| 25643 | 3007072 | | FLD /2102 | BAS32040 |
| 25644 | 3607070 | | FDV /2108 | BAS32050 |
| 25645 | 3107070 | | FAN /2108 | BAS32060 |
| 25646 | 1420001 | | INX 1 1 | BAS32070 |
| 25647 | 3307070 | | FST /2108 | BAS32080 |
| 25650 | 0007070 | | LDA /2108 | BAS32090 |
| 25651 | 0102707 | | ADD /2107 | SUBTRACT ONE FROM EXPONENT |
| 25652 | 0307070 | | STA /2108 | BAS32100 |
| 25653 | 0437774 | | BXL 4 1 | BAS32110 |
| 25654 | 2605641 | | BRU /2112 | BAS32120 |
| 25655 | 3100002 | | MAQ A | BAS32130 |
| 25656 | 3100002 | | MAQ A | BAS32140 |
| 25657 | 3007070 | | FLD /2108 | BAS32150 |
| 25660 | 0627074 | | LDX /2110 1 | BAS32160 |
| 25661 | 2514003 | | MOV | BAS32170 |
| 25662 | 2605663 | | BRU **1 | 32180 |
| 25663 | 2620001 | | BRU 1 1 | BAS32190 |
| | | | REM | BAS32200 |
| | | | REM | BAS32210 |
| | | | REM | BAS32220 |
| | | | REM | BAS32230 |
| | | | REM | BAS32240 |
| | | | REM | BAS32250 |
| 25664 | 3102772 | COSF | FAD /2203 | 32260 |
| 25665 | 3307072 | SINF | FST /2205 | 32270 |
| | | | LAST CARD - CD225D2,006 | |
| | | | CD225D2,006 = FL-PT SQUARE ROOT - AAU, | |
| | | | GENERAL ELECTRIC CO COMP DEPT. PHX, | |
| | | | REV 9 FEB 62. | |
| | | | 181 SOURCE LANGUAGE CARDS. | |

| | | | | | |
|-------|---------|-----------|---|----------------------------------|----------|
| 25666 | 0627070 | LDX B | 1 | | 32280 |
| 25667 | 2514722 | BAR BZE | 7 | IS THE ARGUMENT ZERO | BAS32290 |
| 25670 | 2620001 | BRU 1 | 1 | YES RETURN | BAS32300 |
| 25671 | 3007072 | FLD /2205 | | | 32310 |
| 25672 | 3500025 | CQX | | | 32320 |
| 25673 | 3602772 | FDV /2203 | | | BAS32330 |
| 25674 | 1747076 | STX /2207 | 2 | | BAS32340 |
| 25675 | 1707077 | STX /2208 | 0 | ZERO OUT SIGN TEST WORD | 32350 |
| 25676 | 0001402 | LDA /2209 | | | BAS32360 |
| 25677 | 0307100 | STA /2210 | | | BAS32370 |
| 25700 | 3307070 | FST /2202 | | | BAS32380 |
| 25701 | 1007070 | DLD /2202 | | | BAS32390 |
| 25702 | 2510013 | SRA 11 | | | BAS32400 |
| 25703 | 0307101 | STA /2211 | | SAVE EXPONENT OF ARG | BAS32410 |
| 25704 | 0007070 | LDA /2202 | | SEPERATE OFF MANT. | BAS32420 |
| 25705 | 2002707 | EXT /2212 | | PUT CORRECT SIGN ON A REG. | BAS32430 |
| 25706 | 2512200 | SLD 0 | | | BAS32440 |
| 25707 | 1307070 | DST /2202 | | | BAS32450 |
| 25710 | 2516001 | BPL | | IS THE MANT POS | BAS32460 |
| 25711 | 2605722 | BRU /2213 | | YES GO TO BSC1 | BAS32470 |
| 25712 | 0002707 | LDA /2212 | | NEG. MANT. | BAS32480 |
| 25713 | 2307070 | ORV /2202 | | | BAS32490 |
| 25714 | 1001402 | DLD /2209 | | | BAS32500 |
| 25715 | 1207070 | DSU /2202 | | | BAS32510 |
| 25716 | 1307070 | DST /2202 | | MAKENEG,MANT POS. | BAS32520 |
| 25717 | 0007100 | LDA /2210 | | SET SIGN INDICATOR NEG | BAS32530 |
| 25720 | 2504040 | CHS | | | BAS32540 |
| 25721 | 0307100 | STA /2210 | | | BAS32550 |
| 25722 | 0007101 | LDA /2211 | | IS EXP NEG | BAS32560 |
| 25723 | 2514091 | BMI | | | BAS32570 |
| 25724 | 2606073 | BRU /2214 | | | BAS32580 |
| 25725 | 0300002 | STA 2 | | YES | BAS32590 |
| 25726 | 0457744 | RXL 28 | 2 | | BAS32600 |
| 25727 | 2605732 | BRU /2215 | | | BAS32610 |
| 25730 | 1002766 | DLD /2216 | | | BAS32620 |
| 25731 | 2606107 | BRU /2217 | | | BAS32630 |
| 25732 | 1007070 | DLD /2202 | | | BAS32640 |
| 25733 | 2552200 | SLD 0 | 2 | | BAS32650 |
| 25734 | 0307072 | STA /2205 | | | BAS32660 |
| 25735 | 2512206 | SLD 6 | | | BAS32670 |
| 25736 | 2002774 | EXT /2218 | | SHIFT POINT LEFT SIX 1400000 | BAS32680 |
| 25737 | 1307070 | DST /2202 | | | BAS32690 |
| 25740 | 0007072 | LDA /2205 | | | BAS32700 |
| 25741 | 2511013 | SRD 11 | | STORE NUMBER OF QUADRANTS PASSED | BAS32710 |
| 25742 | 0307101 | STA /2211 | | IN EXPASC | BAS32720 |
| 25743 | 1007070 | DLD /2202 | | | BAS32730 |
| 25744 | 2516002 | RNZ | | | BAS32740 |
| 25745 | 2605773 | BRU /2219 | | | BAS32750 |
| 25746 | 2504005 | XAO | | IS LOWER PART ZERO | BAS32760 |
| 25747 | 2516002 | BNZ | | | BAS32770 |
| 25750 | 2605773 | BRU /2219 | | | BAS32780 |
| 25751 | 0007101 | LDA /2211 | | WHAT QUAD ARE WE IN | BAS32790 |
| 25752 | 2514000 | RD | | | BAS32800 |
| 25753 | 2605756 | BRU /2220 | | 1 OR 3 | BAS32810 |

| | | | | |
|-------|---------|--------------------|-------------------------------------|----------|
| 25754 | 1001402 | BLD /2209 | ZERO IS ANS -3 OR 183 | BAS32820 |
| 25755 | 2606107 | BRU /2217 | | BAS32830 |
| 25756 | 2510001 | /2220 SRA 1 | | BAS32840 |
| 25757 | 2514000 | RDN | IS THIS QUAD 3 | BAS32850 |
| 25760 | 2605766 | BRU /2221 | YES | BAS32860 |
| 25761 | 0007100 | LDA /2210 | NO | BAS32870 |
| 25762 | 2514001 | BMI | WAS ORIGINAL ARG MINUS | BAS32880 |
| 25763 | 2605771 | BRU /2222 | YES | BAS32890 |
| 25764 | 1001403 | BLD /2224 | +1 IS ANS | BAS32900 |
| 25765 | 2606107 | BRU /2217 | | BAS32910 |
| 25766 | 0007100 | /2221 LDA /2210 | 270 DEGREES | BAS32920 |
| 25767 | 2514001 | RMI | | BAS32930 |
| 25770 | 2605764 | BRU /2223 | ORIGINAL ARG WAS MINUS SO ANS IS +1 | BAS32940 |
| 25771 | 1002656 | /2222 BLD /2225 | | BAS32950 |
| 25772 | 2606107 | BRU /2217 | | BAS32960 |
| 25773 | 0007101 | /2219 LDA /2211 | | BAS32970 |
| 25774 | 2516000 | REV | | BAS32980 |
| 25775 | 2606001 | BRU /2226 | ARG IS IN QUAD 1 OR 3 | BAS32990 |
| 25776 | 1002776 | BLD /2227 | ARG IS IN QUAD 2 OR 4 | BAS33000 |
| 25777 | 1207070 | DSU /2202 | 1. - ARG | BAS33010 |
| 26000 | 1307070 | DST /2202 | | BAS33020 |
| 26001 | 0007101 | /2226 LDA /2211 | ARE WE IN QUAD 3 OR 4 | BAS33030 |
| 26002 | 2510001 | SRA 1 | | BAS33040 |
| 26003 | 2516000 | REV | | BAS33050 |
| 26004 | 2606010 | BRU /2228 | | BAS33060 |
| 26005 | 0007100 | LDA /2210 | | BAS33070 |
| 26006 | 2504040 | CHS | | BAS33080 |
| 26007 | 0307100 | STA /2210 | | BAS33090 |
| 26010 | 3500010 | /2228 SET FIXPOINT | | BAS33100 |
| 26011 | 3007070 | FLD /2202 | | BAS33110 |
| 26012 | 3100002 | MAG A | | BAS33120 |
| 26013 | 3507070 | FMP /2202 | | BAS33130 |
| 26014 | 1001402 | BLD /2209 | | BAS33140 |
| 26015 | 1307074 | DST /2230 | | BAS33150 |
| 26016 | 0300002 | STA 2 | | BAS33160 |
| 26017 | 3307072 | FST /2205 | | BAS33170 |
| 26020 | 1007072 | BLD /2205 | | BAS33180 |
| 26021 | 2512202 | SLD 2 | | BAS33190 |
| 26022 | 1307072 | DST /2205 | | BAS33200 |
| 26023 | 1007074 | /2231 BLD /2230 | | BAS33210 |
| 26024 | 2512202 | SLD 2 | | BAS33220 |
| 26025 | 1143000 | DAD /2232 2 | | BAS33230 |
| 26026 | 1307074 | DST /2230 | | BAS33240 |
| 26027 | 3007074 | FLD /2230 | | BAS33250 |
| 26030 | 3100002 | MAQ A | | BAS33260 |
| 26031 | 0557770 | RXH 8 2 | HAVE ALL CONSTANTS BEEN ADDED IN | BAS33270 |
| 26032 | 2606037 | RRU /2233 | | BAS33280 |
| 26033 | 3507072 | FMP /2205 | | BAS33290 |
| 26034 | 1440002 | INX 2 2 | | BAS33300 |
| 26035 | 3307074 | FST /2230 | | BAS33310 |
| 26036 | 2606023 | BRU /2231 | | BAS33320 |
| 26037 | 3507170 | /2233 FMP /2202 | | BAS33330 |
| 26040 | 3307074 | FST /2230 | | BAS33340 |
| 26041 | 1007074 | BLD /2230 | | BAS33350 |
| | | | LAST TERM | |

| | | | |
|-------|---------|-------------------|----------|
| 26042 | 2512203 | SLD 3 | BAS33360 |
| 26043 | 2513237 | DNO 31 | BAS33370 |
| 26044 | 2511010 | SRD 8 | BAS33380 |
| 26045 | 1307070 | DST /2202 | BAS33390 |
| 26046 | 0007100 | LDA /2210 | BAS33400 |
| 26047 | 2516001 | RPL | BAS33410 |
| 26050 | 2606055 | BRU /2234 | BAS33420 |
| 26051 | 1001402 | DLN /2209 | BAS33430 |
| 26052 | 1207070 | DSU /2202 | BAS33440 |
| 26053 | 2002737 | EXT /2212 | BAS33450 |
| 26054 | 1307070 | DST /2202 | BAS33460 |
| 26055 | 0000000 | /2234 LDA 000 | BAS33470 |
| 26056 | 0203012 | SUP /2235 | BAS33480 |
| 26057 | 2512013 | SLA 11 | BAS33490 |
| 26060 | 2307070 | DRY /2202 | BAS33500 |
| 26061 | 0001402 | LDA /2209 | BAS33510 |
| 26062 | 0607077 | /2236 LDX /2208 0 | 33520 |
| 26063 | 3100010 | SET NFLPOINT | BAS33530 |
| 26064 | 3500005 | C0X | 33540 |
| 26065 | 0647076 | LUX /2207 2 | BAS33550 |
| 26066 | 3007070 | FLD /2202 | BAS33560 |
| 26067 | 2514003 | BOV | BAS33570 |
| 26070 | 2606071 | BRU *+1 | BAS33580 |
| 26071 | 2512001 | SLA 1 | BAS33590 |
| 26072 | 2620001 | BRU 1 1 | BAS33600 |
| 26073 | 2504522 | /2214 NEG | BAS33610 |
| 26074 | 0300002 | STA 2 | BAS33620 |
| 26075 | 0557767 | RXH 9 2 | BAS33630 |
| 26076 | 2606106 | BRU /2238 | BAS33640 |
| 26077 | 1007070 | DLD /2202 | BAS33650 |
| 26100 | 2512205 | SLD 6 | BAS33660 |
| 26101 | 2551000 | SRD 0 2 | BAS33670 |
| 26102 | 1307070 | DST /2202 | BAS33680 |
| 26103 | 0001402 | LDA /2209 | BAS33690 |
| 26104 | 0307131 | STA /2211 | BAS33700 |
| 26105 | 2605773 | BRU /2219 | BAS33710 |
| 26106 | 1007072 | /2238 DLD /2205 | BAS33720 |
| 26107 | 1307073 | /2217 DST /2202 | BAS33730 |
| 26110 | 2606062 | SRU /2236 | BAS33740 |
| | | REM | BAS33750 |
| | | REM | 33760 |
| | | REM | 33770 |
| | | REM | 33780 |
| | | REM | 33790 |
| | | REM | 33800 |
| 26111 | 0627070 | EXPSUE LDY E 1 | 33810 |
| 26112 | 3307070 | FST /6105 | 33820 |
| 26113 | 2514722 | RAD RZE 7 | 33830 |
| 26114 | 2606133 | BRU /6100 | 33840 |
| 26115 | 3201400 | FSU FONE | 33850 |
| 26116 | 2516722 | RAD BNZ 7 | 33860 |
| 26117 | 2606122 | BRU *+3 | 33870 |
| 26120 | 3003050 | FLD /6111 | 33880 |
| 26121 | 2620001 | BRU 1 1 | 33890 |
| | | ARGUMENT IS 0 | |
| | | ARGUMENT IS 1 | |

RUN-TIME, UPPER MEM. ARITHMETIC SUBROUTINES

| | | | | |
|-------|---------|-----------------|---|-------|
| 26122 | 3007070 | FLD /6105 | | 33900 |
| 26123 | 3100002 | MAD | A | 33910 |
| 26124 | 3503042 | FMP /6113 | | 33920 |
| 26125 | 3307070 | FST /6105 | | 33930 |
| 26126 | 2606142 | BRU /6101 | | 33940 |
| 26127 | 0627070 | EEXP2 LDY R | 1 | 33950 |
| 26130 | 3307070 | FST /6105 | | 33960 |
| 26131 | 2516722 | SAR BNZ | 7 | 33970 |
| 26132 | 2606135 | BRU **3 | | 33980 |
| 26133 | 3001400 | /6100 FLD FONE | | 33990 |
| 26134 | 2620001 | BRU 1 | 1 | 34000 |
| 26135 | 3201400 | FSU FONE | | 34010 |
| 26136 | 2516722 | SAR BNZ | 7 | 34020 |
| 26137 | 2606142 | BRU **3 | | 34030 |
| 26140 | 3003046 | FLD /6118 | | 34040 |
| 26141 | 2620001 | BRU 1 | 1 | 34050 |
| 26142 | 1727072 | /6101 STX /6134 | 1 | 34060 |
| 26143 | 0007070 | LDA /6105 | | 34070 |
| 26144 | 2510013 | SRA 11 | | 34080 |
| 26145 | 0307102 | STA /6119 | | 34090 |
| 26146 | 1007070 | DLO /6105 | | 34100 |
| 26147 | 2512210 | SLD 8 | | 34110 |
| 26150 | 1307074 | DST /6109 | | 34120 |
| 26151 | 2516001 | RPL | | 34130 |
| 26152 | 2606156 | BRU **4 | | 34140 |
| 26153 | 1001402 | DLO /6104 | | 34150 |
| 26154 | 1207074 | DST /6109 | | 34160 |
| 26155 | 1307074 | DST /6109 | | 34170 |
| 26156 | 0007102 | LDA /6119 | | 34180 |
| 26157 | 2516001 | RPL | | 34190 |
| 26160 | 2606173 | BRU /6124 | | 34200 |
| 26161 | 2504522 | NEG | | 34210 |
| 26162 | 0300003 | STA XRD3 | | 34220 |
| 26163 | 0103040 | ADD /6121 | | 34230 |
| 26164 | 2516001 | RPL | | 34240 |
| 26165 | 2606133 | BRU /6100 | | 34250 |
| 26166 | 2504002 | LD7 | | 34260 |
| 26167 | 0307102 | STA /6119 | | 34270 |
| 26170 | 1007074 | DLO /6109 | | 34280 |
| 26171 | 2571003 | SRA 0 | 3 | 34290 |
| 26172 | 2606206 | BRU /6126 | | 34300 |
| 26173 | 0003041 | /6124 LDA /6136 | | 34310 |
| 26174 | 0207102 | SUP /6119 | | 34320 |
| 26175 | 2514001 | RMT | | 34330 |
| 26176 | 2606240 | BRU /6132 | | 34340 |
| 26177 | 0667102 | LDY /6119 | 3 | 34350 |
| 26200 | 0007074 | LDA /6109 | | 34360 |
| 26201 | 2504006 | MAD | | 34370 |
| 26202 | 2572200 | SLD 0 | 3 | 34380 |
| 26203 | 0307102 | STA /6119 | | 34390 |
| 26204 | 1007074 | DLO /6109 | | 34400 |
| 26205 | 2572200 | SLD 0 | 3 | 34410 |
| 26206 | 0726242 | /6126 SPR /6127 | 1 | 34420 |
| 26207 | 1307074 | DST /6109 | | 34430 |

| | | | |
|-------|---------|-------------------------------|--|
| 26210 | 0007102 | LDA /6119 | 34440 |
| 26211 | 0102724 | ADD /6141 | 34450 |
| 26212 | 0307102 | STA /6119 | 34460 |
| 26213 | 0007074 | LDA /6109 | 34470 |
| 26214 | 2504005 | MAC | 34480 |
| 26215 | 0007102 | LDA /6119 | 34490 |
| 26216 | 2511010 | SRD 8 | 34500 |
| 26217 | 1307076 | DST /6128 | 34510 |
| 26220 | 1007074 | DLD /6109 | 34520 |
| 26221 | 2511010 | SRD 8 | 34530 |
| 26222 | 0007077 | LDA /6128+1 | 34540 |
| 26223 | 1307074 | DST /6109 | 34550 |
| 26224 | 0007071 | LDA /6105+1 | 34560 |
| 26225 | 2514001 | BMI | 34570 |
| 26226 | 2606233 | RRU /6120 | 34580 |
| 26227 | 3007074 | FLD /6109 | 34590 |
| 26230 | 3100010 | SET NFLPOINT | 34600 |
| 26231 | 0627072 | /6131 LD _X /6134 1 | 34610 |
| 26232 | 2620001 | RRU 1 1 | 34620 |
| 26233 | 3500005 | /6120 CQY | 34630 |
| 26234 | 3001400 | FLD FONE | 34640 |
| 26235 | 3100010 | SET NFLPOINT | 34650 |
| 26236 | 3607074 | FDV /6109 | 34660 |
| 26237 | 2606231 | BRU /6131 | 34670 |
| 26240 | 3001402 | /6132 FLD FZERO | 34680 |
| 26241 | 2606230 | BRU /6131-1 | 34690 |
| 26242 | 1307076 | /6127 DST /6128 | 34700 |
| 26243 | 3500010 | SET FIXPOINT | 34710 |
| 26244 | 0662726 | LD _X ZERO 3 | 34720 |
| 26245 | 3200005 | CAX | 34730 |
| 26246 | 3153052 | FAD /6149 3 | 34740 |
| 26247 | 3100002 | MAC A | 34750 |
| 26250 | 3507076 | FMP /6128 | 34760 |
| 26251 | 3307100 | FST /6128+2 | 34770 |
| 26252 | 1007100 | DLD /6128+2 | 34780 |
| 26253 | 1460002 | INX 2 3 | 34790 |
| 26254 | 0477756 | RXL 18 3 | 34800 |
| 26255 | 2606246 | BRU /6127+4 | 34810 |
| 26256 | 2511001 | SRD 1 | 34820 |
| 26257 | 0103074 | ADD /6152 | 34830 |
| 26260 | 2620001 | RRU 1 1 | 34840 |
| | | REM | 34850 |
| | | REM | 34860 |
| | | REM | CD225D2.014 - FLOATING-POINT LOG 2,E,10 AAU. |
| | | REM | GENERAL ELECTRIC CO COMP DEPT. PHX. |
| | | REM | 19 JAN 62. |
| | | REM | 146 SOURCE-LANGUAGE CARDS. |
| 26261 | 2504002 | LNSUB LD7 | 34910 |
| 26262 | 2606264 | RRU **2 | 34920 |
| 26263 | 2504102 | LOG2 LMD | 34930 |
| 26264 | 0627070 | LD _X R 1 | 34940 |
| 26265 | 0306230 | STA LOGT | 34950 |
| 26266 | 2504002 | LDZ | 34960 |
| 26267 | 0307075 | STA /5114+1 | 34970 |

RUN-TIME, UPPER MEM. ARITHMETIC SUBROUTINES

000076

| | | | | |
|-------|---------|--------------|---|-------|
| 26270 | 3500010 | SET FIXPOINT | | 34980 |
| 26271 | 3307070 | FST /5138 | | 34990 |
| 26272 | 3201400 | FSU /5106 | | 35000 |
| 26273 | 3307076 | FST /5107 | | 35010 |
| 26274 | 1000000 | BLD 0 | | 35020 |
| 26275 | 1307072 | DST /5112 | | 35030 |
| 26276 | 0007070 | LDA /5138 | | 35040 |
| 26277 | 2003112 | EXT /5113 | | 35050 |
| 26300 | 0307074 | STA /5114 | | 35060 |
| 26301 | 1007070 | BLD /5138 | | 35070 |
| 26302 | 2512210 | SLD 8 | | 35080 |
| 26303 | 0766400 | SPR /5115 3 | | 35090 |
| 26304 | 2511006 | SKD 6 | | 35100 |
| 26305 | 1107074 | BAD /5114 | | 35110 |
| 26306 | 1307070 | DST /5138 | | 35120 |
| 26307 | 0006230 | LDA LOGT | | 35130 |
| 26310 | 2514001 | BMI | | 35140 |
| 26311 | 2606316 | BRU **5 | | 35150 |
| 26312 | 3007070 | FLD /5138 | A | 35160 |
| 26313 | 3100002 | MAO | | 35170 |
| 26314 | 3503076 | FMP /5117 | | 35180 |
| 26315 | 3307070 | FST /5138 | | 35190 |
| 26316 | 2504102 | LMO | | 35200 |
| 26317 | 0306230 | STA LOGT | | 35210 |
| 26320 | 1007070 | BLD /5138 | | 35220 |
| 26321 | 2516001 | RPL | | 35230 |
| 26322 | 2606330 | BRU /5121 | | 35240 |
| 26323 | 1307070 | DST /5138 | | 35250 |
| 26324 | 2534002 | LDZ | | 35260 |
| 26325 | 0306230 | STA LOGT | | 35270 |
| 26326 | 1001402 | BLD /5120 | | 35280 |
| 26327 | 1207070 | DSU /5138 | | 35290 |
| 26330 | 2513210 | DNC 8 | | 35300 |
| 26331 | 1307070 | DST /5138 | | 35310 |
| 26332 | 0000000 | LDA 0 | | 35320 |
| 26333 | 2516002 | BNZ | | 35330 |
| 26334 | 2606346 | BRU /5124 | | 35340 |
| 26335 | 1007070 | BLD /5138 | | 35350 |
| 26336 | 2513233 | DNC 27 | | 35360 |
| 26337 | 1307070 | DST /5138 | | 35370 |
| 26340 | 0000000 | LDA 0 | | 35380 |
| 26341 | 2516002 | BNZ | | 35390 |
| 26342 | 2606345 | BRU **3 | | 35400 |
| 26343 | 2504006 | MAO | | 35410 |
| 26344 | 2606345 | BRU /5127-1 | | 35420 |
| 26345 | 0103075 | ADD /5123 | | 35430 |
| 26346 | 0307074 | STA /5114 | | 35440 |
| 26347 | 0006230 | LDA LOGT | | 35450 |
| 26350 | 2514001 | BMI | | 35460 |
| 26351 | 2606355 | BRU **4 | | 35470 |
| 26352 | 1001402 | BLD /5120 | | 35480 |
| 26353 | 1207070 | DSU /5138 | | 35490 |
| 26354 | 1307070 | DST /5138 | | 35500 |
| 26355 | 0007070 | LDA /5138 | | 35510 |

