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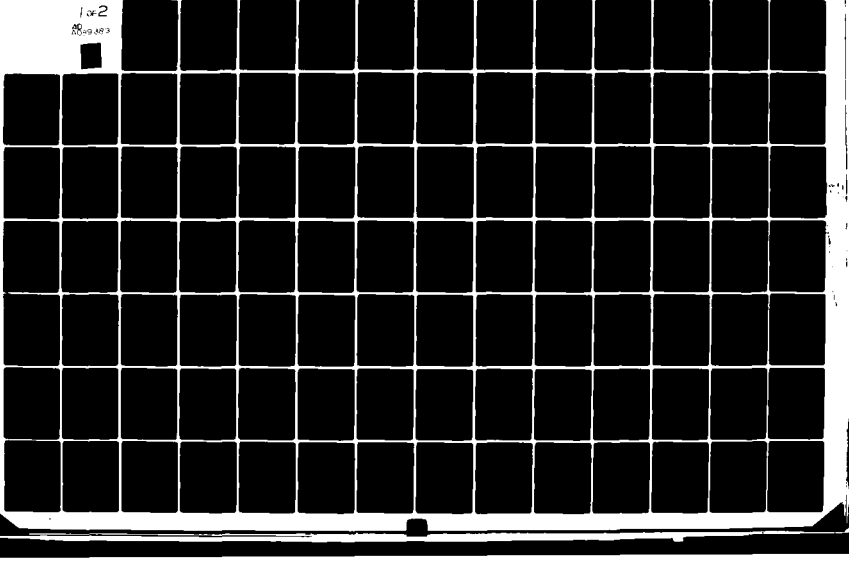

AFFDL-TR-79-3074
Volume IV

STRUCTURAL ANALYSIS VIA GENERALIZED INTERACTIVE GRAPHICS
STAGING
Volume IV — Appendices to System Manual

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TECHNICAL REPORT AFFDL-TR-79-3074, Volume IV
Final Report for Period June 1976 — September 1979

AIR FORCE FLIGHT DYNAMICS LABORATORY
AIR FORCE WRIGHT AERONAUTICAL LABORATORIES
AIR FORCE SYSTEMS COMMAND
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This technical report has been reviewed and is approved for publication.

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

STAGING (STructural Analysis via Generalized INteractive Graphics) has been developed to give engineers an interactive graphics system for constructing and studying finite element models and for reviewing the results of a finite element analysis.

Volume IV includes appendices to the System Manual. These appendices list the various STAGING procedures, loader directives, and cross-referenced tables of all entry names that occur in the STAGING system.

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FOREWARD

This final report was prepared by the Columbus Laboratories of Battelle Memorial Institute, Columbus, Ohio, for the Structures and Dynamics Division, Air Force Flight Dynamics Laboratory, Wright-Patterson Air Force Base, Ohio. The work was performed under Contract No. F-33615-75-C-3125, which was initiated under Project No. 2401, "Structures and Dynamics", Task No. 02, "Design and Analysis Methods for Aerospace Vehicle Structures". Initially, Mr. L. Bernier (FBR) was the AFFDL project engineer for this effort, after which Mr. B.H. Groomes (FBR) was assigned the responsibility.

STAGING, as described in this report, represents a three-year combined Air Force-Navy effort, with specific support and contributions from Dr. Charles P. Porier, Chief, Scientific Systems Analysis Branch, ASD Computer Center, Wright-Patterson Air Force Base, Ohio, Messers. James M. McKee and Michael E. Golden, Computation Mathematics and Logistics Department, Code 1844, Mr. Paul Mayer and Miss Jane A. Figula, Structures Department, Code 1730.5, The David W. Taylor Naval Ship Research and Development Center, Bethesda, Maryland. The technical graphics expertise of these government researchers are gratefully acknowledged.

The report consists of four volumes. Volume I, "Final Summary Report", presents an overview of the capabilities of the STAGING (STructural Analysis via Generalized INteractive Graphics) system. Volume II, "Users Guide", gives detailed instructions on how to use STAGING for finite element analysis. Volume III, "System Manual", describes the internal structure of STAGING and details procedures for installation and Maintainance of the System on CDC CYBER and 6000 series mainframe computers. Volume IV, "Appendices to the System Manual", includes lists of STAGING procedures, loader directives and cross-referenced tables of all entry names that occur in STAGING.

The program manager of this development was Dr. L. E. Hulbert of the Transportation and Structures Department. He was supported by N. D. Ghadiali of the same department and by a number of specialists from the Computer, Information Systems, and Education Department including:

E. Edwards K. Cadmus

D. Kasik C. Scofield

W. Young F. Drobot

Kevin Cadmus was a major contributor to the preparation of this volume.

The work reported herein was conducted during the period of June 28, 1976 through June 1979. Some work on STAGING was carried out under contract F33615.

The present report was submitted for publication in September, 1979.

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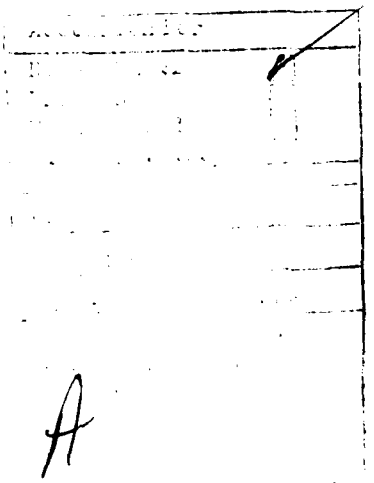

LIST OF ILLUSTRATIONS

APPENDIX A

STAGING PROCEDURES

APPENDIX A

STAGING PROCEDURES

This section contains listings of various STAGING procedures. In most cases two versions of each procedure are provided. The first, called the "PROFIL" version, is written in the University of Washington Control Language. The second, called the "PROCFIL" version, is written in the standard CYBER Control Language. Below is a list of the names of the procedures provided in this appendix:

A
C
R
STAGING
MENUGENABS
MPDBGENABS
SUPPORTLIB
MENUGEN
MENUTABLE
MPDBNEW
MPDBADD
STAGINGGEN
XGPRIME
UPDATE
NEWLIB

```
PROFIL VERSION
               A(*LFN=,*PFN1=,*PFN2=,*PFN3=,*PFN4=,*ID=STAGING3)
               /*
               /*  ATTACH A PERMANENT FILE
               /*
               RETURN(*LFN)
               IFC(NE,*PFN1,,L1)
               ATTACH(*LFN,$_*PFN1_*PFN2_*PFN3_*PFN4_$,ID=*ID,PW=XR)
               ELSE(L1)
               ATTACH(*LFN,ID=*ID,PW=XR)
               ENDIF(L1)
               REVERT.
               EXIT(S)
               REVERT(ABORT)
```

```
PROCFIL VERSION
               .PROC,A,LFN=,PFN1=,PFN2=,PFN3=,PFN4=,ID=STAGING3.
               .*
               .*  ATTACH A PERMANENT FILE
               .*
               RETURN(LFN)
               ATTACH(LFN,PFN1_PFN2_PFN3_PFN4,#ID=ID,PW=XR)
               REVERT.
               EXIT(S)
               REVERT(ABORT)
```

Figure A-1. Procedure A

```
PROFIL VERSION
                C(*LFN=,*PFN1=,*PFN2=,*PFN3=,*PFN4=,*ID=STAGING3)
                /*
                /*  CATALOG A PERMANENT FILE
                /*
                IFC(EQ,*PFN1,,L1)
                CATALOG(*LFN,ID=*ID,XR=XR,PW=XR,RP=999)
                ELSE(L1)
                CATALOG(*LFN,$_*PFN1_*PFN2_*PFN3_*PFN4_$,ID=*ID,XR=XR,PW=XR,RP=999)
                ENDIF(L1)
                REVERT.
                EXIT(S)
                IFC(EQ,*PFN1,,L3)
                BEGIN,P,*FILE,*LFN,ID=*ID.
                CATALOG(*LFN,ID=*ID,XR=XR,PW=XR,RP=999)
                ELSE(L3)
                BEGIN,P,*FILE,*PFN1,*PFN2,*PFN3,*PFN4,ID=*ID.
                CATALOG(*LFN,$_*PFN1_*PFN2_*PFN3_*PFN4_$,ID=*ID,XR=XR,PW=XR,RP=999)
                ENDIF(L3)
                SKIP(1)
                EXIT(S)
                REVERT.



PROCFIL VERSION
                .PROC,C,LFN=,PFN1=,PFN2=,PFN3=,PFN4=,ID=STAGING3.
                .*
                .*  CATALOG A PERMANENT FILE
                .*
                CATALOG(LFN,PFN1_PFN2_PFN3_PFN4,#ID=ID,XR=XR,PW=XR,RP=999)
                REVERT.
                EXIT(S)
                RETURN(JUNK)
                PURGE(JUNK,PFN1_PFN2_PFN3_PFN4,#ID=ID,PW=XR,LC=1)
                RETURN(JUNK)
                CATALOG(LFN,PFN1_PFN2_PFN3_PFN4,#ID=ID,XR=XR,PW=XR,RP=999)
                SKIP(L4)
                EXIT(S)
                ENDIF(L4)
                REVERT.
```

Figure A-2. Procedure C

```
PROFIL VERSION
                R(*LFN)
                /*
                /*  REQUEST A PERMANENT FILE
                /*
                RETURN(*LFN)
                REQUEST(*LFN,*PF)
                SKIP(1)
                EXIT(S)
                REVERT.



PROCFIL VERSION
                .PROC,R,LFN=.
                .*
                .*  REQUEST A PERMANENT FILE
                .*
                RETURN(LFN)
                REQUEST(LFN,*PF)
                SKIP(L1)
                EXIT(S)
                ENDIF(L1)
                REVERT.
```

Figure A-3. Procedure R

```
PROFIL VERSION:
              STAGING(*CY=1,*ETL=500)
              /*
              /* RUN (COMPIO) VERSION OF STAGING SYSTEM
              /*
              RETURN(ST)
              RETURN(PROCFIL)
              ATTACH(PROCFIL,DUMMYPROCFILFORBATTELLE,ID=STAGING3,CY=1)
              ATTACH(ST,STAGINGABS,ID=STAGING3,CY=*CY)
              ETL(*ETL)
              ST.
              RETURN(GLOBAL,EXEC,DANDE,PREP,POST,MATER,PROCFIL)
              SKIP(1)
              EXIT(S)
              REVERT.



PROCFIL VERSION
              .PROC,STAGING,CY=1,ETL=300.
              .*
              .* RUN STAGING3 VERSION OF STAGING3
              .*
              RETURN(ST)
              ATTACH(ST,STAGINGABS,ID=STAGING3,#CY=CY)
              #ETL(ETL)
              ST.
              RETURN(ST,MATER,GLOBAL,EXEC,DANDE,PREP,POST)
              SKIP(L1)
              EXIT(S)
              ENDIF(L1)
              REVERT.
```

Figure A-4. Procedure STAGING

```
PROFIL VERSION:
               MENUGENABS.
               /*
               /* CREATE NEW MENU GENERATOR ABSOLUTE
               /*
               BEGIN,A,*FILE,BIN,MENUGENBIN.
               BEGIN,A,*FILE,SUPLIB,SUPPORTLIB.
               BEGIN,R,*FILE,MENG.
               LOAD(BIN)
               LDSET(LIB=SUPLIB)
               NOGO(MENG)
               BEGIN,C,*FILE,MENG,MENUGENABS.
               SKIP(1)
               EXIT(S)
               RETURN(MENG,BIN,SUPLIB)
               REVERT.

PROCFIL VERSION
               .PROC,MENUGENABS,TYPE=REGEN.
               .*
               .* CREATE NEW MENU GENERATOR ABSOLUTE
               .*
               IFE,$TYPE$.EQ.$REGEN$,L2.
               BEGIN,A,PROCFIL,OLDPL,MENUGENPL.
               BEGIN,A,PROCFIL,IN,MENUGENIN.
               BEGIN,A,PROCFIL,BINOLD,MENUGENBIN.
               BEGIN,R,PROCFIL,NEWPL.
               BEGIN,R,PROCFIL,INNEW.
               BEGIN,R,PROCFIL,BINNEW.
               UPDATE(N,I=IN,L=1)
               FTN(I,Z,R=3,OPT=2,S=CPCTEXT)
               COPYL(BINOLD,LGO,BINNEW,,RA)
               BEGIN,C,PROCFIL,BINNEW,MENUGENBIN.
               COPYBF(#DATA,INNEW)
               BEGIN,C,PROCFIL,INNEW,MENUGENIN.
               BEGIN,C,PROCFIL,NEWPL,MENUGENPL.
               RETURN(OLDPL,NEWPL,BINOLD,LGO,BINNEW,INNEW)
               ENDIF(L2)
               BEGIN,A,PROCFIL,BIN,MENUGENBIN.
               BEGIN,A,PROCFIL,SUPLIB,SUPPORTLIB.
               BEGIN,R,PROCFIL,MENG.
               LOAD(BINNEW)
               LDSET(LIB=SUPLIB)
               NOGO(MENG)
               BEGIN,C,PROCFIL,MENG,MENUGENABS.
               SKIP(L1)
               EXIT(S)
               ENDIF(L1)
               RETURN(MENG,BIN,SUPLIB)
               REVERT.
               .DATA
               *ID MENUNEW
               .EOR
```

Figure A-5. Procedure MENUGENABS

```
PROFIL VERSION
             MPDBGENABS(*TYPE=ADD)
             /*
             /* GENERATE NEW MPDB ABSOLUTE (MPDBNEWABS OR MPDBADDABS)
             /*
             BEGIN,A,*FILE,OLDPL,STAGINGPL.
             UPDATE(Q,I=*DATA,L=0)
             FTN(I,R=3,B=BIN)
             BEGIN,A,*FILE,LIB,SUPPORTLIB.
             LIBRARY(LIB)
             LOAD(BIN)
             NOGO(ABS)
             BEGIN,C,*FILE,ABS,MPDB,*TYPE,ABS.
             REVERT.
             /DATA
             *ID MPDB
             *C MPDB_*TYPE
             /EOR



PROCFIL VERSION:
             .PROC,MPDBGENABS,TYPE=NEW.
             .*
             .* GENERATE NEW MPDB ABSOLUTE (FOR CREATE OR REVISE)
             .*
             BEGIN,A,PROCFIL,OLDPL,STAGINGPL.
             UPDATE(Q,I=#DATA,L=0)
             FTN(I,R=3,B=BIN)
             BEGIN,A,PROCFIL,LIB,SUPPORT,LIB.
             LIBRARY(LIB)
             LOAD(BIN)
             NOGO(ABS)
             BEGIN,C,PROCFIL,ABS,MPDB,TYPE,ABS.
             SKIP(L1)
             EXIT(S)
             ENDIF(L1)
             REVERT.
             .DATA
             *ID MPDBGEN
             *C MPDB_TYPE
             .EOR
```

Figure A-6. Procedure MPDBGENABS

```
SUPPORTLIB.
/*
/* COMBINE LIBRARIES TO FORM NEW STAGING SUPPORT LIBRARY
/*
BEGIN,A,*FILE,BIN1,DATABASE,BIN.
BEGIN,A,*FILE,BIN2,RECOVERY,BIN.
BEGIN,A,*FILE,BIN3,XYGRAPH,BIN.
BEGIN,A,*FILE,BIN4,PERMFILE,BIN.
BEGIN,A,*FILE,BIN5,CONVERSION,BIN.
BEGIN,A,*FILE,BIN6,NEWCOMPIO,BIN.
EDITLIB(I=*DATA,L=0)
BEGIN,C,*FILE,LIB,SUPPORTLIB.
REWIND(LIB)
ITEMIZE(LIB,E)
SKIP(1)
EXIT(S)
RETURN(BIN1,BIN2,BIN3,BIN4,BIN5,BIN6,LIB)
REVERT.
/DATA
LIBRARY(LIB,NEW)
ADD(*,BIN1)
ADD(*,BIN2)
ADD(*,BIN3)
ADD(*,BIN4)
ADD(*,BIN5)
ADD(*,BIN6)
FINISH.
ENDRUN.
/EOR
```

Figure A-7A. Procedure SUPPORTLIB (PROFIL Version)

```
.PROC,SUPPORTLIB.
.*
.* COMBINE LIBRARIES TO FORM NEW STAGING3 SUPPORT LIBRARY
.*
BEGIN,A,PROCFIL,BIN1,DATABASE,BIN.
BEGIN,A,PROCFIL,BIN2,RECOVERY,BIN.
BEGIN,A,PROCFIL,BIN3,XYGRAPH,BIN.
BEGIN,A,PROCFIL,BIN4,PERMFILE,BIN.
BEGIN,A,PROCFIL,BIN5,CONVERSION,BIN.
BEGIN,A,PROCFIL,BIN6,NEWCOMPIO,BIN.
BEGIN,R,PROCFIL,LIB.
EDITLIB(I=#DATA,L=0)
BEGIN,C,PROCFIL,LIB,SUPPORTLIB.
REWIND(LIB)
ITEMIZE(LIB,E)
SKIP(L1)
EXIT(S)
ENDIF(L1)
RETURN(BIN1,BIN2,BIN3,BIN4,BIN5,BIN6,LIB)
REVERT.
.DATA
LIBRARY(LIB,NEW)
ADD(*,BIN1)
ADD(*,BIN2)
ADD(*,BIN3)
ADD(*,BIN4)
ADD(*,BIN5)
ADD(*,BIN6)
FINISH.
ENDRUN.
.EOR
```

Figure A-7B. Procedure SUPPORTLIB (PROCLIB Version)

```
PROFIL VERSION
                MENUGENABS.
                /*
                /* CREATE NEW MENU GENERATOR ABSOLUTE
                /*
                BEGIN,A,*FILE,BIN,MENUGENBIN.
                BEGIN,A,*FILE,SUPLIB,SUPPORTLIB.
                BEGIN,R,*FILE,MENG.
                LOAD(BIN)
                LDSET(LIB=SUPLIB)
                NOGO(MENG)
                BEGIN,C,*FILE,MENG,MENUGENABS.
                SKIP(1)
                EXIT(S)
                RETURN(MENG,BIN,SUPLIB)
                REVERT.



PROCFIL VERSION
                .PROC,MENUGEN,PREFIX=EXEC.
                .*
                .* CREATE NEW MENUS FOR NEW COMMAND TREE
                .*
                RETURN(TAPE9,TAPE31,TAPE32)
                BEGIN,R,PROCFIL,MENUS.
                BEGIN,R,PROCFIL,TAPE10.
                BEGIN,A,PROCFIL,MENG,MENUGENABS.
                BEGIN,A,PROCFIL,TAPE5,PREFIX,MENU,SOURCE.
                MENG(PL=777777)
                BEGIN,C,PROCFIL,TAPE10,PREFIX,MENUDRIVER.
                BEGIN,C,PROCFIL,MENUS,PREFIX,MENU.
                SKIP(L1)
                EXIT(S)
                ENDIF(L1)
                RETURN(TAPE9,TAPE31,TAPE32)
                REVERT.
```

Figure A-8. Procedure MENUGEN

```
MENUTABLE.
/*
/* REGENERATE THE TABLE OF MENU DRIVERS
/*
BEGIN,A,*FILE,OLDPL,STAGINGPL.
BEGIN,R,*FILE,TABLE.
BEGIN,A,*FILE,IN,GLOBAL,MENUDRIVER.
UPDATE(Q,I=IN,L=0)
FTN(I,Z,R=3,B=TABLE,S=0)
BEGIN,A,*FILE,IN,EXEC,MENUDRIVER.
UPDATE(Q,I=IN,L=0)
FTN(I,Z,R=3,B=TABLE,S=0)
BEGIN,A,*FILE,IN,PRE,MENUDRIVER.
UPDATE(Q,I=IN,L=0)
FTN(I,Z,R=3,B=TABLE,S=0)
BEGIN,A,*FILE,IN,POST,MENUDRIVER.
UPDATE(Q,I=IN,L=0)
FTN(I,Z,R=3,B=TABLE,S=0)
BEGIN,A,*FILE,IN,DISPLAY,MENUDRIVER.
UPDATE(Q,I=IN,L=0)
FTN(I,Z,R=3,B=TABLE,S=0)
BEGIN,C,*FILE,TABLE,MENUTABLE.
RETURN(TABLE)
SKIP(1)
EXIT(S)
REVERT.
```

Figure A-9A. Procedure MENUTABLE (PROFIL Version)

```
.PROC,MENUTABLE.
.*
.* REGENERATE THE TALBE OF MENU DRIVERS
.*
BEGIN,A,PROCFIL,OLDPL,STAGINGPL.
BEGIN,R,PROCFIL,TABLE.
BEGIN,A,PROCFIL,IN,GLOBAL,MENUDRIVER.
UPDATE(Q,I=IN,L=0)
FTN(I,Z,L=TABLIST,R=3,B=TABLE,S=0)
BEGIN,A,PROCFIL,IN,DISPLAY,MENUDRIVER.
UPDATE(Q,I=IN,L=0)
FTN(I,Z,L=TABLIST,R=3,B=TABLE,S=0)
BEGIN,A,PROCFIL,IN,EXEC,MENUDRIVER.
UPDATE(Q,I=IN,L=0)
FTN(I,Z,L=TABLIST,R=3,B=TABLE,S=0)
BEGIN,A,PROCFIL,IN,PRE,MENUDRIVER.
UPDATE(Q,I=IN,L=0)
FTN(I,Z,L=TABLIST,R=3,B=TABLE,S=0)
BEGIN,A,PROCFIL,IN,POST,MENUDRIVER.
UPDATE(Q,I=IN,L=0)
FTN(I,Z,L=TABLIST,R=3,B=TABLE,S=0)
BEGIN,C,PROCFIL,TABLE,MENUTABLE.
RETURN(TABLE)
SKIP(L1)
EXIT(S)
ENDIF(L1)
REVERT.
```

Figure A-9B. Procedure MENUTABLE (PROCFIL Version)

