```
 17:42 SEP 08,'75 ID=010D
JOB (POST,BRU333323132,7   . TERMINAL JOB
LIMIT (CORE,16),(TIME,10)
ASSIGN M;CI,(FILE,KEYN,:D00CI)
ASSIGN M;SI,(FILE,KEYN,:D00TSI)
METASYM SI,CI,L8,CN
    .SS R1,R2,R3,R4,R5,R6,R7,R8,R9,R10,R11,R12,R13,R14,R15
    .SS SR1,SR2,SR3,SR4,D1,D2,D3,D4,$
    .END
```

2212.1/MTH 2230/STH

AVRIBERR

1983=BAL 2019/BGE

AVRLBERR

1950/BANZ 1953/BNE 1988=BAL

AVRNBU

91.9/REF 1614/LH 1637/LH 1645/LH 1667/MTH 1672/MTH 1694/LH
1768/MTH 1890/LH 2221/MTH 2226/LH 2229/STH

AVRS

1583/BAL 1646/BNEZ 1770/BDR 1772/BEZ 1810=LI 1983/BAL 1988/BAL
1993/BAL 2033/BAL 2039/BAL

AVRTBL

91.10/REF 1505/LD 1506/LD 1521/LD 1643/CLM 1755/CLM 1765/LD
1775/LD 1778/STD 1796/STD 1887/LD 1966/LD 2209/LD 2260.15/STD

AVRTBLNE

91.12/REF 1639/LI 1754/LI 2095/LI 2197/AI 2209/LD 2209/LD
2210/AI 2215/AI 2260.14/AI 2260.15/STD 2260.15/STD 2260.17/AI

AVRTBLSIZ

91.11/REF 1491/CI 1641/CI 1673/CI 1751/LI 1753/AI 1754/LI
1895/CI 2211/CI 2260.4/CI

AVR1

1886/BNEZ 1892=EQU

BA

230.21/GEN 230.37/EQU 230.37/EQU 822/EQU 822/EQU 826/EQU 826/EQU
830/EQU 830/EQU 1132/LI 1919/LI 2012/LI 2260.11/MBS

BAKPLB

230.45=EQU 325/LI 332/CI 337/AI

BATAPE

91.13/REF 1508/AI 1659/LW 1750/LI 1755/CLM 1755/CLM 1764/AI
1772.1/AI 1883/AI 2096/LI 2197/AI 2231/AI 2235/AI 2260.17/AI
2260.55/AI

BAUNIT1

224=MTB 2260.9/ANLZ

BAUNIT2

225=MTB

BCSTGFC

91.148/REF 2523/LI

```
BGRCFU
      91•14/REF     2260•58/LI
BLANK
      91•15/REF       317/LW
BLP
       223•TEXT      1538/CW
BT31T80
      91•16/REF      216•9/EQU     216•10/EQU     216•11/EQU     216•12/EQU     216•13/EQU     216•14/EQU
     216•15/EQU     216•16/EQU    1584•17/BR
C:MSM
      91•17/REF     1244•13/STW
CCERR
       1928/BAZ      2028•EQU
CFUSIZE
      91•18/REF     2260•66/AI
CHK
       1752/BIR      1755•CLM       1758/BDR      1772•2/B
CHKILBL
       1926/BNE      1933•RES
CHKBLP
       1539/BE      1584•13•EQU
CHKGACN
        694/BE        699•EQU
CHKGNAME
        692•EQU       696/BDR
CHKID
       1567/BIR      1568/LI        1585•RES
CHKID1
       1591/BIR      1597•RES
CHKSR
       1528/BAZ      1531•CI      1584•19/B
CHKSR1
     1531•1/BE      1531•5•BAL
CHKO
       1745/BGZ      1756/BE        1760•RES
CHK1
       1674/BGE      1769/BEZ       1773•RES
```

```
CKFREE
       2102/BAL        2198/BAL      2203•2•EQU
CKF10
       2216/B          2237•EQU
CKF5
     2212•1•MTH
CKF6
       2215•AI         2218/BANZ       2223/B          2225/BEZ        2228/BNE
CKF7
       2212/BGE        2217•CW
CKF8
       2220/BLZ        2224•AI
CKSERIAL
       1616•CW
CKZER0
    2260•15•STD
CKZER01
       2214/BEZ        2222/BEZ        2236/B        2260•4•CI
CKZER02
    2260•12/B       2260•13•INT     2260•70/B
CKZER03
     2260•5/BGE     2260•54•PUSH
C0C
       91•19/SREF        918/LI       987•29/LI       987•92/LI
C0CDSABL
       91•20/SREF
C0CENABL
       91•21/SREF
C0CMESS
       91•22/SREF    987•103/STB     987•108/STB     987•115/STB
C0C0TV
       91•23/SREF
C0CSENDX
       91•24/SREF
C0CTERM
       91•25/SREF
C0NTUGSRCH
```

```
        595*EQU         701/BNE
CP0S
       91*26/SREF
CTRIG
       91*27/REF        365/BAL
CVSYSID
       91*28/REF        645/BAL         973/BAL         1599/BAL        2755/BAL        2816/BAL        2844*48/BAL
DATE
       91*29/REF        1260/STH        1265/STS        1269/STW
DCBIT
      91*149/SREF       2784/AW
DCTSIZ
       91*30/REF
DCTX
        1570/ANLZ       1633/ANLZ       1659*LW         1693/ANLZ       1742/ANLZ       1811/ANLZ       1975/ANL
DCT1
       91*31/REF      2260*30/LH
DCT16
       91*32/REF        2325/LD         2487/LD
DCT24
      91*150/REF        2658/LC
DCT3
       91*33/REF        2656/LC
DCT4
       91*34/REF        1571/LB         1743/LB         1762/CB         1976/LB         2099/LB         2193/LB
        2461/LB      2844*42/LB
DCV20
         930*LB         938/BIR
DCV30
         934/BEZ        938*BIR
DEC0NV
       91*35/REF        2408/BAL
DEFAULTGACN
         682/BEZ        689*EQU
DEVCK
       91*36/REF        2191/BAL        2347/BAL        2640/BAL        2834/BAL        2844*36/BAL
DEVICED0WN
```

```
        2016/B          2035•EQU
DID
       91•37/REF         978/STW
DLTPSD
      717•12/LD       717•21•IPSD
DOSRCH
       1923/B          1956•STW
DOUBLEZERO
       91•38/REF         773/LD
DTVALCK
       1306/BAL        1311/BAL        1336•EQU
EIABRT
       91•39/REF         620/LI          849/LI
EICBK
       91•40/REF       6507•14/LI
EIERR
       91•41/REF         636/LI
EAPROG
       2006/LD          2024•STW
ECHOCR2
       91•42/SREF
ENTINT
      230•91/KITV       607•2•EQU
ERRLOG
       91•43/REF      2505•39/BAL
ERSEND
      230•86/KITV      2505•2•EQU
FCMC
       91•44/REF        2043/GEN
FKIC
        2367/CB         2456•TEXT
GDTKIVAL
       1238/BAL        1242/BAL        1259/BAL        1263/BAL        1268/BAL        1288•EQU
GDTKIV1
       1314•EQU         1327/B
GDTKIV2
       1308/BEZ        1322•EQU
```

```
GDTKIV3
      1302/BCS       1329*EQU
GDTKIV4
      1313/BNEZ      1331*EQU       1339/BL        1341/BG
GETAVR
      1513/BDR       1515/BNE       1520*EQU
GETAVR1
      1511/B         1523*RES       1968/B
GETFLG1
      1903/BAL       1927/BAL       1971*EQU
GETUSER#
     91*45/REF        666/BAL        976/BAL       2819/BAL
GJ0BFC
       828/DATA       830*EQU
GJ0BFULL
       813/LI         827*EQU        830/EQU
GJ0BTXT
    230*89*KITV
GJ0BUC
       820/DATA       822*EQU
GJ0BUSY
       806/LI         819*EQU        822/EQU
GJ0BWAKE
       810/LI         823*EQU        826/EQU
GJ0BWC
       824/DATA       826*EQU
GKIFLD
        82/DEF    230*183/BAL         304*EQU        641/BAL        680/BAL        755/BAL        776/BAL
       794/BAL      924/BAL         971/BAL     987,33/BAL       1168/BAL       1205/BAL       1301/BAL
      1534/BAL     1589/BAL        2064/BAL       2380/BAL       2631/BAL       2741/BAL       2746/BAL
      2753/BAL     2765/BAL        2777/BAL       2807/BAL       2814/BAL       2830/BAL    2844*32/BAL
   2844*46/BAL
GKIFLD1
       232*STB        328/BDR
GKIFLD3
       327/BCS        331*EQU
GKIFLD4
```

```
        329/B           334*EQU
GKIFLD5
        333/BNE         336*EQU
GMB
      91*46/REF     2260*19/BAL       2568/BAL
GNAME
        644/BE          671*EQU
GOODNGT
      91*47/REF         847/STW
HEXCK
      91*48/REF
HOWALO
      91*49/REF        1665/BAL
IA
     717*21/!PSD
ISPS
       1638/BNEZ       1660*CW
ISPSO
       1651/BNEZ       1658/B          1670*MTW
ISPS2
       1643*CLM
ISPS3
       1642/BL         1650*AI
ISPS5
       1640*AI         1644/BNE        1649/BE
JIBASE
      91*50/REF        1916/LW         1919/LI         1951/LW         1954/LW         1956/STW        1961/STW
       1962/LI         1964/LW         2007/STD      2010*1/AI         2012/LI         2017/LW
JICCBUF
      91*51/REF     6607*13/STW        621/STW         637/STW         648/MTW         902/MTW         921/STW
       941/MTW         948/MTW
JIJIT
      91*52/REF     2010*1/AI
KA
        202*EQU
KBLANK
        211*EQU         274/CI
```

KBUF
230•41•EQU 269/LW
KCCP
230•39•EQU 230•182/STW 262/LW 273/MTW 987•98/LW 1133/AW 1134/LW
1142/SW 1146/LW 2574/LW
KC0MGFC
91•151/SREF 258•10/LI 2792/LI
KC0MMA
213•EQU
KCRET
212•EQU 230•172/LI 271/CI
KC1
203•EQU
KDIAG
230•82/KITV 957•RES
KDIAG1
968/BE 970•RES
KE0B
214•EQU 265/LI
KEYERR
83/DEF 230•74/KITV 230•184/BCS 230•196/B 344•EQU 642/BCS 646/BCS
660/B 663/BL 667/B 677/BG 684/BG 686/BNE 698/B
756/BCS 760/BG 765/BE 775/BNE 777/BCS 784/B 795/BCS
919/BEZ 925/BCS 935/B 947/BG 948•3/BG 969/B 972/BCS
974/BCS 977/B 987•30/BEZ 987•32/BNE 987•34/BCS 987•93/BEZ 1128/BIF
1167/BEZ 1169/BCS 1174/BEZ 1176/BG 1204/BEZ 1206/BCS 1318/B0L
1332/B 1495/BCS 1499/BE 1501/BEZ 1517/BG 1519/BCR 1530/BEZ
1531•3/BE 1535/BCS 1547/BE 1551/BG 1553/BG 1556/BNE 1564/BG
1584•15/BG 1590/BCS 1600/BCS 1613/BANZ 1615/BNEZ 1628/BE 1636/BLZ
1657/BLEZ 1661/BNE 1682/BE 1683/BAZ 1690/BANZ 1692/BNE 1698/BNE
2065/BCS 2088/B 2092/BCR 2192/BCS 2195/BCR 2309/B 2319/BNE
2324/BEZ 2348/BCS 2351/BCR 2362/B 2433/B 2478/BEZ 2486/BNE
2522/BEZ 2546/BNE 2551/BEZ 2589/LI 2632/BCS 2641/BCS 2643/BCS
2647/B 2676/BEZ 2725/BAZ 2727/B 2742/BCS 2747/BCS 2750/BG
2754/BCS 2766/BCS 2787/BANZ 2808/BCS 2813/BNE 2815/BCS 2817/BCS
2820/B 2831/BCS 2835/BCS 2838/B 2844•33/BCS 2844•37/BCS 2844•40/B
2844•47/BCS 2844•49/BCS 2844•54/BAZ 2844•56/BEZ 2844•60/BNE

```
KEYERR1
        359•EQU      987•46/BCS      2105/B      2199/B      2454/B      2569/BEZ      2595/LI
KEYINA
    230•188•CW       230•190/BDR
KEYINBUF
       91•53/REF     230•24/DATA   230•173/CB   987•100/LB    1132/LI     1136/LB     1148/STB
        2495/STM       2575/LB
KEYINQ
        227•TEXT        764/CD
KEYINR
         84/DEF     230•174/BE       367•EQU       592/B       607/B       670/B       717/B
      717,21/IPSD       788/BCR       804/BCR       815/BCR       818/B       889/B       955/B
         980/B       987•54/B      987•58/B     987•109/B    987•116/B      1152/B      1189/B
        1211/LI       1245/B        1270/B        1702/B      1800/BDR      1807/B      1812/LI
        2203/B        2285/B        2359/B        2455/B     2505•41/LI     2598/B      2686/B
        2699/B        2700/B        2728/B        2732/B        2790/B      2826/B
KEYIN20
    230•181•LI        2496/B
KEYN
           3•EQU          4/DEF
KFFFF
         206•EQU       1243/LI       1264/LI
KFL
          85/DEF     230•42•EQU       338/STW       675/LW       681/LW       758/LW      1307/MTW
        1312/MTW       1555/MTW      1563/MTW      2066/MTW      2298/LW      2384/LW      2745/LW
        2748/LW
KFLAGS
      230•40•EQU        233/STW       276/LW        323/STW       339/STW
KFLUSH
       91•54/REF     2844•45/AI
KFRMCG
       91•55/REF     230•88/KITV
KFRMGFC
       91•56/REF       2435/AI
KFO
         204•EQU       1324/LI       1338/CI
KF9
```

```
        205=EQU         1340/CI
KIABORT
      230.75/KITV    230.113/KITV        610=EQU
KIANSM
      230.76/KITV       1409=EQU
KIANSO
     230.100/KITV    230.103/KITV        1423=EQU
KIANSS
      230.77/KITV       1395=EQU
KIDATE
      230.78/KITV     230.79/KITV        1247=EQU
KIDEL
       91.57/REF      230.80/KITV
KIDELT
      230.81/KITV      717.2=EQU
KIDIS
       91.58/REF      230.83/KITV
KIDL
      230.21/GEN      230.29=EQU       230.37/EQU
KIERROR
      230.84/KITV     230.85/KITV         626=EQU
KIERROR1
      607.15/B           622/B            638=EQU
KIER12
         651=CH          653/BDR
KIER13
         653=BDR
KIER15
         649/BNEZ        652/BE           658/BE          661=EQU          704/B
KIFDOWN
     230.115/KITV         833=EQU
KIFLUSH
      230.87/KITV     2844.2=EQU
KIF1
     2844.39/B       2844.41=LB
KIGB
         903/B           922=REG
```

```
KIGBUP
     230•98/KITV        892•EQU
KIGDOWN
     230•96/KITV        867•EQU
KIGJOB
     230•89/KITV        742•EQU
KIGJOB1
       756•BCS
KIGJOB2
       774•CI           801/B
KIGJOB3
       782/BE           785•EQU          800/BE
KIGJOB4
       772/BE           793•EQU
KIGJOB5
       769/BE           802•EQU
KIGJOB6
       789/B            805•STCF
KIGJOB7
       809/BCS          812/BCS          816•BAL
KIGUP
     230•97/KITV        907•EQU
KIG1
      948•1/BEZ        951•1•STW
KIHEAD
     230•90/KITV      987•63•EQU
KIH1
     987•99•LB        987•105/BIR
KIH2
    987•102/BE        987•106•AI
KIJMPTBL
     230•50/DEF       230•52•CSECT    230•64/USECT   230•189/BE
KIMOUNT
     230•93/KITV        1437•EQU
KIMOUNTZ
       1405/B           1419/B           1433/B           1447/B           1467•RES
KIMVHDR
```

```
     987•59/B        9R7•96•LI
KINOHDR
     987•55/B        9R7•95/BE      987•113•LI
KIOUTPUT
     230•99/KITV       2806•EQU
KIPL
     230•20•EQU     230•179/LM
KIPRI
      91•59/REF     230•102/KITV
KIRAD1ST
    230•101/KITV       2270•RES
KIRCN
    2260•34•SLD     2260•36/BDR
KIRCN1
    2260•39/BCR     2260•41/BCR     2260•44•RES
KIRCN2
        2260•DATA   2260•42/AW
KIREQ
    230•104/KITV       2051•RES
KIREQBF
        2255•GEN    2260•29/AWM
KIREQBK
        2200/LW        2257•GEN
KIREQBLK
        2201/STW       2254•GEN
KIREQDCB
        2247•EQU       2258/GEN
KIREQDD
        2241•TEXT   2260•37/AWM     2260•43/STW
KIREQFIL
    2260•25•LW      2260•28/BIR
KIREQND
        2067/BNEZ      2176•RES
KIREQND6
        1695/BEZ       1700/BIR        2196•LI
KIREQSV
        2259•TEXT   2260•51/LM
```

```
KIREQT1
       2243*TEXT    2260*52/STM
KIREQT2
       2245*TEXT    2260*47/STW
KIREQ111
       2201/STW       2240*TEXT       2258/GEN     2260*25/LW      2260*29/AWM     2260*37/AWM     2260*43/STW
    2260*47/STW     2260*52/STM
KIREQ8
       2258*GEN     2260*22/LW
KIRQUE
       2200*LW      2260*46/BEZ
KIRQUE1
       2202*BAL     2260*49/BCS     2260*53/B
KISCRTH
    230*107/KITV       1451*EQU
KISEND
    230*108/KITV        982*EQU
KISTART
    230*105/KITV    230*110/KITV        706*EQU
KISTSY
    230*109/KITV       2467*EQU
KISTSY0
       2481*LB          2484/BDR
KISTSY1
       2484*BDR         2501/BCR        2505/B
KISTSY2
       2483/BE          2498*LB
KISTV1
     987*42/BE        987*53*EQU
KISTV2
     987*49/B         987*57*EQU
KIS1
     987*38/BNE       987*40*CI
KITBL
     230*49/DEF       230*51*CSECT    230*62/USECT    230*188/CW
KITIME
    230*111/KITV    230*112/KITV       1227*EQU
```

```
KITV
     230•57•CNAME
KMAXKIFL
     230•44•EQU          324/LI
KMCSEND
     230•92/KITV         1119•EQU
KMCSEND1
       1135•EQU          1140/B
KMCSEND2
       1138/BE           1141•EQU
KN10
        209•EQU          1310/SLS
KN18
        210•EQU          1305/SLS
KN6
        207•EQU
KN8
        208•EQU          1325/SLD
K8BF
     230•94/KITV          582•EQU
K8BN
     230•95/KITV          596•EQU
K8STOP
      91•60/REF          2841/AI
K8UTSTOP
       2811/BE           2829•EQU
KPLB
         86/DEF       230•43•EQU      230•45/EQU      230•186/LW      230•191/LW      230•192/LW         318/STW
        319/STW          320/STW         672/LW          673/LW          687/LW          688/LW         762/LW
        763/LW           778/LW          797/LM          927/LW       987•35/LW         1171/LW        1304/LW
       1309/LW          1315/LW         1323/LW         1326/STW        1461/LW         1537/LW        1566/LW
       1592/LW          2069/LW         2189/LW         2343/LW         2344/LW         2376/STW       2382/LI
       2404/LW          2416/LW         2421/LW         2541/LW         2633/LW         2634/LW        2743/LW
       2744/LW          2751/LW         2767/LW         2768/LW         2779/LW         2780/LW        2809/LW
       2832/LW          2833/LW      2844•34/LW      2844•35/LW
KRBBCST
    230•120/KITV        2509•EQU
```

```
KRBCOM
    230.121/KITV        2791.EQU
KRBDCK
        2639.EQU        2769/BAL
KRBDCT
        2549/BAL        2630.EQU        2679/BAL        2693/BAL        2721/BAL
KRBDCT1
        2642.CLM
KRBDISC
    230.122/KITV        2692.EQU
KRBDNCK
        2655.EQU        2726/BAL        2733/BAL
KRBDS1
        2687/BAL        2698/BAL        2703.EQU
KRBDS2
        2707/BANZ       2711.EQU
KRBDX
        2682/B          2697.EQU
KRBLBG
    230.123/KITV        2764.EQU
KRBLSN
        2771/BE         2775.EQU
KRBLVN
        2774/B          2782.EQU
KRBMV
        2525/BNE        2554.LI
KRBMVO
    2505.26/BAL         2557.EQU
KRBMV1
        2575.LB         2586/BLE
KRBMV2
        2577/BE         2587.EQU
KRBMV4
        2554/LI         2571/CI         2589.LI
KRBS
    230.124/KITV        2717.EQU
KRBSC
```

```
    2528•11/B          2548•EQU        2793/B
KRBSEND
    230•125/KITV       2529•EQU
KRBSPN
         2646/BAL      2664•EQU        2685/BAL        2731/BAL
KRBSPN1
         2649/BNE      2651/BEZ        2671•BDR        2688/B          2689/B          2734/B          2735/B
KRBSPN2
         2667•CW       2671/BDR
KRBSWIT
    230•126/KITV       2740•EQU
KRBS1
         2720/BE       2729•EQU
KRBWSN
         2637/BNE      2645•EQU
KRBX
    230•127/KITV       2674•EQU
KRBX1
          887/BNEZ     2678/BE         2683•EQU
KSCPU
    230•106/KITV       1154•EQU
KSCPU1
         1171•LW       1208/BAL
KSCPU2
         1170/LI       1177•1•EQU
KSGCQ
           87/DEF      2441•EQU        2527/B          2761/LI         2844/B          2844•61/B
KXCPU
    230•114/KITV       1191•EQU
KXCPU2
          884/BAL      1211•1•LW
KXCPU3
      1211•3•DISABLE   1218•1/BDR
KO
         197•EQU        322/LI
K1
         198•EQU        234/AI
```

```
      91•72/REF       1150/BAL       2015/BAL
NKEYINS
    230•129•EQU     230•187/LI
NKIDL
     230•21/GEN      230•37•EQU
NOBRANCH
      225•1•B        1911•1/LW
NOCC
       1904/BCR        1912•EQU
NOIDPUB
       1619/BE         1677•LH
NOTBLP
       1540•EQU
NOTUNIQUE
       1810/LI         1815•TEXTC
NOTVOL1
       1918/BNE        1924•EQU
NOUNTSW
       1497/BNE        1512•EQU
NSCPU
        881/LI         1166/LI        1175/CI        1203/LI
NUM
     230•59/SET
NXKICHR
        88/DEF          248•EQU       276•1/BEZ       326/BAL       2364/BAL       2373/BAL
NXKICHR2
       275/BNE          279•EQU
NXKICHR3
       282•EQU          286/BDR
NXKICHR31
       285•AI
NXKICHR32
       287•LCI
NXKICHR4
       266•LCI          272/BE          284/BE
NXKICHR5
       264/BL           268•RES
```

```
RSERIAL
      91•84/REF       1581/CB
RO
         52•EQU    230•179/LM    230•180/STM       324/LI       328/BDR       335/BR       341/LC
        715/LI        766/SLD       767/STB       770/PUSH      786/PULL   987•44/LD    987•100/LB
    987•101/CI    987•103/STB   987•114/LI    987•115/STB      1136/LB      1137/CI      1148/STB
       1237/LI       1241/LI     1244•4/LB     1244•5/AI    1244•6/AW      1258/LI      1262/LI
       1267/LI       1300/PUSH     1303/PULL     1330/PULL      1544/LB      1545/AND     1546/CI
       1898/LI       1949/CW       2017/LW       2018/CW
S:BUAIS
      91•85/REF        880/STW       940/LW        950/STW
S:CUN
      91•86/REF       2008/LW
S:GJOBACN
      91•87/REF        700/CD
S:GJOBTBL
      91•88/REF        693/CD
S:GUAIS
      91•89/REF        945/AW
S:MBSF
      91•90/REF       2234/STW
S:MPKYN
      91•91/SREF      1186/MTW      1220/MTW
S:NUMC
     230•59/SET
S:OUAIS
      91•92/REF        879/STW       943/LW      951•1/STW
SB:GJOBUN
      91•93/REF        657/CB        702/LB
SB:INIT
      91•94/SREF      1181/LB       1184/STB      1213/LB      1216/STB
SB:RTY
      91•95/REF       2090/LB
SB:STATE
      91•96/SREF
SCNTXT
      91•97/REF    2844•55/LH
```

```
SCSVDGI
      91•98/REF     2844•59/CS
SEP10
       1625•LB        1632/BDR
SEP20
       1626/BEZ       1631•AI
SETNEW
       1675/B         1680/BGE      1684/B        1759/B        1781/BDR      1794•LI
SGCQ
      91•99/REF       2453/BAL      2596/BAL
SGCQ2
     91•160/REF       2762/B
SHIRBCU
     91•100/REF       1655/SH
SHIRGCU
     91•101/REF       1656/SH       1670/MTH      2233/MTH
SHIRNM
     91•102/REF        781/CH       2085/CH
SHIRBCU
     91•103/REF       1654/SH
SHIRTOT
     91•104/REF       1653/LH
SIXPACK
     91•105/REF       1559/BAL      1920/BAL
SKEYIN
       1463/BNE       2300/BNE      2302/BNE      2330•EQU
SKEYIN2
       2360•EQU       2365/BCS      2379/BNE      2381/BCS      2386/BLEZ     2388/BG       2391/BNE
       2409/BCS       2411/BG       2427/B        2459/BEZ      2463/BNE
SKFCK
       2354/BAL       2363•EQU      2425/BAL
SKFF
       2400/B         2414•EQU
SKFJ
       2402•BAL
SKFB
       2401/B         2418•EQU
```

```
SKFRM
        2355/B          2395*EQU
SKFRM1
        2399*B          2426/B
SKFRM2
        2424/BNE        2429*EQU
SKFSET
        2372*EQU        2403/BAL        2415/BAL        2420/BAL
SKF1
        2407/B          2413/B          2417/B          2422*EQU
SKIN
      230*195/BE        2287*EQU
SKIN1
        2328/B          2345*EQU
SKIN2
        2314*BDR        2321/B
SKIN3
        2315/B          2317/BLE        2322*EQU
SMUIS
       91*106/REF        848/LI          946/CI
SNDDX
       91*107/REF       2311/LB         2320/LB         2477/LI         2480/LB         2498/LB
SNDGFC
       91*161/REF       2547/LI
SNULL
       91*108/REF        853/CI
SOLICIT
       91*109/REF       1500/MTB        1529/MTB        1607/LB         1647/LB         1780/STB        1795/STB
        1885/MTB
SRCHAVR
        1621/B          1741*RES
SSTAT
       91*110/REF        591/MTB         606/STB
START$KEYIN
          49/B        230*132*RES        3016/END
STARTBIT
        1183/AI
```

```
STBITYP
     91•111/REF        2312/CB
STOPBIT
       1215/AI
SVIRSIZ
     91•112/REF        779•1/LI        1631/AI       2083•1/LI
SWITGFC
     91•162/REF        2760/AI
SYMCOM
     91•113/REF        2358/BAL
SYMTABCK
     91•114/REF        2431/BAL        2836/BAL     2844•38/BAL
SYMX
     91•115/REF        2481/LB      2844•52/LB
SYSACCT
     91•116/REF         679/LD
SYSTRT
     91•117/REF        925•1/B        1211•2/STW
S7S9
       1128/BIF
TIBTSCHED
     91•118/REF         716/BAL
TIDELUS
     91•119/REF         369/B
TIGJOBR
     91•120/REF         787/BAL
TIGJOBSTRT
     91•121/REF         803/BAL      987•45/BAL        1188/BAL        1223/BAL
TIRUE
     91•122/REF         669/BAL        860/BAL
TBIFLGS
     91•124/REF        2091/LC         2194/LC
TBIFLGS1
     91•123/REF        1977/LC
TIME
     91•125/REF        1239/STH        1244/STS      1244•4/LB      2505•37/LW
TPIGEON
```

```
     987•44/LD       987•61•TEXTC
TSERIAL
      91•126/REF       1569/LW         1572/CW         1627/CW
TSTACK
     230•176/LW       2460/LW*        2776/PSW        2778/PLW
TXMOOSE
        90/DEF         228•TEXTC      1187/LD         1222/LD
TXTGO
       230•TEXT       2812/CW
TXTSTOP
       229•TEXT       2810/CW
TYPERR
      1583•BAL        1763/BNE
TYPMNSZ
      91•127/REF      2305/LI
T1
      1244•4•LB       1244•8/BIR
UB:US
      91•128/REF       851/LB
UH:FLG2
      91•129/REF      2822/LH         2824/STH
UX:JIT
      91•130/REF      2009/LOAD
VERB
      216•18•EQU      1527/CW
VOL1
       1917/CW        2045•TEXT
WAKEUP
      91•131/REF      1774/BAL        1798/BAL
WK
      717•21/IPSD
X
      230.56•SET      230.66•SET      230.66/SET      230.129/EQU
XCF
       221•DATA
XF
       216•7•EQU       1173/AND
```

```
XFC
     91•132/REF        1182/AND        1214/AND
XFF
      216•6•EQU        1337/AND
XFF0A00
       1894/BR         2047•DATA
XF7
        222•DATA
XO
     91•133/REF     2260•11/MBS
X1000FFFF
     91•134/REF        1620/AND
X30
        218•DATA       1545/AND
X7FF
      216•8•EQU     2260•31/AND
X80
      216•9•EQU        2823/BR
X88
       2048•DATA
Y
     230•59•SET      230•60/ERROR    230•61/GOTO
YC1FF
     216•17•DATA       1612/CW         1766/CW         1888/CW
YC5FF
        219•DATA
YFFFF
     91•135/REF
Y000A
     91•136/REF
Y01
     216•16•EQU         364/LW
Y04
     216•15•EQU        1938/LW         1940/LW
Y06
     91•137/REF        1936/LW
Y07
```

```
      91•138/REF        1934/LW
Y08
      216•14=EQU        216•18/EQU        1901/LW        1907/LW        2018/CW
Y1
      216•13=EQU        1464/LW        1524/CW        1531•2/CW        1609/CW        1747/CW        1910/LW
Y18
      91•139/REF        2217/CW        2260•10/BR
Y2
      216•12=EQU        1404/LW        1541/CW        1679/CW
Y3
      91•140/REF        1418/LW        1921/LW
Y4
      216•11=EQU        1432/LW        1498/CW        1514/CW
Y8
      216•10=EQU         335/BR        1671/BR
ZAP10
         850=EQU         864/BDR
ZAP20
         854/BE          857/BLE         863=EQU
1A1
     2260•60/BCS     2260•62/BAZ     2260•64/BNE     2260•66=AI
1A2
     2260•59=LC      2260•68/BLE
1MIN
      91•141/REF     1244•10/SW
2741CODE
         77=SET
$PEND
      230•61/GOTO     230•67=PEND
:LBL
        1952/CW         2046=TEXT
```

```
                    *M*     KEYN DRIVER MODULE FOR KEYIN OVERLAY
                    *
          01 00000  KEYN    EQU     *
                    *       DEF     KEYN                MODULE BIAS
                    ********************************************************************
                    *P*     NAME:   KEYN
                    *P*
                    *P*     PURPOSE: TO PROVIDE A DRIVER FOR ALL OPERATOR KEYINS.
                    *P*
                    *P*     DESCRIPTION:  THE KEYIN LOAD MODULE (OF WHICH KEYN IS THE MAIN
                    *P*             MODULE) EXISTS AS A MONITOR OVERLAY ALTHOUGH IT
                    *P*             EXECUTES AS A GHOST JOB (USER #1).  DEPRESSING THE
                    *P*             OPERATOR'S CONSOLE INTERRUPT GENERATES A X'5D'
                    *P*             INTERRUPT.  CONTROL PASSES TO OCINT (IN IOQ) WHERE A
                    *P*             WRITE REQUEST IS QUEUED FOR THE OPERATOR'S CONSOLE
                    *P*             CONSISTING OF TWO CHARACTERS:  'N/L',' '.  THIS IS
                    *P*             FOLLOWED BY A READ REQUEST OF 72 CHARACTERS INTO
                    *P*             KEYINBUF WITH END-ACTION.  AN I/O INTERRUPT IS
                    *P*             GENERATED WHEN THE OPERATOR TERMINIATES HIS INPUT WIT
                    *P*             A 'N/L' CHARACTER.  THE END-ACTION ROUTINE THEN CALLS
                    *P*             T:GJOBSTRT FOR KEYIN ON ALL OPERATOR KEYINS EXCEPT
                    *P*             THOSE OF THE FORM:  VVNDD,X (THESE ARE HANDLED DIRECT
                    *P*             LY BY IOQ).
                    *P*
                    *P*             KEYIN ALSO HANDLES TAPE AND PACK AVR:ING.  THIS IS
                    *P*             INDICATED BY IOQ PUTTING THE DCT INDEX OF THE INTERRU
                    *P*             DRIVE IN AVRDCT (IN TABLES).
                    *P*
                    *P*             THE KEYIN GHOST JOB BEGINS EXECUTION (MASTER/MAPPED)
                    *P*             AT T:OV WITH A REQUEST TO ASSOCIATE THE KEYIN OVERLAY
                    *P*             AS THE RESUULT OF SPECIAL PROCESSING IN THE SWAPPER
                    *P*             WHICH SETS UP KEYIN'S INITIAL TSTACK ENVIRONMENT.
                    *P*
                    *P*             ALL KEYINS ARE HANDLED IN THE KEYN MODULE EXCEPT THE
                    *P*             FOLLOWING:
                    *P*                                     DELETE      HANDLED BY DELPRI
                    *P*                                     PRIO        HANDLED BY DELPRI
```

```
                                 *P*                                           FORM        HANDLED BY DELPRI
                                 *P*                                           DISPLAY     HANDLED BY DISPLAY
                                 *P*
                                 *P*       REFERENCE:  CP-V OPERATIONS REFERENCE MANUAL
                                 ******************************************************************************
                                 *
             00000001            ANSPROC   SET        1
             00000001            MPBITS    SET        1
                                           SYSTEM     UTS
    01 00000       6800001A                B          START$KEYIN
```

```
                          PAGE
                  *                   SYMBOLIC REGISTER DEF'S.
      00000000    R0          EQU     0
      00000001    R1          EQU     1
      00000002    R2          SET     2
      00000003    R3          EQU     3
      00000004    R4          EQU     4
      00000005    R5          EQU     5
      00000006    R6          EQU     6
      00000007    R7          EQU     7
      00000008    R8          EQU     8
      00000009    R9          EQU     9
      0000000A    R10         EQU     10
      0000000B    R11         EQU     11
      0000000C    R12         EQU     12
      0000000D    R13         EQU     13
      0000000E    R14         EQU     14
      0000000F    R15         EQU     15
      00000008    SR1         EQU     8
      00000009    SR2         EQU     9
      0000000A    SR3         EQU     10
      0000000B    SR4         EQU     11
      0000000C    D1          EQU     12
      0000000D    D2          EQU     13
      0000000E    D3          EQU     14
      0000000F    D4          EQU     15
```

```
76
77          00000001    2741CODE  SET     1     SET FOR 2741 CAPABILITY
78          00000001    RBCODE    SET     1     SET TO ZERO FOR NO RB CODE
```

```
79
82                      PAGE
83                      DEF     GKIFLD          SUBR TO ACQUIRE NEXT KEYIN FIELD
84                      DEF     KEYERR          COMMON KEYIN ERROR EXIT
85                      DEF     KEYINR          COMMON KEYIN NORMAL EXIT
86                      DEF     KFL             DISPLACEMENT TO FIELD LENGTH IN KPL
87                      DEF     KPLB            DISPLACEMENT TO BUFFER IN KPL
88                      DEF     KSGCQ           COMMON ROUTINE TO INTERFACE TO SGCQ
90                      DEF     NXKICHR         SUBR TO OBTAIN NEXT CHAR IN KEYINBU
                        DEF     TXMOOSE         TEXTC 'MOOSE'
```

