



\$SIGNON QORL T=4.0M C=600 P=150

\*\*LAST SIGNON WAS: 12:55.01 12-15-69

USER "QORL" SIGNED ON AT 13:17.16 ON 12-15-69

\$RUN \*FORTRAN SPUNCH=-OBJ PAR=SOURCE,MAP

EXECUTION BEGINS

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0001      INTEGER*2  A(15050),NBR,LEN
0002      DIMENSION KONT(6000),ZMCL(6000),DIST(32,32),MDST(32,32),LMCL(40)
0003      DIMENSION CTE(20),KCON(10000),CDIST(32,32),FCONC(2),CLDST(32,32)
0004      DIMENSION VMAR(30),VLMAR(30),CMAR(30),OPTM(20)
0005      DIMENSION CSET(32,22),CETA(20),OPTB(20)
0006      572  FORMAT(6I10,2E12.4)
0007      571  FORMAT(25(1X,74))
0008      52  FORMAT(10I8/10I8/10I8)
0009      17  FORMAT(3I10,2F10.4)
0010      717  FORMAT(20I4)
0011      83  FORMAT(11I0)
0012      7  FORMAT(20A4)
0013      82  FORMAT(2F15.6)
0014      87  FORMAT(11I5,5F14.6)
0015      5  FORMAT(8I5,5F8.4)
0016      88  FORMAT(11E10.4)
0017      100  FORMAT(11I5,1E14.6)
0018      DATA FSF,LEN,MOD/'FSF',3,128/
0019      READ(5,5) NBR,NSSB,NLEV,NCS,NOIM,NOC,ACRG,NMA,BB,FRT,FAC,FREQ,SDR
0020      READ(5,17) NSPDA,NSTDA,NCIP,DPC,DRM
0021      NSSB=NSSB
0022      LT=0
0023      KOUNT=0
0024      JK=0
0025      MLES=0
0026      MKONT=0
0027      NOG=0
0028      CONCM=0.0
0029      CONCL=10000.0
0030      ZMCL=0.0
0031      DO 74 I=1,40
0032      74  LMCL(I)=0
0033      BASE=0.0
0034      NOR=0
0035      L=0
0036      NKSD=SDR*FREQ/(2.0*FRT*FAC*NCS)
0037      SQEK=FRT*FAC*NCS*2.0/FREQ
0038      CALL FCSTAP
0039      IF(NOC.NE.0) GO TO 73
0040      28  CALL CORCT(A,NBR,822)
0041      INFR=NBR/2
0042      22  NOC=NOO+1
0043      DO 23 I=4,IARR,25
0044      IF(I.GT.1004) GO TO 24
0045      BASE=BASE+A(I)/40.0
0046      GO TO 23
0047      24  IBASE=BASE
0048      KLEV=A(I)-IBASE
0049      IF (KLEV.LE.NLEV) GO TO 26
0050      LT=LT+1
0051      FCCN=FCCN+KLEV
0052      GO TO 23
0053      26  BASE=(BASE*30.0+A(I))/31.0
0054      23  CONTINUE
0055      FCCN(NOC)=FCCN/LT

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0056      IF (NOG.EQ.1) GO TO 28
0057      WRITE (6,82) (ECCAC(I),I=1,2)
0058      73      ITM2=0
0059      READ(5,83) ISREC
0060      71      IF (ITM2.GE.ISREC) GO TO 70
0061      CALL WRITE(FSF,LEN,MCD,C,2)
0062      ITM2=ITM2+1
0063      GO TO 71
0064      70      CALL CORCT(A,NBR,ERC)
0065      INBR=NBR/2
0066      IPRT=INBR-24
0067      WRITE(6,571) (A(I),I=1,25)
0068      WRITE(6,571) (A(I),I=IPRT,INBR)
0069      NCR=NCR+1
0070      IF(NCR.GT.1) NSSB=4
0071      IF(NCR.GT.1) GO TO 30
0072      DO 20 I=4,NSSB
0073      20      BASE=BASE+A(I)/(NSSB+C.CC01)
0074      IBASE=BASE
0075      30      DO 60 I=NSSB,INBR,NCS
0076      IF(A(I).EQ.0) GO TO 50
0077      IF(A(I).EQ.1023) GO TO 50
0078      KLEV1=IBASE-A(I)
0079      IF (KLEV1.LE.NLEV) GO TO 40
0080      KCUNT=KCUNT+1
0081      MOLES=MOLES+KLEV1
0082      GO TO 60
0083      40      IF(KCUNT.LT.NKSD) GO TO 51
0084      L=L+1
0085      KONT(L)=KCUNT
0086      ZMOLE(L)=MOLES
0087      KONC(L)=MOLES/KCUNT
0088      IF (KCUNT.GT.MKONT) MKONT=KCUNT
0089      IF (KONC(L).GT.CCNCM) CCNCM=KONC(L)
0090      IF (KONC(L).LT.CCNCL) CCNCL=KONC(L)
0091      51      IF(KLEV1.GT.50) GO TO 50
0092      BASE=(BB*BASE+A(I))/(BB+1.C)
0093      IBASE=BASE
0094      50      KCUNT=0
0095      MOLES=0
0096      60      CONTINUE
0097      WRITE(6,572) L,MKONT,NBR,IBASE,NCR,KCUNT,CCNCM,CCNCL
0098      GO TO 70
0099      80      NCG=NCG+1
0100      IF(NCG.GE.NCPG) GO TO 63
0101      NOR=0
0102      NSSB=NSSRS
0103      BASE=0.0
0104      GO TO 73
0105      63      CONTINUE
0106      STOT=0.0
0107      S1=0.0
0108      C1=0.0
0109      S2=0.0
0110      SIC1=0.0