FIGURE A.9B - PROCEDURE MENUTABLE (PROCFIL VERSION)

```
PROFIL VERSION
                MPDBNEW.
                /*
                /* RECONSTRUCT AN EMPTY STAGING MATERIAL PROPERTY DATA BASE
                /*
                BEGIN,R,*FILE,MATER.
                BEGIN,A,*FILE,ABS,MPDBNEWABS.
                ABS.
                BEGIN,C,*FILE,MATER,MPDB.
                RETURN(MATER,ABS)
                REVERT.


PROCFIL VERSION
                .PROC,MPDBNEW.
                .*
                .* RECONSTRUCT STAGING MATERIAL PROPERTIES DATA BASE
                .*
                BEGIN,R,PROCFIL,MATER.
                BEGIN,A,PROCFIL,ABS,MPDBNEWABS.
                ABS.
                BEGIN,C,PROCFIL,MATER,MPDB.
                RETURN(MATER,ABS)
                REVERT.
```

Figure A-10. Procedure MPDBNEW

```
PROFIL VERSION
                MPDBADD.
                /*
                /* MODIFY STAGING MPDB WITH ADDITIONS OR REVISIONS ON TAPE1
                /*
                BEGIN,A,*FILE,MATER,MPDB.
                BEGIN,A,*FILE,ABS,MPDBADDABS.
                ABS.
                EXTEND(MATER)
                RETURN(MATER,TAPE1,ABS)
                REVERT.


PROCFIL VERSION
                .PROC,MPDBADD.
                .*
                .* MODIFY STAGING MPDB WITH ADDITIONS OR REVISIONS ON TAPE1
                .*
                BEGIN,A,PROCFIL,MATER,MPDB.
                BEGIN,A,PROCFIL,ABS,MPDBADDABS.
                ABS.
                EXTEND(MATER)
                RETURN(MATER,TAPE1,ABS)
                REVERT.
```

Figure A-11. Procedure MPDBADD

```
WPVERSION.
/*
/* CREATE NECESSARY MODIFICATIONS FOR WRIGHT-PATTERSON AFB
/*
RETURN(BIN1,BIN2,BIN3)
RETURN(IN1,IN2,IN3)
COPYBR(*DATA,IN1)
COPYBR(*DATA,IN2)
COPYBR(*DATA,IN3)
REWIND(IN1,IN2,IN3)
RETURN(*DATA)
BEGIN,A,*FILE,OLDPL,STAGINGPL.
UPDATE(I=IN1,L=1)
FTN(I,Z,R=3,B=BIN1)
BEGIN,A,*FILE,OLDPL,INTERTEKPL.
UPDATE(I=IN2,L=1)
FTN(I,Z,R=3,B=BIN2)
BEGIN,A,*FILE,OLDPL,PERMFILEPL.
UPDATE(I=IN3,L=1)
FTN(I,Z,R=3,B=BIN3,S=SCPTEXT,S=PFMTEXT,S=IOTEXT)
REWIND(BIN1,BIN2,BIN3)
BEGIN,R,*FILE,BIN.
COPYBR(BIN1,BIN,999)
COPYBR(BIN2,BIN,999)
COPYBR(BIN3,BIN,999)
BEGIN,C,*FILE,BIN,WPAFB,MODBIN.
ITEMIZE(BIN,E)
SKIP(1)
EXIT(S)
RETURN(OLDPL,COMPILE,BIN,BIN1,BIN2,BIN3)
REVERT.
/DATA
*ID WPAFB1
*D GLOINT.31
      DATA IAC/7HD700370/
/EOR
*ID WPAFB2
*I GINIT.21
      CALL SETBAUD(120)
/EOR
*ID WPAFB3
*D PERMFIL.717,721
*D PERMFIL.724
          SA2    LSD          GET LEFT SHIFTED ACCOUNT AND
          LX2    48           FLOP IT OVER FOR WPAFB
          BX6    X1+X2
*D PERMFIL.772,774
*D PERMFIL.699
*D PERMFIL.416
*I PERMFIL.359
          EQ     AC=ID        DONT BOTHER WITH ACCOUNT CHECK
*D USERTBL.2,264
      SUBROUTINE USERTBL(IARRAY)
```

Figure A-12. Procedure WPVERSION (PROFIL Only)

```
STAGINGGEN(*MAP=PART,*BIN=NONE)
/*
/* GENERATE (COMPIO) VERSION OF STAGING
/*
BEGIN,A,*FILE,TABLE,MENUTABLE.
COPYBR(TABLE,LOADIN,99)
IFC(NE,*BIN,NONE,L2)
REWIND(*BIN)
COPYBR(*BIN,LOADIN,99)
ENDIF(L2)
BEGIN,R,*FILE,ST.
BEGIN,A,*FILE,SEGDIR,SEGDIR.
BEGIN,A,*FILE,LIB,STAGINGLIB.
BEGIN,A,*FILE,SUPLIB,SUPPORTLIB.
BEGIN,A,*FILE,GRLIB,INTERTEK,LIB.
LIBRARY(LIB,SUPLIB)
MAP(*MAP)
RFL(67700)
SEGLOAD(I=SEGDIR,B=ST)
LOAD(LOADIN)
LDSET(PRESET=ZERO,LIB=GRLIB)
NOGO.
BEGIN,C,*FILE,ST,STAGINGABS.
SKIP(1)
EXIT(S)
LIBRARY.
RETURN(*BIN,SEGDIR,LIB,GRLIB,SUPLIB,ST,LOADIN,TABLE)
REVERT.
```

Figure A-13A. Procedure STAGINGGEN (PROFIL Version)

```
.PROC,STAGINGGEN,MAP=PART.
.*
.* GENERATE STAGING ABSOLUTE
.*
BEGIN,A,PROCFIL,TABLE,MENUTABLE.
COPYBR(TABLE,LOADIN,99)
BEGIN,A,PROCFIL,WPMODS,WPMODSBIN.
COPYBR(WPMODS,LOADIN,99)
REWIND(LOADIN)
BEGIN,R,PROCFIL,ST.
BEGIN,A,PROCFIL,SEGDIR,SEGDIR.
BEGIN,A,PROCFIL,LIB,STAGING,LIB.
BEGIN,A,PROCFIL,SUPLIB,SUPPORT,LIB.
BEGIN,A,PROCFIL,GRLIB,INTERTEK,LIB.
LIBRARY(LIB,SUPLIB)
#MAP(MAP)
RFL(67700)
SEGLOAD(I=SEGDIR,B=ST)
LOAD(LOADIN)
LDSET(PRESET=ZERO,LIB=GRLIB)
NOGO.
BEGIN,C,PROCFIL,ST,STAGING,ABS.
SKIP(L1)
EXIT(S)
ENDIF(L1)
LIBRARY.
RETURN(BIN,SEGDIR,LIB,GRLIB,SUPLIB,ST,LOADIN,TABLE)
```

Figure A-13B. Procedure STAGINGEN (PROCFIL Version)

```
LOA[illegible]
/*
/* [illegible]
/*
BEGIN,A,*FILE,[illegible],[illegible]LIB.
LIBRARY([illegible])
BEGIN,A,*FILE,[illegible],*PILNLP.
IFC(EQ,*NEWAUTO,Y,3,L1)
BEGIN,A,*FILE,AUTOBIN,AUTOBIN.
BEGIN,A,*FILE,OLDAUTO,GPRIMEPRE.
BEGIN,A,*FILE,NEWAUTO.
BEGIN,A,*FILE,LIB1,TEXLIB.
BEGIN,A,*FILE,LIB2,CAMVNEWLIB.
BEGIN,A,*FILE,LIB4,UTILITYLIB.
BEGIN,A,*FILE,LIB5,BLOLIB.
BEGIN,A,*FILE,[illegible]CAMV,*RELOAD.
PRE([illegible],OLDAUTO,AUTOBIN,OLDAUTO,LIB1,LIB2,LIB3,LIB4,LIB5
RETURN(LIB1,LIB2,LIB4,LIB5)
BEGIN,C,*FILE,NEWAUTO,GPRIMEPRE.
RETURN(PRE,OLDAUTO,NEWAUTO,AUTOBIN)
BEGIN,R,*FILE,NEWABS.
BEGIN,R,*FILE,LOADFIL.
REWIND(LOADF)
COPYBR(LOADF,LOADFIL,2)
BEGIN,A,*FILE,VLIB,VLIB.
COPYBR(VLIB,LOADFIL)
COPYBF(LOADF,LOADFIL)
BEGIN,C,*FILE,LOADFIL,GPRIME,LOADF.
RETURN(VLIB,TRASH,LOADF)
ENDIF(L1)
BEGIN,A,*FILE,LOADFIL,GPRIME,LOADF.
BEGIN,A,*FILE,LIB1,GENERLB.
BEGIN,A,*FILE,LIB2,SUPPORTLIB.
RFL(67700)
MAP(ON)
LDSET(LIB=LIB1/LIB2/LIB3)
LOAD(LOADFIL)
NOGO.
REWIND(OVFILE)
BEGIN,A,*FILE,OLDABS,GPRIME.
BEGIN,A,*FILE,TSK,CAMV,TSKLOAD.
TSK(NEWABS,OVFILE,OLDABS)
BEGIN,C,*FILE,NEWABS,GPRIME.
SKIP(1)
EXIT(S)
LIBRARY.
REVERT.
/DATA
*C AUTO,OVLY
*ID UNDO
*D GM033178A.1
/EOR
```

Figure A-14. Procedure LOADGP (PROFIL Only)

```
XGPRIME(*MODE=INITIAL)
/*
/* EXECUTE GPRIME FROM STAGING
/*
DISCONT(INPUT,OUTPUT)
REWIND(OUTPUT,DESKRCH)
RETURN(TAPE1,TAPE61,TAPE62,SMF,AUTO,UMF,MACRODB)
ATTACH(SMF,SMF,ID=STAGING3)
ATTACH(AUTO,GPRIME,ID=STAGING3)
REQUEST(UMF,*PF)
IFC(EQ,*MODE,INITIAL,L1)
ATTACH(MACRODB,MACRODB,ID=STAGING3)
COPYBF(MACRODB,UMF)
RETURN(MACRODB)
ELSE(L1)
COPYBF(DESKRCH,UMF)
ENDIF(L1)
CONNECT(TAPE61,TAPE62)
AUTO(*DATA)
SKIP(1)
EXIT(S)
REWIND(UMF,DESKRCH)
COPYBF(UMF,DESKRCH)
RETURN(AUTO,SMF,UMF,HC,*DATA,TAPE61,TAPE62)
REVERT.
/DATA
*RESTART
*RATE,960
*INTERACTIVE,STORAGE
END
/EOR
```

Figure A-15A. Procedure XGPRIME (PROFIL Version)

```
.PROC,XGPRIME,MODE=INITIAL,CCLFILE=#FILE,CCLDATA=#DATA.
IFE(FILE(OUTPUT,AS),LAB4)
DISCONT(INPUT,OUTPUT)
ENDIF(LAB4)
RETURN,SMF,UMF,GPRIME,TAPE0,MACRODB.
FETCH,SMF,CAGM.
ATTACH,GPRIME,GPRIME,ID=CAGM,LC=1,MR=1.
REWIND(DESKRCH,UMF)
IFE($MODE$.EQ.$INITIAL$,LAB13)
ATTACH,MACRODB,MACRODB,ID=CARK,MR=1.
COPYBF(MACRODB,UMF)
RETURN,MACRODB.
SKIP(LAB14)
ENDIF(LAB13)
COPYBF(DESKRCH,UMF)
ENDIF(LAB14)
RETURN,TAPE61,TAPE62.
CONNECT,TAPE61,TAPE62.
IFE(FILE(INFILE,AS),LAB20)
REWIND,CCLDATA,INFILE.
COPYBR,INFILE,CCLDATA.
REWIND,CCLDATA.
ENDIF(LAB20)
GPRIME(CCLDATA)
RETURN,TAPE61,TAPE62.
REWIND,UMF,DESKRCH.
COPYBF,UMF,DESKRCH.
RETURN(AUTO,SMF,UMF,HC,CCLDATA)
BEGIN,RESTART,CCLFILE.
EXIT.
DMP,60000.
REWIND,UMF,DESKRCH.
COPYBF,UMF,DESKRCH.
RETURN,UMF.
RETURN(TAPE61,TAPE62,AUTO,SMF,HC,CCLDATA)
BEGIN,RESTART,CCLFILE.
EXIT.
BEGIN,RESTART,CCLFILE.
.DATA
*RESTART
*RATE,480
*INTERACTIVE,STORAGE
END
```

Figure A-15B. Procedure XGPRIME (PROCFIL Version)

```
UPDATE(*PREFIX=STAGING)
/*
/* STAGING SYSTEM MAINTENANCE PROCEDURE
/*
/* VALID PREFIXES: STAGING
/*                 INTERTEK
/*                 DATABASE
/*                 CONVERSION
/*                 PERMFILE
/*                 RECOVERY
/*                 XYGRAPH
/*                 MENUGEN
/*
BEGIN,A,*FILE,IN,*PREFIX,IN.
BEGIN,A,*FILE,OLDPL,*PREFIX,PL.
BEGIN,A,*FILE,BINOLD,*PREFIX,BIN.
BEGIN,R,*FILE,NEWPL.
BEGIN,R,*FILE,BINNEW.
BEGIN,R,*FILE,EMPTY.
UPDATE(N,I=IN,O=LISTING)
RETURN(BIN)
FTN(I,Z,L=LISTING,R=3,B=BIN,S=SCPTEXT)
COPYL(BINOLD,BIN,BINNEW,,RA)
BEGIN,C,*FILE,NEWPL,*PREFIX,PL.
BEGIN,C,*FILE,BINNEW,*PREFIX,BIN.
COPYBF(*DATA,EMPTY)
BEGIN,C,*FILE,EMPTY,*PREFIX,IN.
RETURN(BINOLD,BIN,BINNEW,IN,EMPTY,OLDPL,NEWPL)
IFC(EQ,*PREFIX,STAGING,L1)
BEGIN,NEWLIB,*FILE,STAGING.
ELSE(L1)
IFC(EQ,*PREFIX,INTERTEK,L2)
BEGIN,NEWLIB,*FILE,INTERTEK.
ELSE(L2)
IFC(EQ,*PREFIX,MENUGEN,L3)
BEGIN,MENUGENABS,*FILE.
ELSE(L3)
BEGIN,SUPPORTLIB,*FILE.
ENDIF(L3)
ENDIF(L2)
ENDIF(L1)
/*
/* IF PREFIX WAS STAGING, PROCEDURE STSEG IS NECESSARY TO BUILD ABSOLUTE
/*
SKIP(1)
EXIT(S)
REVERT.
/DATA
*ID NEW
/EOR
```

Figure A-16A. Procedure Update (PROFIL Version)

```
.PROC,UPDATE,PREFIX=STAGING.
.* STAGING SYSTEM MAINTENANCE PROCEDURE
.* VALID PREFIXES: STAGING
.*                 INTERTEK
.*                 DATABASE
.*                 CONVERSION
.*                 PERMFILE
.*                 RECOVERY
.*                 XYGRAPH
.*                 MENUGEN
BEGIN,A,PROCFIL,IN,PREFIX,IN.
BEGIN,A,PROCFIL,OLDPL,PREFIX,OLDPL.
BEGIN,A,PROCFIL,BINOLD,PREFIX,BIN.
BEGIN,R,PROCFIL,NEWPL.
BEGIN,R,PROCFIL,BINNEW.
BEGIN,R,PROCFIL,EMPTY.
UPDATE(N,I=IN,O=LISTING)
RETURN(BIN)
FTN(I,Z,L=LISTING,R=3,B=BIN,S=SCPTEXT)
COPYL(BINOLD,BIN,BINNEW,,RA)
BEGIN,C,PROCFIL,NEWPL,PREFIX,PL.
BEGIN,C,PROCFIL,BINNEW,PREFIX,BIN.
COPYBF(#DATA,EMPTY)
BEGIN,C,PROCFIL,EMPTY,PREFIX,IN.
RETURN(BINOLD,BIN,BINNEW,IN,EMPTY,OLDPL,NEWPL)
IFE,$PREFIX$.EQ.$STAGING$,L1.
BEGIN,NEWLIB,PROCFIL,STAGING.
ENDIF(L1)
IFE,$PREFIX$.EQ.$INTERTEK$,L2.
BEGIN,NEWLIB,PROCFIL,INTERTEK.
ENDIF(L2)
IFE,$PREFIX$.EQ.$MENUGEN$,L3.
BEGIN,MENUGENABS,PROCFIL.
ENDIF(L3)
IFE,$PREFIX$.EQ.$DATABASE$,L4.
BEGIN,SUPPORTLIB,PROCFIL.
ENDIF(L4)
IFE,$PREFIX$.EQ.$CONVERSION$,L5.
BEGIN,SUPPORTLIB,PROCFIL.
ENDIF(L5)
IFE,$PREFIX$.EQ.$PERMFILE$,L6.
BEGIN,SUPPORTLIB,PROCFIL.
ENDIF(L6)
IFE,$PREFIX$.EQ.$RECOVERY$,L7.
BEGIN,SUPPORTLIB,PROCFIL.
ENDIF(L7)
IFE,$PREFIX$.EQ.$XYGRAPH$,L8.
BEGIN,SUPPORTLIB,PROCFIL.
ENDIF(L8)
SKIP(L9)
EXIT(S)
ENDIF(L9)
REVERT.
.DATA
#ID NEW
.EOR
```

Figure A-16B. Procedure Update (PROCFIL Version)

```
PROFIL VERSION
                NEWLIB(*PREFIX=STAGING)
                /*
                /* CREATE NEW STAGING OR INTERTEK LIBRARY
                /*
                BEGIN,R,*FILE,LIB.
                BEGIN,A,*FILE,BIN,*PREFIX,BIN.
                EDITLIB(I=*DATA,L=0)
                BEGIN,C,*FILE,LIB,*PREFIX,LIB.
                REWIND(LIB)
                ITEMIZE(LIB,E)
                SKIP(1)
                EXIT(S)
                RETURN(BIN,LIB)
                REVERT.
                /DATA
                LIBRARY(LIB,NEW)
                ADD(*,BIN)
                FINISH.
                ENDRUN.
                /EOR



PROCFIL VERSION
                .PROC,NEWLIB,PREFIX=STAGING.
                .*
                .* CREATE NEW STAGING OR INTERTEK LIBRARY
                .*
                BEGIN,R,PROCFIL,LIB.
                BEGIN,A,PROCFIL,BIN,PREFIX,BIN.
                EDITLIB(I=#DATA,L=0)
                BEGIN,C,PROCFIL,LIB,PREFIX,LIB.
                REWIND(LIB)
                ITEMIZE(LIB,E)
                SKIP(L1)
                EXIT(S)
                ENDIF(L1)
                RETURN(BIN,LIB)
                REVERT.
                .DATA
                LIBRARY(LIB,NEW)
                ADD(*,BIN)
                FINISH.
                ENDRUN.
                .EOR
```

Figure A-17. Procedure NEWLIB

APPENDIX B

STAGING LOADER DIRECTIVES

APPENDIX B

STAGING LOADER DIRECTIVES

This section contains the list of loader directives that are input to the CYBER Loader Version 1.4. The list is presented in six tables which correspond to the six segment levels of the STAGING segmentation scheme:

- ROOT
- SWAPPABLE COMMON BLOCKS
- APPLICATION SUBROUTINES
- MISCESSLANEOUS SUBROUTINES
- GRAPHICS SUBROUTINES
- SYSTEM AND DATA HANDLER SUBROUTINES

```
*
* TEKTRONIX VERSION OF STAGING
*
BEGIN  TREE    DRIVE
* DRIVER IS THE MAIN PROGRAM
* OF THE STAGING SYSTEM
DRIVE  INCLUDE DRIVER
DRIVE  INCLUDE GLOINT
DRIVE  INCLUDE ATT
DRIVE  INCLUDE RCOVER
DRIVE  INCLUDE SWITCH
DRIVE  INCLUDE STARTM
DRIVE  INCLUDE EXTABLE
DRIVE  INCLUDE DETABLE
DRIVE  INCLUDE PRTABLE
DRIVE  INCLUDE PPTABLE
DRIVE  INCLUDE GLTABLE
DRIVE  INCLUDE GLINIT
* COMMON BLOCK DMTBL MUST BE LOW IN
* CORE FOR PROPER OPERATION OF DATA HANDLER
DRIVE  GLOBAL  DMTBL
DRIVE  GLOBAL  ACTSTR
DRIVE  GLOBAL  ATTRIB
DRIVE  GLOBAL  AXDAD
DRIVE  GLOBAL  CATS
DRIVE  GLOBAL  CHDAT
DRIVE  GLOBAL  CHECK
DRIVE  GLOBAL  CHKDF
DRIVE  GLOBAL  CNTDE
DRIVE  GLOBAL  CODES
DRIVE  GLOBAL  CREATR
DRIVE  GLOBAL  DEFORM
DRIVE  GLOBAL  DRAWBUF
DRIVE  GLOBAL  EDITT
DRIVE  GLOBAL  ELEMEN
DRIVE  GLOBAL  ERASEC
DRIVE  GLOBAL  ERROR
DRIVE  GLOBAL  EXMENU
DRIVE  GLOBAL  GLIN
DRIVE  GLOBAL  GLOBAL
DRIVE  GLOBAL  LIMIT
DRIVE  GLOBAL  MASKS
DRIVE  GLOBAL  MAXSSS
DRIVE  GLOBAL  MCODES
DRIVE  GLOBAL  MENUS
DRIVE  GLOBAL  PERMEN
DRIVE  GLOBAL  PIC
DRIVE  GLOBAL  PLANE
DRIVE  GLOBAL  ROTANG
DRIVE  GLOBAL  SWTCH
DRIVE  GLOBAL  TERMT
DRIVE  GLOBAL  VU3D
DRIVE  GLOBAL  ZZFILE
```