RUN-TIME, UPPER MEM. ARITHMETIC SUBROUTINES

000077

| | | | |
|-------|---------|--------------------|-------|
| 26356 | 2504006 | MAQ | 35520 |
| 26357 | 0007074 | LDA /5114 | 35530 |
| 26360 | 2511010 | SRD 8 | 35540 |
| 26361 | 1307076 | DST /5107 | 35550 |
| 26362 | 1007070 | DLD /5138 | 35560 |
| 26363 | 2511010 | SRD 8 | 35570 |
| 26364 | 0007077 | LDA /5107+1 | 35580 |
| 26365 | 1307070 | DST /5138 | 35590 |
| 26366 | 1007072 | DLD /5112 | 35600 |
| 26367 | 1300000 | DST 0 | 35610 |
| 26370 | 3100002 | MAQ A | 35620 |
| 26371 | 3100002 | MAQ A | 35630 |
| 26372 | 3100010 | SET NFLPOINT | 35640 |
| 26373 | 3107070 | FAD /5138 | 35650 |
| 26374 | 2514003 | RDV | 35660 |
| 26375 | 2606376 | BRU **1 | 35670 |
| 26376 | 3100010 | SET NFLPOINT | 35680 |
| 26377 | 2620001 | BRU 1 1 | 35690 |
| 26400 | 3500010 | /5115 SET FIXPOINT | 35700 |
| 26401 | 2511001 | SRD 1 | 35710 |
| 26402 | 1307102 | DST /5143 | 35720 |
| 26403 | 1103110 | DAD /5144 | 35730 |
| 26404 | 1307076 | DST /5107 | 35740 |
| 26405 | 3007102 | FLD /5143 | 35750 |
| 26406 | 3203110 | FSH /5144 | 35760 |
| 26407 | 3607076 | FDV /5107 | 35770 |
| 26410 | 3307100 | FST /5152 | 35780 |
| 26411 | 3100002 | MAQ A | 35790 |
| 26412 | 3507100 | FMP /5152 | 35800 |
| 26413 | 3307076 | FST /5107 | 35810 |
| 26414 | 1007076 | DLD /5107 | 35820 |
| 26415 | 2511002 | SRD 2 | 35830 |
| 26416 | 1103104 | DAD /5145 | 35840 |
| 26417 | 1307076 | DST /5107 | 35850 |
| 26420 | 3003102 | FLD /5147 | 35860 |
| 26421 | 3607076 | FDV /5107 | 35870 |
| 26422 | 3103100 | FAD /5146 | 35880 |
| 26423 | 3100002 | MAQ A | 35890 |
| 26424 | 3507100 | FMP /5152 | 35900 |
| 26425 | 3307076 | FST /5107 | 35910 |
| 26426 | 1007076 | DLD /5107 | 35920 |
| 26427 | 1103106 | DAD /5148 | 35930 |
| 26430 | 2660001 | BRU 1 3 | 35940 |
| | | REM | 35950 |
| | | NAM | 35960 |

EXIT INTERNAL SUBROUTINE
 LAST CARD - CD225D2.014
 RUN-TIME, UPPER MEM. SERVICE ROUTINES

| | | | | |
|-------|---------|--------|--------------|-------|
| | | EJT | | 35970 |
| | | REM | | 35980 |
| | | REM | | 35990 |
| 26431 | 0622726 | FORMAT | LDX ZERO 1 | 36000 |
| 26432 | 0642726 | | LDX ZERO 2 | 36010 |
| 26433 | 0046240 | FORML | LDA WORD 2 | 36020 |
| 26434 | 2511014 | | SRD 12 | 36030 |
| 26435 | 0326150 | | STA TEMP 1 | 36040 |
| 26436 | 0002726 | | LDA ZERO | 36050 |
| 26437 | 2512206 | | SLD 6 | 36060 |
| 26440 | 0326151 | | STA TEMP+1 1 | 36070 |
| 26441 | 0002726 | | LDA ZERO | 36080 |
| 26442 | 2512206 | | SLD 6 | 36090 |
| 26443 | 0326152 | | STA TEMP+2 1 | 36100 |
| 26444 | 1420003 | | INX 3 1 | 36110 |
| 26445 | 1440001 | | INX 1 2 | 36120 |
| 26446 | 0457773 | | RXL 5 2 | 36130 |
| 26447 | 2606433 | | BRU FORML | 36140 |
| 26450 | 0006165 | | LDA TEMP+13 | 36150 |
| 26451 | 2512002 | | SLA 2 | 36160 |
| 26452 | 0106165 | | ADD TEMP+13 | 36170 |
| 26453 | 2512001 | | SLA 1 | 36180 |
| 26454 | 0106166 | | ADD TEMP+14 | 36190 |
| 26455 | 0306167 | | STA TEMP+15 | 36200 |
| 26456 | 0006160 | | LDA TEMP+8 | 36210 |
| 26457 | 2504005 | | XAO | 36220 |
| 26460 | 0002671 | | LDA BL | 36230 |
| 26461 | 0306160 | | STA TEMP+8 | 36240 |
| 26462 | 2504005 | | XAO | 36250 |
| 26463 | 0203167 | | SUR EXN5 | 36260 |
| 26464 | 2514001 | | BMI | 36270 |
| 26465 | 2606521 | | BRU FORM27 | 36280 |
| 26466 | 0623170 | | LDX EXN6 1 | 36290 |
| 26467 | 0026151 | FORMAT | LDA TEMP+1 1 | 36300 |
| 26470 | 2504032 | | ADD | 36310 |
| 26471 | 0326151 | | STA TEMP+1 1 | 36320 |
| 26472 | 0202723 | | SUR EXN10 | 36330 |
| 26473 | 2514001 | | BMI | 36340 |
| 26474 | 2606521 | | BRU FORM27 | 36350 |
| 26475 | 0002726 | | LDA ZERO | 36360 |
| 26476 | 0326151 | | STA TEMP+1 1 | 36370 |
| 26477 | 0000001 | | LDA 1 | 36380 |
| 26500 | 2504112 | | SBO | 36390 |
| 26501 | 0300001 | | STA 1 | 36400 |
| 26502 | 2516002 | | BNZ | 36410 |
| 26503 | 2606467 | | BRU FORM26 | 36420 |
| 26504 | 2504022 | | LDC | 36430 |
| 26505 | 0306152 | | STA TEMP+2 | 36440 |
| 26506 | 0006164 | | LDA TEMP+12 | 36450 |
| 26507 | 0202727 | | SUR EX32 | 36460 |
| 26510 | 2514002 | | SZE | 36470 |
| 26511 | 2606516 | | BRU FORM28 | 36480 |
| 26512 | 0006167 | | LDA TEMP+15 | 36490 |
| 26513 | 2504032 | | ADD | 36500 |

RUN-TIME, UPPER MEM. SERVICE ROUTINES

000079

| | | | | |
|-------|---------|--------------------|---|-------|
| 26514 | 0306167 | STA TEMP+15 | | 36510 |
| 26515 | 2606521 | BRU FORM27 | | 36520 |
| 26516 | 0006167 | FORM28 LDA TEMP+15 | | 36530 |
| 26517 | 2504112 | SBO | | 36540 |
| 26520 | 0306167 | STA TEMP+15 | | 36550 |
| 26521 | 0006167 | FORM27 LDA TEMP+15 | | 36560 |
| 26522 | 2516002 | BNZ | | 36570 |
| 26523 | 2606576 | BRU FORM4 | | 36580 |
| 26524 | 0623170 | FORM2 LDX EXN6 1 | | 36590 |
| 26525 | 0026151 | LDA TEMP+1 1 | | 36600 |
| 26526 | 2516002 | BNZ | | 36610 |
| 26527 | 2606713 | BRU FORM71 | | 36620 |
| 26530 | 0002671 | LDA RL | | 36630 |
| 26531 | 0326151 | STA TEMP+1 1 | | 36640 |
| 26532 | 0000001 | LDA 1 | | 36650 |
| 26533 | 2504112 | SBO | | 36660 |
| 26534 | 0306001 | STA 1 | | 36670 |
| 26535 | 2606525 | BRU FORM2+1 | | 36680 |
| 26536 | 0622726 | FORM11 LDX ZERO 1 | | 36690 |
| 26537 | 2506016 | SET PSK | | 36700 |
| 26540 | 0664001 | LDX EXON 3 | | 36710 |
| 26541 | 0026150 | FORM12 LDA TEMP 1 | | 36720 |
| 26542 | 2512006 | SLA 6 | | 36730 |
| 26543 | 0126151 | ADD TEMP+1 1 | | 36740 |
| 26544 | 2512006 | SLA 6 | | 36750 |
| 26545 | 0126152 | ADD TEMP+2 1 | | 36760 |
| 26546 | 0364100 | STA EXC 3 | | 36770 |
| 26547 | 1420003 | INX 3 | 4 | 36780 |
| 26550 | 1460001 | INX 1 | 3 | 36790 |
| 26551 | 0437767 | BXL 9 | 1 | 36800 |
| 26552 | 2606541 | BRU FORM12 | | 36810 |
| 26553 | 0537763 | BXH 13 | 1 | 36820 |
| 26554 | 2606557 | BRU FORM13 | | 36830 |
| 26555 | 1420002 | INX 2 | 1 | 36840 |
| 26556 | 2606541 | BRU FORM12 | | 36850 |
| 26557 | 0006166 | FORM13 LDA TEMP+14 | | 36860 |
| 26563 | 2512006 | SLA 6 | | 36870 |
| 26561 | 0102671 | ADD BL | | 36880 |
| 26562 | 2512006 | SLA 6 | | 36890 |
| 26563 | 0102671 | ADD BL | | 36900 |
| 26564 | 0364100 | STA EXO 3 | | 36910 |
| 26565 | 1460001 | INX 1 | 3 | 36920 |
| 26566 | 1764001 | STX EXON 3 | | 36930 |
| 26567 | 0006214 | LDA YIND | | 36940 |
| 26570 | 0103167 | ADD EXN5 | | 36950 |
| 26571 | 0306214 | FORM14 STA YIND | | 36960 |
| 26572 | 2506015 | SET PST | | 36970 |
| 26573 | 0646325 | LDX UNFL2 2 | | 36980 |
| 26574 | 0626226 | LDX UNFL3 1 | | 36990 |
| 26575 | 2620001 | BRU 1 1 | | 37000 |
| 26576 | 0006164 | FORM4 LDA TEMP+12 | | 37010 |
| 26577 | 0202727 | SUR EX32 | | 37020 |
| 26600 | 2514002 | SZE | | 37030 |
| 26601 | 2606650 | BRU FORM5 | | 37040 |

RUN-TIME, UPPER MEM. SERVICE ROUTINES

000080

| | | | |
|-------|---------|---------------------|-------|
| 26602 | 0006167 | LDA TEMP+15 | 37050 |
| 26603 | 0203171 | SUB EXN7 | 37060 |
| 26604 | 2516001 | RPL | 37070 |
| 26605 | 2606623 | BRU FORM6 | 37080 |
| 26606 | 0622726 | LDY ZERO 1 | 37090 |
| 26607 | 0026152 | FORM20 LDA TEMP+2 1 | 37100 |
| 26610 | 0326151 | STA TEMP+1 1 | 37110 |
| 26611 | 0006167 | LDA TEMP+15 | 37120 |
| 26612 | 2504112 | SBO | 37130 |
| 26613 | 0306167 | STA TEMP+15 | 37140 |
| 26614 | 2514002 | BZE | 37150 |
| 26615 | 2606620 | BRU FORM21 | 37160 |
| 26616 | 1420001 | INX 1 1 | 37170 |
| 26617 | 2606607 | BRU FORM20 | 37180 |
| 26620 | 0002667 | FORM21 LDA PER | 37190 |
| 26621 | 0326152 | STA TEMP+2 1 | 37200 |
| 26622 | 2606524 | BRU FORM2 | 37210 |
| 26623 | 0006167 | FORM6 LDA TEMP+15 | 37220 |
| 26624 | 2504112 | SBO | 37230 |
| 26625 | 0306167 | STA TEMP+15 | 37240 |
| 26626 | 0006152 | FORM8 LDA TEMP+2 | 37250 |
| 26627 | 0306151 | STA TEMP+1 | 37260 |
| 26630 | 0002667 | LDA PER | 37270 |
| 26631 | 0306152 | STA TEMP+2 | 37280 |
| 26632 | 0006167 | LDA TEMP+15 | 37290 |
| 26633 | 2504006 | MAQ | 37300 |
| 26634 | 1602723 | DVD EXN10 | 37310 |
| 26635 | 2514002 | BZF | 37320 |
| 26636 | 2606643 | BRU FORM7 | 37330 |
| 26637 | 0306165 | STA TEMP+13 | 37340 |
| 26640 | 2504005 | XAO | 37350 |
| 26641 | 0306166 | STA TEMP+14 | 37360 |
| 26642 | 2606536 | BRU FORM11 | 37370 |
| 26643 | 2504005 | FORM7 XAO | 37380 |
| 26644 | 0306165 | STA TEMP+13 | 37390 |
| 26645 | 0002671 | LDA BL | 37400 |
| 26646 | 0306166 | STA TEMP+14 | 37410 |
| 26647 | 2606536 | BRU FORM11 | 37420 |
| 26650 | 0623171 | FORM5 LDY EXN7 1 | 37430 |
| 26651 | 0642726 | LDY ZERO 2 | 37440 |
| 26652 | 0026150 | FORM31 LDA TEMP 1 | 37450 |
| 26653 | 2516002 | BNZ | 37460 |
| 26654 | 2606662 | BRU FORM30 | 37470 |
| 26655 | 1440001 | INX 1 2 | 37480 |
| 26656 | 0000001 | LDA 1 | 37490 |
| 26657 | 2504112 | SBO | 37500 |
| 26660 | 0300001 | STA 1 | 37510 |
| 26661 | 2606652 | BRU FORM31 | 37520 |
| 26662 | 0000002 | FORM31 LDA 2 | 37530 |
| 26663 | 0206167 | SUB TEMP+15 | 37540 |
| 26664 | 2516001 | SPL | 37550 |
| 26665 | 2606672 | BRU FORM9 | 37560 |
| 26666 | 0006167 | LDA TEMP+15 | 37570 |
| 26667 | 2504032 | ADC | 37580 |

| | | | | |
|-------|---------|--------|--------------|-------|
| 26670 | 0306167 | | STA TEMP+15 | 37590 |
| 26671 | 2606626 | | BRU FORM8 | 37600 |
| 26672 | 0622726 | FORM9 | LDX ZERO 1 | 37610 |
| 26673 | 0006152 | | LDA TEMP+2 | 37620 |
| 26674 | 2504005 | | XAO | 37630 |
| 26675 | 0026153 | FORM40 | LDA TEMP+3 1 | 37640 |
| 26676 | 2504005 | | XAO | 37650 |
| 26677 | 0326153 | | STA TEMP+3 1 | 37660 |
| 26700 | 1420001 | | INX 1 1 | 37670 |
| 26701 | 0437773 | | BXL 5 1 | 37680 |
| 26702 | 2606675 | | BRU FORM40 | 37690 |
| 26703 | 0002726 | | LDA ZERO | 37700 |
| 26704 | 0306152 | | STA TEMP+2 | 37710 |
| 26705 | 0006167 | | LDA TEMP+15 | 37720 |
| 26706 | 2504112 | | S80 | 37730 |
| 26707 | 0306167 | | STA TEMP+15 | 37740 |
| 26710 | 2514002 | | BZE | 37750 |
| 26711 | 2606524 | | BRU FORM2 | 37760 |
| 26712 | 2606672 | | BRU FORM9 | 37770 |
| 26713 | 0537777 | FORM71 | RXH 1 1 | 37780 |
| 26714 | 2606721 | | BRU FORM72 | 37790 |
| 26715 | 0002726 | | LDA ZERO | 37800 |
| 26716 | 0306151 | | STA TEMP+1 | 37810 |
| 26717 | 0002667 | | LDA PER | 37820 |
| 26720 | 0306152 | | STA TEMP+2 | 37830 |
| 26721 | 0622726 | FORM72 | LDX ZERO 1 | 37840 |
| 26722 | 2506016 | | SET PBK | 37850 |
| 26723 | 0664001 | | LDX EXON 3 | 37860 |
| 26724 | 0026150 | FORM73 | LDA TEMP 1 | 37870 |
| 26725 | 2512006 | | SLA 6 | 37880 |
| 26726 | 0126151 | | ADD TEMP+1 1 | 37890 |
| 26727 | 2512006 | | SLA 6 | 37900 |
| 26730 | 0126152 | | ADD TEMP+2 1 | 37910 |
| 26731 | 0364100 | | STA EXO 3 | 37920 |
| 26732 | 1420003 | | INX 3 1 | 37930 |
| 26733 | 1460001 | | INX 1 3 | 37940 |
| 26734 | 0437767 | | BXL 9 1 | 37950 |
| 26735 | 2606724 | | BRU FORM73 | 37960 |
| 26736 | 1764001 | | STX EXON 3 | 37970 |
| 26737 | 0006214 | | LDA YIND | 37980 |
| 26740 | 0103165 | | ADD EXN3 | 37990 |
| 26741 | 2606571 | | BRU FORM14 | 38000 |
| | | | REM | 38010 |
| | | | REM | 38020 |
| | | | REM | 38030 |
| | | | REM | 38040 |
| | | | REM | 38050 |
| | | | REM | 38060 |
| | | | REM | 38070 |
| | | | REM | 38080 |
| 26742 | 1766224 | YUNFU | STX UNFL1 3 | 38090 |
| 26743 | 1746225 | | STX UNFL2 2 | 38100 |
| 26744 | 3306240 | | FST WORD | 38110 |
| 26745 | 0726766 | | SPR INTCHK 1 | 38120 |

NUMERIC OUTPUT ROUTINE -- YUNF
 THE UNFLCAT ROUTINE CALLS INTCHK, YINT
 AND BDCA AS SUBROUTINES, THE NUMBER TO BE
 OUTPUT IS IN AX UPON ENTRY TO YUNF
 AND IS PLACED IN BCD FORMAT IN THE OUT-
 PUT AREA. FORMATTING IS AUTOMATICALLY
 DONE BY YINT OR BY FORMAT FOR INTEGERS AND
 FLOATING POINT NUMBERS RESPECTIVELY

RUN-TIME, UPPER MEM, SERVICE ROUTINES

000082

RUN-TIME, UPPER MEM. SERVICE ROUTINES

000083.

| | | | | | |
|-------|---------|------|--------------|-----------------------------|-----------|
| | | | EJT | | 38590 |
| 27020 | 3100010 | BDC1 | SET NFLPOINT | | BAS38600 |
| 27021 | 1726232 | | STX BDC61 1 | | BAS38610 |
| 27022 | 1746233 | | STX BDC62 2 | | BAS38620 |
| 27023 | 0663134 | | LDX BDC40 3 | | BAS38630 |
| 27024 | 1766234 | | STX BDC63 3 | | BAS38640 |
| 27025 | 1306236 | | DST BDCARG | | BAS38650 |
| 27026 | 3100002 | | MAQ A | | BAS38660 |
| 27027 | 2504005 | | XAO | | BAS38670 |
| 27030 | 2514001 | | BMI | | BAS38680 |
| 27031 | 2607167 | | BRU BDC1 | | BAS38690 |
| 27032 | 3106236 | | FAD BDCARG | | BAS38700 |
| 27033 | 0003142 | | LDA BDC44 | | BAS38710 |
| 27034 | 2516720 | | BAR BAN 7 | | BAS38720 |
| 27035 | 2607034 | | BRU +-1 | | BAS38730 |
| 27036 | 2514724 | | BAR BUF 7 | | BAS38740 |
| 27037 | 3003134 | | FLD BDC40 | | BAS38750 |
| 27040 | 3306236 | BDC2 | FST BDCARG | | BAS38760 |
| 27041 | 0306240 | | STA WORD | | BAS38770 |
| 27042 | 1006236 | | DLD BDCARG | | BAS38780 |
| 27043 | 2516001 | | RPL | | BAS38790 |
| 27044 | 2607047 | | BRU BDC3 | | BAS38800 |
| 27045 | 2504522 | | NEG | | BAS38810 |
| 27046 | 0663146 | | LDX BDC48 3 | | BAS38820 |
| 27047 | 1766243 | BDC3 | STX WORD+3 3 | | BAS38830 |
| 27050 | 2519013 | | SRA 11 | | BAS38840 |
| 27051 | 2504006 | | MAQ | | BAS38850 |
| 27052 | 1503130 | | MPY BDC42 | | BAS38860 |
| 27053 | 0306244 | | STA WORD+4 | | BAS38870 |
| 27054 | 0643134 | BDC9 | LDX BDC40 2 | | BAS38880 |
| 27055 | 1440002 | BDC6 | INX 2 2 | | BAS38890 |
| 27056 | 2516000 | | REV | | BAS38890 |
| 27057 | 2607064 | | BRU BDC4 | | BAS388910 |
| 27060 | 0477777 | | RXL 1 3 | | BAS388920 |
| 27061 | 2607172 | | BRU BDC5 | | BAS388930 |
| 27062 | 3100002 | | MAQ A | | BAS388940 |
| 27063 | 3543114 | | FMP BDC30 2 | | BAS388950 |
| 27064 | 2510001 | BDC4 | SRA 1 | | BAS388960 |
| 27065 | 2516002 | | BNZ | | BAS388970 |
| 27066 | 2607055 | | BRU BDC6 | | BAS388980 |
| 27067 | 3306236 | | FST BDCARG | | BAS388990 |
| 27070 | 1006236 | | DLD BDCARG | | BAS39000 |
| 27071 | 0103151 | | AUD BDC54 | | BAS39010 |
| 27072 | 1203140 | | DSU BDC43 | | BAS39020 |
| 27073 | 2514001 | | BMI | | BAS39030 |
| 27074 | 2607174 | | BRU BDC11 | V LESS THAN .1 | BAS39040 |
| 27075 | 1006236 | | DLD BDCARG | V GR OR EQUAL .1 | BAS39050 |
| 27076 | 1203114 | | DSU BDC30 | | BAS39060 |
| 27077 | 2516001 | | RPL | | BAS39070 |
| 27100 | 2607174 | | BRU BDC11 | V GR OR EQUAL 1 | BAS39080 |
| 27101 | 0006244 | | LDA WORD+4 | V LESS THAN 1 | BAS39090 |
| 27102 | 2514002 | | RZP | IS DEC EXP ZERO | BAS39100 |
| 27103 | 0306243 | | STA WORD+3 | IF SO, SET ITS SIGN TO ZERO | BAS39110 |
| 27104 | 1006236 | | DLD BDCARG | ISOLATE EXPONENT OF V | BAS39120 |