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0111      C2=C.0
0112      S3=C.0
0113      S2C1=0.0
0114      S1C2=C.0
0115      C3=0.0
0116      DO 79 I=1,L
0117      SCAD=KONT(I)*SCEK
0118      SQAD2=SCAD*SCAD
0119      SQAD3=SQAD2*SCAD
0120      CCNCZ=(KANC(I)-CCNCL)/(CCACM-CCNCL)
0121      CCAD=SQAD*CCNCZ
0122      CCAD2=CCAD*CCAD2
0123      STGT=STGT+SQAD
0124      S1=S1+SCAD2
0125      C1=C1+CCAD
0126      S2=S2+SCAD3
0127      S1C1=S1C1+SQAD*CCAD
0128      C2=C2+CCAD2
0129      S3=S3+SQAD3*SCAD
0130      S2C1=S2C1+SQAD2*CCAD
0131      S1C2=S1C2+SCAD*CCAD2
0132      C3=C3+CCAD2*CCNCZ
0133      ZMOL(I)=ZMOL(I)-KONT(I)*CCNCL
0134      IF (ZMOL(I).GT.ZMMCL) ZMMCL=ZMOL(I)
0135      IF(KONT(I).LE.LMOL(1)) GO TO 78
0136      DO 72 I1=2,40
0137      IF (KONT(I).LT.LMOL(I1)) GO TO 77
0138      72  LMOL(I1-1)=LMOL(I1)
0139      I1=I1+1
0140      77  LMOL(I1-1)=KONT(I)
0141      78  CONTINUE
0142      SUM=0.0
0143      DO 53 IF=0,38
0144      I=40-IF
0145      SUM=SUM+LMOL(I)*SCEK/STGT
0146      IF(SUM.GT.DPC.AND.LMOL(I).NE.LMOL(I-1)) GO TO 54
0147      53  CONTINUE
0148      54  LMD=LMOL(I-1)
0149      IF(DRM.GT.C.C) LMC=DRM/SCEK
0150      DO 21 I=1,NMA
0151      VVAR(I)=0.0
0152      VLMAR(I)=0.0
0153      21  CMAR(I)=0.0
0154      KGR=NDIP
0155      IF (NDIM.GT.NDIF) KGR=NDIM
0156      DO 85 I=1,KGB
0157      DO 85 J=1,KGB
0158      CRIST(I,J)=0.0
0159      CSCT(I,J)=2.0
0160      CLDST(I,J)=0.0
0161      85  MCSI(I,J)=0
0162      EGM=(CCACM-CCNCL)/(NDIP-0.001)
0163      DVM=(LMC-NKSD)/(NDIP-1.001)
0164      DC=(CCACM-CCNCL)/(NDIM-0.0001)
0165      DM=ZMMCL/(NDIM-0.001)

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0166 DV=(MKCNT-NKSD)/(NDIM-0.001)
0167 DVV=(MKCNT-NKSD)/(NMA-0.001)
0168 FCC=(CCNCP-CCNCL)/(NMA-0.001)
0169 BLOC=ALOC(MKCNT+0.0001)
0170 SLOC=ALOC(NKSD+0.0001)
0171 DLV=(BLOC-SLOC)/(NDIM-0.0001)
0172 DLVV=(BLOC-SLOC)/(NMA-0.001)
0173 KTOT=0
0174 DO 90 I=1,L,1
0175 KOZT=KONT(I)
0176 KTOT=KTOT+KOZT
0177 CLOC=ALOC(KOZT+(.0001))-SLOC
0178 CCNT=KCNCL(I)-CCNCL
0179 KOLT=KOZT-NKSD
0180 JKK=CLOC/DLV
0181 JMM=ZMCLE(I)/DM
0182 JCC=CCNT/DC
0183 JNN=KOLT/DV
0184 JVV=KOLT/DVV
0185 JLV=CLOC/DLVV
0186 JCLC=CCNT/DCC
0187 JKKK=KOLT/EVM
0188 JCCC=CCNT/DCM
0189 IF (JKKK.GE.NDIP) JKKK=NDIP-1
0190 VMAR(JVV+1)=VMAR(JVV+1)+KONT(I)
0191 VLMAR(JLV+1)=VLMAR(JLV+1)+KONT(I)
0192 CMAR(JCLC+1)=CMAR(JCLC+1)+KONT(I)
0193 CDIST(JKK+1,JCC+1)=CDIST(JKK+1,JCC+1)+KONT(I)
0194 CSOT(JKKK+1,JCCC+1)=CSOT(JKKK+1,JCCC+1)+KOZT
0195 CLOST(JNN+1,JCC+1)=CLOST(JNN+1,JCC+1)+KONT(I)
0196 MDST(JKK+1,JMM+1)=MDST(JKK+1,JMM+1)+KONT(I)
0197 TVCL=KTOT
0198 DO 25 I=1,NMA
0199 VMAR(I)=VMAR(I)/TVCL
0200 VLMAR(I)=VLMAR(I)/TVCL
0201 CMAR(I)=CMAR(I)/TVCL
0202 KCB=NDIP
0203 IF (NDIM.GT.NDIP) KCB=NDIM
0204 DO 95 I=1,KCB
0205 DO 95 J=1,KCB
0206 CSOT(I,J)=CSOT(I,J)/TVCL
0207 CDIST(I,J)=CDIST(I,J)/TVCL
0208 CLOST(I,J)=CLOST(I,J)/TVCL
0209 DJST(I,J)=MDST(I,J)/TVCL
0210 ADS=S1/STOT
0211 SMV=S2/STOT
0212 IMV=S3/STOT
0213 CVC=S1C1/STOT
0214 SMC=C2/STOT
0215 TMC=C3/STOT
0216 ACON=C1/STOT
0217 SMVAC=S2C1/STOT
0218 SMCAC=S1C2/STOT
0219 LMAX=MKCNT*SCEK
0220 DRN=LNU*SCEK