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91
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 2*
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```

```
PAGE
REF     ACNCFU      TO DERIVE PACK STATUS (REQUEST)
REF     ANSFLGS     FOR !ANSM!/!ANSS! KEYINS
REF     ANSPRT      FOR !ANSM!/!ANSS! KEYINS
REF     ASPIN       RESOURCE ALLOCATION FOR PUBLIC MOUN
REF     AVRDCT      DCT INDEX FOR AVR PROCESS
REF     AVRFLGS     SET CODE CONVERSION IN AVR
REF     AVRFNMT     FOR 'ANSM'/'ANSS' KEYINS
REF     AVRID       USER ID FOR MOUNT PROCESS
REF     AVRNOU      DEVICE USAGE FOR MOUNT PROCESS
REF     AVRTBL      DATA FOR MOUNT PROCESS
REF     AVRTBLSIZ   DATA FOR MOUNT PROCESS
REF     AVRTBLNE    DATA FOR MOUNT PROCESS
REF     BATAPE      TO CONVERT DCTX TO AVR INDEX
REF     BGRCFU      TO DERIVE PACK STATUS (REQUEST)
REF     BLANK       ZAPPER FOR KIPL BUFFER
REF     BT31TO0     BIT MASKS
REF     CIMSM       INITIALIZED BY !TIME! KEYIN
REF     CFUSIZE     TO DERIVE PACK STATUS (REQUEST)
SREF    COC         TO DETERMINE IF T/S SYSTEM
SREF    COCDSABL    TO PASS !SEND! MESSAGE TO USER
SREF    COCENABL    TO PASS !SEND! MESSAGE TO USER
SREF    COCMESS     TO PASS !SEND! MESSAGE TO USER
SREF    COCOTV      TO PASS !SEND! MESSAGE TO USER
SREF    COCSENDX    TO PASS !SEND! MESSAGE TO USER
SREF    COCTERM     TO PASS !SEND! MESSAGE TO USER
SREF    CPOS        TO PASS !SEND! MESSAGE TO USER
REF     CTRIG       TO RETRY A KEYIN
REF     CVSYSID     TO CONVERT EBCDIC SYSID TO HEX
REF     DATE        INITIALIZED BY !DATE! KEYIN
REF     DCTSIZ      TO SCAN DCT TABLES
REF     DCT1        DATA FOR DISMOUNT MESSAGE
REF     DCT16       TO DERIVE/VALIDATE !YYNDD! ADDRESSE
REF     DCT3        TO CHECK FOR PARTITIONED RB DEVICE
REF     DCT4        FOR VARIOUS DEVICE-TYPE CHECKS
REF     DECONV      TO CONVERT EBCDIC # TO BINARY
REF     DEVCK       TO CONVERT DEV ADR TO DCTX
```

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37*
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```

REF	DID	INITIALIZED BY 'DIAG' KEYIN
REF	DOUBLEZERO	USED AS ZAPPER
REF	E!ABRT	EVENT REPORTED VIA 'X' KEYIN
REF	E!CBK	EVENT REPORTED VIA 'INT' KEYIN
REF	E!ERR	EVENT REPORTED VIA 'E' KEYIN
SREF	ECHOCR2	TO PASS 'SEND' MESSAGE TO USER
REF	ERRLOG	CALLED VIA 'ERSEND' KEYIN
REF	FCMC	SET CODE CONVERSION ORDER CODE
REF	GETUSER#	TO DERIVE USER # GIVEN A SYSID
REF	GMB	TO OBTAIN MISC BUFFERS
REF	GOODNGT	INITIALIZED VIA 'ZAP' KEYIN
REF	HEXCK	TO CONVERT EBCDIC CHARACTER TO HEX
REF	HOWALO	RESOURCE ALLOCATION FOR PUBLIC MOUN
REF	J!BASE	BUFFER FOR AVR READS
REF	J!CCBUF	USED AS TEMP DATA AREA BY AVR
REF	J!JIT	START OF JIT
REF	KEYINBUF	LOCATION OF OPERATOR'S KEYIN
REF	KFLUSH	GHOST FUNCTION CODE: FLUSH OUTPUT
REF	KFRMCG	CALLED TO PROCESS SYMBIONT FORM.CHG
REF	KFRMGFC	GHOST FUNCTION CODE : FORMS CHG
REF	KIDEL	TO PROCESS 'DELETE' KEYIN
REF	KIDIS	TO PROCESS 'DISPLAY' KEYIN
REF	KIPRI	TO PROCESS 'PRIORITY' KEYIN
REF	KOSTOP	GHOST FUNCTION CODE : OUTPUT STOP
SREF	LBIUN	TO DERIVE LINE # FROM GIVEN SYSID
SREF	LNOL	TO DERIVE # OF COC LINE TABLES
REF	LPART	TO DERIVE # OF BATCH PARTITIONS
REF	LSERIAL	MOUNT RESOURCE/EXCLUSIVE CHECK
REF	MASKS	MASKS
REF	MAXG	TO DERIVE # OF POSSIBLE ACT GHOSTS
REF	MBSOP#	MOUNT 'PUBLIC' EXCLUSIVE CHECK
REF	MING	TO PROTECT KEYIN, ALLOCAT, & RBBAT
SREF	MODE2	TO PASS 'SEND' MESSAGE TO USER
REF	MXSTRM	FOR SCANNING SYMBIONT TABLES
REF	NDD	TO DERIVE DCTX
REF	NEWQ	USED BY 'MCSEND' & AVR PROCESS
SREF	OCPIO	TO DETERMINE IF OCP SUPPORT IS INCL

```
 74*
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110*
```