| | | | | |
|-------|---------|------------------|-----------------------------------|----------|
| 27105 | 2510013 | SRA 11 | FOR SHIFT | BAS39130 |
| 27106 | 2504522 | NEG | TO FIX | BAS39140 |
| 27107 | 0103150 | ADD BDC50 | POINT IN | BAS39150 |
| 27110 | 0622710 | LDX UPSIT 1 | | 39160 |
| 27111 | 2506016 | SET PBK | | 39170 |
| 27112 | 0327115 | STA BDC14 1 | MANTISSA | 39180 |
| 27113 | 0006236 | LDA BDCARG | RESTORE MANTISSA | BAS39190 |
| 27114 | 2512210 | SLD 8 | DELETE EXPONENT | BAS39200 |
| 27115 | 0000000 | BDC14 DEC 0 | ###FIX POINT IN MANTISSA | 39210 |
| 27116 | 2506015 | SET PST | | 39220 |
| 27117 | 2514003 | BOV | RESET OVERFLOW | BAS39230 |
| 27120 | 2607121 | BRU **1 | | BAS39240 |
| 27121 | 1103154 | DAD BDC56 | ROUND | BAS39250 |
| 27122 | 2514003 | BOV | | BAS39260 |
| 27123 | 2607213 | BRU BDC0VF | | BAS39270 |
| 27124 | 0767203 | SPS BDC15+2 3 | GET FIRST BCD DIGIT | BAS39280 |
| 27125 | 0106240 | ADD WORD | COMBINE WITH SIGN AND DEC POINT | BAS39290 |
| 27126 | 0306240 | STA WORD | | BAS39300 |
| 27127 | 0643134 | LDX BDC40 2 | GETS | BAS39310 |
| 27130 | 0767201 | SPR BDC15 3 | TWO | BAS39320 |
| 27131 | 2512006 | SLA 6 | WORDS | BAS39330 |
| 27132 | 0346241 | STA WORD+1 2 | OF | BAS39340 |
| 27133 | 0767201 | SPR BDC15 3 | DIGITS | BAS39350 |
| 27134 | 0146241 | ADD WORD+1 2 | IN | BAS39360 |
| 27135 | 2512006 | SLA 6 | BCD | BAS39370 |
| 27136 | 0346241 | STA WORD+1 2 | REPRESENTATION | BAS39380 |
| 27137 | 0767201 | SPR BDC15 3 | AND STORES | BAS39390 |
| 27140 | 0146241 | ADD WORD+1 2 | THEM | BAS39400 |
| 27141 | 0346241 | STA WORD+1 2 | IN | BAS39410 |
| 27142 | 1440001 | INY 1 2 | WORD+1,WORD+2, | BAS39420 |
| 27143 | 0457776 | BXL 2 2 | | BAS39430 |
| 27144 | 2607130 | BRU BDC16+1 | | BAS39440 |
| 27145 | 0767201 | SPR BDC15 3 | LAST DIGIT OF MANTISSA | BAS39450 |
| 27146 | 2512014 | SLA 12 | ROOM FOR SIGN OF EXPONENT | BAS39460 |
| 27147 | 0103145 | ADD BDC47 | ADD SPACE | BAS39470 |
| 27150 | 0206243 | SUB WORD+3 | CHANGE SPACE TO MINUS IF NEG EXP. | BAS39480 |
| 27151 | 0306243 | STA WORD+3 | | BAS39490 |
| 27152 | 0006244 | LDA WORD+4 | DECIMAL EXPONENT | BAS39500 |
| 27153 | 2504006 | MAQ | | BAS39510 |
| 27154 | 1603144 | PVD BDC46 | DIVIDE BY TEN TO GET LEADING | BAS39520 |
| 27155 | 0106243 | ADD WORD+3 | DIGIT | BAS39530 |
| 27156 | 0306243 | STA WORD+3 | | BAS39540 |
| 27157 | 2504005 | XAC | SECOND | BAS39550 |
| 27160 | 2512014 | SLA 12 | DIGIT | BAS39560 |
| 27161 | 0103147 | ADD BDC49 | OF | BAS39570 |
| 27162 | 0306244 | STA WORD+4 | EXPONENT | BAS39580 |
| 27163 | 0626232 | LDX BDC61 1 | | BAS39590 |
| 27164 | 0646233 | LDX BDC62 2 | | BAS39600 |
| 27165 | 0666234 | LDX BDC63 3 | | BAS39610 |
| 27166 | 2620001 | RRU 1 1 | | BAS39620 |
| 27167 | 3206236 | BDC1 FSU BDCARG | NORMALIZE AND CHANGE SIGN | BAS39630 |
| 27170 | 0003143 | LDA BDC45 | MINUS AND DECIMAL POINT | BAS39640 |
| 27171 | 2607040 | BRU BDC2 | | BAS39650 |
| 27172 | 3643114 | BDC5 FDV BDC30 2 | | BAS39660 |

| | | | | | |
|-------|---------|--------|---------------------|----------|----------|
| 27173 | 2607064 | | BRU BDC4 | BAS39670 | |
| 27174 | 2504022 | 8DC11 | LDO | BAS39680 | |
| 27175 | 0106244 | | ADD WORD+4 | BAS39690 | |
| 27176 | 0306244 | | STA WORD+4 | BAS39700 | |
| 27177 | 2504022 | | LDO | BAS39710 | |
| 27200 | 2607054 | | BRU BDC9 | BAS39720 | |
| 27201 | 1006236 | 8DC15 | DLO BDCARG | BAS39730 | |
| 27202 | 2512204 | | SLD 4 | BAS39740 | |
| 27203 | 2511001 | | SRD 1 | BAS39750 | |
| 27204 | 1306236 | | DST BDCARG | BAS39760 | |
| 27205 | 2511002 | | SRD 2 | BAS39770 | |
| 27206 | 1106236 | | DAD BDCARG | BAS39780 | |
| 27207 | 1306236 | | DST BDCARG | BAS39790 | |
| 27210 | 2504006 | | MAQ | BAS39800 | |
| 27211 | 2512204 | | SLD 4 | BAS39810 | |
| 27212 | 2660001 | | RRU 1 | 3 | BAS39820 |
| 27213 | 0006243 | BDCCOF | LDA WORD+3 | BAS39830 | |
| 27214 | 2516002 | | BNZ | BAS39840 | |
| 27215 | 0003152 | | LDA BDC55 | BAS39850 | |
| 27216 | 2504032 | | ADD | BAS39860 | |
| 27217 | 0106244 | | ADD WORD+4 | BAS39870 | |
| 27220 | 0306244 | | STA WORD+4 | BAS39880 | |
| 27221 | 2514002 | | RZC | BAS39890 | |
| 27222 | 0306243 | | STA WORD+3 | BAS39900 | |
| 27223 | 1003156 | | DLO BDC57 | BAS39910 | |
| 27224 | 2607124 | | BRU BDC17 | BAS39920 | |
| | | | REM | BAS39930 | |
| | | | REM | 39940 | |
| | | | REM | 39950 | |
| | | | REM | 39960 | |
| | | | REM | 39970 | |
| | | | REM | 39980 | |
| | | | REM | 39990 | |
| | | | REM | 40000 | |
| | | | REM | 40010 | |
| 27225 | 0662724 | YINT | LDX EXN1 | 40020 | |
| 27226 | 2514721 | | BAR BMI | 40030 | |
| 27227 | 2607242 | | BRU YINT2 | 40040 | |
| 27230 | 0002671 | | LDA BL | 40050 | |
| 27231 | 0306150 | | STA TEMP | 40060 | |
| 27232 | 0003246 | YINT3 | LDA EXN30 | 40070 | |
| 27233 | 0206257 | | SUB ICHK1+1 | 40080 | |
| 27234 | 0305633 | | STA XTEM | 40090 | |
| 27235 | 0625633 | | LDX XTEM | 40100 | |
| 27236 | 1006240 | | DLO WORD | 40110 | |
| 27237 | 2002707 | | EXT MEXP | 40120 | |
| 27240 | 2531000 | | SRD 0 | 40130 | |
| 27241 | 2607250 | | BRU YINT4 | 40140 | |
| 27242 | 3200005 | YINT2 | CAX | 40150 | |
| 27243 | 3206240 | | FSU WORD | 40160 | |
| 27244 | 3306240 | | FST WORD | 40170 | |
| 27245 | 0002727 | | LDA FX32 | 40180 | |
| 27246 | 0306150 | | STA TEMP | 40190 | |
| 27247 | 2607232 | | BRU YINT3 | 40200 | |
| | | | \$\$\$\$\$ | | |
| | | | FORM ABSOLUTE VALUE | | |
| | | | MINUS SIGN | | |

| | | | | |
|-------|---------|----------|---|-------|
| | | REM | TO OUTPUT AN INTEGER UP TO 30 BITS LONG | 40210 |
| | | REM | ENTER AT YINT4 WITH THE INTEGER RIGHT | 40220 |
| | | REM | JUSTIFIED IN A AND Q, INDEX REGISTER 3 | 40230 |
| | | REM | SET TO 1 AND THE OCTAL FOR THE | 40240 |
| | | REM | SIGN [20,40, OR 60] STORED RIGHT | 40250 |
| | | REM | JUSTIFIED IN LOCATION TEMP. | 40260 |
| | | REM | THIS ROUTINE WORKS IN ANY INDEX GROUP AND | 40270 |
| | | REM | LEAVES THE RESULT IN THE OUTPUT REGION. | 40280 |
| | | DVD TENT | SAVE QUOTIENT AND REMAINDER | 40290 |
| 27250 | 1602717 | YINT4 | DST WORD | 40300 |
| 27251 | 1306240 | | BZE | 40310 |
| 27252 | 2514002 | | BRU YINT5 | 40320 |
| 27253 | 2607302 | | LDX ZERO 2 | 40330 |
| 27254 | 0642726 | | MAO | 40340 |
| 27255 | 2504006 | | LDX EXN1 1 | 40350 |
| 27256 | 0622724 | YINT6 | LDA ZERO | 40360 |
| 27257 | 0002726 | YINT7 | DVD TENT 1 | 40370 |
| 27260 | 1622717 | | BZE | 40380 |
| 27261 | 2514002 | | BRU YINT8 | 40390 |
| 27262 | 2607304 | | STA TEMP 3 | 40400 |
| 27263 | 0366150 | | STX XTEM 2 | 40410 |
| 27264 | 1745633 | | LDA XTEM | 40420 |
| 27265 | 0005633 | | BEV | 40430 |
| 27266 | 2516000 | | INX 1 2 | 40440 |
| 27267 | 1440001 | | INX 1 3 | 40450 |
| 27270 | 1460001 | | INX 1 1 | 40460 |
| 27271 | 1420001 | YINT9 | BXL 6 1 | 40470 |
| 27272 | 0437772 | | BRU YINT7 | 40480 |
| 27273 | 2607257 | | RXH 2 2 | 40490 |
| 27274 | 0557776 | | BRU YINT10 | 40500 |
| 27275 | 2607312 | | LDA WCRD+1 | 40510 |
| 27276 | 0006241 | | MAO | 40520 |
| 27277 | 2504006 | | INY 2 2 | 40530 |
| 27300 | 1440002 | | BRU YINT6 | 40540 |
| 27301 | 2607256 | YINT5 | LDY EXN2 2 | 40550 |
| 27302 | 0643154 | | BRU YINT6 | 40560 |
| 27303 | 2607256 | | STA TEMP 3 | 40570 |
| 27304 | 0366150 | YINT8 | STX XTEM 2 | 40580 |
| 27305 | 1745633 | | LDA XTEM | 40590 |
| 27306 | 0005633 | | RDZ | 40600 |
| 27307 | 2514000 | | INX 1 3 | 40610 |
| 27310 | 1460001 | | BRU YINT9 | 40620 |
| 27311 | 2607271 | | RXH 2 3 | 40630 |
| 27312 | 0577776 | YINT10 | BRU +4 | 40640 |
| 27313 | 2607317 | | LDA ZEPO | 40650 |
| 27314 | 0002726 | | STA TEMP 3 | 40660 |
| 27315 | 0366150 | | INX 1 3 | 40670 |
| 27316 | 1460001 | | LDA RL | 40680 |
| 27317 | 0002571 | | STA TEMP 3 | 40690 |
| 27320 | 0366150 | | STA TEMP+1 3 | 40700 |
| 27321 | 0366151 | | INY 2 3 | 40710 |
| 27322 | 1460002 | | STA TEMP 3 | 40720 |
| 27323 | 0366150 | | STA TEMP+1 3 | 40730 |
| 27324 | 0366151 | | STY TEMP+15 3 | 40740 |
| 27325 | 1745617 | | | |

REMAINDER FROM DIVISION

SUPPLY ZERO IF ALL ZERO

RUN-TIME, UPPER MEM, SERVICE ROUTINES

000087

| | | | | |
|-------|---------|-----------------|---|-------|
| 27326 | 0622726 | LDX ZERO | 1 | 40750 |
| 27327 | 2506016 | SET PK | | 40760 |
| 27330 | 0664001 | LDX EXON | 3 | 40770 |
| 27331 | 0026150 | YINT1? LDA TEMP | 1 | 40780 |
| 27332 | 2512006 | SLA 6 | | 40790 |
| 27333 | 0126151 | ADD TEMP+1 | 1 | 40800 |
| 27334 | 2512006 | SLA 6 | | 40810 |
| 27335 | 0126152 | ADD TEMP+2 | 1 | 40820 |
| 27336 | 0364100 | STA EXO | 3 | 40830 |
| 27337 | 0006214 | LDA YIND | | 40840 |
| 27340 | 2504032 | ADD | | 40850 |
| 27341 | 0306214 | STA YIND | | 40860 |
| 27342 | 1420003 | INX 3 | 1 | 40870 |
| 27343 | 1460001 | INX 1 | 3 | 40880 |
| 27344 | 1725633 | STY XTEM | 1 | 40890 |
| 27345 | 0005633 | LDA XTEM | | 40900 |
| 27346 | 0206167 | SUB TEMP+15 | | 40910 |
| 27347 | 2514001 | BMI | | 40920 |
| 27350 | 2607331 | BRU YINT12 | | 40930 |
| 27351 | 1764001 | STY EXCN | 3 | 40940 |
| 27352 | 2506015 | SET PST | | 40950 |
| 27353 | 0646225 | LDX UNFL2 | 2 | 40960 |
| 27354 | 0626226 | LDX UNFL3 | 1 | 40970 |
| 27355 | 2620001 | BRU 1 | 1 | 40980 |

| | | | | |
|-------|---------|--------|------------|-------|
| | | SJT | | 40990 |
| | | REM | | 41000 |
| | | REM | | 41010 |
| | | REM | | 41020 |
| | | REM | | 41030 |
| | | REM | | 41040 |
| | | REM | | 41050 |
| | | REM | | 41060 |
| | | REM | | 41070 |
| | | REM | | 41080 |
| | | REM | | 41090 |
| | | REM | | 41100 |
| | | REM | | 41110 |
| | | REM | | 41120 |
| | | REM | | 41130 |
| | | REM | | 41140 |
| | | REM | | 41150 |
| | | REM | | 41160 |
| | | REM | | 41170 |
| | | REM | | 41180 |
| | | REM | | 41190 |
| | | INCONV | LDA XR10 | 41200 |
| 27356 | 0000004 | | PM! | 41210 |
| 27357 | 2514001 | | BRU INPER | 41220 |
| 27360 | 2607433 | | SXG 1 | 41230 |
| 27361 | 2505033 | | LDY ZERO 2 | 41240 |
| 27362 | 0642726 | INC0 | LDA EX0 1 | 41250 |
| 27363 | 0024100 | | BXL 2 0 | 41260 |
| 27364 | 0417775 | | BRU INC01 | 41270 |
| 27365 | 2607371 | | LDX ZERO 0 | 41280 |
| 27366 | 0602726 | | INX 1 1 | 41290 |
| 27367 | 1420001 | | BRU INC02 | 41300 |
| 27368 | 2607375 | INC01 | SRA 6 | 41310 |
| 27369 | 2510006 | | BXL 1 0 | 41320 |
| 27370 | 0417777 | | SRA 6 | 41330 |
| 27371 | 2510005 | | INX 1 0 | 41340 |
| 27372 | 1400001 | INC02 | EXT M3 | 41350 |
| 27373 | 2003470 | | CAR N31 | 41360 |
| 27374 | 2103247 | | BRU INC1 | 41370 |
| 27375 | 2607412 | | BRU INC2 | 41380 |
| 27376 | 2607417 | | CAR BL | 41390 |
| 27377 | 2102671 | | BRU INC1 | 41400 |
| 27378 | 2607412 | | BRU INC0 | 41410 |
| 27379 | 2607363 | | CAR N99 | 41420 |
| 27380 | 2103355 | | BRU INPER | 41430 |
| 27381 | 2607433 | | BRU INC3 | 41440 |
| 27382 | 2607421 | | CAR FILL | 41450 |
| 27383 | 2102676 | | BRU INPER | 41460 |
| 27384 | 2607433 | | BRU INC0 | 41470 |
| 27385 | 2607363 | INC1 | BXH 15 2 | 41480 |
| 27386 | 0557760 | | BRU INPER | 41490 |
| 27387 | 2607433 | | STA FLTA 2 | 41500 |
| 27388 | 0344760 | | INX 1 2 | 41510 |
| 27389 | 1440001 | | BRU INC0 | 41520 |
| 27390 | 2607363 | | | |

INCONV CONVERTS NUMBERS RECEIVED IN A CALL FOR INPUT TO NORMALIZED FLOAT POINT. USE IS MADE OF THE COMPILE TIME ROUTINE FLT. THIS IS JUSTIFIED BECAUSE ALL WORKING STORAGE FOR FLT IS IN AN AREA OF THE OUTPUT REGION WHICH WILL BE UNUSED AT THE TIME OF A CALL FOR INPUT.

INCONV PLACES ONE CHARACTER PER WORD IN FLTA AND THE NUMBER OF CHARACTERS ACCUMULATED IN FLTN. THEN FLT IS CALLED. XR10 AND 11 MUST BE INITIALIZED BY THE CALL FOR INPUT ([INCALL]). THEY ARE BOTH SET TO ZERO. SHOULD INCONV BE ENTERED WITH XR10 SET NEGATIVE THIS INDICATES THAT TOO FEW NUMBERS HAVE BEEN SUPPLIED. AN ERROR EXIT OCCURS WHICH INSTRUCTS THE USER TO RETYPE HIS INPUT AND CONTROL IS RETURNED TO THE BEGINNING OF THE CODING FOR THIS STATEMENT.

INDEX GROUP 1 IS USED BY INCONV.

ERROR CHECK

XR12 COUNTS NO. OF CHAR ACCUMULATED.

PICK UP A WORD

CHECK FOR LAST CHARACTER OF WORD AND BUMP WORD POINTER AND RESET CHAR POINTER

SHIFT OUT A CHARACTER

POINT OF CONFLUENCE

SAVE RIGHT-MOST CHARACTER

CHECK FOR CARRIAGE RETURN

BRANCH TO STICK CHARACTER IN

BRANCH TO TAKE CARE OF CARRIAGE RETURN

DELETE BLANKS

CHECK FOR COMMA

NO LEGAL CHAR BETWEEN BLANK AND COMMA

TAKE CARE OF COMMA

DELETE FILL CHARACTERS

CHECK FOR TOO MANY CHARACTERS

RUN-TIME, UPPER MEM, SERVICE ROUTINES

000089

| | | | | | |
|-------|---------|-------|-------------|--|-------|
| 27417 | 2504102 | INC2 | LMD | CARRIAGE RETURN SETS ERROR FLAG | 41530 |
| 27420 | 0300004 | | STA XR10 | | 41540 |
| 27421 | 0000006 | INC3 | LDA XR12 | BOTH COMMA AND CARRIAGE RETURN TERMINATE | 41550 |
| 27422 | 2504112 | | SBO | ACCUMULATION OF CHARACTERS AND SEND THE | 41560 |
| 27423 | 0304745 | | STA FLTN | ROUTINE TO CONVERT. | 41570 |
| 27424 | 2514001 | | BMI INPER | THERE MUST BE AT LEAST ONE CHARACTER | 41580 |
| 27425 | 2607433 | | | | |
| 27426 | 2506013 | | SXG 0 | | 41590 |
| 27427 | 0764040 | | SPR FLT 3 | GO CONVERT. RESULT IS LEFT IN AX, | 41600 |
| 27430 | 2607432 | | BRU INPER-1 | ERROR RETURN | 41610 |
| 27431 | 2620001 | | BRU 1 1 | RETURN TO OBJECT PROGRAM. | 41620 |
| 27432 | 2506033 | | SXG 1 | | 41630 |
| 27433 | 2504002 | INPER | LDZ | SET FLAG TO SKIP OUTPUTTING OF LINE NO. | 41640 |
| 27434 | 2504004 | | LQA | | 41650 |
| 27435 | 0003206 | | LDA N13 | MESSAGE NUMBER | 41660 |
| 27436 | 0622704 | | LDX INLOC 1 | SET UP RETURN FROM RMESS | 41670 |
| 27437 | 0642726 | | LDY ZERO 2 | SET UP TO GET TO LOW MEM | 41680 |
| 27440 | 2641757 | | BRU RMESS 2 | | 41690 |
| 27441 | 2506013 | INRET | SXG 0 | RETURN HERE | 41700 |
| 27442 | 0627137 | | LDX WAI 1 | GET RETURN TO BEGINNING OF STATEMENT | 41710 |
| 27443 | 2620003 | | BRU 3 1 | | 41720 |

| | | | | | |
|-------|---------|--------|-----------------------------|---|-------|
| | | EJT | | | 41730 |
| | | REM | | | 41740 |
| 27444 | 0627070 | YTSTUP | LDX R | 1 | 41750 |
| 27445 | 0007601 | | LDA DPNT | | 41760 |
| 27446 | 2107176 | | CAP DEND | | 41770 |
| 27447 | 2607451 | | BRU *#2 | | 41780 |
| 27450 | 2607510 | | BRU YTLAS | | 41790 |
| 27451 | 0007175 | | LDA DATAI | | 41800 |
| 27452 | 0103164 | | ADD TWO | | 41810 |
| 27453 | 0307175 | | STA DATAI | | 41820 |
| 27454 | 2102712 | | CAP 0200 | | 41830 |
| 27455 | 2620001 | | BRU 1 | 1 | 41840 |
| 27456 | 2504002 | | LDZ | | 41850 |
| 27457 | 0307175 | | STA DATAI | | 41860 |
| 27460 | 2506033 | | SXG 1 | | 41870 |
| 27461 | 0721022 | | SPR DCHEK | 1 | 41880 |
| 27462 | 0007177 | | LDA DREC | | 41890 |
| 27463 | 0307601 | | STA DPNT | | 41900 |
| 27464 | 2107176 | | CAP DEND | | 41910 |
| 27465 | 2607467 | | BRU *#2 | | 41920 |
| 27466 | 2607504 | | BRU YTSKP | | 41930 |
| 27467 | 0103164 | | ADD TWO | | 41940 |
| 27470 | 0307177 | | STA DREC | | 41950 |
| 27471 | 0102657 | | ADD SIGN | | 41960 |
| 27472 | 0307172 | | STA PLIST+2 | | 41970 |
| 27473 | 0007171 | | LDA PLIST+1 | | 41980 |
| 27474 | 2002711 | | EXT 0400 | | 41990 |
| 27475 | 0102712 | | ADD 0200 | | 42000 |
| 27476 | 0307171 | | STA PLIST+1 | | 42010 |
| 27477 | 0003167 | | LDA N5 | | 42020 |
| 27500 | 2506113 | | SXG 4 | | 42030 |
| 27501 | 0720000 | | SPR 8192 | 1 | 42040 |
| 27502 | 0007170 | | DEC PLIST | | 42050 |
| 27503 | 2506015 | | SET PST | | 42060 |
| 27504 | 2506013 | YTSKP | SXA 0 | | 42070 |
| 27505 | 0557400 | | RXH 256 | 2 | 42080 |
| 27506 | 0642726 | | LDY ZERO | 2 | 42090 |
| 27507 | 2620001 | | BRU 1 | 1 | 42100 |
| 27510 | 0007175 | YTLAS | LDA DATAI | | 42110 |
| 27511 | 0103164 | | ADD TWO | | 42120 |
| 27512 | 0307175 | | STA DATAI | | 42130 |
| 27513 | 2107136 | | CAP DATAN | | 42140 |
| 27514 | 2620001 | | PRU 1 | 1 | 42150 |
| 27515 | 2504102 | | LMD | | 42160 |
| 27516 | 2504006 | | MAR | | 42170 |
| 27517 | 0622726 | | LDX ZERO | 1 | 42180 |
| 27520 | 2621757 | | BRU RMESS | 1 | 42190 |
| | | NAM | | | 42200 |
| | | | COMPILE TIME ERROR MESSAGES | | |