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0221      DMIN=(NKSD )*SCEK
0222      WRITE(6,100) LMC,SCEK
0223      WRITE(6,88) CCN,DVM,DC,DM,CV,CVV,DCC,BLOG,SLOG,DIV,DLVV
0224      WRITE(6,87) MKCNT,DMAX,DMIN,DRM,CCNCM,CCNCL
0225      WRITE(6,87) L,ADS,SMV,TMV,CVC,SMVAC
0226      WRITE(6,87) NKSD,ACCN,SMC,IMC,SMCAV,STOT
0227      READ (5,7) (CTF(I),I=1,20)
0228      WRITE (6,OTF) ((CLDST(I,J),J=1,NDIM),I=1,NDIM)
0229      WRITE (6,OTF) ((CCIST(I,J),J=1,NDIM),I=1,NDIM)
0230      WRITE (6,OTF) ((CIST(I,J),J=1,NDIM),I=1,NDIM)
0231      READ(5,7) (OPTM(I),I=1,20)
0232      WRITE(6,OPTM) (VMAR(I),I=1,NMA),(VLMAR(I),I=1,NMA),(CMAR(I),
2 I=1,NMA)
0233      READ (5,7) (OPTA(I),I=1,20)
0234      WRITE(6,OPTA) ((CSCT(I,J),J=1,NDIP),I=1,NDIP)
0235      IF (NSPDA.LT.1) GO TO 18
0236      WRITE(4,717) (KCNT(I),KCNC(I),I=1,L)
0237      18 IF (NSTDA.LT.1) GO TO 19
0238      READ (5,7) (OPTB(I),I=1,20)
0239      WRITE(6,87) L,DMAX,DMIN,ACS, SMV,CVC
0240      WRITE(6,87) L,CCNCL,CCNCM,SCEK,TVCL,STCT
0241      WRITE(6,52) (LMCL(I),I=1,40)
0242      WRITE(6,OPTB) (KCNT(I),KCNC(I),I=1,L)
0243      19 CONTINUE
0244      END
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SUBPROGRAMS CALLED

SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION
IBCOM#	248	POSTAP	240	CORCT	250	WRITE	254	ALCG	258

SCALAR MAP

SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION
FSE	280	NOI	290	NSSB	294	NLEV	298	NCS	290
NDIM	240	NOI	244	NCRC	2A8	NMA	2AC	BB	280
FRT	2B4	FAC	2B8	FREG	280	SDR	2C0	NSPDA	2C4
NSTDA	2C8	NDIP	2CC	DPC	2D0	DRM	2D4	NSSBS	2D8
LT	2DC	KOUNT	2E0	JK	2E4	MOLES	2E8	MKONT	2EC
NOG	2F0	CCNCM	2F4	CCNCL	2F8	ZMMGL	2FC	I	300
BASE	304	NCF	308	L	30C	NKSD	310	SCEK	314
INBF	318	IBASE	31C	KLEV	320	FCCN	324	ITMZ	328
ISPEC	32C	IPRT	330	KLEV1	334	STCT	338	SI	330
CI	340	S2	344	SIC1	348	C2	34C	S3	350
S2C1	354	SIC2	358	C3	35C	SCAD	360	SCAC2	364
SOAD3	368	CONCZ	36C	COAD	370	COAD2	374	I1	378
SUM	37C	IE	380	LMO	384	KGB	388	J	380
DCM	390	DVM	394	CC	398	DM	39C	DV	3A0
DVV	3A4	DCC	3A8	BLCG	3AC	SLOG	3BC	DLV	3B4
DLVV	3B8	KTOT	3BC	KOZT	3C0	CLCG	3C4	CCNT	3C8
KCLT	3CC	JKK	3C0	JMM	3D4	JCC	3D8	JNN	3DC
JVV	3E0	JLV	3E4	JCLC	3E8	JKKK	3EC	JCCC	3FC
TVDL	3F4	ACS	3F8	SMV	3FC	TMV	400	CVC	404
SMC	408	TMC	40C	ACCN	410	SMVAC	414	SMCAV	418
DMAX	41C	DMIN	420	LEN	424	NR	426		

ARRAY MAP

SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION
A	428	KONT	798C	ZMCLE	077C	DIST	1353C	MDST	1453C
LMCL	1553C	CIP	155EC	KCAC	1562C	CDIST	1F26C	FCCNC	2026C
CLDST	20274	VMAP	21274	VLMAR	212EC	CMAR	21364	OPTM	213DC
CSDT	2142C	CFIA	2242C	OPTB	2247C				

FORMAT STATEMENT MAP

SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION	SYMBOL	LOCATION
572	2240C	571	22407	52	224E0	17	224F5	717	22500
83	22506	7	22500	82	22512	87	22519	5	22524
88	2252F	100	22530						

TOTAL MEMORY REQUIREMENTS 024202 BYTES  
EXECUTION TERMINATED

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\$RUN #STATS  
EXECUTION BEGINS

STATUS OF QOBL AT LAST SIGNOFF      USED      MAXIMUM      REMAINING

CUMULATIVE CHARGE	(\$)	705.94	800.00	94.06
CUMULATIVE TERMINAL TIME	(HR)	0.60		
CURRENT DISK SPACE	(PAGES)	10	15	5
CUMULATIVE DISK STORAGE	(PG-DA)	673.40		
CUMULATIVE MEMCRY--CPU	(PG-HR)	73.35		
CUMULATIVE MEMCRY--WAIT	(PG-HR)	254.00		
CUMULATIVE CPU TIME	(HR)	1.66		
CUMULATIVE LINES PRINTED		37081		
CUMULATIVE PAGES PRINTED		558		
CUMULATIVE CARDS PUNCHED		4237		
CUMULATIVE CARDS READ		13429		
BATCH SESSIONS		66		
TERMINAL SESSIONS		2		
EXPIRATION DATE AND TIME:	01-06-76 24:00.00			