SREF	BCPTYP	DCT4 VALIDATION FOR BCP DEVICES
REF	BCQUEUE	KEYIN;B INTERFACE TO THE BC
REF	BH!NM	TO DECODE 'SYY' FORM OF SYMB KEYIN
REF	PLB!MIN	MOUNT 'PUBLIC' EXCLUSIVE CHECK
REF	PLH;SID	TO VALIDATE A BATCH SYSID
REF	QUEUE	USED TO RESPOND TO 'REQUEST' KEYIN
REF	RAD1ST	INITIALIZED BY 'PREFER' KEYIN
SREF	RAS;DBL	MASK FOR RAS DCTX
REF	RAT;DCT4	RESOURCE ALLOCATION FOR PUBLIC MOUN
REF	RMB	TO RELEASE MISC BUFFERS
REF	RSERIAL	MOUNT RESOURCE/EXCLUSIVE CHECK
REF	S!BUAIS	INITIALIZED BY '0NB'/'ZAP' KEYINS
REF	S!CUN	FIND PHYSICAL JIT
REF	S!GJOBACN	TO FIND GHOST IN TABLES (E/X/INT)
REF	S;GJOBTBL	TO FIND GHOST IN TABLES (E/X/INT)
REF	S!GUAIS	TO CALCULATE MAX POSSIBLE USERS
REF	S!MBSF	TO GOOSE RBBAT
SREF	S!MPKYN	MP RE-ENTRANCY COUNTER
REF	S!OUAIS	TO CALCULATE MAX POSSIBLE USERS
REF	SB!GJOBUN	TO FIND GHOST IN TABLES (E/X/INT)
SREF	SB;INIT	CPU START/STOP FLAGS
REF	SB!RTY	TO DERIVE DEVICE TYPE FOR 'REQUEST'
SREF	SB!STATE	SLAVE CPU STATE
REF	SCNTXT	TO VALIDATE 'FLUSH' KEYIN
REF	SCSVDGI	TO VALIDATE 'FLUSH' KEYIN
REF	SGCQ	USED TO PASS GFC'S TO RBBAT
REF	SH;RBCU	MOUNT 'PUBLIC' SPINDLE ALLOCATION
REF	SH!RGCU	MOUNT 'PUBLIC' SPINDLE ALLOCATION
REF	SH!RNM	TO PASS RESOURCE TO GHOST VIA 'GJOB
REF	SH;ROCU	MOUNT 'PUBLIC' SPINDLE ALLOCATION
REF	SH!RTBT	MOUNT 'PUBLIC' SPINDLE ALLOCATION
REF	SIXPACK	TO PACK A 6-CHARACTER SERIAL #
REF	SMUIS	TO CALCULATE MAX POSSIBLE USERS
REF	SNDDX	USED BY SYMBIONT KEYINS
REF	SNULL	TO SKIP INACTIVE USERS DURING 'ZAP'
REF	SOLICIT	TO DETERMINE PREMOUNT STATUS
REF	SSTAT	INITIALIZED BY 'OBOFF' KEYIN

```
111*                                    REF     STBITYP         TO DECODE 'SYY' FORM OF SYMB KEYIN
112*                                    REF     SVIRSIZ         MAX INDEX FOR ACCESS TO RESOURCE TBL
113*                                    REF     SYMCOM          TO PROCESS SYMBIONT-TYPE KEYINS
114*                                    REF     SYMTABCK        TO CONVERT DCTX TO SYMTAB INDEX
115*                                    REF     SYMX            USED TO VALIDATE 'SS' KEYIN
116*                                    REF     SYSACCT         DEFAULT GHOST ACCT FOR E/X/INT KEYI
117*                                    REF     SYSTRT          SLAVE START LOCATION
118*                                    REF     TIBTSCHED       CALLED VIA 'S' KEYIN
119*                                    REF     TIDELUS         KEYIN'S EXIT
120*                                    REF     TIGJOBR         INITIATE GJOB WITH RESOURCES
121*                                    REF     TIGJOBSTRT      CALLED VIA 'GJOB' KEYIN
122*                                    REF     TIRUE           CALLED VIA 'E'/'X'/'INT' KEYINS
123*                                    REF     TBIFLGS1        TEST CODE CONVERSION CAPABILITY IN
124*                                    REF     TBIFLGS         TO VALIDATE DEVICE-TYPE FOR 'REQUES
125*                                    REF     TIME            INITIALIZED BY 'TIME' KEYIN
126*                                    REF     TSERIAL         MOUNT RESOURCE/EXCLUSIVE CHECK
127*                                    REF     TYPMNSZ         INDEX FOR DEVICE-TYPE CHK (SYM KEYI
128*                                    REF     UBIUS           SCAN USERS' STATES ON 'ZAP' KEYIN
129*                                    REF     UHIFLG2         X'80' BIT SET BY 'OUTPUT STOP'
130*                                    REF     UXIJIT          FIND PHYSICAL JIT
131*                                    REF     WAKEUP          WAKEUP USER DURING MOUNT/AVR PROCES
132*                                    REF     XFC             MASK
133*                                    REF     XO              ZAPPER
134*                                    REF     X1000FFFF       MASK
135*                                    REF     YFFFF           MASK
136*                                    REF     Y000A           MASK
137*                                    REF     Y06             MASK
138*                                    REF     Y07             MASK
139*                                    REF     Y18             MASK
140*                                    REF     Y3              MASK
141*                                    REF     1MIN            USED TO CALCULATE C:MSM
142*                        *
143*                        *
144*                        *
145*         00000001                   DB      RBCODE
146*                                    SREF    ACTBIT          STATUS BITS FOR 'RBDISC'/'RBSWITCH'
147*                                    SREF    ALBIT           STATUS BIT FOR 'RBSWITCH' KEYIN
```

```
148*
149*
150*
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163*
```

```
REF     BCSTGFC
SREF    DCBIT
REF     DCT24
SREF    KCOMGFC
SREF    LIPBIT
SREF    OADBIT
SREF    OFFBIT
SREF    RBIFLAG
REF     RBB;ID
SREF    RBDIWSN
REF     RBLIMS
SREF    RBXBIT
REF     SGCQ2
REF     SNDGFC
REF     SWITGFC
FIN
```

```
GHOST FUNCTION CODE ! 'RBBCST' KEYI
BIT FOR 'RBSWITCH' KEYIN
'DOWN'-BIT ; RB DEVICE VALIDATION
GHOST FUNCTION CODE ! 'RBDISC'/'RBS
STATUS BIT FOR 'RBDISC'/'RBSWITCH'
STATUS BIT FOR 'RBX'/'RBS' KEYIN
STATUS BIT SENT VIA 'RBX' KEYIN
USED TO COMMUNICATE KEYINS TO RBBAT
USED TO DETERMINE IF LINE IS LOGGED
USED BY 'RBBDCST'/'RBSWITCH' KEYINS
USED TO VALIDATE DCTX FOR RB DEVICE
STATUS BIT FOR 'RBX'/'RBDISC' KEYIN
USED TO PASS GHOST FCN CODES TO RBB
GHOST FUNCTION CODE ! 'RBSEND' KEYI
GHOST FUNCTION CODE ! 'RBSWITCH'
```

```
                                  PAGE
         00000000      K0         EQU      X'0'
         00000001      K1         EQU      X'1'
         00000002      K2         EQU      X'2'
         00000005      K5         EQU      X'5'
         00000008      K8         EQU      X'8'
         0000000A      KA         EQU      10
         000000C1      KC1        EQU      X'C1'
         000000F0      KF0        EQU      X'F0'
         000000F9      KF9        EQU      X'F9'
         0000FFFF      KFFFF      EQU      X'FFFF'
         FFFFFFFA      KN6        EQU      -X'6'
         FFFFFFF8      KN8        EQU      -X'8'
         FFFFFFF0      KN10       EQU      -X'10'
         FFFFFFE8      KN18       EQU      -X'18'
         TEXT          KBLANK     EQU      ' '
         00000015      KCRET      EQU      X'15'
         TEXT          KCOMMA     EQU      ','
         00000026      KEOB       EQU      X'26'
```

```
215                                            PAGE
  1*            00000010  S        M16         EQU       MASKS+16
  2*            00000002  S        M2          EQU       MASKS+2
  3*            00000007  S        M7          EQU       MASKS+7
  4*            00000008  S        M8          EQU       MASKS+8
  5*            00000018  S        M24         EQU       MASKS+24
  6*            00000008  S        XFF         EQU       MASKS+8
  7*            00000004  S        XF          EQU       MASKS+4
  8*            0000000B  S        X7FF        EQU       MASKS+11
  9*            00000008  S        X80         EQU       BT31T00+8
 10*            00000020  S        Y8          EQU       BT31T00+32
 11*            0000001F  S        Y4          EQU       BT31T00+31
 12*            0000001E  S        Y2          EQU       BT31T00+30
 13*            0000001D  S        Y1          EQU       BT31T00+29
 14*            0000001C  S        Y08         EQU       BT31T00+28
 15*            0000001B  S        Y04         EQU       BT31T00+27
 16*            00000019  S        Y01         EQU       BT31T00+25
 17*   01 00001      C1FF0000 A    YC1FF       DATA      X'C1FF0000'
 18*            0000001C  S        VERB        EQU       Y08
218    01 00002      00000030 A    X30         DATA      X'30'
219    01 00003      C5FF0000 A    YC5FF       DATA      X'C5FF0000'
221    01 00004      000000CF A    XCF         DATA      X'CF'
222    01 00005      000000F7 A    XF7         DATA      X'F7'
223    01 00006      C2D3D740 A    BLP         TEXT      'BLP '
224    01 00007      73060000 X    BAUNIT1     MTB,0     AVRFNMT,R3
225    01 00008      730A0000 X    BAUNIT2     MTB,0     AVRFNMT,R5
  1*   01 00009      68000000 X    NOBRANCH    B         SYSTRT              REFLEXIVE BRANCH FOR STORING
226                                            BOUND     8
227    01 0000A      D2C5E8C9 A    KEYINQ      TEXT      'KEYIN'
       01 0000B      D5404040 A
228    01 0000C      05D4D6D6 A    TXMOOSE     TEXTC     'MOOSE'
       01 0000D      E2C54040 A
229    01 0000E      E2E3D6D7 A    TXTSTOP     TEXT      'STOP'
230    01 0000F      C7D64040 A    TXTGO       TEXT      'GO  '
```

```
                                    PAGE
                              ******************************************************************
                              *K*   KEYIN-PARAMETER-LIST AN 8-WORD DATA BLOCK WHICH IS BUILT
                              *,*          DYNAMICALLY IN TSTACK EACH TIME KEYIN IS ENTERED:
                              *,*              ------------------------------------------
                              *,*   WORD 0 |# DELIMITERS|  BA(KEYIN DELIMITERS)     |
                              *,*          1 |     CURRENT CHARACTER POSITION (KCCP)|
                              *,*          2 |     BLANK ACTIVE FLAG (KFLAGS)       |
                              *,*          3 |     ADR. OF KEYIN BUFFER (KBUF)      |
                              *,*          4 |     FIELD LENGTH (KFL)               |
                              *,*          5 |     *                                |
                              *,*          6 |     * 12-CHAR FIELD BUFFER (KPLB)    |
                              *,*          7 |     *                                |
                              *,*              ------------------------------------------
                              ******************************************************************
                              *
                              *     KIPL = KEYIN  PARAMETER  LIST
                              *
                                    BOUND     4
          01 00010            KIPL  EQU       $
 01 00010      07000060             GEN,8,24  NKIDL,BA(KIDL)     NO. DELIM. / BA(KEYIN DELIMETERS)
 01 00011      00000000 A           DATA      0                  CUR CHAR POSITION    KCCP
 01 00012      00000000 A           DATA      0                  BLANK ACTIVE FLAG   KFLAGS
 01 00013      00000000 N           DATA      KEYINBUF           ADR OF KEYIN BUFFER
 01 00014      00000000 A           DATA      0                  FIELD LENGTH         KFL
 01 00015                           RES       3                  12 CHAR FIELD BUFFER
                              *
                                    BOUND     4
          01 00018            KIDL  EQU       $                  KEYIN DELIMITER LIST
 01 00018        7A        A        DATA,1    '!'
 01 00018 1      61        A        DATA,1    '/'
 01 00018 2      4D        A        DATA,1    '('
 01 00018 3      5D        A        DATA,1    ')'
 01 00019        6B        A        DATA,1    ','
 01 00019 1      4B        A        DATA,1    '.'
 01 00019 2      40        A        DATA,1    ' '
          00000007            NKIDL EQU       BA($)-BA(KIDL)     NO. OF KEYIN DELIMETERS
```

```
38*                        *
39*   00000001             KCCP       EQU    1          CUR CHAR POSITION
40*   00000002             KFLAGS     EQU    2          BLANK ACTIVE FLAG
41*   00000003             KBUF       EQU    3          BUFFER ADDRESS
42*   00000004             KFL        EQU    4          FIELD LENGTH
43*   00000005             KPLB       EQU    5          FIELD BUFFER
44*   0000000C             KMAXKIFL   EQU    12         MAX. KEYIN FIELD LENGTH
45*   00000014             BAKPLB     EQU    4*KPLB
46*                                   BOUND  4
```

```
47*                                     PAGE
48*          01 0001A           LOC     EQU     *
49*                                     DEF     KITBL               CSECT BIAS FOR POSSIBLE PATCHING
50*                                     DEF     KIJMPTBL            CSECT BIAS FOR POSSIBLE PATCHING
51*   02 00000                 KITBL   CSECT   0
52*   03 00000                 KIJMPTBL CSECT  0
53*                            *
54*                            *
55*                            *
56*          00000000          X       SET     0
57*          00000000          KITV    CNAME
58*                                     PROC
59*                            Y       SET     NUM(AF)<2!S:NUMC(AF(1))>4
60*                                     ERROR,1,Y   'ILLEGAL/MISSING ARGUMENT FIELD'
61*                                     GOTO,Y  *END
62*                                     USECT   KITBL
63*                            LF      TEXT    AF(1)
64*                                     USECT   KIJMPTBL
65*                                     B       AF(2)
66*                            X       SET     X+1
67*                            *END    END
68*                            *
69*                            *
70*                            *-------------------------------------------------------------------
71*                            *                    NAME**RECEIVER
72*                            *-------------------------------------------------------------------
73*                            *
74*   02 00000  40404040 A             KITV    '    ',KEYERR
     03 00000  68000066 01
75*   02 00001  C1C2D6D9 A             KITV    'ABOR',KIABORT     ABORT
     03 00001  68000077 01
76*   02 00002  C1D5E2D4 A             KITV    'ANSM',KIANSM      ANSMOUNT
     03 00002  68000212 01
77*   02 00003  C1D5E2E2 A             KITV    'ANSS',KIANSS      ANSSCRATCH
     03 00003  68000210 01
78*   02 00004  C4404040 A             KITV    'D   ',KIDATE      D
     03 00004  68001D9 01
```

```
79*  02 00005   C4C1E3C5 A              KITV   'DATE','KIDATE     DATE
     03 00005   680001D9 01
80*  02 00006   C4C5D3C5 A              KITV   'DELE','KIDEL      DELETE
     03 00006   68000000 X
81*  02 00007   C4C5D3E3 A              KITV   'DELT','KIDELT     DELTA
     03 00007   680000B8 01
82*  02 00008   C4C9C1C7 A              KITV   'DIAG','KDIAG      DIAG
     03 00008   68000145 01
83*  02 00009   C4C9E2D7 A              KITV   'DISP','KIDIS      DISPLAY
     03 00009   68000000 X
84*  02 0000A   C5404040 A              KITV   'E   ','KIERROR    E
     03 0000A   6800007A 01
85*  02 0000B   C5D9D9D6 A              KITV   'ERRO','KIERROR    ERROR
     03 0000B   6800007A 01
86*  02 0000C   C5D9E2C5 A              KITV   'ERSE','ERSEND     ERSEND
     03 0000C   68000501 01
87*  02 0000D   C6D3E4E2 A              KITV   'FLUS','KIFLUSH    FLUSH
     03 0000D   680005EA 01
88*  02 0000E   C6D6D9D4 A              KITV   'FORM','KFRMCG     FORM
     03 0000E   68000000 X
89*  02 0000F   C7D1D6C2 A    GJOBTXT   KITV   'GJOB','KIGJOB     GJOB
     03 0000F   680000BE 01
90*  02 00010   C8C5C1C4 A              KITV   'HEAD','KIHEAD     HEADING
     03 00010   6800016A 01
91*  02 00011   C9D5E340 A              KITV   'INT ','ENTINT     INT
     03 00011   68000073 01
92*  02 00012   D4C3E2C5 A              KITV   'MCSE','KMCSEND    MCSEND
     03 00012   6800017C 01
93*  02 00013   D4D6E4D5 A              KITV   'MOUN','KIMOUNT    MOUNT
     03 00013   68000216 01
94*  02 00014   D6C2D6C6 A              KITV   'OBOF','KOBF       OBOFF
     03 00014   6800006E 01
95*  02 00015   D6C2D6D5 A              KITV   'OBON','KOBN       OBON
     03 00015   68000070 01
96*  02 00016   D6C6C640 A              KITV   'OFF ','KIGDOWN    OFF
     03 00016   68000117 01
97*  02 00017   D6D54040 A              KITV   'ON  ','KIGUP      ON
```

```
        03 00017    68000123 01
 98*    02 00018    D6D5C240 A      KITV    'ON  ',KIGBUP      ON
        03 00018    68000121 01
 99*    02 00019    D6E4E3D7 A      KITV    'OUTP',KIOUTPUT    OUTPUT
        03 00019    680005C7 01
100*    02 0001A    D6E5C5D9 A      KITV    'OVER',KIANSO      OVER
        03 0001A    68000214 01
101*    02 0001B    D7D9C5C6 A      KITV    'PREF',KIRAD1ST    PREFER
        03 0001B    68000465 01
102*    02 0001C    D7D9C9D6 A      KITV    'PRIO',KIPRI       PRIORITY
        03 0001C    68000000 X
103*    02 0001D    D9C5C1C4 A      KITV    'READ',KIANSO      READ
        03 0001D    68000214 01
104*    02 0001E    D9C5D8E4 A      KITV    'REQU',KIREQ       REQUEST
        03 0001E    680003B9 01
105*    02 0001F    E2404040 A      KITV    'S   ',KISTART     S
        03 0001F    68000085 01
106*    02 00020    E2C3D7E4 A      KITV    'SCPU',KSCPU       SCPU
        03 00020    68000194 01
107*    02 00021    E2C3D9C1 A      KITV    'SCRA',KISCRTH     SCRATCH,SCRA03,SYYNDD,
        03 00021    68000218 01
108*    02 00022    E2C5D5C4 A      KITV    'SEND',KISEND      SEND
        03 00022    68000151 01
109*    02 00023    E2E24040 A      KITV    'SS  ',KISTSY      SS
        03 00023    680004E7 01
110*    02 00024    E2E3C1D9 A      KITV    'STAR',KISTART     START
        03 00024    68000085 01
111*    02 00025    E3404040 A      KITV    'T   ',KITIME      T
        03 00025    680001C1 01
112*    02 00026    E3C9D4C5 A      KITV    'TIME',KITIME      TIME
        03 00026    680001C1 01
113*    02 00027    E7404040 A      KITV    'X   ',KIABORT     X
        03 00027    68000077 01
114*    02 00028    E7C3D7E4 A      KITV    'XCPU',KXCPU       XCPU
        03 00028    680001AA 01
115*    02 00029    E9C1D740 A      KITV    'ZAP ',KIFDOWN     ZAP
        03 00029    6800010A 01
```

```
116*                                    *
117*                                    *
118*                                    *
119*          00000001                        DB      RBCODE
120*   02 0002A     D9C2C2C4 A                 KITV    'RBBD',KRBBCST      RBBDCST
   03 0002A     68000512 01
121*   02 0002B     D9C2C3D6 A                 KITV    'RBCO',KRBCOM       RBCOM
   03 0002B     68000585 01
122*   02 0002C     D9C2C4C9 A                 KITV    'RBDI',KRBDISC      RBDISC
   03 0002C     68000575 01
123*   02 0002D     D9C2D3D6 A                 KITV    'RBLO',KRBLOG       RBLOG
   03 0002D     680005AD 01
124*   02 0002E     D9C2E240 A                 KITV    'RBS ',KRBS         RBS
   03 0002E     68000586 01
125*   02 0002F     D9C2E2C5 A                 KITV    'RBSE',KRBSEND      RBSEND
   03 0002F     6800051B 01
126*   02 00030     D9C2E2E6 A                 KITV    'RBSW',KRBSWIT      RBSWITCH
   03 00030     68000597 01
127*   02 00031     D9C2E740 A                 KITV    'RBX ',KRBX         RBX
   03 00031     68000567 01
128*                                           FIN
129*          00000031              NKEYINS    EQU     X-1
130*   03 00032                               USECT   LOC
```

```
                                PAGE
01 0001A              STARTSKEYIN RES    0
                      ***********************************************************************
                      *F*       NAME:    STARTSKEYIN
                      *F*
                      *F*       PURPOSE: KEYIN'S START ADDRESS
                      *F*
                      *F*       DESCRIPTION:  GOES DIRECTLY TO AVR.PROCESSING IF AVRDCT IS NON
                      *F*                ZERO, OTHERWISE IT BUILDS SKELETON KEYIN PARAMETER
                      *F*                LIST IN TSTACK, ACQUIRES FIRST FIELD OF THE KEYIN
                      *F*                BUFFER AND TRANSFERS CONTROL TO THE APPROPRIATE
                      *F*                HANDLER.
                      ***********************************************************************
                      *D*       NAME:    STARTSKEYIN
                      *D*
                      *D*       CALL:    OVERLAY CALL AS THE RESULT OF OPERATOR KEYIN END.
                      *D*                ACTION OR I/O INTERRUPT FROM AVR.
                      *D*
                      *D*       REGISTERS:  ALL ARE VULNERABLE
                      *D*
                      *D*       INTERFACE:  TRANSFERS CONTROL TO APPROPRIATE HANDLER DEPENDING
                      *D*                UPON SERVICE REQUIRED (KEYIN OR AVR).
                      *D*
                      *D*       INPUT:   AVRDCT = 0      IMPLIES OPERATOR KEYIN
                      *D*                      /=0      IMPLIES AVR
                      *D*                KEYINBUF       OPERATOR'S KEYIN TEXT
                      *D*
                      *D*       OUTPUT:  R1 = FIRST 4 CHARACTERS OF KEYIN
                      *D*                R7 = ADR OF KEYIN PARAMETER LIST
                      *D*                AVRDCT IS ZEROED
                      *D*
                      *D*       DESCRIPTION:  GOES DIRECTLY TO AVR.PROCESSING IF AVRDCT IS NON
                      *D*                ZERO, OTHERWISE IT BUILDS SKELETON KEYIN PARAMETER
                      *D*                LIST IN TSTACK, ACQUIRES FIRST FIELD OF THE KEYIN
                      *D*                BUFFER AND TRANSFERS CONTROL TO THE APPROPRIATE
                      *D*                HANDLER.
                      ***********************************************************************
```

```
168*                                    *
169*  01 0001A  22700000 A              LI,7     0              IF AVR, DO IT AND RESET FLAG
170*  01 0001B  46700000 X              XW,7     AVRDCT
171*  01 0001C  69300333                BNEZ     AVR
172*  01 0001D  22100015 A              LI,1     KCRET
173*  01 0001E  71100000 X              CB,1     KEYINBUF
174*  01 0001F  6830006D                BE       KEYINR
175*  01 00020  2210000F A              BUMP     15,R1
      01 00021  13100000 X
176*  01 00022  32700000 X              LW,R7    TSTACK
177*  01 00023  207FFFF9 A              AI,R7    -7
178*  01 00024  02200050 A              LCI      5              MOVE  PARAMETER
179*  01 00025  2A000010                LM,R0    KIPL                  LIST TO TSTACK
180*  01 00026  2B0E0000 A              STM,R0   0,R7
181*  01 00027  22100000 A  KEYIN20     LI,R1    0
182*  01 00028  351E0001 A              STW,R1   KCCP,R7        SET CUR CHAR POSTION = 0
183*  01 00029  6AB00050                BAL,SR4  GKIFLD         GET 1ST FIELD OF KEYIN
184*  01 0002A  69800066                BCS,8    KEYERR         CHECK IF A LEGAL FIELD
185*                                    *
186*  01 0002B  321E0005 A              LW,R1    KPLB,R7        (R1) = 1ST 4 CHAR OF FIELD
187*  01 0002C  22300031 A              LI,R3    NKEYINS        (R3) = NO. OF KEYINS
188*  01 0002D  31160000 02 KEYINA      CW,R1    KITBL,R3
189*  01 0002E  68360000 03             BE       KIJMPTBL,R3    GO TO APPROPRIATE ROUTINE
190*  01 0002F  6430002D                BDR,R3   KEYINA
191*  01 00030  322E0005 A              LW,R2    KPLB,R7
192*  01 00031  323E0006 A              LW,R3    KPLB+1,R7
193*  01 00032  72100001 A              LB,R1    R1             CHECK IF SYMBIONT KEYIN
194*  01 00033  211000E2 A              CI,R1    'S'
195*  01 00034  6830046B                BE       SKIN
196*  01 00035  68000066                B        KEYERR
```

```
197*                                               PAGE
232   01 00036    F5840007 A   GKIFLD1   STB,SR1   *R7,R2              CHAR TO BFR
233   01 00037    358E0002 A             STW,SR1   KFLAGS,R7           BLNK ACTIVE
234   01 00038    20200001 A             AI,R2     K1
248        01 00039            NXKICHR   EQU       $
250                            ************************************************************************
251                            *F*       NAME:     NXKICHR
252                            *F*
253                            *F*       PURPOSE:  TO OBTAIN THE NEXT CHARACTER OF KEYIN INPUT,
254                            *F*                 CONDITIONALLY SKIPPING BLANKS, AND TO FLAG
255                            *F*                 DELIMITERS.
256                            *F*
257                            *F*       DESCRIPTION:  RETURNS TO THE CALLER THE NEXT CHARACTER IN THE
258                            *F*                 KEYIN BUFFER AND INCREMENTS THE CURRENT CHARACTER
259                            *F*                 POSITION IN THE KEYIN PARAMETER LIST.
260                            ************************************************************************
  1*                           *D*       NAME:     NXKICHR
  2*                           *D*
  3*                           *D*       CALL:     BAL,SR4(R11)
  4*                           *D*
  5*                           *D*       INPUT:    R7 = ADR OF KEYIN PARAMETER LIST
  6*                           *D*
  7*                           *D*       OUTPUT:   SR1(R8) = NEXT CHARACTER FROM KEYIN BUFFER (KEYINBUF)
  8*                           *D*                 CC1 = 1      IF THE CHARACTER IS A DELIMITER
  9*                           *D*                 CURRENT CHARACTER POSITION (KCCP) IS INCREMENTED
 10*                           *D*
 11*                           *D*       REGISTERS:  R3 & R4 ARE VULNERABLE
 12*                           *D*
 13*                           *D*       ENVIRONMENT:  MASTER/MAPPED
 14*                           *D*
 15*                           *D*       DESCRIPTION:  RETURNS TO THE CALLER THE NEXT CHARACTER IN THE
 16*                           *D*                 KEYIN BUFFER AND INCREMENTS THE CURRENT CHARACTER
 17*                           *D*                 POSITION (KCCP) IN THE KEYIN PARAMETER LIST.  BLANK
 18*                           *D*                 CHARACTERS WILL BE SKIPPED IF KFLAGS IS ZERO.
 19*                           ************************************************************************
261                            *
262   01 00039    323E0001 A             LW,R3     KCCP,R7             (R3) = CUR CHAR POSITION
```

```
01 0003A   21300048 A              CI,R3      72              SIZE OF KEYIN BUFFER
01 0003B   6910003F                BL         NXKICHR5        COUNT UP TO IT
01 0003C   22800026 A              LI,SR1     KEOB
01 0003D   02200080 A   NXKICHR4   LCI        K8              DELIM, SET CC1
01 0003E   F800000B A              B          *SR4
01 0003F                NXKICHR5   RES        0
01 0003F   324E0003 A              LW,R4      KBUF,R7         (R4) = ADR OF KEYIN BUFFER
01 00040   F2860004 A              LB,SR1     *R4,R3          PICK UP NEXT CHAR
01 00041   21800015 A              CI,SR1     KCRET           CHECK IF A CARRIAGE RETURN
01 00042   6830003D                BE         NXKICHR4
01 00043   331E0001 A              MTW,1      KCCP,R7         SET  CCP =CCP+1
01 00044   21800040 A              CI,SR1     KBLANK          CHECK IF CHAR IS A BLANK
01 00045   69300048                BNE        NXKICHR2
01 00046   323E0002 A              LW,R3      KFLAGS,R7       CHECK IF BLANK IS ACTIVE
01 00047   68300039                BEZ        NXKICHR
                        *
         01 00048       NXKICHR2   EQU        $
01 00048   F2300007 A              LB,R3      *R7             (R3) = NO. OF DELIM
01 00049   324E0000 A              LW,R4      0,R7            BA(DELIMITERS)
         01 0004A       NXKICHR3   EQU        $
01 0004A   71880000 A              CB,SR1     0,R4            CHECK IF CHAR IS A DELIMITER
01 0004B   6830003D                BE         NXKICHR4
01 0004C   20400001 A   NXKICHR31  AI,R4      1               NEXT INDEX
01 0004D   6430004A                BDR,R3     NXKICHR3
01 0004E   02200000 A   NXKICHR32  LCI        0               NORMAL RETURN
01 0004F   F800000B A              B          *SR4
                        *
```

```
                                      PAGE
        01 00050          GKIFLD      EQU       $
                          ***********************************************************************
                          *F*         NAME:     GKIFLD
                          *F*
                          *F*         PURPOSE: TO ACQUIRE THE NEXT FIELD FROM THE KEYIN BUFFER.
                          *F*
                          *F*         DESCRIPTION:  MOVES THE NEXT FIELD (<= 12 CHARACTERS) FROM THE
                          *F*                   KEYIN BUFFER TO THE FIELD BUFFER OF THE KEYIN
                          *F*                   PARAMETER LIST AND INITIALIZES THE FIELD LENGTH IN TH
                          *F*                   KEYIN PARAMETER LIST.
                          ***********************************************************************
                          *D*         NAME:     GKIFLD
                          *D*
                          *D*         CALL:     BAL,SR4(R11)
                          *D*
                          *D*         INPUT:    R7 = ADR OF KEYIN PARAMETER LIST
                          *D*
                          *D*         OUTPUT:   SR1(R8) = DELIMITER CHARACTER THAT TERMINATES FIELD
                          *D*                   CC1 = 1    IF 1 > FIELD LENGTH > 12
                          *D*                   KFL = FIELD LENGTH
                          *D*                   KPLB= NEXT FIELD FROM KEYINBUF, LEFT-JUSTIFIED WITH
                          *D*                         TRAILING BLANKS
                          *D*
                          *D*         REGISTERS:  R0 THRU R2 ARE VULNERABLE
                          *D*
                          *D*         INTERFACE:  NXKICHR
                          *D*
                          *D*         ENVIRONMENT:  MASTER/MAPPED
                          *D*
                          *D*         DESCRIPTION:  MOVES THE NEXT FIELD (<= 12 CHARACTERS) FROM THE
                          *D*                   KEYIN BUFFER TO THE FIELD BUFFER OF THE KEYIN
                          *D*                   PARAMETER LIST (KPLB) AND INITIALIZES THE FIELD LENGT
                          *D*                   IN THE KEYIN PARAMETER LIST (KFL).  LEADING BLANKS AR
                          *D*                   SUPPRESSED BY SETTING KFLAGS TO ZERO PRIOR TO CALLING
                          *D*                   NXKICHR.
                          ***********************************************************************
```

```
                                            *
01 00050    09B00000 N                                PUSH     SR4
01 00051    32200000 X                                LW,R2    BLANK
01 00052    352E0005 A                                STW,R2   KPLB,R7         FILL
01 00053    352E0006 A                                STW,R2   KPLB+1,R7           BUFFER
01 00054    352E0007 A                                STW,R2   KPLB+2,R7                WITH BLANKS
                                            *
01 00055    22100000 A                                LI,R1    K0
01 00056    351E0002 A                                STW,R1   KFLAGS,R7       SET BLANK NOT ACTIVE
01 00057    2200000D A                                LI,R0    KMAXKIFL+1      (R0) = MAX KEYIN FIELD LENGTH+1
01 00058    22200014 A                                LI,R2    BAKPLB
01 00059    6AB00039                                  BAL,SR4  NXKICHR         GET NEXT KEYIN CHAR
01 0005A    6980005D                                  BCS,8    GKIFLD3         BRANCH IF A DELIMITER
01 0005B    64000036                                  BDR,R0   GKIFLD1
01 0005C    6800005F                                  B        GKIFLD4         FIELD IS MORE THAN 12CHAR LONG
                                            *
          01 0005D                          GKIFLD3   EQU      $
01 0005D    21200014 A                                CI,R2    BAKPLB          CHK 0 LNGTH FLD
01 0005E    69300060                                  BNE      GKIFLD5         BRANCH IF NOT
          01 0005F                          GKIFLD4   EQU      $
01 0005F    49000020 N                                BR,R0    Y8
          01 00060                          GKIFLD5   EQU      $
01 00060    202FFFEC A                                AI,R2    -BAKPLB
01 00061    352E0004 A                                STW,R2   KFL,R7          FIELD LENGTH
01 00062    351E0002 A                                STW,R1   KFLAGS,R7       SET BLANK NOT ACTIVE
01 00063    08B00000 N                                PULL     SR4
01 00064    70200000 A                                LC       R0
01 00065    F800000B A                                B        *SR4            EXIT
```

```
                                         PAGE
          01 00066              KEYERR   EQU      $
                                ************************************************************************
                                *F*      NAME:    KEYERR
                                *F*
                                *F*      PURPOSE: TO OUTPUT AN ERROR MESSAGE ON OC, RE-TRIGGER THE
                                *F*               CONTROL TASK, AND EXIT.
                                *F*
                                *F*      DESCRIPTION:  OUTPUTS EITHER 'EH' (IF CALL IS TO KEYERR) OR
                                *F*               'LATER' (IF CALL IS TO  KEYERR1), RE-TRIGGERS THE
                                *F*               CONTROL TASK SO THE KEYIN MAY BE RE-TRIED, AND EXITS
                                *F*               (KEYINR) TO STEP VIA T:DELUS.
                                ************************************************************************
                                *D*      NAME:    KEYERR
                                *D*
                                *D*      ENTRY:   KEYERR1,KEYINR
                                *D*
                                *D*      CALL:    DIRECT BRANCH FOR EXIT FROM KEYIN OVERLAY
                                *D*
                                *D*      INTERFACE:  OCQUEUE, CTRIG, T:DELUS
                                *D*
                                *D*      DESCRIPTION:  OUTPUTS EITHER OF TWO MESSAGES VIA OCQUEUE:
                                *D*               'EH' (IF CALL IS TO KEYERR) OR 'LATER' (IF CALL IS TO
                                *D*               KEYERR1)!  THE CONTROL TASK IS RETRIGGERED VIA A CALL
                                *D*               TO CTRIG (SO THE KEYIN MAY BE RE-TRIED);  FINALLY,
                                *D*               EXIT IS MADE BY CALLING T:DELUS.
                                ************************************************************************
                                *
     01 00066       22100004 A           LI,1     4
     01 00067       68000069             B        $+2
          01 00068              KEYERR1  EQU      $
     01 00068       22100003 A           LI,1     3                 MESSAGE CODE FOR 'LATER'
     01 00069       22700000 A           LI,7     0                 CANNED MESSAGE CODE
     01 0006A       6AB00000 X           BAL,11   OCQUEUE           OUTPTUT MESSAGE
                                ************************************************************************
                                *O*      MESSAGE: EH
                                *O*
```

```
 4*                          *0*      MEANING: UNRECOGNIZED OPERATOR KEYIN SYNTAX
 5*                          *0*
 6*                          *0*      ACTION:  RE-TRY THE KEYIN
 7*                          *0*****************************************************************
 8*                          *0*      MESSAGE: LATER
 9*                          *0*
10*                          *0*      MEANING: EITHER THE SYSTEM IS UNABLE TO PROCESS THE OPERATOR
11*                          *0*               KEYIN AT THIS TIME OR, IN RESPONSE TO A 'REQUEST'
12*                          *0*               KEYIN, THE REQUESTED UNIT IS IN USE.
13*                          *0*
14*                          *0*      ACTION:  RE-TRY THE KEYIN (SPECIFYING A DIFFERENT UNIT IF THIS
15*                          *0*               WAS A 'REQUEST' KEYIN).
16*                          *****************************************************************
363                          *
364   01 0006B  32800019 N            LW,8     Y01              TRIGGER ANOTHER COPY
365   01 0006C  6AB00000 X            BAL,11   CTRIG            OF KEYIN
366                          *
367        01 000AD          KEYINR   EQU      $
369   01 0006D  68000000 X            B        T:DELUS          EXIT TO STEP LOGS SELF OFF
```

```
                                     PAGE
            01 0006E         KOBF    EQU       $
                             ******************************************************************************
                             *F*     NAME:     KOBF
                             *F*
                             *F*     PURPOSE:  TO PROCESS THE 'OBOFF' KEYIN.
                             *F*
                             *F*     DESCRIPTION:  INCREMENTS SSTAT.
                             ******************************************************************************
                             *
   01 0006E    73100000 X            MTB,1     SSTAT
   01 0006F    6800006D              B         KEYINR
                             *
                             *
                             *
            01 00070         KOBN    EQU       $
                             ******************************************************************************
                             *F*     NAME:     KOBN
                             *F*
                             *F*     PURPOSE:  TO PROCESS THE 'OBON' KEYIN.
                             *F*
                             *F*     DESCRIPTION:  ZEROES SSTAT.
                             ******************************************************************************
                             *
   01 00070    22600000 A            LI,R6     0
   01 00071    75600000 X            STB,R6    SSTAT
   01 00072    6800006D              B         KEYINR
```

```
                                     PAGE
       01 00073            ENTINT    EQU       $
                           ***********************************************************************
                           *F*       NAME:     ENTINT
                           *F*
                           *F*       PURPOSE:  TO PROCESS THE 'INT' KEYIN.
                           *F*
                           *F*       DESCRIPTION:  VALIDATES SPECIFIED SYSID OR GHOST JOB NAME/
                           *F*                 ACCOUNT AND REPORTS AN E:CBK EVENT ON THE USER.
                           ***********************************************************************
                           *
 01 00073   22600000 A               LI,6      0
 01 00074   35600000 X               STW,6     J:CCBUF
 01 00075   22600000 N               LI,6      E:CBK
 01 00076   6800007C                 B         KIERROR1
                           *
                           *
                           *
       01 00077            KIABORT   EQU       $
                           ***********************************************************************
                           *F*       NAME:     KIABORT
                           *F*
                           *F*       PURPOSE:  TO PROCESS THE 'ABORT' AND 'X' KEYINS.
                           *F*
                           *F*       DESCRIPTION:  VALIDATES SPECIFIED SYSID OR GHOST JOB NAME/
                           *F*                 ACCOUNT AND REPORTS AN E:ABRT EVENT ON THE USER.
                           ***********************************************************************
                           *
 01 00077   22600000 N               LI,6      E:ABRT            ABORT EVENT
 01 00078   35600000 X               STW,6     J:CCBUF
 01 00079   6800007C                 B         KIERROR1
                           *
                           *
                           *
       01 0007A            KIERROR   EQU       $
                           ***********************************************************************
                           *F*       NAME:     KIERROR
```

```
629                    *F*
630                    *F*      PURPOSE: TO PROCESS THE !ERROR; AND !E; KEYINS.
631                    *F*
632                    *F*      DESCRIPTION:  VALIDATES SPECIFIED SYSID OR GHOST JOB NAME/
633                    *F*                ACCOUNT AND REPORTS AN E!ERR EVENT ON THE USER.
634                    ********************************************************************
  1*                   *D*      NAME:     KIERROR
  2*                   *D*
  3*                   *D*      ENTRY:    KIABORT, ENTINT
  4*                   *D*
  5*                   *D*      CALL:     KEYIN FORMAT:  --      --
  6*                   *D*                               |       |
  7*                   *D*                               ||ERROR||
  8*                   *D*                               ||E     || --            --
  9*                   *D*                               |       |  |SYSID         |
 10*                   *D*                               |       |, |NAME,         |
 11*                   *D*                               ||ABORT||  |NAME,ACCOUNT|
 12*                   *D*                               ||X     || --            --
 13*                   *D*                               |       |
 14*                   *D*                               | INT   |
 15*                   *D*                               --      --
 16*                   *D*
 17*                   *D*      INPUT:    R7 = ADR OF KEYIN PARAMETER LIST
 18*                   *D*                PLH:SID
 19*                   *D*                S:GJOBTBL
 20*                   *D*                S:GJOBACN
 21*                   *D*                SB:GJOBUN
 22*                   *D*
 23*                   *D*      OUTPUT:   NONE
 24*                   *D*
 25*                   *D*      REGISTERS:  ALL ARE VULNERABLE
 26*                   *D*
 27*                   *D*      INTERFACE:  GKIFLD, CVSYSID, GETUSER#, T:RUE
 28*                   *D*
 29*                   *D*      ENVIRNMENT:  MASTER/MAPPED
 30*                   *D*
 31*                   *D*      DESCRIPTION:  GKIFLD IS CALLED TO OBTAIN THE SPECIFIED SYSID
```

```
                                       *D*            OR GHOST JOB NAME.  IF A SYSID WAS SPECIFIED, CVSYSID
                                       *D*            IS CALLED TO CONVERT IT TO HEX.  IF THIS IS AN 'INT'
                                       *D*            KEYIN THE PARTITION TABLES AND GHOST JOB TABLES
                                       *D*            ARE SCANNED TO VERIFY THAT THE SYSID BELONGS TO AN
                                       *D*            ACTIVE BATCH OR GHOST JOB.  IF A GHOST JOB NAME WAS
                                       *D*            SPECIFIED (IE., DELIMITER IS A '.'), GKIFLD IS CALLED
                                       *D*            AGAIN TO OBTAIN THE ACCOUNT (IF SPECIFIED) AND THE
                                       *D*            NAME/ACCOUNT IS VALIDATED VIA THE GHOST JOB TABLES.
                                       *D*            IN EITHER CASE, GETUSER# IS CALLED TO CONVERT THE
                                       *D*            SYSID TO A USER # AND TIRUE IS CALLED TO REPORT ONE O
                                       *D*            THE FOLLOWING EVENTS:
                                       *D*                 E:ERR   (IF 'ERROR'/'E' KEYIN)
                                       *D*                 E:ABRT  (IF 'ABORT'/'X' KEYIN)
                                       *D*                 E:CBK   (IF 'INT' KEYIN)
                                       *********************************************************************
                                       *
01 0007A    22600000 N                           LI,6      E:ERR                ERROR EVENT
01 0007B    35600000 X                           STW,6     J:CCBUF
       01 0007C                        KIERROR1  EQU       $
01 0007C    331E0000 A                           MTW,1     0,7                  REMOVE ':' AS DELIMITER
01 0007D    F3F00007 A                           MTB,-1    *7
01 0007E    6AB00050                             BAL,11    GKIFLD               GET ID OR GHOST NAME
01 0007F    69800066                             BCS,8     KEYERR
01 00080    2180004B A                           CI,8      '.'                  GHOST NAME
01 00081    68300098                             BE        GNAME
01 00082    6AB00000 X                           BAL,11    CVSYSID              CONVERT TO HEX IN R2
01 00083    69800066                             BCS,8     KEYERR
                                       *
01 00084    33000000 X                           MTW,0     J:CCBUF
01 00085    6930008F                             BNEZ      KIER15
01 00086    22700000 N                           LI,7      LPART
01 00087    512E0000 X                 KIER12    CH,2      PLH:SID,7
01 00088    6830008F                             BE        KIER15
01 00089    64700087                   KIER13    BDR,7     KIER12
                                       *                                        CHECK FOR GHOST JOB
01 0008A    22700000 N                           LI,7      MAXG
01 0008B    712E0000 X                           CB,2      SB:GJOBUN,7
```

```
01 0008C  6830008F              BE       KIER15
01 0008D  6470008B              BDR,7    $-2
01 0008E  68000066              B        KEYERR
   01 0008F           KIER15    EQU      $
01 0008F  21200000 N            CI,2     MING          DONT ZAP KEYN,ALLOCAT,RBBAT
01 00090  69100066              BL       KEYERR
01 00091  32900006 A            LW,9     6
01 00092  32600002 A            LW,6     2
01 00093  6A700000 X            BAL,7    GETUSER#      GET ACTIVE USER #
01 00094  68000066              B        KEYERR
01 00095  32600009 A            LW,6     9
01 00096  6AB00000 X            BAL,11   T:RUE         REPORT ERROR OR ABORT EVENT
01 00097  6800006D              B        KEYINR
   01 00098           GNAME     EQU      $
01 00098  32CE0005 A            LW,12    KPLB,7        GHOST NAME
01 00099  32DE0006 A            LW,13    KPLB+1,7
01 0009A  25C00178 A            SLD,12   -8            MAKE ROOM FOR COUNT
01 0009B  322E0004 A            LW,2     KFL,7         COUNT
01 0009C  21200007 A            CI,2     7             GHOST NAMES MUST BE 7 OR LESS
01 0009D  69200066              BG       KEYERR
01 0009E  7520000C A            STB,2    12            TEXTC
01 0009F  12E00000 X            LD,14    SYSACCT       ASSUME :SYS
01 000A0  6AB00050              BAL,11   GKIFLD        GET ACCOUNT
01 000A1  322E0004 A            LW,2     KFL,7         COUNT
01 000A2  683000A9              BEZ      DEFAULTGACN   USE DEFAULT
01 000A3  21200008 A            CI,2     8             ACCOUNT MUST BE 8 OR LESS
01 000A4  69200066              BG       KEYERR
01 000A5  21800015 A            CI,8     X'15'         CR
01 000A6  69300066              BNE      KEYERR
01 000A7  32EE0005 A            LW,14    KPLB,7        ACCOUNT
01 000A8  32FE0006 A            LW,15    KPLB+1,7
   01 000A9           DEFAULTGACN EQU    $
01 000A9  22200000 N            LI,2     MAXG          SIGJOBTBL SIZE
01 000AA  6D000037 A            DISABLE
   01 000AB           CHKGNAME  EQU      $
01 000AB  11C40000 X            CD,12    SIGJOBTBL,2
01 000AC  683000B0              BE       CHKGACN       MATCH; CHECK ACCOUNT
```

```
695          01 000AD           CONTUGSRCH EQU      $
696    01 000AD   642000AB                 BDR,2    CHKGNAME          NO MATCH; CONTINUE
697    01 000AE   6D000027 A               ENABLE
698    01 000AF   68000066                 B        KEYERR            NO SUCH GHOST
699          01 000B0           CHKGACN    EQU      $
700    01 000B0   11E40000 X               CD,14    SIGJOBACN,2
701    01 000B1   693000AD                 BNE      CONTUGSRCH        WRONG ACCOUNT;CONTINUE SEARCH
702    01 000B2   72240000 X               LB,2     SBIGJOBUN,2       ID
703    01 000B3   6D000027 A               ENABLE
704    01 000B4   6800008F                 B        KIER15
```

```
                                      PAGE
          01 000B5          KISTART   EQU       $
                            *******************************************************************
                            *F*       NAME:     KISTART
                            *F*
                            *F*       PURPOSE: TO PROCESS THE 'START' AND 'S' KEYINS.
                            *F*
                            *F*       DESCRIPTION:  CALLS T:BTSCHED TO GOOSE RBBAT.
                            *******************************************************************
                            *
     01 000B5   22000000 A            LI,R0     0
     01 000B6   6AB00000 X            BAL,11    T:BTSCHED
     01 000B7   6800006D              B         KEYINR            EXIT
```

```
                                                          PAGE
          01 000B8                          KIDELT        EQU         $
                                            *******************************************************************************
                                            *F*           NAME:       KIDELT
                                            *F*
                                            *F*           PURPOSE: TO DRIVE TO EXECUTIVE DELTA VIA AN OPERATOR KEYIN
                                            *F*
                                            *F*           DESCRIPTION:  SIMULATES AN EXU OF X'4E' WITH THE RETURN GOING
                                            *F*                       TO KEYINR.
                                            *******************************************************************************
                                            *
   01 000B8        128000BC                               LD,R8       DLTPSD
   01 000B9        9580004E A                             STD,R8      *X'4E'                SIMULATE AN XPSD INSTRUCTION
                                            *                                             SINCE DELTA WILL TAMPER WITH IT
   01 000BA        22100001 A                             LI,R1       1
   01 000BB        8E82004E A                             LPSD,8      *X'4E',R1             ***GO TO DELTA***
                                            *
                                            *
                                            *
                                                          BOUND       8
   01 000BC        0040006E N               DLTPSD        PSD         (IA,KEYINR+1),(WK,1),MAP,MASTER   DELTA WILL DECREMEN
                   10000000
                                            *                                                         INSTRUCTION ADR
```

```
                              PAGE      THIS CODE PROCESSES THE 'TASK'
   01 000BE          KIGJOB  EQU     $
                     ************************************************************
                     *F*     NAME:   KIGJOB
                     *F*
                     *F*     PURPOSE: TO PROCESS THE 'GJOB' KEYIN.
                     *F*
                     *F*     DESCRIPTION:  VALIDATES THE GHOST JOB NAME/ACCOUNT/RESOURCE AS
                     *F*             SPECIFIED AND CALLS T:GJOBSTRT OR T:GJOBR DEPENDING
                     *F*             UPON THE FORMAT OF THE KEYIN.
                     ************************************************************
                     *D*     NAME:   KIGJOB
                     *D*                                  **        ****          **
                     *D*     CALL:   KEYIN FORMAT:  GJOB NAME|.ACCOUNT||,RESOURCE=NAME|
                     *D*                                  **        ****          **
                     *D*     INPUT:  R7 = ADR OF KEYIN PARAMETER LIST
                     *D*             SV:RSIZ
                     *D*             SH:RNM
                     *D*
                     *D*     REGISTERS:  ALL ARE VULNERABLE
                     *D*
                     *D*     INTERFACE:  GKIFLD, T:GJOBR, T:GJOBSTRT, OCQUEUE
                     *D*
                     *D*     ENVIRONMENT:  MASTER/MAPPED
                     *D*
                     *D*     DESCRIPTION:  GKIFLD IS CALLED TO OBTAIN THE NAME (MUST BE <=
                     *D*             7 CHARACTERS AND /= 'KEYIN').  IF THE NAME'S DELIMITE
                     *D*             IS A CARRIAGE RETURN, T:GJOBSTRT IS CALLED.  OTHERWIS
                     *D*             GKIFLD IS CALLED TO OBTAIN THE ACCOUNT AND/OR RESOURC
                     *D*             AND T:GJOBR IS CALLED.  IF THE GHOST JOB WAS ALREADY
                     *D*             ACTIVE, OR WE WOKE HIM UP, OR THE GHOST JOB TABLES
                     *D*             WERE FULL, AN APPROPRIATE MESSAGE IS SENT TO THE
                     *D*             OPERATOR VIA OCQUEUE.
                     ************************************************************
                     *
01 000BE   331E0000 A        MTW,1   0,R7            REMOVE ':' AS DELIMITER
01 000BF   F3F00007 A        MTB,-1  *R7
```

```
755   01 000C0  6AB00050          BAL,11   GKIFLD   GET TASK NAME
756   01 000C1  69800066  KIGJ0B1 BCS,8    KEYERR   ERROR RETURN TO USER
757                       *
758   01 000C2  32AE0004 A        LW,10    KFL,7    #
759   01 000C3  21A00007 A        CI,10    7        NAME17
760   01 000C4  69200066          BG       KEYERR
761                       *
762   01 000C5  320E0005 A        LW,0     KPLB,7   GET TASK NAME FROM BUFFER
763   01 000C6  321E0006 A        LW,1     KPLB+1,7
764   01 000C7  1100000A          CD,0     KEYINQ
765   01 000C8  68300066          BE       KEYERR   DONT START OURSELF
766   01 000C9  25000178 A        SLD,R0   =8       POSITION FOR BYTE
767   01 000CA  75A00000 A        STB,R10  R0       COUNT INSERTION
768   01 000CB  21800015 A        CI,R8    X'15'    FIELD TERMINATE ON NEW LINE
769   01 000CC  683000EA          BE       KIGJ0B5  YES - GO START :SYS GJOB
770   01 000CD  02200020 A        PUSH     2,R0     SAVE THE GJOB NAME
      01 000CE  0B000000 N
771   01 000CF  21800048 A        CI,R8    ',       IS THE DELIM A DOT
772   01 000D0  683000E2          BE       KIGJ0B4  YEP
773   01 000D1  12C00000 X        LD,R12   DOUBLEZERO ZAP ACN FIELD
774   01 000D2  21800068 A KIGJ0B2 CI,R8   ',       WANTS TO PASS A RESOURCE NAME
775   01 000D3  69300066          BNE      KEYERR   CANT FIGURE OUT WHAT TO DO HERE..
776   01 000D4  6AB00050          BAL,R11  GKIFLD   GET RESOURCCE FIELD
777   01 000D5  69800066          BCS,8    KEYERR   ERROR
778   01 000D6  32AE0005 A        LW,R10   KPLB,R7  GET RESOURCE NAME
779   01 000D7  25A00470 A        SAS,R10  =16      POSITION FOR SEARCH
  1*  01 000D8  22200000 N        LI,R2    SVIRSIZ
781   01 000D9  51A40000 X        CH,R10   SHIRNM,R2 FIND NAME IN TABLES
782   01 000DA  683000DD          BE       KIGJ0B3
783   01 000DB  642000D9          BDR,R2   $-2
784   01 000DC  68000066          B        KEYERR   INVALID INPUT
785         01 000DD        KIGJ0B3 EQU    $
786   01 000DD  02200020 A        PULL     2,R0     RESTORE GJOB TEXTC NAME FROM STACK
      01 000DE  0A000000 N
787   01 000DF  6AA00000 X        BAL,R10  TIGJ0BR  AND START THE GHOST UP
788   01 000E0  68F0006D          BCR,15   KEYINR   NORMAL RETURN
789   01 000E1  680000EC          B        KIGJ0B6
```

```
790                                     *
791                                     *       GATHER ACCOUNT NUMBER PASSED
792                                     *
793          01 000F2                   KIGJ0B4 EQU     $
794    01 000E2    6AB00050                    BAL,R11 GKIFLD          GET FIELD
795    01 000E3    69800066                    BCS,8   KEYERR          ERROR RETURN
796    01 000E4    02200020 A                  LCI     2
797    01 000E5    2ACE0005 A                  LM,R12  KPLB,R7         GET ACCOUNT NUMBER FROM BUFFER
798    01 000E6    22200000 A                  LI,R2   0               RESET INDEX FLAG FOR TIOV
799    01 000E7    21800015 A                  CI,R8   X'15'          FIELD TERMINATE ON NEWLINE
800    01 000E8    683000DD                    BE      KIGJ0B3         YES - GO START THE GHOST
801    01 000E9    680000D2                    B       KIGJ0B2         NO - GO EXAMINE FOR RESOUCE NAME
802          01 000FA                   KIGJ0B5 EQU     $
803    01 000EA    6AA00000 X                  BAL,R10 TIGJOBSTRT      START ;SYS GHOST JOB
804    01 000EB    68F0006D                    BCR,15  KEYINR
805    01 000EC    74000000A A        KIGJ0B6  STCF    R10             SAVE CONDITION CODES FROM TIOV
806    01 000ED    221000F9                    LI,R1   GJOBUSY         ASSUMME GHOST ALREADY ACTIVE
807    01 000EE    22700000 A                  LI,R7   0               NO DCT TO TYPE OUT
808    01 000EF    7020000A A                  LC      R10             TEST ASSUMPTION
809    01 000F0    692000F7                    BCS,2   KIGJ0B7         TRUE
810    01 000F1    22100100                    LI,R1   GJOBWAKE        MAYBE WE WOKE IT UP THEN
811    01 000F2    7020000A A                  LC      R10             DID WE
812    01 000F3    694000F7                    BCS,4   KIGJ0B7         YES
813    01 000F4    22100105                    LI,R1   GJOBFULL        ONLY ONE LEFT
814    01 000F5    7020000A A                  LC      R10             ARE TH TABLES FULL
815    01 000F6    6880006D                    BCR,8   KEYINR          DONT KNOW WHAT TO SAY
816    01 000F7    6AB00000 X         KIGJ0B7  BAL,R11  QCQUEUE         WRITE OUT MESSAGE
  1*                                    ********************************************************************
  2*                                    *0*     MESSAGE: TASK CURRENTLY ACTIVE
  3*                                    *0*
  4*                                    *0*     MEANING: GJOB KEYIN REFERENCED A CURRENTLY-ACTIVE GHOST JOB
  5*                                    *0*
  6*                                    *0*     ACTION:  NONE
  7*                                    *0********************************************************************
  8*                                    *0*     MESSAGE: TASK AWAKENED
  9*                                    *0*
 10*                                    *0*     MEANING: GJOB KEYIN REFERENCED A SLEEPING GHOST JOB
```

```
 11*                                   *B*
 12*                                   *B*      ACTION:  NONE
 13*                                   *B**************************************************************
 14*                                   *B*      MESSAGE: TASK TABLES FULL
 15*                                   *B*
 16*                                   *B*      MEANING: GJOB KEYIN ATTEMPTED WHEN THE MAXIMUM POSSIBLE #
 17*                                   *B*               OF GHOST JOBS WERE ALREADY ACTIVE.
 18*                                   *B*
 19*                                   *B*      ACTION:  RE-TRY THE KEYIN LATER
 20*                                   ****************************************************************
 21*                                   *
818   01 000F8      6800006D                     B        KEYINR
819        01 000F9                    GJOBUSY   EQU      $
820   01 000F9       1B          A               DATA,1   GJOBUC,X'05',X'5C',X'5C'
      01 000F9 1     05          A
      01 000F9 2     5C          A
      01 000F9 3     5C          A
821   01 000FA      F3C1E2D2     A               TEXT     'TASK CURRENTLY ACTIVE'
      01 000FB      40C3E4D9     A
      01 000FC      D9C5D5E3     A
      01 000FD      D3E840C1     A
      01 000FE      C3E3C9E5     A
      01 000FF      C5404040     A
822        0000001B                    GJOBUC    EQU      BA($)-BA(GJOBUSY)-1
823        01 00100                    GJOBWAKE  EQU      $
824   01 00100       13          A               DATA,1   GJOBWC,X'05',X'5C',X'5C'
      01 00100 1     05          A
      01 00100 2     5C          A
      01 00100 3     5C          A
825   01 00101      F3C1E2D2     A               TEXT     'TASK AWAKENED'
      01 00102      40C1E6C1     A
      01 00103      D2C5D5C5     A
      01 00104      C4404040     A
826        00000013                    GJOBWC    EQU      BA($)-BA(GJOBWAKE)-1
827        01 00105                    GJOBFULL  EQU      $
828   01 00105       13          A               DATA,1   GJOBFC,X'05',X'5C',X'5C'
      01 00105 1     05          A
```

```
      01 00105 2  5C          A
      01 00105 3  5C          A
829   01 00106    F3C1E2D2    A               TEXT      'TASK TABLES FULL'
      01 00107    40E3C1C2    A
      01 00108    D3C5E240    A
      01 00109    C6E4D3D3    A
830         00000013          GJ9BFC    EQU       BA(*)-BA(GJ8BFULL)+1
```

```
                                        PAGE
         01 0010A            KIFDOWN    EQU      $
                             ************************************************************************
                             *F*        NAME:    KIFDOWN
                             *F*
                             *F*        PURPOSE: TO PROCESS THE 'ZAP' KEYIN.
                             *F*
                             *F*        DESCRIPTION:  FORCES ALL USERS OFF BY REPORTING AN E:ABRT EVEN
                             *F*                 ON EACH ACTIVE USER (EXCEPT SYSTEM GHOSTS); SETS
                             *F*                 S:OUAIS AND S:BUAIS  TO ZERO; SIMULATES AN 'RBX' KEYI
                             *F*                 IF REMOTE BATCH IS ACTIVE AND SIMULATES AN 'XCPU'
                             *F*                 KEYIN IF THIS IS A MULTI-PROCESSING SYSTEM.
                             ************************************************************************
                             *
01 0010A      225FFFFE A                LI,5     -2
01 0010B      35500000 X                STW,5    GOODNGT               ***SAVE SYMB FILES
01 0010C      22500000 N                LI,5     SMUIS
01 0010D      22600000 N                LI,6     E:ABRT                ABORT CODE
         01 0010E            ZAP10      EQU      $
01 0010E      720A0000 X                LB,0     UB:US,5
01 0010F      21000000 N                CI,0     SNULL
01 00110      68300116                  BE       ZAP20
                             *
01 00111      215FFFFF N                CI,5     MING-1                (SMK) CHECK FOR KEYN,ALLOCAT,RBBAT
01 00112      68200116                  BLE      ZAP20                 (DON'T WANT TO ZAP EITHER)
                             *
01 00113      09500000 N                PUSH     5
01 00114      6AB00000 X                BAL,11   T:RUE                 ABORT HIM
01 00115      08500000 N                PULL     5
                             *
         01 00116            ZAP20      EQU      $
01 00116      6450010D                  BDR,5    ZAP10-1
                             *          B        KIGDOWN               FALL THRU TO 'OFF' KEYIN
         01 00117            KIGDOWN    EQU      $
                             ************************************************************************
                             *F*        NAME:    KIGDOWN
                             *F*
```

```
                                *F*      PURPOSE: TO PROCESS THE 'OFF' KEYIN.
                                *F*
                                *F*      DESCRIPTION:  ZEROES S:OUAIS AND S:BUAIS; SIMULATES AN 'RBX'
                                *F*               KEYIN IF REMOTE BATCH IS ACTIVE AND SIMULATES AN
                                *F*               'XCPU' KEYIN IF THIS IS A MULTI-PROCESSING SYSTEM.
                                ***********************************************************************
                                *D*      NAME:    KIGDOWN
                                *D*
                                *D*      ENTRY:   KIFDOWN
                                *D*
                                *D*      CALL:    KEYIN FORMAT:  OFF      (KIGDOWN)
                                *D*                              ZAP      (KIFDOWN)
                                *D*
                                *D*      OUTPUT:  S:OUAIS = 0
                                *D*               S:BUAIS = 0
                                *D*               GOODNGT = -2 (IF 'ZAP')
                                *D*
                                *D*      REGISTERS:  ALL ARE VULNERABLE
                                *D*
                                *D*      INTERFACE:  T:RUE
                                *D*
                                *D*      ENVIRONMENT:  MASTER/MAPPED
                                *D*
                                *D*      DESCRIPTION:  S:OUAIS & S:BUAIS ARE SET TO ZERO; 'RBX' AND
                                *D*               'XCPU' KEYINS ARE SIMULATED IF APPROPRIATE;
                                *D*               ADDITIONALLY, IF WE ARE PROCESSING A 'ZAP' KEYIN,
                                *D*               ALL USERS ARE ABORTED VIA T:RUE  (E:ABRT), AND
                                *D*               GOODNGT IS SET TO '-2' AS A FLAG FOR SCHED TO
                                *D*               SCREECH AS SOON AS ALL USERS EXCEPT ALLOCAT & RBBAT
                                *D*               ARE OFF AND ALL SYMBIONT FILES HAVE BEEN PROCESSED.
                                ***********************************************************************
                                *
01 00117   22000000 A                    LI,0      0
01 00118   35000000 X                    STW,0     S:OUAIS
01 00119   35000000 X                    STW,0     S:BUAIS
01 0011A   22100000 N                    LI,1      NSCPU
01 0011B   6830011E                      BEZ       $+3
```

```
883   01 00011C   22300001 A    LI,3    1
884   01 00011D   6A0001B1      BAL,0   KXCPU2
885         00000001            DB      RBCBDE          IF RB SYSTEM ZAP INCLUDES IMPLICIT
886   01 00011E   22300000 N    LI,3    BFFBIT          RBX,
887   01 00011F   69300056F     BNEZ    KRBX1           !
888                             FIN                     !
889   01 000120   6800006D      B       KEYINR          IF NOT EXIT
```

```
                                     PAGE
          01 00121          KIGBUP   EQU      *
                            ****************************************************************
                            *F*      NAME:    KIGBUP
                            *F*
                            *F*      PURPOSE: TO PROCESS THE 'ONB' KEYIN
                            *F*
                            *F*      DESCRIPTION:  SETS S:BUAIS TO KEYED-IN VALUE AS LONG AS IT
                            *F*               DOES NOT CAUSE S:OUAIS+S:BUAIS+S:GUAIS TO EXCEED SMUI
                            ****************************************************************
                            *
 01 00121     33100000 X             MTW,1    J:CCBUF
 01 00122     68000127               B        KIGB
                            *
                            *
                            *
          01 00123          KIGUP    EQU      *
                            ****************************************************************
                            *F*      NAME:    KIGUP
                            *F*
                            *F*      PURPOSE: TO PROCESS THE 'ON' KEYIN
                            *F*
                            *F*      DESCRIPTION:  VERIFIES THAT COC IS PRESENT THEN SETS S:OUAIS T
                            *F*               KEYED-IN VALUE AS LONG AS IT DOES NOT CAUSE
                            *F*               S:OUAIS+S:BUAIS+S:GUAIS TO EXCEED SMUIS
                            ****************************************************************
                            *D*      NAME:    KIGUP
                            *D*
                            *D*      ENTRY:   KIGBUP
                            *D*                                  -- --
                            *D*      CALL:    KEYIN FORMAT:      |ON | X      (X = DECIMAL VALUE)
                            *D*                                  |ONB|
                            *D*                                  -- --
                            *D*
                            *D*      INPUT    R7 = ADR OF KEYIN PARAMETER LIST
                            *D*               S:BUAIS, S:OUAIS, S:GUAIS
                            *D*
```

```
                                    *D*     OUTPUT:  S:BUAIS = X    (IF ONB)
                                    *D*              S:OUAIS = X    (IF ON)
                                    *D*
                                    *D*     REGISTERS:  ALL ARE VULNERABLE
                                    *D*
                                    *D*     INTERFACE:  GKIFLD
                                    *D*
                                    *D*     ENVIRONMENT:  MASTER/MAPPED
                                    *D*
                                    *D*     DESCRIPTION:  VERIFIES THAT COC IS PRESENT ('ON' ONLY) AND
                                    *D*              THEN SETS S:BUAIS (IF 'ONB') OR S:OUAIS (IF 'ON')
                                    *D*              TO THE SPECIFIED VALUE.
                                    ***********************************************************************
                                    *
01 00123  22100000 N                        LI,R1    COC                 SEE IF NON-COC SYSTEM
01 00124  68300066                          BEZ      KEYERR              B/NOT ON-LINE SYSTEM
01 00125  22100000 A                        LI,1     0
01 00126  35100000 X                        STW,1    J:CCBUF
01 00127                            KIGB    RES      0
                                    *
01 00127  6AB00050                          BAL,11   GKIFLD              GET # ON-LINE USERS SPECIFIED
01 00128  69800066                          BCS,8    KEYERR
                                    *
01 00129  320E0005 A                        LW,0     KPLB,7              GET # ON-LINE USERS SPECIFIED
01 0012A  22100000 A                        LI,1     0
01 0012B  225FFFFC A                        LI,5     -4
01 0012C  723A0001 A                DCV20   LB,3     1,5
01 0012D  203FFF10 A                        AI,3     -X'F0'
01 0012E  68100132                          BGEZ     $+4
01 0012F  203000B0 A                        AI,3     -X'40'+X'F0'
01 00130  68300135                          BEZ      DCV30+1
01 00131  68000066                          B        KEYERR
01 00132  2310000A A                        MI,1     10
01 00133  30100003 A                        AW,1     3
01 00134  6550012C                  DCV30   BIR,5    DCV20
                                    *
01 00135  32200000 X                        LW,2     S:BUAIS                 TOT BAT AND ON LINE USERS
```

```
941   01 00136   33000000 X          MTW,0   J;CCBUF
942   01 00137   68300139            BEZ     *+2
943   01 00138   32200000 X          LW,2    SIBUAIS
944   01 00139   30200001 A          AW,2    1
945   01 0013A   30200000 X          AW,2    SIGUAIS
946   01 0013B   21200000 N          CI,2    SMUIS
947   01 0013C   69200066            BG      KEYERR
948   01 0013D   33000000 X          MTW,0   J;CCBUF
  1*  01 0013E   68300143            BEZ     KIG1
  2*  01 0013F   21100000 N          CI,1    LPART
  3*  01 00140   69200066            BG      KEYERR
950   01 00141   35100000 X          STW,1   SIBUAIS
951   01 00142   68000144            B       *+2
  1*  01 00143   35100000 X  KIG1    STW,1   SIBUAIS
955   01 00144   6800006D            B       KEYINR
```