COMPILE TIME ERROR MESSAGES

| | | | | |
|-------|---------|------|---------|-------|
| 27521 | 0243144 | LAB1 | EJT | 42210 |
| 27522 | 0254562 | | ALF DIM | 42220 |
| 27523 | 0314645 | | ALF ENS | 42230 |
| 27524 | 0606346 | | ALF ION | 42240 |
| 27525 | 0466043 | | ALF TO | 42250 |
| 27526 | 0215127 | | ALF O L | 42260 |
| 27527 | 0256060 | | ALF ARG | 42270 |
| 27528 | 0314343 | LAB2 | ALF E | 42280 |
| 27529 | 0252721 | | ALF ILL | 42290 |
| 27530 | 0436023 | | ALF EGA | 42300 |
| 27531 | 0464562 | | ALF L C | 42310 |
| 27532 | 0632145 | | ALF ONS | 42320 |
| 27533 | 0636060 | | ALF TAN | 42330 |
| 27534 | 0644321 | | ALF T | 42340 |
| 27535 | 0606060 | | ALF | 42350 |
| 27536 | 0606060 | | ALF ILL | 42360 |
| 27537 | 0314343 | LAB3 | ALF EGA | 42370 |
| 27538 | 0252721 | | ALF L F | 42380 |
| 27539 | 0436026 | | ALF ORM | 42390 |
| 27540 | 0465144 | | ALF ULA | 42400 |
| 27541 | 0644321 | | ALF | 42410 |
| 27542 | 0606060 | | ALF ILL | 42420 |
| 27543 | 0606060 | | ALF EGA | 42430 |
| 27544 | 0314343 | LAB4 | ALF EGA | 42440 |
| 27545 | 0252721 | | ALF L I | 42450 |
| 27546 | 0436031 | | ALF NST | 42460 |
| 27547 | 0436263 | | ALF RUC | 42470 |
| 27548 | 0516423 | | ALF TIO | 42480 |
| 27549 | 0633146 | | ALF N | 42490 |
| 27550 | 0456060 | | ALF ILL | 42500 |
| 27551 | 0314343 | LAB5 | ALF EGA | 42510 |
| 27552 | 0252721 | | ALF L | 42520 |
| 27553 | 0436060 | | ALF NUM | 42530 |
| 27554 | 0456444 | | ALF BER | 42540 |
| 27555 | 0222551 | | ALF | 42550 |
| 27556 | 0606060 | | ALF ILL | 42560 |
| 27557 | 0436060 | | ALF EGA | 42570 |
| 27558 | 0456444 | | ALF L | 42580 |
| 27559 | 0222551 | | ALF NUM | 42590 |
| 27560 | 0606060 | | ALF BER | 42600 |
| 27561 | 0314343 | LAB6 | ALF | 42610 |
| 27562 | 0252721 | | ALF ILL | 42620 |
| 27563 | 0456060 | | ALF EGA | 42630 |
| 27564 | 0606060 | | ALF L | 42640 |
| 27565 | 0314343 | LAB7 | ALF NUM | 42650 |
| 27566 | 0252721 | | ALF BER | 42660 |
| 27567 | 0436051 | | ALF | 42670 |
| 27568 | 0254321 | | ALF ILL | 42680 |
| 27569 | 0633146 | | ALF EGA | 42690 |
| 27570 | 0456060 | | ALF L | 42700 |
| 27571 | 0606060 | | ALF VAR | 42710 |
| 27572 | 0314343 | LAB8 | ALF IAR | 42720 |
| 27573 | 0252721 | | ALF LE | 42730 |
| 27574 | 0436060 | | ALF INC | 42740 |
| 27575 | 0652151 | | ALF ORP | |
| 27576 | 0312122 | | ALF ECT | |
| 27577 | 0432560 | | ALF F | |
| 27600 | 0606060 | | | |
| 27601 | 0314523 | | | |
| 27602 | 0465151 | | | |
| 27603 | 0252363 | | | |
| 27604 | 0606060 | | | |
| 27605 | 0314523 | | | |

COMPILE TIME ERROR MESSAGES

| | | | |
|-------|---------|---------------|-------|
| 27606 | 0465144 | ALF ORM | 42750 |
| 27607 | 0216360 | ALF AT | 42760 |
| 27610 | 0606060 | ALF | 42770 |
| 27611 | 0606060 | ALF | 42780 |
| 27612 | 0254524 | LAB10 ALF END | 42790 |
| 27613 | 0603162 | ALF IS | 42800 |
| 27614 | 0604546 | ALF NO | 42810 |
| 27615 | 0636043 | ALF T L | 42820 |
| 27616 | 0216263 | ALF AST | 42830 |
| 27617 | 0606060 | ALF | 42840 |
| 27620 | 0606037 | OCT 0606037 | 42850 |
| 27621 | 0454660 | LAB11 ALF NO | 42860 |
| 27622 | 0254524 | ALF END | 42870 |
| 27623 | 0603145 | ALF IN | 42880 |
| 27624 | 0626351 | ALF STR | 42890 |
| 27625 | 0642363 | ALF UCT | 42900 |
| 27626 | 0314545 | ALF ION | 42910 |
| 27627 | 0606037 | OCT 0606037 | 42920 |
| 27630 | 0454660 | LAB12 ALF NO | 42930 |
| 27631 | 0242163 | ALF DAT | 42940 |
| 27632 | 0216050 | ALF A | 42950 |
| 27633 | 0606060 | ALF | 42960 |
| 27634 | 0606060 | ALF | 42970 |
| 27635 | 0606060 | ALF | 42980 |
| 27636 | 0606037 | OCT 0606037 | 42990 |
| 27637 | 0644524 | LAB13 ALF UND | 43000 |
| 27640 | 0252631 | ALF EFI | 43010 |
| 27641 | 0452524 | ALF NED | 43020 |
| 27642 | 0602664 | ALF FU | 43030 |
| 27643 | 0452363 | ALF NCT | 43040 |
| 27644 | 0314645 | ALF ION | 43050 |
| 27645 | 0606037 | OCT 0606037 | 43060 |
| 27646 | 0644524 | LAB14 ALF UND | 43070 |
| 27647 | 0252531 | ALF EFI | 43080 |
| 27650 | 0452524 | ALF NED | 43090 |
| 27651 | 0604564 | ALF NU | 43100 |
| 27652 | 0442225 | ALF MBE | 43110 |
| 27653 | 0516060 | ALF R | 43120 |
| 27654 | 0606037 | OCT 0606037 | 43130 |
| 27655 | 0475146 | LAB15 ALF PRO | 43140 |
| 27656 | 0275121 | ALF GRA | 43150 |
| 27657 | 0446063 | ALF M T | 43160 |
| 27660 | 0464560 | ALF OO | 43170 |
| 27661 | 0434645 | ALF LON | 43180 |
| 27662 | 0276060 | ALF G | 43190 |
| 27663 | 0606037 | OCT 0606037 | 43200 |
| 27664 | 0634646 | LAB16 ALF TOO | 43210 |
| 27665 | 0604464 | ALF MU | 43220 |
| 27666 | 0233060 | ALF CH | 43230 |
| 27667 | 0242153 | ALF DAT | 43240 |
| 27670 | 0216060 | ALF A | 43250 |
| 27671 | 0606060 | ALF | 43260 |
| 27672 | 0606037 | OCT 0606037 | 43270 |
| 27673 | 0634545 | LAB19 ALF TOO | 43280 |

COMPILE TIME ERROR MESSAGES

| | | | |
|-------|---------|--------------------|----------------|
| 27674 | 0606044 | ALF M | 43290 |
| 27675 | 0214570 | ALF ANY | 43300 |
| 27676 | 0606043 | ALF L | 43310 |
| 27677 | 0464647 | ALF OOP | 43320 |
| 27700 | 0626060 | ALF S | 43330 |
| 27701 | 0606060 | ALF | 43340 |
| 27702 | 0454663 | LAB20 ALF NOT | 43350 |
| 27703 | 0604421 | ALF MA | 43360 |
| 27704 | 0632330 | ALF TCH | 43370 |
| 27705 | 0252460 | ALF ED | 43380 |
| 27706 | 0663163 | ALF WIT | 43390 |
| 27707 | 0306026 | ALF H F | 43400 |
| 27710 | 0465160 | ALF OR | 43410 |
| 27711 | 0264651 | LAB21 ALF FOR | 43420 |
| 27712 | 0606631 | ALF WI | 43430 |
| 27713 | 0633046 | ALF THO | 43440 |
| 27714 | 0646360 | ALF UT | 43450 |
| 27715 | 0452567 | ALF NEX | 43460 |
| 27716 | 0636060 | ALF T | 43470 |
| 27717 | 0606037 | OCT 0606037 | 43480 |
| 27720 | 0236463 | LAB23 ALF CUT | 43490 |
| 27721 | 0604751 | ALF PR | 43500 |
| 27722 | 0462751 | ALF OGR | 43510 |
| 27723 | 0214460 | ALF AM | 43520 |
| 27724 | 0465160 | ALF OR | 43530 |
| 27725 | 0243144 | ALF DIM | 43540 |
| 27726 | 0623337 | OCT 0623337 NAM | 43550 43560 |

RUN-TIME ERROR MESSAGES

RUN-TIME ERROR MESSAGES

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| | | | | |
|-------|---------|------------|--|-------|
| | | EJT | RUNTIME ERROR MESSAGES | 43570 |
| | | REM | | 43580 |
| 27727 | ERO | EQU * | | 43590 |
| | | REM | OUT OF DATA | 43600 |
| 27727 | 0466463 | ALF OUT | | 43610 |
| 27730 | 0604626 | ALF OF | | 43620 |
| 27731 | 0602421 | ALF DA | | 43630 |
| 27732 | 0632160 | OCT 632160 | | 43640 |
| | 27733 | ER1 | EQU * | 43650 |
| | | REM | SQUARE ROOT OF NEGATIVE NUMBER | 43660 |
| 27733 | 0625064 | ALF SQU | | 43670 |
| 27734 | 0215125 | ALF ARE | | 43680 |
| 27735 | 0605146 | ALF RO | | 43690 |
| 27736 | 0466360 | ALF OT | | 43700 |
| 27737 | 0462660 | ALF OF | | 43710 |
| 27740 | 0452527 | ALF NEG | | 43720 |
| 27741 | 0216331 | ALF ATI | | 43730 |
| 27742 | 0652560 | ALF VE | | 43740 |
| 27743 | 0456444 | ALF NUM | | 43750 |
| 27744 | 0222551 | ALF BER | | 43760 |
| 27745 | 0607777 | OCT 607777 | | 43770 |
| | 27746 | ER2 | EQU * | 43780 |
| | | REM | LOG OF NEGATIVE NUMBER | 43790 |
| 27746 | 0434627 | ALF LOG | | 43800 |
| 27747 | 0604626 | ALF OF | | 43810 |
| 27750 | 0604525 | ALF NE | | 43820 |
| 27751 | 0272163 | ALF GAT | | 43830 |
| 27752 | 0316525 | ALF IVE | | 43840 |
| 27753 | 0604564 | ALF NU | | 43850 |
| 27754 | 0442225 | ALF MBE | | 43860 |
| 27755 | 0516077 | OCT 516077 | | 43870 |
| | 27756 | ER3 | EQU * | 43880 |
| | | REM | LOG OF ZERO | 43890 |
| 27756 | 0434627 | ALF LOG | | 43900 |
| 27757 | 0604626 | ALF OF | | 43910 |
| 27760 | 0607125 | ALF ZE | | 43920 |
| 27761 | 0514660 | ALF RO | | 43930 |
| | 27762 | ER4 | EQU * | 43940 |
| | | REM | PROGRAM OVER TIME LIMIT, TEST ABORTED. | 43950 |
| 27762 | 0475146 | ALF PRO | | 43960 |
| 27763 | 0275121 | ALF GRA | | 43970 |
| 27764 | 0446046 | ALF M O | | 43980 |
| 27765 | 0652551 | ALF VER | | 43990 |
| 27766 | 0606331 | ALF TI | | 44000 |
| 27767 | 0442560 | ALF ME | | 44010 |
| 27770 | 0433144 | ALF LIM | | 44020 |
| 27771 | 0316333 | ALF IT. | | 44030 |
| 27772 | 0606325 | ALF TE | | 44040 |
| 27773 | 0626360 | ALF ST | | 44050 |
| 27774 | 0212246 | ALF ABO | | 44060 |
| 27775 | 0516325 | ALF RTE | | 44070 |
| 27776 | 0246077 | OCT 246077 | | 44080 |
| | 27777 | ER5 | EQU * | 44090 |
| | | REM | RETURN BEFORE GOSUS | 44100 |

RUN-TIME ERROR MESSAGES

| | | | | | |
|-------|---------|-----|--------------------------------|--|-------|
| 27777 | 0512563 | | ALF RET | | 44110 |
| 30009 | 0645145 | | ALF URM | | 44120 |
| 30001 | 0602225 | | ALF BE | | 44130 |
| 30002 | 0264651 | | ALF FOR | | 44140 |
| 30003 | 0256027 | | ALF E G | | 44150 |
| 30004 | 0466264 | | ALF OSU | | 44160 |
| 30005 | 0226077 | | OCT 226077 | | 44170 |
| 30005 | EP6 | | EQU * | | 44180 |
| | | REM | | | 44190 |
| | | | SUBSCRIPT ERROR | | 44200 |
| 30006 | 0626422 | | ALF SUB | | 44210 |
| 30007 | 0622351 | | ALF SCR | | 44220 |
| 30010 | 0314763 | | ALF IPT | | 44230 |
| 30011 | 0602551 | | ALF EP | | 44240 |
| 30012 | 0514651 | | ALF ROR | | 44250 |
| 30013 | 0607777 | | OCT 607777 | | 44260 |
| 30014 | ER7 | | EQU * | | 44270 |
| | | REM | DIVISION BY ZERO | | 44280 |
| 30014 | 0243165 | | ALF DIV | | 44290 |
| 30015 | 0316231 | | ALF ISI | | 44300 |
| 30016 | 0464560 | | ALF ON | | 44310 |
| 30017 | 0227060 | | ALF BY | | 44320 |
| 30020 | 0712551 | | ALF ZER | | 44330 |
| 30021 | 0456077 | | OCT 466077 | | 44340 |
| 30022 | ER8 | | EQU * | | 44350 |
| | | REM | OVERFLOW | | 44360 |
| 30022 | 0466525 | | ALF OVE | | 44370 |
| 30023 | 0512543 | | ALF RFL | | 44380 |
| 30024 | 0456660 | | ALF OW | | 44390 |
| 30025 | ER9 | | EQU * | | 44400 |
| | | REM | UNDERFLOW | | 44410 |
| 30025 | 0644524 | | ALF UND | | 44420 |
| 30026 | 0255126 | | ALF ERF | | 44430 |
| 30027 | 0434665 | | ALF LOW | | 44440 |
| 30030 | 0607777 | | OCT 607777 | | 44450 |
| 30031 | EP10 | | EQU * | | 44460 |
| | | REM | ZERO TO A NEGATIVE POWER | | 44470 |
| 30031 | 0712551 | | ALF ZER | | 44480 |
| 30032 | 0466063 | | ALF O T | | 44490 |
| 30033 | 0466021 | | ALF O A | | 44500 |
| 30034 | 0604525 | | ALF NE | | 44510 |
| 30035 | 0272163 | | ALF GAT | | 44520 |
| 30036 | 0316525 | | ALF IVE | | 44530 |
| 30037 | 0604743 | | ALF PO | | 44540 |
| 30040 | 0662551 | | ALF WER | | 44550 |
| 30041 | 0607777 | | OCT 607777 | | 44560 |
| 30042 | EP11 | | EQU * | | 44570 |
| | | REM | ABSOLUTE VALUE RAISED TO POWER | | 44580 |
| 30042 | 0212262 | | ALF ABS | | 44590 |
| 30043 | 0454364 | | ALF OLU | | 44600 |
| 30044 | 0632560 | | ALF TE | | 44610 |
| 30045 | 0652143 | | ALF VAL | | 44620 |
| 30046 | 0642260 | | ALF UE | | 44630 |
| 30047 | 0512131 | | ALF PAI | | 44640 |
| 30050 | 0622524 | | ALF SED | | |

RUN-TIME ERROR MESSAGES

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| | | | |
|-------|---------|------------|-------|
| 30051 | 0606346 | ALF TO | 44650 |
| 30052 | 0604746 | ALF PO | 44660 |
| 30053 | 0662551 | ALF WER | 44670 |
| 30054 | 0607777 | OCT 607777 | 44680 |
| | 30055 | EQU * | 44690 |
| | | REM | 44700 |
| 30055 | 0274662 | ALF GOS | 44710 |
| 30056 | 0642262 | ALF UBS | 44720 |
| 30057 | 0604525 | ALF NE | 44730 |
| 30058 | 0625325 | ALF STE | 44740 |
| 30061 | 0246063 | ALF D T | 44750 |
| 30062 | 0464660 | ALF OO | 44760 |
| 30063 | 0242525 | ALF DEE | 44770 |
| 30064 | 0474370 | ALF PLY | 44780 |
| 30065 | 0607777 | OCT 607777 | 44790 |
| | 30066 | EQU * | 44800 |
| | | REM | 44810 |
| 30066 | 0314547 | ALF INP | 44820 |
| 30067 | 0646360 | ALF UT | 44830 |
| 30070 | 0242163 | ALF DAT | 44840 |
| 30071 | 0216045 | ALF A N | 44850 |
| 30072 | 0466360 | ALF OT | 44860 |
| 30073 | 0314560 | ALF IN | 44870 |
| 30074 | 0234651 | ALF COR | 44880 |
| 30075 | 0512523 | ALF REC | 44890 |
| 30076 | 0636026 | ALF T F | 44900 |
| 30077 | 0465144 | ALF ORM | 44910 |
| 30100 | 0216333 | ALF AT. | 44920 |
| 30101 | 0605125 | ALF RE | 44930 |
| 30102 | 0637047 | ALF TYP | 44940 |
| 30103 | 0256031 | ALF E I | 44950 |
| 30104 | 0633360 | ALF T. | 44960 |
| | 30105 | EQU * | 44970 |
| | | NAM | 44980 |

GOSUBS NESTED TOO DEEPLY

INPUT DATA NOT IN CORRECT FORMAT, RETYPE IT.

RUN-TIME, LOWER MEMORY, OUTPUT ROUTINES

| | | | |
|-------|---------|-------------|----------|
| | | EJT | 44990 |
| 01400 | 0006000 | ORG WORK | 45000 |
| 01401 | 0000000 | OCT 0006000 | 45010 |
| 01402 | 0000000 | OCT 0000000 | BAS45020 |
| 01403 | 0000000 | OCT 0000000 | BAS45030 |
| 01404 | 0000000 | OCT 0000000 | BAS45040 |
| 01405 | 0000000 | DEC 0 | BAS45050 |
| 01406 | 0721564 | DEC 0 | BAS45060 |
| 01407 | 0721564 | SPR YCRTB 1 | 45070 |
| 01408 | 0721564 | SPR YCRTB 1 | 45080 |
| 01409 | 2506016 | SET PBK | 45090 |
| 01410 | 0002661 | LDA OUT52 | 45100 |
| 01411 | 0364100 | STA EX0 3 | 45110 |
| 01412 | 0002662 | LDA OUT52+1 | 45120 |
| 01413 | 0364101 | STA EX0+1 3 | 45130 |
| 01414 | 1460002 | INX 2 3 | 45140 |
| 01415 | 2504202 | LAC | 45150 |
| 01416 | 0103165 | ADD EXN3 | 45160 |
| 01417 | 0204000 | SUB TIME | 45170 |
| 01418 | 2504006 | MAC | 45180 |
| 01419 | 1603170 | DVD EXN6 | 45190 |
| 01420 | 2504006 | MAC | 45200 |
| 01421 | 1602730 | DVD SIXTY | 45210 |
| 01422 | 2514002 | RZE | 45220 |
| 01423 | 2601452 | BRU OUT50 | 45230 |
| 01424 | 2504005 | XAO | 45240 |
| 01425 | 0306150 | STA TEMP | 45250 |
| 01426 | 0002726 | LDA ZERO | 45260 |
| 01427 | 1602723 | DVD EXN10 | 45270 |
| 01428 | 2514002 | BZF | 45280 |
| 01429 | 0002671 | LDA BL | 45290 |
| 01430 | 0102670 | ADD BL20 | 45300 |
| 01431 | 2512006 | SLA 6 | 45310 |
| 01432 | 0306151 | STA TEMP+1 | 45320 |
| 01433 | 2504005 | XAO | 45330 |
| 01434 | 0106151 | ADR TEMP+1 | 45340 |
| 01435 | 0364100 | STA EX0 3 | 45350 |
| 01436 | 0002663 | LDA OUT53 | 45360 |
| 01437 | 0364101 | STA EX0+1 3 | 45370 |
| 01438 | 0002664 | LDA OUT53+1 | 45380 |
| 01439 | 0364102 | STA EX0+2 3 | 45390 |
| 01440 | 1460003 | INX 3 3 | 45400 |
| 01441 | 0006150 | LDA TEMP | 45410 |
| 01442 | 2504005 | XAO | 45420 |
| 01443 | 0002726 | LDA ZERO | 45430 |
| 01444 | 1602723 | DVD EXN10 | 45440 |
| 01445 | 2514002 | BZF | 45450 |
| 01446 | 0002671 | LDA BL | 45460 |
| 01447 | 0102670 | ADD BL20 | 45470 |
| 01448 | 2512006 | SLA 6 | 45480 |
| 01449 | 0306150 | STA TEMP | 45490 |
| 01450 | 2504005 | XAO | 45500 |
| 01451 | 0002726 | ADD TEMP | 45510 |
| 01452 | 1602723 | STA EX0 3 | 45520 |

RUN-TIME, LOWER MEMORY, OUTPUT ROUTINES

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| | | | | |
|-------|----------|-----------------|---|--------|
| 01464 | 0002665 | LDA OUT54 | | .45530 |
| 01465 | 0364101 | STA EX0+1 | 3 | 45540 |
| 01466 | 0002666 | LDA OUT54+1 | | 45550 |
| 01467 | 0364102 | STA EX0+2 | 3 | 45560 |
| 01470 | 0002701 | LDA CRLF | | 45570 |
| 01471 | 0364103 | STA EX0+3 | 3 | 45580 |
| 01472 | 1460004 | INX 4 | 3 | 45590 |
| 01473 | 0002677 | LDA BLEOM | | 45600 |
| 01474 | 0364100 | STA EX0 | 3 | 45610 |
| 01475 | 2504002 | LDZ | | 45620 |
| 01476 | 2617777 | BRU TOP | | 45630 |
| 01477 | 1726224 | YTAB STX UNFL1 | 1 | 45640 |
| 01500 | 0761536 | SPP FXYIND | 3 | 45650 |
| 01501 | 2506016 | SET PBK | | 45660 |
| 01502 | 0664001 | LDX EXON | 3 | 45670 |
| 01503 | 2514002 | BZE YTAB2 | | 45680 |
| 01504 | 2601521 | | | |
| 01505 | 2504004 | LQA | | 45690 |
| 01506 | 0002675 | LDA FZR | | 45700 |
| 01507 | 0364100 | STA EX0 | 3 | 45710 |
| 01513 | 1460001 | INX 1 | 3 | 45720 |
| 01511 | 1764001 | STX EXON | 3 | 45730 |
| 01512 | 2504001 | LAG | | 45740 |
| 01513 | 2103154 | CAP N2 | | 45750 |
| 01514 | 2601517 | BRU **3 | | 45760 |
| 01515 | 0002674 | LDA ZBZ | | 45770 |
| 01516 | 2601520 | BRU **2 | | 45780 |
| 01517 | 0002673 | LDA FILL2 | | 45790 |
| 01520 | 2364077 | ORY EX0-1 | 3 | 45800 |
| 01521 | 0006214 | YTAB2 LDA YIND | | 45810 |
| 01522 | 2504006 | MAS | | 45820 |
| 01523 | 1603157 | DVD N5 | | 45830 |
| 01524 | 02033166 | SUR N4 | | 45840 |
| 01525 | 2514002 | BZF YTAB4 | | 45850 |
| 01526 | 2601553 | | | |
| 01527 | 2516001 | BPL YCRT2 | | 45860 |
| 01530 | 2601575 | | | |
| 01531 | 2504001 | LAG | | 45870 |
| 01532 | 2514002 | BZF YTAB6 | | 45880 |
| 01533 | 2601556 | | | |
| 01534 | 0203167 | SUR N5 | | 45890 |
| 01535 | 2504004 | LQA | | 45900 |
| 01536 | 0206214 | SUR YIND | | 45910 |
| 01537 | 2504522 | NEG | | 45920 |
| 01540 | 0306214 | STA YIND | | 45930 |
| 01541 | 0002700 | LDA BLANKS | | 45940 |
| 01542 | 2504005 | XAO | | 45950 |
| 01543 | 2514002 | YTAB3 BZF YTAB6 | | 45960 |
| 01544 | 2601556 | | | |
| 01545 | 2504005 | XAO | | 45970 |
| 01546 | 0364100 | STA EX0 | 3 | 45980 |
| 01547 | 1460001 | INX 1 | 3 | 45990 |
| 01550 | 2504005 | XAO | | 46000 |
| 01551 | 2504032 | ADC | | 46010 |