EXECUTION TERMINATED

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\$RUN \*MOUNT;PAR=G781 CN 7IP,PNAME=\*CT\*,MODE=2CF,SIZE=30100,'EDATA',RING OUT  
EXECUTION BEGINS

G781 CN 7IP,PNAME=\*CT\*,MODE=2CF,SIZE=30100,'EDATA',RING OUT

\*DT\*: MOUNTED CN TCC1  
EXECUTION TERMINATED

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\$RUN -OBJ\*SOURCE\* \*SINK\*: 2=DT\* 5=SOURCE\* 6=SINK\* 4=PLNCH\* 7=STORC

ENTRY = 4CF000 SIZE = 027A08

NAME	VALUE	T	RF	NAME	VALUE	T	RF	NAME	VALUE	T	RF
GETSPACE	209B18	*		FREEPAC	209C08	*		ERRCR#	20F754	*	
MIS#	20F770	*		CANREPLY	211CAF	*		GDINFO	211D3E	*	
SETIOERR	211F72	*		PCINT	21292B	*		SCARDS#	212F00	*	
SPRINT#	212F12	*		SPRINT	212F12	*		SPLNCH#	212F24	*	
SERCOM#	212F36	*		READ#	212FB4	*		READ	212FB4	*	
WRITE#	212FDC	*		WRITE	212FDC	*		LCSYMBOL	213ABC	*	
CORCT	4040DE		4040DB	POSTAP	40424C		4040DE	REWIND#	40431C		*40431C
IHCLOG	4044AC	*	*4044AD	ALOG	4044BC	*		TPCCM#	40C00C	*	*40C00C
MAIN	4CF000		4CF000	FI0CS#	4332C8	*	*4332C8	ADCCM#	434000	*	*434000
FCVZ0	434154	*		FCVAD	4341FA	*		FCVLD	434282	*	
FCVID	4345A8	*		FCVED	434A5A	*		FCVCO	434CAC	*	

EXECUTION BEGINS

0306	0000	0000	035C	0374	038C	0388	038C	0391	038B	037B	036F	0360	0362	037E	038E	038E	037A	0363	0363	0377	038A	0397	038E	038D
035E	0374	0386	0384	0376	0359	035E	0376	0380	0386	0387	0387	037E	0376	0366	035A	0361	0378	0384	0286	036E	035E	0367	037F	038C
1		44C		30006		887		1		0	0.3890E	C3	0.3890E	03										
0406	0000	0000	0388	038E	0384	0376	035E	0367	0386	038C	0386	038B	0387	0387	037C	0366	0368	038C	028A	0387	0388	037A	0361	0372
037B	0368	0360	036C	0387	0391	0380	0371	036F	037A	038F	038F	038C	0398	0396	038B	0381	0377	036F	037B	0394	0394	0384	0374	036E
4		683		30006		891		2		0	0.3850E	C3	0.2090E	03										
0506	0000	0000	035A	036F	0382	038C	0386	0374	035E	036F	038A	038B	038E	038E	038B	038F	037A	0362	026A	037B	0383	038B	038C	0377
0382	037B	0367	035E	036C	0382	0388	0387	0376	035A	0368	0386	0380	0390	038C	0381	0373	036F	035C	0250	036A	0380	0384	0373	0363
18		683		30006		886		3		0	0.5380E	C3	0.1490E	03										
0606	0000	0000	0363	035E	036F	0380	0384	037C	0366	034C	0372	038D	0372	037B	0392	0380	0373	036E	035A	0356	0370	0380	0380	037E
0370	0377	036E	0352	0357	036A	0378	038C	0376	035A	0356	036F	0386	0384	0385	0389	0380	037C	0371	035F	0360	0376	0383	0385	0377
45		683		30006		884		4		0	0.5380E	C3	0.1490E	03										
0706	0000	0000	0366	0356	034F	036A	037D	0378	0377	0367	0357	0360	0380	0387	0387	038C	0386	037A	026B	035C	0353	0371	0381	0377
0386	037B	036C	0363	036A	037B	038A	0386	0374	036E	037C	0385	039B	0394	0351	039B	0391	0386	037A	0368	0379	038B	038B	0387	037C
62		818		30006		882		5		0	0.5420E	C3	0.1490E	03										
0806	0000	0000	037F	0366	036E	0380	038A	0387	0383	0372	0366	037E	0393	0391	0390	038C	0386	0380	036E	0362	036C	0379	0381	0386
010F	0101	01B1	01AB	01BC	0101	010E	0106	01B5	01A7	018B	010F	010F	010F	01CA	010F	010F	01C1	01AF	01AA	01C2	01D3	01CE	01C7	01B1
83		818		30006		881		6		74	0.5420E	C3	0.1480E	03										
0906	0000	0000	0182	019C	01AE	01C4	01C0	01C5	01C4	014F	01AD	01CE	01D8	01CC	01D1	01D0	01D0	01D5	01BC	01A0	01B4	01CC	01CF	01CD
0376	0368	035E	0354	0379	0387	0384	0374	0360	0366	037C	0383	0387	0383	0384	0380	0370	0362	0357	035E	0377	0382	037C	036A	0356
93		818		30006		883		7		0	0.5420E	C3	0.1480E	03										
0007	0000	0000	0358	0367	0379	0380	038C	0377	035F	0361	037A	0380	0380	0380	0381	0380	0377	0360	0356	0360	037A	0382	0381	0374
0259	0253	024F	0259	0271	0271	0261	0252	024A	025F	026F	0267	026E	026D	026B	026F	0263	0253	0257	02A3	02F2	0284	026F	0305	0335
103		818		30006		879		8		0	0.5470E	03	0.1480E	03										
0107	0000	0000	0239	0248	0256	0257	0251	023F	0232	0243	025E	0264	025C	025E	025C	0257	0249	023F	023F	024F	0266	0258	024E	0244
02A2	02A0	02B4	02C8	02CB	02C6	0285	02A7	02BA	02CE	02CF	02C7	02CF	02CE	02C2	0287	02A2	029F	02AF	028C	02C3	02B8	02A5	029B	02AA
128		826		30006		876		9		163	0.5470E	C3	0.1450E	03										
0207	0000	0000	02A7	02BC	02C5	028E	0280	029C	029F	028B	028E	0285	0287	028B	0283	02A6	0293	0287	029F	028C	0286	02AC	02A2	0294
036F	035F	0347	0354	036F	037A	0376	038C	037A	036D	0366	035A	0350	0361	037A	0381	037C	0360	034E	025C	0377	0377	037C	037A	037C
159		826		30006		869		10		0	0.5470E	03	0.1450E	03										
0307	0000	0000	023C	0236	024C	0286	0263	0267	0267	0266	025A	024A	0236	0236	024C	0258	0259	024A	023D	0236	0246	0254	0248	0253
036A	0367	0364	035D	0352	034C	0350	0367	036C	036A	0358	034C	0354	0371	037A	0373	0374	0370	036E	0262	0354	034F	0359	037C	0370
179		826		30006		873		11		0	0.5500E	C3	0.1450E	03										
0407	0000	0000	014F	014C	013F	013E	0129	0147	0147	0152	0143	0133	0133	0146	016C	014F	0156	0157	0156	0149	013F	012E	013A	0144
02CE	02DC	02D3	02C4	02AF	028F	02CF	02C9	02C7	028E	02F7	02D7	02C9	02B7	02AF	02C4	02D7	02E3	02DB	02C3	02B7	02C9	02E0	02DC	02E0