ALLOWED MAY NOT EXCEED TOTAL

```
956                                     PAGE
957   01 00145                  KDIAG   RES     0
958                                     ********************************************************************
959                                     *F*     NAME:   KDIAG
960                                     *F*
961                                     *F*     PURPOSE: TO PROCESS THE 'DIAG' KEYIN
962                                     *F*
963                                     *F*     DESCRIPTION:  STORES THE USER # ASSOCIATED WITH THE SPECIFIED
964                                     *F*             SYSID INTO DID
965                                     ********************************************************************
  1*                                    *D*     NAME:   KDIAG
  2*                                    *D*
  3*                                    *D*     CALL:   KEYIN FORMAT:  DIAG SYSID
  4*                                    *D*
  5*                                    *D*     INPUT:  R7 = ADR OF KEYIN PARAMETER LIST
  6*                                    *D*
  7*                                    *D*     OUTPUT: DID = USER # OF SPECIFIED USER
  8*                                    *D*
  9*                                    *D*     REGISTERS:  ALL ARE VULNERABLE
 10*                                    *D*
 11*                                    *D*     INTERFACE:  GKIFLD, CVSYSID, GETUSER#
 12*                                    *D*
 13*                                    *D*     ENVIRONMENT:  MASTER/MAPPED
 14*                                    *D*
 15*                                    *D*     DESCRIPTION:  CALLS GKIFLD TO GET THE SPECIFIED SYSID, CALLS
 16*                                    *D*             CVSYSID TO CONVERT IT FROM EBCDIC TO HEX; CALLS
 17*                                    *D*             GETUSER# TO GET CORRESPONDING USER #, AND FINALLY
 18*                                    *D*             STORES USER # INTO THE DIAGNOSTIC ID CELL (DID).
 19*                                    ********************************************************************
966                                     *
967   01 00145  21800040 A              CI,8    ' '             CHECK FOR LEGAL DELIMITER
968   01 00146  68300148                BE      KDIAG1          LEGAL
969   01 00147  68000066                B       KEYERR          NOT LEGAL, ERROR
970   01 00148                  KDIAG1  RES     0
971   01 00148  6AB00050                BAL,11  GKIFLD          GET ID
972   01 00149  69800066                BCS,8   KEYERR
973   01 0014A  6AB00000 X              BAL,11  CVSYSID         CONVERT TO HEX IN R2
```

```
974   01 00014B   698000066          BCS,8    KEYERR
975   01 00014C   326000002 A        LW,R6    R2
976   01 00014D   6A7000000 X        BAL,R7   GETUSER#    ****  GET USER #
977   01 00014E   6800000 66         B        KEYERR             ABN RETURN, NO FND
978   01 00014F   355000000 X        STW,R5   DID                SAVE 0,G,OR B USER #
980   01 000150   68000006D          B        KEYINR             NORMAL EXIT
```

```
                                             PAGE
            01 00151              KISEND     EQU       $
                                  ***********************************************************************
                                  *F*        NAME:     KISEND
                                  *F*
                                  *F*        PURPOSE: TO PROCESS THE 'SEND' KEYIN
                                  *F*
                                  *F*        DESCRIPTION:  INITIATES THE PIGEON GHOST WHICH WILL TRANSMIT
                                  *F*                  THE MESSAGE TO ALL USERS OR TO A SPECIFIC USER AS
                                  *F*                  INDICATED.
                                  ***********************************************************************
                                  *D*        NAME:     KISEND
                                  *D*                                            *     *
                                  *D*        CALL:     KEYIN FORMAT:  SEND,|ID  | MESSAGE
                                  *D*                                        |ALL|
                                  *D*                                            *     *
                                  *D*        INPUT:    R7 = ADR OF KEYIN PARAMETER LIST
                                  *D*                  COC
                                  *D*
                                  *D*        OUTPUT:   PUTS THE PIGEON GHOST INTO EXECUTION IF THERE IS ANY
                                  *D*                  MESSAGE TO TRANSMIT; IF 'ALL' WAS SPECIFIED, A
                                  *D*                  'HEADING' KEYIN IS SIMULATED.
                                  *D*
                                  *D*        REGISTERS:  ALL ARE VULNERABLE
                                  *D*
                                  *D*        INTERFACE:  GKYFLD, T:GJOBSTRT, KINOHDR, KIMVHDR
                                  *D*
                                  *D*        ENVIRONMENT:  MASTER/MAPPED
                                  *D*
                                  *D*        DESCRIPTION:  IF THIS IS A TIME-SHARING SYSTEM, AND A MESSAGE
                                  *D*                  WAS SPECIFIED, T:GJOBSTRT IS CALLED TO INITIATE THE
                                  *D*                  PIGEON.  ADDITIONALLY, IF 'ALL' WAS SPECIFIED, KIMVHD
                                  *D*                  IS CALLED TO SIMULATE A 'HEADING' KEYIN.
                                  ***********************************************************************
                                  *
 01 00151     22100000 N                     LI,R1     COC                IS THIS A T/S SYSTEM
 01 00152     68300066                       BEZ       KEYERR             NO
```

```
31*  01 00153   2180006B A          CI,R8    C',!          CHECK SYNTAX
32*  01 00154   69300066            BNE      KEYERR        ERROR
33*  01 00155   6AB00050            BAL,R11  GKIFLD       GET ID/'ALL'
34*  01 00156   69800066            BCS,8    KEYERR
35*  01 00157   321E0005 A          LW,R1    KPLB,R7
36*  01 00158   22200000 A          LI,R2    0             INITIALIZE FLAG: ASSUME ID
37*  01 00159   31100607            CW,R1    =C'ALL '      WAS 'ALL' SPECIFIED
38*  01 0015A   6930015C            BNE      KIS1          NO
39*  01 00158   22200001 A          LI,R2    1             YES...RE-INITIALIZE FLAG
40*                          KIS1   *
41*  01 0015C   21800015 A          CI,R8    X'15'         IS DELIMITER A 'CR'
42*  01 0015D   68340164            BE       KISTV1,R2     YES...TAKE APPROPRIATE ACTION
43*  01 0015E   09200000 N          PUSH     R2            NO....SAVE ID/'ALL' FLAG
44*  01 0015F   12000168            LD,R0    TPIGEON       TEXTC: PIGEON
45*  01 00160   6AA00000 X          BAL,R10  TIGJOBSTRT    START UP PIGEON
46*  01 00161   69F00068            BCS,15   KEYERR1       !LATER! IF PIGEON WAS ALREADY ACTIV
47*                                 *                      OR WE WERE UNABLE TO START IT UP.
48*  01 00162   08200000 N          PULL     R2            GET ID/'ALL' FLAG
49*  01 00163   68040166            B        KISTV2,R2     CONTINUE
50*                                 *
51*                                 *
52*                                 *
53*       01 00164                 KISTV1   EQU      $
54*  01 00164   6800006D            B        KEYINR        IF ID...MERELY EXIT
55*  01 00165   68000179            B        KINOHDR       IF 'ALL'...ZAP COCMESS
56*                                 *
57*       01 00166                 KISTV2   EQU      $
58*  01 00166   6800006D            B        KEYINR        IF ID...EXIT
59*  01 00167   6800016E            B        KIMVHDR       IF 'ALL'...MOVE MESSAGE TO COCMESS
60*                                 BOUND    8
61*  01 00168   06D7C9C7 A          TPIGEON  TEXTC    'PIGEON'
     01 00169   C5D6D540 A
```

```
                                   PAGE
         01 0016A        KIHEAD    EQU      $
                         ******************************************************************
                         *F*       NAME:    KIHEAD
                         *F*
                         *F*       PURPOSE: TO PROCESS THE 'HEADING' KEYIN
                         *F*
                         *F*       DESCRIPTION:  MOVES THE MESSAGE TEXT TO COCMES FOR SUBSEQUENT
                         *F*                TRANSMITTAL TO ALL ONLINE USERS BY THE COC ROUTINES I
                         *F*                THE TOP OF PAGE HEADING.
                         ******************************************************************
                         *D*       NAME:    KIHEAD
                         *D*
                         *D*       CALL:    KEYIN FORMAT:  HEADING (MESSAGE)
                         *D*
                         *D*       INPUT:   R7 = ADR OF KEYIN PARAMETER LIST
                         *D*                COC, KEYINBUF
                         *D*
                         *D*       OUTPUT:  COCMESS
                         *D*
                         *D*       REGISTERS:  ALL ARE VULNERABLE
                         *D*
                         *D*       ENVIRONMENT:  MASTER/MAPPED
                         *D*
                         *D*       DESCRIPTION:  IF NO MESSAGE WAS PROVIDED, BYTE 0 OF COCMESS
                         *D*                IS SET TO 0; OTHERWISE, UP TO 55 CHARACTERS OF THE
                         *D*                MESSAGE ARE MOVED FROM KEYINBUF TO COCMESS WITH BYTE
                         *D*                0 OF COCMESS SET AS THE BYTE COUNT.
                         ******************************************************************
                         *
   01 0016A   22100000 N           LI,R1    COC                 IS THIS A T/S SYSTEM
   01 0016B   68300066             BEZ      KEYERR              NO
   01 0016C   21800015 A           CI,R8    X'15'               IS DELIMITER A 'CR'
   01 0016D   68300179             BE       KINOHDR             YES...ZAP COCMESS
                         KIMVHDR   ;                            ENTER HERE FROM 'SEND' KEYIN ALSO
   01 0016E   222FFFC9 A           LI,R2    -55                 SET UP INDEX FOR COCMESS
   01 0016F   321E0001 A           LW,R1    KCCP,R7             GET CURRENT POSITION IN KEYINBUF
```

```
                                   KIH1      ;
01 00170   72020000 X                        LB,R0     KEYINBUF,R1        GET CHARACTER FROM MESSAGE
01 00171   21000015 A                        CI,R0     X'15'              IS IT 'CR'
01 00172   68300176                          BE        KIH2               YES...QUIT
01 00173   7504000E N                        STB,R0    C8CMESS+(56/4),R2  PUT IT AWAY IN C8CMESS
01 00174   20100001 A                        AI,R1     1                  INCREMENT KEYINBUF INDEX
01 00175   65200170                          BIR,R2    KIH1               GO GET NEXT CHARACTER
                                   KIH2      ;
01 00176   20200037 A                        AI,R2     55                 CALCULATE ACTUAL MESSAGE SIZE
01 00177   75200000 X                        STB,R2    C8CMESS            INITIALIZE BYTE CNT
01 00178   6800006D                          B         KEYINR             EXIT
                                   *
                                   *
                                   *
                                   KIN8HDR   ;                            DELETE CURRENT MESSAGE
01 00179   22000000 A                        LI,R0     0
01 0017A   75000000 X                        STB,R0    C8CMESS            ZAP BYTE 0
01 0017B   6800006D                          B         KEYINR
```

```
                                        PAGE
          01 0017C          KMCSEND     EQU      $
                            ****************************************************************
                            *F*         NAME:    KMCSEND
                            *F*
                            *F*         PURPOSE: TO PROCESS THE 'MCSEND' KEYIN
                            *F*
                            *F*         DESCRIPTION:  USES NEWQ TO SEND THE MESSAGE TO THE R.A.S.
                            ****************************************************************
                            *D*         NAME:    KMCSEND
                            *D*
                            *D*         CALL:    KEYIN FORMAT:  MCSEND TEXT
                            *D*
                            *D*         INPUT:   R7 = ADR OF KEYIN PARAMETER LIST
                            *D*                  KEYINBUF
                            *D*
                            *D*         REGISTERS:  ALL ARE VULNERABLE
                            *D*
                            *D*         INTERFACE:  NEWQ
                            *D*
                            *D*         ENVIRONMENT:  MASTER/MAPPED
                            *D*
                            *D*         DESCRIPTION:  AFTER VERIFYING THAT WE ARE RUNNING ON A XEROX-
                            *D*                  560, A CALL TO NEWQ IS MADE TO TRANSMIT THE MESSAGE
                            *D*                  IN KEYINBUF TO THE REMOTE ASSIST STATION.
                            ****************************************************************
                            *
01 0017C    70200000 X                  BIF,S7S9 KEYERR
01 0017D    69C00066
01 0017E    22C000FF A                  LI,12    X'FF'              DCT MASK
01 0017F    4BC00000 X                  AND,12   RASIDOL            DCTX
01 00180    49C00608                    OR,12    =X'1FF0A00'        FC,PRI,NRT
01 00181    22D00000 N                  LI,13    BA(KEYINBUF)       BUF
01 00182    30DE0001 A                  AW,13    KCCP,R7            CURRENT POSITION
01 00183    324E0001 A                  LW,R4    KCCP,R7            CURRENT POSITION
          01 00184          KMCSEND1    EQU      $
01 00184    72080000 X                  LB,R0    KEYINBUF,R4
```

```
1137  01 00185  21000015 A        CI,R0    X'15'          CR
1138  01 00186  68300189          BE       KMCSEND2
1139  01 00187  20400001 A        AI,R4    1
1140  01 00188  68000184          B        KMCSEND1
1141        01 00189               KMCSEND2 EQU      $
1142  01 00189  384E0001 A        SW,R4    KCCP,R7        MSG SIZE
1143  01 0018A  20400002 A        AI,4     2
1144  01 0018B  32E00004 A        LW,14    4              SIZE
1145  01 0018C  32F00000 A        LI,15    0
1146  01 0018D  325E0001 A        LW,R5    KCCP,R7
1147  01 0018E  205FFFFF A        AI,R5    -1
1148  01 0018F  750A0000 X        STB,R0   KEYINBUF,R5
1149  01 00190  22000000 A        LI,0     0              NO END ACTION
1150  01 00191  6AB00000 X        BAL,11   NEWQ
1151  01 00192  02000000 A        NOP
1152  01 00193  6800006D          B        KEYINR
```

```
1153                                    PAGE
1154          01 00194          KSCPU   EQU     *
1155                                    ********************************************************************
1156                            *F*     NAME:   KSCPU
1157                            *F*
1158                            *F*     PURPOSE: TO PROCESS THE 'SCPU' KEYIN.
1159                            *F*
1160                            *F*     DESCRIPTION:  IN A MULTI-PROCESSING SYSTEM, A SLAVE CPU IS
1161                            *F*             STARTED;  THE STOP-BIT IS RESET AND THE START-BIT SET
1162                            *F*             IN SB:INIT; S:MPKYN IS INCREMENTED (RE-ENTRANCY
1163                            *F*             COUNTER) AND THE MOOSE IS GOOSED.
1164                                    ********************************************************************
   1*                           *D*     NAME:   KSCPU
   2*                           *D*
   3*                           *D*     CALL:   KEYIN FORMAT:  SCPU ID
   4*                           *D*
   5*                           *D*     INPUT:  R7 = ADR OF KEYIN PARAMETER LIST
   6*                           *D*
   7*                           *D*     OUTPUT: SB:INIT, S:MPKYN
   8*                           *D*
   9*                           *D*     REGISTERS:  ALL ARE VULNERABLE
  10*                           *D*
  11*                           *D*     INTERFACE:  GKIFLD, T:GJOBSTRT
  12*                           *D*
  13*                           *D*     ENVIRONMENT:  MASTER/MAPPED
  14*                           *D*
  15*                           *D*     DESCRIPTION:  IN A MULTI-PROCESSING SYSTEM A SLAVE CPU IS
  16*                           *D*             STARTED BY SETTING THE START-BIT IN SB:INIT FOR THE
  17*                           *D*             SPECIFIED CPU AND CALLING T:GJOBSTRT TO INITIATE
  18*                           *D*             THE MOOSE GHOST JOB.
  19*                                   ********************************************************************
1165                                    *
1166    01 00194    22B00000 N                  LI,11   NSCPU           IS THIS A SLAVE CPU SYSTEM
1167    01 00195    68300066                    BEZ     KEYERR          NO,ERROR
1168    01 00196    6AB00050                    BAL,11  GKIFLD          GET ID
1169    01 00197    6B800066                    BCS,8   KEYERR          ERROR
1170    01 00198    22B001A0                    LI,11   KSCPU2
```

```
1171  01 0019  323E0005 A  KSCPU1  LW,3     KPLB,R7
1172  01 001A  25300068 A          SLS,3     *24
1173  01 001B  4B300004 N          AND,R3    XF
1174  01 001C  68300066            BEZ       KEYERR
1175  01 001D  21300000 N          CI,R3     NSCPU          TEE HIGH
1176  01 001E  69200066            BG        KEYERR
1177  01 001F  F800000B A          B         *11
  1*     01 001A0          KSCPU2  EQU       *
1180  01 001A0  6D000037 A          DISABLE
1181  01 001A1  72B60000 X          LB,11     SBIINIT,R3
1182  01 001A2  4BB00000 X          AND,11    XFC            GET ALL BITS BUT START/STOP
1183  01 001A3  20B00001 A          AI,R11    STARTBIT       SET START
1184  01 001A4  75B60000 X          STB,11    SBIINIT,R3     STORE IT
1185  01 001A5  6D000027 A          ENABLE
1186  01 001A6  33100000 X          MTW,1     SIMPKYN        INCREMENT RE-ENTRANCY COUNTER
1187  01 001A7  12000000            LD,0      TXMOOSE
1188  01 001A8  6AA00000 X          BAL,10    TIGJOBSTRT     TRY TO START GHOST
1189  01 001A9  68000060            B         KEYINR
```

```
1190                                    PAGE
1191          01 001AA          KXCPU   EQU     *
1192                                    ********************************************************************************
1193                                    *F*     NAME:   KXCPU
1194                                    *F*
1195                                    *F*     PURPOSE: TO PROCESS THE 'XCPU' KEYIN.
1196                                    *F*
1197                                    *F*     DESCRIPTION:  IN A MULTI-PROCESSING SYSTEM, A SLAVE CPU IS
1198                                    *F*             STOPPED;  THE START-BIT IS RESET AND THE STOP-BIT SET
1199                                    *F*             IN SB:INIT: SMPKYN IS INCREMENTED (RE-ENTRANCY
1200                                    *F*             COUNTER) AND THE MOOSE IS GOOSED.
1201                                    ********************************************************************************
   1*                                   *D*     NAME:   KXCPU
   2*                                   *D*
   3*                                   *D*     CALL:   KEYIN FORMAT:  XCPU ID
   4*                                   *D*
   5*                                   *D*     INPUT:  R7 = ADR OF KEYIN PARAMETER LIST
   6*                                   *D*
   7*                                   *D*     OUTPUT: SB:INIT, SMPKYN
   8*                                   *D*
   9*                                   *D*     REGISTERS:  ALL ARE VULNERABLE
  10*                                   *D*
  11*                                   *D*     INTERFACE:  GKIFLD, T:GJOBSTRT
  12*                                   *D*
  13*                                   *D*     ENVIRONMENT:  MASTER/MAPPED
  14*                                   *D*
  15*                                   *D*     DESCRIPTION:  IN A MULTI-PROCESSING SYSTEM A SLAVE CPU IS
  16*                                   *D*             STOPPED BY SETTING THE STOP-BIT IN
  17*                                   *D*             SB:INIT AND CALLING T:GJOBSTRT TO INITIATE THE MOOSE
  18*                                   *D*             GHOST JOB.
  19*                                   ********************************************************************************
1202                                    *
1203    01 001AA    22B00000 N          LI,11   NSCPU           IS THIS A SLAVE CPU SYSTEM
1204    01 001AB    68300066            BEZ     KEYERR          NO,ERROR
1205    01 001AC    6AB00050            BAL,11  GKIFLD          GET N
1206    01 001AD    69800066            BCS,8   KEYERR          ERROR
1207    01 001AE    22100001 A          LI,1    1               SET FOR INCREMENT
```

```
1208  01 001AF  6AB00199         BAL,11   KSCPU1       VALIDATE N
1211  01 001B0  2200006D         LI,0     KEYINR       RETURN ADDRESS
   1* 01 001B1  32B00009   KXCPU2 LW,11    NOBRANCH     GET REFLEXIVE BRANCH
   2* 01 001B2  35B00000 X       STW,11   SYSTRT       STORE IN SYSTRT
   3* 01 001B3  6D000037 A KXCPU3 DISABLE
1213  01 001B4  72B60000 X       LB,11    SBIINIT,R3   GET FLAGS
1214  01 001B5  4BB00000 X       AND,R11  XFC          GET ALL BITS BUT START & STOP
1215  01 001B6  20B00002 A       AI,11    STOPBIT      SET STOP BIT
1216  01 001B7  75B60000 X       STB,11   SBIINIT,R3   STORE VALUE
1217  01 001B8  6D000027 A       ENABLE
1218  01 001B9  20300001 A       AI,R3    1            INCREMENT INDEX
   1* 01 001BA  641001B3         BDR,1    KXCPU3       DO MORE THAN ONE
1220  01 001BB  33100000 X       MTW,1    SIMPKYN      SET  RE-ENTRANCY COUNTER
1221  01 001BC  09000000 N       PUSH     0
1222  01 001BD  1200000C         LD,0     TXMOOSE
1223  01 001BE  6AA00000 X       BAL,10   TIGJOBSTRT
1224  01 001BF  08000000 N       PULL     0
1225  01 001C0  F8000000 A       B        *0
```

```
1226                                    PAGE
1227          01 001C1          KITIME  EQU     *
1228                            ********************************************************************************
1229                            *F*     NAME:   KITIME
1230                            *F*
1231                            *F*     PURPOSE: TO PROCESS THE 'TIME' AND 'T' KEYINS.
1232                            *F*
1233                            *F*     DESCRIPTION:  VALIDATES INPUT AND STORES 'HHMM' (IN EBCDIC)
   1*                           *F*                   INTO THE 1-WD LOCATION 'TIME' & UPDATES C:MSM
1235                            ********************************************************************************
   1*                           *D*     NAME:   KITIME
   2*                           *D*
   3*                           *D*     CALL:   KEYIN FORMAT:  TIME HH:MM
   4*                           *D*
   5*                           *D*     INPUT:  R7 = ADR OF KEYIN PARAMETER LIST
   6*                           *D*                   1MIN
   7*                           *D*
   8*                           *D*     OUTPUT: TIME, C:MSM
   9*                           *D*
  10*                           *D*     DATA:   MAXHRVAL, MAXMINVAL, MSMDAT
  11*                           *D*
  12*                           *D*     REGISTERS:  ALL ARE VULNERABLE
  13*                           *D*
  14*                           *D*     INTERFACE:  GDTKIVAL
  15*                           *D*
  16*                           *D*     ENVIRONMENT:  MASTER/MAPPED
  17*                           *D*
  18*                           *D*     DESCRIPTION:  CALLS GDTKIVAL TO VALIDATE HH & MM INPUT FIELDS;
  19*                           *D*                   THE CELL TIME IS RESET TO THE HHMM VALUES SPECIFIED
  20*                           *D*                   (IN EBCDIC).  THIS VALUE IS THEN USED TO CALCULATE
  21*                           *D*                   THE NEW VALUE FOR C:MSM (2.MS TICS SINCE MIDNIGHT).
  22*                           ********************************************************************************
1236                            *
1237   01 001C1   =20001E4              LI,R0   MAXHRVAL        (R0) = MAX. HOUR VALUE
1238   01 001C2   =AB001EE              BAL,SR4 GDTKIVAL        GET HOUR VALUE
1239   01 001C3   =5200000 X            STH,R2  TIME            STORE HOUR VALUE
1240                            *
```

```
1241   01 001C4   220001E6          LI,R0    MAXMINVAL        (R0) = MAX. MINUTE VALUE
1242   01 001C5   6AB001EE          BAL,SR4  GDTKIVAL         GET MIN. VALUE
1243   01 001C6   0230FFFF A       LI,R3    KFFFF
1244   01 001C7   47200000 X       STS,R2   TIME             STORE MINUTE VALUE
   1*  01 001C8   02300000 A       LI,R3    0                INITIALIZE ACCUMULATOR
   2*  01 001C9   022FFFFC A       LI,R2    -4               SET UP LOOP
   3*  01 001CA   6D000037 A       DISABLE
   4*  01 001CB   72040001 N  T1   LB,R0    TIME-1,R2        TIME = !HHMM!
   5*  01 001CC   200FFF10 A       AI,R0    -'0'             CONVERT
   6*  01 001CD   30300000 A       AW,R3    R0               ACCUMULATE
   7*  01 001CE   573401D9          MH,R3    MSMDAT+2,R2      CONVERT TO TICS
   8*  01 001CF   652001CB          BIR,R2   T1               LOOP
   9*  01 001D0   02500032 A       LI,R5    50               CALCULATE DISPL INTO CURRENT MINUTE
  10*  01 001D1   38500000 X       SW,R5    1MIN             *
  11*  01 001D2   03500258 A       MI,R5    600              CONVERT TO TICS
  12*  01 001D3   30300005 A       AW,R3    R5               ACCUMULATE
  13*  01 001D4   35300000 X       STW,R3   CIMSM            UPDATE TICS SINCE MIDNIGHT
  14*  01 001D5   6D000027 A       ENABLE
1245   01 001D6   68000006D         B        KEYINR
   1*                         *
   2*                         *
   3*                         *
   4*  01 001D7   000A0006 A  MSMDAT  GEN,16,16,16,16   10,6,10,30000
                  000A7530
```

```
1246                                    PAGE
1247          01 001D9          KIDATE  EQU     *
1248                            ********************************************************************************
1249                            *F*     NAME:   KIDATE
1250                            *F*
1251                            *F*     PURPOSE: TO PROCESS THE 'DATE' AND 'D' KEYINS.
1252                            *F*
1253                            *F*     DESCRIPTION:  VALIDATES INPUT AND STORES 'MMDD' (IN EBCDIC)
1254                            *F*             INTO LOCATION DATE, AND '  YY' (IN EBCDIC) INTO
1255                            *F*             LOCATION DATE+1.
1256                            ********************************************************************************
   1*                           *D*     NAME:   KIDATE
   2*                           *D*
   3*                           *D*     CALL:   KEYIN FORMAT:  DATA MM/DD/YY
   4*                           *D*
   5*                           *D*     INPUT:  R7 = ADR OF KEYIN PARAMETER LIST
   6*                           *D*
   7*                           *D*     OUTPUT: DATE
   8*                           *D*
   9*                           *D*     DATA:   MAXMONVAL, MAXDAYVAL, MAXYRVAL
  10*                           *D*
  11*                           *D*     REGISTERS:  ALL ARE VULNERABLE
  12*                           *D*
  13*                           *D*     INTERFACE:  GDTKIVAL
  14*                           *D*
  15*                           *D*     ENVIRONMENT:  MASTER/MAPPED
  16*                           *D*
  17*                           *D*     DESCRIPTION:  CALLS GDTKIVAL TO VALIDATE MM, DD, & YY INPUT
  18*                           *D*             FIELDS; THE DOUBLEWORD CELL DATE IS RESET TO THE
  19*                           *D*             EBCDIC VALUES SPECIFIED (MMDD  YY)
  20*                           ********************************************************************************
1257                            *
1258    01 001D9    20001E8             LI,R0   MAXMONVAL       (R0) = MAX. MONTH VALUE
1259    01 001DA    6AB001EE            BAL,SR4 GDTKIVAL        GET MONTH VALUE
1260    01 001DB    B5200000 X          STH,R2  DATE            STORE MONTH VALUE
1261                            *
1262    01 001DC    20001EA             LI,R0   MAXDAYVAL       (R0) = MAX. DAY VALUE
```

```
1263  01 001DD  6AB001EE          BAL,SR4  GDTKIVAL        GET DAY VALUE
1264  01 001DE  2230FFFF A        LI,R3    KFFFF
1265  01 001DF  47200000 X        STS,R2   DATE            STORE DAY VALUE
1266                          *
1267  01 001E0  2220001EC         LI,R0    MAXYRVAL        (R0) = MAX, YEAR VALUE
1268  01 001E1  6AB001EE          BAL,SR4  GDTKIVAL        GET YEAR VALUE
1269  01 001E2  35200001 N        STW,R2   DATE+1          STORE YEAR
1270  01 001E3  6800006D          B        KEYINR          EXIT
1271                              BOUND    8
1272  01 001E4  0000F0F0 A  MAXHRVAL DATA   '00','23'       HOURS
      01 001E5  0000F2F3 A
1273  01 001E6  0000F0F0 A  MAXMINVAL DATA   '00','59'      MINUTES
      01 001E7  0000F5F9 A
1274  01 001E8  0000F0F1 A  MAXMONVAL DATA   '01','12'      MONTHS
      01 001E9  0000F1F2 A
1275  01 001EA  0000F0F1 A  MAXDAYVAL DATA   '01','31'      DAYS
      01 001EB  0000F3F1 A
1276  01 001EC  0000F0F0 A  MAXYRVAL DATA   '00','99'      YEARS
      01 001ED  0000F9F9 A
```

```
1277                    PAGE
1288        01 001FE    GDTKIVAL EQU     $
1289                    ********************************************************************
1290                    *F*      NAME:    GDTKIVAL
1291                    *F*
1292                    *F*      PURPOSE: SUBROUTINE TO GET AND VALIDATE DATE/TIME VALUES.
1293                    *F*
1294                    *F*      DESCRIPTION:  OBTAINS NEXT FIELD FROM KEYINBUF, INSURES THAT
1295                    *F*                    IT IS A VALID DECIMAL CHARACTER, AND THAT IT IS WITHI
1296                    *F*                    A CALLER-SPECIFIED RANGE.
1297                    ********************************************************************
   1*                   *D*      NAME:    GDTKIVAL
   2*                   *D*
   3*                   *D*      CALL:    BAL,SR4(R11)
   4*                   *D*
   5*                   *D*      INPUT:   R0 = POINTER TO A DOUBLEWORD CONTAINING THE VALID
   6*                   *D*                   EBCDIC LIMITS.
   7*                   *D*               R7 = ADR OF KEYIN PARAMETER LIST
   8*                   *D*
   9*                   *D*      OUTPUT:  R2 = THE NEXT EBCDIC/DECIMAL CHARACTERS FROM KEYINBUF
  10*                   *D*                   (RIGHT-JUSTIFIED)
  11*                   *D*
  12*                   *D*      REGISTERS:  R1 & R3 ARE VULNERABLE
  13*                   *D*
  14*                   *D*      INTERFACE:  GKIFLD
  15*                   *D*
  16*                   *D*      ENVIRONMENT:  MASTER/MAPPED
  17*                   *D*
  18*                   *D*      DESCRIPTION:  CALLS GKIFLD TO OBTAIN THE NEXT FIELD FROM
  19*                   *D*                    KEYINBUF; CHECKS THE FIRST CHARACTER FOR A VALID
  20*                   *D*                    DECIMAL CHARACTER; IF ONLY 1 CHARACTER WAS SPECIFIED
  21*                   *D*                    A LEADING EBCDIC ZERO IS SUPPLIED; OTHERWISE THE
  22*                   *D*                    SECOND CHARACTER IS CHECKED FOR A VALID DECIMAL
  23*                   *D*                    CHARACTER, AN ERROR OCCURS IF MORE THAN 2 CHARACTERS
  24*                   *D*                    WERE OBTAINED BY GKIFLD.  THE SPECIFIED CHARACTERS ARE
  25*                   *D*                    THEN VALIDATED AGAINST THE CALLED-SUPPLIED LIMITS AND,
  26*                   *D*                    IF OK, THE CHARACTERS ARE RETURNED TO THE CALLER
```

```
 27*                                       *D*              (RIGHT-JUSTIFIED).
 28*                                       ****************************************************************************
                                           *
     01 001EE     09B00000 N                        PUSH      SR4
     01 001EF     09000000 N                        PUSH      R0
     01 001F0     6AB00050                          BAL,SR4   GKIFLD               GET NEXT FIELD
     01 001F1     69800208                          BCS,8     GDTKIV3              ILLEGAL FIELD
     01 001F2     08000000 N                        PULL      R0
     01 001F3     322E0005 A                        LW,R2     KPLB,R7              (R2) = 1ST 4 CHAR
     01 001F4     25200068 A                        SLS,R2    KN18
     01 001F5     6AB0020A                          BAL,SR4   DTVALCK              CHECK IF 1ST CHAR IS LEGAL DEC CHAR
     01 001F6     33FE0004 A                        MTW,-1    KFL,R7               DECREMENT FIELD LENGTH COUNT
     01 001F7     68300203                          BEZ       GDTKIV2              CHECK IF = 0
     01 001F8     322E0005 A                        LW,R2     KPLB,R7
     01 001F9     25200070 A                        SLS,R2    KN10
     01 001FA     6AB0020A                          BAL,SR4   DTVALCK              CHECK IF 2ND CHAR IS LEGAL DEC CHAR
     01 001FB     33FE0004 A                        MTW,-1    KFL,R7               DECREMENT FIELD LENGTH COUNT
     01 001FC     69300209                          BNEZ      GDTKIV4              ERROR IF NOT ZERO
           01 001FD                        GDTKIV1  EQU       $
     01 001FD     322E0005 A                        LW,R2     KPLB,R7
     01 001FE     25200070 A                        SLS,R2    -16                  RIGHT JUSTIFY
     01 001FF     99200000 A                        CLM,R2    *0                   LEGAL VALUE
     01 00200     69900066                          BOL       KEYERR
     01 00201     08B00000 N                        PULL      SR4
     01 00202     F800000B A                        B         *SR4                 NORMAL EXIT ************
                                           *
           01 00203                        GDTKIV2  EQU       $
     01 00203     323E0005 A                        LW,R3     KPLB,R7              INSERT
     01 00204     220000F0 A                        LI,R2     KF0                       LEADING EBCDIC
     01 00205     25200178 A                        SLD,R2    KN8                                 ZERO
     01 00206     353E0005 A                        STW,R3    KPLB,R7                               FOR 1 CHAR
     01 00207     680001FD                          B         GDTKIV1                                     VALUE
                                           *
           01 00208                        GDTKIV3  EQU       $
     01 00208     08000000 N                        PULL      R0
           01 00209                        GDTKIV4  EQU       $
     01 00209     68000066                          B         KEYERR
```

```
1333                                *
1334                                *       DATE TIME VALUE CHECK
1335                                *
1336          01 002ÕA              DTVALCK EQU     *
1337    01 Õ020A    4B200008 N              AND,R2  XFF
1338    01 0020B    ?12000F0 A              CI,R2   KF0             CHECK IF < F0
1339    01 Õ020C    69100209                BL      GDTKIV4         ERROR
1340    01 0020D    ?12000F9 A              CI,R2   KF9             CHECK IF > F9
1341    01 Õ020E    69200209                BG      GDTKIV4         ERROR
1342    01 0020F    F800000B A              B       *SR4            EXIT
```

```
                                                  PAGE
                                                  *******************************************************************
                                                  *                     AVRTBL FLAG-BIT COMBINATIONS                  *
                                                  *******************************************************************
                                                  *                     PUB SERIAL NOU AVR ID SOL VER                 *
                                                  * PREMOUNT PUBLIC      1    #     1   0   0   0   0               *
                                                  * PREMOUNT             0    #     0   0   -   0   0               *
                                                  * AVAILABLE            0    0     0   0   0   0   0               *
                                                  * SOLICITED            0    #     0   0   #   1   1               *
                                                  * BEING VERIFIED       -    #     0   0   -   0   1               *
                                                  * DISMOUNT(LOCK)       -    #     #   1  -1   0   0               *
                                                  * PRIVATE(EXCL)        0    #     #   1   #   0   0               *
                                                  * SHARE                0    #     #   1   0   0   0               *
                                                  * PUBLIC               1    #    #+1  1   0   0   0               *
                                                  *******************************************************************
                                                  *
                 01 00210                         KIANSS   EQU      $
                                                  *******************************************************************
                                                  *F*      NAME:    KIANSS
                                                  *F*
                                                  *F*      PURPOSE: TO PROCESS THE 'ANSS(CRATCH)' KEYIN.
                                                  *F*
                                                  *F*      DESCRIPTION:  SETS R9 = Y2 AND CALLS KIMOUNTZ.
                                                  *******************************************************************
                                                  *
         01 00210     3290001E N                           LW,SR2   Y2                    ANS SCRATCH FLAG
         01 00211     6800021C                             B        KIMOUNTZ
                                                  *
                                                  *
                                                  *
                 01 00212                         KIANSM   EQU      $                     ANS MOUNT FLAG
                                                  *******************************************************************
                                                  *F*      NAME:    KIANSM
                                                  *F*
                                                  *F*      PURPOSE: TO PROCESS THE 'ANSM(OUNT)' KEYIN.
                                                  *F*
                                                  *F*      DESCRIPTION:  SETS R9 = Y3 AND CALLS KIMOUNTZ.
```

```
                                    ************************************************************************
                                    *
01 00212    32900000 X                      LW,SR2     Y3
01 00213    6800021C                        B          KIMOUNTZ
                                    *
                                    *
                                    *
        01 00214                    KIANSO  EQU        $                        ANS  OVER FLAG
                                    ************************************************************************
                                    *F*     NAME:      KIANSO
                                    *F*
                                    *F*     PURPOSE: TO PROCESS THE 'OVER' AND 'READ' KEYINS.
                                    *F*
                                    *F*     DESCRIPTION:  SETS R9 = Y4 AND CALLS KIMOUNTZ.
                                    ************************************************************************
                                    *
01 00214    3290001F N                      LW,SR2     Y4
01 00215    6800021C                        B          KIMOUNTZ
                                    *
                                    *
                                    *
        01 00216                    KIMOUNT EQU        $
                                    ************************************************************************
                                    *F*     NAME:      KIMOUNT
                                    *F*
                                    *F*     PURPOSE: TO PROCESS THE 'MOUNT' KEYIN.
                                    *F*
                                    *F*     DESCRIPTION:  SETS R9 = 0 AND CALLS KIMOUNTZ.
                                    ************************************************************************
                                    *
01 00216    22900000 A                      LI,SR2     0                        NOT SCRATCH
01 00217    6800021C                        B          KIMOUNTZ
                                    *
                                    *
                                    *
        01 00218                    KISCRTH EQU        $
                                    ************************************************************************
```

```
1453                                *F*       NAME:    KISCRTH
1454                                *F*
1455                                *F*       PURPOSE: TO PROCESS THE 'SCRATCH' KEYIN.
1456                                *F*
1457                                *F*       DESCRIPTION:  VALIDATES COMMAND, SETS R9 = Y1 AND FALLS THRU
1458                                *F*                     TO KIMOUNTZ.
1459                                ************************************************************************
1460                                *
1461   01 00218   322E0006 A               LW,R2    KPLB+1,R7
1462   01 00219   31200609                CW,R2    L('TCH ')          CHECK IF REALLY SCRATCH KEYIN
1463   01 0021A   69300489                BNE      SKEYIN             NO
1464   01 0021B   3290001D N              LW,SR2   Y1
1465                               *       B        KIMOUNTZ           FALL THRU TO KIMOUNTZ
   1*                               *
   2*                               *
   3*                               *
1467   01 0021C                    KIMOUNTZ RES     0
1468                                ************************************************************************
1469                                *F*       NAME:    KIMOUNTZ
1470                                *F*
1471                                *F*       PURPOSE: COMMON HANDLER FOR THE FOLLOWING KEYINS:
1472                                *F*                      ANSS, ANSM, OVER, READ, MOUNT & SCRATCH
1473                                *F*
1474                                *F*       DESCRIPTION:  PROCESS THE VARIOUS TAPE AND PACK-RELATED KEYINS
1475                                ************************************************************************
   1*                               *D*       NAME:    KIMOUNTZ
   2*                               *D*
   3*                               *D*       ENTRY:   KISCRTH, KIMOUNT, KIANSO, KIANSM, KIANSS
   4*                               *D*
   5*                               *D*       CALL:    KEYIN FORMATS:
   6*                               *D*                                                    ID
   7*                               *D*                MOUNT NDD(,NDD)(,BLP)(,SERIAL#(,PUBLIC))
   8*                               *D*                                                    LOCK
   9*                               *D*
  10*                               *D*                SCRATCH NDD(,NDD)(,BLP),SERIAL#
  11*                               *D*
  12*                               *D*                ANSMOUNT NDD(,NDD)(,BLP)
```

```
*D*
*D*            ANSSCRATCH NDD(,NDD)(,BLP)(,SERIAL#)
*D*
*D*            OVER NDD(,SERIAL#)
*D*            READ NDD(,SERIAL#)
*D*
*D*   INPUT:   R7 = ADR OF KEYIN PARAMETER LIST
*D*            SOLICIT, AVRTBL, AVRID, ANSFLGS, ANSPRT, DCT4
*D*            TSERIAL, LSERIAL, RSERIAL, SH:RTOT, SH:ROCU
*D*            SH:RBCU, SH:RGCU
*D*
*D*   OUTPUT:  AVR TABLES SET TO REFLECT PRESENCE OF TAPE OR PACK
*D*
*D*   REGISTERS:  ALL ARE VULNERABLE
*D*
*D*   INTERFACE:  NDD, SIXPACK, RAT:DCT4, ASPIN, HOWALO, KIREQND6
*D*               WAKEUP
*D*
*D*   ENVIRONMENT:  MASTER/MAPPED
*D*
*D*   DESCRIPTION:  EACH OF THE SPECIFIED ENTRY POINTS SETS A UNIQUE
*D*            FLAG IN SR2(R9) TO INDICATE THE TYPE OF MOUNT KEYIN.
*D*            KIMOUNTZ IS THE COMMON HANDLER FOR THESE KEYINS.
*D*            THROUGHOUT THE MOUNTING PROCESS THE FOLLOWING REGISTE
*D*            CONVENTIONS ARE UTILIZED:
*D*               R5 (BYTE 0) = 0 OR DCTX OF ORIGINALLY REQUESTED
*D*                          DRIVE IF A UNIT SWITCH WAS INDICATED
*D*                  (BYTE 3) = AVR INDEX OF DRIVE TO BE MOUNTED
*D*               R10 = POSITIVE VALUE IF WE ARE WORKING WITH A PACK
*D*                     NEGATIVE VALUE IF WE ARE WORKING WITH A TAPE
*D*               R12/R13(D1/D2) = ORIGINAL CONTENTS OF THE AVRTBL O
*D*                                THE DRIVE ACTUALLY BEING MOUNTED
*D*               R14/R15(D3/D4) = INITIALLY A COPY OF R12/R13
*D*                                (UNLESS A UNIT SWITCH HAS BEEN
*D*                                INDICATED IN WHICH CASE R14/R15
*D*                                ARE THE CONTENTS OF THE ORIGINALL
*D*                                REQUESTED DRIVE'S AVRTBL); R14/R1
```

```
                              *D*                         ARE UPDATED AS THE KEYIN IS PARSE
                              *D*                         AND EVENTUALLY BECOME THE NEW
                              *D*                         AVRTBL CONTENTS.
                              *D*                    THE 1ST FUNCTION TO BE PERFORMED IS VALIDATION OF THE
                              *D*                    SPECIFIED DEVICE OR DEVICES (NDD FIELDS).  A UNIT
                              *D*                    SWITCH MUST BE FOR A SOLICITED DRIVE AND NOT DURING A
                              *D*                    'OVER' OR 'READ' KEYIN OR AN ERROR IS RETURNED.
                              *D*
                              *****************************************************************************
                              *
 01 0021C    6AF00000 X                BAL,D4    NDD                 CHECK NDD .OK DCTX  IN R2
 01 0021D    22600000 A                LI,6      0                   ID
 01 0021E    B2A0021E                  LW,10     *$                  SET TAPE/PACK FLAG
 01 0021F    21500000 N                CI,5      AVRTBLSIZ           IS IT RIGHT
 01 00220    69100224                  BL        $+4                 YES
 01 00221    32A00221                  LW,10     $                   NO, SET POSITIVE
 01 00222    70200009 A                LC        SR2                 NOTHING BUT MOUNT FOR PACKS
 01 00223    69F00066                  BCS,15    KEYERR
 01 00224    2180004B A                CI,SR1    ','                 UNIT SWITCH
 01 00225    69300234                  BNE       NOUNTSW             NO
 01 00226    3190001F N                CW,SR2    Y4                  MUST NOT BE OVER KEYIN
 01 00227    68300066                  BE        KEYERR
 01 00228    730A0000 X                MTB,0     SOLICIT,R5          MUST BE SOLICITED
 01 00229    68300066                  BEZ       KEYERR
 01 0022A    09500000 N                PUSH      R5                  SAVE AVRX
 01 0022B    6AF00000 X                BAL,D4    NDD                 GET 2ND UNIT
 01 0022C    08300000 N                PULL      R3                  R3=1ST DCTX
 01 0022D    12CA0000 X                LD,D1     AVRTBL,R5
 01 0022E    12E60000 X                LD,D3     AVRTBL,R3           NEW VALUES, IF NOT MODIFIED
 01 0022F    52660000 X                LH,R6     AVRID,R3
 01 00230    20300000 N                AI,3      BATAPE              MAKE DCT INDEX
 01 00231    75300005 A                STB,R3    R5                  SET FLAG FOR SRCHAVR
 01 00232    32F0000D A                LW,D4     D2                  GET FLAGS
 01 00233    6800023D                  B         GETAVR1             REENTER LOGIC
        01 00234              NOUNTSW  EQU       $
                              *****************************************************************************
                              *D*                    THE SECOND FUNCTION IS TO CHECK THE LEGALITY OF THE
```

```
                                        *D*             KEYIN.  AN 'OVER' OR 'READ' KEYIN IS LEGAL ONLY IF TH
                                        *D*             SYSTEM IS ANS-SEMI-PROTECTED AND THE ERR FLAGS (OF
                                        *D*             ANSFLGS) ARE SET.  'BLP' MAY BE SPECIFIED FOR TAPES
                                        *D*             ONLY IF THE SYSTEM IS ANS-SEMI-PROTECTED.
                                        ****************************************************************
                                        *
1513   01 00234   64A0023B              BDR,10  GETAVR          PACK
1514   01 00235   3190001F N            CW,SR2  Y4              OVER KEYIN
1515   01 00236   6930023B              BNE     GETAVR          NO
1516   01 00237   33000000 X            MTW,0   ANSPRT          MUST BE SEMI-PROTECTIVE MODE
1517   01 00238   692000xx              BG      KEYERR
1518   01 00239   702A0000 X            LC      ANSFLGS,5       ERROR FLAGS MUST BE SET
1519   01 0023A   68300066              BCR,3   KEYERR
1520      01 0023B                      EQU     *
1521   01 0023B   12CA0000 X  GETAVR    LD,D1   AVRTBL,5        REEL + 2ND  WD
1522   01 0023C   12E0000C A            LD,D3   D1              SN AND FLAGS
1523   01 0023D                 GETAVR1 RES                     ENTRY FOR UNIT SWITCH
                                        ****************************************************************
                                        *D*             GETAVR1 IS THE ENTRY POINT INTO MOUNT-PROCESSING FOR
                                        *D*             THE AVR ROUTINE.
                                        ****************************************************************
1524   01 0023D   3190001D N            CW,SR2  Y1              SCRATCH
1525   01 0023E   69300240              BNE     *+2
1526   01 0023F   4790000F A            STS,9   D4              SET SCRATCH IF PRESENT
1527   01 00240   31D0001C N            CW,D2   VERB
1528   01 00241   68400244              BAZ     CHKSR           NOT VER
1529   01 00242   730A0000 X            MTB,0   SOLICIT,5       MUST BE SOLICITED
1530   01 00243   68300066              BEZ     KEYERR
1531   01 00244   2180006B A  CHKSR     CI,SR1  ','
   1*  01 00245   68300249              BE      CHKSR1
   2*  01 00246   3190001D N            CW,SR2  Y1              IS THIS A SCRATCH REQUEST
   3*  01 00247   68300066              BE      KEYERR          YES
   4*  01 00248   68000266              B       REEL#+1         NO
   5*                       CHKSR1  *
1534   01 00249   6AB00050              BAL,SR4 GKIFLD
1535   01 0024A   69800066              BCS,8   KEYERR
1536   01 0024B   64A00263              BDR,10  MNTSCR          NO BLP FOR PACKS
```