Table B-1. Root Level

```
       LEVEL
* THIS LEVEL IS FOR SHARING CORE
* BETWEEN GROUPS OF COMMON BLOCKS
B1     TREE    BL1
BL1    INCLUDE BL1INT
BL1    INCLUDE ATT1
BL1    GLOBAL  DATBAS-SAVE
BL1    GLOBAL  PXY777-SAVE
BL1    GLOBAL  IDENTS-SAVE
BL1    GLOBAL  MENBLK-SAVE
BL1    GLOBAL  CNINT-SAVE
*
B2     TREE    BL2
BL2    INCLUDE BL2INT
BL2    GLOBAL  TBLOCK-SAVE
```

Table B-2. Swappable Common Blocks Level

```
        LEVEL
TREE1   TREE    MEN1-(EX,GL)
*
MEN1    INCLUDE EXSTAR
MEN1    INCLUDE REACT
MEN1    INCLUDE FILNAM
*
EX      INCLUDE IEXDEC
EX      INCLUDE EXEC
EX      INCLUDE EXECC
EX      INCLUDE FILATT
*
GL      TREE    GL0-(GL1,GL2,GL3,GL4)
*
GL0     INCLUDE IGLDEC
GL0     INCLUDE MORDRW
GL0     INCLUDE MOAXES
GL0     INCLUDE MOLAX
GL0     INCLUDE MOZSRS
GL0     INCLUDE MORCNT
GL0     INCLUDE MOZCRS
GL0     INCLUDE MOZPLS
*
GL1     INCLUDE GLSTOP
GL1     INCLUDE GLCHCK
GL1     INCLUDE GLCLOK
GL1     INCLUDE GLHIST
GL1     INCLUDE GLLUP
GL1     INCLUDE GLLDN
*
GL2     INCLUDE GLSTDB
GL2     INCLUDE GLSTDS
GL2     INCLUDE GLDEFP
GL2     INCLUDE GLDEFS
GL2     INCLUDE IGNM
*
GL3     INCLUDE FRONTVU
GL3     INCLUDE SIDEVU
GL3     INCLUDE TOPVU
GL3     INCLUDE MOFILL
GL3     INCLUDE MODRW
GL3     INCLUDE SVIEW
GL3     INCLUDE SVIEWP
GL3     INCLUDE MOSPLT
GL3     INCLUDE MOSOS
GL3     INCLUDE MOFRE
GL3     INCLUDE MOFRZ
GL3     INCLUDE MOASHK
GL3     INCLUDE MOISHK
GL3     INCLUDE MOSSHK
*
GL4     INCLUDE SROTET
GL4     INCLUDE SROTST
```

Figure B-3. Application Routine Level

```
POST   TREE    PP
PP     INCLUDE IPPDEC
PP     INCLUDE PRINCP
PP     INCLUDE PRINC3
PP     INCLUDE EQSTR
PP     INCLUDE PROOT
*
PR     TREE    PRO-(PR1-(PR11,PR12),PR2)
* THERE ARE TWO PREPROCESSOR TREES---
*   PR---DRAFTING PACKAGE
*   PRM--MATERIAL PROPERTY DATA BASE
PRO    INCLUDE IPRDEC
PRO    INCLUDE DRAWFR
PRO    GLOBAL  PDRAW-SAVE
*
PR1    INCLUDE ICPART
*
PR11   INCLUDE CNNEW
PR11   INCLUDE CNELEM
PR11   INCLUDE CNNODE
*
PR12   INCLUDE CNTERM
PR12   INCLUDE CNTER
PR12   INCLUDE CNSORT
*
PR2    INCLUDE NODE
PR2    INCLUDE GRID
PR2    INCLUDE CHNGP1
PR2    INCLUDE CHNGP2
PR2    INCLUDE BDSTR
PR2    INCLUDE FIXDAT
PR2    INCLUDE SETLN
PR2    INCLUDE SETND
PR2    INCLUDE IDRNXT
PR2    INCLUDE CLROUT
*
PRM    TREE    PRM0-(PRM1,PRM2)
*
PRM0   INCLUDE CNTABL
*
PRM1   INCLUDE MYINIT
PRM1   INCLUDE ASUB4
PRM1   INCLUDE ASUB5
PRM1   INCLUDE ASUB7
PRM1   INCLUDE DISPLB
PRM1   INCLUDE DRELN
PRM1   INCLUDE ELNAM
PRM1   INCLUDE GETRAG
PRM1   INCLUDE INTSUB
PRM1   INCLUDE LIBIN
*
PRM2   INCLUDE MATDEF
PRM2   INCLUDE MATIN
PRM2   INCLUDE LIBINS
```

Figure B-3. Application Routines Level (Cont'd)

```
DE      TREE    DE0-(DE1,DE2,DE3,DE4,DE5,DE7,DE9)
*
DE0     INCLUDE IDEDEC
DE0     INCLUDE ICKRNG
DE0     INCLUDE ALLON
DE0     INCLUDE ALLOFF
DE0     INCLUDE ASUBS
DE0     INCLUDE IECPRC
DE0     GLOBAL  IGSIGS-SAVE
*
DE1     INCLUDE DZRST
DE1     INCLUDE ETYPSV
DE1     INCLUDE CNTPRD
DE1     INCLUDE RNGDEL
DE1     INCLUDE RNGDRW
DE1     INCLUDE PONPEN
DE1     INCLUDE PTYPE
DE1     INCLUDE EQNUM
DE1     INCLUDE EMERG
DE1     INCLUDE EMERGE
DE1     INCLUDE DRWATA
DE1     INCLUDE DRWATT
DE1     INCLUDE DELPIC
DE1     INCLUDE EONPD
DE1     INCLUDE EONPEN
DE1     INCLUDE PORG
*
DE2     INCLUDE EDINIT
DE2     INCLUDE ELREPL
DE2     INCLUDE ELREPP
DE2     INCLUDE RETAIN
DE2     INCLUDE RETAIS
DE2     INCLUDE EMOVE
DE2     INCLUDE MXYI
DE2     INCLUDE MXYP
DE2     INCLUDE EUPPNT
*
DE3     INCLUDE DYDRDE
DE3     INCLUDE DYLOAD
DE3     INCLUDE DYSFPU
DE3     INCLUDE DYSSTP
DE3     INCLUDE DYUNDE
DE3     INCLUDE ICKSL
DE3     INCLUDE ATTLST
DE3     INCLUDE ATTPRC
DE3     INCLUDE ATTREN
DE3     INCLUDE ATTRNG
DE3     INCLUDE ATTRNP
DE3     INCLUDE LANODE
DE3     INCLUDE LFNODE
DE3     INCLUDE NODON
DE3     INCLUDE NODAEL
DE3     INCLUDE NODFEL
DE3     INCLUDE LFNOD
```

Figure B-3. Application Routines Level (Cont'd)

```
DE4     TREE    DE40-(DE41,DE42)
*
DE40    INCLUDE PROCXA
DE40    INCLUDE SORTXY
DE40    INCLUDE GETDAT

DE41    INCLUDE INITXY
DE41    INCLUDE INTFLG
DE41    INCLUDE TABLIN
DE41    INCLUDE PROCTIT
DE41    INCLUDE TABVAL
DE41    INCLUDE TABIND
*
DE42    INCLUDE PROCCHR
DE42    INCLUDE TABDEL
*
DE5     INCLUDE ECHOND
DE5     INCLUDE ECPROC
DE5     INCLUDE ECREAN
DE5     INCLUDE ERD
DE5     INCLUDE ERDOWD
DE5     INCLUDE ERDOWN
DE5     INCLUDE ERNDLD
*
DE7     INCLUDE EACTPN
DE7     INCLUDE EADOWN
DE7     INCLUDE EALLS
DE7     INCLUDE EATS
DE7     INCLUDE EATF
DE7     INCLUDE ENDOWN
DE7     INCLUDE EPUTDN
DE7     INCLUDE ESERCH
DE7     INCLUDE ASERCH
DE7     INCLUDE SSAOFF
*
DE9     INCLUDE CNTOR
DE9     INCLUDE CNTPRE
DE9     INCLUDE CNTINT
DE9     INCLUDE CNTITL
DE9     INCLUDE CNTIT2
DE9     INCLUDE GETCNT
```

Figure B-3. Application Routines Level (Cont'd)

```
        LEVEL
MISC    TREE    M0-(M1,M3,M5,M8)
*
M0      INCLUDE EQPEN
M0      INCLUDE STRACT
*
M1      INCLUDE CORSHF
M1      INCLUDE RASTOU
M1      INCLUDE GIFETS
M1      INCLUDE CNELM
M1      INCLUDE ELNCHK
M1      INCLUDE ECHKL
M1      INCLUDE IENEXT
M1      GLOBAL  IENX-SAVE
*
M3      TREE    M30-(M31,M32,M33)
*
M30     INCLUDE TYPNAM
M30     INCLUDE PAGER
M30     INCLUDE ERASER
M30     INCLUDE IPICK
M30     INCLUDE PUTEDT
M30     INCLUDE SELATT
M30     INCLUDE GLTOP
*
M31     INCLUDE TABACT
M31     INCLUDE TABACX
M31     INCLUDE TABPRC
M31     INCLUDE TABXYP
M31     INCLUDE TABXYM
M31     INCLUDE TABSCX
M31     INCLUDE TABSCL
M31     INCLUDE TABDM
M31     INCLUDE TABXI
M31     INCLUDE PUTLST
M31     INCLUDE SSOFF
M31     INCLUDE DACTSN
M31     INCLUDE PUTNAM
*
M32     INCLUDE GIASID
M32     INCLUDE EXINIT
M32     INCLUDE DEINIT
M32     INCLUDE PRINIT
M32     INCLUDE PPINIT
M32     INCLUDE DEINIT1
M32     INCLUDE IGPCKM
M32     INCLUDE IPPRMT
M32     INCLUDE IREAD
M32     INCLUDE MENNIT
M32     INCLUDE INDATA
M32     GLOBAL  INPUT-SAVE
```

Figure B-4. Miscellaneous Level

```
M33     INCLUDE MOPUT
M33     INCLUDE MOREC
M33     INCLUDE PLINIT
M33     INCLUDE SPSEL
M33     INCLUDE PUTATT
M33     INCLUDE ACTATT
M33     INCLUDE PROFAC
M33     INCLUDE REPFA
M33     INCLUDE QTITLE
*
M5      INCLUDE RESTART
M5      INCLUDE GRFNIT
M5      INCLUDE GRDNIT
M5      INCLUDE INIT2D
M5      INCLUDE INIT3N
M5      INCLUDE CLPPIC
M5      INCLUDE XYERAS
M5      INCLUDE SETWZ
M5      INCLUDE SET1
M5      INCLUDE MOBOTH
M5      INCLUDE GINIT
M5      INCLUDE GIZOOM
*
M8      TREE    M80-(M81,M82)
*
M80     INCLUDE ICKBYT
*
M81     TREE    M810-(M811,M812,M813,M814)
*
M810    INCLUDE METAZZ
M810    INCLUDE LINZZ
M810    INCLUDE QIKGRF
M810    INCLUDE LEGNDG
M810    INCLUDE LINESG
M810    INCLUDE NUMBRG
M810    INCLUDE SCALZZ
M810    INCLUDE SETSMG
M810    INCLUDE RSETMG
M810    GLOBAL  IGSCOM-SAVE
*
M811    INCLUDE TITLEG
M811    INCLUDE POINTG
*
M812    TREE    M8120-(M8121,M8122)
*
M8120   INCLUDE MLTPLG
M8120   INCLUDE SEGMTG
*
M8121   INCLUDE GRIDG
*
M8122   INCLUDE LABELG
```

Figure B-4. Miscellaneous Level (Cont'd)

```
M813    TREE    M8130-(M8131,M8132)
*
M8130   INCLUDE SETUPG
M8131   INCLUDE OBJCTG
M8132   INCLUDE SUBJEG
*
M814    TREE    M8140-(M8141,M8142)
*
M8140   INCLUDE LTEST
M8140   INCLUDE STEST
M8140   GLOBAL  TMCOM2
*
M8141   INCLUDE SCAN
M8141   INCLUDE SHELL
M8141   INCLUDE CONHUL
M8141   INCLUDE TRIORD
M8141   INCLUDE TMESH3
*
M8142   INCLUDE TMESH2
*
M82     TREE    M820-(M821,M822)
*
M820    INCLUDE IDRWLN
M820    INCLUDE IDRWEL
M820    INCLUDE IDRWND
M820    INCLUDE IDRWAT
M820    INCLUDE DRWACT
M820    INCLUDE GETCSS
M820    INCLUDE GETCEN
M820    INCLUDE GETCOR
M820    INCLUDE EQUEUP
M820    GLOBAL  EQARR-SAVE
*
M821    INCLUDE DRWSS
M821    INCLUDE IDRWSS
M821    INCLUDE IDRWST
M821    INCLUDE IDRW
M821    INCLUDE ICON
*
M822    INCLUDE ARROW
M822    INCLUDE IARSET
```

Figure B-4. Miscellaneous Level (Cont'd)

```
        LEVEL
GRAPH   TREE    G0-(G11,G12,G13,G14)
*
*
G0      INCLUDE COMPIO
G0      INCLUDE GERASE
G0      INCLUDE GFLUSH
G0      INCLUDE GPRESET
G0      INCLUDE GCGARR
G0      INCLUDE GCGMM
G0      INCLUDE GCGTYP
G0      INCLUDE GCSSF
G0      INCLUDE GCRCAT
G0      INCLUDE GCUCAT
G0      INCLUDE GCRESI
G0      INCLUDE GCUPXY
G0      INCLUDE GISUBF
G0      INCLUDE GIALRM
G0      INCLUDE GCDRAW
G0      INCLUDE GCDSF
G0      INCLUDE GCUNPK
G0      INCLUDE GCDRIT
G0      INCLUDE GCCHMM
G0      INCLUDE GCFILL
G0      INCLUDE GCWORK
G0      INCLUDE GCDLIM
G0      INCLUDE GULIN
G0      INCLUDE GCC
G0      INCLUDE GCHIGH
G0      INCLUDE GITEM
G0      INCLUDE GCUPSF
G0      INCLUDE GIDELT
G0      INCLUDE GUBUF
G0      INCLUDE GCPKDS
G0      INCLUDE GCUNPK
G0      INCLUDE IDISER
G0      INCLUDE DELETE
G0      GLOBAL  TEKCOM
G0      GLOBAL  GCGI1
G0      GLOBAL  GCGI
G0      GLOBAL  GCBUF
G0      GLOBAL  GCCODE
G0      GLOBAL  GCDR
G0      GLOBAL  GCGU
```

Figure B-5. Graphics Routine Level

```
G11     INCLUDE GIBUTN
G11     INCLUDE GISNGL
G11     INCLUDE GITRAK
G11     INCLUDE GCINPC
G11     INCLUDE TRKOFF
G11     INCLUDE GICLRQ
*
G12     INCLUDE ESLOT
G12     INCLUDE ONPEN
G12     INCLUDE SETCAT
G12     INCLUDE GICAT
G12     INCLUDE GIDAE
G12     INCLUDE TABPEN
G12     INCLUDE GUTEXT
G12     INCLUDE GUSETP
G12     INCLUDE DELSF
G12     INCLUDE GISHOW
*
G13     INCLUDE GIDUP
G13     INCLUDE SETVU
G13     INCLUDE GIDFON
G13     INCLUDE ERASEM
G13     INCLUDE ACOSIN=
G13     INCLUDE ATAN2
G13     INCLUDE SYS=AID
G13     INCLUDE GCMAT
G13     INCLUDE GC3DA
G13     INCLUDE CNVTOU
*
G14     INCLUDE MEXTN
G14     INCLUDE MITEM
G14     INCLUDE ICAN
G14     INCLUDE IDINF
G14     INCLUDE GIXTND
```

Figure B-5. Graphics Routine Level (Cont'd)

```
        LEVEL
SYS     TREE    SO-(S1,DB)
*
SO      INCLUDE SCALST
SO      INCLUDE EDITTI
SO      INCLUDE UTORAS
SO      INCLUDE ICCHR
SO      INCLUDE IBEAUT
SO      INCLUDE IALATT
SO      INCLUDE NAMFNM
SO      INCLUDE UNPACK
SO      INCLUDE GET.PUT
SO      INCLUDE SORT
SO      INCLUDE SYSAID=
SO      INCLUDE SINCOS=
SO      INCLUDE CNVTOC
SO      INCLUDE GCGET
SO      INCLUDE GCSET
SO      INCLUDE FORSYS=
SO      INCLUDE Q8NTRY=
SO      INCLUDE CLSF.RM
SO      INCLUDE OPEN.SQ
SO      INCLUDE OPEN.RM
SO      INCLUDE OSUB.RM
SO      INCLUDE OPEX.SQ
SO      INCLUDE GOTOER=
SO      INCLUDE ITOJ=
SO      INCLUDE FORUTL=
SO      INCLUDE FECMSK=
SO      INCLUDE Z.SQ
SO      INCLUDE GET.SQ
SO      INCLUDE BTRT.SQ
SO      INCLUDE PUT.SQ
SO      INCLUDE REW.SQ
SO      INCLUDE WEOX.SQ
SO      INCLUDE ERR.RM
SO      INCLUDE CLSF.SQ
SO      INCLUDE CLSF.RM
SO      INCLUDE CIO.RM
SO      INCLUDE CHWR.SQ
SO      INCLUDE CLSV.SQ
SO      INCLUDE FSU.SQ
SO      INCLUDE MOVE.RM
SO      INCLUDE WAR.SQ
SO      INCLUDE SKFL.SQ
SO      INCLUDE RLEQ.RM
SO      INCLUDE SYS.RM
SO      GLOBAL  AOB.RM-SAVE
SO      GLOBAL  CLSF.FO-SAVE
SO      GLOBAL  CLSV.FO-SAVE
SO      GLOBAL  CON.RM-SAVE
SO      GLOBAL  FCL.C.-SAVE
SO      GLOBAL  GET.BT-SAVE
SO      GLOBAL  GET.FO-SAVE
SO      GLOBAL  GET.RT-SAVE
```

Figure B-6. System and Data Handler Level

```
S0      GLOBAL  JMPS.RM-SAVE
S0      GLOBAL  PUT.FO-SAVE
S0      GLOBAL  PUT.RT-SAVE
S0      GLOBAL  Q8.IO.-SAVE
S0      GLOBAL  REW.FO-SAVE
S0      GLOBAL  SKFL.FO-SAVE
S0      GLOBAL  STP.END-SAVE
S0      GLOBAL  TERM.RM-SAVE
S0      GLOBAL  MEMC.RM-SAVE
S0      GLOBAL  OPEN.FO-SAVE
S0      GLOBAL  OPES.FO-SAVE
*
S1      INCLUDE YIELD1=
S1      INCLUDE YIELD=
S1      INCLUDE HOLD
S1      INCLUDE DMP
S1      INCLUDE DMP.CFK
S1      INCLUDE COPYBL
S1      INCLUDE IPFUT
S1      INCLUDE PERMFIL
S1      INCLUDE ICRACK
S1      INCLUDE ICHKED
S1      INCLUDE COMPAC
S1      INCLUDE GIERR
S1      INCLUDE CLOCK=
S1      INCLUDE REQUEST
S1      INCLUDE MCT.RM
S1      INCLUDE ALOG
S1      INCLUDE EXP
S1      INCLUDE XTOY=
S1      INCLUDE SYS=1ST
S1      INCLUDE XTOI=
S1      GLOBAL  ICHKD-SAVE
*
DB      TREE    DB0-(DB1,DB2,DB3)
*
DB0     INCLUDE IDBFND
DB0     INCLUDE CPC
DB0     INCLUDE PDUMP
DB0     INCLUDE IGFTR
DB0     INCLUDE DMREAD
DB0     INCLUDE DMWRITE
DB0     INCLUDE DMGTBD
DB0     INCLUDE DMRLBD
DB0     INCLUDE DMSTGT
DB0     INCLUDE DMBDAD
DB0     INCLUDE DMFV
DB0     INCLUDE SYSTEM
DB0     INCLUDE INBUF
DB0     INCLUDE OUTBUF
DB0     INCLUDE READR
DB0     INCLUDE RWRITE
DB0     INCLUDE RWRITER
DB0     INCLUDE FCHPRAM
DB0     INCLUDE SETPRAM
DB0     INCLUDE FETSTAT
DB0     INCLUDE WRITE
```

Figure B-6. System and Data Handler Level (Cont'd)

```
DB0     INCLUDE DBCHBD
DB0     INCLUDE IFATT
DB0     INCLUDE IGATT
DB0     INCLUDE ISACT
DB0     INCLUDE IDBRSV
DB0     INCLUDE NUMFNM
DB0     INCLUDE DBRITE
DB0     INCLUDE IDBRIT
DB0     INCLUDE IDBUPP
DB0     INCLUDE MREAD
DB0     INCLUDE GETSIZ
*
DB1     INCLUDE DMFLSH
DB1     INCLUDE DMINIT
DB1     INCLUDE DBINIT
DB1     INCLUDE CLOSE
DB1     INCLUDE RFILEB
DB1     INCLUDE WRITER
DB1     INCLUDE SETFETR
DB1     INCLUDE DZSAVE
DB1     INCLUDE DBLKUP
DB1     INCLUDE DBCHNM
DB1     INCLUDE RETURN
*
DB2     INCLUDE ACTIVA
DB2     INCLUDE NEXTIN
DB2     INCLUDE ICKACT
DB2     INCLUDE IDBCAN
DB2     INCLUDE DBCHA
DB2     INCLUDE DBUPT
DB2     INCLUDE IDBADB
DB2     INCLUDE DBDEL
DB2     INCLUDE EADDEL
DB2     GLOBAL  NSAVE-SAVE
*
DB3     INCLUDE DBTGET
DB3     INCLUDE GETCES
DB3     INCLUDE GETLIM
DB3     INCLUDE ICKATT
DB3     INCLUDE IDBARR
DB3     INCLUDE IDBTFM
DB3     INCLUDE IGETCH
DB3     INCLUDE SPCHK
DB3     GLOBAL  IATTYP-SAVE
DB3     GLOBAL  TABLEC-SAVE
        END     DRIVER
```