1234	1256	30006	884	52	121	0.5570E C3	0.1320E C3
0501 0100 0000 0376 0360 0357 0360 0378 037E C320 02A5 0295 020F 02F6 02F9 02E4 02DA 02C9 02C5 02AE 029F C293 02A5 C289 02BF	0380 0383 0378 035E 0365 0307 039E 0397 0392 C351 039C 0386 0375 036C 037C 0387 0392 0382 0371 0360 0372 0389 C393 C389 0389	1273	1256	30006	889	53	0
0601 0100 0000 0377 036A 0368 0388 0393 0391 0393 038A 0387 C377 036F C36C 0373 0384 C389 0380 0370 035C C36E 0389 C38C 038E	0387 0384 0389 0381 037E 0370 035F 035E 0374 0384 0386 0382 0367 0362 0377 0393 038F 038C C390 0387 037C 036B 035B C360 0371	1281	1256	30006	894	54	0
0701 0100 0000 0393 0393 038A 0379 0367 0364 037E 0380 038E 0384 036C 0364 0370 0387 038E 038E 0396 0392 0383 036F C360 0362	036F 036B 037E 0381 038E 0383 0370 0366 0372 0386 038E 038C 038F 038F 038A 0377 0367 0367 0383 0393 038E C386 036E C36C 037E	1281	1256	30006	893	55	0
784	0.190933E-02					0.5570E C3	0.1320E C3

.4250E C20.8490E C20.4250E C20.3801E C50.1226E C30.6180E C20.2125E C20.7136E C10.2996E C10.4140E C00.2070E C0
1256 0.239812E C1 0.381867E-01 0.149692E C1 0.557000E C3 0.132000E C3
1281 C.671690E C0 0.612965E C0 0.708404E C0 0.356272E C0 0.328537E C0
20 0.521670E C0 0.346465E C0 0.255894E C0 0.240565E C0 0.538691E C3