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1537  01 0024C  322E0005 A          LW,R2   KPLB,R7
1538  01 0024D  21200006            CW,R2   BLP
1539  01 0024E  68300027A           BE      CHKBLP
1540        01 0024F                NOTBLP  EQU     *
   1*                               ************************************************************
   2*                               *D*             THE KEYIN IS CHECKED FOR A SERIAL NUMBER; SERIAL
   3*                               *D*             NUMBERS ARE ILLEGAL UNDER THE FOLLOWING CONDITIONS:
   4*                               *D*                > ANSMOUNT KEYIN
   5*                               *D*                > ANSSCRATCH KEYIN IN A PROTECTED SYSTEM
   6*                               *D*                > ANS SERIAL# NOT 6 CHARACTERS; CP-V LABEL >4 CHAR
   7*                               *D*                > OVER/READ KEYIN REFERENCING AN ANS VOLUME
   8*                               *D*             FOR PACKS, THE SPECIFIED SERIAL# IS CHECKED AGAINST
   9*                               *D*             THE MBS SERIAL# TABLES AND, IF FOUND, ITS DEVICE-TYPE
  10*                               *D*             IS VALIDATED AGAINST THAT SPECIFIED IN THE KEYIN.
  11*                               ************************************************************
  12*                               *
1541  01 0024F  3190001E N          CW,SR2  Y2              CHECK TYPE
1542  01 00250  69400259            BANZ    AMNTSCR         ANS MOUNT/SCRATCH
1543  01 00251  69100263            BL      MNTSCR          MOUNT/SCRATCH
1544  01 00252  720A0000 X          LB,R0   ANSFLGS,R5      ANS FLAGS
1545  01 00253  4B000002            AND,R0  X30
1546  01 00254  21000030 A          CI,R0   ANSVOL*4        SERIAL # ILLEGAL IF ANS VOL
1547  01 00255  68300066            BE      KEYERR
1548  01 00256  702A0000 X          LC      ANSFLGS,R5
1549  01 00257  6940025C            BCS,4   ANSREEL#
1550  01 00258  68000263            B       MNTSCR
1551  01 00259  69200066  AMNTSCR   BG      KEYERR          ANSMNT MUST NOT HAVE SN
1552  01 0025A  33000000 X          MTW,0   ANSPRT          MUST BE SEMI-PROTECTIVE MODE
1553  01 0025B  69200066            BG      KEYERR
1554        01 0025C                ANSREEL# EQU    *
1555  01 0025C  33AE0004 A          MTW,-6  KFL,R7          ANS SERIAL# MUST BE 6 CHARS
1556  01 0025D  69300066            BNE     KEYERR
1557  01 0025E  44100265            ANLZ,R1 REEL#
1558  01 0025F  25100002 A          SLS,R1  2               BYTE ADDRESS
1559  01 00260  6AB00000 X          BAL,SR4 SIXPACK
1560  01 00261  32E00002 A          LW,D3   R2              HASHED SERIAL #
1561  01 00262  68000266            B       REEL#+1
```

```
1562          01 00263                MNTSCR  EQU     $
1563    01 00263    33CE0004 A                  MTW,=4  KFL,R7          MAX 4 CHARS
1564    01 00264    69200066                    BG      KEYERR
1565          01 00265                REEL#   EQU     $
1566    01 00265    32EE0005 A                  LW,D3   KPLB,R7         REEL #
1567    01 00266    65A00280                    BIR,10  CHKID           NO RES CHK FOR TAPES
1568    01 00267    62B00280                    LI,11   CHKID           SET RETURN
1569    01 00268    32100000 X      REST        LW,1    TSERIAL         IF IN BATCH SNS, MUST BE RIGHT RES.
1570    01 00269    442002C0                    ANLZ,2  DCTX
1571    01 0026A    72440000 X                  LB,4    DCT4,2
1572    01 0026B    31E20000 X      REST10      CW,D3   TSERIAL,R1
1573    01 0026C    69300272                    BNE     REST20
1574    01 0026D    62300000 A                  LI,3    0               CHECK THAT ENTRY IS ACTIVE
1575    01 0026E    72360000 X                  LB,3    LSERIAL,3
1576    01 0026F    68300274                    BEZ     REST30
1577    01 00270    31100003 A                  CW,1    3
1578    01 00271    6930026E                    BNE     *-3
1579    01 00272    6410026B        REST20      BDR,1   REST10
1580    01 00273    F800000B A                  B       *11
1581    01 00274    71420000 X      REST30      CB,4    RSERIAL,1
1582    01 00275    F8300008 A                  BE      *11
1583    01 00276    6A100320        TYPERR      BAL,1   AVRS,1          TYPE ON OC
1584    01 00277    6B40E6D9 A                  TEXTC   ' WRONG TYPE'
        01 00278    D6D5C740 A
        01 00279    F3E8D7C5 A

 1*                 ********************************************************************************
 2*                 *O*     MESSAGE:  YYNDD WRONG TYPE
 3*                 *O*
 4*                 *O*     MEANING:  THE SPECIFIED DISK PACK THAT WAS JUST MOUNTED IS OF
 5*                 *O*               THE WRONG RESOURCE TYPE.
 6*                 *O*
 7*                 *O*     ACTION:   MOUNT THE PACK ON A DRIVE OF THE CORRECT RESOURCE
 8*                 *O*               TYPE AND RE-TRY THE 'MOUNT' KEYIN.
 9*                 ********************************************************************************
10*                 *
11*                 *
12*                 *
```

```
13*       01 0027A          CHKBLP   EQU      *
14*  01 0027A   33000000 X           MTW,0    ANSPRT          MUST BE SEMI-PROTECTIVE MODE
15*  01 0027B   69200066             BG       KEYERR
16*  01 0027C   722A0000 X           LB,R2    ANSFLGS,R5
17*  01 0027D   49200002 N           OR,R2    BT31TO0+2       BLP FLAG
18*  01 0027E   752A0000 X           STB,R2   ANSFLGS,R5
19*  01 0027F   68000244             B        CHKSR
```

```
  20*                                         PAGE
1585    01 00280                    CHKID     RES
   1*                               ***********************************************************************
   2*                               *D*                THE LAST KEYIN FIELD IS CHECKED AND CVSYSID IS CALLED
   3*                               *D*                TO VALIDATE THE SPECIFIED USER ID OR THE APPROPRIATE
   4*                               *D*                ROUTINE IS CALLED TO PROCESS THE 'LOCK' OR 'PUBLIC'
   5*                               *D*                OPTIONS.  THE 'PUBLIC' OPTION IS ILLEGAL UNDER THE
   6*                               *D*                FOLLOWING CONDITIONS:
   7*                               *D*                   > THE SPECIFIED UNIT IS NOT A DISK PACK
   8*                               *D*                   > THE UNIT IS IN EXCL USE
   9*                               *D*                   > THE UNIT IS ALREADY MARKED 'PUBLIC'
  10*                               *D*                   > THE SERIAL# IN THE AVRTBL DOESN'T MATCH THAT OF
  11*                               *D*                     THE KEYIN AND THE DRIVE IS IN USE (AVRNOU>0)
  12*                               *D*                   > ANOTHER DRIVE WITH THE SAME SERIAL# IS MOUNTED
  13*                               *D*                     AND IS CURRENTLY IN USE
  14*                               *D*                TO MAKE THE DRIVE PUBLIC, A USER (BATCH OR ON-LINE) I
  15*                               *D*                UNCHARGED FOR THE UNIT (VIA ASPIN AND HOWALO ROUTINES
  16*                               *D*                IF THE SPECIFIED DRIVE IS CURRENTLY IN USE)
  17*                               *D*                AND THE DRIVE IS CHARGED TO SHIROCU.  THE 'PUB' BIT I
  18*                               *D*                R15 IS SET, AVRNOU IS INCREMENTED AND CONTROL PASSES
  19*                               *D*                TO THE FINAL FUNCTION, THAT OF STORING AWAY THE AVRTB
  20*                               *D*                INFORMATION (SEE BELOW).  THE 'LOCK' OPTION IS ILLEGA
  21*                               *D*                IF THE DRIVE IS CURRENTLY IN EXCLUSIVE USE OR THE
  22*                               *D*                SERIAL# IN THE EXISTING AVRTBL ENTRY DOES NOT MATCH
  23*                               *D*                THE KEYIN.  IF THERE ARE NO USERS ASSOCIATED WITH THE
  24*                               *D*                PACK, KIREQND6 IS CALLED TO DISMOUNT THE DRIVE; OTHER
  25*                               *D*                WISE, AVRID IS SET TO -1 TO INDICATE 'LOCKED' TO PRE-
  26*                               *D*                VENT NEW USERS FROM ACCESSING THE DRIVE (EXCEPTION:
  27*                               *D*                AVRNOU = 1 IMPLIES THE 'GHOST USER' THAT WAS CHARGED
  28*                               *D*                FOR THE 'PRIV DRIVE MARKED PUBLIC' IN WHICH CASE THE
  29*                               *D*                AVRNOU IS SET TO ZERO, THE 'LOCKED' FLAG IN AVRID IS
  30*                               *D*                ZEROED AND THE RESOURCE IS RETURNED TO THE SYSTEM).
  31*                               *D*
  32*                               ***********************************************************************
  33*                               *
1587    01 00280    2180006B A                CI,SR1     ','
1588    01 00281    6930028F                  BNE        PREMOUNT             NO  ID/PUBLIC
```

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1589  01 00282  6AB00050            BAL,SR4  GKIFLD
1590  01 00283  69800066            BCS,8    KEYERR
1591  01 00284  65A0028A            BIR,10   CHKID1              NO PUBLIC, LOCK FOR TAPE
1592  01 00285  320E0005 A          LW,0     KPLB,R7
1593  01 00286  3100060A            CW,0     =!PUBL'
1594  01 00287  68300029E           BE       PUBLK               YES
1595  01 00288  3100060B            CW,0     =!LOCK'
1596  01 00289  683002DA            BE       LOCK
1597  01 0028A                 CHKID1 RES
1598  01 0028A  3260000F A          LW,6     D4
1599  01 0028B  6AB00000 X          BAL,11   CVSYSID              ID  TO HEX
1600  01 0028C  69800066            BCS,8    KEYERR
1601                              *                    ASSUME VALID  ID
1602                              *
1603  01 0028D  32F00006 A          LW,D4    6
1604  01 0028E  32600002 A          LW,6     R2                  ID
   1*                             *
   2*                             *
   3*                             *
1606  01 0028F                    PREMOUNT RES      0            NOT PUBLIC
   1*                             ************************************************************
   2*                             *D*              THE THIRD FUNCTION IS TO CHECK THE AVAILABILITY OF TH
   3*                             *D*              SPECIFIED DRIVE.  ON ANY MOUNT, A DRIVE IS CONSIDERED
   4*                             *D*              AVAILABLE IF ALL OF THE AVRTBL FLAG BITS ARE RE-SET
   5*                             *D*              (IGNORING AVR AND SCR/INIT) AND AVRNOU=0.
   6*                             *D*
   7*                             ************************************************************
   8*                             *
1607  01 0028F  720A0000 X          LB,0     SOLICIT,5
1608  01 00290  68300294            BEZ      *+4
1609  01 00291  3190001D N          CW,SR2   Y1                  IF ANS KEYIN, SET SN
1610  01 00292  68200294            BLE      *+2
1611  01 00293  32C0000E A          LW,D1    D3
1612  01 00294  31D00001            CW,D2    YC1FF               BUSY
1613  01 00295  69400066            BANZ     KEYERR
1614  01 00296  720A0000 X          LH,0     AVRNOU,5            IN USE
1615  01 00297  69300066            BNEZ     KEYERR
```

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1616  01 00298  31E0000C A  CKSERIAL  CW,D3     D1
1617  01 00299  6930029C              BNE       *+3                DIFFERENT, MUST SEARCH
1618  01 0029A  73000005 A            MTB,0     5                  TEST UNIT SWITCH
1619  01 0029B  683002D3               BE        NOIDPUB
1620  01 0029C  4BF00000 X             AND,D4    X1000FFFF          REMOVE FLAG BITS EXCEPT SCRATCH
1621  01 0029D  680002EA               B         SRCHAVR            PREMOUNT
```

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                                       PAGE
01 0029E                      PUBLK    RES
01 0029E  22100000 N                   LI,1     MBSOP#*LPART      CHECK AGAINST RUNNING EXCL'S
01 0029F  72220000 X          SEP10    LB,2     PLBIMIN,1         HEAD OF EXCL CHAIN
01 002A0  683002A5                     BEZ      SEP20
01 002A1  31E40000 X                   CW,14    TSERIAL,2
01 002A2  68300066                     BE       KEYERR            NO CAN DO
01 002A3  72240000 X                   LB,2     LSERIAL,2
01 002A4  693002A1                     BNEZ     $-3
01 002A5  20100000 N          SEP20    AI,1     -SVIRSIZ          TO NEXT ENTRY
01 002A6  6410029F                     BDR,1    SEP10
01 002A7  442002C0                     ANLZ,2   DCTX              GET DCTX
01 002A8  6AB00000 X                   BAL,11   RAT:DCT4          GET RES TYPE
01 002A9  20D00000 A                   AI,D2    0
01 002AA  69100066                     BLZ      KEYERR            PUBLIC ALREADY
01 002AB  520A0000 X                   LH,0     AVRNOU,5          IS IT IN USE
01 002AC  693002C1                     BNEZ     ISPS              YES, MUST BE SAME SN
01 002AD  22400000 N                   LI,4     AVRTBLNE
01 002AE  204FFFFF A          ISPS5    AI,4     -1
01 002AF  21400000 N                   CI,4     AVRTBLSIZ
01 002B0  691002B8                     BL       ISPS3
01 002B1  19E80000 X          ISPS2    CLM,D3   AVRTBL,4          IS THERE OTHER DRIVE W. SAME SN
01 002B2  693002AE                     BNE      ISPS5
01 002B3  52280000 X                   LH,R2    AVRNOU,4          IF IN USE
01 002B4  6930032C                     BNEZ     AVRS              GIVE NOT UNIQUE MSG
01 002B5  72080000 X                   LB,0     SOLICIT,4         SAVE WHETHER SOLICITED
01 002B6  31400005 A                   CW,4     5                 OF EITHER IF BOTH THE SAME OR NOT
01 002B7  683002AE                     BE       ISPS5             KEEP LOOKING IF SAME
01 002B8  20000000 A          ISPS3    AI,0     0                 MUST HAVE RESOURCE FOR UNSOLICITED
01 002B9  693002CD                     BNEZ     ISPS0
                              *        IF SOLICITED, USER WILL GIVE BACK ONE WHEN HE WAKES UP
01 002BA  52020000 X                   LH,0     SHIRTOT,1         CHECK THAT IT IS POSSIBLE
01 002BB  58020000 X                   SH,0     SHIROCU,1
01 002BC  58020000 X                   SH,0     SHIRBCU,1
01 002BD  58020000 X                   SH,0     SHIRGCU,1
01 002BE  68200066                     BLEZ     KEYERR
01 002BF  680002CD                     B        ISPS0
```

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1659  01 002C0  320A0000 X  DCTX    LW,0     BATAPE,5     FOR LW,2 5 .. AI,2 BATAPE
1660  01 002C1  31C0000E A  ISPS    CW,D1    D3
1661  01 002C2  693000066           BNE      KEYERR
1662  01 002C3  02200020 A          PUSH     2,14
      01 002C4  0BE00000 N
1663  01 002C5  22E00000 A          LI,14    0            RESET
1664  01 002C6  6AB00000 X          BAL,11   ASPIN        0=BIT,4=SPINX
1665  01 002C7  6AB00000 X          BAL,11   HOWALO       LOADS 0 WITH WHO,CLEARS SPIN
1666  01 002C8  02200020 A          PULL     2,14
      01 002C9  0AE00000 N
1667  01 002CA  530A0000 X          MTH,0    AVRNOU,5     GHOST OR PREMOUNT
1668  01 002CB  683002CD            BEZ      *+2          PREMOUNT
1669  01 002CC  03F20000 A          MTH,-1   *0,1         UNCHARGE IT
1670  01 002CD  53120000 X  ISPSO   MTH,1    SWIRGCU,1    CHARGE IT TO GHOST
1671  01 002CE  49F00020 N          OR,D4    Y8           SET PUBLIC BIT
1672  01 002CF  531A0000 X          MTH,1    AVRNOU,5     INCREMENT USERS
1673  01 002D0  21400000 N          CI,4     AVRTBLSIZ    IF THERE IS ANOTHER,
1674  01 002D1  68100030A           BGE      CHK1         SWITCH THEM
1675  01 002D2  68000031E           B        SETNEW       ELSE GO STORE IN TABLES
```

```
1676                                     PAGE
1677  01 002D3   526A0000 X   N0IDPUB    LH,6      AVRID,5
1679  01 002D4   3190001E N              CW,SR2    Y2              ANS KEYIN
1680  01 002D5   6810031E                BGE       SETNEW          YES, STORE IN TABLE
1681  01 002D6   21CFFFFF A              CI,D1     -1              SCRATCH
1682  01 002D7   68300066                BE        KEYERR          YES
1683  01 002D8   68400066                BAZ       KEYERR          NOTHING
1684  01 002D9   6800031E                B         SETNEW          STORE AND WAKE-UP
```

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1685                                          PAGE
1686   01 002DA                        LOCK   RES     0
1687   01 002DA  220FFFFF A                   LI,0    =1              CHECK AVRID
1688   01 002DB  510A0000 X                   CH,0    AVRID,5
1689   01 002DC  6830002E                     BE      $+2             ALREADY LOCKED, CHECK FOR DISMOUNT
1690   01 002DD  69400066                     BANZ    KEYERR          EXCLUSIVE
1691   01 002DE  31C0000E A                   CW,D1   D3              MUST BE SAME SN
1692   01 002DF  69300066                     BNE     KEYERR
1693   01 002E0  44200200                     ANLZ,R2 DCTX            GET DCTX FOR REQU
1694   01 002E1  52CA0000 X                   LH,12   AVRNOU,5
1695   01 002E2  683003E1                     BEZ     KIREQND6
1696   01 002E3  6AB00268                     BAL,11  REST            IS IT NEEDED FOR RUNNING BATCH
1697   01 002E4  20100000 A                   AI,1    0
1698   01 002E5  69300066                     BNEZ    KEYERR          YES.
1699   01 002E6  64C002E8                     BDR,12  $+2             >1 JUST SET AVRID
1700   01 002E7  65D003E1                     BIR,D2  KIREQND6        1 AND PUBLIC, REQU
1701   01 002E8  550A0000 X                   STH,0   AVRID,5         SET LOCKED
1702   01 002E9  68000060                     B       KEYINR
```

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                                            PAGE
                                            ************************************************************************
                                            *D*                 THE FOURTH (& FINAL) FUNCTION IS TO STORE AWAY R14/R1
                                            *D*                 INTO THE APPROPRIATE AVRTBL ENTRY TO REFLECT THE
                                            *D*                 KEYIN.  TWO ROUTINES ARE USED:  SRCHAVR LOOKS FOR A
                                            *D*                 MATCHING   AVRTBL ENTRY WHEN THE SERIAL# SPECIFIED I
                                            *D*                 THE KEYIN (REPRESENTED IN R14) DOES NOT MATCH THAT
                                            *D*                 ALREADY IN THE AVR TABLE (REPRESENTED IN R12).  THIS
                                            *D*                 OCCURS WHEN A UNIT SWITCH IS EMPLOYED, WHEN A USER
                                            *D*                 HAS REQUESTED THIS SERIAL# ON A DIFFERENT DRIVE, OR I
                                            *D*                 THE SERIAL# WAS PREVIOUSLY MOUNTED ON A DIFFERENT
                                            *D*                 DRIVE.  IF A MATCH IS FOUND, AND DOES NOT CHANGE TAPE
                                            *D*                 RESOURCE-TYPE OR CAUSE CONFUSION BY BEING IN USE, ITS
                                            *D*                 USER IS AWAKENED, THE ANS FILENAME IS MOVED TO THE
                                            *D*                 NEW ENTRY AND THE OLD ENTRY IS CLEARED.  SETNEW STORE
                                            *D*                 AWAY R14/R15 INTO AVRTBL, ZEROES SOLICIT, WAKES UP TH
                                            *D*                 USER ASSOCIATED WITH THE AVR ENTRY (AVRID) IF
                                            *D*                 APPROPRIATE, RESETS ALL ANSFLGS EXCEPT 'BLP' AND
                                            *D*                 'MS' (IF TAPE MOUNT) AND SETS THE 'AK' BIT (IF AN ANS
                                            *D*                 KEYIN  .
                                            ************************************************************************
                                            *
    01 002EA                                SRCHAVR  RES                            SEARCH AVRTBL FOR MATCH
    01 002EA     444002C0                            ANLZ,4    DCTX                 GET DEVICE TYPE
    01 002EB     72280000 X                          LB,2      DCT4,4               FOR TAPES
    01 002EC     72400005 A                          LB,4      5                    IF SWITCH, WE KNOW WHERE IT GOES
    01 002ED     692002FC                            BGZ       CHK0
    01 002EE     32C0000E A                          LW,D1     D3
    01 002EF     31F0001D N                          CW,D4     Y1
    01 002F0     684002F2                            BAZ       $+2                  NOT SCRATCH
    01 002F1     22CFFFFF A                          LI,D1     -1                   SEACRCH FOR -1
    01 002F2     22400000 N                          LI,4      BATAPE               START DCTX FOR TAPE
    01 002F3     22D00000 N                          LI,D2     AVRTBLSIZ            #ENTRIES
    01 002F4     65A002F7                            BIR,10    CHK                  TAPE
    01 002F5     20400000 N                          AI,4      AVRTBLSIZ            PACK START
    01 002F6     22D00000 N                          LI,D2     AVRTBLNE-AVRTBLSIZ #ENTRIES
    01 002F7     19C80000 F             CHK          CLM,D1    AVRTBL-BATAPE-BATAPE,4 TEST SN
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1756  01 002F8  683002FC          BE      CHK0
1757  01 002F9  20400001 A        AI,4    1                    NO TRY NEXT
1758  01 002FA  64D002F7          BDR,D2  CHK
1759  01 002FB  6800031E          B       SETNEW               NOT THERE, JUST PUT IN THIS ONE
1760  01 002FC                    CHK0    RES
1761  01 002FC  64A002FF          BDR,10  *+3                  RESOURCE SWITCH O.K. FOR PACKS
1762  01 002FD  71280000 X        CB,2    DCT4,4
1763  01 002FE  693002 76         BNE     TYPERR
1764  01 002FF  20400000 N        AI,4    =BATAPE
1765  01 00300  12280000 X        LD,R2   AVRTBL,4
1766  01 00301  31300001          CW,3    YC1FF                BUSY
1767  01 00302  69400305          BANZ    *+3                  COULD BE A PROBLEM
1768  01 00303  53080000 X        MTH,0   AVRNOU,4
1769  01 00304  6830030A          BEZ     CHK1                 ALL IS O.K.
1770  01 00305  64A0032C          BDR,10  AVRS                 ONLY ONE PACK PER SN
1771  01 00306  20600000 A        AI,6    0                    OR UNATTACHED TAPE
1772  01 00307  6830032C          BEZ     AVRS
   1* 01 00308  20400000 N        AI,4    BATAPE
   2* 01 00309  6800002F9         B       CHK,2
1773  01 0030A                    CHK1    RES
1774  01 0030A  6AB00000 X        BAL,11  WAKEUP
1775  01 0030B  12C80000 X        LD,12   AVRTBL,4
1776  01 0030C  6BD0000D A        INT,13  13      KILL PUB,SCR ETC. , PRESERVE HGP
1777  01 0030D  22C00000 A        LI,12   0
1778  01 0030E  15C80000 X        STD,D1  AVRTBL,4
1779  01 0030F  55C80000 X        STH,D1  AVRID,4
1780  01 00310  75C80000 X        STB,D1  SOLICIT,4
1781  01 00311  64A0031E          BDR,10  SETNEW               DONE IF PACK
1782  01 00312  75C80000 X        STB,D1  ANSFLGS,4            MOVE ANSFN FOR TAPES
1783  01 00313  12200004 A        LD,2    4
1784  01 00314  10200002 A        AD,2    2
1785  01 00315  10200004 A        AD,2    4
1786  01 00316  10200002 A        AD,2    2                    MULTIPLY BY 6
1787  01 00317  20200006 N        AI,2    AVRFNMT+6            POINT TO END OF ENTRY
1788  01 00318  20300006 N        AI,3    AVRFNMT+6
1789  01 00319  224FFFFA A        LI,4    -6
1790  01 0031A  22C00000 A        LI,D1   0
```