RUN-TIME, LOWER MEMORY, OUTPUT ROUTINES

000099

| | | | | | | |
|-------|---------|--------|-------------|---|---|-------|
| 01552 | 2601543 | | BRU YTAB3 | | | 46020 |
| 01553 | 2504005 | YTAB4 | XAO | | | 46030 |
| 01554 | 2516002 | | BNZ | | | 46040 |
| 01555 | 2601575 | | BRU YCRT2 | | | 46050 |
| 01556 | 0626224 | YTAB6 | LDX UNFL1 | 1 | | 46060 |
| 01557 | 1764001 | | STX EXON | 3 | | 46070 |
| 01560 | 2506015 | | SET PST | | | 46080 |
| 01561 | 2504002 | | LDZ | | | 46090 |
| 01562 | 0307140 | | STA YODD | | | 46100 |
| 01563 | 2620001 | | BRU 1 | 1 | | 46110 |
| 01564 | 0002700 | YCRT8 | LDA BL32 | | | 46120 |
| 01565 | 2506016 | | SET PBK | | | 46130 |
| 01566 | 0664001 | | LDX EXON | 3 | | 46140 |
| 01567 | 0364100 | | STA EXC | 3 | | 46150 |
| 01570 | 1460001 | | INX 1 | 3 | | 46160 |
| 01571 | 1764001 | | STX EXON | 3 | | 46170 |
| 01572 | 1726224 | YCRT | STX UNFL1 | 1 | | 46180 |
| 01573 | 2506016 | | SET PBK | | | 46190 |
| 01574 | 0664001 | | LDX EXON | 3 | | 46200 |
| 01575 | 1765633 | YCRT2 | STY XTEM | 3 | | 46210 |
| 01576 | 0005633 | | LDA XTEM | | | 46220 |
| 01577 | 2514002 | | BZF | | | 46230 |
| 01600 | 2601525 | | BRU YCRT3 | | | 46240 |
| 01601 | 2534112 | | SBO | | | 46250 |
| 01602 | 0305633 | | STA XTEM | | | 46260 |
| 01603 | 0665633 | | LDX XTEM | 3 | | 46270 |
| 01604 | 0064100 | | LDA EXO | 3 | | 46280 |
| 01605 | 2002673 | | EXT YCRT5 | | | 46290 |
| 01606 | 0103247 | | ADD YCRT4 | | | 46300 |
| 01607 | 0364100 | YCRT9 | STA EXO | 3 | | 46310 |
| 01610 | 1460001 | | INX 1 | 3 | | 46320 |
| 01611 | 0002726 | | LDA ZERO | | | 46330 |
| 01612 | 0306214 | | STA YIND | | | 46340 |
| 01613 | 1765633 | | STX XTEM | 3 | | 46350 |
| 01614 | 0005633 | | LDA XTEM | | | 46360 |
| 01615 | 0202660 | | SUP EXOEND | | | 46370 |
| 01616 | 2514001 | | BMI | | | 46380 |
| 01617 | 2601556 | | BRU YTAB6 | | | 46390 |
| 01620 | 2504002 | | LDZ | | | 46400 |
| 01621 | 0307140 | | STA YODD | | | 46410 |
| 01622 | 2506016 | | SET PBK | | | 46420 |
| 01623 | 2504022 | | LDO | | | 46430 |
| 01624 | 2617777 | | BRU TOP | | | 46440 |
| 01625 | 0002672 | YCRT3 | LDA CRT | | | 46450 |
| 01626 | 0304100 | | STA EXO | | | 46460 |
| 01627 | 2601610 | | BRU YCRT9+1 | | | 46470 |
| 01630 | 0761636 | YSHT | SPR FXYIND | 3 | | 46480 |
| 01631 | 0006214 | | LDA YIND | | | 46490 |
| 01632 | 0203226 | | SUP EXN22 | | | 46500 |
| 01633 | 2514001 | | BMI | | | 46510 |
| 01634 | 2620001 | | BRU 1 | 1 | | 46520 |
| 01635 | 2601572 | | BRU YCRT | | | 46530 |
| 01636 | 0007140 | FXYIND | LDA YODD | | | 46540 |
| 01637 | 2514002 | | BZF | | | 46550 |
| | | | | | GET NO. OF FILLS STORED IN OUTBUF IF NONE RETURN | |

RUN-TIME LOWER MEMORY, OUTPUT ROUTINES

000100

| | | | | | |
|-------|---------|--------------|---|---|-------|
| 01640 | 2660001 | BRU 1 | 3 | | 46560 |
| 01641 | 2504006 | MAQ | | | 46570 |
| 01642 | 1603165 | DVD N3 | | | 46580 |
| | | REM | | | 46590 |
| 01643 | 0206214 | SUR YIND | | SET UP DIVIDE | 46600 |
| 01644 | 2504522 | NEG | | DETERMINE WHOLE NUMBER OF WORDS OVER | 46610 |
| 01645 | 0306214 | STA YIND | | ACTUAL THAT YIND HAS BEEN SET TO | 46620 |
| 01646 | 2504001 | LAQ | | | 46630 |
| 01647 | 0307140 | STA YODD | | DECREMENT YIND ACCORDINGLY | 46640 |
| 01648 | 2660001 | BRU 1 | 3 | REMINDER OF DIVISION | 46650 |
| 01649 | 1707104 | STY YLABXR 0 | | NEW VALUE OF YODD | 46660 |
| 01650 | 0305633 | STA XTEM | | RETURN | 46670 |
| 01651 | 2510017 | SRA 15 | | PROTECT ZERO FROM THE MOV | 46680 |
| 01652 | 0107140 | ADD YODD | | HANG ON TO LOCATION OF MESSAGE | 46690 |
| 01653 | 0307140 | STA YODD | | PICK OUT COUNT OF FILLS IN MESSAGE | 46700 |
| 01654 | 0307140 | LDA XTEM | | INCREMENT YCDD | 46710 |
| 01655 | 0307140 | EXT MOP | | DIG OUT LOCATION OF MESSAGE | 46720 |
| 01656 | 0005633 | ADD ZMOV | | MASK OFF OP CODE BITS | 46730 |
| 01657 | 2003662 | SET PBK | | CONSTRUCT A MOV | 46740 |
| 01658 | 0103663 | STA **3 | | | 46750 |
| 01659 | 2506016 | LDA EXON | | SET MOVE TO ADDRESS | 46760 |
| 01660 | 0301665 | ADD EXOLOC | | ### CONSTRUCTED | 46770 |
| 01661 | 0004001 | MOV 0 | | GET LENGTH OF MOVE | 46780 |
| 01662 | 0102703 | LAQ | | | 46790 |
| 01663 | 2400000 | NEG | | | 46800 |
| 01664 | 2504001 | LQA | | | 46810 |
| 01665 | 0106214 | ADD YIND | | | 46820 |
| 01666 | 0306214 | STA YIND | | ADD LENGTH TO LINE POINTER | 46830 |
| 01667 | 2504522 | LAQ | | | 46840 |
| 01668 | 2504004 | ADD EXON | | ADD LENGTH TO OUT BUFF POINTER | 46850 |
| 01669 | 0106214 | STA EXON | | | 46860 |
| 01670 | 0304001 | SET PST | | | 46870 |
| 01671 | 0607104 | LDX YLABXR 0 | | | 46880 |
| 01672 | 2620001 | BRU 1 | 1 | EXIT | 46890 |
| | | NAM | | RUN-TIME,LOWER MEMORY, SERVICE ROUTINES | 46900 |

| | | | | | |
|-------|---------|--------|------------------------------------|-------|-------|
| | | EJT | | 46910 | |
| | | REM | | 46920 | |
| | | REM | | 46930 | |
| 01701 | 1001402 | INCALL | DLD FZERO | 46940 | |
| 01702 | 1300004 | | DST XR10 | 46950 | |
| 01703 | 0307140 | | STA YODD | 46960 | |
| 01704 | 0306214 | | STA YIND | 46970 | |
| 01705 | 0003164 | | LDA N2 | 46980 | |
| 01706 | 2617777 | | BRU TOP | 46990 | |
| | | | REM | 47000 | |
| | | | REM | 47010 | |
| | | | REM | 47020 | |
| | | | REM | 47030 | |
| 01707 | 0000004 | INDONE | LDA XR10 | 47040 | |
| 01710 | 2514001 | | BMI | 47050 | |
| 01711 | 2620001 | | BRU 1 | 1 | 47060 |
| 01712 | 2504002 | | LDZ | 47070 | |
| 01713 | 2534004 | | LQ4 | 47080 | |
| 01714 | 0003206 | | LDA N13 | 47090 | |
| 01715 | 0721757 | | SPR RMESS | 1 | 47100 |
| 01716 | 0627137 | | LDX WAI | 1 | 47110 |
| 01717 | 2620004 | | BRU 4 | 1 | 47120 |
| | | | REM | 47130 | |
| 01720 | 1726213 | TRAP | STX TRPXR | 1 | 47140 |
| 01721 | 2514730 | | SAR BDC | 7 | 47150 |
| 01722 | 2601743 | | BRU DVDC | | 47160 |
| 01723 | 2514726 | | BAR BUO | 7 | 47170 |
| 01724 | 2601734 | | BRU UFL | | 47180 |
| 01725 | 2514721 | | BAR BMI | 7 | 47190 |
| 01726 | 1002652 | | DLD NINF | | 47200 |
| 01727 | 2516721 | | RAP SPL | 7 | 47210 |
| 01730 | 1002650 | | DLD PINF | | 47220 |
| 01731 | 1306250 | | DST TRPST | | 47230 |
| 01732 | 0003172 | | LDA OFLNUM | | 47240 |
| 01733 | 2601746 | | BRU TRP1 | | 47250 |
| 01734 | 2514722 | UFL | BAP BZF | 7 | 47260 |
| 01735 | 1001402 | | DLD FZERO | | 47270 |
| 01736 | 2516722 | | BAR BNZ | 7 | 47280 |
| 01737 | 1002654 | | DLD FIXMIN | | 47290 |
| 01740 | 1306250 | | DST TRPST | | 47300 |
| 01741 | 0003173 | | LDA UFLNUM | | 47310 |
| 01742 | 2601746 | | BRU TRP1 | | 47320 |
| 01743 | 1002650 | DVDC | DLD PINF | | 47330 |
| 01744 | 1306250 | | DST TRPST | | 47340 |
| 01745 | 0003171 | | LDA DVNUM | | 47350 |
| 01746 | 2504004 | TRP1 | LQA | | 47360 |
| 01747 | 2504022 | | LDO | | 47370 |
| 01750 | 2504005 | | XAO | | 47380 |
| 01751 | 0721757 | | SPR RMESS | 1 | 47390 |
| 01752 | 3006250 | | FLO TRPST | | 47400 |
| 01753 | 0626213 | | LDX TRPXR | 1 | 47410 |
| 01754 | 3500004 | | RIV | | 47420 |
| 01755 | 3100001 | | SET TRPMODE | | 47430 |
| 01756 | 2620000 | | BRU 0 | 1 | 47440 |
| | | | GET OUT OF TRAP AND RETURN TO PROG | | |

| | | | | |
|-------|----------|-------------|--|-------|
| | | REM | RUM TIME ERROR MESSAGE ROUTINE | 47450 |
| | | REM | ERROR MESSAGES MAY BE IN UPPER MEMORY, | 47460 |
| | | REM | MSTAB-LOWER 8K-CONTAINS WORD PAIRS | 47470 |
| | | REM | THE FIRST WORD CONTAINS THE STARTING | 47480 |
| | | REM | LOCATION OF THE MESSAGE. | 47490 |
| | | REM | THE SECOND WORD CONTAINS THE | 47500 |
| | | REM | 2S COMPLEMENT OF THE NUMBER OF WORDS | 47510 |
| | | REM | IN THE MESSAGE | 47520 |
| 01757 | 2512001 | RMESS | MULTIPLY CODE NUMBER BY 2 | 47530 |
| 01760 | 1306252 | DST MTEMP | | 47540 |
| 01761 | 1726254 | STX MSXR | SAVE EXIT | 47550 |
| 01762 | 0006214 | LDA YIND | SAVE VALUE OF LINE POINTER FOR OUTPUT | 47560 |
| 01763 | 0306227 | STA YINDT | BUFFER | 47570 |
| 01764 | 2506016 | SET PBK | BETTER SAFE THAN SORRY | 47580 |
| 01765 | 0664001 | LDX EXON | SET UP A CARRIAGE RETURN | 47590 |
| 01766 | 00062672 | LDA CRT | 2 FILLS AND CARRIAGE RETURN | 47600 |
| 01767 | 0364100 | STA EXC | | 47610 |
| 01770 | 1460001 | INX 1 | | 47620 |
| 01771 | 1764001 | STY EXON | GET MESSAGE NUMBER | 47630 |
| 01772 | 0626252 | LDX MTEMP | LOOK UP LOCATION AND LENGTH | 47640 |
| 01773 | 1022732 | DLO MSTAR | OUTPUT THE LABEL | 47650 |
| 01774 | 0721651 | SPP YLAB | GET OUT BUF POINTER | 47660 |
| 01775 | 0664001 | LDY EXON | IF FLAG IS 0 DO NOT OUTPUT LINE NO. | 47670 |
| 01776 | 0006253 | LDA MTEMP+1 | | 47680 |
| 01777 | 2514002 | BZP | | 47690 |
| 02000 | 2602022 | BRU RM1 | PLACE A @INE IN THE LINE | 47700 |
| 02001 | 0003630 | LDA ERIN | INCREMENT POINTER | 47710 |
| 02002 | 0354100 | STA EXO | SAVE | 47720 |
| 02003 | 1460001 | INX 1 | GET LOCATION WHERE CURRENT LINE NO IS STORED | 47730 |
| 02004 | 1764001 | STY EXON | GET THE LINE NO. | 47740 |
| 02005 | 0627137 | LDX WAI | MAKE INTO DOUBLE WORD LENGTH INTEGER | 47750 |
| 02006 | 0020001 | LDA 1 | GET RETURN ADDRESS FOR NEXT SUB CALL | 47760 |
| 02007 | 2504006 | MAO | ENTERED UPON RETURN FROM YINT | 47770 |
| 02010 | 0722012 | SPP ++2 | SET UP RETURN FORM YINT | 47780 |
| 02011 | 2602022 | BRU RM1 | SAVE INDEX 2 | 47790 |
| 02012 | 1726226 | STX UNFL3 | INITIALIZE XR3 FOR YINT | 47800 |
| 02013 | 1746225 | STX UNFL2 | SET SIGN OF LINE NO, TO BLANK | 47810 |
| 02014 | 0662724 | LDX EXN1 | | 47820 |
| 02015 | 0006251 | LDA BL | | 47830 |
| 02016 | 0306150 | STA TEMP | | 47840 |
| 02017 | 0622710 | LDX UPF1T | YINT IS IN UPPER BANK | 47850 |
| 02020 | 2504002 | LDZ | NO. TO BE OUTPUT IS NOW IN A AND Q | 47860 |
| 02021 | 2627250 | BRU YINT4 | OUTPUT THE LINE NUMBER | 47870 |
| 02022 | 0721564 | SPP YCRT8 | CARRIAGE RETURN AND CHECK FOR FULL OUT BUF | 47880 |
| 02023 | 0006253 | LDA MTEMP+1 | GET CONT/TERM FLAG | 47890 |
| 02024 | 2514001 | RMI OUTPUT | IF NEGATIVE TERMINATE | 47900 |
| 02025 | 2601406 | | | |
| 02026 | 0006227 | LDA YINDT | OTHERWISE RESTORE LINE POINTER | 47910 |
| 02027 | 0306214 | STA YIND | | 47920 |
| 02030 | 2514002 | BZP RM2 | IF INTERRUPTED LINE WAS AT BEGINNING | 47930 |
| 02031 | 2602054 | | | |
| 02032 | 2504004 | LQA | HOLD NEW YIND IN G | 47940 |
| 02033 | 0622726 | LDX ZEFO | USE XR1 FOR COUNTER | 47950 |
| 02034 | 0004001 | LDA EXON | | 47960 |

RUN-TIME, LOWER MEMORY, SERVICE ROUTINES

000103

| | | | | | |
|-------|---------|-------|------------|--|----------|
| 02035 | 0102703 | | ADD EXOLOC | CONSTRUCT STORE INSTRUCTION | 47970 |
| 02036 | 2506016 | | SET PBK | | 47980 |
| 02037 | 2702044 | | STO **5 | | 47990 |
| 02040 | 2504001 | | LAQ | | 48000 |
| 02041 | 2504522 | | NEG | | 48010 |
| 02042 | 2702046 | | STO **4 | | 48020 |
| 02043 | 0002700 | | LDA BLANKS | FORM TWOS COMP OF YIND | 48030 |
| 02044 | 0320000 | | STA 0 | CONSTRUCT A BXH | 48040 |
| 02045 | 1420001 | | INX 1 | 3 BLANKS | 48050 |
| 02046 | 0520000 | | RXW 0 | #### CONSTRUCTED | 48060 |
| 02047 | 2602051 | | BRU **2 | INCREMENT COUNTER | 48070 |
| 02050 | 2602044 | | BRU **4 | #### CONSTRUCTED | 48080 |
| 02051 | 2504001 | | LAQ | LOOP ON STORE OPERATION | 48090 |
| 02052 | 0104001 | | ADD EXON | GET NO. OF WORDS ADDED | 48100 |
| 02053 | 0304001 | | STA EXON | INCREMENT OUT BUF POINTER | 48110 |
| 02054 | 2506015 | RM2 | SET PST | | 48120 |
| 02055 | 0626254 | | LDX MSXR | RESTORE EXIT | 48130 |
| 02056 | 2620001 | | BRU 1 | EXIT | 48140 |
| 02057 | 2504102 | RETER | LMA | RETURN ENCOUNTERED BEFORE A GOSUB | 48150 |
| 02060 | 2504004 | | LQA | SET TERMINATE FLAG | 48160 |
| 02061 | 0003167 | | LDA EXNS | MESSAGE NUMBER | 48170 |
| 02062 | 2601757 | | BRU RMESS | | 48180 |
| 02063 | 2514001 | TEST | BMI | | 48190 |
| 02064 | 2602072 | | BRU TEST3 | | 48200 |
| 02065 | 2514722 | TEST2 | BAP BZP | | 48210 |
| 02066 | 2620001 | | BRU 1 | | 48220 |
| 02067 | 2514721 | | BAP BMI | | 48230 |
| 02070 | 2620001 | | BRU 1 | | 48240 |
| 02071 | 2620002 | | BRU 2 | | 48250 |
| 02072 | 2514721 | TEST3 | BAP BMI | | 48260 |
| 02073 | 2620002 | | BRU 2 | | 48270 |
| 02074 | 2620001 | | BRU 1 | | 48280 |
| | | | REM | YTST CHECKS TO SEE IF THERE IS UNREAD DATA | 48290 |
| | | | REM | AVAILABLE IN THE DATA REGION. IF | 48300 |
| | | | REM | THERE IS CONTROL RETURNS, OTHER- | 48310 |
| | | | REM | WISE A TERMINAL MESSAGE IS GIVEN AND | 48320 |
| | | | REM | THE RUN ENDS. | 48330 |
| 02075 | 1307115 | MAT10 | DST MAT | | BAS48340 |
| 02076 | 1001402 | | DLD FZERO | | 48350 |
| 02077 | 1307122 | | DST MATB | | 48360 |
| 02100 | 0002725 | | LDA MIN | | BAS48370 |
| 02101 | 2602130 | | BRU MAT1 | | BAS48380 |
| 02102 | 1307116 | MAT11 | DST MAT | | BAS48390 |
| 02103 | 2602100 | | BRU **3 | | BAS48400 |
| 02104 | 1307116 | MAT12 | DST MAT | | BAS48410 |
| 02105 | 1001402 | | DLD FZERO | | 48420 |
| 02106 | 1307122 | | DST MATB | | 48430 |
| 02107 | 0002726 | | LDA ZERO | | BAS48440 |
| 02108 | 2602130 | | BRU MAT1 | | BAS48450 |
| 02111 | 1307116 | MAT13 | DST MAT | | BAS48460 |
| 02112 | 2602107 | | BRU ** 3 | | BAS48470 |
| 02113 | 2514901 | MAT20 | BMT | | BAS48480 |
| 02114 | 2602126 | | BRU MAT1-2 | | 48490 |
| 02115 | 2511013 | | SRD 11 | | BAS48500 |

RUN-TIME, LOWER MEMORY, SERVICE ROUTINES

000104.

| | | | |
|-------|---------|--------------|----------|
| 02116 | 2102723 | CAR EXN10 | 48510 |
| 02117 | 2504012 | NOP | 48520 |
| 02120 | 2602122 | BRU **2 | 48530 |
| 02121 | 2602212 | BRU MAT2 | 48540 |
| 02122 | 0300003 | STA XR03 | 48550 |
| 02123 | 2504002 | LDZ | 48560 |
| 02124 | 2572200 | SLD 0 3 | 48570 |
| 02125 | 2620001 | BRU 1 1 | BAS48580 |
| 02126 | 0002726 | LDA ZERO | BAS48590 |
| 02127 | 2620301 | BRU 1 1 | BAS48600 |
| 02130 | 0307126 | STA MATT | BAS48610 |
| 02131 | 1727127 | STY MATT+1 1 | BAS48620 |
| 02132 | 0007117 | LDA MAT+1 | BAS48630 |
| 02133 | 2511011 | SRD 9 | BAS48640 |
| 02134 | 0307130 | STA MATT | 48650 |
| 02135 | 0002726 | LDA ZERO | BAS48660 |
| 02136 | 2512211 | SLD 9 | BAS48670 |
| 02137 | 0307131 | STA MATT+1 | 48680 |
| 02140 | 0007121 | LDA MATT+1 | 48690 |
| 02141 | 2514001 | BMI | BAS48700 |
| 02142 | 2632212 | BRU MAT2 | BAS48710 |
| 02143 | 1007120 | DLD MATT | 48720 |
| 02144 | 0722113 | SPR MAT20 1 | BAS48730 |
| 02145 | 0307132 | STA MATTB | 48740 |
| 02146 | 0207130 | SUB MATT | 48750 |
| 02147 | 2516001 | RPL | BAS48760 |
| 02150 | 2602212 | BRU MAT2 | BAS48770 |
| 02151 | 0007122 | LDA MATTB | 48780 |
| 02152 | 2516002 | BNZ | 48790 |
| 02153 | 2602156 | BRU MAT5 | 48800 |
| 02154 | 0307133 | STA MATTB+1 | 48810 |
| 02155 | 2602167 | BRU MAT6 | 48820 |
| 02156 | 0007123 | LDA MATTB+1 | 48830 |
| 02157 | 2514001 | BMI | BAS48840 |
| 02160 | 2602212 | BRU MAT2 | 48850 |
| 02161 | 1007122 | DLD MATT | 48860 |
| 02162 | 0722113 | SPR MAT20 1 | BAS48870 |
| 02163 | 0307133 | STA MATTB+1 | 48880 |
| 02164 | 0207131 | SUB MATT+1 | 48890 |
| 02165 | 2516001 | RPL | BAS48900 |
| 02166 | 2602212 | BRU MAT2 | 48910 |
| 02167 | 0007132 | LDA MATTB | 48920 |
| 02170 | 2504006 | MAO | BAS48930 |
| 02171 | 1507131 | MRY MATT+1 | 48940 |
| 02172 | 2504009 | XAO | BAS48950 |
| 02173 | 0107133 | ADD MATTB+1 | 48960 |
| 02174 | 2512001 | SLA 1 | BAS48970 |
| 02175 | 0107116 | ADD MAT | BAS48980 |
| 02176 | 0307116 | STA MAT | BAS48990 |
| 02177 | 0007126 | LDA MATT | BAS49000 |
| 02200 | 2514001 | BMI | BAS49010 |
| 02201 | 2602207 | BRU MAT4 | BAS49020 |
| 02202 | 0627116 | LDY MAT 1 | 49030 |
| 02203 | 1007124 | DLD MATC | 49040 |