Figure B-6. System and Data Handler Level (Cont'd)

APPENDIX C

STAGING SYSTEM CROSS-REFERENCE

APPENDIX C
STAGING SYSTEM CROSS-REFERENCE

This appendix is an alphabetized listing of all entry names that occur in the STAGING system. Each entry has information associated with it, such as:

entry classification - indicates whether the entry name is the name of the object module (MAIN) or a secondary entry point (SECONDARY);

description - a brief explanation of an entry name's function (if available);

length - length of object module in octal words;

language - source language of object module;

secondary entry point information - for a main entry point: a list of secondary entry points (if any) - for a secondary entry point: the associated main entry point;

names of callers - names of all modules that contain this entry name as an external reference - if entry has none, then a message to that effect will appear;

names of callees - names of all external references by this module - if there are none then a message to that effect will appear - in the case of a secondary entry point this information is not applicable;

An example of two entries is given below, "SINCOS =" and "SIN.", where the latter is a secondary entry point for the former:

```
SINCOS =  ENTRY CLASS: MAIN              SEGMENT: (SØ)
          DESC: TRIGONOMETRIC SINE       OR COSINE OF X
          LENGTH:  66 LANGUAGE: COMPASS
          SECONDARY ENTRY POINTS:
            COS.         SIN.
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          CAN CALL THE FOLLOWING:
            SYSIST

SIN.      ENTRY CLASS: SECONDARY         SEGMENT: (SØ)
          DESC: (NOT AVAILABLE)
          SECONDARY ENTRY POINT FOR:     SINCOS =
          CAN BE CALLED BY:
            SROTET     SETVU     GC3DA     CNVTOC
```

```
ABNORM.     ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : FORSYS=
            CAN BE CALLED BY:
               GOTOER=

AB1.        ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : FORSYS=
            CAN BE CALLED BY:
               Q8.IO.   STP.END

ACOSIN=     ENTRY CLASS: MAIN        SEGMENT:   (G13)
            DESC: COMPUTE THE INVERSE SINE OR COSINE OF X.
            LENGTH:     71    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               ACOS.
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               SYS1ST.

ACOS.       ENTRY CLASS: SECONDARY   SEGMENT:   (G13)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : ACOSIN=
            CAN BE CALLED BY:
               GC30A    CNVTOU

ACTATT      ENTRY CLASS: MAIN        SEGMENT:   (M33)
            DESC: PROCESS CROSSHAIR PICK OF ATTRIBUTE NAME DISPLAYED BY #SELATT#
            LENGTH:     25    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               ATTOFF
            CAN BE CALLED BY:
               DETABLE  PROCXA
            CAN CALL THE FOLLOWING:
               SELATC

ACTIVA      ENTRY CLASS: MAIN        SEGMENT:   (DB2)
            DESC: ACTIVATE BEAD FOR DISPLAY
            LENGTH:    141    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               BDSTR    FIXCAT   ASUB4    ALLON    ASUBS
               RNGDRW   NODAEL   NODFEL   LFNOD    ECPROC
               ASERCH   TABACT
            CAN CALL THE FOLLOWING:
               DBDAD    DBDLF    DBDRT    DBDAC    IDBDLF
               ICKACT

ALLOFF      ENTRY CLASS: MAIN        SEGMENT:   (DE0)
            DESC: DELETE AND DEACTIVATE ALL BEADS ON A LEVEL
            LENGTH:     24    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
```

```
            DETABLE
          CAN CALL THE FOLLOWING:
            DELETE

ALLON     ENTRY CLASS: MAIN          SEGMENT:   (DE0)
          DESC: ACTIVATE ALL BEADS ON A LEVEL
          LENGTH:    112    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
            ALLSON
          CAN BE CALLED BY:
            DETABLE
          CAN CALL THE FOLLOWING:
            IDRW    IDISER   ACTIVA   NEXTIN   NEXTB

ALLSON    ENTRY CLASS: SECONDARY   SEGMENT:   (DE0)
          DESC: ACTIVATE ALL NODES OR ELEMENTS IN ACTIVE SUBSTRUCTURES ONLY
          SECONDARY ENTRY POINT FOR : ALLON
          CAN BE CALLED BY:
            DETABLE

ALOG10.   ENTRY CLASS: SECONDARY   SEGMENT:   (S1)
          DESC: (NOT AVAILABLE)
          SECONDARY ENTRY POINT FOR : ALOG
          CAN BE CALLED BY:
            SCALZZ   SETSMG   SETUPG   LABELG   OBJCTG
            SUBJEG

ALOG      ENTRY CLASS: MAIN          SEGMENT:   (S1)
          DESC: COMPUTE COMMON AND NATURAL LOGARITHMS. OPT=ALL
          LENGTH:     73    LANGUAGE: COMPASS
          SECONDARY ENTRY POINTS:
            ALOG.    ALOG10.
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          CAN CALL THE FOLLOWING:
            SYSIST.

ALOG.     ENTRY CLASS: SECONDARY   SEGMENT:   (S1)
          DESC: (NOT AVAILABLE)
          SECONDARY ENTRY POINT FOR : ALOG
          CAN BE CALLED BY:
            XTOY=

AMAC.SQ   ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
          DESC: (NOT AVAILABLE)
          SECONDARY ENTRY POINT FOR : GET.SQ
          CAN BE CALLED BY:
            BTRT.SQ  FSU.SQ

ANBL.SQ   ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
          DESC: (NOT AVAILABLE)
          SECONDARY ENTRY POINT FOR : GET.SQ
          CAN BE CALLED BY:
            BTRT.SQ

ARROW     ENTRY CLASS: MAIN          SEGMENT:   (M822)
          DESC: DRAW AN ARROW ALONG WITH ANY OF THE COORDINATE AXES
```

```
          LENGTH:    362    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             MOAXES   IDRWAT
          CAN CALL THE FOLLOWING:
             IDRWLN   IARSET   GCMAT    UTORAS   SQRT.

ASERCHA   ENTRY CLASS: SECONDARY   SEGMENT:   (DE7)
          DESC: SEARCH FOR ALL BEADS ON A LEVEL WITH SPECIFIED ATTRIBUTES
          SECONDARY ENTRY POINT FOR : ASERCH
          CAN BE CALLED BY:
             DETABLE

ASERCH    ENTRY CLASS: MAIN        SEGMENT:   (DE7)
          DESC: SEARCH FOR ALL BEADS IN ACTIVE SUBSTRUCTURES BY ATTRIBUTE
          LENGTH:    106    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             ASERCHA
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             ELNCHK   PUTEOT   PUTAT    IDRW     IDISER
             ICHKED   COMPAC   ACTIVA   NEXTIN   NEXTB
             ICKATT

ASUBS     ENTRY CLASS: MAIN        SEGMENT:   (DE0)
          DESC: ACTIVATE STRUCTURES OR SUBSTRUCTURES BY NAME
          LENGTH:     22    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             PUTNM    MBEAD    ACTIVA

ASUB4     ENTRY CLASS: MAIN        SEGMENT:   (PRM1)
          DESC: PROCESS SUBSTRUCTURE PICKS FOR MATERIAL PROPERTY GENERATION
          LENGTH:     37    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PRTABLE
          CAN CALL THE FOLLOWING:
             DRELN    PUTNM    DRWSS    MBEAD    ACTIVA

ASUB5     ENTRY CLASS: MAIN        SEGMENT:   (PRM1)
          DESC: PROCESS ELEMENT PICKS FOR MATERIAL PROPERTY GENERATION
          LENGTH:     41    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PRTABLE
          CAN CALL THE FOLLOWING:
             MBEAD

ASUB7S    ENTRY CLASS: SECONDARY   SEGMENT:   (PRM1)
          DESC: SET FLAG TO INDICATE THAT MP TO BE DEFINED FOR ALL ELEMENTS
          SECONDARY ENTRY POINT FOR : ASUB7
          CAN BE CALLED BY:
```

```
                PRTABLE

ASUB7           ENTRY CLASS: MAIN          SEGMENT:    (PRM1)
                DESC: PROCESS ELEMENT TYPE FOR MATERIAL PROPERTY GENERATION
                LENGTH:     41    LANGUAGE: FTN
                SECONDARY ENTRY POINTS:
                   ASUB7S
                CAN BE CALLED BY:
                   PRTABLE
                CAN CALL THE FOLLOWING:
                   CNELM

ATAN2           ENTRY CLASS: MAIN          SEGMENT:    (G13)
                DESC: ARCTAN OF RATIO OF Y TO X. OPT = ALL.
                LENGTH:     73    LANGUAGE: COMPASS
                SECONDARY ENTRY POINTS:
                   ATAN2.
                THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
                CAN CALL THE FOLLOWING:
                   SYSAID.

ATAN2.          ENTRY CLASS: SECONDARY     SEGMENT:    (G13)
                DESC: (NOT AVAILABLE)
                SECONDARY ENTRY POINT FOR : ATAN2
                CAN BE CALLED BY:
                   GC3DA     CNVTOU

ATTLSC          ENTRY CLASS: SECONDARY     SEGMENT:    (DE3)
                DESC: CHECK TO SEE IF MORE ATTRIBUTE NAES ARE TO BE DISPLAYED
                SECONDARY ENTRY POINT FOR : ATTLST
                CAN BE CALLED BY:
                   ATTPRC

ATTLST          ENTRY CLASS: MAIN          SEGMENT:    (DE3)
                DESC: DISPLAY ATTRIBUTE NAMES FOR THIS DATA BASE LEVEL
                LENGTH:     70    LANGUAGE: FTN
                SECONDARY ENTRY POINTS:
                   ATTLSC
                CAN BE CALLED BY:
                   DETABLE
                CAN CALL THE FOLLOWING:
                   TYPVAL    SETCAT

ATTOFF          ENTRY CLASS: SECONDARY     SEGMENT:    (M33)
                DESC: TURN OFF ATTRIBUTE DISPLAY
                SECONDARY ENTRY POINT FOR : ACTATT
                CAN BE CALLED BY:
                   DETABLE

ATTPRC          ENTRY CLASS: MAIN          SEGMENT:    (DE3)
                DESC: PROCESS ATTRIBUTE PICK
                LENGTH:     33    LANGUAGE: FTN
                HAS NO SECONDARY ENTRY POINTS
                CAN BE CALLED BY:
                   DETABLE
                CAN CALL THE FOLLOWING:
```

```
                ATTLSC   PUTEDT

ATTREC      ENTRY CLASS: SECONDARY    SEGMENT:    (DE3)
            DESC: CHECK TO SEE IF MORE ATTRIBUTES ARE TO BE PUT UP FOR RENAME
            SECONDARY ENTRY POINT FOR : ATTREN
            CAN BE CALLED BY:
               ATTRNP

ATTREN      ENTRY CLASS: MAIN         SEGMENT:    (DE3)
            DESC: (NOT AVAILABLE)
            LENGTH:     142     LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               ATTREC
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               PUTEDT   IBEAUT

ATTRNG      ENTRY CLASS: MAIN         SEGMENT:    (DE3)
            DESC: NOW PUT THE NEW ATTRIBUTE NAME TOGETHER FOR THIS DATA BASE
            LENGTH:     127     LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               PUTEDT   IDISER   IBEAUT   ICHKED   COMPAC
               IFATT

ATTRNP      ENTRY CLASS: MAIN         SEGMENT:    (DE3)
            DESC: PROCESS TYPE-IN FOR ATTRIBUTE RENAME
            LENGTH:      56     LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ATTREC   ICHKED   COMPAC

ATT1        ENTRY CLASS: MAIN         SEGMENT:    (BL1)
            DESC: INITIALIZE MODEL DATA BASE DATA HANDLER CONSTANTS
            LENGTH:       3     LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               ATT
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

ATT         ENTRY CLASS: MAIN         SEGMENT:    (DRIVE)
            DESC: CONTAINS ONLY DATA STATEMENTS
            LENGTH:       4     LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLOINT
            CAN CALL THE FOLLOWING:
               ATT1

BDSTR       ENTRY CLASS: MAIN         SEGMENT:    (PR2)
            DESC: INITIALIZE NODE STRING PICKING IN DRAFTING
```

```
          LENGTH:    115    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             CNCT3D
          CAN BE CALLED BY:
             PRTABLE
          CAN CALL THE FOLLOWING:
             SETLN     SETND     IDRNXT    CNELM     IDRW
             ONPEN     MBEAD     ACTIVA    DBCHA     DBUPT
             DBONT

BFN.      ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
          DESC: (NOT AVAILABLE)
          SECONDARY ENTRY POINT FOR : FORUTL=
          CAN BE CALLED BY:
             FORSYS=

BL1INT    ENTRY CLASS: MAIN        SEGMENT:   (BL1)
          DESC: BRING SEGMENT BL1 COMMON BLOCKS INTO CORE
          LENGTH:      3    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DRIVER    GLOINT    CNTOR
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

BL2INT    ENTRY CLASS: MAIN        SEGMENT:   (BL2)
          DESC: BRING SEGMENT BL2 COMMON BLOCKS INTO CORE
          LENGTH:      3    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             CNTOR
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

BTRT.SQ   ENTRY CLASS: MAIN        SEGMENT:   (S0)
          DESC: (NOT AVAILABLE)
          LENGTH:    114    LANGUAGE: COMPASS
          SECONDARY ENTRY POINTS:
             PUT.C
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          CAN CALL THE FOLLOWING:
             ANBL.SQ   AMAC.SQ   RM.RCLA

CBD.      ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
          DESC: (NOT AVAILABLE)
          SECONDARY ENTRY POINT FOR : FORUTL=
          CAN BE CALLED BY:
             FORSYS=

CHNGP1    ENTRY CLASS: MAIN        SEGMENT:   (PR2)
          DESC: GET TYPE-IN TO CHANGE GRID UNITS IN DRAFTING
          LENGTH:     40    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PRTABLE
          CAN CALL THE FOLLOWING:
             PUTEDT    IBEAUT
```

```
CHNGP2    ENTRY CLASS: MAIN          SEGMENT:   (PR2)
          DESC: CHANGE GRID UNITS IN DRAFTING
          LENGTH:     52    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PRTABLE
          CAN CALL THE FOLLOWING:
             GRID     GIDELT   GOTOER.  ICHKED   COMPAC

CHWR.SQ   ENTRY CLASS: MAIN          SEGMENT:   (S0)
          DESC: (NOT AVAILABLE)
          LENGTH:      7    LANGUAGE: COMPASS
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             OPEN.SQ  PUT.SQ
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

CIO.RM    ENTRY CLASS: MAIN          SEGMENT:   (S0)
          DESC: (NOT AVAILABLE)
          LENGTH:     40    LANGUAGE: COMPASS
          SECONDARY ENTRY POINTS:
             RM.CIO   RM.RCLA  RM.RCLP
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

CLEAR2    ENTRY CLASS: MAIN          SEGMENT:   (PR1)
          DESC: SET ALL VALUES BETWEEN ADDRESSES SPECIFIED TO SPECIFIED VALUE
          LENGTH:      6    LANGUAGE: COMPASS
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             ICPART   CNELEM   CNNODE
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

CLOCK=    ENTRY CLASS: MAIN          SEGMENT:   (S1)
          DESC: ACCESS SYSTEM CLOCKS FOR FORTRAN.
          LENGTH:     31    LANGUAGE: COMPASS
          SECONDARY ENTRY POINTS:
             TIME
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          CAN CALL THE FOLLOWING:
             SYS=

CLOSE     ENTRY CLASS: MAIN          SEGMENT:   (DB1)
          DESC: CLOSE DATA HANDLER FILE
          LENGTH:      4    LANGUAGE: COMPASS
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DMFLSH
          CAN CALL THE FOLLOWING:
             CPC

CLRFETR   ENTRY CLASS: SECONDARY     SEGMENT:   (DB1)
          DESC: DATA HANDLER FET ROUTINE
          SECONDARY ENTRY POINT FOR : SETFETR
          CAN BE CALLED BY:
             DMFLSH   DMINIT
```

```
CLRLIB      ENTRY CLASS: SECONDARY    SEGMENT:    (PRM2)
            DESC: RESET MATERIAL PROPERTY DATA BASE SCREEN OPTIONS
            SECONDARY ENTRY POINT FOR : LIBINS
            CAN BE CALLED BY:
               PRTABLE

CLROUT      ENTRY CLASS: MAIN         SEGMENT:    (PR2)
            DESC: SAVE DRAFTING DATA BASE
            LENGTH:     42    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PRTABLE
            CAN CALL THE FOLLOWING:
               GIDELT   TRKOFF   DZSAVE   RETURN

CLRPIC      ENTRY CLASS: MAIN         SEGMENT:    (M5)
            DESC: (NOT AVAILABLE)
            LENGTH:    142    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE  INTSUB   DZRST    PROCXA    INITXY
               TABDEL   INIT2D   INIT3N   XYERAS
            CAN CALL THE FOLLOWING:
               SETWZ    SET1     GISUBF   GIDELT    GIDAE
               GISHOW   DBOAD    DBORT    DBDAC     IOBDLF

CLSF.RM     ENTRY CLASS: MAIN         SEGMENT:    (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:     23    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               FORSYS=  YIELD=   RETURN
            CAN CALL THE FOLLOWING:
               ERR.RM   MCT.RM

CLSF.RM     ENTRY CLASS: MAIN         SEGMENT:    (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:     23    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

CLSF.SQ     ENTRY CLASS: MAIN         SEGMENT:    (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:    133    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               RSPT.SQ
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               ERR.RM   RM.CIO   RM.RCLA

CLSV.SC     ENTRY CLASS: MAIN         SEGMENT:    (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:    125    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
```

```
            CAN BE CALLED BY:
               GET.SQ   PUT.SQ
            CAN CALL THE FOLLOWING:
               RSPT.SQ  RM.CIO

CNCTBD      ENTRY CLASS: SECONDARY   SEGMENT:   (PR2)
            DESC: CONNECT NODES CREATED IN DRAFTING
            SECONDARY ENTRY POINT FOR : BDSTR
            CAN BE CALLED BY:
               PRTABLE

CNELEM      ENTRY CLASS: MAIN        SEGMENT:   (PR11)
            DESC: CONVERSION(1) - CREATE ELEMENT BEAD
            LENGTH:    246    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRAWER
            CAN CALL THE FOLLOWING:
               ICPART   CLEAR2   CNELM    IDBRSV   DBRITE
               DBLEFT   DBSET

CNELM       ENTRY CLASS: MAIN        SEGMENT:   (M1)
            DESC: LOOK AT ATTRIBUTE TYPES
            LENGTH:     36    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               BDSTR    FIXDAT   CNELEM   ASUB7    ELNCHK
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

CNNEW       ENTRY CLASS: MAIN        SEGMENT:   (PR1)
            DESC: INITIALIZE DUMMY DRAFTING DATA BASE
            LENGTH:    514    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRAWER
            CAN CALL THE FOLLOWING:
               REQUEST  DMGTBD   IFATT    ISACT    IDBRSV
               DMINIT   RETURN

CNNODE      ENTRY CLASS: MAIN        SEGMENT:   (PR11)
            DESC: CONVERSION(1) - CREATE NODE BEAD
            LENGTH:    122    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRAWER
            CAN CALL THE FOLLOWING:
               CLEAR2   GETCOR   DMSET    IDBRSV

CNSORT      ENTRY CLASS: MAIN        SEGMENT:   (PR12)
            DESC: CONVERSION(1) - HASH-SORT NAMES AND ASSOCIATED BEAD ADDRESSES
            LENGTH:     70    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNTERM   CNTER
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS
```

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CNTABL      ENTRY CLASS: MAIN          SEGMENT:   (PRM0)
            DESC: CONVERSION(1) - CREATE TABLE
            LENGTH:    362    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               MAIN     LIBINS
            CAN CALL THE FOLLOWING:
               PUTLIN   IOBEND   DMSET    IOBRSV   DBRITE
               DBLEFT   IOBLFT

CNTERM      ENTRY CLASS: MAIN          SEGMENT:   (PR12)
            DESC: CONVERSION(1) - TERMINATION
            LENGTH:    762    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRAWER
            CAN CALL THE FOLLOWING:
               CNTER    CNSORT   RESTART  EDITTI   IOBEND
               DMRLBD   DBRITE   DBLEFT   DBDNN    DBDNP
               IOBRIT   IOBLFT   IOBDNN   IOBDNP   IOBGET
               DBLKUP   DBUPT    IOBACB   DBARR

CNTER       ENTRY CLASS: MAIN          SEGMENT:   (PR12)
            DESC: CONVERSION(1) - SET UP- AND DOWN-POINTERS
            LENGTH:    223    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNTERM
            CAN CALL THE FOLLOWING:
               CNSORT   IOBEND   DBDNN    DBDNP    IOBRIT
               IOBDNN   IOBNAM   DBUPT

CNTINT      ENTRY CLASS: MAIN          SEGMENT:   (DE9)
            DESC: CONTOUR - INITIALIZE CONTOUR VALUES
            LENGTH:     61    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               RSETMG   GCXMIN   GCYMIN   GCYMAX

CNTITL      ENTRY CLASS: MAIN          SEGMENT:   (DE9)
            DESC: GET TYPE-IN FOR CONTOUR PLOT TITLE
            LENGTH:     34    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               PUTEDT

CNTIT2      ENTRY CLASS: MAIN          SEGMENT:   (DE9)
            DESC: PROCESS TYPE-IN FOR CONTOUR PLOT TITLE
            LENGTH:     14    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
```