```
01 0031B   C6C80002 A              XW,D1      *2,4
01 0031C   85C80003 A              STW,D1     *3,4
01 0031D   6540031A                BIR,4      $-3
01 0031E   22D00000 A   SETNEW     LI,D2      0
01 0031F   75DA0000 X              STB,D2     SOLICIT,5
01 00320   15EA0000 X              STD,D3     AVRTBL,5          SET ENTRY
01 00321   32400005 A              LW,4       5                 SET FOR WAKEUP
01 00322   6AB00000 X              BAL,11     WAKEUP
01 00323   556A0000 X              STH,6      AVRID,5           SET ID
01 00324   64A0006D                BDR,10     KEYINR            DONE IF PACK
01 00325   72CA0000 X              LB,D1      ANSFLGS,5         SET PROPER ANS FLGS IF TAPE
01 00326   4BC00002 N              AND,D1     M2                CLEAR MOST
01 00327   22D00008 A              LI,D2      8                 SET ANS KEYIN FLAG IF PROPER
01 00328   25900206 A              SCS,SR2    6                 Y2 TO X8
01 00329   4AC00009 A              LS,D1      SR2
01 0032A   75CA0000 X              STB,D1     ANSFLGS,5
01 0032B   6800006D                B          KEYINR
                        *
                        *
01 0032C   22100330     AVRS       LI,1       NOTUNIQUE
01 0032D   447002C0                ANLZ,7     DCTX              GET DCTX
01 0032E   22B0006D                LI,11      KEYINR            TYPE ON OC
01 0032F   68000000 X              B          OCQUEUE           LIKE SYMBIONT MESSAGE
                        *
01 00330   0B40D5D6 A   NOTUNIQUE TEXTC ' NOT UNIQUE'
01 00331   F340E4D5 A
01 00332   C9D8E4C5 A
                        ***********************************************************************
                        *O*        MESSAGE:  YYNDD NOT UNIQUE
                        *O*
                        *O*        MEANING:  SERIAL NUMBER CONFLICT HAS OCCURRED; ONLY ONE DISK
                        *O*                  PACK WITH A GIVEN SERIAL # MAY BE ACTIVE AT ANY POINT
                        *O*                  IN TIME; ONLY ONE PRE-MOUNTED TAPE OF A GIVEN SERIAL
                        *O*                  # MAY BE MOUNTED AT ANY POINT IN TIME.
                        *O*
                        *O*        ACTION:  DISPLAY VOLUME SERIAL NUMBERS AND GO FROM THERE.
                        ***********************************************************************
```

```
                                PAGE
   01 00333           AVR       RES
**********************************************************************
*F*         NAME:     AVR
*F*
*F*         PURPOSE:  AUTOMATIC VOLUME SERIAL NUMBER RECOGNITION FOR
*F*                   TAPES AND PRIVATE PACKS.
*F*
*F*         DESCRIPTION: READS LABEL FROM DEVICE, DETERMINES WHETHER ANS O
*F*                   XEROX OR PACK, AND TRUNDLES INTO MOUNT LOGIC AS IF
*F*                   A MOUNT NDD,SN OR ANSMOUNT NDD,SNNNNN HAD BEEN KEYINE
**********************************************************************
*D*         NAME:     AVR
*D*         REGISTERS: ALL VOLATILE
*D*         CALL:     KEYIN BRANCHES TO AVR, WHICH RETURNS TO KEYINR.
*D*         INTERFACE: NEWQ
*,*         INPUT     R7=DCTX OF DRIVE TO USE
*,*         OUTPUT    AVR TABLES SET TO REFLECT PRESENCE OF TAPE OR PACK.
*,*         DESCRIPTION AVR ENTRY IS CHECKED TO ASSURE OPERATION WILL NOT
*D*                   DISTURB THE WRONG DRIVE. IF DRIVE IS A PACK, THE VTOC
*D*                   IS READ AND IF VALID, THE SN IS USED.  IF TAPE, THE
*,*                   TAPE IS REWOUND, THE FIRST RECORD IS READ AND CHECKED
*,*                   FOR 'VOL1' IN EBCDIC OR ASCII. IF ASCII THE TAPE IS
*,*                   REWOUND AGAIN, ASCII MODE SET AND THE PROCESS REPEATE
*,*                   IF NOT 'VOL1', A SPACE FILE FORWARD, SPACE FILE BACK,
*,*                   BACK 2 RECORDS, AND READ ONE RECORD SEQUENCE IS DONE
*,*                   TO ATTEMPT TO READ THE ILBL RECORD, IF NOT FOUND,
*,*                   THE TAPE IS REJECTED WITH AN 'AVR ERR' MESSAGE.
*,*                   THIS MESSAGE IS ALSO OUTPUT IF THERE IS AN I/O ERROR
*,*                   IF THE RECORD READ IS LESS THAN 12 BYTES.
*,*                   IF ANS, THE AVR ENTRY IS CHECKED TO ASSURE THAT IT
*,*                   DOES NOT ALREADY BELONG TO SOMEONE ELSE, WAKING THAT
*,*                   USER IF SO. THE LABELS ARE THEN EXAMINED AND THE AVR
*,*                   TABLES SET WITH ALL PERTINENT DATA, THE ASSOCIATED US
*,*                   IF ANY, IS THEN WOKE IF ASLEEP, AND THE ROUTINE EXITS
*,*                   FOR XEROX LABELS, THE SRCHAVR ROUTINE IS USED TO
*,*                   LOCATE THE TAPE OR ANY DUPLICATES THEREOF AND PROCESS
```

```
1881                                *,*                 THE TAPE IN A MANNER ANALOGOUS TO ANS, ABOVE.
   1*                               ************************************************************************
   2*                               *
1882   01 00333   32500007 A                LW,R5    R7
1883   01 00334   20500000 N                AI,R5    =BATAPE             AVRX
1884   01 00335   69100390                 BLZ      AVRBZERR
1885   01 00336   730A0000 X                MTB,O    SOLICIT,R5          AVR SOLICITED
1886   01 00337   69300330                 BNEZ     AVR1
1887   01 00338   12EA0000 X                LD,D3    AVRTBL,R5
1888   01 00339   31F00001                 CW,D4    YC1FF
1889   01 00330   69400390                 BANZ     AVRBZERR            BUSY=IGNORE
1890   01 00338   52FA0000 X                LH,D4    AVRNOU,R5
1891   01 00330   69300390                 BNEZ     AVRBZERR            BUSY ALSO
1892        01 0033D                AVR1     EQU      *
1893   01 00330   32A00330                 LW,SR3   *                   SET PACK FLAG
1894   01 00330   497003B7                 OR,R7    XFF0A00
1895   01 00330   21500000 N                CI,R5    AVRTBLSIZ           IF PACK, JUST READ VTOC
1896   01 00340   68100369                 BGE      RD!LBL
1897   01 00341   B2A00341                 LW,SR3   **                  SET TAPE FLAG
1898   01 00342   22000000 A                LI,R0    0
1899   01 00343   750A0000 X                STB,0    AVRFLGS,5           INITIALIZE AVRFLGS
1900        01 00344                REAVR    EQU      *
1901   01 00344   32C0001C N                LW,R12   Y08                 REWIND
1902   01 00345   6A800395                 BAL,SR1  POSTAPE
1903   01 00346   6AB00381                 BAL,SR4  GETFLG1
1904   01 00347   6840034E                 BCR,4    NOCC                NO CODE CONVERSION ON DRIVE
1905                                *                     SET CODE CONVERSION MODE
1906   01 00348   32C003B3                 LW,R12   MCFC
1907   01 00349   32F0001C N                LW,R15   Y08                 EBCDIC
1908   01 00340   702A0000 X                LC       AVRFLGS,R5
1909   01 00348   68400340                 BAZ      *+2
1910   01 00340   32F0001D N                LW,R15   Y1                  ASCII
1911   01 00340   6A800396                 BAL,SR1  POSTAPE1
1912        01 0034E                NOCC     EQU      *
1913   01 0034E   22C00000 A                LI,R12   0                   READ TAPE
1914   01 0034F   22E0000A A                LI,R14   10                  COUNT
1915   01 00350   6A800397                 BAL,SR1  READTAPE
```

```
1916  01 00351  32C00000 X          LW,12   JIBASE          SENTINEL TYPE
1917  01 00352  31C003B5            CW,12   VOL1            ANS TAPE
1918  01 00353  69300359            BNE     NOTVOL1         NOT ANS
1919  01 00354  92100004 N          LI,R1   BA(JIBASE)+4
1920  01 00355  6AB00000 X          BAL,SR4 SIXPACK
1921  01 00356  32900000 X          LW,SR2  Y3              ANSMOUNT FLAG
1922  01 00357  32E00002 A          LW,D3   R2
1923  01 00358  68000373            B       DOSRCH
1924     01 00359           NOTVOL1 EQU     *
1925  01 00359  31C003B4            CW,12   ASCVOL1
1926  01 0035A  69300361            BNE     CHK;LBL         NOT ANS-CHECK XEROX LABEL
1927  01 0035B  6AB00381            BAL,SR4 GETFLG1
1928  01 0035C  684003AA            BAZ     CCERR           ASCII TAPE ON NON-ASCII DRIVE
1929  01 0035D  72EA0000 X          LB,14   AVRFLGS,R5
1930  01 0035E  20E00040 A          AI,14   X'40'           SET ASCII
1931  01 0035F  75EA0000 X          STB,R14 AVRFLGS,R5
1932  01 00360  68000344            B       REAVR
1933  01 00361                CHK;LBL RES     0
1934  01 00361  32C00000 X          LW,R12  Y07             POSITION THE TAPE FORWARD
1935  01 00362  6A800395            BAL,SR1 POSTAPE          OVER A TAPE MARK, THEN
1936  01 00363  32C00000 X          LW,R12  Y06              BACKWARD OVER THE MARK, THEN
1937  01 00364  6A800395            BAL,SR1 POSTAPE           BACK OVER THE ASSUMED
1938  01 00365  32C0001B N          LW,R12  Y04                ;ACN SENTINAL AND THE
1939  01 00366  6A800395            BAL,SR1 POSTAPE             ;LBL SENTINAL.
1940  01 00367  32C0001B N          LW,R12  Y04
1941  01 00368  6A800395            BAL,SR1 POSTAPE
1942                          *
1943                          *       TAPE IS NOW POSITIONED JUST BEFORE THE ;LBL
1944                          *       IF IT IS A XEROX LABELED TAPE
1945                          *
1946  01 00369  92C00000 A    RD;LBL  LI,12   0
1947  01 0036A  92E0000C A          LI,14   12              BYTES IN ;LBL SENTINAL
1948  01 0036B  6A800397            BAL,SR1 READTAPE
1949  01 0036C  31000010 N          CW,R0   M16             LOST DATA
1950  01 0036D  69400384            BANZ    AVRLBERR        YEP, NOT ;LBL SENTINAL
1951  01 0036E  32C00000 X          LW,12   JIBASE          OK, PICK UP WHAT WE READ
1952  01 0036F  31C003B6            CW,12   ;LBL           GOT WHAT WE WANTED
```

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01 00370   6930038A                 BNE        AVRLBERR           NOT LABELED
01 00371   32E00001 N               LW,D3      J!BASE+1           FETCH SN
01 00372   22900000 A               LI,SR2     0                  MOUN KEYIN
01 00373   35E00006 N    DOSRCH     STW,D3     J!BASE+6           SAVE SN
01 00374   32800380                 LW,SR1     MSGT
01 00375   70200009 A               LC         SR2                MAKE MESSAGE
01 00376   68F00378                 BCR,15     $+2
01 00377   73200008 A               MTB,2      SR1                ANSSN 6 BYTES
01 00378   35800000 X               STW,SR1    J!BASE
01 00379   22100000 N               LI,1       J!BASE
01 0037A   6AB00000 X               BAL,11     @CQUEUE
01 0037B   32E00006 N               LW,D3      J!BASE+6           RESTORE SN
01 0037C   22600000 A               LI,R6      0                  NO ID
01 0037D   12CA0000 X               LD,D1      AVRTBL,R5          @LD AVRTBL
01 0037E   32F0000D A               LW,D4      D2                 FLAGS
01 0037F   6800023D                 B          GETAVR1            TRUNDLE INTO MOUNT LOGIC
01 00380   076B407B A    MSGT       GEN,8,24   7,', #'
```

```
                                      PAGE
        01 003B1             GETFLG1  EQU      $
                             ********************************************************************
                             *D*      NAME:    GETFLG1
                             *,*      DESCRIPTION SETS THE CONDITION CODES FROM THE TB:FLGS1 ENTRY
                             *,*               FOR THE TAPE DRIVE WHOSE AVRX IS IN R5.
                             ********************************************************************
01 00381    441002C0                  ANLZ,R1  DCTX           COMPUTE DCT INDEX
01 00382    72120000 X                LB,1     DCT4,1
01 00383    70220000 X                LC       TB:FLGS1,1
01 00384    F800000B A                B        *SR4
```

```
1979                                                  PAGE
   1*                                       *************************************************************************
1980                                        *0*       MESSAGE: YYNDD AVR I/0 ERROR
1981                                        *0*       MEANING: I/0 ERROR OCCURRED TRYING TO READ THE LABEL
1982                                        *0*       ACTION:  TRY A DIFFERENT DRIVE OR GIVE UP.
   1*                                       *************************************************************************
1983     01 00385      6A10032D             AVRIOERR BAL,1     AVRS+1
1984     01 00386      0E40C1E5 A                    TEXTC     ' AVR I/0 ERROR'
         01 00387      D940C961 A
         01 00388      D640C5D9 A
         01 00389      D9D6D940 A
   1*                                       *************************************************************************
1985                                        *0*       MESSAGE: YYNDD AVR LABEL ERROR
1986                                        *0*       MEANING: NO RECOGNIZABLE LABEL COULD BE FOUND
1987                                        *0*       ACTION:  USE MOUNT KEYIN OR GIVE UP
   1*                                       *************************************************************************
1988     01 0038A      6A10032D             AVRLBERR BAL,1     AVRS+1
1989     01 0038B      1040C1E5 A                    TEXTC     ' AVR LABEL ERROR'
         01 0038C      D940D3C1 A
         01 0038D      C2C5D340 A
         01 0038E      C5D9D9D6 A
         01 0038F      D9404040 A
   1*                                       *************************************************************************
1990                                        *0*       MESSAGE: YYNDD AVR DRIVE BUSY
1991                                        *0*       MEANING: DRIVE IS NOT TAPE OR PACK OR IS IN USE ALREADY.
1992                                        *0*       ACTION:  REQUEST DRIVE AND TRY AGAIN OR GIVE UP
   1*                                       *************************************************************************
1993     01 00390      6A10032D             AVRBZERR BAL,1     AVRS+1
1994     01 00391      0F40C1E5 A                    TEXTC     ' AVR DRIVE BUSY'
         01 00392      D940C4D9 A
         01 00393      C9E5C540 A
         01 00394      C2E4E2E8 A
```

```
                                   PAGE
           01 00395      POSTAPE  EQU       $
                         *******************************************************************
                         *D*      NAME:     POSTAPE
                         *,*      ENTRY:    POSTAPE1, READTAPE
                         *,*      DESCRIPTION ROUTINE SETS UP AND PERFORMS TAPE I/O OPERATIONS
                         *,*                VIA NEWQ. POSTAPE ENTRY FORCES 1 RECORD, SIZE 0,
                         *,*                POSTAPE1 FORCES SIZE ZERO, READTAPE FORCES NEITHER.
                         *******************************************************************
01 00395    22F00000 A            LI,R15    0                  #RECORDS
           01 00396      POSTAPE1 EQU       $
01 00396    22E00000 A            LI,R14    0                  *,SIzE
           01 00397      READTAPE EQU       $
01 00397    120003A8              LD,0      EAPROG             PUT EA IN JIBASE
01 00398    15000006 N            STD,0     JIBASE+6
01 00399    32100000 X            LW,R1     S:CUN              FIND IT PHYSICALLY
01 0039A    72120000 N            LOAD,R1   UX;JIT,R1
01 0039B    25100009 A            SLS,R1    9
01 0039C    20100004 N            AI,1      JIBASE-J:JIT+4
01 0039D    22D00000 N            LI,13     BA(JIBASE)         BUFFER ADDRESS
01 0039E    49C00007 A            OR,R12    R7
01 0039F    32000001 A            LW,0      1
01 003A0    20000002 A            AI,0      2
01 003A1    6AB00000 X            BAL,SR4   NEWQ
01 003A2    680003AE              B         DEVICEDOWN
01 003A3    32000004 N            LW,R0     JIBASE+4           GET END ACTION INFO
01 003A4    3100001C N            CW,R0     YO8                I/O ERROR
01 003A5    68100385              BGE       AVRIOERR           YEP
01 003A6    F8000008 A            B         *SR1
                         *
                                  BOUND     8
01 003A8    85C0000A A   EAPROG   STW,12    *R10
01 003A9    F800000B A            B         *SR4
```

```
2026                                    PAGE
2027                                    SPACE   3



2028          01 003AA          CCERR   EQU     *
   1*                                   ********************************************************************
   2*                                   *0*     MESSAGE: YYNDD ASCII TAPE
2030                                    *0*     ACTION   REMOUNT ON DRIVE WITH ASCII OPTION, OR ABORT JOB
2031                                    *,*     MEANING  TAPE IS IN ASCII CODE AND CAN BE READ ONLY ON NS TAPE
2032                                    *,*              DRIVES WITH THE CODE CONVERSION OPTION.
   1*                                   ********************************************************************
2033    01 0003AA     6A10032D          BAL,1   AVRS*1
2034    01 0003AB     0B40C1E2 A        TEXTC   ' ASCII TAPE'
        01 0003AC     C3C9C940 A
        01 0003AD     E3C1D7C5 A
2035          01 003AE          DEVICEDOWN EQU  *
   1*                                   ********************************************************************
   2*                                   *0*     MESSAGE: YYNDD DEVICE DOWN
2037                                    *,*     ACTION   USE ANOTHER DRIVE
2038                                    *,*     MEANING  DEVICE CURRENTLY PARTITIONED OUT OF SYSTEM
   1*                                   ********************************************************************
2039    01 0003AE     6A10032D          BAL,1   AVRS*1
2040    01 0003AF     0C40C4C5 A        TEXTC   ' DEVICE DOWN'
        01 0003B0     E5C9C3C5 A
        01 0003B1     40C4D6E6 A
        01 0003B2     D5404040 A
2041                                    SPACE   3



2042                                    *
2043    01 0003B3     00000000 N        MCFC    GEN,8,24 FCMC,0
2044    01 0003B4     E64F4C31 A        ASCVOL1  DATA    X'E64F4C31'        ASCII VOL1
2045    01 0003B5     E5D6D3F1 A        VOL1    TEXT    'VOL1'
2046    01 0003B6     7AD3C2D3 A        'LBL    TEXT    ':LBL'
2047    01 0003B7     00FF0A00 A        XFF0A00 DATA    X'FF0A00'
```

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2048   01 00388    00000088 A   X88       DATA      X'88'
```

```
                                       PAGE
      01 003B9           KIREQ         RES       0                  REQUEST KEYIN
                         *********************************************************************
                         *F*           NAME:     KIREQ
                         *F*
                         *F*           PURPOSE: TO PROCESS THE 'REQUEST RT' (RESOURCE-TYPE) FORM OF
                         *F*                     THE 'REQUEST' KEYIN.
                         *F*
                         *F*           DESCRIPTION:  SCANS THE AVR TABLES FOR AN AVAILABLE RESOURCE
                         *F*                     OF THE TYPE SPECIFIED; THE OPERATOR IS THEN NOTIFIED
                         *F*                     OF ITS AVAILABILITY OR OF THE NEED TO DISMOUNT A
                         *F*                     VOLUME.
                         *********************************************************************
                         *D*           NAME:     KIREQ
                         *D*
                         *D*           ENTRY:    KIREQNDD
                         *D*                                                 --              --
                         *D*           CALL:     KEYIN FORMAT:  REQUEST |RESOURCE-TYPE|
                         *D*                                                |NDD          |
                         *D*                                                 --              --
                         *D*
                         *D*           INPUT:    R7 = ADR OF KEYIN PARAMETER LIST
                         *D*                     SH:RNM, SB:RTY, TB:FLGS, DCT4
                         *D*
                         *D*           INTERFACE:  GKIFLD, CKFREE, QUEUE
                         *D*
                         *D*           ENVIRONMENT:  MASTER/MAPPED
                         *D*
                         *D*           DESCRIPTION:  GKIFLD IS CALLED TO OBTAIN THE RESOURCE-TYPE
                         *D*                     OR DEVICE ADDRESS.  IF A 2-CHARACTER OPTION IS
                         *D*                     PRESENT, IT IS ASSUMED TO BE A RESOURCE-TYPE AND
                         *D*                     SH:RNM IS SEARCHED FOR A MATCH.  SB:RTY IS THEN
                         *D*                     PICKED UP AND DCT4 IS SCANNED FOR A DEVICE-TYPE
                         *D*                     MATCH.  FOR EACH MATCH, CKFREE IS CALLED TO
                         *D*                     DETERMINE IF THE DEVICE IS AVAILABLE.  IF A DEVICE
                         *D*                     ADDRESS WAS SPECIFIED, DEVCK IS CALLED TO OBTAIN THE
                         *D*                     DCT INDEX OF THE DEVICE, TB:FLGS IS CHECKED TO INSURE
```

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   25*                                   *D*            THAT THE DEVICE IS A TAPE OR PACK, AND CKFREE IS
   26*                                   *D*            CALLED TO DETERMINE IF THE DEVICE IS AVAILABLE.  WHEN
   27*                                   *D*            THE SPECIFIED DEVICE OR A DEVICE OF THE SAME RESOURCE
   28*                                   *D*            TYPE SPECIFIED IS FOUND TO BE AVAILABLE, AN
   29*                                   *D*            APPROPRIATE MESSAGE IS SENT TO THE OPERATOR:
   30*                                   *D*                 NDD      (IF THE DEVICE IS READY)
   31*                                   *D*                 NDD DISMOUNT SCRATCH REEL #
   32*                                   *D*                 NDD DISMOUNT AND SAVE REEL #
   33*                                   *D*            OTHERWISE THE OPERATOR IS TOLD TO TRY 'LATER'.
   34*                                   ***********************************************************************
 2063                                    *
 2064    01 003B9    6AB00050                     BAL,SR4   OKIFLD
 2065    01 003BA    69800066                     BCS,8     KEYERR
 2066    01 003BB    33EE0004 A                   MTW,-2    KFL,R7
 2067    01 003BC    693003DA                     BNEZ      KIREQNDD            NDD
 2068    01 003BD    22100003 A                   LI,R1     3                   LATER INDEX
 2069    01 003BE    32EE0005 A                   LW,D3     KPLB,R7
 2070    01 003BF    25E00070 A                   SLS,D3    -16
 2071    01 003C0    2240000A A                   LI,R4     10
 2072    01 003C1    21E0D4E3 A                   CI,D3     'MT'
 2073    01 003C2    683003CF                     BE        REQTY
 2080    01 003C3    2240000B A                   LI,R4     X'B'
 2081    01 003C4    21E0C4D7 A                   CI,D3     'DP'
 2082    01 003C5    683003CF                     BE        REQTY
 2083    01 003C6    53F0000E A                   MTH,-1    D3                  GETSIGN EXTENDED...
    1*   01 003C7    22200000 N                   LI,R2     SVIRSIZ
 2085    01 003C8    51E40000 X                   CH,D3     SHIRNM,R2           TEST FOR RESOURCE TYPR
 2086    01 003C9    683003CC                     BE        REQ@RS              FOUND ONE
 2087    01 003CA    642003C8                     BDR,R2    $-2                 TEST AGAIN
 2088    01 003CB    68000066                     B         KEYERR              NO MATCH-ERROR
 2089                                    *
 2090    01 003CC    72440000 X          REQ@RS   LB,R4     SBIRTY,R2           GET DEVICE TYPE
 2091    01 003CD    70280000 X                   LC        TBIFLGS,R4          FIND OUT WHAT KIND
 2092    01 003CE    68800066                     BCR,8     KEYERR              NOT TAPE OR PACK --ERROR
 2093                                    *        CHECK FOR FIRST AVAIL
 2094                                    *        TYPE IN   R4
 2095    01 003CF    22200000 N          REQTY    LI,R2     -AVRTBLNE
```

```
2096   01 003D0   22300000 N          LI,R3    BATAPE
2097   01 003D1   2140000A A  REQTY1  CI,R4    10
2098   01 003D2   683003D6           BE       REQTY2=1
2099   01 003D3   72C60000 X          LR,D1    DCT4,R3
2100   01 003D4   31C00004 A          CW,D1    R4                TYPE
2101   01 003D5   693003D7           BNE      REQTY2
2102   01 003D6   6A5003E9           BAL,5    CKFREE
2103   01 003D7   20300001 A  REQTY2  AI,R3    1
2104   01 003D8   652003D1           BIR,R2   REQTY1
2105   01 003D9   68000068           B        KEYERR1           NONE      LATER=R1
```

```
                                           PAGE
01 003DA                        KIREQNDD RES      0
                                ****************************************************************
                                *F*      NAME:    KIREQNDD
                                *F*
                                *F*      PURPOSE: TO PROCESS THE 'REQUEST NDD' FORM OF THE 'REQUEST'
                                *F*               KEYIN.
                                *F*
                                *F*      DESCRIPTION:  THE DEVICE ADDRESS IS VALIDATED AND THE
                                *F*               APPROPRIATE AVR TABLE ENTRIES ARE CHECKED TO SEE IF
                                *F*               THE DEVICE IS AVAILABLE; THE OPER. IS THEN NOTIFIED
                                *F*               APPROPRIATELY.
                                ****************************************************************
                                *
01 003DA   322E0005 A                    LW,R2    KPLB,R7
01 003DB   25200170 A                    SLD,R2   =16
01 003DC   6AB00000 X                    BAL,SR4  DEVCK              DEVICE POINTER IN R2
01 003DD   69800066                      BCS,8    KEYERR
01 003DE   72440000 X                    LB,R4    DCT4,R2
01 003DF   70280000 X                    LC       TBIFLGS,R4         GET DEVICE TYPE
01 003E0   68800066                      BCR,8    KEYERR             NOT TAPE OR PACK
01 003E1   22100003 A           KIREQND6 LI,R1    3                  LATER
01 003E2   20200000 N                    AI,2     =BATAPE-AVRTBLNE
01 003E3   6A5003E9                      BAL,R5   CKFREE
01 003E4   68000068                      B        KEYERR1            LATER
01 003E5   32C0041B             KIRQUE   LW,D1    KIREQBK
01 003E6   35C3FFFA A                    STW,D1   KIREQBLK-KIREQ111-20,R1
01 003E7   6AB00000 X           KIRQUE1  BAL,SR4  QUEUE
                                ****************************************************************
                                *O*      MESSAGE: NDD
                                *O*
                                *O*      MEANING: THE REQUESTED UNIT IS EMPTY
                                *O*
                                *O*      ACTION:  NONE
                                *O**************************************************************
                                *O*      MESSAGE: NDD DISMOUNT SCRATCH REEL #
                                *O*
```

```
   10*                          *0*      MEANING: THE SCRATCH TAPE ON TAPE DRIVE 'NDD' IS NO LONGER
   11*                          *0*               NEEDED.
   12*                          *0*
   13*                          *0*      ACTION:  DISMOUNT TAPE SPECIFIED BY 'REEL #' IF THE TAPE DRIVE
   14*                          *0*               IS NEEDED.
   15*                          *0*****************************************************************
   16*                          *0*      MESSAGE: NDD DISMOUNT AND SAVE REEL #
   17*                          *0*
   18*                          *0*      MEANING: THE TAPE ON TAPE DRIVE 'NDD' IS NO LONGER NEEDED.
   19*                          *0*
   20*                          *0*      ACTION:  DISMOUNT TAPE SPECIFIED BY 'REEL #' AND SAVE.
   21*                          *****************************************************************
 2203   01 003E8    A800006D             B        KEYINR             EXIT
```

```
                                    PAGE
       01 003F9           CKFREE    EQU      *
                          ***********************************************************
                          *F*       NAME:    CKFREE
                          *F*
                          *F*       PURPOSE: SUBROUTINE TO DETERMINE IF A SPECIFIED TAPE OR PACK
                          *F*                IS FREE.
                          *F*
                          *F*       DESCRIPTION:  SEE 'D' REPORT
                          ***********************************************************
                          *D*       NAME:    CKFREE
                          *D*
                          *D*       CALL:    BAL,R5              (SEE DESCRIPTION BELOW)
                          *D*
                          *D*       INPUT:   R2 = X*BATAPE-AVRTBLNE
                          *D*                   (WHERE X = DCTX OF DEVICE TO BE CHECKED)
                          *D*                AVRTBL, AVRNOU, AVRID
                          *D*
                          *D*       OUTPUT:  ANSFLGS, AVRFNMT
                          *D*
                          *D*       REGISTERS:  ONLY R2 AND R3 ARE PRESERVED
                          *D*
                          *D*       INTERFACE:  RAT:DCT4, GMB
                          *D*
                          *D*       ENVIRONMENT:  MASTER/MAPPED
                          *D*
                          *D*       DESCRIPTION:  THE AVR TABLES (AVRTBL, AVRNOU, AVRID) ARE
                          *D*                SCANNED TO DETERMINE IF THE SPECIFIED DEVICE IS IN
                          *D*                USE.  IF IN USE, RETURN IS MADE TO BAL+1; IF NOT IN
                          *D*                USE, MISCELLANEOUS AVR TABLES ARE ZEROED (ANSFLGS,
                          *D*                AVRFNMT), GMB IS CALLED TO OBTAIN A BUFFER, AN
                          *D*                APPROPRIATE MESSAGE IS FORMATTED AND CKFREE EXITS TO
                          *D*                KIRQUE (IN KIREQNDD) TO ISSUE THE MESSAGE.
                          ***********************************************************
                          *
 01 003E9   22E00000 A              LI,D3    0
 01 003EA   22F00000 A              LI,D4    0
```

```
2208  01 003EB  6D000037 A          WD,0    X'37'              D
2209  01 003EC  12C40000 F          LD,D1    AVRTBL+AVRTBLNE+AVRTBLNE,2
2210  01 003ED  20200000 N          AI,2     AVRTBLNE           ADJUST OFFSET
2211  01 003EE  21200000 N          CI,2     AVRTBLSIZ          TAPE
2212  01 003EF  681003F4            BGE      CKF7               NO
   1* 01 003F0  53040000 X  CKF5    MTH,0    AVRID,2            IN USE
2214  01 003F1  68300421            BEZ      CKZERO1            NO
2215  01 003F2  20200000 N  CKF6    AI,2     =AVRTBLNE          ADJUST OFFSET
2216  01 003F3  68000408            B        CKF10              RETURN
2217  01 003F4  31D00000 X  CKF7    CW,D2    Y18                VER OR INIT SET
2218  01 003F5  694003F2            BANZ     CKF6               YES, CAN'T USE IT NOW
2219  01 003F6  20D00000 A          AI,13    0                  IS IT PUBLIC
2220  01 003F7  691003FB            BLZ      CKF8               MAYBE
2221  01 003F8  53040000 X          MTH,0    AVRNOU,2           IS IT IN USE
2222  01 003F9  68300421            BEZ      CKZERO1            NO, WE CAN DISMOUNT
2223  01 003FA  680003F2            B        CKF6               YES, RETURN
2224  01 003FB  20C00000 A  CKF8    AI,12    0
2225  01 003FC  683003F2            BEZ      CKF6               SYSTEM PACK,RETURN
2226  01 003FD  52B40000 X          LH,SR4   AVRNOU,2           IS PRIV    MARKED PUBLIC
2227  01 003FE  21B00001 A          CI,SR4   1                  IS GHOST THE ONLY USER
2228  01 003FF  693003F2            BNE      CKF6               NO, CAN'T HAVE IT
2229  01 00400  55E40000 X          STH,14   AVRNOU,2           YES, ZAP # USERS
2230  01 00401  55E40000 X          STH,14   AVRID,2            AND MAYBE LOCK FLAG
2231  01 00402  20200000 N          AI,2     BATAPE
2232  01 00403  6AB00000 X          BAL,11   RAT;DCT4
2233  01 00404  53F20000 X          MTH,=1   SHIRQCU,1
2234  01 00405  35B00000 X          STW,SR4  SIMBSF             KICK BATCH SCHEDULER
2235  01 00406  20200000 N          AI,2     =BATAPE            AVR INDEX
2236  01 00407  68000421            B        CKZERO1            AND GO DISMOUNT IT
2237     01 00408            CKF10   EQU      $
2238  01 00408  6D000027 A          WD,0     X'27'              E
2239  01 00409  680A0000 A          B        0,R5               NO
2240  01 0040A  5A5A4040 A  KIREQ111 TEXT     '    '
2241  01 0040B  C1F0F040 A  KIREQDD  TEXT     'A00 '
2242  01 0040C  C4C9E2D4 A          TEXT     'DISMOUNT'
      01 0040D  D6E4D5E3 A
2243  01 0040E  40E2C3D9 A  KIREQT1 TEXT     ' SCRATCH'         4
```

```
                01 00040F    C1E3C3C8 A
2244            01 000410    40404040 A                 TEXT      '    '
2245            01 000411    40404040 A  KIREQT2        TEXT      '    '              REEL NR
2246                                     *                                           RELEASE BUFFER
2247                    01 00412         KIREQDCB       EQU       *
2248            01 000412    00A00003 A                 DATA      X'00A00003'
2249            01 000413    00008001 A                 DATA      X'8001'            DCTX
2250            01 000414    00000000 A                 PZE       0
2251            01 000415    00000000 A                 PZE       0
2252            01 000416    00000000 A                 PZE       0
2253            01 000417    00000000 A                 PZE       0
2254            01 000418    00400000 A  KIREQBLK       GEN,15,17  32,0
2255            01 000419    01000000 A  KIREQBF       GEN,8,8,16 1,0,0              FCN,0,QBUF
2256            01 00041A    00000000 A                 PZE       0
2257            01 00041B    00100000 A  KIREQBK       GEN,15,17  8,0
2258            01 00041C    04000008 A  KIREQ8        GEN,8,24 4,KIREQDCB-KIREQ111
2259            01 00041D    40C1D5C4 A  KIREQSV       TEXT      ' AND SAVE   '
                01 00041E    40E2C1E5 A
                01 00041F    C5404040 A
2260            01 000420    C1B7F040 A  KIRCN2        DATA      X'C1B7F040'        CONVERSION
   1*                                    *
   2*                                    *
   3*                                    *
   4*           01 000421    21200000 N  CKZER81       CI,2      AVRTBLSIZ
   5*           01 000422    68100452                 BGE       CKZER83            PACK
   6*           01 000423    75E40000 X               STB,D3    ANSFLGS,R2
   7*           01 000424    32300002 A               LW,3      2                  AVRX
   8*           01 000425    23300018 A               MI,3      6*4                AVRFNMTBLX
   9*           01 000426    44100007                 ANLZ,1    BAUNIT1            BA AVRFNMTBL
  10*           01 000427    49100000 X               OR,1      Y18                EACH ENTRY 24 BYTES
  11*           01 000428    61000000 N               MBS,0     BA(X0)             ZAP
  12*           01 000429    68000428                 B         CKZER82+1
  13*           01 00042A    6BF0000D A  CKZER82       INT,D4    D2                 SAVE HGP
  14*           01 00042B    20200000 N               AI,2      =AVRTBLNE
  15*           01 00042C    15E40000 F  CKZER8        STD,D3     AVRTBL+AVRTBLNE+AVRTBLNE,2
  16*           01 00042D    6D000027 A               WD,0       X'27'
  17*           01 00042E    20200000 N               AI,2       BATAPE+AVRTBLNE
```

```
01 0042F   32600002 A             LW,6      2                        SAVE INDEX
01 00430   6AB00000 X             BAL,SR4   GMB                      USES D3,R0,R2,R5
01 00431   68300430               BEZ       $-1                      WAIT
01 00432   3210000E A             LW,R1     D3
01 00433   3280041C               LW,8      KIREQ8
01 00434   223FFFEC A             LI,R3     -20
01 00435   3080000E A             AW,8      D3                       SET DCB IN 8
01 00436   32F6041E   KIREQFIL    LW,D4     KIREQ111+20,R3           MOVE IMAGE TO BUFFER
01 00437   35F20000 A             STW,D4    0,R1
01 00438   20100001 A             AI,R1     1
01 00439   65300436               BIR,R3    KIREQFIL        0
01 0043A   66E3FFFB A             AWM,D3    KIREQBF-KIREQ111-20,R1         QBUF SET
01 0043B   52EC0000 X             LH,D3     DCT1,R6
01 0043C   4BE0000B N             AND,D3    X7FF
01 0043D   22F00000 A             LI,D4     0
01 0043E   22300003 A             LI,R3     3
01 0043F   25E0017C A KIRCN       SLD,D3    -4
01 00440   25F0007C A             SLS,D4    -4
01 00441   6430043F               BDR,R3    KIRCN
01 00442   66F3FFED A             AWM,D4    KIREQDD-KIREQ111-20,R1         NDD
01 00443   21F80000 A             CI,D4     X'80000'
01 00444   68400449               BCR,4     KIRCN1
01 00445   21F60000 A             CI,D4     X'60000'
01 00446   68400449               BCR,4     KIRCN1
01 00447   30F00420               AW,D4     KIRCN2
01 00448   35F3FFED A             STW,D4    KIREQDD-KIREQ111-20,R1
01 00449              KIRCN1      RES       0
01 00449   20C00000 A             AI,D1     0
01 0044A   683003E5               BEZ       KIRQUE                         SET BYTE COUNT =R
01 0044B   35C3FFF3 A             STW,D1    KIREQT2-KIREQ111-20,R1         REEL NR
01 0044C   7020000D A             LC        D2
01 0044D   691003E7               BCS,1     KIRQUE1
01 0044E   02200030 A             LCI       3
01 0044F   2AD0041D               LM,D2     KIREQSV
01 00450   2BD3FFF0 A             STM,D2    KIREQT1-KIREQ111-20,R1        'AND SAVE'
01 00451   680003E7               B         KIRQUE1
01 00452   02200040 A CKZER03     PUSH      4,R1
```

```
      01 00453  0B100000 N
55*   01 00454  20203C00 N            AI,R2   BATAPE+X'3C00'   NEW FORMAT
56*   01 00455  22F10000 A            LI,15   X'10000'         CFUPRIVBIT
57*   01 00456  22400004 A            LI,R4   4                WA(DCTX)
58*   01 00457  22100000 N            LI,R1   BGRCFU
59*   01 00458  F0200001 A   1A2      LC      *R1
60*   01 00459  69C00045F             BCS,12  1A1              IT'S IN USE
61*   01 00459  31F20000 A            CW,15   0,R1
62*   01 0045B  68400045F             BAZ     1A1              NOT PRIVATE
63*   01 0045C  D1280001 A            CH,R2   *R1,R4
64*   01 0045D  69300045F             BNE     1A1              NO HIT
65*   01 0045E  35420002 A            STW,R4  2,R1
66*   01 0045F  20100000 N   1A1      AI,R1   CFUSIZE
67*   01 00460  31100000D N           CW,R1   ACNCFU+13
68*   01 00461  68200458              BLE     1A2
69*   01 00462  02200040 A            PULL    4,R1
      01 00463  0A100000 N
70*   01 00464  6800042A              B       CKZER02
```

```
2269                                    PAGE
2270   01 00465                 KIRAD1ST RES     0
2271                                    ***************************************************************
2272                                    *F*      NAME:    KIRAD1ST
2273                                    *F*
2274                                    *F*      PURPOSE: TO PROCESS THE 'PREFER' KEYIN.
2275                                    *F*
2276                                    *F*      DESCRIPTION:  INITIALIZES THE CELL RAD1ST (0 MEANS 'PREFER
2277                                    *F*                    DP'; 1 MEANS 'PREFER RAD').
2278                                    ***************************************************************
2279                                    *
2280   01 00465   32D00001 A            LI,D2    1
2281   01 00466   31800040 A            CI,SR1   ' '
2282   01 00467   68300469              BE       *+2
2283   01 00468   32D00000 A            LI,D2    0
2284   01 00469   35D00000 X            STW,D2   RAD1ST
2285   01 0046A   6800006D              B        KEYINR
```

```
                                 PAGE
        01 0046B        SKIN     EQU      $
                        **********************************************************************
                        *F*      NAME:    SKIN
                        *F*
                        *F*      PURPOSE: TO PROCESS THE 'SYY,OPTION' FORM OF THE SYMBIONT KEYI
                        *F*
                        *F*      DESCRIPTION:  FINDS AN APPROPRIATE SYMBIONT BASED ON THE
                        *F*               SPECIFIED DEVICE-TYPE (YY) AND MERGES INTO THE SKEYIN
                        *F*               ROUTINE.
                        **********************************************************************
                        *D*      NAME:    SKIN
                        *D*
                        *D*      ENTRY:   SKEYIN
                        *D*                                 -- --
                        *D*      CALL:    KEYIN FORMAT:  SYY|NDD|,OPTION
                        *D*                                 -- --
                        *D*      INPUT:   R2/R3 = FIRST FIELD OF KEYIN
                        *D*               R7 = ADR OF KEYIN PARAMETER LIST
                        *D*               OHINM, SNDDX, STBITYP, MXSTRM, RBLIMS, DCT16
                        *D*
                        *D*      OUTPUT:  R7 = ADR OF KEYIN PARAMETER LIST
                        *D*               R2 = DCT INDEX OF SYMBIONT DEVICE
                        *D*               D1(R12) = OPTION CHARACTER
                        *D*
                        *D*      REGISTERS:  ALL ARE VULNERABLE
                        *D*
                        *D*      INTERFACE:  DEVCK, SYMCOM, GKIFLD, NXKICHR, KSGCQ
                        *D*
                        *D*      ENVIRONMENT:  MASTER/MAPPED
                        *D*
                        *D*      DESCRIPTION:  IF THE ABBREVIATED FORM OF THE KEYIN WAS USED
                        *D*               (SYY), OHINM IS SCANNED FOR A MATCH AGAINST YY;
                        *D*               STBITYP AND SNDDX ARE USED TO VERIFY  THAT SUCH A
                        *D*               DEVICE-TYPE IS A SYMBIONT DEVICE, AND REGISTERS ARE
                        *D*               LOADED FROM DCT16 TO SIMULATE THE SYYNDD FORM OF THE
                        *D*               KEYIN.  FOR EITHER FORM OF THE KEYIN, DEVCK VERIFIES
```

```
                                   *D*           THE DEVICE ADDRESS, REMOTE BATCH TERMINALS ARE EX-
                                   *D*           CLUDED, AND, IF THE OPTION IS ANYTHING OTHER THAN
                                   *D*           'F', SYMCOM IS CALLED TO PROCESS IT.  THE 'F' OPTION
                                   *D*           CAUSES A KFRMGFC GHOST FUNCTION CODE TO BE PASSED TO
                                   *D*           RBBAT VIA KSGCQ.
                                   ************************************************************************
                                   *
01 0046B    323E0004 A                     LW,R3     KFL,R7
01 0046C    21300003 A                     CI,3      3
01 0046D    69300489                       BNE       SKEYIN
01 0046E    2180006B A                     CI,8      ','
01 0046F    69300489                       BNE       SKEYIN
01 00470    25200008 A                     SLS,2     8
01 00471    52800002 A                     LH,8      2
01 00472    22200000 N                     LI,2      TYPMNSZ
01 00473    51840000 X                     CH,8      OHINM,2
01 00474    68300477                       BE        $+3
01 00475    64200473                       BDR,2     $-2
01 00476    68000066                       B         KEYERR
01 00477    22400000 A                     LI,4      0
01 00478    72300000 X                     LB,3      SNDDX
01 00479    71260000 X                     CB,2      STBITYP,3
01 0047A    6830047D                       BE        $+3
01 0047B    64300479             SKIN2     BDR,3     $-2
01 0047C    68000483                       B         SKIN3
01 0047D    21300000 N                     CI,3      MXSTRM
01 0047E    68200483                       BLE       SKIN3
01 0047F    20400000 A                     AI,4      0
01 00480    69300066                       BNEZ      KEYERR
01 00481    72460000 X                     LB,4      SNDDX,3
01 00482    6800047B                       B         SKIN2
         01 00483                SKIN3     EQU       $
01 00483    20400000 A                     AI,4      0
01 00484    68300066                       BEZ       KEYERR
01 00485    12280000 X                     LD,2      DCT16,4
01 00486    25200110 A                     SLD,2     16
01 00487    2280006B A                     LI,8      ','
```