RUN-TIME, LOWER MEMORY. SERVICE ROUTINES

000105

| | | | | | | |
|-------|---------|------------|-------------|--|--|-------|
| 02204 | 1320000 | DST 0 | 1 | 49050 | | |
| 02205 | 0627127 | LDX MATT+1 | 1 | BAS49060 | | |
| 02206 | 2620001 | BRU 1 | 1 | BAS49070 | | |
| 02207 | 0627116 | MAT4 | LDX MAT | 49080 | | |
| A | 02210 | 3020000 | FLD 0 | 49090 | | |
| | 02211 | 2602205 | BRU MAT4-2 | 49100 | | |
| | 02212 | 2504102 | MAT2 | LMO | 49110 | |
| | 02213 | 2504004 | LQA | SET TERMINATE FLAG | 49120 | |
| | 02214 | 0003170 | LDA EXN6 | MESSAGE NUMBER | 49130 | |
| | 02215 | 2601757 | BRU RMESS | CHECK FOR PROGRAM OVER TIME LIMIT | 49140 | |
| | 02216 | 2504202 | YTIME | NOMINAL LIMIT 64 SEC UNLESS SPEC BY TESTER | 49150 | |
| | 02217 | 0204000 | LAC | CURRENT ELAPSED TIME OF PROGRAM RUN | 49160 | |
| | 02220 | 2107141 | REM | 49170 | | |
| | 02221 | 2620001 | SUR TIME | 49180 | | |
| | 02222 | 2620001 | CAS TREF | 49190 | | |
| | 02223 | 2602237 | BRU 1 | 1 | 49200 | |
| | 02224 | 2504102 | BRU 1 | 1 | 49210 | |
| | 02225 | 2504004 | LMO | 49220 | | |
| | 02226 | 0003166 | LQA | 49230 | | |
| | 02227 | 2601757 | LDA N4 | SET UP MESSAGE NO. | 49240 | |
| | 02228 | 2506053 | BRU RMESS | PUSH SAVES THE RETURN ADDRESS FOR GOSUB | 49250 | |
| | 02229 | 0537536 | REM | 49260 | | |
| | 02230 | 2602237 | PUSH | SXG 2 | 49270 | |
| | 02231 | 2504102 | BRU EXL-RST | 1 | TOO MANY GOSUBS RUNNING AT ONCE | 49280 |
| | 02232 | 0000001 | PERR | 49290 | | |
| | 02233 | 0326260 | LDA XR01 | 49300 | | |
| | 02234 | 1420001 | STA RST | 1 | 49310 | |
| | 02235 | 2506013 | INY 1 | 1 | 49320 | |
| | 02236 | 2620001 | SXG 0 | 49330 | | |
| | 02237 | 2506013 | BRU 1 | 1 | POP POPS UP RETURN ADDRESS AND RETURNS TO IT | 49340 |
| | 02238 | 2504102 | REM | 49350 | | |
| | 02239 | 2504004 | PERR | LMO | 49360 | |
| | 02240 | 0003235 | LQA | 49370 | | |
| | 02241 | 2601757 | LDA N12 | MESSAGE NUMBER | 49380 | |
| | 02242 | 2504102 | BRU RMESS | 49390 | | |
| | 02243 | 0000011 | POP | LDA XR21 | 49400 | |
| | 02244 | 0300011 | SBQ | 49410 | | |
| | 02245 | 2504112 | STA XR21 | 49420 | | |
| | 02246 | 0300011 | SXG 2 | 49430 | | |
| | 02247 | 2506053 | LDA RST | 1 | 49440 | |
| | 02248 | 0026260 | STA XR01 | 49450 | | |
| | 02249 | 0300001 | SXG 0 | 49460 | | |
| | 02250 | 2506013 | BRU 2 | 1 | 49470 | |
| | 02251 | 2620002 | NAM | RUN-TIME, LOWER MEMORY, ARITH SUBROUTINES | 49480 | |

| | | | | | | | |
|-------|---------|-------|------------|---|--|--|-------|
| | | | SJT | | | | 49490 |
| | | | REM | | | | 49500 |
| | | | REM | | | | 49510 |
| | | | REM | | | | 49520 |
| 02254 | 3306222 | POWER | FST POWA | | | | 49530 |
| 02255 | 1726215 | | STX POWXR | 1 | | | 49540 |
| 02256 | 1006222 | | DLO POWA | | | | 49550 |
| 02257 | 3500002 | | XAO | A | | | 49560 |
| 02258 | 3306220 | | FST PCWB | | | | 49570 |
| 02259 | 2514722 | | SAR RZE | 7 | | | 49580 |
| 02260 | 2602346 | | BRU BASEZ | | | | 49590 |
| 02261 | 0006221 | | LDA POWB+1 | | | | 49600 |
| 02262 | 2002650 | | EXT PINF | | | | 49610 |
| 02263 | 0306216 | | STA BASS | | | | 49620 |
| 02264 | 3500002 | | XAO | A | | | 49630 |
| 02265 | 2514722 | | BAR BZE | 7 | | | 49640 |
| 02266 | 2602365 | | BRU EXPZ | | | | 49650 |
| 02267 | 0722636 | | SPL ICHKL | 1 | | | 49660 |
| 02268 | 2602372 | | BRU EXPR | | | | 49670 |
| 02269 | 0006223 | | LDA POWA+1 | | | | 49680 |
| 02270 | 2002650 | | EXT PINF | | | | 49690 |
| 02271 | 0306217 | | STA EXPX | | | | 49700 |
| 02272 | 2516001 | | RPL | | | | 49710 |
| 02273 | 2602303 | | BRU POW1 | | | | 49720 |
| 02274 | 3100002 | | MAD | A | | | 49730 |
| 02275 | 3502656 | | FMP FMONE | | | | 49740 |
| 02276 | 3306222 | | FST POWA | | | | 49750 |
| 02277 | 1006222 | | DLO POWA | | | | 49760 |
| 02278 | 2510013 | | SRA 11 | | | | 49770 |
| 02279 | 0203246 | | SUR EXN30 | | | | 49780 |
| 02280 | 2504522 | | NEG | | | | 49790 |
| 02281 | 0300001 | | STA XR01 | | | | 49800 |
| 02282 | 0006222 | | LDA POWA | | | | 49810 |
| 02283 | 2002707 | | EXT MEXP | | | | 49820 |
| 02284 | 2531000 | | SRD 0 | 1 | | | 49830 |
| 02285 | 3001400 | | FLD FONE | | | | 49840 |
| 02286 | 3306222 | | FST POWA | | | | 49850 |
| 02287 | 3006220 | | FLD PCWB | | | | 49860 |
| 02288 | 2602322 | | BRU POW3 | | | | 49870 |
| 02289 | 3100002 | POW5 | MAD | A | | | 49880 |
| 02290 | 3506220 | | FMP PCWB | | | | 49890 |
| 02291 | 3306220 | | FST PCWB | | | | 49900 |
| 02292 | 2504005 | | XAO | | | | 49910 |
| 02293 | 2516000 | | REV | | | | 49920 |
| 02294 | 2602331 | | RRU PCV2 | | | | 49930 |
| 02295 | 3100002 | | MAD | A | | | 49940 |
| 02296 | 3506222 | | FMP PCWA | | | | 49950 |
| 02297 | 3306222 | | FST PCWA | | | | 49960 |
| 02298 | 3006220 | | FLD PCWB | | | | 49970 |
| 02299 | 2504005 | POW2 | XAO | | | | 49980 |
| 02300 | 2511001 | | SRD 1 | | | | 49990 |
| 02301 | 2201402 | | DCB FZERO | | | | 50000 |
| 02302 | 2602317 | | BRU POW5 | | | | 50010 |
| 02303 | 2602337 | | BRU ***? | | | | 50020 |

| | | | | | |
|-------|---------|-------|--------------------|------------------------------------|-------|
| 02336 | 2602317 | | BRU POWS | NOT FINISHED YET | 50030 |
| 02337 | 0006217 | | LDA EXP\\$ | CHECK SIGN OF EXPONENT | 50040 |
| 02340 | 2516001 | | RPL | | 50050 |
| 02341 | 2602367 | | BRU POWEX | COMPLETELY FINISHED | 50060 |
| 02342 | 3001400 | | FLD FONE | | 50070 |
| 02343 | 3500005 | | CGX | \$\$\$\$\$ | 50080 |
| 02344 | 3606222 | | FDV PCWA | COMPUTE 1/ANSWER | 50090 |
| 02345 | 2602370 | | BRU POWEX1 | | 50100 |
| 02346 | 3500002 | BASEZ | XAO A | PUT EXP IN AX BASE IN QX | 50110 |
| 02347 | 2514721 | | RAR BMI 7 | | 50120 |
| 02350 | 2602357 | | BRU *+7 | | 50130 |
| 02351 | 2514722 | | RAR RZE 7 | | 50140 |
| 02352 | 2602355 | | BRU *+3 | | 50150 |
| 02353 | 3001402 | | FLD FZERO | EXONENT POSITIVE | 50160 |
| 02354 | 2620001 | | BRU 1 1 | EXIT | 50170 |
| 02355 | 3001400 | | FLD FONE | SUPPLY 1 FOR 0**0 | 50180 |
| 02356 | 2620001 | | BRU 1 1 | EXIT | 50190 |
| 02357 | 2504022 | | LDO | SET CONTINUE FLAG FOR ERROR MESS. | 50200 |
| 02360 | 2504004 | | LQA | WHEN EXPONENT IS NEGATIVE | 50210 |
| 02361 | 0002723 | | LDA EXN10 | MESSAGE NUMBER | 50220 |
| 02362 | 0721757 | | SPR RMFSS 1 | | 50230 |
| 02363 | 3002650 | | FLD PINF | | 50240 |
| 02364 | 2602370 | | BRU POWEX1 | | 50250 |
| 02365 | 3001400 | EXPZ | FLD FONE | EXONENT ZERO | 50260 |
| 02366 | 2620001 | | BRU 1 1 | EXIT | 50270 |
| 02367 | 3006222 | | POWEX FLD POWA | | 50280 |
| 02370 | 0626215 | | POWEX1 LDX PGWXR 1 | RESTORE EXIT | 50290 |
| 02371 | 2620001 | | BRU 1 1 | | 50300 |
| 02372 | 3006220 | EXPR | FLD POWB | REAL EXPONENT, LOAD BASE | 50310 |
| 02373 | 0006216 | | LDA BASS | CHECK SIGN OF BASE | 50320 |
| 02374 | 2514001 | | RMI | | 50330 |
| 02375 | 2602403 | | BRU EXPRI | | 50340 |
| 02376 | 0722630 | EXPR2 | SPR LOG32 1 | | 50350 |
| 02377 | 3100002 | | MAC A | | 50360 |
| 02400 | 3506222 | | FMP POWA | MULTIPLY BY EXPONENT | 50370 |
| 02401 | 0722617 | | SPR EXP2 1 | | 50380 |
| 02402 | 2602370 | | BRU POWEX1 | | 50390 |
| 02403 | 2504022 | EXPR1 | LDO | SET CONTINUE FLAG | 50400 |
| 02404 | 2504004 | | LQA | | 50410 |
| 02405 | 0003204 | | LDA EXN11 | MESSAGE NO. | 50420 |
| 02406 | 0721757 | | SPR RMESS 1 | | 50430 |
| 02407 | 3006220 | | FLD POWB | TAKE ABSOLUTE VAL OF BASE | 50440 |
| 02410 | 3100002 | | MAC A | | 50450 |
| 02411 | 3502656 | | FMP FMONE | | 50460 |
| 02412 | 3306220 | | FST POWB | | 50470 |
| 02413 | 2602376 | | BRU EXPZ2 | | 50480 |
| | | | REM | INT FUNCTION | 50490 |
| | | | REM | FORMS INTEGER PART OF NUMBER IN AX | 50500 |
| | | | REM | AND RETURNS WITH ANSWER IN AX | 50510 |
| 02414 | 3307070 | INT | FST INTARG | | 50520 |
| 02415 | 2516721 | | RAR RPL 7 | | 50530 |
| 02416 | 2602425 | | BRU INT2 | | 50540 |
| 02417 | 0002725 | | LDA MIN | | 50550 |
| 02420 | 0307075 | | STA INTF | | 50560 |

RUN-TIME, LOWER MEMORY, ARITH SUBROUTINES

000108

| | | | | |
|-------|---------|-----------------|--|-------|
| 02421 | 3200005 | CAX | \$\$\$\$\$ | 50570 |
| 02422 | 3207070 | FSU INTARG | | 50580 |
| 02423 | 3307070 | FST INTARG | | 50590 |
| 02424 | 2602427 | BRU INT3 | | 50600 |
| 02425 | 0002726 | LDA ZERO | | 50610 |
| 02426 | 0307073 | INT2 STA INTF | | 50620 |
| 02427 | 0007070 | INT3 LDA INTARG | NUMBER POSITIVE GET PART OF ARG WITH EXPONENT | 50630 |
| 02430 | 2510013 | SRA 11 | | 50640 |
| 02431 | 0307072 | STA INTEXP | | 50650 |
| 02432 | 2514001 | BMI | | 50660 |
| 02433 | 2602506 | BRU INT7 | | 50670 |
| 02434 | 2514002 | BZ= | | 50680 |
| 02435 | 2602506 | BRU INT7 | | 50690 |
| 02436 | 2103204 | CAS EXN11 | | 50700 |
| 02437 | 2602467 | BRU INT5 | | 50710 |
| 02440 | 2602503 | BRU INT8 | | 50720 |
| 02441 | 0203246 | SUB EXN30 | | 50730 |
| 02442 | 2516001 | BPL | | 50740 |
| 02443 | 2602457 | BRU INT4 | | 50750 |
| 02444 | 2506016 | SET PBK | | 50760 |
| 02445 | 2504522 | NEG | | 50770 |
| 02446 | 0102705 | ADD EXSRA | | 50780 |
| 02447 | 0302453 | STA **4 | | 50790 |
| 02450 | 0102702 | ADD EXSLA | | 50800 |
| 02451 | 0302454 | STA **3 | | 50810 |
| 02452 | 0007071 | LDA INTARG+1 | | 50820 |
| 02453 | 2510000 | SRA 0 | | 50830 |
| 02454 | 2512000 | SLA 0 | | 50840 |
| 02455 | 0307071 | STA INTARG+1 | SAVE INTEGER PART OF MANTISSA | 50850 |
| 02456 | 2506015 | SET PST | | 50860 |
| 02457 | 0007073 | INT4 LDA INTF | | 50870 |
| 02460 | 2516001 | BPL | | 50880 |
| 02461 | 2602455 | BRU INT6 | | 50890 |
| 02462 | 3200005 | CAX | | 50900 |
| 02463 | 3207070 | FSU INTARG | \$\$\$\$\$ RECOMPLEMENT IF ARG WAS NEGATIVE | 50910 |
| 02464 | 2620001 | BRU 1 1 | | 50920 |
| 02465 | 3007070 | INT6 FLD INTARG | LOAD RESULT | 50930 |
| 02466 | 2620001 | BRU 1 1 | | 50940 |
| 02467 | 2506016 | INT5 SET PBK | | 50950 |
| 02470 | 0003204 | LDA EXN11 | | 50960 |
| 02471 | 0207072 | SUB INTEXP | | 50970 |
| 02472 | 0102705 | ADD EXSRA | | 50980 |
| 02473 | 0302477 | STA **4 | | 50990 |
| 02474 | 0102702 | ADD EXSLA | | 51000 |
| 02475 | 0302500 | STA **3 | | 51010 |
| 02476 | 0007070 | LDA INTARG | | 51020 |
| 02477 | 2510000 | SRA 0 | | 51030 |
| 02500 | 2512000 | SLA 0 | | 51040 |
| 02501 | 0307070 | STA INTARG | | 51050 |
| 02502 | 2506015 | SET PST | | 51060 |
| 02503 | 0002726 | INT8 LDA ZERO | | 51070 |
| 02504 | 0307071 | STA INTARG+1 | | 51080 |
| 02505 | 2602457 | BRU INT4 | | 51090 |
| 02506 | 3200005 | INT7 CAX | \$\$\$\$\$ | 51100 |

| | | | | | | |
|-------|---------|-----|-------------|---|--|----------|
| 02507 | 2620001 | | BRU 1 | 1 | | 51110 |
| 02510 | 2516721 | ABS | SAR BPL | 7 | \$\$\$\$\$ WAIT FOR AAU IN 225 | 51120 |
| 02511 | 2620001 | | BRU 1 | 1 | | BAS51130 |
| 02512 | 3306162 | | FST TEMP+10 | | | BAS51140 |
| 02513 | 3200005 | | CAX | | | 51150 |
| 02514 | 3206162 | | FSU TEMP+10 | | | BAS51160 |
| 02515 | 2620001 | | BRU 1 | 1 | | BAS51170 |
| 02516 | 1726212 | LOG | STX LOGXR | 1 | SAVE RETURN | 51180 |
| 02517 | 2514721 | | BAR BMI | 7 | ERROR IF ARGUMENT IS NEGATIVE | 51190 |
| 02520 | 2602525 | | BRU *+5 | | | 51200 |
| 02521 | 2514722 | | BAR BZF | 7 | | 51210 |
| 02522 | 2602535 | | BRU *+11 | | ERROR IF ARGUMENT IS ZERO | 51220 |
| 02523 | 0626212 | | LDX LOGXR | 1 | RESTORE EXIT | 51230 |
| 02524 | 2602625 | | SRU LOGSE | | | 51240 |
| 02525 | 2504022 | | LDO | | | 51250 |
| 02526 | 2504006 | | MAQ | | SET CONTINUE FLAG | 51260 |
| 02527 | 0003164 | | LDA BXN2 | | | 51270 |
| 02530 | 3307070 | | FST LOGARG | | SAVE ARGUMENT | 51280 |
| 02531 | 0721757 | | SPR RMESS | 1 | GIVE ERROR MESSAGE | 51290 |
| 02532 | 3007070 | | FLD LOGARG | | RESTORE ARGUMENT | 51300 |
| 02533 | 0722510 | | SPS ABS | 1 | TAKE ABSOLUTE VALUE | 51310 |
| 02534 | 2602523 | | BRU *-9 | | GO TO LOG ROUTINE | 51320 |
| 02535 | 2504022 | | LDO | | SET CONTINUE FLAG | 51330 |
| 02536 | 2504004 | | LQA | | | 51340 |
| 02537 | 0003165 | | LDA N3 | | SET MESSAGE NO. FOR LOG[0] | 51350 |
| 02540 | 0721757 | | SPR RMESS | 1 | OUTPUT ERROR MESSAGE | 51360 |
| 02541 | 3002652 | | FLD NINF | | SUPPLY NEGATIVE INFINITY | 51370 |
| 02542 | 0626212 | | LDX LOGXR | 1 | RESTORE EXIT | 51380 |
| 02543 | 2620001 | | BRU 1 | 1 | RETURN | 51390 |
| 02544 | 1006246 | RND | LDO RND1 | | RANDOM NUMBER GENERATOR A LA KIP MOORE | 51400 |
| 02545 | 1103160 | | DAD RNDK | | | 51410 |
| 02546 | 2512205 | | SLD 5 | | | 51420 |
| 02547 | 1106246 | | DAD RND1 | | | 51430 |
| 02550 | 2002707 | | EXT MEXP | | | 51440 |
| 02551 | 2512200 | | SLD 0 | | | 51450 |
| 02552 | 1306246 | | DST RND1 | | | 51460 |
| 02553 | 3006246 | | FLD RND1 | | | 51470 |
| 02554 | 3500005 | | CQX | | DONT NORMALIZE NONSENSE | 51480 |
| 02555 | 3100005 | | NOX | | | 51490 |
| 02556 | 2620001 | | BRU 1 | 1 | | 51500 |
| 02557 | 1726212 | SGR | STX SGRXR | 1 | SAVE EXIT | 51510 |
| 02560 | 2516721 | | BAR BPL | 7 | TEST FOR PLUS OR ZERO | 51520 |
| 02561 | 2602570 | | BRU *+7 | | | 51530 |
| 02562 | 3307072 | | FST SQT | | SAVE ARGUMENT | 51540 |
| 02563 | 2504022 | | LDO | | SET MESSAGE NUMBER | 51550 |
| 02564 | 2504004 | | LQA | | SET CONTINUATION FLAG | 51560 |
| 02565 | 0721757 | | SPR RMESS | 1 | GIVE ERROR MESSAGE | 51570 |
| 02566 | 3007072 | | FLD SQT | | RESTORE ARGUMENT | 51580 |
| 02567 | 0722510 | | SPS ABS | 1 | TAKE ABSOLUTE VALUE | 51590 |
| 02570 | 0626212 | | LDX SQRXR | 1 | RESTORE EXIT | 51600 |
| 02571 | 2602606 | | BRU SQF | | GO TO SQUARE ROOT ROUTINE | 51610 |
| 02572 | 3306172 | | FST TEMP+18 | | | BAS51620 |
| 02573 | 1726167 | | STX TEMP+15 | 1 | | BAS51630 |
| 02574 | 0722614 | | SPF DOS | 1 | | BAS51640 |

RUN-TIME, LOWER MEMORY, ARITH SUBROUTINES

000110

| | | | |
|-------|---------|---------------|----------|
| 02575 | 3306170 | FST TEMP+16 | BAS51650 |
| 02576 | 3006172 | FLD TEMP+18 | BAS51660 |
| 02577 | 0722611 | SPR SIN 1 | BAS51670 |
| 02600 | 3606170 | FDV TEMP+16 | BAS51680 |
| 02601 | 0626167 | LDX TEMP+15 1 | BAS51690 |
| 02602 | 2620001 | BRU 1 1 | BAS51700 |
| | | NAM | 51710 |

ENTRANCE VECTORS FOR RUN TIME ROUTINES

ENTRANCE VECTORS FOR RUN TIME ROUTINES

000111.