```
        DESC: MAKE TYPE-IN VALUES CONTIGUOUS
        LENGTH:     46    LANGUAGE: FTN
        SECONDARY ENTRY POINTS:
           COMPACS
        CAN BE CALLED BY:
           MOURW    SVIEWP   SROTET   CHNGP2   GETRAG
           ICCPPC   ETYPSV   RNGDFL   RNGDRW   PTYPE
           EQNUM    ELRLPP   EMOVE    DYSFPU   DYSSTP
           ATTRNG   ATTSNP   ERNOLD   EATS     ESERCH
           ASERCH   SSADFF   CNTPRE   TABXYP   TABSCL
           TABDM    PRDFAC
        THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

COMPIO  ENTRY CLASS: MAIN          SEGMENT:   (G0)
        DESC: FTN I/O FOR TEKTRONIX 4010/12/14
        LENGTH:   1371    LANGUAGE: COMPASS
        HAS NO SECONDARY ENTRY POINTS
        CAN BE CALLED BY:
           GINIT    GERASE   GFLUSH   GIALRM   GCDRAW
           GCWORK   GCDLIM   GIBUTN   GCINPC   GIDFON
        CAN CALL THE FOLLOWING:
           SYS=     MSG=

CONHUL  ENTRY CLASS: MAIN          SEGMENT:   (M8141)
        DESC: CONTOUR - DETERMINE CONVEX HULL OF POINTS TO BE CONTOURED
        LENGTH:    155    LANGUAGE: FTN
        HAS NO SECONDARY ENTRY POINTS
        CAN BE CALLED BY:
           CNTOR
        CAN CALL THE FOLLOWING:
           PUTLIN

COPYFL  ENTRY CLASS: MAIN          SEGMENT:   (S1)
        DESC: COPY ONE SEQUENTIAL FILE TO ANOTHER
        LENGTH:     43    LANGUAGE: COMPASS
        HAS NO SECONDARY ENTRY POINTS
        CAN BE CALLED BY:
           FILATT   GLCHCK   DRAWFR
        CAN CALL THE FOLLOWING:
           SYS=

CORSHF  ENTRY CLASS: MAIN          SEGMENT:   (M1)
        DESC: (NOT AVAILABLE)
        LENGTH:     31    LANGUAGE: FTN
        HAS NO SECONDARY ENTRY POINTS
        CAN BE CALLED BY:
           FIXDAT   POPEN    MXYP
        THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

COS.    ENTRY CLASS: SECONDARY     SEGMENT:   (S0)
        DESC: (NOT AVAILABLE)
        SECONDARY ENTRY POINT FOR : SINCOS=
        CAN BE CALLED BY:
           SROTET   SETVU    SC30A    CNVTOC

CPC     ENTRY CLASS: MAIN          SEGMENT:   (DB0)
```

THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

CNTOR ENTRY CLASS: MAIN SEGMENT: (0E9)
DESC: CONTOUR - MAIN CONTOURING MODULE
LENGTH: 160 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
DETABLE
CAN CALL THE FOLLOWING:
BL1INT BL2INT METAZZ LINESG OBJCTG
SUBJEG SCAN CONHUL TRIORD TMESH3
TMESH2 PUTLIN

CNTPRD ENTRY CLASS: MAIN SEGMENT: (0E1)
DESC: CONTOUR - PUT UP CURRENT CONTOUR PARAMETERS TO BE MODIFIED BY TYP
LENGTH: 54 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
DETABLE
CAN CALL THE FOLLOWING:
PUTEDT IBEAUT

CNTPRE ENTRY CLASS: MAIN SEGMENT: (0E9)
DESC: CONTOUR - EDIT AND ACCEPT TYPED-IN PARAMETERS
LENGTH: 110 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
DETABLE
CAN CALL THE FOLLOWING:
PUTEDT IDISER ICHKED COMPAC COMPACS

CNVTOC ENTRY CLASS: MAIN SEGMENT: (S0)
DESC: SCALING - CONVERT FROM USER SPACE TO CARTESIAN COORDINATES
LENGTH: 34 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
MODRW PTYPE GETCEN GETCOR
CAN CALL THE FOLLOWING:
COS. SIN.

CNVTOU ENTRY CLASS: MAIN SEGMENT: (G13)
DESC: SCALING - CONVERT CARTESIAN COORDINATES TO USERS SPACE
LENGTH: 37 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
MOPUT
CAN CALL THE FOLLOWING:
ACOS. ATAN2. SQRT.

COMPACS ENTRY CLASS: SECONDARY SEGMENT: (S1)
DESC: SQUEEZE TYPE-IN VALUES INTO ARRAYS
SECONDARY ENTRY POINT FOR : COMPAC
CAN BE CALLED BY:
SVIEWP CNTPRE ELNCHK TABXYP ICHKED

COMPAC ENTRY CLASS: MAIN SEGMENT: (S1)

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          DESC: SYSTEM I/O ROUTINE
          LENGTH:    253    LANGUAGE: COMPASS
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             READR    RWRITE    RWRITER  WRITE     CLOSE
             WRITER
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

CRAK      ENTRY CLASS: SECONDARY   SEGMENT:   (S1)
          DESC: ERROR RECOVERY COMMAND PARSER
          SECONDARY ENTRY POINT FOR : DMP.CRK
          CAN BE CALLED BY:
             DMP

DACTSN    ENTRY CLASS: MAIN        SEGMENT:   (M31)
          DESC: DISPLAY ACTIVE STRUCTURE AND SUBSTRUCTURE NAMES
          LENGTH:     71    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             DACTS
          CAN BE CALLED BY:
             DETABLE  TABACX
          CAN CALL THE FOLLOWING:
             TYPNAM   IDISER   IDBORT

DACTS     ENTRY CLASS: SECONDARY   SEGMENT:   (M31)
          DESC: PUT UP REST OF STRUCTURE AND SUBSTRUCTURE NAMES
          SECONDARY ENTRY POINT FOR : DACTSN
          CAN BE CALLED BY:
             TABPRC   SSOFF

IDARR     ENTRY CLASS: SECONDARY   SEGMENT:   (DB3)
          DESC: (NOT AVAILABLE)
          SECONDARY ENTRY POINT FOR : IDBARR
          CAN BE CALLED BY:
             CNTERM   ECPROC   ECHKL

IDATT     ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
          DESC: GET NTH ATTRIBUTE
          SECONDARY ENTRY POINT FOR : IDBUPP
          CAN BE CALLED BY:
             GLSTDB   PRINCP   EQSTR    MATDEF   EUPPNT
             GETCNT   GETDAT   PUTATT   IDRWEL   IDRWAT
             GETCEN   GETCOR   ICKATT   IGETCH

IDBCHA    ENTRY CLASS: MAIN        SEGMENT:   (DB2)
          DESC: CHANGE ATTRIBUTE VALUE IN DATA BASE
          LENGTH:     66    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PRINCP   EQSTR    BDSTR    FIXDAT   MATDEF
             EUPPNT   EATS     IDBADB
          CAN CALL THE FOLLOWING:
             IFATT    DBSET    IDBTYP   IDBSTA   IDBCAN

IDCHBD    ENTRY CLASS: MAIN        SEGMENT:   (DB0)
          DESC: CHECK IF BEAD IS ALREADY ON THE CHANGE LIST
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          LENGTH:    126    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DBRITE   IDBCAN   DBUPT    IDBARR
          CAN CALL THE FOLLOWING:
             DMGTBD   DMSET    IDBTYP   IDBLEN   IDBGET

DBCHNM    ENTRY CLASS: MAIN         SEGMENT:   (DB1)
          DESC: CHANGE NAME OF EXISTING BEAD
          LENGTH:    213    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             EATS
          CAN CALL THE FOLLOWING:
             DBRITE   DBLEFT   DBNAME   IDBRIT   IDBLFT
             IDBTYP   IDBNAM   DBLKUP

DBDAC     ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
          DESC: SET ACTIVE FLAG
          SECONDARY ENTRY POINT FOR : DBRITE
          CAN BE CALLED BY:
             INTSUB   CLRPIC   IDLWAT   ACTIVA

DBDAD     ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
          DESC: SET #IDDAD#
          SECONDARY ENTRY POINT FOR : DBRITE
          CAN BE CALLED BY:
             INTSUB   DZRST    CLRPIC   ICKBYT   IDRWAT
             DRWACT   IDRWSS   IDRWST   IDRW     DELETE
             ACTIVA

DBDEL     ENTRY CLASS: MAIN         SEGMENT:   (DB2)
          DESC: DELETE A BEAD AT A LEVEL AND ALL REFERENCES TO IT
          LENGTH:    106    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DRAWER   EQNUM    EQPEN
          CAN CALL THE FOLLOWING:
             DBRITE   DBLEFT   IDBRIT   IDBLFT   IDBUPN
             IDBDNN   IDBTYP   IDBUPP   IDBDNP   DBUPT
             DBDNT

DBDLF     ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
          DESC: SET LEFT ACTIVE POINTER
          SECONDARY ENTRY POINT FOR : DBRITE
          CAN BE CALLED BY:
             MXYP     DELETE   ACTIVA   IDBCAN

DBDNN     ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
          DESC: SET NUMBER OF DOWN POINTERS
          SECONDARY ENTRY POINT FOR : DBRITE
          CAN BE CALLED BY:
             CNTERM   CNTER    DBUPT

DBDNP     ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
          DESC: SET NTH DOWN POINTER
```

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        SECONDARY ENTRY POINT FOR : DBRITE
        CAN BE CALLED BY:
           CNTERM   CNTER    ELEEPP   IDBCAN   DBUPT

DBONT   ENTRY CLASS: SECONDARY   SEGMENT:   (DB2)
        DESC: SET OR REMOVE THE DOWN POINTER OF THE BEAD LISTED
        SECONDARY ENTRY POINT FOR : DBUPT
        CAN BE CALLED BY:
           BOSTR    FIXCAT   EMERGE   PORG     ERD
           ERNOLD   EADOWN   ESERCH   DBDEL    EADDEL

DBORT   ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
        DESC: SET RIGHT ACTIVE POINTER
        SECONDARY ENTRY POINT FOR : DBRITE
        CAN BE CALLED BY:
           REACT    INTSUB   DZRST    RESTART  CLRPIC
           TABACT   DELETE   ACTIVA   IDBCAN

DBINIT  ENTRY CLASS: MAIN        SEGMENT:   (DB1)
        DESC: INITIALIZE CREATED DATA BASE
        LENGTH:   404   LANGUAGE: FTN
        HAS NO SECONDARY ENTRY POINTS
        CAN BE CALLED BY:
           REACT    FILATT   DRAWER
        CAN CALL THE FOLLOWING:
           ICCHR    DMSET    DMGET    IFATT    IDBRSV
           DMINIT   RETURN

DBLEFT  ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
        DESC: SET LEFT POINTER IN DATA BASE
        SECONDARY ENTRY POINT FOR : DBRITE
        CAN BE CALLED BY:
           CNELEM   CNTERM   CNTABL   DBCHNM   IDBCAN
           IDBACB   DBDEL

DBLEN   ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
        DESC: SET BEAD LENGTH
        SECONDARY ENTRY POINT FOR : DBRITE
        CAN BE CALLED BY:
           IDBRSV   IDBCAN

DBLKUP  ENTRY CLASS: MAIN        SEGMENT:   (DB1)
        DESC: ALLOWS APPLICATION TO DELETE AND ADD BEADS
        LENGTH:    146   LANGUAGE: FTN
        HAS NO SECONDARY ENTRY POINTS
        CAN BE CALLED BY:
           CNTERM   DZRST    EQNUM    ECPROC   EQPEN
           DZSAVE   DBCHNM
        CAN CALL THE FOLLOWING:
           DBTYP    IDBRIT   IDBTYP   IDBNAM

DBNAME  ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
        DESC: SET NAME IN BEAD
        SECONDARY ENTRY POINT FOR : DBRITE
        CAN BE CALLED BY:
           DBCHNM   IDBADB
```

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DBRITE      ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: SET RIGHT POINTER IN DATA BASE
            LENGTH:    356    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               DBLEFT    DBUPS     DBUPN     DBUPP     DBONN
               DBONP     DBTYP     DBLEN     DBOAD     DBSTAT
               DBNAME    DBSET     UBDLF     DBORT     DBOAC
            CAN BE CALLED BY:
               CNELEM    CNTERM    CNTABL    DBCHNM    IDBCAN
               IDBADB    DBDFL
            CAN CALL THE FOLLOWING:
               DMSET     DBCHBD    IDBUPS    IDBTYP    IDBOAD
               IDBSTA

DBSET       ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: SET NTH LOCATION IN BEAD
            SECONDARY ENTRY POINT FOR : DBRITE
            CAN BE CALLED BY:
               CNELEM    IDBCAN    DBCHA     DBUPT

DBSTAT      ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: SET START OF ATTRIBUTE LIST
            SECONDARY ENTRY POINT FOR : DBRITE
            CAN BE CALLED BY:
               DBUPT     IDBADB

DBTGET      ENTRY CLASS: MAIN          SEGMENT:   (DB3)
            DESC: GET VALUE IN TABLE
            LENGTH:    133    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GETDAT
            CAN CALL THE FOLLOWING:
               DMSET     DMGET     IDBTYP    IDBSTA    IDBARR

DBTYP       ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: SET TYPE
            SECONDARY ENTRY POINT FOR : DBRITE
            CAN BE CALLED BY:
               DBLKUP    IDBADB

DBUPN       ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: SET NUMBER OF UP POINTERS
            SECONDARY ENTRY POINT FOR : DBRITE
            CAN BE CALLED BY:
               DBUPT

DBUPP       ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: SET NTH UP-POINTER
            SECONDARY ENTRY POINT FOR : DBRITE
            CAN BE CALLED BY:
               IDBCAN    DBUPT

DBUPS       ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: SET START OF UP-POINTERS
```

```
          SECONDARY ENTRY POINT FOR : DBRITE
          CAN BE CALLED BY:
             DBUPT    IDBADB

DBUPT     ENTRY CLASS: MAIN          SEGMENT:   (DB2)
          DESC: SET OR REMOVE THE UP POINTER OF THE BEAD LISTED
          LENGTH:     361    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             DBUNT
          CAN BE CALLED BY:
             BDSTR     FIXBAT    CNTERM    CNTER     EMERGE
             PORG      ELRPP     ERD       ERNDLD    EADOWN
             ESERCH    DBDEL
          CAN CALL THE FOLLOWING:
             DBCHBD    DBUPS     DBUPN     DBUPP     DBDNN
             DBDNP     DBSTAT    DBSET     IDBUPS    IDBUPN
             IDBDNN    IDBTYP    IDBSTA    IDBUPP    IDBDNP
             IDBGET    IDBCAN

DEINIT1   ENTRY CLASS: MAIN          SEGMENT:   (M32)
          DESC: (NOT AVAILABLE)
          LENGTH:     41    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DRAWER    MYINIT    DEINIT    PRINIT    PPINIT
          CAN CALL THE FOLLOWING:
             GIBAT     EDITII    GIERR

DEINIT    ENTRY CLASS: MAIN          SEGMENT:   (M32)
          DESC: INITIALIZE DISPLAY-AND-EDIT MENUS
          LENGTH:     16    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             EXTABLE
          CAN CALL THE FOLLOWING:
             STARTM    DEINIT1

DELETE    ENTRY CLASS: MAIN          SEGMENT:   (GO)
          DESC: DEACTIVATE BEAD AND ERASE THE PICTURE FROM THE SCREEN
          LENGTH:    127    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             ALLOFF    RNGDEL    EQNUM     DELPIC    RETAIN
             SSAOFF    EUPEN     SSOFF
          CAN CALL THE FOLLOWING:
             GIDELT    DBDAD     DBDLF     DBORT     IDBDAD
             IDBDLF    ICKACT

DELPIC    ENTRY CLASS: MAIN          SEGMENT:   (DE1)
          DESC: DELETE AND DEACTIVATE ALL PICKED BEADS ON A LEVEL
          LENGTH:     15    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             DELETE    MBEAD
```

```
DELSF     ENTRY CLASS: MAIN          SEGMENT:    (G12)
          DESC: DELETE INTERTEK SUBFILE
          LENGTH:     60    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             MOFRZ
          CAN CALL THE FOLLOWING:
             GIDELT   GISHOW

DETABLE   ENTRY CLASS: MAIN          SEGMENT:    (DRIVE)
          DESC: DISPLAY-AND-EDIT SUBROUTINE SWITCH TABLE
          LENGTH:    507    LANGUAGE: COMPASS
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             STARTM   GLINIT
          CAN CALL THE FOLLOWING:
             SWITCHS  IDEDEC   ALLON    ALLSON   ALLOFF
             ASUBS    DZRST    ETYPSV   CNTPRD   RNGDEL
             RNGDRW   PONPEN   PTYPE    EQNUM    EMERG
             EMERGE   DRWATA   DRWATT   DELPIC   EONPD
             EONPEN   EDINIT   ECHNIT   ELREPL   ELREPP
             RETAIN   RETAIS   EMOVE    EMOVEP   MXYI
             MXYP     DYDRDE   DYLOAD   DYMODE   DYTIMS
             DYSFPU   DYSFPR   DYSSTP   DYUNDE   DYDEF
             ATTLST   ATTPRC   ATTREN   ATTRNG   ATTRNP
             LANODE   LFNODE   NODON    NODAEL   NODFEL
             ECHOND   ECHONU   ECPROC   ECREAN   ERDOWD
             ERDOWU   ERDD     ERDU     ERNOLD   ERNADD
             ERNADU   EACTPN   EACTP    EADOWN   EAUP
             EALLS    EALLD    EALLSS   EATS     EATCH
             ENDOWN   ENUP     EPUTDN   EPUTUP   ESERCH
             ASERCH   ASERCHA  SSAOFF   CNTOR    CNTPRE
             CNTINT   CNTITL   CNTIT2   GETCNT   PROCXA
             PROCYA   REPXY    RSCXY    TABRDR   INITXY
             GSLXLY   GSLXGY   GSGXLY   GSGXGY   LSSLD
             LSSDH    LSLDH    TABLIN   PROCTIT  TABVAL
             TABIND   PROCCHR  TABDEL   EQPEN    EQPENN
             STRACT   SSTACT   ELEACT   NODACT   INIT2D
             INITSN   CLRPIC   XYERAS   XYRET1   XYRET
             SELATT   SELAT1   TABACT   TABACX   TABACY
             TABPRC   TABXYP   TABXYM   TABSCX   TABSCY
             TABSCL   TABDM    TABXI    TABYI    TABXC
             TABYD    TABXN    TABYN    PUTLST   SSOFF
             DACTSN   PUTNAM   PUTNMM   EXINIT   MOPU
             MOREC    MOCYL    MOSPH    PLINIT   SPSBL
             SPSBLC   PUTATT   ACTATT   ATTOFF   PROFAC
             REPFA    QTITLE   DRWSS    ONPEN    ONPENE
             ONPENN   TABPEN   DZSAVE   EADDEL

DISPLB    ENTRY CLASS: MAIN          SEGMENT:    (PRM1)
          DESC: DISPLAY GENERIC MATERIAL NAMES
          LENGTH:     64    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PRTABLE
```

```
            CAN CALL THE FOLLOWING:
               TYPVAL   OMGET

DMBOAD      ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: (NOT AVAILABLE)
            LENGTH:     46    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DMRLBD   DMSTGT
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

DMFLSH      ENTRY CLASS: MAIN          SEGMENT:   (DB1)
            DESC: FLUSH DATA HANDLER FILE
            LENGTH:    140    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               RESTART  DMINIT
            CAN CALL THE FOLLOWING:
               DMWRITE  OUTBUF   RWRITER  FCHPRAM  FETSTAT
               CLOSE    SETFETR  CLRFETR

DMFV        ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: (NOT AVAILABLE)
            LENGTH:    140    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DMGTBD   DMRLBD   DMSTGT
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

DMGET       ENTRY CLASS: SECONDARY     SEGMENT:   (DB0)
            DESC: GET DATA HANDLER BEAD FIELD
            SECONDARY ENTRY POINT FOR : DMSTGT
            CAN BE CALLED BY:
               IGNM     DISPLB   LIBIN    LIBINS   DZRST
               RESTART  IGPCKM   GCGARR   GCSSF    IGFTR
               IFATT    IGATT    IDBRIT   IDBUPP   DBINIT
               DBTGET   IDBARR

DMGTBD      ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: RESERVE SPACE FOR NEW DATA HANDLER BEAD
            LENGTH:    373    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNNEW    RESTART  GCRESI   DBCHBD   IDBRSV
            CAN CALL THE FOLLOWING:
               DMREAD   DMWRITE  DMFV     SYSTEM   FCHPRAM

DMINIT      ENTRY CLASS: MAIN          SEGMENT:   (DB1)
            DESC: INITIALIZE DATA HANDLER FILE
            LENGTH:    365    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               STARTM   CNNEW    MYINIT   GINIT    DBINIT
            CAN CALL THE FOLLOWING:
               GOTOER.  ITOJ.    SYSTEM   INBUF    OUTBUF
               READR    FCHPRAM  FETSTAT  DMFLSH   RFILEB
```

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            WRITER   SETFETR  CLAFETR

DMP         ENTRY CLASS: MAIN          SEGMENT:   (S1)
            DESC: ERROR RECOVERY DEBUG DUMP ROUTINE
            LENGTH:    570    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               HOLD
            CAN CALL THE FOLLOWING:
               IBEAUT   GETLIN   PUTLIN   GOTOER.  CRAK
               IOCTAL

DMP.CRK     ENTRY CLASS: MAIN          SEGMENT:   (S1)
            DESC: (NOT AVAILABLE)
            LENGTH:     50    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               CRAK
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

DMREAD      ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: (NOT AVAILABLE)
            LENGTH:    127    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DMGTBD   DMRLBD   DMSTGT
            CAN CALL THE FOLLOWING:
               INBUF    READR    FETSTAT

DMRLBD      ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: RELEASE DATA HANDLER BEAD
            LENGTH:    270    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNTERM   GIBUTN   GICLRQ   IFATT    IDBCAN
            CAN CALL THE FOLLOWING:
               DMREAD   DMWRITE  DMBDAD   DMFV     SYSTEM
               FCHPRAM  SETPRAM