0.0150541	0.0069955	0.0071195	0.0150755	0.0238499	0.0201997	0.0110992	0.0101318	0.0116804	0.0094620
0.0289636	0.0142568	0.0132645	0.0226121	0.0441701	0.0485077	0.0313521	0.0195264	0.0126929	0.0376672
0.0247642	0.0112906	0.0144127	0.0163015	0.0417284	0.0492732	0.0267735	0.0140689	0.0045467	0.0311395
0.0274043	0.0143631	0.0094691	0.0289546	0.0250902	0.0332091	0.0202104	0.0124281	0.0063859	0.0291868
0.0019597	0.0	0.0080232	0.0040187	0.0058792	0.0101520	0.0084166	0.0061095	0.0081189	0.0098543
0.0022787	0.0	0.0026503	0.0026224	0.0074030	0.0096285	0.0099262	0.0094017	0.0	0.0049684
0.0059146	0.0	0.0	0.0029272	0.0028988	0.0086079	0.0	0.0029768	0.0030016	0.0057551
0.0	0.0	0.0	0.0	0.0	0.0032851	0.0	0.0	0.0	0.0021788
0.0	0.0	0.0	0.0	0.0	0.0036218	0.0	0.0	0.0	0.0
0.0043447	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0008824	0.0000992	0.0010100	0.0013431	0.0014459	0.0006875	0.0003189	0.0006556	0.0000992	0.0
0.0010667	0.0005316	0.0001595	0.0011765	0.0020660	0.0012049	0.0010986	0.0011695	0.0014175	0.0
0.0010100	0.0013963	0.0010561	0.0025934	0.0025438	0.0020264	0.0011765	0.0020306	0.0035367	0.0004075
0.0019739	0.0022220	0.0014565	0.0028350	0.0056630	0.0069140	0.0036041	0.0036466	0.0044050	0.0022539
0.0122261	0.0043837	0.0055390	0.0086611	0.0169890	0.0142312	0.0057384	0.0036714	0.0027394	0.0095435
0.0196859	0.0098518	0.0075767	0.0156495	0.0275142	0.0325712	0.0193173	0.0130908	0.0103550	0.0223083
0.0265821	0.0113898	0.0179930	0.0162370	0.0471185	0.0444252	0.0261250	0.0194626	0.0063682	0.0397687
0.0327590	0.0170316	0.0132397	0.0280989	0.0323337	0.0499323	0.0299842	0.0142638	0.0062859	0.0388614
0.0042384	0.0	0.0069033	0.0077184	0.0143453	0.0233785	0.0164149	0.0136756	0.0081189	0.0119249
0.0102593	0.0	0.0	0.0	0.0	0.0100148	0.0	0.0074278	0.0030016	0.0061840
0.0065419	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0098908	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0207774	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0327980	0.0021759	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0639374	0.0238853	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0672331	0.0932767	0.0174107	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0563289	0.1058192	0.0637293	0.0256891	0.0	0.0	0.0	0.0	0.0	0.0
0.0497906	0.0388083	0.0865257	0.0399246	0.0281485	0.0196930	0.0	0.0	0.0	0.0
0.0042384	0.0069033	0.0042123	0.0274884	0.0212948	0.0226562	0.0042065	0.0023921	0.0053263	0.0
0.0102593	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0499323	0.0816252	0.1309509	0.1420642	0.1190614	0.1152377	0.1024055	0.0962960	0.0367777	0.0257954
0.0307497	0.0181301	0.0111488	0.0209333	0.0064639	0.0	0.0036218	0.0	0.0	0.0087957
0.0025267	0.0040151	0.0039832	0.0059075	0.0091643	0.0116131	0.0168685	0.0181053	0.0368450	0.0509777
0.0798775	0.0980431	0.1183208	0.1372554	0.1302741	0.1326165	0.0647879	0.0419304	0.0244700	0.0124175
0.0821633	0.0285206	0.0232466	0.0235593	0.0184278	0.0365119	0.0304449	0.0549681	0.0589974	0.0920221
0.0959948	0.0904912	0.0608189	0.0469591	0.0475863	0.0315080	0.0219858	0.0244417	0.0497055	0.0815466
0.0049330	0.0042490	0.0036820	0.0089481	0.0127187	0.0118328	0.0061981	0.0075022	0.0094584	0.0026614
0.0202812	0.0087993	0.0099085	0.0158821	0.0269507	0.0240483	0.0168933	0.0098022	0.0069707	0.0186617
0.0188035	0.0091537	0.0067935	0.0147423	0.0321814	0.0356862	0.0222516	0.0142745	0.0079452	0.0277055
0.0181337	0.0076724	0.0131369	0.0100432	0.0299275	0.0315931	0.0122013	0.0121482	0.0032674	0.0226875
0.0169713	0.0069211	0.0055673	0.0126585	0.0180947	0.0278792	0.0234175	0.0072684	0.0042313	0.0169004
0.0170635	0.0101105	0.0070345	0.0154404	0.0168012	0.0201501	0.0084733	0.0069955	0.0034340	0.0188389
0.0019597	0.0	0.0061662	0.0021688	0.0040435	0.0079488	0.0062017	0.0020625	0.0081189	0.0077145
0.0022787	0.0	0.0	0.0	0.0048763	0.0091856	0.0070345	0.0116131	0.0	0.0045715

0.0 0.0 0.0026508 0.0026224 0.0025267 0.0021472 0.0051066 0.0 0.0 0.0053263  
 0.0102593 0.0 0.0 0.0029272 0.0025988 0.0100148 0.0 0.0074278 0.0030016 0.0061840

1281 0.279912E 01 0.381867E-01 0.671690E 00 0.612565E 00 0.356373E 00  
 1281 0.132000E 03 0.557000E 03 0.190933E-02 0.282182E 06 0.538691E 03