| | | | | | |
|-------|---------|-------|---------------|----------------------------|-------|
| | | | SJT | | 51720 |
| | | | REM | | 51730 |
| 02603 | 1727070 | ATANF | STX B | 1 | 51740 |
| 02604 | 0622710 | | LDX UPBIT | 1 | 51750 |
| 02605 | 2625443 | | BRU ARCTAN | 1 | 51760 |
| | | | REM | | 51770 |
| 02606 | 1727070 | SQF | STX B | 1 | 51780 |
| 02607 | 0622710 | | LDX UPSIT | 1 | 51790 |
| 02610 | 2625621 | | BRU SQF2 | 1 | 51800 |
| | | | REM | | 51810 |
| 02611 | 1727070 | SIN | STX B | 1 | 51820 |
| 02612 | 0622710 | | LDX UPBIT | 1 | 51830 |
| 02613 | 2625665 | | BRU SINF | 1 | 51840 |
| 02614 | 1727070 | COS | STX B | 1 | 51850 |
| 02615 | 0622710 | | LDX UPBIT | 1 | 51860 |
| 02616 | 2625664 | | BRU COSF | 1 | 51870 |
| | | | REM | | 51880 |
| 02617 | 1727070 | EXP2 | STX B | 1 | 51890 |
| 02620 | 0622710 | | LDX UPBIT | 1 | 51900 |
| 02621 | 2626127 | | BRU EEXP2 | 1 | 51910 |
| 02622 | 1727070 | EXP | STX B | 1 | 51920 |
| 02623 | 0622710 | | LDX UPBIT | 1 | 51930 |
| 02624 | 2626111 | | BRU EXPSSUB | 1 | 51940 |
| | | | REM | | 51950 |
| 02625 | 1727070 | LOGSE | STX B | 1 | 51960 |
| 02626 | 0622710 | | LDX UPBIT | 1 | 51970 |
| 02627 | 2626261 | | BRU LNSUB | 1 | 51980 |
| 02630 | 1727070 | LOGB2 | STX B | 1 | 51990 |
| 02631 | 0622710 | | LDX UPBIT | 1 | 52000 |
| 02632 | 2626263 | | BRU LOG2 | 1 | 52010 |
| 02633 | 1726226 | YUNF | STX UNFL3 | 1 | 52020 |
| 02634 | 0622710 | | LDX UPEIT | 1 | 52030 |
| 02635 | 2626742 | | BRU YUNFU | 1 | 52040 |
| 02636 | 1726253 | ICHKL | STX ICHXR | 1 | 52050 |
| 02637 | 0622710 | | LDX UPEIT | 1 | 52060 |
| 02640 | 2626767 | | BRU INTCHK+11 | | 52070 |
| 02641 | 2506033 | INCON | SXG 1 | | 52080 |
| 02642 | 0642710 | | LDX UPBIT | 2 | 52090 |
| 02643 | 2647356 | | BRU INCONV | 2 | 52100 |
| 02644 | 1727070 | YTST | STX B | 1 | 52110 |
| 02645 | 0622710 | | LDX UPSIT | 1 | 52120 |
| 02646 | 2627444 | | BRU YTSTUP | 1 | 52130 |
| | | | NAM | | 52140 |
| | | | | | |
| | | | | RUN-TIME GARBAGE CONSTANTS | |

RUN-TIME GARBAGE CONSTANTS

000112

| | | | | | | |
|-------|---------|--------|-----|-------------|-----------------------------------|-------|
| 02650 | 1777777 | PINF | EJT | OCT 1777777 | PLUS INFINITY | 52150 |
| 02651 | 1777777 | | | OCT 1777777 | | 52160 |
| 02652 | 1774000 | NINF | OCT | 1774000 | SMALLEST NEGATIVE FLOATING NUMBER | 52170 |
| 02653 | 2000001 | | OCT | 2000001 | | 52180 |
| 02654 | 2000000 | FIXMIN | OCT | 2000000 | SMALLEST SIGNED FIXED NO. | 52190 |
| 02655 | 2000001 | | OCT | 2000001 | | 52200 |
| | 01400 | FONE | EQU | EXC | | 52210 |
| | 01402 | FZERO | EQU | EXC+2 | | 52220 |
| 02656 | 0006000 | FNONE | FDC | -1 | | 52230 |
| 02657 | 2000000 | | | | | 52240 |
| | 02657 | SIGN | EQU | FMONE+1 | | |
| 02660 | 0001400 | EXOEND | OCT | 1400 | END OF OUTPUT BUFFER | 52250 |
| 02661 | 0633144 | OUT52 | ALF | TIM | | 52260 |
| 02662 | 0251360 | | ALF | E# | | 52270 |
| 02663 | 0604431 | OUT53 | ALF | MI | | 52280 |
| 02664 | 0456233 | | ALF | NS. | | 52290 |
| 02665 | 0506225 | OUT54 | ALF | SE | | 52300 |
| 02666 | C236233 | | ALF | CS. | | 52310 |
| 02667 | 0000033 | PER | ALF | OO. | | 52320 |
| 02670 | 0036000 | BL20 | ALF | 0 0 | | 52330 |
| 02671 | 0000060 | BL | ALF | 00 | | 52340 |
| 02672 | 0777737 | CRT | OCT | 0777737 | | 52350 |
| 02673 | 0007700 | FILL2 | OCT | 0007700 | | 52360 |
| 02674 | 0006000 | ZBZ | ALF | 0 0 | | 52370 |
| 02675 | 0770060 | FZB | OCT | 770060 | | 52380 |
| 02676 | 0000077 | FILL | DEC | 63 | | 52390 |
| 02677 | 0777755 | BLEOM | OCT | 0777755 | | 52400 |
| 02700 | 0606060 | BL32 | ALF | | | 52410 |
| 02701 | 0377272 | CRLF | OCT | 0377272 | | 52420 |
| 02702 | 0002000 | EXSLA | OCT | 0002000 | | 52430 |
| 02703 | 0004100 | EXOLOC | DEC | EXO | | 52440 |
| 02704 | 0027440 | INLOC | DEC | INRET-1 | | 52450 |
| 02705 | 2510000 | EXSRA | SRA | 0 | | 52460 |
| 02706 | 0620000 | LDX01 | LDX | 0 1 | | 52470 |
| 02707 | 3774000 | MEXP | OCT | 3774000 | | 52480 |
| 02710 | 0020000 | UPBIT | DEC | 8192 | | 52490 |
| 02711 | 0000400 | O400 | OCT | 400 | | 52500 |
| 02712 | 0000200 | O200 | OCT | 200 | | 52510 |
| 02713 | 3777776 | NM2 | DEC | -2 | | 52520 |
| 02714 | 0007200 | ULOC | DEC | 0 | | 52530 |
| 02715 | 3700002 | DWRITP | OCT | 3700002 | | 52540 |
| 02716 | 1200004 | DREAD | OCT | 1200004 | | 52550 |
| 02717 | 0303240 | TENT | DEC | 100000 | | 52560 |
| 02720 | 0023420 | | DEC | 10000 | | 52570 |
| 02721 | 0001750 | | DEC | 1000 | | 52580 |
| 02722 | 0000144 | | DEC | 100 | | 52590 |
| 02723 | 0000012 | EXN10 | DEC | 10 | | 52600 |
| 02724 | 0000001 | EXN1 | DEC | 1 | | 52610 |
| 02725 | 3777777 | MIN | DEC | -1 | | 52620 |
| 02726 | 0000000 | ZERO | DEC | 0 | | 52630 |
| 02727 | 0000040 | EX32 | DEC | 32 | | 52640 |
| | 30055 | D12 | EQU | E12 | | 52650 |
| | 00011 | L12 | EQU | E13-E12 | FUDGE FOR SCREWED UP DEC PSEUDO | 52660 |
| | | | | | | 52670 |

RUN-TIME GARBAGE CONSTANTS

000113

| | | |
|-------|---------|-------------|
| 30066 | D13 | EQU E13 |
| 00017 | L13 | EQU E14-E13 |
| 02730 | 0000074 | SIXTY |
| | | DEC 60 |
| | | NAM |

| |
|-------|
| 52680 |
| 52690 |
| 52700 |
| 52710 |

RUN TIME LOWER MEMORY CONSTANTS

RUN TIME LOWER MEMORY CONSTANTS

000114

| | | EJT | MSTAB IS DESCRIBED IN RMESS | | |
|-------|---------|-------|-----------------------------|----------|----------|
| | | REM | | | |
| 02732 | 0027727 | MSTAB | DEC | ER0 | 52720 |
| 02733 | 3777774 | | DEC | ER0-ER1 | 52730 |
| 02734 | 0027733 | | DEC | ER1 | 52740 |
| 02735 | 3777765 | | DEC | ER1-ER2 | 52750 |
| 02736 | 0027746 | | DEC | ER2 | 52760 |
| 02737 | 3777770 | | DEC | ER2-ER3 | 52770 |
| 02740 | 0027756 | | DEC | ER3 | 52780 |
| 02741 | 3777774 | | DEC | ER3-ER4 | 52790 |
| 02742 | 0027762 | | DEC | ER4 | 52800 |
| 02743 | 3777763 | | DEC | ER4-ER5 | 52810 |
| 02744 | 0027777 | | DEC | ER5 | 52820 |
| 02745 | 3777771 | | DEC | ER5-ER6 | 52830 |
| 02746 | 0030006 | | DEC | ER6 | 52840 |
| 02747 | 3777772 | | DEC | ER6-ER7 | 52850 |
| 02750 | 0030014 | | DEC | ER7 | 52860 |
| 02751 | 3777772 | | DEC | ER7-ER8 | 52870 |
| 02752 | 0030022 | | DEC | ER8 | 52880 |
| 02753 | 3777775 | | DEC | ER8-ER9 | 52890 |
| 02754 | 0030025 | | DEC | ER9 | 52900 |
| 02755 | 3777774 | | DEC | ER9-ER10 | 52910 |
| 02756 | 0030031 | | DEC | ER10 | 52920 |
| 02757 | 3777767 | | DEC | -9 | 52930 |
| 02760 | 0030042 | | DEC | ER11 | 52940 |
| 02761 | 3777765 | | DEC | -11 | 52950 |
| 02762 | 0030055 | | DEC | D12 | 52960 |
| 02763 | 3777767 | | DEC | -L12 | 52970 |
| 02764 | 0030066 | | DEC | D13 | 52980 |
| 02765 | 3777761 | | DEC | -L13 | 52990 |
| 02766 | 3777777 | /2105 | DEC | RE4 | 53000 |
| 02767 | 3777777 | | DDC | -1 | 53010 |
| 02768 | 02707 | /2107 | EQU | MEXP | 53020 |
| 02770 | 0003777 | /2109 | OCT | 0003777 | 53030 |
| | 02726 | /2111 | EQU | ZERO | |
| 02772 | 0007110 | /2203 | DEC | 1.570796 | |
| 02773 | 0773250 | | | 32679B1 | |
| | 01402 | /2209 | EQU | FZERO | BAS53040 |
| | 02707 | /2212 | EQU | MEXP | BAS53050 |
| | 02766 | /2216 | EQU | /2105 | 53060 |
| 02774 | 1400000 | /2218 | OCT | 1400000 | BAS53070 |
| | 01400 | /2224 | EQU | FONE | BAS53080 |
| | 02656 | /2225 | EQU | FMONE | BAS53090 |
| 02776 | 0400000 | /2227 | OCT | 0400000 | 53100 |
| 02777 | 0000000 | | OCT | 0000000 | 53110 |
| 03000 | 0000023 | /2232 | DDC | ,0001514 | 53120 |
| 03001 | 1553672 | | | 8419B2 | BAS53130 |
| 03002 | 3776633 | | DDC | -,004673 | 53140 |
| 03003 | 2631634 | | | 76557B2 | 53150 |
| 03004 | 0024315 | | DDC | ,0796896 | BAS53160 |
| 03005 | 0127545 | | | 7926B2 | BAS53170 |
| 03006 | 3532504 | | DDC | -,645963 | BAS53180 |

RUN TIME LOWER MEMORY CONSTANTS

000115

| | | | |
|-------|---------|--------------------|----------|
| 03007 | 2372252 | 71106B2 | BAS53250 |
| 03010 | 0622077 | DDC 1.570796 | 53260 |
| 03011 | 0651010 | 3184782 | BAS53270 |
| 03012 | 0000036 | /2235 DEC 30 | 53280 |
| | | REM | 53290 |
| | 01402 | EQU EXC+2 | 53300 |
| | 02707 | EQU MEXP | 53310 |
| 03013 | 0000035 | /2313 DEC 29 | BAS53320 |
| | 02776 | /2318 EQU /2227 | 53330 |
| 03014 | 3776754 | /2324 DDC -.004054 | BAS53340 |
| 03015 | 3201430 | 05882 | BAS53350 |
| 03016 | 0005461 | DDC .0218612 | 53360 |
| 03017 | 624353 | 28882 | BAS53370 |
| 03020 | 3761537 | DDC -.055909 | 53380 |
| 03021 | 3436073 | 886182 | BAS53390 |
| 03022 | 0030535 | DDC .0964200 | 53400 |
| 03023 | 1737201 | 441B2 | BAS53410 |
| 03024 | 3734311 | DDC -.139085 | 53420 |
| 03025 | 3472247 | 3351B2 | BAS53430 |
| 03026 | 0063040 | DDC .1994653 | 53440 |
| 03027 | 0513327 | 59982 | BAS53450 |
| 03030 | 3652531 | DDC -.333298 | 53460 |
| 03031 | 3620356 | 5605B2 | BAS53470 |
| 03032 | 0377777 | DDC .9999993 | 53480 |
| 03033 | 1646355 | 32982 | BAS53490 |
| 03034 | 0311037 | /2326 DDC .7853981 | BAS53500 |
| 03035 | 1325042 | 63482 | BAS53510 |
| 03036 | 1444176 | /2315 DDC 1.570796 | BAS53520 |
| 03037 | 1524207 | 3267981 | BAS53530 |
| | | REM | 53540 |
| 03040 | 3777747 | /6121 DEC -25 | 53550 |
| 03041 | 0000010 | /6136 DEC 8 | 53560 |
| 03042 | 0006795 | /6113 FDC 1.442695 | 53570 |
| 03043 | 0507312 | 041B1 | 53580 |
| 03044 | 0013244 | FDC 3.321928 | 53590 |
| 03045 | 1517022 | 09482 | 53600 |
| 03046 | 0012000 | /6118 FDC 282 | 53610 |
| 03047 | 0000000 | | |
| 03050 | 0012557 | /6111 OCT 0012557 | 53620 |
| 03051 | 1412425 | OCT 1412425 | 53630 |
| 03052 | 0000000 | /6149 DDC 101880E- | 53640 |
| 03053 | 0066516 | 10 | 53650 |
| 03054 | 0000000 | OCT 0 | 53660 |
| 03055 | 1305363 | OCT 1305363 | 53670 |
| 03056 | 0000007 | DDC 152527B0 | 53680 |
| 03057 | 1774566 | E-10 | 53690 |
| 03060 | 0000120 | DDC 1540353B | 53700 |
| 03061 | 1411044 | 0E-10 | 53710 |
| 03062 | 0001273 | DDC 13333558 | 53720 |
| 03063 | 0077743 | B0E-10 | 53730 |
| 03064 | 0011662 | DDC 96181291 | 53740 |
| 03065 | 1255573 | B0E-10 | 53750 |
| 03066 | 0070654 | DDC 55504108 | 53760 |
| 03067 | 0215352 | 780E-10 | 53770 |

RUN TIME LOWER MEMORY CONSTANTS

000116

| | | | |
|-------|----------|--------------------------------|----------|
| 03070 | 0365773 | DDC 24022650 | 53780 |
| 03071 | 1577714 | 7080E-10 | 53790 |
| 03072 | 1305620 | DDC 69314718 | 53800 |
| 03073 | 1376777 | 0680E-10 | 53810 |
| | 01402 | /6104 EQU FZERO | 53820 |
| | 02724 | /6141 EQU EXN1 | 53830 |
| 03074 | 1000000 | /6152 OCT 10000000 | 53840 |
| | | REM | 53850 |
| 03075 | 3777745 | /5123 DEC -27 | 53860 |
| 03076 | 1305620 | /5117 DDC .6931471 | 53870 |
| 03077 | 1376777 | 80690 | 53880 |
| 03100 | 0512577 | /5146 DDC 1.291991 | 53890 |
| 03101 | 1630665 | 41982 | 53900 |
| 03102 | 3527027 | /5147 DDC -2.63990 | 53910 |
| 03103 | 2725751 | 90984 | 53920 |
| 03104 | 3127672 | /5145 DDC -1.65677 | 53930 |
| 03105 | 3337161 | 85798B2 | 53940 |
| 03106 | 3600000 | /5148 DDC -0.582 | 53950 |
| 03107 | 2000000 | | |
| 03110 | 0552023 | /5144 OCT 0552023 | 53960 |
| 03111 | 1463200 | OCT 1463200 | 53970 |
| 03112 | 0003777 | /5113 OCT 0003777 | 53980 |
| | 01400 | /5106 EQU FONE | 53990 |
| | 01402 | /5120 EQU FZERO | 54000 |
| | | REM | 54010 |
| 03113 | 0006025 | UNFLT ^a OCT 0006025 | 54020 |
| | | REM | 54030 |
| 03114 | 0006000 | BDC30 FDC 1B1 | BAS54040 |
| 03115 | 0000000 | | |
| 03116 | 0022400 | FDC 1084 | BAS54050 |
| 03117 | 0000000 | | |
| 03120 | 0037100 | FDC 1E2B7 | BAS54060 |
| 03121 | 0000000 | | |
| 03122 | 0072342 | FDC 1E4814 | BAS54070 |
| 03123 | 0000000 | | |
| 03124 | 0156765 | FDC 1E8B27 | BAS54080 |
| 03125 | 1604000 | | |
| 03126 | 0332160 | OCT 332160 | BAS54090 |
| 03127 | 1571160 | OCT 1571160 | BAS54100 |
| 03130 | 0656356 | OCT 656356 | BAS54110 |
| 03131 | 0265552 | OCT 265552 | BAS54120 |
| 03132 | 1527023 | OCT 1527023 | BAS54130 |
| 03133 | 1403722 | OCT 1403722 | BAS54140 |
| 03134 | 0000000 | BDC40 DDC 0 | BAS54150 |
| 03135 | 0000000 | | |
| 03136 | 0464202 | BDC42 DEC ,3010380 | BAS54160 |
| 03140 | 0003146 | BDC43 OCT 0003146 | BAS54170 |
| 03141 | 0631463 | OCT 631463 | BAS54180 |
| 03142 | 0603300 | BDC44 OCT 603300 | BAS54190 |
| 03143 | 0403300 | BDC45 OCT 403300 | BAS54200 |
| 03144 | 00000012 | BDC46 OCT 12 | BAS54210 |
| 03145 | 0006000 | BDC47 OCT 6000 | BAS54220 |
| 03146 | 0002000 | BDC48 OCT 2000 | BAS54230 |
| 03147 | 0006000 | BDC49 OCT 6060 | BAS54240 |

CONSTANTS FOR LOG

YUNF CONSTANTS

BDCA CONSTANTS

RUN TIME LOWER MEMORY CONSTANTS

000117

| | | | | |
|-------|---------|-------|------------------------|----------|
| 03150 | 2511000 | BDC50 | SRD 0 | BAS54250 |
| 03151 | 0014000 | BDC54 | OCT 0014000 | BAS54260 |
| 03152 | 3777776 | BDC55 | OCT 3777776 | BAS54270 |
| 03154 | 0000000 | BDC56 | OCT 0000000 | BAS54280 |
| 03155 | 0002536 | | OCT 0002536 | BAS54290 |
| 03156 | 0146314 | BDC57 | OCT 0146314 | BAS54300 |
| 03157 | 1463150 | | OCT 1463150 | BAS54310 |
| 03160 | 0301744 | RNDK | OCT 0301744 | 54320 |
| 03161 | 0003661 | | OCT 0003661 | 54330 |
| | | NAM | | 54340 |
| | | | ,K TIMES 10 TO -8 | |
| | | | .1+1 IN LAST PLACE | |
| | | | CONSTANT FOR RND | |
| | | | COMPILE TIME CONSTANTS | |

COMPILE TIME CONSTANTS

000119

| | | | | | | |
|-------|---------|-----|---------|---|----|----------|
| 03236 | 3777775 | | DEC -3 | * | 44 | TEA54590 |
| 03237 | 3777754 | | DEC -20 | NOT USED | 45 | TEA54900 |
| 03240 | 3777754 | | DEC -20 | GREATER THAN | 46 | TEA54910 |
| 03241 | 3777773 | | DEC -5 | UP ARROW | 47 | 54920 |
| 03242 | 3777754 | | DEC -20 | NOT USED | 48 | TEA54930 |
| 03243 | 3777774 | | DEC -4 | / | 49 | TEA54940 |
| 03244 | 0000034 | N28 | DEC 28 | S | 50 | TEA54950 |
| 03245 | 0000035 | | DEC 29 | T | 51 | 54960 |
| 03246 | 0000036 | N30 | DEC 30 | U | 52 | TEA54970 |
| 03247 | 0000037 | N31 | DEC 31 | V | 53 | TEA54980 |
| 03250 | 0000040 | N32 | DEC 32 | W | 54 | TEA54990 |
| 03251 | 0000041 | | DEC 33 | X | 55 | 55000 |
| 03252 | 0000042 | | DEC 34 | Y | 56 | 55010 |
| 03253 | 0000043 | | DEC 35 | Z | 57 | 55020 |
| 03254 | 3777754 | | DEC -20 | NOT USED | 58 | TEA55030 |
| 03255 | 3777762 | | DEC -14 | , | 59 | TEA55040 |
| 03256 | 3777762 | | DEC -14 | NOT USED | 60 | TEA55050 |
| 03257 | 3777772 | | DEC -6 | % AND SQ BRACK | 61 | TEA55060 |
| 03260 | 3777771 | | DEC -7 | AND SQ BRACK | 62 | TEA55070 |
| 03261 | 3777754 | | DEC -20 | NOT USED | 63 | 55080 |
| | | | REM | END OF TABLE S | | TEA55090 |
| | | | REM | ***** | | TEA55100 |
| | | | REM | ***** | | TEA55110 |
| | | | REM | ***** | | TEA55120 |
| | | | REM | SYMBOL TABLE S2 IS USED IN THE | | TEA55130 |
| | | | REM | CHARACTER TRANSLATION ROUTINE | | TEA55140 |
| | | | REM | NEGATIVE CODES HAVE THE FOLLOWING MEANING-- | | 55150 |
| | | | REM | -12 COPY EXACTLY DO NOT DELETE BLANK | | TEA55160 |
| | | | REM | -31 --CR#END OF LINE,BEGIN COMPILE | | TEA55170 |
| | | | REM | -45 EOM IF ENCOUNTERED THEN NO END | | TEA55180 |
| | | | REM | -63 AND -48 DELETED FROM LINE | | TEA55190 |
| | | | REM | CHARACTERS WITH POSITIVE CODES ARE CON- | | TEA55200 |
| | | | REM | VERTED DIRECTLY TO THAT CODE | | TEA55210 |
| | | | REM | CHARACTER | | 55220 |
| 03262 | 0000000 | S2 | DEC 0 | 0 | | TEA55230 |
| 03263 | 0000001 | | DEC 1 | 1 | | TEA55240 |
| 03264 | 0000002 | | DEC 2 | 2 | | TEA55250 |
| 03265 | 0000003 | | DEC 3 | 3 | | TEA55260 |
| 03266 | 0000004 | | DEC 4 | 4 | | TEA55270 |
| 03267 | 0000005 | | DEC 5 | 5 | | TEA55280 |
| 03270 | 0000006 | | DEC 6 | 6 | | TEA55290 |
| 03271 | 0000007 | | DEC 7 | 7 | | TEA55300 |
| 03272 | 0000010 | | DEC 8 | 8 | | TEA55310 |
| 03273 | 0000011 | | DEC 9 | 9 | | TEA55320 |
| 03274 | 0000012 | | DEC 10 | / | | TEA55330 |
| 03275 | 0000013 | | DEC 11 | COLON | | TEA55340 |
| 03276 | 0000075 | | DEC 61 | LEFT PAREN | | TEA55350 |
| 03277 | 0000015 | | DEC 13 | SEMICOLON | | 55360 |
| 03300 | 0000016 | | DEC 14 | EQUAL | | TEA55370 |
| 03301 | 0000017 | | DEC 15 | REVERSE SLASH | | TEA55380 |
| 03302 | 0000020 | | DEC 16 | + | | TEA55390 |
| 03303 | 0000021 | | DEC 17 | A | | TEA55400 |
| 03304 | 0000022 | | DEC 18 | B | | TEA55410 |
| | | | | | | TEA55420 |