DMSET       ENTRY CLASS: SECONDARY     SEGMENT:   (DB0)
            DESC: SET VALUES INTO DATA HANDLER BEAD FIELDS
            SECONDARY ENTRY POINT FOR : DMSTGT
            CAN BE CALLED BY:
               ICPART   CNVODE   CNTABL   DZRST    RESTART
               GCGARR   GCSSF    DBCHBD   IFATT    DBRITE
               DBINIT   DZSAVE   DBTGET   IDBARR

DMSTGT      ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: (NOT AVAILABLE)
            LENGTH:    606    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               DMSET    DMGET
            THIS ENTRY IS NOT INVOKED BY  NY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               GOTOER.  PDUMP    DMREAD   DMWRITE  DMBDAD
               DMFV     SYSTEM
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DMWRITE    ENTRY CLASS: MAIN          SEGMENT:   (DB0)
           DESC: (NOT AVAILABLE)
           LENGTH:    204    LANGUAGE: FTN
           HAS NO SECONDARY ENTRY POINTS
           CAN BE CALLED BY:
              DMGTBD   DMRLBD   DMSTGT   DMFLSH
           CAN CALL THE FOLLOWING:
              OUTBUF   RWRITE   RWRITER  FETSTAT  WRITE

DRAWFR     ENTRY CLASS: MAIN          SEGMENT:   (PR0)
           DESC: INITIALIZE DRAFTING PACKAGE
           LENGTH:    151    LANGUAGE: FTN
           HAS NO SECONDARY ENTRY POINTS
           CAN BE CALLED BY:
              PRTABLE
           CAN CALL THE FOLLOWING:
              GRID     SETND    CNNEW    CNELEM   CNNODE
              CNTERM   GRONIT   INIT2D   DEINIT1  COPYFL
              IDBFND   DBINIT   RETURN   DBDEL

DRELN      ENTRY CLASS: MAIN          SEGMENT:   (PRM1)
           DESC: (NOT AVAILABLE)
           LENGTH:    154    LANGUAGE: FTN
           HAS NO SECONDARY ENTRY POINTS
           CAN BE CALLED BY:
              ASU84
           CAN CALL THE FOLLOWING:
              GETGEN   GITEM    GUTEXT   GUSETP   IDINF
              UTORAS   IGCHR    IBEAUT   IDBDNN   IDBORT
              IDBDNP   IDBNAM

DRIVER     ENTRY CLASS: TRANSFER      SEGMENT:   (DRIVE)
           DESC: THE EXECUTIVE AND MAIN PROGRAM
           LENGTH:   1005    LANGUAGE: FTN
           HAS NO SECONDARY ENTRY POINTS
           THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
           CAN CALL THE FOLLOWING:
              GLOINT   MARK     EXITT    SWITCH   ISWTCHD
              BL1INT   GRFNIT   PAGER    ERASEN   IPICK
              PUTEDT   IGPCKM   IGCFV    IPPRMT   IREAD
              MENNIT   GISUBF   GCDRAW   GCHIGH   GCWIDE
              GITEM    GIDELT   IDISER   GISNGL   GISTR
              GIPARM   GICLRQ   GUTEXT   GUSETP   GISHOW
              QBNTRY.  STOP.    GOTOER.  IGFTR    IGSON
              IGLNK    IGACT    IGRUT    IGTBL    IGPSX
              IGPSY    IGOPT

DRWACT     ENTRY CLASS: MAIN          SEGMENT:   (M820)
           DESC: REDRAW ALL ACTIVE BEADS ON THIS LEVEL THAT ARE DRAWN
           LENGTH:    352    LANGUAGE: FTN
           SECONDARY ENTRY POINTS:
              DRWONE   DRWARR   DRWNOC
           CAN BE CALLED BY:
              MORDRW   MOASHK
           CAN CALL THE FOLLOWING:
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                IDRWAT    IDRW      GIDELT    IDISER    OBDAD
                IDBOAD    IDBORT    IDBOAC    ICKACT

DRWARR          ENTRY CLASS: SECONDARY    SEGMENT:    (M820)
                DESC: DRAW ALL BEADS IN THE ARRAY IN THE ARGUMENT LIST
                SECONDARY ENTRY POINT FOR : DRWACT
                CAN BE CALLED BY:
                   EQUEUP

DRWATA          ENTRY CLASS: MAIN         SEGMENT:    (DE1)
                DESC: DRAW THE ATTRIBUTE FOR ALL BEADS ON THIS LEVEL THAT ARE ACTIVE
                LENGTH:     33    LANGUAGE: FTN
                HAS NO SECONDARY ENTRY POINTS
                CAN BE CALLED BY:
                   DETABLE
                CAN CALL THE FOLLOWING:
                   IDRWAT    IDBORT    IDBOAC

DRWATT          ENTRY CLASS: MAIN         SEGMENT:    (DE1)
                DESC: DRAW THE ATTRIBUTE FOR EACH BEAD PICKED
                LENGTH:     21    LANGUAGE: FTN
                HAS NO SECONDARY ENTRY POINTS
                CAN BE CALLED BY:
                   DETABLE
                CAN CALL THE FOLLOWING:
                   IDRWAT    MBEAD

DRWNOC          ENTRY CLASS: SECONDARY    SEGMENT:    (M820)
                DESC: REDRAW ALL ACTIVE BEADS WITHOUT ERASING THE ORIGINAL VERSION
                SECONDARY ENTRY POINT FOR : DRWACT
                CAN BE CALLED BY:
                   DYDRDE

DRWONE          ENTRY CLASS: SECONDARY    SEGMENT:    (M820)
                DESC: DRAW THE ONE BEAD IN THE ARGUMENT LIST
                SECONDARY ENTRY POINT FOR : DRWACT
                CAN BE CALLED BY:
                   MOISHK    ELREPP    MXYP      EUPPNT    ERD
                   ERNDLD    EADOWN    EATS

DRWSS           ENTRY CLASS: MAIN         SEGMENT:    (M821)
                DESC: DRAW ALL ACTIVE SUBSTRUCTURES
                LENGTH:     26    LANGUAGE: FTN
                HAS NO SECONDARY ENTRY POINTS
                CAN BE CALLED BY:
                   DETABLE   ASUB4
                CAN CALL THE FOLLOWING:
                   IDRW      IDBORT

DXIT.SQ         ENTRY CLASS: SECONDARY    SEGMENT:    (SQ)
                DESC: (NOT AVAILABLE)
                SECONDARY ENTRY POINT FOR : GET.SQ
                CAN BE CALLED BY:
                   SKFL.SQ

DYDEF           ENTRY CLASS: SECONDARY    SEGMENT:    (DE3)
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          DESC: SET DEFORMED PLOT MODE
          SECONDARY ENTRY POINT FOR : DYUNDE
          CAN BE CALLED BY:
             DETABLE

DYDRDE    ENTRY CLASS: MAIN          SEGMENT:    (DE3)
          DESC: DRAW DEFORMED PLOT FOR ALL ACTIVE BEADS
          LENGTH:      23    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             DRWNOC

DYLOAD    ENTRY CLASS: MAIN          SEGMENT:    (DE3)
          DESC: PUT UP ≠LOAD STEP≠ TYPE-IN FOR DEFORMED PLOTS
          LENGTH:      52    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             DYMODE   DYTIMS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             PUTEDT   IBEAUT

DYMODE    ENTRY CLASS: SECONDARY     SEGMENT:    (DE3)
          DESC: PUT UP ≠MODE SHAPE≠ TYPE-IN FOR DEFORMED PLOTS
          SECONDARY ENTRY POINT FOR : DYLOAD
          CAN BE CALLED BY:
             DETABLE

DYSFPR    ENTRY CLASS: SECONDARY     SEGMENT:    (DE3)
          DESC: CRACK SCALE, FACTOR, OR TIME-SLICE TYPE-IN
          SECONDARY ENTRY POINT FOR : DYSFPU
          CAN BE CALLED BY:
             DETABLE

DYSFPU    ENTRY CLASS: MAIN          SEGMENT:    (DE3)
          DESC: PUT UP SCALE FACTOR TYPE-IN
          LENGTH:      71    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             DYSFPR
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             PUTEDT   IDISER   IBEAUT   ICHKED   COMPAC

DYSSTP    ENTRY CLASS: MAIN          SEGMENT:    (DE3)
          DESC: PROCESS STEP FOR DEFORMED MODE
          LENGTH:      53    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             ICKSL    PUTEDT   IDISER   IBEAUT   ICHKED
             COMPAC
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DYTIMS      ENTRY CLASS: SECONDARY   SEGMENT:   (DE3)
            DESC: PUT UP *TIME STEP* TYPE-IN FOR DEFORMED PLOTS
            SECONDARY ENTRY POINT FOR : DYLOAD
            CAN BE CALLED BY:
               DETABLE

DYUNDE      ENTRY CLASS: MAIN        SEGMENT:   (DE3)
            DESC: SET UNDEFORMED PLOT MODE
            LENGTH:     25    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               DYDEF
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ICKSL

DZRST       ENTRY CLASS: MAIN        SEGMENT:   (DE1)
            DESC: RESTORE CHANGED BEADS TO ORIGINAL STATE
            LENGTH:    145    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               CLRPIC   DMSET    DMGET    DBDAD    DBDRT
               IDBGET   DBLKUP

DZSAVE      ENTRY CLASS: MAIN        SEGMENT:   (DB1)
            DESC: SAVE THE CHANGED DATA BASE
            LENGTH:     22    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE  CLROUT
            CAN CALL THE FOLLOWING:
               DMSET    DBLKUP

EACTPN      ENTRY CLASS: MAIN        SEGMENT:   (DE7)
            DESC: ACTIVATE A BEAD FROM A PICK ON A DISPLAYED ITEM
            LENGTH:     26    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               EACTP
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               PUTNM    ESLOT    MBEAD

EACTP       ENTRY CLASS: SECONDARY   SEGMENT:   (DE7)
            DESC: CHECK IF THERE ARE MORE NAMES FOR ACTIVATION
            SECONDARY ENTRY POINT FOR : EACTPN
            CAN BE CALLED BY:
               DETABLE

EADDEL      ENTRY CLASS: MAIN        SEGMENT:   (DB2)
            DESC: ADD ALL ACTIVE ELEMENTS TO SUBSTRUCTURE
            LENGTH:     25    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
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            DETABLE
          CAN CALL THE FOLLOWING:
            IDBORT   GPONT

EADOWN    ENTRY CLASS: MAIN          SEGMENT:   (DE7)
          DESC: ADD DOWN-POINTERS FROM A CROSSHAIR PICK OF A DISPLAYED ITEM
          LENGTH:    106    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
            EAUP
          CAN BE CALLED BY:
            DETABLE  ENDOWN
          CAN CALL THE FOLLOWING:
            DRWONE   IDBCAD   MBEAD    ICKACT   DBUPT
            DBONT

EALLD     ENTRY CLASS: SECONDARY   SEGMENT:   (DE7)
          DESC: ACTIVATE ALL BEADS FOR THIS DATA BASE LEVEL
          SECONDARY ENTRY POINT FOR : EALLS
          CAN BE CALLED BY:
            DETABLE

EALLSS    ENTRY CLASS: SECONDARY   SEGMENT:   (DE7)
          DESC: ACTIVATE ALL BEADS IN THE ACTIVE SUBSTRUCTURE
          SECONDARY ENTRY POINT FOR : EALLS
          CAN BE CALLED BY:
            DETABLE

EALLS     ENTRY CLASS: MAIN          SEGMENT:   (DE7)
          DESC: ACTIVATE ALL BEADS ON SCREEN
          LENGTH:     41    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
            EALLD    EALLSS
          CAN BE CALLED BY:
            DETABLE
          CAN CALL THE FOLLOWING:
            ESLOT    IDBLFT   IDBDLF

EATCH     ENTRY CLASS: SECONDARY   SEGMENT:   (DE7)
          DESC: DO ACTUAL CHANGING OF ATTRIBUTES
          SECONDARY ENTRY POINT FOR : EATS
          CAN BE CALLED BY:
            DETABLE

EATF      ENTRY CLASS: MAIN          SEGMENT:   (DE7)
          DESC: START ATTRIBUTE CHANGES BY TYPE-IN
          LENGTH:    117    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
            EATS
          CAN CALL THE FOLLOWING:
            PUTEDT   PUTATT   PUTAT    IBEAUT   IDBNAM

EATS      ENTRY CLASS: MAIN          SEGMENT:   (DE7)
          DESC: PROCESS FIRST TABLE OF CHANGED ATTRIBUTES
          LENGTH:    304    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
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                EATCH
            CAN BE CALLED BY:
                DETABLE
            CAN CALL THE FOLLOWING:
                IECPRC    EATF      ELNCHK    ECHKL     IENEXT
                IENIT     PUTEOT    PUTAT     DRWONE    EQUEUP
                IDISER    ICHKED    COMPAC    IDBDAC    DBCHNM
                ICKAGT    DBCHA

EAUP        ENTRY CLASS: SECONDARY    SEGMENT:    (DE7)
            DESC: ADD UP-POINTERS FROM A CROSSHAIR PICK OF A DISPLAYED ITEM
            SECONDARY ENTRY POINT FOR : EADOWN
            CAN BE CALLED BY:
                DETABLE  ENDOWN

ECHKL       ENTRY CLASS: MAIN         SEGMENT:    (M1)
            DESC: CHECK IF LIMITS OF DISPLAY ARE MODIFIED
            LENGTH:     56    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
                FIXDAT   EUPPNT   EATS
            CAN CALL THE FOLLOWING:
                IDBRIT   IDBARR   DBARR

ECHNIT      ENTRY CLASS: SECONDARY    SEGMENT:    (DE2)
            DESC: ELIMINATE THE ACTIVE FOR EDITING LIST
            SECONDARY ENTRY POINT FOR : EDINIT
            CAN BE CALLED BY:
                DETABLE

ECHOND      ENTRY CLASS: MAIN         SEGMENT:    (DE5)
            DESC: START CHANGE DOWN POINTERS MODE
            LENGTH:     27    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
                ECHONU
            CAN BE CALLED BY:
                DETABLE  ERDOWN
            CAN CALL THE FOLLOWING:
                IDISER

ECHONU      ENTRY CLASS: SECONDARY    SEGMENT:    (DE5)
            DESC: START CHANGE UP-POINTERS MODE
            SECONDARY ENTRY POINT FOR : ECHOND
            CAN BE CALLED BY:
                DETABLE  ERDOWN

ECPROC      ENTRY CLASS: MAIN         SEGMENT:    (DE5)
            DESC: PROCESS NAME TYPE-IN TO CREATE A NEW BEAD
            LENGTH:     64    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
                DETABLE
            CAN CALL THE FOLLOWING:
                IECPRC   DULKUP   ACTIVA   IDBADB   IDBARR
                DBARR
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ECREAN    ENTRY CLASS: MAIN          SEGMENT:   (DE5)
          DESC: INITIATE NAME TYPE-IN FOR CREATION
          LENGTH:     54    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             PUTEDT   IDBAUT   IDBLFT   IDBNAM

EDINIT    ENTRY CLASS: MAIN          SEGMENT:   (DE2)
          DESC: INITIALIZE EDITING
          LENGTH:     20    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             ECHNIT
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             IDBTYP

EDITTI    ENTRY CLASS: MAIN          SEGMENT:   (S0)
          DESC: INITIALIZE #EDITT# COMMON BLOCK
          LENGTH:     27    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             GLINIT   CNTERM   GRFNIT   DEINIT1
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

ELEACT    ENTRY CLASS: SECONDARY     SEGMENT:   (M0)
          DESC: SET ELEMENTS AS THE LEVEL TO WORK ON
          SECONDARY ENTRY POINT FOR : STRACT
          CAN BE CALLED BY:
             DETABLE  PRTABLE  PRINCP   EQSTR

ELNAM     ENTRY CLASS: MAIN          SEGMENT:   (PRM1)
          DESC: TYPE ELEMENT NAMES
          LENGTH:     52    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PRTABLE
          CAN CALL THE FOLLOWING:
             TYPVAL

ELNCHK    ENTRY CLASS: MAIN          SEGMENT:   (M1)
          DESC: CHECK IF NODE IS OUTSIDE DISPLAY SPACE LIMIT
          LENGTH:    107    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             EATS     ESEARCH   ASERCH   SSAOFF
          CAN CALL THE FOLLOWING:
             CNELM    COMPACS

ELREPC    ENTRY CLASS: SECONDARY     SEGMENT:   (DE2)
          DESC: PROCESS NEXT NODAL REPLACEMENT
          SECONDARY ENTRY POINT FOR : ELREPL
          CAN BE CALLED BY:
             ELREPP
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ELREPL      ENTRY CLASS: MAIN          SEGMENT:   (OE2)
            DESC: PROCESS TYPE-IN FOR NODAL REPLACEMENT
            LENGTH:    117    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               ELREPC
            CAN BE CALLED BY:
               OETABLE
            CAN CALL THE FOLLOWING:
               PUTEOT   IBEAUT   IOBONN   IOBONP   IOBNAM

ELREPP      ENTRY CLASS: MAIN          SEGMENT:   (OE2)
            DESC: REPLACE NODES BY TYPED-IN VALUES
            LENGTH:    137    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               OETABLE
            CAN CALL THE FOLLOWING:
               ICKRNG   ELREPC   PUTEOT   DRWONE   IOISER
               IBEAUT   ICHKED   COMPAC   DBONP    IOBONP
               DBUPT

EMERGE      ENTRY CLASS: MAIN          SEGMENT:   (OE1)
            DESC: PROCESS DOWN-POINTERS IN A MERGE
            LENGTH:     43    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               OETABLE  EMERG
            CAN CALL THE FOLLOWING:
               IOBONN   IOBONP   MBEAD    DBUPT    DBONT

EMERG       ENTRY CLASS: MAIN          SEGMENT:   (OE1)
            DESC: CHECK FOR MORE NAMES IN A MERGE BY A NAME MODE
            LENGTH:     16    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               OETABLE
            CAN CALL THE FOLLOWING:
               EMERGE   PUTNM

EMOVEP      ENTRY CLASS: SECONDARY     SEGMENT:   (OE2)
            DESC: ENTRY TO PROCESS THE MOVE TYPE-IN
            SECONDARY ENTRY POINT FOR : EMOVE
            CAN BE CALLED BY:
               OETABLE

EMOVE       ENTRY CLASS: MAIN          SEGMENT:   (OE2)
            DESC: PUT UP CENTROID FOR NODE, ELEMENT, OR SUBSTRUCTURE
            LENGTH:    106    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               EMOVEP
            CAN BE CALLED BY:
               OETABLE
            CAN CALL THE FOLLOWING:
               MXYTP    PUTEOT   GETCEN   IOISER   IBEAUT
               ICHKED   COMPAC
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ENDOWN      ENTRY CLASS: MAIN          SEGMENT:    (DE7)
            DESC: ADD DOWN-POINTERS BY NAME
            LENGTH:      30    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               ENUP
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               EADOWN    EADUP     EPUTD

ENUP        ENTRY CLASS: SECONDARY    SEGMENT:    (DE7)
            DESC: ADD UP-POINTERS BY NAME
            SECONDARY ENTRY POINT FOR : ENDOWN
            CAN BE CALLED BY:
               DETABLE

EONPD       ENTRY CLASS: MAIN          SEGMENT:    (DE1)
            DESC: ACTIVATE CROSSHAIRS FOR NEXT LEVEL DOWN IN DATA BASE
            LENGTH:      10    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ONPEN

EONPEN      ENTRY CLASS: MAIN          SEGMENT:    (DE1)
            DESC: TURN ON CROSSHAIRS IN EDITING
            LENGTH:      11    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ONPEN

EPUTDN      ENTRY CLASS: MAIN          SEGMENT:    (DE7)
            DESC: DISPLAY NAMES OF 1ST SET OF DOWN-POINTERS
            LENGTH:     156    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               EPUTD     EPUTUP
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               TYPNAM    IDUSER    IDORIT    IDBUPN    IDBONN
               IDBUPP    IDBONP

EPUTD       ENTRY CLASS: SECONDARY    SEGMENT:    (DE7)
            DESC: DISPLAY REST OF DOWN-POINTERS
            SECONDARY ENTRY POINT FOR : EPUTDN
            CAN BE CALLED BY:
               ENDOWN

EPUTUP      ENTRY CLASS: SECONDARY    SEGMENT:    (DE7)
            DESC: DISPLAY NAMES OF UP-POINTERS
            SECONDARY ENTRY POINT FOR : EPUTDN
            CAN BE CALLED BY:
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```
            DETABLE

EQNUM       ENTRY CLASS: MAIN          SEGMENT:    (DE1)
            DESC: DELETE BEADS BY NUMBER
            LENGTH:    127    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ICKRNG   PUTEDT   PUTLS    EQUEUP   IDISER
               DELETE   ICHKED   COMPAC   IDBRIT   DBLKUP
               DBDEL

EQPENN      ENTRY CLASS: SECONDARY   SEGMENT:    (M0)
            DESC: DELETE BEADS BY NAME
            SECONDARY ENTRY POINT FOR : EQPEN
            CAN BE CALLED BY:
               DETABLE

EQPEN       ENTRY CLASS: MAIN          SEGMENT:    (M0)
            DESC: DELETE PICKED BEADS
            LENGTH:     60    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               EQPENN
            CAN BE CALLED BY:
               DETABLE  PRTABLE
            CAN CALL THE FOLLOWING:
               PUTNM    EQUEUP   DELETE   MBEAD    DBLKUP
               DBDEL

EQSTR       ENTRY CLASS: MAIN          SEGMENT:    (PP)
            DESC: CALCULATE EFFECTIVE STRESSES
            LENGTH:    151    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PPTABLE
            CAN CALL THE FOLLOWING:
               ELEACT   SQRT.    ISACT    DBATT    NEXTIN
               NEXTB    DBCHA