615	622	624	625	643	645	651	656	662	663										
663	675	675	683	683	685	693	709	713	727										
722	740	747	748	768	776	784	818	826	832										
837	840	847	848	877	897	927	1022	1226	1256										
440	389	683	319	522	272	211	200	555	269	393	325	505	206	375	149	323	410	473	379
332	187	255	243	234	154	159	151	363	279	157	315	344	538	178	240	373	379	571	330
384	351	256	527	643	151	430	301	137	390	233	415	205	320	227	290	65	350	105	521
70	376	171	269	66	269	34	416	136	176	90	210	96	361	119	315	80	245	50	469
27	276	78	265	137	343	27	309	129	519	818	324	391	382	495	263	49	383	593	357
296	349	467	336	448	381	290	149	237	304	206	387	222	417	446	230	337	542	240	463
45	369	75	346	41	359	52	603	459	541	436	379	362	398	56	323	119	148	483	149
420	500	328	415	224	501	111	393	345	148	330	346	208	355	120	400	131	154	272	332
196	154	131	304	227	316	172	415	189	528	225	434	175	529	88	262	128	521	147	406
33	292	36	149	99	393	319	324	748	223	429	149	362	525	417	547	367	425	393	543
382	196	371	187	447	269	137	293	180	387	152	221	229	145	332	297	102	472	52	329
173	523	170	149	239	271	190	511	153	365	22	426	317	333	826	289	572	547	20	372
347	400	312	312	232	440	206	330	184	272	127	206	242	409	214	378	400	131	535	543
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147	244	188	448	70	412	178	313	213	345	167	472	82	337	377	305	173	460	170	343
69	492	158	402	293	390	260	443	308	310	203	361	172	529	208	464	115	520	77	282
310	431	173	523	193	534	151	212	132	179	62	412	345	346	196	531	146	334	169	243
527	540	343	323	97	199	316	344	200	307	84	184	120	270	148	152	675	550	343	556
262	301	276	222	279	357	166	431	22	323	167	269	120	310	837	152	389	300	220	157
483	411	31	435	447	551	283	334	160	536	103	507	231	511	108	527	184	534	272	315
160	409	61	184	231	296	188	206	288	202	157	531	173	288	486	469	415	541	210	177
468	408	331	352	230	538	412	543	115	321	134	248	321	465	184	247	125	358	500	325
173	404	271	448	139	440	39	467	196	363	222	303	138	140	582	456	164	364	22	419
21	271	215	437	195	140	29	257	389	380	285	254	278	539	217	404	237	497	503	528
319	143	92	145	359	540	107	268	206	341	251	328	52	421	236	428	293	219	178	144
151	171	35	288	141	398	127	281	212	461	28	458	293	338	249	392	112	244	134	277
171	437	219	522	164	246	40	395	360	267	73	159	77	369	55	358	271	471	152	244
135	246	213	293	266	160	186	318	247	313	262	362	253	448	135	515	275	397	82	516
254	521	277	218	168	521	154	383	159	527	103	413	141	327	223	356	134	142	148	424
128	138	290	261	229	529	147	331	183	343	276	532	404	341	136	274	246	248	199	283
248	150	396	349	244	346	128	143	53	439	228	215	458	315	289	349	34	463	223	157
91	434	134	427	20	289	329	241	21	302	334	380	116	464	327	143	83	361	257	336
235	464	107	375	466	163	234	437	230	302	260	409	115	530	146	218	87	250	223	159
89	364	300	432	188	501	210	376	153	275	55	290	191	321	193	527	132	488	76	433
112	513	79	149	195	525	43	211	173	217	224	225	80	489	24	414	133	139	115	317
172	203	170	362	76	278	137	323	30	281	198	393	134	148	61	499	242	153	108	334
84	209	203	292	119	469	309	148	169	523	245	342	137	152	288	282	22	319	70	358
87	356	182	216	116	322	70	442	50	494	58	413	101	488	63	511	84	449	170	350
60	448	217	370	237	530	84	491	102	505	145	331	79	386	174	286	85	514	92	358
126	384	115	256	85	337	117	169	22	417	161	174	92	396	27	235	90	220	25	228
72	322	86	264	126	317	57	428	58	498	71	317	50	275	71	248	89	516	80	205
53	346	36	391	27	144	50	438	53	313	127	372	47	173	83	248	81	153	172	483
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144	146	37	194	141	495	71	319	71	434	46	461	37	136	41	498	504	148	378	390
70	315	265	243	170	301	877	363	405	213	46	351	227	335	484	148	312	490	356	389
411	464	117	532	413	474	260	544	147	299	498	548	396	147	241	445	163	317	27	353
111	309	41	274	340	465	376	337	273	399	176	417	31	265	257	330	255	392	140	158
235	253	663	444	190	543	157	531	284	537	401	148	343	375	206	373	308	338	252	181
465	324	45	414	300	439	195	330	121	368	195	480	153	190	197	354	447	216	260	475
279	339	210	540	60	274	30	322	257	346	143	177	176	534	162	499	244	146	48	153
101	278	41	482	396	291	498	147	325	323	312	153	295	452	399	440	360	150	231	308
201	354	406	433	179	406	484	410	462	450	24	462	662	364	317	421	466	326	390	342