H01 17:42 SEP 08, '75
2328 01 00488 68000488 B SKIN1

```
                                        PAGE
          01 00489            SKEYIN    EQU       $
                              ****************************************************************
                              *F*       NAME:     SKEYIN
                              *F*
                              *F*       PURPOSE: TO PROCESS THE 'SYYNDD,OPTION' FORM OF THE SYMBIONT
                              *F*                 KEYIN.
                              *F*
                              *F*       DESCRIPTION:  VERIFIES DEVICE ADDRESS (YYNDD) AND EITHER
                              *F*                 PROCESSES THE F/O/J OPTIONS WITHIN SKEYIN OR CALLS
                              *F*                 THE SYMCOM ROUTINE IN THE KEYSUB MODULE TO PROCESS
                              *F*                 ALL OTHERS.
                              ****************************************************************
                              *
 01 00489   322E0005 A                  LW,R2     KPLB,R7
 01 0048A   323E0006 A                  LW,R3     KPLB+1,R7
          01 0048B            SKIN1     EQU       $
 01 0048B   25200108 A                  SLD,R2    8
 01 0048C   6AB00000 X                  BAL,SR4   DEVCK               CHECK IF LEGAL DEVICE
 01 0048D   69800066                    BCS,8     KEYERR
          00000001                      DO        RBCODE              !
 01 0048E   19200000 X                  CLM,R2    RBLIMS              NO RB DEVICES ON SYMBIONT KEYINS
 01 0048F   68900066                    BCR,9     KEYERR              !
                                        FIN                           !
 01 00490   09200000 N                  PUSH      R2
 01 00491   6AF00499                    BAL,15    SKFCK
 01 00492   680004B7                    B         SKFRM
 01 00493   32C00008 A                  LW,D1     SR1
 01 00494   08200000 N                  PULL      R2
 01 00495   6AB00000 X                  BAL,SR4   SYMCOM
 01 00496   6800006D                    B         KEYINR
          01 00497            SKEYIN2   EQU       $
 01 00497   08200000 N                  PULL      R2
 01 00498   68000066                    B         KEYERR
          01 00499            SKFCK     EQU       $
 01 00499   6AB00039                    BAL,11    NXKICHR
 01 0049A   69800497                    BCS,8     SKEYIN2
```

```
01 0049B   22300003 A                LI,3      3
01 0049C   718604DF                  CB,8      FKIC,3
01 0049D   F830000F A                BE        *15
01 0049E   6430049C                  BDR,3     $-2
01 0049F   20F00001 A                AI,15     1
01 004A0   F800000F A                B         *15
      01 004A1           SKFSET      EQU       $
01 004A1   6AB00039                  BAL,11    NXKICHR
01 004A2   688004A6                  BCR,8     $+4
01 004A3   22900000 A                LI,9      0
01 004A4   359E0005 A                STW,9     KPLB,7
01 004A5   F800000F A                B         *15
01 004A6   2180007D A                CI,8      ''''
01 004A7   69300497                  BNE       SKEYIN2
01 004A8   6AB00050                  BAL,11    GKIFLD
01 004A9   69800497                  BCS,8     SKEYIN2
01 004AA   22900005 A                LI,9      KPLB
01 004AB   30900007 A                AW,9      7
01 004AC   321E0004 A                LW,1      KFL,7
01 004AD   201FFFFF A                AI,1      -1
01 004AE   68200497                  BLEZ      SKEYIN2
01 004AF   21100004 A                CI,1      4
01 004B0   69200497                  BG        SKEYIN2
01 004B1   F2420009 A                LB,4      *9,1
01 004B2   2140007D A                CI,4      ''''
01 004B3   69300497                  BNE       SKEYIN2
01 004B4   22400040 A                LI,4      ' '
01 004B5   F5420009 A                STB,4     *9,1
01 004B6   F800000F A                B         *15
      01 004B7           SKFRM       EQU       $
01 004B7   22C000FF A                LI,12     X'FF'
01 004B8   22DFFFFF A                LI,13     -1
01 004B9   22EFFFFF A                LI,14     -1
01 004BA   680604BA      SKFRM1      B         $,3
01 004BB   680004C9                  B         SKFF
01 004BC   680004CC                  B         SKFB
01 004BD   6AB004E0      SKFJ        BAL,11    BCPCK
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2403   01 004BE   6AF004A1          BAL,15   SKFSET
2404   01 004BF   320E0005 A        LW,0     KPLB,7
2405   01 004C0   693004C3         BNEZ     *+3
2406   01 004C1   2C00000 A        LI,12    0
2407   01 004C2   68004CF          B        SKF1
2408   01 004C3   6AF00000 X       BAL,15   DECONV
2409   01 004C4   69800497         BCS,8    SKEYIN2
2410   01 004C5   21100021 A       CI,1     33
2411   01 004C6   69200497         BG       SKEYIN2
2412   01 004C7   32C00001 A       LW,12    1
2413   01 004C8   68004CF          B        SKF1
2414      01 004C9                 SKFF     EQU      *
2415   01 004C9   6AF004A1          BAL,15   SKFSET
2416   01 004CA   32DE0005 A       LW,13    KPLB,7
2417   01 004CB   68004CF          B        SKF1
2418      01 004CC                 SKF0     EQU      *
2419   01 004CC   6AB004E0          BAL,11   BCPCK
2420   01 004CD   6AF004A1          BAL,15   SKFSET
2421   01 004CE   32EE0005 A       LW,14    KPLB,7
2422      01 004CF                 SKF1     EQU      *
2423   01 004CF   21800068 A       CI,8     ','
2424   01 004D0   693004D4         BNE      SKFRM2
2425   01 004D1   6AF00499         BAL,15   SKFCK
2426   01 004D2   68004BA          B        SKFRM1
2427   01 004D3   68000497         B        SKEYIN2
2429      01 004D4                 SKFRM2   EQU      *
2430   01 004D4   08200000 N       PULL     R2
2431   01 004D5   6AB00000 X       BAL,11   SYMTABCK
2432   01 004D6   680004D8         B        *+2
2433   01 004D7   68000066         B        KEYERR
2434   01 004D8   25C00008 A       SLS,12   8
2435   01 004D9   20C00000 N       AI,12    KFRMGFC
2437   01 004DA   25300010 A       SLS,3    16
2438   01 004DB   49C00003 A       BR,12    3
2439                               *        B        KSGCQ          FALL THRU TO KSGCQ
```

```
                                                 PAGE
          01 004DC                     KSGCQ     EQU       $
                                       ***********************************************************************
                                       *F*       NAME:     KSGCQ
                                       *F*
                                       *F*       PURPOSE: TO PROVIDE A KEYIN INTERFACE TO THE SGCQ ROUTINE IN
                                       *F*                 COOP.
                                       *F*
                                       *F*       DESCRIPTION:  BALS TO SGCQ WITH THE NORMAL RETURN GOING TO
                                       *F*                 KEYINR (KEYIN EXIT) AND THE ERROR RETURN
                                       *F*                 GOING TO KEYERR1 ('LATER' MESSAGE AND EXIT).
                                       ***********************************************************************
                                       *
   01 004DC       6A400000 X                     BAL,4     SGCQ
   01 004DD       68000068                       B         KEYERR1
   01 004DE       6800006D                       B         KEYINR
      1*                                         SPACE     5



   01 004DF       40C6D6D1 A           FKIC      TEXT      ' FOJ'
          01 004E0                     OCPCK     EQU       $
   01 004E0       22100000 N                     LI,R1     OCPIO
   01 004E1       68300497                       BEZ       SKEYIN2
   01 004E2       82100000 X                     LW,R1     *TSTACK
   01 004E3       72120000 X                     LB,R1     DCT4,R1
   01 004E4       21100000 N                     CI,R1     OCPTYP
   01 004E5       69300497                       BNE       SKEYIN2
   01 004E6       F800000B A                     B         *11
```

```
2466                                    PAGE
2467          01 004F7          KISTSY  EQU     $
2468                            ********************************************************************************
2469                            *F*     NAME:   KISTSY
2470                            *F*
2471                            *F*     PURPOSE: TO PROCESS THE 'SS' (START SYMBIONT) KEYIN.
2472                            *F*
2473                            *F*     DESCRIPTION:  IF ONLY 1 LOCAL INPUT SYMBIONT EXISTS, AN
2474                            *F*                   'SYYNDD,I' KEYIN IS SIMULATED TO GET IT GOING.
2475                            ********************************************************************************
   1*                           *D*     NAME:   KISTSY
   2*                           *D*
   3*                           *D*     CALL:   KEYIN FORMAT:  SS
   4*                           *D*
   5*                           *D*     REGISTERS:  ALL ARE VULNERABLE
   6*                           *D*
   7*                           *D*     ENVIRONMENT:  MASTER/MAPPED
   8*                           *D*
   9*                           *D*     DESCRIPTION:  SNDDX IS SCANNED AND IF ONLY 1 INPUT SYMBIONT
  10*                           *D*                   IS PRESENT, A 'SYYNDD,I' KEYIN IS SIMULATED FOR THAT
  11*                           *D*                   SYMBIONT ('SYYNDD,I' IS PLACED IN KEYINBUF) AND KEYIN
  12*                           *D*                   IS RE-ENTERED AT THE TOP.
  13*                           ********************************************************************************
2476                            *
2477    01 0004E7    22400000 N          LI,R4   SNDDX
2478    01 0004E8    68300066            BEZ     KEYERR          NON-SYSMBIONT SYSTEM
2479    01 0004E9    22400000 A          LI,R4   0
2480    01 0004EA    72100000 X          LB,R1   SNDDX           NO. OF SYMBIONT DEVICES
2481    01 0004EB    72320000 X  KISTSY0 LB,R3   SYMX,R1
2482    01 0004EC    21300001 A          CI,R3   1
2483    01 0004ED    68300004FB          BE      KISTSY2         YES
2484    01 0004EE    641004EB    KISTSY1 BDR,R1  KISTSY0          NO-LOOP
2485    01 0004EF    21400001 A          CI,R4   1               WAS THERE ONLY 1 INP. SYMB.
2486    01 0004F0    69300066            BNE     KEYERR          NO-ERROR
2487    01 0004F1    122A0000 X          LD,R2   DCT16,R5        !
2488    01 0004F2    25200110 A          SLD,R2  16
2489    01 0004F3    221000E2 A          LI,R1   'S'
```

```
2490  01 004F4  75100002 A          STB,R1   R2              MAKE NAME SYMBIONT
2491  01 004F5  22100001 A          LI,R1    1
2492  01 004F6  22406BC9 A          LI,R4    ',I,
2493  01 004F7  55420003 A          STH,R4   R3,R1           STORE AS SNAME,I
2494  01 004F8  02200020 A          LCI      2
2495  01 004F9  2B200000 X          STM,R2   KEYINBUF
2496  01 004FA  68000027             B        KEYIN20         KEYIN WILL DO THE REST
2497                          *
2498  01 004FB  72220000 X    KISTSY2 LB,R2    SNDDX,R1        GET DCTX
2499        00000001                 DO       RBCODE          !
2500  01 004FC  19200000 X          CLM,R2   RBLIMS          IF THIS IS AN RB DEVICE SKIP OVER I
2501  01 004FD  68900 4EE            BCR,9    KISTSY1         AND DON'T COUNT AS A CARD READER
2502                                 FIN                      !
2503  01 004FE  32500002 A          LW,5     2               !
2504  01 004FF  20400001 A          AI,R4    1               BUMP COUNT OF INPUT DCTX'S
2505  01 00500  680004EE             B        KISTSY1
```

```
                                      PAGE
         01 00501            ERSEND   EQU      $
                             *******************************************************************
                             *F*      NAME:    ERSEND
                             *F*
                             *F*      PURPOSE: TO PROCESS THE 'ERSEND' KEYIN.
                             *F*
                             *F*      DESCRIPTION:  CAUSES SPECIFIED MESSAGE TO BE PUT INTO THE
                             *F*               ERRORLOG AS A TYPE-27 ENTRY.
                             *******************************************************************
                             *D*      NAME:    ERSEND
                             *D*
                             *D*      CALL:    KEYIN FORMAT:  ERSEND TEXT
                             *D*
                             *D*      INTERFACE:  KRBMVO, ERRLOG, RMB
                             *D*
                             *D*      ENVIRONMENT:  MASTER/MAPPED
                             *D*
                             *D*      DESCRIPTION:  CALLS KRBMVO TO ACQUIRE AN MPOOL BUFFER AND MOVE
                             *D*               THE MESSAGE TEXT FROM KEYINBUF TO THE BUFFER.  ERSEND
                             *D*               THEN FORMATS THE BUFFER AS A TYPE-27 ERROR LOG ENTRY
                             *D*               AND CALLS ERRLOG.  RMB IS CALLED TO RELEASE THE
                             *D*               MPOOL BUFFER.
                             *******************************************************************
                             *
01 00501   6A400526                   BAL,4    KRBMVO              GET AND MOVE MSG
01 00502   32400003 A                 LW,4     3                   TOTAL # OF BYTES
01 00503   204FFFF7 A                 AI,4     -9                  DECREMENT # OF BYTES
01 00504   3260000E A                 LW,6     14                  MON BUF ADDRS
01 00505   20E00002 A                 AI,14    2                   POINT TO MSG LOC
01 00506   F540000E A                 STB,4    *14
01 00507   20300003 A                 AI,3     3                   ROUND
01 00508   2530007E A                 SLS,3    -2                  TOTOTAL NUMBER OF WORDS
01 00509   20302700 A                 AI,3     X'2700'             CREATE ERROR MSG HEADER
01 0050A   25300010 A                 SLS,3    16                  SHIFT INTO POSITION
01 0050B   353C0000 A                 STW,3    0,6                 AND PUT INTO PLACE
01 0050C   32300000 X                 LW,3     TIME                TIME
```

```
38*  01 00050D  353C0001 A   STW,3   1,6      INTO BUFFER
39*  01 00050E  6A500000 X   BAL,5   ERRLOG   RECORD MSG INTO LOG
40*  01 00050F  20EFFFFE A   AI,14   -2       POINT TO BEGINNING OF MPOOL
41*  01 000510  22B0006D     LI,11   KEYINR   COMPLETION EXIT POINT
42*  01 000511  68000000 X   B       RMB      RELEASE MON BUF.
```

```
                                          PAGE
             00000001                     DB       RBCODE            '
                                   *                                 *
             01 00512              KRBBCST EQU      $                 ---------------------------------
                                   ***********************************************************************
                                   *F*      NAME:    KRBBCST
                                   *F*
                                   *F*      PURPOSE: TO PROCESS THE 'RBBDCST' KEYIN.
                                   *F*
                                   *F*      DESCRIPTION:  CAUSES THE SPECIFIED MESSAGE TO BE PASSED TO
                                   *F*               RBBAT VIA A SYMBIONT GHOST COMMUNICATION BUFFER;
                                   *F*               THIS MESSAGE WILL THEN BE BROADCAST TO ALL REMOTE
                                   *F*               TERMINAL OPERATORS.
                                   ***********************************************************************
                                   *
    01 00512     22C00000 N                 LI,12    OFFBIT            PUT MESSAGE IN MESSAGE FILE HEADING
    01 00513     68300066                   BEZ      KEYERR            ALL RBTS.   ERROR IF NOT RBSYSTEM.
    01 00514     22C00000 N                 LI,12    BCSTGFC           MESSAGE R14=0  R12 GET GHOST FUNCTI
    01 00515     21800015 A                 CI,8     X'15'             FOR RBBDCST
    01 00516     69300525                   BNE      KRBMV
    01 00517     22E00000 A                 LI,14    0                 ---------------------------------
    01 00518     680004DC                   B        KSGCQ
                                   *                                 ---------------------------------
                                   ***********************************************************************
                                   *F*      NAME:    KRBCOM
                                   *F*
                                   *F*      PURPOSE: TO PROCESS THE 'RBCOM' KEYIN
                                   *F*
                                   *F*      DESCRIPTION:  PASSES RBBAT A KCOMGFC GHOST FUNCTION CODE FOR
                                   *F*               PROCESSOR TO PROCESSOR COMMUNICATION.
                                   ***********************************************************************
                                   *
    01 00519     22C00000 N                 LI,12    KCOMGFC
    01 0051A     68000520                   B        KRBSC
                                   *
             01 0051B              KRBSEND  EQU      $                 SEND A MESSAGE TO THE SPECIFIED RBT
                                   ***********************************************************************
```

```
2531                    *F*       NAME:    KRBSEND
2532                    *F*
2533                    *F*       PURPOSE: TO PROCESS THE 'RBSEND' KEYIN.
2534                    *F*
2535                    *F*       DESCRIPTION:  CAUSES THE SPECIFIED MESSAGE TO BE PASSED TO
2536                    *F*                RBBAT VIA A SYMBIONT GHOST COMMUNICATION BUFFER;
2537                    *F*                THIS MESSAGE WILL THEN BE SENT AS THE NEXT PRINT FILE
2538                    *F*                TO THE SPECIFIED DEVICE OR WORK STATION.
2539                    ***************************************************************
   1*                   *D*       NAME:    KRBSEND
   2*                   *D*
   3*                   *D*       ENTRY:   KRBBCST, KRBCOM
   4*                   *D*                                 **      **
   5*                   *D*       CALL:    KEYIN FORMATS:  |RBBDCST|
   6*                   *D*                                |RBSEND | TEXT
   7*                   *D*                                |RBCOM  |
   8*                   *D*                                **      **
   9*                   *D*       INPUT:   R7 = ADR OF KEYIN PARAMETER LIST
  10*                   *D*
  11*                   *D*       REGISTERS:  ALL ARE VULNERABLE
  12*                   *D*
  13*                   *D*       INTERFACE:  KRBMV0
  14*                   *D*
  15*                   *D*       ENVIRONMENT:  MASTER/MAPPED
  16*                   *D*
  17*                   *D*       DESCRIPTION:  VERIFIES THAT REMOTE PROCESSING IS INCLUDED IN
  18*                   *D*                THE SYSTEM (IF RBBDCST) OR THAT THE SPECIFIED STATION
  19*                   *D*                IS ACTIVE (IF RBSEND OR RBCOM) AND CALLS KRBMV0 TO
  20*                   *D*                MOVE THE MESSAGE FROM KEYINBUF TO AN MPOOL BLOCK WHICH
  21*                   *D*                WILL THEN BE PASSED TO RBBAT WITH AN APPROPRIATE GHOST
  22*                   *D*                FUNCTION CODE (BCSTGFC IF RBBDCST; SNDGFC IF RBSEND;
  23*                   *D*                KCOMGFC IF RBCOM) VIA THE KSGCQ ROUTINE.
  24*                   ***************************************************************
2540                    *
2541    01 0051B  32DE0006 A              LW,13    KPLB+1,7
2542    01 0051C  72D0000D A              LB,13    13
2545    01 0051D  21D000D5 A              CI,13    'N'
```

```
2546   01 00051E   69300066                BNE     KEYERR
2547   01 00051F   92C00000 N              LI,12   SNDGFC
2548         01 005220                KRBSC  EQU     *
2549   01 00520    6ADD00544                BAL,13  KRBDCT          DCTX IS OBTAINED BY KRBDCT.  IF RBT
2550   01 00521    73040000 X               MTB,O   RBB1ID,2        NOT LOGGED ON OR IF NO MESSAGE ERRO
2551   01 00522    68300066                 BEZ     KEYERR
2552   01 00523    95200008 A               SLS,2   8
2553   01 00524    49C00002 A               OR,12   2
2554   01 00525    92400053A            KRBMV  LI,4    KRBMV4          FOR RBSEND
2555                                     *      B       KRBMV0          FALL THRU TO KRBMV0
   1*                                           FIN
```

```
                                            PAGE
          01 00526              KRBMVO      EQU         $
                                ************************************************************************
                                *F*         NAME:       KRBMVO
                                *F*
                                *F*         PURPOSE:  SUBROUTINE TO MANIPULATE A KEYIN MESSAGE SUPPLIED VIA
                                *F*                     RBBCST/RBSEND/RBCOM/ERSEND KEYINS.
                                *F*
                                *F*         DESCRIPTION:  ACQUIRES AN MPOOL BUFFER AND MOVES THE CURRENT
                                *F*                     MESSAGE IN KEYINBUF INTO THE BUFFER.
                                ************************************************************************
                                *D*         NAME:       KRBMVO
                                *D*
                                *D*         CALL:       BAL,R4              (SEE DESCRIPTION BELOW)
                                *D*
                                *D*         INPUT:      R7 = ADR OF KEYIN PARAMETER LIST
                                *D*                     KEYINBUF
                                *D*
                                *D*         OUTPUT:     R14 = MPOOL BUFFER ADDRESS
                                *D*                     R3 = NEXT AVAILABLE (BYTE) POSITION IN MPOOL BUFFER
                                *D*
                                *D*         REGISTERS:  RO, R1, R3 & R11 ARE VULNERABLE
                                *D*
                                *D*         INTERFACE:  GMB, RMB, KSGCQ
                                *D*
                                *D*         ENVIRONMENT:  MASTER/MAPPED
                                *D*
                                *D*         DESCRIPTION:  ACQUIRES AN MPOOL BUFFER VIA GMB AND MOVES UP TO
                                *D*                     72 CHARACTERS (IGNORING LEADING BLANKS) INTO THE
                                *D*                     BUFFER.  IF CALLED BY KRBBCST OR KRBSEND, RETURN IS
                                *D*                     MADE IN SUCH A WAY AS TO CALL SGCQ, RELEASE THE BUFFE
                                *D*                     VIA RMB AND EXIT.  IF CALLED BY ERSEND, RETURN IS TO
                                *D*                     BAL+1.
                                *D**********************************************************************
                                *
 01 00526      6AB00000 X                   BAL,11      GMB
 01 00527      68300068                     BEZ         KEYERR1             SAY LATER IF NONE
```

```
2570  01 00528  22300001 A          LI,3    1              ASSUME RBSEND FIRST
2571  01 00529  21400053A          CI,4    KRBMV4         TRUE...
2572  01 0052A  683000520          BE      *+2            YEP
2573  01 0052B  22300009 A          LI,3    9              NOPE, MUST BE ERSEND
2574  01 0052C  321E0001 A          LW,1    KCCP,7         CURRENT CHARACTER POSITION
2575  01 0052D  72020000 X KRBMV1   LB,0    KEYINBUF,1     GET NEXT CHAR.
2576  01 0052E  21000015 A          CI,0    X'15'
2577  01 0052F  68300539           BE      KRBMV2
2578  01 00530  21300001 A          CI,3    1
2579  01 00531  69300534           BNE     *+3
2580  01 00532  21000040 A          CI,0    ' '
2581  01 00533  68300536           BE      *+3
2582  01 00534  F506000E A          STB,0   *14,3
2583  01 00535  20300001 A          AI,3    1
2584  01 00536  20100001 A          AI,1    1
2585  01 00537  21100048 A          CI,1    72
2586  01 00538  68200052D          BLE     KRBMV1
2587        01 00539      KRBMV2    EQU     *
2588  01 00539  68080000 A          B       0,4            EXIT OR FALL THRU
2589  01 0053A  22B00066           LI,11   KEYERR
2590  01 0053B  203FFFFF A          AI,3    -1
2591  01 0053C  68200000 X          BLEZ    RMB
2592  01 0053D  21300050 A          CI,3    80
2593  01 0053E  69200000 X          BG      RMB
2594  01 0053F  F530000E A          STB,3   *14
2595  01 00540  22B00068           LI,11   KEYERR1
2596  01 00541  6A400000 X          BAL,4   SGCQ
2597  01 00542  68000000 X          B       RMB
2598  01 00543  6800006D           B       KEYINR
```

```
                                           PAGE
            00000001                       DO        RBCODF
            01 00544            KRBDCT     EQU       $                   GET DCTX FOR WSN OR &RBNDD.
   01 00544       6AB00050                 BAL,11    GKIFLD              I
   01 00545       69800066                 BCS,8     KEYERR              IF NO '&' IS PRESENT SEARCH RBD:WSN
   01 00546       322E0005 A               LW,2      KPLB,7              WSN.  IF NOT FOUND ERROR.  IF '&' I
   01 00547       323E0006 A               LW,3      KPLB+1,7            GO TO DEVCK TO GET DCT.  IF NOT REM
   01 00548       72E00002 A               LB,14     2                   IF EVERYTHING A-OK EXIT WITH DCTX I
   01 00549       21E00050 A               CI,14     '&'
   01 0054A       69300551                 BNE       KRBWSN
   01 0054B       25200108 A               SLD,2     8
            01 0054C            KRBDCK     EQU       $
   01 0054C       6AB00000 X               BAL,11    DEVCK
   01 0054D       69800066                 BCS,8     KEYERR
   01 0054E       19200000 X    KRBDCT1    CLM,2     RBLIMS
   01 0054F       69900066                 BCS,9     KEYERR
   01 00550       F800000D A               B         *R13
            01 00551            KRBWSN     EQU       $
   01 00551       6AB00560                 BAL,11    KRBSPN
   01 00552       68000066                 B         KEYERR
   01 00553       11280000 X               CD,2      RBD:WSN,4
   01 00554       69300566                 BNE       KRBSPN1
   01 00555       73080000 X               MTB,0     RBB:ID,R4
   01 00556       68300566                 BEZ       KRBSPN1
   01 00557       32200004 A               LW,2      4
   01 00558       F800000D A               B         *13
                                *
            01 00559            KRBDNCK    EQU       $
   01 00559       70280000 X               LC        DCT3,4
   01 0055A       F920000D A               BCS,2     *13
   01 0055B       70280000 X               LC        DCT24,4
   01 0055C       F940000D A               BCS,4     *13
   01 0055D       20D00001 A               AI,13     1
   01 0055E       47080000 X               STS,0     RB:FLAG,4
   01 0055F       F800000D A               B         *13
                                *                                        ---------------------------------------
            01 00560            KRBSPN     EQU       $                   CYCLE THROUGH ALL RB DCT INDEXS(SIC
```

```
2665  01 00560  20B00001 A            AI,11   1          ENTRY IS TO KRBSPN AND SUCCESSIVE E
2666  01 00561  32400001 N            LW,4    RBLIMS+1   TO KRBSPN1.
2667  01 00562  31400000 X  KRBSPN2   CW,4    RBLIMS           BAL,11 KRBSPN
2668  01 00563  F8100008 A            BGE     *11              B      ALL CHECKED
2669  01 00564  20BFFFFF A            AI,11   -1               IS THIS THE ONE
2670  01 00565  F8000008 A            B       *11              BNE    KRBSPN1
2671  01 00566  64400562    KRBSPN1   BDR,4   KRBSPN2
```

```
                                          PAGE
2674        01 00567           KRBX       EQU       *                  DISCONNECT ALL RBTS AND PREVENT NEW
                               *******************************************************************************
                               *F*        NAME:     KRBX
                               *F*
                               *F*        PURPOSE: TO PROCESS THE 'RBX' KEYIN
                               *F*
                               *F*        DESCRIPTION:  DESCONNECTS AND DISALLOWS CONNECTION OF ONE OR
                               *F*                  ALL REMOTE PROCESSING TERMINALS.
                               *******************************************************************************
                               *D*        NAME:     KRBX
                               *D*
                               *D*        ENTRY:    KRBDISC, KRBS
                               *D*                                         **     ** **     **
                               *D*        CALL:     KEYIN FORMATS:       |RBX    | |&RBNDD|
                               *D*                                         |RBDISC| |WSN    |
                               *D*                                         |RBS    | **     **
                               *D*                                         **     **
                               *D*        INPUT:    R7 = ADR OF KEYIN PARAMETER LIST
                               *D*                  RBLIMS, RBD:WSN, RBB:ID, RB:FLAG
                               *D*
                               *D*        OUTPUT:   RB:FLAG
                               *D*
                               *D*        REGISTERS:  ALL ARE VULNERABLE
                               *D*
                               *D*        INTERFACE:  GKIFLD, DEVCK
                               *D*
                               *D*        ENVIRONMENT:  MASTER/MAPPED
                               *D*
                               *D*        DESCRIPTION:  3 HANDLERS AND A SET OF COMMON SUBROUTINES ALLOW
                               *D*                  THE OPERATOR TO CONNECT (RBS) OR DISCONNECT (RBX/
                               *D*                  RBDISC) REMOTE PROCESSING TERMINALS OR WORK STATIONS
                               *D*                  BY VALIDATING THE RBNDD/WSN INPUT PARAMETER AND
                               *D*                  SETTING APPROPRIATE BITS IN RB:FLAG FOR RBBAT.
                               *******************************************************************************
                               *
2675     01 00567    22300000 N           LI,3      OFFBIT
```

```
2676   01 00568   68300066          BEZ     KEYERR
2677   01 00569   21800015 A        CI,R8   X'15'
2678   01 0056A   6830056F          BE      KRBX1
2679   01 0056B   6AD00544          BAL,13  KRBDCT
2680   01 0056C   22300000 N        LI,R3   BFFBIT
2681   01 0056D   22500000 N        LI,R5   RBXBIT+BADBIT
2682   01 0056E   68000579          B       KRBDX
2683      01 0056F                  KRBX1   EQU     *
2684   01 0056F   22500000 N        LI,R5   RBXBIT+BADBIT
2685   01 00570   6AB00560          BAL,11  KRBSPN
2686   01 00571   6800006D          B       KEYINR
2687   01 00572   6A100572          BAL,1   KRBDS1
2688   01 00573   68000566          B       KRBSPN1
2689   01 00574   68000566          B       KRBSPN1
```

```
       1*                                              PAGE
    2692          01 00575                  KRBDISC  EQU        $                    DISCONNECT GIVEN RBT.
       1*                                   ************************************************************************
       2*                                   *F*      NAME:    KRBDISC
       3*                                   *F*
       4*                                   *F*      PURPOSE: TO PROCESS THE 'RBDISC' KEYIN
       5*                                   *F*
       6*                                   *F*      DESCRIPTION:  DISCONNECTS A REMOTE PROCESSING TERMINAL
       7*                                   ************************************************************************
       8*                                   *
    2693    01 00575     6AD00544                    BAL,13     KRBDCT
    2694    01 00576     32400002 A                  LW,4       2
    2695    01 00577     22300000 A                  LI,3       0
    2696    01 00578     22500000 N                  LI,5       RBXBIT
    2697          01 00579                  KRBDX    EQU        $
    2698    01 00579     6A10057C                    BAL,1      KRBDS1
    2699    01 0057A     6800006D                    B          KEYINR
    2700    01 0057B     6800006D                    B          KEYINR
    2701                                    *
    2702                                    *                                        ---------------------------------
    2703          01 0057C                  KRBDS1   EQU        $                    ZAP TERMINALS.
    2704    01 0057C     22700000 N                  LI,7       ACTBIT+LIPBIT        :
    2705    01 0057D     6D000037 A                  DISABLE                         IF THE TERMINAL IS CONNECTED STORE
    2706    01 0057E     31780000 X                  CW,7       RBIFLAG,4            HIS FLAGS CAUSING HIM TO BE HUNG UP
    2707    01 0057F     69400583                    BANZ       KRBDS2               I/O OPERATION.  IF HE ISNT CONNECTE
    2708    01 00580     47380000 X                  STS,3      RBIFLAG,4            CONTENTS OR R3 SELECTIVELY INTO HIS
    2709    01 00581     6D000027 A                  ENABLE                           BRANCH TO BAL+1 IF NOT CONNECTED,B
    2710    01 00582     F8000001 A                  B          *1                   CONNECTED.
    2711          01 00583                  KRBDS2   EQU        $
    2712    01 00583     47580000 X                  STS,5      RBIFLAG,4
    2713    01 00584     6D000027 A                  ENABLE
    2714    01 00585     68020001 A                  B          1,R1
```

```
   1*                                                PAGE
2717         01 00586                    KRBS        EQU       *                 RESTART RBTS BY ALLOWING NEW CONNEC
   1*                                    ***********************************************************************
   2*                                    *F*         NAME:     KRBS
   3*                                    *F*
   4*                                    *F*         PURPOSE: TO PROCESS THE 'RBS' KEYIN
   5*                                    *F*
   6*                                    *F*         DESCRIPTION:  ALLOWS CONNECTION OF ONE OR ALL REMOTE PROCESSIN
   7*                                    *F*                   TERMINALS
   8*                                    ***********************************************************************
   9*                                    *
2718   01 00586    22000000 A                        LI,0      0
2719   01 00587    21800015 A                        CI,8      X'15'
2720   01 00588    68300591                          BE        KRBS1
2721   01 00589    6AD00544                          BAL,13    KRBDCT
2722   01 0058A    22000000 A                        LI,0      0
2723   01 0058B    22100000 N                        LI,R1     OFFBIT+BADBIT
2724   01 0058C    31180000 X                        CW,R1     RB:FLAG,R4
2725   01 0058D    68400066                          BAZ       KEYERR
2726   01 0058E    6AD00559                          BAL,13    KRBDNCK
2727   01 0058F    68000066                          B         KEYERR
2728   01 00590    6800006D                          B         KEYINR
2729         01 00591                    KRBS1       EQU       *
2730   01 00591    22100000 N                        LI,1      OFFBIT+BADBIT
2731   01 00592    6AB00560                          BAL,11    KRBSPN
2732   01 00593    6800006D                          B         KEYINR
2733   01 00594    6AD00559                          BAL,13    KRBDNCK
2734   01 00595    68000566                          B         KRBSPN1
2735   01 00596    68000566                          B         KRBSPN1
```

```
                                     PAGE
        01 00597            KRBSWIT  EQU      *
                            ******************************************************************
                            *F*      NAME:    KRBSWIT
                            *F*
                            *F*      PURPOSE: TO PROCESS THE 'RBSWITCH' KEYIN
                            *F*
                            *F*      DESCRIPTION:  SWITCHES OUTPUT FILES FROM ONE WORKSTATION
                            *F*               TO ANOTHER.
                            ******************************************************************
                            *D*      NAME:    KRBSWIT
                            *D*
                            *D*      CALL:    KEYIN FORMAT:  RBSWITCH WSN,DEVICE-TYPE,USER
                            *D*
                            *D*      INPUT:   R7 = ADR OF KEYIN PARAMETER LIST
                            *D*
                            *D*      OUTPUT:  R5/R6 = WORKSTATION NAME
                            *D*               R12 = LENGTH OF WSN (BITS 16-23), SWITGFC (BITS 24-31
                            *D*               R13 = CONVERTED SYSID (HEX)
                            *D*               R14 = DEVICE-TYPE (LEFT-JUSTIFIED, EBCDIC)
                            *D*               R15/R0 = WORKSTATION NAME
                            *D*
                            *D*      REGISTERS:  ALL ARE VULNERABLE
                            *D*
                            *D*      INTERFACE:  GKIFLD, CVSYSID, SGCQ2
                            *D*
                            *D*      ENVIRONMENT:  MASTER/MAPPED
                            *D*
                            *D*      DESCRIPTION:  CALLS GKIFLD AND CVSYSID TO FORMAT THE REGISTERS
                            *D*               AS INDICATED ABOVE, THEN CALLS SGCQ2 WITH A GHOST
                            *D*               FUNCTION CODE = SWITGFC TO PASS THE DATA TO RBBAT.
                            ******************************************************************
                            *
  01 00597   6A800050                BAL,11   GKIFLD          BUILD TWO COMBUFS AS FOLLOWS
  01 00598   69800066                BCS,8    KEYERR          :
  01 00599   325E0005 A              LW,5     KPLB,7             DATA            WA(WSN)
  01 0059A   326E0006 A              LW,6     KPLB+1,7        :
```

```
01 0059B   32CE0004 A            LW,12    KFL,7               GEN,8,24    LINK,0
01 0059C   6AB00050              BAL,11   GKIFLD              TEXT        WSN
01 0059D   69800066              BCS,8    KEYERR
01 0059E   32EE0004 A            LW,14    KFL,7
01 0059F   21E00002 A            CI,14    2
01 005A0   69200066              BG       KEYERR
01 005A1   32EE0005 A            LW,14    KPLB,7
01 005A2   25E00470 A            SAS,14   =16
01 005A3   6AB00050              BAL,11   GKIFLD
01 005A4   69800066              BCS,8    KEYERR
01 005A5   6AB00000 X            BAL,11   CVSYSID
01 005A6   32D00002 A            LW,13    2
01 005A7   32F00005 A            LW,15    5
01 005A8   32000006 A            LW,0     6
01 005A9   25C00008 A            SLS,12   8
01 005AA   20C00000 N            AI,12    SWITGFC
01 005AB   224004DD              LI,4     KSGCQ+1
01 005AC   68000000 X            B        SGCQ2
        01 005AD        KRBLOG   EQU      $
01 005AD   6AB00050              BAL,11   GKIFLD
01 005AE   69800066              BCS,8    KEYERR
01 005AF   322E0005 A            LW,2     KPLB,7
01 005B0   323E0006 A            LW,3     KPLB+1,7
01 005B1   6AD0054C              BAL,13   KRBDCK
01 005B2   2180006B A            CI,8     ','
01 005B3   683005B7              BE       KRBLSN
01 005B4   22400000 A            LI,4     0
01 005B5   22C00000 A            LI,12    0
01 005B6   680005BD              B        KRBLVN
        01 005B7        KRBLSN   EQU      $
01 005B7   09200000 X            PSW,2    TSTACK
01 005B8   6AB00050              BAL,11   GKIFLD
01 005B9   08200000 X            PLW,2    TSTACK
01 005BA   324E0005 A            LW,4     KPLB,7
01 005BB   325E0006 A            LW,5     KPLB+1,7
01 005BC   32C00000 X            LW,12    ALBIT
        01 005BD        KRBLVN   EQU      $
```

```
2783  01 005BD  32D00000 X          LW,R13  ALBIT
2784  01 005BE  30D00000 X          AW,R13  DCBIT
2785  01 005BF  22100000 N          LI,1    ACTBIT+LIPBIT
2786  01 005C0  31140000 X          CW,1    RBIFLAG,2
2787  01 005C1  694000066           BANZ    KEYERR
2788  01 005C2  15440000 X          STD,4   RBDIWSN,2
2789  01 005C3  47C40000 X          STS,12  RBIFLAG,2
2790  01 005C4  68000060            B       KEYINR
2791        01 005C5                KRBCBM  EQU     *
2792  01 005C5  22C00000 N          LI,12   KCBMGFC
2793  01 005C6  680005Z0            B       KRBSC
2794                                FIN                 END SAM KEYS C00 UPDATES
```

```
                                PAGE
                          ****************************************************************
                          *F*       NAME:     KIOUTPUT
                          *F*
                          *F*       PURPOSE: TO PROCESS THE 'OUTPUT STOP,YYNDD' AND
                          *F*                'OUTPUT GO,ID' KEYINS.
                          *F*
                          *F*       DESCRIPTION: SETS UP A GHOST COMMUNICATION BUFFER FOR
                          *F*                'OUTPUT STOP', AND SETS THE X'80' BIT OF UH:FLG2
                          *F*                FOR 'OUTPUT GO'.
                          ****************************************************************
                          *D*       NAME:     KIOUTPUT
                          *D*                                                -*       *-
                          *D*       CALL:     KEYIN FORMAT:  OUTPUT |STOP,YYNDD|
                          *D*                                       |GO,ID     |
                          *D*                                       -*       *-
                          *D*       INPUT:    R7 = ADR OF KEYIN PARAMETER LIST
                          *D*
                          *D*       OUTPUT:   UH:FLG2 (IF GO)
                          *D*
                          *D*       REGISTERS:  ALL ARE VULNERABLE
                          *D*
                          *D*       INTERFACE:  GK:FLD, CVSYSID, GETUSER#, DEVCK, SYMTABCK, KSGCQ
                          *D*
                          *D*       ENVIRONMENT:  MASTER/MAPPED
                          *D*
                          *D*       DESCRIPTION:  GKIFLD IS CALLED TO GET THE STOP/GO OPTION; IF
                          *D*                STOP, YYNDD IS OBTAINED BY GK:FLD, DEVCK VERIFIES
                          *D*                THE DEVICE, SYMTABCK OBTAINS THE SYMTAB INDEX AND A
                          *D*                KOSTOP GHOST FUNCTION CODE IS PASSED TO RBBAT VIA
                          *D*                KSGCQ. IF GO, THE SYSID IS OBTAINED BY GK:FLD,
                          *D*                CONVERTED TO HEX BY CVSYSID, VERIFIED BY GETUSER#,
                          *D*                AND THE X80 BIT OF UH:FLG2 IS SET.
                          *****************************************************************
                          *
        01 005C7          KIOUTPUT EQU      $
01 005C7    6AB00050              BAL,11   GKIFLD
```

```
2808  01 005C8  698000066          BCS,8   KEYERR
2809  01 005C9  322E0005 A        LW,2    KPLB,7          GET FUNCTION (STOP OR GO)
2810  01 005CA  3120000E          CW,2    TXTSTOP
2811  01 005CB  683005DB          BE      KOUTSTOP
2812  01 005CC  3120000F          CW,2    TXTGO
2813  01 005CD  699300066          BNE     KEYERR
2814  01 005CE  6AB00050          BAL,11  GKIFLD          GET SYSID
2815  01 005CF  698000066          BCS,8   KEYERR          NO GOOD
2816  01 005D0  6AB00000 X        BAL,11  CVSYSID         CONVERT TO HEX IN R2
2817  01 005D1  698000066          BCS,8   KEYERR
2818  01 005D2  326 00002 A       LW,6    2               USER ID TO R6
2819  01 005D3  6A700000 X        BAL,7   GETUSER#        RETURN USER NUMBER IN R5
2820  01 005D4  68000066           B       KEYERR
2821  01 005D5  6D000037 A        DISABLE
2822  01 005D6  522A0000 X        LH,2    UHIFLG2,R5      GET USER FLGS
2823  01 005D7  49200008 N        OR,R2   X80             SET COMODE FLAG FOR USER
2824  01 005D8  552A0000 X        STH,2   UHIFLG2,R5
2825  01 005D9  6D000027 A        ENABLE
2826  01 005DA  6800006D           B       KEYINR
2827                       *
2828                       *
2829        01 005DB          KOUTSTOP EQU     $
2830  01 005DB  6AB00050           BAL,11  GKIFLD          WHAT ARE WE HALTING COMODE ON
2831  01 005DC  698000066          BCS,8   KEYERR          WHATEVER IT WAS, IT WEREN'T NO GOOD
2832  01 005DD  322E0005 A        LW,2    KPLB,7          GET YYNDD INTO R2-R3
2833  01 005DE  323E0006 A        LW,3    KPLB+1,7
2834  01 005DF  6AB00000 X        BAL,11  DEVCK           RETURN DCTX IN R2
2835  01 005E0  698000066          BCS,8   KEYERR          DEVICE NO GOOD
2836  01 005E1  6AB00000 X        BAL,11  SYMTABCK        GET SYMTABX IN R3
2837  01 005E2  680005E4           B       $+2             SCREWBALL RETURN IF OK
2838  01 005E3  68000066           B       KEYERR          NOT SYMB DEVICE
2839  01 005E4  32C00003 A        LW,12   3
2840  01 005E5  25C00010 A        SLS,12  16              ALIGN FOR SGCQ
2841  01 005E6  20C00000 N        AI,12   KOSTOP          GFC FOR 'OUTPUT STOP'
2842  01 005E7  22D00000 A        LI,13   0
2843  01 005E8  22E00000 A        LI,14   0
2844  01 005E9  680004DC           B       KSGCQ           GO SETUP RBBAT COMM. BUFFER
```

```
                                    PAGE
      01 005FA          KIFLUSH     EQU        $
                        ************************************************************************
                        *F*         NAME:      KIFLUSH
                        *F*
                        *F*         PURPOSE: TO PROCESS THE 'FLUSH' KEYIN
                        *F
                        *F*         DESCRIPTION:  SETS UP A GHOST COMMUNICATION BUFFER FOR 'FLUSH
                        *F*                    OUTPUT'.
                        ************************************************************************
                        *D*         NAME:      KIFLUSH
                        *D*
                        *D*         CALL:      KEYIN FORMAT:  FLUSH YYNDD,SYSID
                        *D*
                        *D*         INPUT:     R7 = ADR OF KEYIN PARAMETER LIST
                        *D*                    DCT4, SCNTXT, SYMX, SCSVDG:
                        *D*
                        *D*         REGISTERS:  ALL ARE VULNERABLE
                        *D*
                        *D*         INTERFACE:  GKIFLD, DEVCK, SYMTABCK, CVSYSID
                        *D*
                        *D*         ENVIRONMENT: MASTER/MAPPED
                        *D*
                        *D*         DESCRIPTION: DEVCK IS CALLED TO VALIDATE 'YYNDD' FIELD OF THE
                        *D*                    KEYIN; SYMTABCK IS CALLED TO CONVERT THE DCT INDEX
                        *D*                    TO A SYMTAB INDEX; IF THE SPECIFIED DEVICE IS
                        *D*                    CURRENTLY PRINTING/PUNCHING THE SPECIFIED USER'S
                        *D*                    OUTPUT, A GHOST COMMUNICATION BUFFER (KFLUSH) IS
                        *D*                    PASSED TO RBBAT VIA KSGCQ.
                        ************************************************************************
                        *
 01 005EA   6AB00050                BAL,R11    GKIFLD            MOVE YYNDD TO KPL FIELD BUFFER
 01 005EB   69800066                BCS,8      KEYERR
 01 005EC   322E0005 A              LW,R2      KPLB,R7           MOVE YYNDD TO REGISTERS
 01 005ED   323E0006 A              LW,R3      KPLB+1,R7
 01 005EE   6AB00000 X              BAL,R11    DEVCK             VALIDATE IT; RETURNS DCTX IN R2
 01 005EF   69800066                BCS,8      KEYERR
```

```
      01 005F0    6AB00000 X              BAL,R11   SYMTABCK        GET SYMTAB INDEX IN R3
      01 005F1    680005F3                B         KIF1            NORMAL RETURN
      01 005F2    68000066                B         KEYERR          ERROR RETURN
                                 KIF1     ;
      01 005F3    72C40000 X              LB,R12    DCT4,R2         GET DEV.TYPE
      01 005F4    25C00008 A              SLS,R12   8
      01 005F5    5530000C A              STH,R3    R12
      01 005F6    20C00000 N              AI,R12    KFLUSH          SET UP R12 FOR SGCOM
      01 005F7    6AB00050                BAL,R11   GKIFLD          MOVE SYSID TO KPL FIELD BUFFER
      01 005F8    69800066                BCS,8     KEYERR
      01 005F9    6AB00000 X              BAL,R11   CVSYSID         CONVERT IT TO HEX IN R2
      01 005FA    69800066                BCS,8     KEYERR
      01 005FB    32D00002 A              LW,R13    R2              SYSID IN HEX TO R13 FOR SGCOM
      01 005FC    5230000C A              LH,R3     R12             GET SYMX AGAIN
      01 005FD    72160000 X              LB,R1     SYMX,R3
      01 005FE    21100002 A              CI,R1     2               IS IT 'OUTPUT'
      01 005FF    68400066                BAZ       KEYERR          NO
      01 00600    52160000 X              LH,R1     SCNTXT,R3       IS THERE A CONTEXT BLOCK
      01 00601    68300066                BEZ       KEYERR          NO
      01 00602    25100001 A              SLS,R1    1               CONVERT TO WA
      01 00603    22300010 N              LI,R3     MASKS+16
      01 00604    45220000 X              CS,R2     SCSYDGI,R1      DOES SYSID MATCH
      01 00605    69300066                BNE       KEYERR          NO
      01 00606    680004DC                B         KSGCQ           PASS COM.BUF TO RBBAT
 3016         01 0001A                    END       START$KEYIN
      01 00607    C1D3D340 A
      01 00608    01FF0A00 A
      01 00609    F3C3C840 A
      01 0060A    D7E4C2D3 A
      01 0060B    D3D6C3D2 A

CONTROL SECTION SUMMARY: 01 0060C   PT 0     02 00032   PT 0     03 00032   PT 0
```