EQUEUP      ENTRY CLASS: MAIN          SEGMENT:    (M820)
            DESC: SAVES THE UP-POINTERS FOR A BEAD
            LENGTH:    122    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               EQNUM    MXYP     EUPPNT   EATS     EQPEN
            CAN CALL THE FOLLOWING:
               DRWARR   IDBUPN   IDBDAD   IDBUPP   ICKACT

ERASEM      ENTRY CLASS: MAIN          SEGMENT:    (G13)
            DESC: ERASE AND REDRAW
            LENGTH:     17    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               MORCNT   MOZCRS   MOZPLS   MOSPLT   MOSOS
               MOBOTH
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            CAN CALL THE FOLLOWING:
               GCDRAW   GIDFDN

ERASEN      ENTRY CLASS: SECONDARY   SEGMENT:   (M30)
            DESC: ERASE SCREEN AND NO REDRAW
            SECONDARY ENTRY POINT FOR : ERASER
            CAN BE CALLED BY:
               DRIVER   GLTABLE  MORDRW   PAGER    IPICK
               GLTOP

ERASER      ENTRY CLASS: MAIN        SEGMENT:   (M30)
            DESC: ERASE SCREEN AND REDRAW ONLY MINIMAL DAE S
            LENGTH:    122    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               ERASEN
            CAN BE CALLED BY:
               STARTM   GLTABLE  PAGER    IPICK
            CAN CALL THE FOLLOWING:
               TYPNAM   TYPVAL   PUTEDT   SELATT   SELATC1
               SELAT1   GERASE   GCDRAW   GIDELT

ERDD        ENTRY CLASS: SECONDARY   SEGMENT:   (DE5)
            DESC: SAME AS #ERDOWN# EXCEPT REMOVE IS FOR DISPLAYED ITEM
            SECONDARY ENTRY POINT FOR : ERDOWD
            CAN BE CALLED BY:
               DETABLE

ERDOWD      ENTRY CLASS: MAIN        SEGMENT:   (DE5)
            DESC: SET PARAMETERS FOR REMOVAL OF DOWN-POINTERS
            LENGTH:     32    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               ERDOWU   ERDD     ERDU
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ERD      ERDOWN

ERDOWN      ENTRY CLASS: MAIN        SEGMENT:   (DE5)
            DESC: PUT UP FIRST GROUP OF DOWN-POINTERS NAMES
            LENGTH:    124    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               ERDOW
            CAN BE CALLED BY:
               ERDOWD
            CAN CALL THE FOLLOWING:
               ECHOND   ECHONU   TYPNAM   IDBUPN   IDBONN
               IDBUPP   IDBONP

ERDOWU      ENTRY CLASS: SECONDARY   SEGMENT:   (DE5)
            DESC: SAME AS #ERDOWN# EXCEPT REMOVE IS FOR UP-POINTERS
            SECONDARY ENTRY POINT FOR : ERDOWD
            CAN BE CALLED BY:
               DETABLE

ERDOW       ENTRY CLASS: SECONDARY   SEGMENT:   (DE5)
            DESC: PUT UP REST OF DOWN-POINTERS NAMES
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            SECONDARY ENTRY POINT FOR : ERDOWN
            CAN BE CALLED BY:
               ERD

ERDU        ENTRY CLASS: SECONDARY   SEGMENT:   (DE5)
            DESC: SAME AS #ERDOWN# EXCEPT REMOVE IS FOR DISPLAYED ITEMS UP-POINTERS
            SECONDARY ENTRY POINT FOR : ERDOWD
            CAN BE CALLED BY:
               DETABLE

ERD         ENTRY CLASS: MAIN        SEGMENT:   (DE5)
            DESC: ACTUALLY REMOVE UP- AND DOWN-POINTER
            LENGTH:    113    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               ERDOWD
            CAN CALL THE FOLLOWING:
               ERDOW    DRWONE   IDBDAD   MBEAD    ICKACT
               DBUPT    DBDNT

ERNADD      ENTRY CLASS: SECONDARY   SEGMENT:   (DE5)
            DESC: ADD DOWN POINTERS BY NUMBER
            SECONDARY ENTRY POINT FOR : ERNDLD
            CAN BE CALLED BY:
               DETABLE

ERNADU      ENTRY CLASS: SECONDARY   SEGMENT:   (DE5)
            DESC: ADD UP-POINTERS BY NUMBER
            SECONDARY ENTRY POINT FOR : ERNDLD
            CAN BE CALLED BY:
               DETABLE

ERNDLD      ENTRY CLASS: MAIN        SEGMENT:   (DE5)
            DESC: DELETE DOWN-POINTERS BY NUMBER
            LENGTH:    207    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               ERNADD   ERNADU
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ICKRNG   PUTEOT   PUTLS    DRWONE   IDISER
               ICHKED   COMPAC   IDBRIT   IDBDAD   ICKACT
               DBUPT    DBDNT

ERR.RM      ENTRY CLASS: MAIN        SEGMENT:   (SQ)
            DESC: (NOT AVAILABLE)
            LENGTH:    404    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CLSF.FQ  CLSV.FQ  GET.FQ   JMPS.RM  PUT.FQ
               REW.FQ   SKFL.FQ  MEMC.RM  OPEN.FQ  OPES.FQ
               CLSF.RM  OPEN.SQ  OPEN.RM  OSUB.RM  OPEX.SQ
               GET.SQ   PUT.SQ   REW.SQ   WEOX.SQ  CLSF.SQ
               CLSF.RM  SKFL.SQ  RLEQ.RM
            CAN CALL THE FOLLOWING:
               RM.CIO   RM.RQLA  SYS=     MSG=
```

```
ESERCH      ENTRY CLASS: MAIN          SEGMENT:   (DE7)
            DESC: SEARCH ALL ELEMENTS BY ATTRIBUTE RANGE
            LENGTH:    131    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ELSCAN   PUTEOT   PUTAT    IDISER   ICHKED
               COMPAC   ICKATT   DBUPT    DBDNT    ICKATT

ESLOT       ENTRY CLASS: MAIN          SEGMENT:   (G12)
            DESC: ACTIVATE PART OF LEVEL FOR EDITING
            LENGTH:     74    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               ETYPSV   EACTPN   EALLS
            CAN CALL THE FOLLOWING:
               IDISER

ETYPSV      ENTRY CLASS: MAIN          SEGMENT:   (DE1)
            DESC: ACTIVATE ALL NODE OR ELEMENT NUMBERS TYPED-IN
            LENGTH:     66    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ICKRNG   PUTEOT   PUTLS    IDISER   ESLOT
               ICHKED   COMPAC

EUPPNT      ENTRY CLASS: MAIN          SEGMENT:   (DE2)
            DESC: DO DATA BASE UPDATE FOR MOVED POINT
            LENGTH:    100    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               MXYZ
            CAN CALL THE FOLLOWING:
               ECHKL    DSWONE   SQUEUP   DBATT    DBCHA

EXECC       ENTRY CLASS: MAIN          SEGMENT:   (EX)
            DESC: CALL A PROCEDURE IN FILE PROAIDS
            LENGTH:    225    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               EXEC
            CAN CALL THE FOLLOWING:
               EXSTAR   EXSTOP   UNPACK   IYIELD1  IYIELDE
               IYIELDS

EXEC        ENTRY CLASS: MAIN          SEGMENT:   (EX)
            DESC: CONSTRUCT A CALL TO A PROCEDURE
            LENGTH:     25    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               EXTABLE
            CAN CALL THE FOLLOWING:
```

```
                EXECC    IGDFV

EXINIT      ENTRY CLASS: MAIN          SEGMENT:    (M32)
            DESC: START EXECUTIVE MENUS ONLY
            LENGTH:      17    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE  PRTABLE  PPTABLE
            CAN CALL THE FOLLOWING:
               STARTM   GIDELT

EXITT       ENTRY CLASS: SECONDARY     SEGMENT:    (DRIVE)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : RCOVER
            CAN BE CALLED BY:
               DRIVER

EXIT        ENTRY CLASS: SECONDARY     SEGMENT:    (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : FORSYS=
            CAN BE CALLED BY:
               RCOVER

EXP         ENTRY CLASS: MAIN          SEGMENT:    (S1)
            DESC: EXPONENTIAL FUNCTION. E TO POWER X. OPT=ALL.
            LENGTH:      75    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               EXP.
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               SYS1ST.

EXP.        ENTRY CLASS: SECONDARY     SEGMENT:    (S1)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : EXP
            CAN BE CALLED BY:
               XTOY=

EXSTAR      ENTRY CLASS: MAIN          SEGMENT:    (MEN1)
            DESC: SAVE AND RESTORE APPROPRIATE STAGING FILES
            LENGTH:     234    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               EXSTOP
            CAN BE CALLED BY:
               EXECC    GLOLOK
            CAN CALL THE FOLLOWING:
               STARTA   REACT    RESTART  GITEM    GIDELT
               GUTEXT   GUSETP   STOP.    IPFUT    PERMFIL
               TIME     RETURN

EXSTOP      ENTRY CLASS: SECONDARY     SEGMENT:    (MEN1)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : EXSTAR
            CAN BE CALLED BY:
               EXECC    GLOLOK
```

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EXTABLE   ENTRY CLASS: MAIN          SEGMENT:   (DRIVE)
          DESC: (NOT AVAILABLE)
          LENGTH:     27    LANGUAGE: COMPASS
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             START   DEINIT
          CAN CALL THE FOLLOWING:
             SWITCH  IFCHC   EXEC     FILATT   DEINIT
             PRINT   PPINIT

FCHPRAM   ENTRY CLASS: MAIN          SEGMENT:   (DB0)
          DESC: (NOT AVAILABLE)
          LENGTH:     4    LANGUAGE: COMPASS
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DMSTRT  DMREAD  DMFLSH   DMINIT
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

FECMSK=   ENTRY CLASS: MAIN          SEGMENT:   (S0)
          DESC: INITIALIZE CONSTANTS.
          LENGTH:     41    LANGUAGE: COMPASS
          HAS NO SECONDARY ENTRY POINTS
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

FETSTAT   ENTRY CLASS: MAIN          SEGMENT:   (DB0)
          DESC: (NOT AVAILABLE)
          LENGTH:     13    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DMREAD  DMWRITE  DMFLSH   DMINIT
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

FILATT    ENTRY CLASS: MAIN          SEGMENT:   (EX)
          DESC: ATTACH THE DATA BASE FILE AND INITIALIZE IT FOR D-AND-E
          LENGTH:    150    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             EXTABLE
          CAN CALL THE FOLLOWING:
             FILNAM  GETUNIT  PAGER    IDISER   ICCHR
             COPYFL  IFFUT    REQUEST  DBINIT   RETURN

FILNAM    ENTRY CLASS: MAIN          SEGMENT:   (MEN1)
          DESC: SET UP FILE NAE FOR DATA BASE FILE
          LENGTH:     43    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             GLFILN
          CAN BE CALLED BY:
             FILATT
          CAN CALL THE FOLLOWING:
             PUTEDT

FIXDAT    ENTRY CLASS: MAIN          SEGMENT:   (PR2)
          DESC: FIX DRAFTING ENDPOINT
          LENGTH:    206    LANGUAGE: FTN
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          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PRTABLE
          CAN CALL THE FOLLOWING:
             SETLN     SFTND     IDRNXT    CORSHF    RASTOU
             GIFETS    CNELM     ECHKL     IDRWAT    IDRW
             GITRAK    ACTIVA    DBCHA     DBUPT     DBONT

FORSYS=   ENTRY CLASS: MAIN          SEGMENT:   (S0)
          DESC: FORTRAN OBJECT LIBRARY UTILITIES.
          LENGTH:    602    LANGUAGE: COMPASS
          SECONDARY ENTRY POINTS:
             EXIT      STOP.     ABNORM.   AB1.      SYSEND.
             SYSE3.    SYSERR.
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          CAN CALL THE FOLLOWING:
             CLSF.RM   OPEN.SQ   OPEN.RM   CBD.      BFN.
             GET.Z     PUT.SQ    SKFL.SQ   SYS=      MSG=

FORUTL=   ENTRY CLASS: MAIN          SEGMENT:   (S0)
          DESC: FCL MISC. UTILITIES.
          LENGTH:     16    LANGUAGE: COMPASS
          SECONDARY ENTRY POINTS:
             CBD.      BFN.
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

FRONTVU   ENTRY CLASS: MAIN          SEGMENT:   (GL3)
          DESC: MOD PICTURE - SET X-Y PLANE
          LENGTH:     13    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             GLTABLE
          CAN CALL THE FOLLOWING:
             MORDRW    SETVU

FSU.SQ    ENTRY CLASS: MAIN          SEGMENT:   (S0)
          DESC: (NOT AVAILABLE)
          LENGTH:    106    LANGUAGE: COMPASS
          SECONDARY ENTRY POINTS:
             RMU0.SQ   RMU2.SQ
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          CAN CALL THE FOLLOWING:
             GXIT.SQ   GRTJ.SQ   AMAC.SQ   MOVE.RM

GCCHMM    ENTRY CLASS: MAIN          SEGMENT:   (G0)
          DESC: INTERTEK - CHECK PICKED POINT WITHIN AREA
          LENGTH:     71    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             GCORIT
          CAN CALL THE FOLLOWING:
             GCGMM     GCGONE    GCGLID

GCC       ENTRY CLASS: MAIN          SEGMENT:   (G0)
          DESC: INTERTEK - DETERMINE LINE VISIBILITY
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            LENGTH:      30    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GCMAIN
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

GCDLIM      ENTRY CLASS: MAIN          SEGMENT:    (G0)
            DESC: INTERTEK - RETRIEVE SCALE, WINDOW, AND CLIP LIMITS
            LENGTH:     102    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               GCSTUB
            CAN BE CALLED BY:
               GIPTIS   GCDRAW   GITRAK
            CAN CALL THE FOLLOWING:
               COMPIO   GCGTM    GCGTUB   GCGET

GCDRAW      ENTRY CLASS: MAIN          SEGMENT:    (G0)
            DESC: INTERTEK - CONTROL DISPLAY FILE OR ITEM INTERPRETATION
            LENGTH:     255    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRIVER   MOZGRS   LIBINS   MXYI     PAGER
               ERASER   GITEM    IDISER   GIBUTN   GISHOW
               GIDUP    GIDFON   ERASEM   GIXTND
            CAN CALL THE FOLLOWING:
               COMPIO   GCGTYP   GCGSF    GCDSF    GCUNPK
               GCDRIT   GCWORK   GCCLIM   GCSTUB

GCDRIT      ENTRY CLASS: MAIN          SEGMENT:    (G0)
            DESC: INTERTEK - INTERPRET ITEM
            LENGTH:      64    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GCDRAW   GCDSF
            CAN CALL THE FOLLOWING:
               GCRCAT   GCUCAT   GCCHMM   GCFILL   GCWORK

GCDSF       ENTRY CLASS: MAIN          SEGMENT:    (G0)
            DESC: INTERTEK - INTERPRET SUBFILE
            LENGTH:      57    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GCDRAW
            CAN CALL THE FOLLOWING:
               GCGRIT   GCRCAT   GCUNPC   GCDRIT

GCFILL      ENTRY CLASS: MAIN          SEGMENT:    (G0)
            DESC: INTERTEK - RETRIEVE DISPLAY INSTRUCTIONS FROM ITEM
            LENGTH:     196    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GCDRIT   GIDUP
            CAN CALL THE FOLLOWING:
               GCGARR   GCGLEN   GCGONE   GCGLID

GCGARR      ENTRY CLASS: MAIN          SEGMENT:    (G0)
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            DESC: INTERTEK - RETRIEVE AN ARRAY FROM A BEAD
            LENGTH:     46    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               GCSARR
            CAN BE CALLED BY:
               GCGMM    GCFILL   GIBUTN   GISNGL   GIDUP
            CAN CALL THE FOLLOWING:
               OMSET    OMGET

GCGETW      ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
            DESC: INTERTEK - RETRIEVE A BIT STRING FROM A WORD IN *IBUF*
            SECONDARY ENTRY POINT FOR : GCGET
            CAN BE CALLED BY:
               GCUPXY   GULIN    GUTEXT

GCGET       ENTRY CLASS: MAIN        SEGMENT:   (S0)
            DESC: INTERTEK - RETRIEVE A BIT STRING FROM A WORD
            LENGTH:     16    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               GCGETW
            CAN BE CALLED BY:
               GCGMM    GCSSF    GCUCAT   GCUNPK   GCWORK
               GCDLIM   GCUNPK   GIBUTN
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

GCGLEN      ENTRY CLASS: SECONDARY   SEGMENT:   (G0)
            DESC: INTERTEK - GET BEAD LENGTH
            SECONDARY ENTRY POINT FOR : GCSSF
            CAN BE CALLED BY:
               GCFILL   GISNGL   GIDUP

GCGLFT      ENTRY CLASS: SECONDARY   SEGMENT:   (G0)
            DESC: INTERTEK - GET A LEFT POINTER
            SECONDARY ENTRY POINT FOR : GCSSF
            CAN BE CALLED BY:
               GITEM    GIDELT   GIDUP

GCGLID      ENTRY CLASS: SECONDARY   SEGMENT:   (G0)
            DESC: INTERTEK - GET LENGTH OF ID FROM ITEM
            SECONDARY ENTRY POINT FOR : GCSSF
            CAN BE CALLED BY:
               GCCHMM   GCFILL   GIDUP

GCGMM       ENTRY CLASS: MAIN        SEGMENT:   (G0)
            DESC: INTERTEK - RETRIEVE ITEM AREA
            LENGTH:    121    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GIZOOM   GCCHMM   GCDLIM
            CAN CALL THE FOLLOWING:
               GCGARR   GCGTYP   GCGET

GCGONE      ENTRY CLASS: SECONDARY   SEGMENT:   (G0)
            DESC: INTERTEK - GET A FULL WORD FROM ITEM
            SECONDARY ENTRY POINT FOR : GCSSF
            CAN BE CALLED BY:
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            GCUCAT    GCCMM    GCFILL    GIBUTN    GISNGL
            GICLSQ    GIDUP    GIXTND

GCGRIT      ENTRY CLASS: SECONDARY    SEGMENT:    (G0)
            DESC: INTERTEK - GET A RIGHT POINTER
            SECONDARY ENTRY POINT FOR : GCSSF
            CAN BE CALLED BY:
               GCDSF     GITEM     GIDELT    GIDUP

GCGSF       ENTRY CLASS: SECONDARY    SEGMENT:    (G0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : GCSSF
            CAN BE CALLED BY:
               GCDRAW    GITEM     GIDUP     GIXTND

GCGTUB      ENTRY CLASS: SECONDARY    SEGMENT:    (G0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : GCGTYP
            CAN BE CALLED BY:
               GCDLIM

GCGTYP      ENTRY CLASS: MAIN         SEGMENT:    (G0)
            DESC: INTERTEK - RETURN ENTITY TYPE
            LENGTH:      33    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               GCGTUB
            CAN BE CALLED BY:
               GIZOOM    GCGMM     GCSSF     GCDRAW    GITEM
               GIDELT    GITRAK    GIDAE     GISHOW    GIDUP
               GIXTND
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

GCHIGH      ENTRY CLASS: MAIN         SEGMENT:    (G0)
            DESC: INTERTEK - RETURN CHARACTER HEIGHT
            LENGTH:      112    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               GCWIDE    GCXMIN    GCYMIN    GCYMAX
            CAN BE CALLED BY:
               DRIVER    PUTEDT    GLTOP     MENNIT
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

GCINPC      ENTRY CLASS: MAIN         SEGMENT:    (G11)
            DESC: (NOT AVAILABLE)
            LENGTH:      36    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GIBUTN    GITRAK
            CAN CALL THE FOLLOWING:
               COMPIO

GCMAT       ENTRY CLASS: MAIN         SEGMENT:    (G13)
            DESC: (NOT AVAILABLE)
            LENGTH:      67    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               SROTET    ARROW
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            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

GCPKDS      ENTRY CLASS: MAIN          SEGMENT:   (G0)
            DESC: INTERTEK - PUT A NEW SUBFILE OR DAE INTO ENTITY
            LENGTH:      30    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GIDELT   GISHOW
            CAN CALL THE FOLLOWING:
               GCSETI

GCRCAT      ENTRY CLASS: MAIN          SEGMENT:   (G0)
            DESC: INTERTEK - RETRIEVE CATEGORY INTERPRETATION
            LENGTH:      22    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GCOSF    GCDMIT   GIBUTN
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

GCRESI      ENTRY CLASS: MAIN          SEGMENT:   (G0)
            DESC: INTERTEK - RESERVE SPACE FOR AN ENTITY
            LENGTH:      65    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GISUBF   GITEM    GIBUTN   GIDAE    GIDUP
               GIXTND
            CAN CALL THE FOLLOWING:
               GIERR    DMGTBD

GCSARR      ENTRY CLASS: SECONDARY     SEGMENT:   (G0)
            DESC: INTERTEK - SET AN ARRAY INTO A BEAD
            SECONDARY ENTRY POINT FOR : GCGARR
            CAN BE CALLED BY:
               GITEM    GIBUTN   GIDUP    GIXTND

GCSETI      ENTRY CLASS: SECONDARY     SEGMENT:   (S0)
            DESC: INTERTEK - SET A BIT STRING INTO A WORD
            SECONDARY ENTRY POINT FOR : GCSET
            CAN BE CALLED BY:
               GIASID   GCSSF    GITEM    GCUPSF   GCPKDS
               GICAT

GCSETW      ENTRY CLASS: SECONDARY     SEGMENT:   (S0)
            DESC: INTERTEK - SET AN ENTIRE WORD INTO *IBUF*
            SECONDARY ENTRY POINT FOR : GCSET
            CAN BE CALLED BY:
               GCUPXY   GUSETP

GCSET       ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: INTERTEK - SET A BIT STRING INTO A WORD IN *IBUF*
            LENGTH:      37    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               GCSETW   GCSETI
            CAN BE CALLED BY:
               GULIN    GUTEXT   GUSETP
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS
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GCSLFT      ENTRY CLASS: SECONDARY    SEGMENT:    (G0)
            DESC: INTERTEK - SET LEFT POINTER
            SECONDARY ENTRY POINT FOR : GCSSF
            CAN BE CALLED BY:
               GITEM    GIDELT    GIDUP

GCSONE      ENTRY CLASS: SECONDARY    SEGMENT:    (G0)
            DESC: INTERTEK - SET A FULL WORD FROM ITEM
            SECONDARY ENTRY POINT FOR : GCSSF
            CAN BE CALLED BY:
               GIDUTN    GIKIND

GCSRIT      ENTRY CLASS: SECONDARY    SEGMENT:    (G0)
            DESC: INTERTEK - SET A RIGHT POINTER
            SECONDARY ENTRY POINT FOR : GCSSF
            CAN BE CALLED BY:
               GITEM    GIDELT    GIDUP

GCSSF       ENTRY CLASS: MAIN         SEGMENT:    (G0)
            DESC: INTERTEK - SET SUBFILE TO WHICH ITEM BELONGS
            LENGTH:     236    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               GCGSF    GCGLEN    GCSLFT    GCGLFT    GCSRIT
               GCGRIT    GCSONE    GCGONE    GCGLID
            CAN BE CALLED BY:
               GITEM    GIDUP
            CAN CALL THE FOLLOWING:
               GCGTYP    GCSET    GCSETI    DMSET    DMGET

GCSTUB      ENTRY CLASS: SECONDARY    SEGMENT:    (G0)
            D  C: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : GCDLIM
            CAN BE CALLED BY:
               GCGRIM    GITEIK

GCUCAT      ENTRY CLASS: MAIN         SEGMENT:    (G0)
            DESC: INTERTEK - UNPACK CATEGORIES IN ITEM
            LENGTH:     50    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GCORIT    GIBUTN    GIDUP
            CAN CALL THE FOLLOWING:
               GCGONE    GCGET

GCUNPC      ENTRY CLASS: SECONDARY    SEGMENT:    (G0)
            DESC: INTERTEK - UNPACK SUBFILE CATEGORY LIST
            SECONDARY ENTRY POINT FOR : GCUNPK
            CAN BE CALLED BY:
               GCOSF    GCUPSF

GCUNPK      ENTRY CLASS: MAIN         SEGMENT:    (G0)
            DESC: INTERTEK - UNPACK SUBFILE OR DAE LIST
            LENGTH:     75    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               GCUNPC
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            CAN BE CALLED BY:
               GCDRAW   GIDELT   GISHOW
            CAN CALL THE FOLLOWING:
               GCGET

GCUNPK      ENTRY CLASS: MAIN          SEGMENT:   (G0)
            DESC: INTERTEK - UNPACK SUBFILE OR DAE LIST
            LENGTH:     75    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

GCUPSF      ENTRY CLASS: MAIN          SEGMENT:   (G0)
            DESC: INTERTEK - UPDATE SUBFILE CATEGORY LIST
            LENGTH:    117    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GITEM    GIDUP
            CAN CALL THE FOLLOWING:
               GCUNPC   GCSETI

GCUPXY      ENTRY CLASS: MAIN          SEGMENT:   (G0)
            DESC: INTERTEK - UPDATE X,Y AND AREA FOR ITEM IN #IBUF#
            LENGTH:    102    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GULIN    GUTEXT   GUSETP
            CAN CALL THE FOLLOWING:
               GCGETW   GCSFTW

GCWIDE      ENTRY CLASS: SECONDARY     SEGMENT:   (G0)
            DESC: INTERTEK - RETURN CHARACTER WIDTH
            SECONDARY ENTRY POINT FOR : GCHIGH
            CAN BE CALLED BY:
               DRIVER   LIBINS   PUTEDT   MENNIT   IDISER

GCWORK      ENTRY CLASS: MAIN          SEGMENT:   (G0)
            DESC: INTERTEK - INTERPRET DISPLAY INSTRUCTIONS
            LENGTH:    752    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GCDRAW   GCDRIT
            CAN CALL THE FOLLOWING:
               COMPIO   GCC      SQRT.    GCGET    GOTOER.

GCXMIN      ENTRY CLASS: SECONDARY     SEGMENT:   (G0)
            DESC: INTERTEK - RETURN SCREEN X MIN
            SECONDARY ENTRY POINT FOR : GCHIGH
            CAN BE CALLED BY:
               CNTINT   INITXY   INIT2D   GLTOP

GCYMAX      ENTRY CLASS: SECONDARY     SEGMENT:   (G0)
            DESC: INTERTEK - RETURN SCREEN Y MAX
            SECONDARY ENTRY POINT FOR : GCHIGH
            CAN BE CALLED BY:
               CNTINT   INITXY   INIT2D   GLTOP
```