| | | | | | |
|-------|---------|-----|---------|------------------------|----------|
| 03305 | 0000023 | | DEC 19 | C | TEA55430 |
| 03306 | 0000024 | | DEC 20 | D | TEA55440 |
| 03307 | 0000025 | | DEC 21 | E | TEA55450 |
| 03310 | 0000026 | | DEC 22 | F | TEA55460 |
| 03311 | 0000027 | | DEC 23 | G | TEA55470 |
| 03312 | 0000030 | | DEC 24 | H | TEA55480 |
| 03313 | 0000031 | | DEC 25 | I | TEA55490 |
| 03314 | 3777701 | | DEC -63 | BELL--NEVER INPUT | TEA55500 |
| 03315 | 0000033 | | DEC 27 | . | TEA55510 |
| 03316 | 3777764 | | DEC -12 | QUOTE | TEA55520 |
| 03317 | 3777701 | | DEC -63 | QUESTION MARK | 55530 |
| 03320 | 0000036 | | DEC 30 | LESS THAN | TEA55540 |
| 03321 | 3777741 | | DEC -31 | CR | TEA55550 |
| 03322 | 0000040 | | DEC 32 | - | TEA55560 |
| 03323 | 0000041 | | DEC 33 | J | TEA55570 |
| 03324 | 0000042 | | DEC 34 | K | TEA55580 |
| 03325 | 0000043 | | DEC 35 | L | TEA55590 |
| 03326 | 0000044 | N36 | DEC 36 | M | TEA55600 |
| 03327 | 0000045 | N37 | DEC 37 | N | TEA55610 |
| 03330 | 0000046 | N38 | DEC 38 | O | TEA55620 |
| 03331 | 0000047 | N39 | DEC 39 | P | TEA55630 |
| 03332 | 0000050 | N40 | DEC 40 | Q | TEA55640 |
| 03333 | 0000051 | N41 | DEC 41 | R | TEA55650 |
| 03334 | 3777720 | | DEC -48 | TAB | TEA55660 |
| 03335 | 0000053 | | DEC 43 | \$ | 55670 |
| 03336 | 0000054 | N44 | DEC 44 | * | 55680 |
| 03337 | 3777723 | | DEC -45 | EOM | TEA55690 |
| 03340 | 0000056 | | DEC 46 | GREATER THAN | TEA55700 |
| 03341 | 0000057 | | DEC 47 | UP ARROW | 55710 |
| 03342 | 3777720 | | DEC -48 | SPACE | TEA55720 |
| 03343 | 0000061 | | DEC 49 | / | TEA55730 |
| 03344 | 0000062 | N50 | DEC 50 | S | TEA55740 |
| 03345 | 0000063 | N51 | DEC 51 | T | TEA55750 |
| 03346 | 0000064 | N52 | DEC 52 | U | TEA55760 |
| 03347 | 0000065 | | DEC 53 | V | TEA55770 |
| 03350 | 0000066 | | DEC 54 | W | TEA55780 |
| 03351 | 0000067 | N55 | DEC 55 | X | TEA55790 |
| 03352 | 0000070 | | DEC 56 | Y | TEA55800 |
| 03353 | 0000071 | | DEC 57 | Z | TEA55810 |
| 03354 | 3777701 | | DEC -63 | LINE FEED--NEVER INPUT | TEA55820 |
| 03355 | 0000073 | N59 | DEC 59 | , | TEA55830 |
| 03356 | 0000076 | | DEC 62 | RIGHT PAREN | 55840 |
| 03357 | 0000075 | N61 | DEC 61 | LEFT BRACKET | TEA55850 |
| 03360 | 0000076 | N62 | DEC 62 | RIGHT BRACKET | TEA55860 |
| 03361 | 3777701 | | DEC -63 | FILL | TEA55870 |
| | | | REM | END OF TABLE S2 | 55880 |
| | | | REM | ***** | 55890 |
| 03362 | 0000000 | S3 | DEC 0 | | 55900 |
| 03363 | 0000000 | | DEC 0 | | 55910 |
| 03364 | 0000000 | | DEC 0 | | 55920 |
| 03365 | 0000000 | | DEC 0 | | 55930 |
| 03366 | 0000000 | | DEC 0 | | 55940 |
| 03367 | 0000000 | | DEC 0 | | 55950 |
| 03370 | 0000000 | | DEC 0 | | 55960 |

COMPILE TIME CONSTANTS

000121

| | | | |
|-------|---------|--------|-------|
| 03371 | 0000000 | DEC 0 | 55970 |
| 03372 | 0000000 | DEC 0 | 55980 |
| 03373 | 0000000 | DEC 0 | 55990 |
| 03374 | 0000000 | DEC 0 | 56000 |
| 03375 | 0000000 | DEC 0 | 56010 |
| 03376 | 3777777 | DEC -1 | 56020 |
| 03377 | 3777777 | DEC -1 | 56030 |
| 03400 | 3777777 | DEC -1 | 56040 |
| 03401 | 0000000 | DEC 0 | 56050 |
| 03402 | 0000000 | DEC 0 | 56060 |
| 03403 | 0000000 | DEC 0 | 56070 |
| 03404 | 0000000 | DEC 0 | 56080 |
| 03405 | 0000000 | DEC 0 | 56090 |
| 03406 | 0000000 | DEC 0 | 56100 |
| 03407 | 0000000 | DEC 0 | 56110 |
| 03410 | 0000000 | DEC 0 | 56120 |
| 03411 | 0000000 | DEC 0 | 56130 |
| 03412 | 0000000 | DEC 0 | 56140 |
| 03413 | 0000000 | DEC 0 | 56150 |
| 03414 | 0000000 | DEC 0 | 56160 |
| 03415 | 0000000 | DEC 0 | 56170 |
| 03416 | 0000000 | DEC 0 | 56180 |
| 03417 | 0000000 | DEC 0 | 56190 |
| 03420 | 3777777 | DEC -1 | 56200 |
| 03421 | 3777777 | DEC -1 | 56210 |
| 03422 | 0000000 | DEC 0 | 56220 |
| 03423 | 0000000 | DEC 0 | 56230 |
| 03424 | 0000000 | DEC 0 | 56240 |
| 03425 | 0000000 | DEC 0 | 56250 |
| 03426 | 0000000 | DEC 0 | 56260 |
| 03427 | 0000000 | DEC 0 | 56270 |
| 03430 | 0000000 | DEC 0 | 56280 |
| 03431 | 0000000 | DEC 0 | 56290 |
| 03432 | 0000000 | DEC 0 | 56300 |
| 03433 | 0000000 | DEC 0 | 56310 |
| 03434 | 0000000 | DEC 0 | 56320 |
| 03435 | 0000000 | DEC 0 | 56330 |
| 03436 | 0000000 | DEC 0 | 56340 |
| 03437 | 0000000 | DEC 0 | 56350 |
| 03440 | 3777777 | DEC -1 | 56360 |
| 03441 | 0000000 | DEC 0 | 56370 |
| 03442 | 0000000 | DEC 0 | 56380 |
| 03443 | 0000000 | DEC 0 | 56390 |
| 03444 | 0000004 | DEC +4 | 56400 |
| 03445 | 0000005 | DEC +5 | 56410 |
| 03446 | 0000000 | DEC 0 | 56420 |
| 03447 | 0000000 | DEC 0 | 56430 |
| 03450 | 0000000 | DEC 0 | 56440 |
| 03451 | 0000000 | DEC 0 | 56450 |
| 03452 | 0000000 | DEC 0 | 56460 |
| 03453 | 0000000 | DEC 0 | 56470 |
| 03454 | 0000000 | DEC 0 | 56480 |
| 03455 | 0000003 | DEC +3 | 56490 |
| 03456 | 0000000 | DEC 0 | 56500 |

| | | | | |
|---------|---------|--------|--------------|----------|
| 03457 | 0000001 | | DEC +1 | 56510 |
| 03460 | 0000002 | | DEC +2 | 56520 |
| 03461 | 0000000 | | DEC 0 | 56530 |
| | | | REM | 56540 |
| 03462 | 0000074 | N60 | DEC 60 | 56550 |
| | 00000 | U | EQU 0 | 56560 |
| 03463 | 0017326 | VARLOC | DEC VARTAB | 56570 |
| 03464 | 0007724 | PLOC | LDA P | BAS56580 |
| 03465 | 0006750 | GLOC | LDA G | BAS56590 |
| 03466 | 0005634 | IRLOC | LDA EXIR | BAS56600 |
| 03467 | 0006522 | LLOC | LDA EXL | BAS56610 |
| | 03464 | VLAST | EQU PL0C | 56620 |
| 03470 | 3777700 | M3 | OCT 3777700 | BAS56630 |
| 03471 | 1000000 | ZDLD | DLD 0 | BAS56640 |
| A 03472 | 3500000 | ZFMP | FMP 0 | BAS56650 |
| A 03473 | 3600000 | ZFDV | FDV 0 | BAS56660 |
| 03474 | 3777000 | MAR | OCT 3777000 | BAS56670 |
| 03475 | 0007536 | DIMLOC | LDA DIMX | BAS56680 |
| 03476 | 0006004 | EXULOC | LDA EXU | BAS56690 |
| 03477 | 0007602 | FNTLOC | LDA FNT | 56700 |
| 03503 | 0022400 | FLTW | OCT 0022400 | BAS56710 |
| 03501 | 0000000 | | OCT 0000000 | BAS56720 |
| 03502 | 0037100 | | OCT 0037100 | BAS56730 |
| 03503 | 0000000 | | OCT 0000000 | BAS56740 |
| 03504 | 0072342 | | OCT 0072342 | BAS56750 |
| 03505 | 0000000 | | OCT 0000000 | BAS56760 |
| 03506 | 0156765 | | OCT 0156765 | BAS56770 |
| 03507 | 1604000 | | OCT 1604000 | BAS56780 |
| 03510 | 0332160 | | FDC 1E16R54 | BAS56790 |
| 03511 | 1571157 | | | |
| 03512 | 0656356 | | FDC 1E32B107 | BAS56800 |
| 03513 | 0265552 | | | |
| 03514 | 1527023 | | FDC 1E64B213 | BAS56810 |
| 03515 | 1403722 | | | |
| 03516 | 3047200 | READZ2 | FLD D 2 | BAS56820 |
| 03517 | 1440002 | READZ3 | INX 2 2 | BAS56830 |
| 03520 | 0722544 | READZ | SP9 YTST 1 | BAS56840 |
| 03522 | 0034760 | FLTM | LDA FLTA | 56850 |
| 03523 | 3777761 | | DEC -15 | 56860 |
| 03524 | 0000001 | FLTY | DEC 1 | BAS56870 |
| 03525 | 0146314 | | DEC 1E-180 | BAS56880 |
| 03526 | 0012172 | | DEC 1E-280 | BAS56890 |
| 03527 | 0001014 | | DEC 1E-380 | BAS56900 |
| 03530 | 0000064 | | DEC 1E-480 | BAS56910 |
| 03531 | 0000005 | | DEC 1E-580 | BAS56920 |
| 03532 | 0000000 | | DEC 0 | 56930 |
| 03533 | 0000000 | | DEC 0 | 56940 |
| 03534 | 3206004 | ZAR | FSU EXU | BAS56950 |
| 03535 | 3001402 | | FLD EXC+2 | BAS56960 |
| 03536 | 3306004 | | FST EXU | BAS56970 |
| 03537 | 3100002 | | MAQ A | BAS56980 |
| 03540 | 0722522 | | SPP EXP 1 | BAS56990 |
| 03541 | 0722515 | | SPP LOG 1 | BAS57000 |
| 03542 | 0722075 | | SPP MAT10 1 | BAS57010 |

*****END OF TRANSLATION TABLES*****

JUST TO KEEP FROM REWRITING ALL REF

COMPILE TIME CONSTANTS

000123

| | | | | | |
|-------|---------|---------|--------|-------|----------|
| 03543 | 0722102 | SPP | MAT11 | 1 | BAS57020 |
| 03544 | 0722104 | SPP | MAT12 | 1 | BAS57030 |
| 03545 | 0722111 | SPP | MAT13 | 1 | BAS57040 |
| 03546 | 1307122 | DST | MATB | | 57050 |
| 03547 | 3307120 | FST | MATA | | 57060 |
| 03550 | 3307124 | FST | MATC | | 57070 |
| 03551 | 3307122 | FST | MATB | | 57080 |
| 03552 | 0002510 | QABS | LDA | ABS | BAS57090 |
| 03553 | 0002603 | QATN | LDA | ATANF | 57100 |
| 03554 | 0002614 | QCOS | LDA | COS | BAS57110 |
| 03555 | 0002622 | QEXP | LDA | EXP | BAS57120 |
| 03556 | 0002414 | QINT | LDA | INT | 57130 |
| 03557 | 0002516 | QLOG | LDA | LOG | BAS57140 |
| 03560 | 0002544 | QRND | LDA | RND | BAS57150 |
| 03561 | 0002611 | QSIN | LDA | SIN | BAS57160 |
| 03562 | 0002557 | QSQR | LDA | SQR | BAS57170 |
| 03563 | 0002572 | QTAN | LDA | TAN | BAS57180 |
| 03564 | 0721651 | ZLAB | SPR | YLAB | BAS57190 |
| 03565 | 0722633 | ZUNF | SPR | YUNF | BAS57200 |
| 03566 | 0721477 | ZTAB | SPR | YTAB | BAS57210 |
| 03567 | 0721572 | ZCRT | SPR | YCPT | BAS57220 |
| 03570 | 0721564 | ZCRTB | SPR | YCRTB | 57230 |
| 03571 | 2600000 | ZBRU | BRU | 0 | BAS57240 |
| 03572 | 0720000 | ZSPB1 | SPR | 0 | BAS57250 |
| 03573 | 2620001 | ZRET | BRU | 1 | BAS57260 |
| A | 03574 | 3000000 | ZFLD | FLD | -- |
| | 03575 | 3006150 | ZFLDT | FLD | TEMP |
| A | 03576 | 3300000 | ZFST | FST | -- |
| | 03577 | 3306150 | ZFSTT | FST | TEMP |
| | 03600 | 3306152 | ZFSTT2 | FST | TEMP+2 |
| A | 03601 | 3100300 | ZFAD | FAD | -- |
| A | 03602 | 3200000 | ZFSU | FSU | -- |
| | 03603 | 3206150 | ZFSUT | FSU | TEMP |
| | 03604 | 3206152 | ZFSUT2 | FSU | TEMP+2 |
| T | 03605 | 2516721 | ZBARP | BAR | BPL |
| T | 03606 | 2514721 | ZBARM | BAR | BMI |
| T | 03607 | 2514722 | ZBARZ | BAR | BZE |
| T | 03610 | 2516722 | ZBARN | BAR | BNZ |
| | 03611 | 2601406 | ZOUT | BRU | OUTPUT |
| | 03612 | 0000000 | DEC | 0 | BAS57400 |
| | 03613 | 0700000 | ZSPR0 | SPR | 0 |
| | 03614 | 0722063 | ZTST | SPR | TEST |
| | 03615 | 0722065 | ZTST2 | SPR | TEST2 |
| | 03616 | 0722216 | ZTIM | SPR | YTIME |
| | 03617 | 3101400 | ZFAD1 | FAD | EXC |
| | 03620 | 3201400 | ZFSU1 | FSU | EXC |
| | 03621 | 3500005 | ZCQX | CQX | 57480 |
| | 03622 | 0722227 | ZPUSH | SPR | PUSH |
| | 03623 | 2602244 | ZPOP | BRU | POP |
| | 03624 | 1727137 | ZSTWR | STY | WAI |
| | 03625 | 0002055 | RELOC | DEC | RETER+2 |
| | 03626 | 2504012 | ZNOP | NOP | 57530 |
| | 03627 | 0722254 | POWSPR | SPR | POWER |
| | 03630 | 0314560 | ERIN | ALF | IN |

FOR ERROR MESSAGE ROUTINE AT COMP TIME

57510
57520
57530
57540
57550

COMPILE TIME CONSTANTS

000124

| | | | | |
|-------|---------|--------|---------------------------------------|-------|
| 03631 | 0006060 | BL2 | ALF 0 | 57560 |
| 03632 | 0006037 | BLCR | OCT 0006037 | 57570 |
| 03633 | 0006000 | 06000 | OCT 6000 | 57580 |
| 03634 | 0004100 | ELOC | LDA E | 57590 |
| 03635 | 3777770 | NM8 | DEC -8 | 57600 |
| 03636 | 3777772 | NM6 | DEC -6 | 57610 |
| 03637 | 0721630 | ZSHT | SPR YSHT 1 | 57620 |
| 03640 | 0000362 | N242 | DEC 242 | 57630 |
| 03641 | 0017774 | VINIT | OCT 17774 | 57640 |
| 03642 | 0100000 | 4BIT | Z01 0 | 57650 |
| 03643 | 0314425 | IME | ALF IME | 57660 |
| 03644 | 2601720 | TRPSR | BRU TRAP | 57670 |
| 03645 | 2601720 | | BRU TRAP | 57680 |
| 03646 | 0017327 | VARMOV | DEC VARTAB+1 | 57690 |
| 03647 | 3777330 | | DEC -296 | 57700 |
| 03650 | 0007603 | FNTMOV | DEC FNT+1 | 57710 |
| 03651 | 3777745 | | DEC -27 | 57720 |
| 03652 | 0007637 | DIMMOV | DEC DIMX+1 | 57730 |
| 03653 | 3777713 | | DEC -53 | 57740 |
| 03654 | 0004721 | VCMOV | DEC VC+1 | 57750 |
| 03655 | 3777720 | | DEC -48 | 57760 |
| 03656 | 0004101 | CLNMOV | DEC EX0+1 | 57770 |
| 03657 | 3776100 | | DEC E-UX | 57780 |
| 03660 | 0004720 | MOVDS | DEC VC | 57790 |
| 03661 | 3777765 | | DEC -11 | 57800 |
| 03662 | 3700000 | MOP | OCT 3700000 | 57810 |
| 03663 | 2400000 | ZMOV | MOV 0 | 57820 |
| | | REM | | |
| 03664 | 0476463 | PUT | ALF PUT | 57830 |
| 03665 | 0721701 | ZINCL | SPR INCALL 1 | 57840 |
| 03666 | 0722541 | ZINCON | SPR INCON 1 | 57850 |
| 03667 | 0721707 | ZINDON | SPR INDONE 1 | 57860 |
| | 03163 | ONE | EQU N1 | 57870 |
| | 03164 | N2 | EQU TWO | 57880 |
| | 03164 | EXN2 | EQU N2 | 57890 |
| | 03165 | EXN3 | EQU N3 | 57900 |
| | 03167 | EXN5 | EQU N5 | 57910 |
| | 03173 | EXN6 | EQU N6 | 57920 |
| | 03171 | EXN7 | EQU N7 | 57930 |
| | 03204 | EXN11 | EQU N11 | 57940 |
| | 03226 | EXN22 | EQU N22 | 57950 |
| | 03246 | EXN30 | EQU N30 | 57960 |
| | 03247 | EXN31 | EQU N31 | 57970 |
| | 03247 | YCRT4 | EQU EXN31 | 57980 |
| | 02676 | YCRT5 | EQU FILL | 57990 |
| | 02700 | BLANKS | EQU BL32 | 58000 |
| | 03172 | OFLNUM | EQU N8 | 58010 |
| | 03173 | UFLNUM | EQU N9 | 58020 |
| | 03171 | DVDNUM | EQU N7 | 58030 |
| | | NAM | | 58040 |
| | | | WORKING STORAGE FOR RUN TIME ROUTINES | 58050 |

WORKING STORAGE FOR RUN TIME ROUTINES

000126

COMPILE TIME WORKING STORAGE 6K AREA

000127

| | | | |
|---------|-----------------|--|--|
| | EJT | | 58990 |
| 04720 | ORG VC | | 59000 |
| 04720 | APF BSS 1 | | 59010 |
| 04721 | ARR BSS 4 | | BAS59020 |
| 04725 | ARUL BSS 1 | | 59030 |
| 04726 | ARTP BSS 6 | | 59040 |
| 04734 | CTEM BSS 2 | | 59050 |
| 04735 | CXTEN BSS 1 | | 59060 |
| 04737 | DEFT BSS 1 | | 59070 |
| 04740 | ENDL BSS 1 | | 59080 |
| 04741 | EXLN BSS 1 | | 59090 |
| 04742 | FLTC BSS 1 | | 59100 |
| 04743 | FLTD BSS 1 | | 59110 |
| 04744 | FLTE BSS 1 | | 59120 |
| 04745 | FLTN BSS 1 | | 59130 |
| 04746 | FLTR BSS 4 | | 59140 |
| 04752 | FLTS BSS 2 | | BAS59150 |
| 04754 | FLTT BSS 2 | | BAS59160 |
| 04756 | FLTX BSS 2 | | BAS59170 |
| 04760 | FLTA BSS 16 | | 59180 |
| 05000 | FN BSS 1 | | 59190 |
| 05001 | GN BSS 1 | | 59200 |
| 05002 | IFT BSS 1 | | 59210 |
| 05003 | INSTT BSS 1 | | 59220 |
| 05004 | IP BSS 1 | | 59230 |
| 05005 | IR3 BSS 1 | | 59240 |
| 05006 | IRN BSS 1 | | 59250 |
| 05007 | NN BSS 1 | | 59260 |
| 05010 | READX BSS 1 | | 59270 |
| 05011 | STX3 BSS 1 | | 59280 |
| 05012 | ERMOV BSS 2 | | CONSTANTS FOR MOVING COMP TIME ER MESSAGES |
| 05014 | ULOC BSS 1 | | BEGINNING OF SOURCE PROG [ABSOLUTE] |
| 05015 | VART BSS 5 | | 59290 |
| 05022 | VAVAIL BSS 1 | | 59300 |
| 05023 | SAVLEN BSS 1 | | 59310 |
| 05024 | ENDF BSS 1 | | 59320 |
| 07135 | ER EQU B+37 | | 59330 |
| 07107 | TFLAG EQU B+15 | | 59340 |
| 05042 | BEGL EQU T+10 | | 59350 |
| 05016 | VAR7 EQU VART+1 | | TEACH OR REGULAR BASIC |
| 00000 | XR00 B00 0 | | LOCATION OF BEGINNING OF LINE IN SOURCE |
| 00001 | XR01 B00 1 | | 59360 |
| 00002 | XR02 B00 2 | | 59370 |
| 00003 | XR03 B00 3 | | BAS59380 |
| 00004 | XR10 B00 4 | | 59390 |
| 00005 | XR12 B00 6 | | 59400 |
| 00007 | XR13 B00 7 | | 59410 |
| 00011 | XR21 B00 11 | | 59420 |
| | REM | | 59430 |
| | REM | | 59440 |
| | REM | | 59450 |
| 35000 | LOAD B00 * | | 59460 |
| 05000 | LOAD B00 LOCON1 | | THE LOAD ROUTINE IS USED WHEN |
| 06000 | | | PREPARING THE SYSTEM TO BE STORED ON |
| 1005004 | | | THE DISK BY THE 235 EXEC. |
| | | | 59470 |
| | | | 59480 |
| | | | 59490 |
| | | | 59500 |
| | | | 59510 |
| | | | 59520 |

COMPILE TIME WORKING STORAGE 6K AREA

000128

| | | | |
|---------|---------|------------------|-------|
| 05001 | 2401400 | MOV WORK | 59530 |
| 05002 | 2640001 | RRU 1 | 59540 |
| 05004 | 0031400 | LDCON1 OCT 31400 | 59550 |
| 05005 | 3775400 | DEC -1280 | 59560 |
| 2605000 | | END LOAD | 59570 |

RETURN TO EXEC TO COMPLETE LOADING