* SYMBOL VALUES

ABCERR/00000000
ANSPROC/00000001
AVR/01 00333
AVRS/01 00320
BAUNIT1/01 00007
BLKSZ/00000003
CHKLBL/01 00361
CHKID/01 00280
CHKO/01 002FC
CKF5/01 003F0
CKSERIAL/01 00298
CKZERO3/01 00452
DCTX/01 002C0
DEVICEDOWN/01 003AE
DTVALCK/01 002DA
D4/0000000F
F/00000001
GDTKIVAL/01 001EE
GDTKIV4/01 002D9
GJOBFC/00000013
GJOBUSY/01 000F9
GKIFLD3/01 0005D
IDLE/00000001
ISPS3/01 002B8
KBUF/00000003
KC1/000000C1
KEYERR1/01 00068
KFFFF/0000FFFF
KIABORT/01 00077
KIDATE/01 001D9
KIERROR1/01 0007C
KIFDOWN/01 001DA
KIGBUP/01 00121
KIGJOB2/01 000D2
KIGJOB6/01 000FC
KIHEAD/01 0016A

AMNTSCR/01 00289
ANSREEL#/01 0025C
AVRBZERR/01 00390
AVR1/01 00330
BAUNIT2/01 00008
BLP/01 00006
CHKBLP/01 0027A
CHKID1/01 00280
CHK1/01 0030A
CKF6/01 003F2
CKZERO/01 0042C
CONTUGSRCH/01 000AD
DCV20/01 0012C
DISCBPROC/00000000
D1/0000000C
EAPROG/01 003A8
FKIC/01 004DF
GDTKIV1/01 001FD
GETAVR/01 00238
GJOBFULL/01 00105
GJOBWAKE/01 00100
GKIFLD4/01 0005F
ISPS/01 002C1
ISPS5/01 002AE
KCCP/00000001
KDIAG/01 00145
KEYINA/01 0002D
KFLAGS/00000002
KIANSM/01 00212
KIDELT/01 000B8
KIER12/01 00087
KIFLUSH/01 005EA
KIGDOWN/01 00117
KIGJOB3/01 000DD
KIGJOB7/01 000F7
KIH1/01 00170

ANSASN/0000000A
ANSVOL/00000003
AVRIOERR/01 00385
BACONCAT/00000038
BITS/00000000
CCERR/01 003AA
CHKGACN/01 000B0
CHKSR/01 00244
CKFREE/01 003E9
CKF7/01 003F4
CKZERO1/01 00421
D/00000002
DCV30/01 00134
DLTPSD/01 000BC
D2/0000000D
ENTINT/01 00073
FMT/00000005
GDTKIV2/01 00203
GETAVR1/01 0023D
GJOBTXT/02 0000F
GJOBWC/00000013
GKIFLD5/01 00060
ISPS0/01 002CD
KA/0000000A
KCOMMA/TEXT
KDIAG1/01 00148
KEYINQ/01 0000A
KF0/000000F0
KIANS0/01 00214
KIDL/01 00018
KIER13/01 00089
KIF1/01 005F3
KIGJOB/01 000BE
KIGJOB4/01 000E2
KIGUP/01 00123
KIH2/01 00176

ANSFNMAX/00000011
ASCVOL1/01 003B4
AVRLBERR/01 0038A
BAKPLB/00000014
BLKCNT/00000011
CHK/01 002F7
CHKGNAME/01 000AB
CHKSR1/01 00249
CKF10/01 00408
CKF8/01 003FB
CKZERO2/01 0042A
DCBPROC/00000000
DEFAULTGACN/01 000A9
DOSRCH/01 00373
D3/0000000E
ERSEND/01 00501
FSN/00000010
GDTKIV3/01 00208
GETFLG1/01 00381
GJOBUC/0000001B
GKIFLD1/01 00036
GNAME/01 00098
ISPS2/01 002B1
KBLANK/TEXT
KCRET/00000015
KEOB/00000026
KEYIN20/01 00027
KF9/000000F9
KIANSS/01 00210
KIERROR/01 0007A
KIER15/01 0008F
KIGB/01 00127
KIGJOB1/01 000C1
KIGJOB5/01 000EA
KIG1/01 00143
KIMOUNT/01 00216

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KIMOUNTZ/01 0021C   KIMVHDR/01 0016E   KINOHDR/01 00179   KIOUTPUT/01 005C7
KIPL/01 00010       KIRAD1ST/01 00465  KIRCN/01 0043F     KIRCN1/01 00449
KIRCN2/01 00420     KIREQ/01 003B9     KIREQBF/01 00419   KIREQBK/01 00418
KIREQBLK/01 00418   KIREQDCB/01 00412  KIREQDD/01 0040B   KIREQFIL/01 00436
KIREQNDD/01 003DA   KIREQND6/01 003E1  KIREQSV/01 0041D   KIREQT1/01 0040E
KIREQT2/01 00411    KIREQ111/01 0040A  KIREQ8/01 0041C    KIRQUE/01 003E5
KIRQUE1/01 003F7    KISCRTH/01 00218   KISEND/01 00151    KISTART/01 000B5
KISTSY/01 004E7     KISTSY0/01 004EB   KISTSY1/01 004EE   KISTSY2/01 004FB
KISTV1/01 00164     KISTV2/01 00166    KIS1/01 0015C      KITIME/01 001C1
KMAXKIFL/0000000C   KMCSEND/01 0017C   KMCSEND1/01 00184  KMCSEND2/01 00189
KN10/FFFFFFF0       KN18/FFFFFFE8      KN6/FFFFFFFA       KN8/FFFFFFF8
KOBF/01 0006E       KOBN/01 00070      KOUTSTOP/01 005DB  KRBBCST/01 00512
KRBCOM/01 005C6     KRBDCK/01 0054C    KRBDCT/01 00544    KRBDCT1/01 0054E
KRBDISC/01 00575    KRBDNCK/01 00559   KRBDS1/01 0057C    KRBDS2/01 00583
KRBDX/01 00579      KRBLOG/01 005AD    KRBLSN/01 005B7    KRBLVN/01 005BD
KRBMV/01 00525      KRBMV0/01 00526    KRBMV1/01 0052D    KRBMV2/01 00539
KRBMV4/01 0053A     KRBS/01 00586      KRBSC/01 00520     KRBSEND/01 00518
KRBSPN/01 00560     KRBSPN1/01 00566   KRBSPN2/01 00562   KRBSWIT/01 00597
KRBS1/01 00591      KRBWSN/01 00551    KRBX/01 00567      KRBX1/01 0056F
KSCPU/01 00194      KSCPU1/01 00199    KSCPU2/01 001A0    KXCPU/01 001AA
KXCPU2/01 001B1     KXCPU3/01 001B3    K0/00000000        K1/00000001
K2/00000002         K5/00000005        K8/00000008        LOC/01 0001A
LOCK/01 002DA       LRCSZ/00000012     MAXDAYVAL/01 001EA MAXHRVAL/01 001E4
MAXMINVAL/01 001E6  MAXMONVAL/01 001E8 MAXYRVAL/01 001EC  MCFC/01 003B3
MNTSCR/01 00263     MONPROC/00000000   MPBITS/00000001    MSGT/01 00380
MSMDAT/01 001D7     M16/00000010  S    M2/00000002  S     M24/00000018  S
M7/00000007  S      M8/00000008  S     NCPU/00000001  S   NKEYINS/00000031
NKIDL/00000007      NOBRANCH/01 00009  NOCC/01 0034E      NOIDPUB/01 002D3
NOTANS/00000001     NOTBLP/01 0024F    NOTEXPR/00000002   NOTUNIQUE/01 00330
NOTV0L1/01 003B9    NOUNTSW/01 00234   NSTARTB/00000001  S NSTOPB/00000002  S
NXKICHR2/01 00048   NXKICHR3/01 0004A  NXKICHR31/01 0004C NXKICHR32/01 0004E
NXKICHR4/01 0003D   NXKICHR5/01 0003F  OCPCK/01 004E0     POSTAPE/01 00395
POSTAPE1/01 00396   PREMOUNT/01 002BF  PUBLK/01 002BE     RBCODE/00000001
RDILBL/01 00369     READTAPE/01 00397  REAVR/01 00344     REEL#/01 00265
REQORS/01 003CC     REQTY/01 003CF     REQTY1/01 003D1    REQTY2/01 003D7
REST/01 00268       REST10/01 0026B    REST20/01 00272    REST30/01 00274
R0/00000000         R1/00000001        R10/0000000A       R11/0000000B
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R12/0000000C          R13/0000000D          R14/0000000E          R15/0000000F
R2/00000002           R3/00000003           R4/00000004           R5/00000005
R6/00000006           R7/00000007           R8/00000008           R9/00000009
SEP10/01 0029F        SEP20/01 002A5        SETNEW/01 0031E       SKEYIN/01 00489
SKEYIN2/01 00497      SKFCK/01 00499        SKFF/01 004C9         SKFJ/01 004BD
SKF0/01 004CC         SKFRM/01 004B7        SKFRM1/01 004BA       SKFRM2/01 004D4
SKFSET/01 004A1       SKF1/01 004CF         SKIN/01 0046B         SKIN1/01 0048B
SKIN2/01 0047B        SKIN3/01 00483        SNFN/00000000         SRCHAVR/01 002EA
SR1/00000008          SR2/00000009          SR3/0000000A          SR4/0000000B
START$KEYIN/01 0001A                        STARTBIT/00000001     STOPBIT/00000002
STOPPED/00000000      SXP/FUNC              S69PROC/00000001      TRIGEON/01 00168
TXTGO/01 0000F        TXTSTOP/01 0000E      TYPERR/01 00276       T1/01 001CB
U/00000004            UFLAGS/00000000       USER/00000002         UTSPROC/00000001
V/00000003            VERB/0000001C  S      VERSION/0000002B      VOL1/01 003B5
VPXPSDT/00000001      X/00000032            XCF/01 00004          XF/00000004  S
XFF/00000008  S       XFF0A00/01 003B7      XF7/01 00005          X30/01 00002
X7FF/0000000B  S      X80/00000008  S       X88/01 003B8          Y/00000000
YC1FF/01 00001        YC5FF/01 00003        Y01/00000019  S       Y04/0000001B  S
Y08/0000001C  S       Y1/0000001D  S        Y2/0000001E  S        Y4/0000001F  S
Y8/00000020  S        ZAP10/01 0010E        ZAP20/01 00116        1A1/01 0045F
1A2/01 00458          2741CODE/00000001     !LBL/01 003B6
*  EXTERNAL DEFINITIONS
GKIFLD/01 00056       KEYERR/01 00066       KEYINR/01 0006D       KEYN/01 00000
KFL/00000004          KIJMPTBL/03 00000     KITBL/02 00000        KPLB/00000005
KSGCQ/01 004DC        NXKICHR/01 00039      TXMOOSE/01 0000C
*  PRIMARY REFERENCES
ACNCFU      ANSFLGS     ANSPRT      ASPIN       AVRDCT      AVRFLGS     AVRFNMT
AVRID       AVRNOU      AVRTBL      AVRTBLNE    AVRTBLSIZ   BATAPE      BCSTGFC
BGRCFU      BLANK       BT31T00     C$CPU       CIMSM       CFUSIZE     CTRIG
CVSYSID     DATE        DCTSIZ      DCT1        DCT16       DCT24       DCT3
DCT4        DECONV      DEVCK       DID         DOUBLEZERO  E:ABRT      E:CBK
E:ERR       ERRLOG      FCMC        GETUSER#    GMB         GOODNGT     HEXCK
HOWALO      J:BASE      J:CCBUF     J:JIT       KEYINBUF    KFLUSH      KFRMCG
KFRMGFC     KIDEL       KIDIS       KIPRI       KOSTOP      LPART       LSERIAL
MASKS       MAXG        MBSOP#      MING        MXSTRM      NB31T00     NDD
NEWQ        NSCPU       OCQUEUE     OH:NM       PLBIMIN     PLH:SID     QUEUE
RAD1ST      RAT:DCT4    RBB::D      RBLIMS      RMB         RSERIAL     S:BUAIS
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        S:CUN           S:GJ0BACN       S:GJ0BTRL       S:GUAIS         S:MBSF          S:0UAIS         SB:GJ0BU
        SB:RTY          SCNTXT          SCSVDG:         SGCQ            SGCQ2           SH:RBCU         SH:RGCU
        SH:RNM          SH:R0CU         SH:RT0T         SI:XPACK        SMU:S           SNDDX           SNDGFC
        SNULL           S0LICIT         SSTAT           ST0:TYP         SV:RSIZ         SWITGFC         SYMC0M
        SYMTABCK        SYMX            SYSACCT         SYSTRT          T:0TSCHED       T:0ELUS         T:GJ0BR
        T:GJ0BSTRT      T:RUE           T0:FLGS         T0:FLGS1        TIME            TSERIAL         TSTACK
        TYPMNSZ         UB:US           UH:FLG2         UX:JIT          WAKEUP          XFC             X0
        X1000FFFF       YFFFF           Y000A           Y06             Y07             Y18             Y3
        1MIN            :BIG            :B560           :B9
*     SEC0NDARY REFERENCES
        ACT0IT          ALBIT           C0C             C0CDSABL        C0CENABL        C0CMESS         C0C0TV
        C0CSENDX        C0CTERM         CP0S            DCBIT           ECH0CR2         KC0MGFC         LB:UN
        LIPBIT          LN0L            M0DE2           0ADBIT          0CPI0           0CPTYP          0FFBIT
        RAS:D0L         RB:FLAG         RBD:WSN         RBXBIT          SIMPKYN         SB:INIT         SB:STATE
* N0 UNDEFINED SYMB0LS
*     ERR0R SEVERITY LEVEL: 0
* N0 ERR0R LINES
```