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568	484	361	501	440	162	70	389	527	379	332	210	713	339	268	177	22	292	148	251
784	372	268	351	467	387	265	192	177	437	45	494	281	276	257	340	497	183	105	168
411	356	142	418	22	378	72	401	208	470	682	428	362	536	607	243	33	157	261	403
182	227	20	147	1256	434	380	379	322	529	342	358	241	266	202	415	115	377	768	379
255	538	268	537	255	146	327	163	354	354	181	166	624	449	427	366	615	544	394	362
74	519	65	518	222	382	212	306	28	266	260	351	48	257	256	407	67	229	164	417
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207	375	29	313	155	376	36	326	495	178	239	404	395	335	262	370	162	287	213	308
602	399	164	331	426	354	318	529	286	258	132	272	320	282	79	489	158	190	41	340
270	356	169	494	157	415	124	471	897	549	625	397	247	516	22	160	452	330	243	540
229	199	279	359	167	396	202	386	250	332	399	316	63	458	291	542	38	344	501	150
144	333	131	381	166	156	186	170	42	463	518	344	394	470	423	545	544	409	310	335
347	345	344	165	132	424	52	209	366	394	60	271	188	330	174	197	368	408	60	497
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238	153	124	395	140	149	47	271	663	378	144	470	150	317	23	431	307	319	269	326
399	426	336	341	114	526	566	511	379	367	297	472	256	377	263	537	340	329	193	382
458	521	127	360	421	332	152	541	76	308	44	352	171	445	106	423	185	325	63	385
56	399	318	534	139	287	52	309	154	424	448	262	158	369	35	277	213	151	28	501
265	541	444	406	203	372	100	336	109	330	25	374	194	482	105	352	44	141	349	250
219	320	253	312	260	541	121	340	22	324	360	234	393	333	52	278	171	415	360	398
201	224	137	368	311	300	254	503	179	459	189	171	159	331	190	261	77	289	314	175
214	176	25	251	69	504	201	529	56	247	51	242	233	319	33	302	166	340	32	447
162	274	398	421	160	423	70	141	159	421	276	145	170	298	72	340	319	248	244	155
122	380	33	361	164	189	26	431	213	533	66	287	134	381	72	388	182	148	114	296
286	352	134	386	186	335	74	387	187	166	128	529	165	376	100	202	20	225	94	444
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241	422	48	269	505	248	29	307	24	288	99	363	84	430	70	141	42	318	308	364
537	257	62	180	86	512	62	330	56	224	62	502	24	132	97	342	30	257	41	322
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27	163	264	216	476	300	112	294	385	386	105	337	90	502	20	256	46	362	124	170
727	557	226	388	604	418	459	370	411	244	291	402	177	235	234	271	645	349	497	359
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333	537	125	405	124	299	261	431	507	330	120	177	51	338	109	143	24	134	147	366
66	301	31	146	297	191	747	387	27	242	477	288	685	395	92	196	111	376	448	316
29	450	47	299	843	515	558	365	382	550	1022	373	479	352	355	149	508	438	373	276
338	323	43	480	211	381	675	417	322	354	451	151	352	540	168	522	269	354	118	333
99	392	190	398	68	325	126	459	107	172	162	405	847	484	442	329	570	331	268	542
441	433	339	338	212	284	146	510	214	310	152	525	396	248	518	451	288	456	233	420
158	378	163	151	165	408	165	364	185	349	110	290	124	312	494	535	212	424	192	393
451	144	26	301	276	461	486	544	30	276	506	296	488	361	219	167	40	421	82	462
27	437	376	541	509	151	324	381	612	297	129	532	124	493	158	333	179	369	313	247
226	202	198	310	478	262	212	352	111	529	106	151	116	176	417	298	164	378	204	326
46	312	622	355	302	400	267	412	206	156	223	481	155	291	246	294	511	360	437	397
419	149	452	392	298	369	340	545	464	545	372	154	360	401	393	400	155	352	452	348
524	245	129	250	60	245	74	282	204	349	776	552	491	499	72	421	430	284	513	548
228	152	200	407	196	381	128	367	45	496	310	359	438	536	352	347	272	399	150	471
393	151	193	521	255	321	1220	153	508	296	327	227	367	543	238	223	108	302	693	311
335	369	388	153	349	404	289	542	234	480	305	372	212	346	64	355	840	461	349	449
213	420	709	415	167	357	73	271	39	154	296	368	208	370	22	157	460	319	306	420
102	391	256	539	299	190	245	298	362	316	349	302	450	212	503	415	90	399	533	540
141	365	244	527	143	387	24	307	50	526	219	526	31	176	325	297	216	216	128	296
55	300	110	244	169	415	153	383	32	304	123	239	180	437	505	534	338	301	309	147
316	496	304	359	651	436	217	413	261	381	382	359	68	436	405	285	179	355	600	510
489	550	25	347	282	230	156	539	104	527	102	524	29	338	278	272	146	380	732	399
374	378	275	303	222	356	156	346	172	259	334	256	301	347	186	340	304	343	251	327
183	327	237	340	26	227	188	195	148	407	230	150	159	522	51	506	478	487	184	158
178	242	354	359	320	201	257	535	294	491	291	543	329	370	216	360	404	231	393	375
42	412	49	334	251	319	178	216	225	367	159	439	508	381	193	535	22	314	832	145
374	349	145	398	248	374	295	338	300	545	80	370	191	327	78	325	246	314	71	513

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212	383	35	431	167	157	267	431	41	184	365	151	138	344	260	338	52	323	478	160
459	180	182	539	216	351	236	327	55	455	50	294	361	315	405	425	445	382	510	245
265	304	118	315	78	512	91	453	57	438	229	306	257	291	61	475	200	353	60	322
259	537	593	239	195	463	117	468	319	244	212	151	194	352	91	329	440	151	55	361
140	337	170	294	222	157	240	248	161	455	131	538	78	356	76	343	153	272	63	277
260	149	179	444	117	337	62	489	65	230	33	388	23	355	272	293	93	340	101	305
128	146	48	321	104	345	129	152	87	351	88	512	106	148	108	341	118	455	92	303
278	306	241	528	29	291	117	528	66	375	268	310	45	448	43	220	223	541	152	332
55	155	70	301	157	306	41	257	57	148	21	375	138	277	126	354	45	229	102	265
170	348	69	501	81	373	78	418	29	379	47	413	29	289	159	301	64	267	26	320
202	222	77	357	201	374	181	332	54	489	101	326	110	522	211	386	54	297	58	331
51	218	124	142	65	147	39	362	121	339	46	154	40	331	226	170	28	186	47	498
62	380	44	318	75	368	63	310	46	282	292	527	66	156	39	389	113	148	116	145
55	175	111	415	37	289	50	390	40	328	169	291	39	298	108	333	62	190	35	480
37	348	37	451	41	482	47	314	23	287	25	309	34	275	20	319	38	476	29	139
55	211	41	310	250	354	112	237	28	451	97	324	34	347	29	124	48	456	39	489
45	266																		

STOP C  
EXECUTION TERMINATED

\$SIGNOFF

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22.18



JOB NO. 055500

UNIVERSITY OF MICHIGAN TERMINAL SYSTEM (MODEL UN149)

13:17.14 12-15-69

USER: CCPL  
CHARGE NBR: 00PL

\*\*\*\* ON AT 13:17.16  
\*\*\*\* OFF AT 13:25.06  
\*\*\*\* ELAPSED TIME 469.78 SEC.  
\*\*\*\* CPU TIME USED 115.58 SEC.  
\*\*\*\* STORAGE USED 5057.306 PAGE-SEC.  
\*\*\*\* CARDS READ 280  
\*\*\*\* LINES PRINTED 746  
\*\*\*\* PAGES PRINTED 19  
\*\*\*\* CARDS PUNCHED 130  
\*\*\*\* DRUM READS 14  
\*\*\*\* APPROX. COST OF THIS RUN \$13.79

\*\*\*\* FILE STORAGE 4 PG-HR. .00

\*\*LAST SIGNON WAS: 12:55.01 12-15-69

130  
Cards  
{ x 22  
Pl Fr = 15%

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22.19