GCYMIN
ENTRY CLASS: SECONDARY SEGMENT: (G0)
DESC: INTERTEK - RETURN SCREEN Y MIN
SECONDARY ENTRY POINT FOR : GCHIGH
CAN BE CALLED BY:
CNTINT INITKY INIT2D

GC3DA
ENTRY CLASS: MAIN SEGMENT: (G13)
DESC: (NOT AVAILABLE)
LENGTH: 67 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
SETVU
CAN CALL THE FOLLOWING:
ACOS. ATAN2. SQRT. COS. SIN.

GERASE
ENTRY CLASS: MAIN SEGMENT: (G0)
DESC: ERASE SCREEN
LENGTH: 10 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
ERASER HOLD
CAN CALL THE FOLLOWING:
COMPIO

GETCEN
ENTRY CLASS: MAIN SEGMENT: (M820)
DESC: DETERMINE CENTER OF AN ELEMENT
LENGTH: 235 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
DRELN FMOVE MXYI GETCNT IDRWEL
IDRWAT
CAN CALL THE FOLLOWING:
CNVTOC GOTOER. IDBONN IDBTYP IDBDNP
DBATT

GETCES
ENTRY CLASS: MAIN SEGMENT: (DB3)
DESC: DETERMINE CENTER OF STRUCTURE
LENGTH: 25 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
IDRWAT
CAN CALL THE FOLLOWING:
GETLIM

GETCNT
ENTRY CLASS: MAIN SEGMENT: (DE9)
DESC: CONTOUR - FETCH ATTRIBUTE DATA FROM ACTIVATED NODES AND ELEMENTS
LENGTH: 130 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
DETABLE
CAN CALL THE FOLLOWING:
GETOPN SMELL IDISER IDBORT DBATT

GETCOR
ENTRY CLASS: MAIN SEGMENT: (M820)
DESC: GET THE COORDINATE OF THIS NODE

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            LENGTH:    216    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNNODE    PORG     IDRWEL    IDRWND    IDRWAT
            CAN CALL THE FOLLOWING:
               CNVTOC    DBATT

GETOSS      ENTRY CLASS: MAIN         SEGMENT:   (M820)
            DESC: GET CENTER OF SUBSTRUCTURE
            LENGTH:     20    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               IDRWAT
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

GETDAT      ENTRY CLASS: MAIN         SEGMENT:   (DE40)
            DESC: X-Y PLOTS - GET X-Y DATA FOR PLOT
            LENGTH:    270    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PROCXA
            CAN CALL THE FOLLOWING:
               IDISER    IDBORT    IDBNAM    DBATT     OBTGET

GETLIM      ENTRY CLASS: MAIN         SEGMENT:   (DB3)
            DESC: GET THE LIMITS OF THE DISPLAY
            LENGTH:     33    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               SET1      GETCES
            CAN CALL THE FOLLOWING:
               IDBARR

GETLIN      ENTRY CLASS: SECONDARY    SEGMENT:   (S0)
            DESC: READ FROM TERMINAL WITHOUT RECORD MANAGER
            SECONDARY ENTRY POINT FOR : GET.PUT
            CAN BE CALLED BY:
               GLCLOK    INDATA    HOLD      OMP

GETRAG1     ENTRY CLASS: SECONDARY    SEGMENT:   (PRM1)
            DESC: GET RANGE OF ELEMENT NUMBERS
            SECONDARY ENTRY POINT FOR : GETRAG
            CAN BE CALLED BY:
               PRTABLE

GETRAG      ENTRY CLASS: MAIN         SEGMENT:   (PRM1)
            DESC: GETS A RANGE OF ELEMENT NUMBERS FOR ATTRIBUTE GENERATION
            LENGTH:    104    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               GETRAG1
            CAN BE CALLED BY:
               PRTABLE
            CAN CALL THE FOLLOWING:
               PUTEOT    PUTLS     IDISER    ICHKED    COMPAC

GETSIZ      ENTRY CLASS: MAIN         SEGMENT:   (DB0)
```

```
          DESC: MODIFICATION -GET TEXT SIZE DEPENDING ON ZOOM LEVEL
          LENGTH:      21    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             MDLAY     METAZZ    IDRWND    IDRWAT
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

GET.PUT   ENTRY CLASS: MAIN          SEGMENT:    (S0)
          DESC: (NOT AVAILABLE)
          LENGTH:     142    LANGUAGE: COMPASS
          SECONDARY ENTRY POINTS:
             GETLIN    PUTLIN
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

GET.SQ    ENTRY CLASS: MAIN          SEGMENT:    (S0)
          DESC: (NOT AVAILABLE)
          LENGTH:    1360    LANGUAGE: COMPASS
          SECONDARY ENTRY POINTS:
             SKGT.SQ  GXIT.SQ  GRTJ.SQ  ANBL.SQ  AMAC.SQ
             QXIT.SQ
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          CAN CALL THE FOLLOWING:
             ERR.RM    RSPT.SQ  RM.CIO   RM.RCLA  RM.RCLP
             CLSV.SQ   RMUO.SQ  RMU2.SQ  WNB=

GET.Z     ENTRY CLASS: SECONDARY   SEGMENT:    (S0)
          DESC: (NOT AVAILABLE)
          SECONDARY ENTRY POINT FOR : Z.SQ
          CAN BE CALLED BY:
             FO-SYGE

GFLUSH    ENTRY CLASS: MAIN          SEGMENT:    (G0)
          DESC: FLUSH GRAPHICS DRIVER BUFFER
          LENGTH:      10    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             GIERR     PGUMP
          CAN CALL THE FOLLOWING:
             COMPIO

GIALRM    ENTRY CLASS: MAIN          SEGMENT:    (G0)
          DESC: INTERTEK - RING MY CHIMES
          LENGTH:      10    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             MG/GRS    PONPEN    MXYI      PAGER
          CAN CALL THE FOLLOWING:
             COMPIO

GIASID    ENTRY CLASS: MAIN          SEGMENT:    (M32)
          DESC: INTERTEK - ASSIGN CATEGORY TO KEYBOARD KEY
          LENGTH:      40    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             MENUIT
```

```
            CAN CALL THE FOLLOWING:
               GCSETI

GIBUTN      ENTRY CLASS: MAIN          SEGMENT:   (G11)
            DESC: INTERTEK - BUTTON PICK PROCESSOR
            LENGTH:    602    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               IPICK
            CAN CALL THE FOLLOWING:
               COMPIO   GCGARR   GCSARR   GCSONE   GCGONE
               GCRCAT   GCUCAT   GCRESI   GCDRAW   GCINPC
               GCGET    GOTOER.  DMRL3D

GICAT       ENTRY CLASS: MAIN          SEGMENT:   (G12)
            DESC: INTERTEK - SET PICK CATEGORY
            LENGTH:     75    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLINIT   GLDEFP   GRFNIT   IPICK     DEINIT1
               MENNIT   SETCAT
            CAN CALL THE FOLLOWING:
               GCSETI   GIERR

GICLRQ      ENTRY CLASS: MAIN          SEGMENT:   (G11)
            DESC: INTERTEK - CLEAR PICK QUEUES
            LENGTH:     33    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRIVER
            CAN CALL THE FOLLOWING:
               GCGONE   DMRL3D

GIDAE1      ENTRY CLASS: SECONDARY     SEGMENT:   (G12)
            DESC: INTERTEK - SET DAE ZOOM, WINDOW, AND CLIP LIMITS
            SECONDARY ENTRY POINT FOR : GIDAE
            CAN BE CALLED BY:
               GIZOOM

GIDAE       ENTRY CLASS: MAIN          SEGMENT:   (G12)
            DESC: INTERTEK - CREATE DAE
            LENGTH:    142    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               GIDAE1
            CAN BE CALLED BY:
               MOSPLT   CLRPIC   GINIT    MENNIT
            CAN CALL THE FOLLOWING:
               GCGTYP   GCRESI   ITOJ.

GIDELT      ENTRY CLASS: MAIN          SEGMENT:   (G0)
            DESC: INTERTEK - DELETE ENTITY
            LENGTH:    156    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRIVER   EXSTAR   MOAXES   MOZCRS   MOSOS
               CHNGP2   CLROUT   PONPEN   MXYI     PROCXA
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AD-A089 383 BATTELLE COLUMBUS LABS OH F/G 13/13
STRUCTURAL ANALYSIS VIA GENERALIZED INTERACTIVE GRAPHICS - STAG--ETC(U)
SEP 79 L E HULBERT, C SCOFIELD F33615-76-C-3125
UNCLASSIFIED AFFDL-TR-79-3074 NL

2 OF 2
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            TABDEL   CLRPIC   TYPNAM   ERASER   PUTEDT
            SELATT   GLTOP    EXINIT   IPPRMT   IDRWAT
            DRWACT   IDISER   DELETE   DELSF
         CAN CALL THE FOLLOWING:
            GCGTYP   GCSLFT   GCGLFT   GCSRIT   GCGRIT
            GCUNPK   GCPKOS

GIDFON   ENTRY CLASS: MAIN        SEGMENT:   (G13)
         DESC: INTERTEK - ERASE SCREEN AND REDRAW DISPLAY FILE
         LENGTH:    22    LANGUAGE: FTN
         HAS NO SECONDARY ENTRY POINTS
         CAN BE CALLED BY:
            ERASEM
         CAN CALL THE FOLLOWING:
            COMPIO   GCDRAW

GIDUP    ENTRY CLASS: MAIN        SEGMENT:   (G13)
         DESC: INTERTEK - DUPLICATE ITEM
         LENGTH:    231    LANGUAGE: FTN
         HAS NO SECONDARY ENTRY POINTS
         CAN BE CALLED BY:
            MOFR?
         CAN CALL THE FOLLOWING:
            GCGARR   GCSARR   GCGTYP   GCSSF    GCGSF
            GCGLEN   GCSLFT   GCGLFT   GCSRIT   GCGRIT
            GCGONE   GCGLID   GCUCAT   GCRESI   GCDRAW
            GCFILL   GCUPSF

GIERR    ENTRY CLASS: MAIN        SEGMENT:   (S1)
         DESC: INTERTEK - REPORT ERROR
         LENGTH:    122    LANGUAGE: FTN
         HAS NO SECONDARY ENTRY POINTS
         CAN BE CALLED BY:
            DEINIT1  GCRESI   GULIN    GITEM    GICAT
            GUTEXT   GUSETP   GISHOW   GIXTND
         CAN CALL THE FOLLOWING:
            GFLUSH   PUTLIN   GOTOER.

GIFETS   ENTRY CLASS: MAIN        SEGMENT:   (M1)
         DESC: INTERTEK - FETCH LAST CROSSHAIR LOCATION
         LENGTH:    26    LANGUAGE: FTN
         HAS NO SECONDARY ENTRY POINTS
         CAN BE CALLED BY:
            MORCNT   MOZCRS   FIXDAT   PONPEN   MXYP
         CAN CALL THE FOLLOWING:
            GCCLIM

GINIT    ENTRY CLASS: MAIN        SEGMENT:   (M5)
         DESC: INTERTEK - INITIALIZE INTERTEK
         LENGTH:    431    LANGUAGE: FTN
         HAS NO SECONDARY ENTRY POINTS
         CAN BE CALLED BY:
            GRFNIT
         CAN CALL THE FOLLOWING:
            COMPIO   GPRESET  GISUBF   GIDAE    GISHOW
            GOTOER.  REQUEST  DMINIT   RETURN
```

```
GIPARM    ENTRY CLASS: SECONDARY   SEGMENT:   (G11)
          DESC: INTERTEK - GET PARAMETER PICK INFORMATION
          SECONDARY ENTRY POINT FOR : GISNGL
          CAN BE CALLED BY:
             DRIVER

GISHOW    ENTRY CLASS: MAIN        SEGMENT:   (G12)
          DESC: INTERTEK - TURN SUBFILE ON OR OFF IN A DAE
          LENGTH:   155    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DRIVER   MOFRE    MOFRZ    GRID     CLRPIC
             GINIT    IPPRMT   DELSF
          CAN CALL THE FOLLOWING:
             GCGTYP   GCDRAW   GCUNPK   GCPKOS   GIERR

GISNGL    ENTRY CLASS: MAIN        SEGMENT:   (G11)
          DESC: INTERTEK - GET SINGLE PICK INFORMATION
          LENGTH:   151    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             GISTR    GIPARM
          CAN BE CALLED BY:
             DRIVER
          CAN CALL THE FOLLOWING:
             GCGARR   GCGLEN   GCGONE

GISTR     ENTRY CLASS: SECONDARY   SEGMENT:   (G11)
          DESC: INTERTEK - GET STRING PICK INFORMATION
          SECONDARY ENTRY POINT FOR : GISNGL
          CAN BE CALLED BY:
             DRIVER

GISUBF    ENTRY CLASS: MAIN        SEGMENT:   (G0)
          DESC: INTERTEK - SUBFILE CREATOR
          LENGTH:    20    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DRIVER   MOFRZ    GRID     CLRPIC   GINIT
             TYPNAM   PUTEDT   SELATT   MENNIT
          CAN CALL THE FOLLOWING:
             GCRESI

GITEM     ENTRY CLASS: MAIN        SEGMENT:   (G0)
          DESC: INTERTEK - ITEM CREATOR
          LENGTH:   374    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DRIVER   EXSTAR   MOAXES   MOZCRS   GRID
             DRELN    LIBINS   PONPEN   MXYI     TYPNAM
             PUTEDT   SELATT   GLTOP    IPPRMT   MENNIT
             IDISER   MITEM
          CAN CALL THE FOLLOWING:
             GCSARR   GCGTYP   GCSSF    GCGSF    GCSLFT
             GCGLFT   GCSRIT   GCGRIT   GCRESI   GCDRAW
             GCUPSF   GCSETI   GIERR
```

```
GITRAK    ENTRY CLASS: MAIN          SEGMENT:   (G11)
          DESC: INTERTEK - TURN ON CROSSHAIRS
          LENGTH:     45    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             MORCNT   MOZCRS   FIXDAT   PONPEN   MXYI
             TRKOFF
          CAN CALL THE FOLLOWING:
             GCGTYP   GCDLIM   GCSTUB   GCINPC

GIXTND    ENTRY CLASS: MAIN          SEGMENT:   (G14)
          DESC: INTERTEK - EXTEND ITEM
          LENGTH:    134    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             GRID     MEXTN
          CAN CALL THE FOLLOWING:
             GCSARR   GCGTYP   GCGSF    GCSONE   GCGONE
             GCRESI   GCDRAW   GIERR

GIZOOM    ENTRY CLASS: MAIN          SEGMENT:   (M5)
          DESC: INTERTEK - CHANGE DAE CONSTANTS
          LENGTH:     56    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             SETWZ
          CAN CALL THE FOLLOWING:
             GCGMM    GCGTYP   GIDAE1

GLCHCK    ENTRY CLASS: MAIN          SEGMENT:   (GL1)
          DESC: SAVE DATA BASE ON TOP OF OLD FILE
          LENGTH:    161    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             GLCHCT
          CAN BE CALLED BY:
             GLTABLE
          CAN CALL THE FOLLOWING:
             REACT    GLFILN   RESTART  IDISER   ICCHR
             COPYFL   IPFUT    REQUEST  RETURN

GLCHCT    ENTRY CLASS: SECONDARY     SEGMENT:   (GL1)
          DESC: SAVE DATA BASE ON NEW FILE
          SECONDARY ENTRY POINT FOR : GLCHCK
          CAN BE CALLED BY:
             GLTABLE

GLCLOK    ENTRY CLASS: MAIN          SEGMENT:   (GL1)
          DESC: LET USER ISSUE INTERCOM COMMANDS
          LENGTH:    251    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             GLTABLE
          CAN CALL THE FOLLOWING:
             MARK     EXSTAR   EXSTOP   GLTOP    ICCHR
             GETLIN   PUTLIN   IYIELD1
```

```
GLDEFP      ENTRY CLASS: MAIN          SEGMENT:   (GL2)
            DESC: PROCESS PICKS FOR DEFINITIONS (NOT OPERATIVE)
            LENGTH:   120   LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               IGNM     IGPCKM   GICAT    PUTLIN   IGDEF

GLDEFS      ENTRY CLASS: MAIN          SEGMENT:   (GL2)
            DESC: SET UP PICK FOR DEFINITION (NOT OPERATIVE)
            LENGTH:    22    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               GLTOP    PUTLIN

GLFILN      ENTRY CLASS: SECONDARY   SEGMENT:   (MEN1)
            DESC: SET UP FILE FOR SAVING DATA BASE IN ≠GLOBAL≠
            SECONDARY ENTRY POINT FOR : FILNAM
            CAN BE CALLED BY:
               GLTABLE  GLCHCK

GLFIN       ENTRY CLASS: SECONDARY   SEGMENT:   (DRIVE)
            DESC: TERMINATE ≠GLOBAL≠ MODE
            SECONDARY ENTRY POINT FOR : GLINIT
            CAN BE CALLED BY:
               GLTABLE

GLHIST      ENTRY CLASS: MAIN          SEGMENT:   (GL1)
            DESC: TRACE HISTORY OF DOWN-POINTERS
            LENGTH:   107   LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               GLTOP    IGPCKM   IBEAUT   PUTLIN   IGFTR

GLINIT      ENTRY CLASS: MAIN          SEGMENT:   (DRIVE)
            DESC: INITIALIZE ≠GLOBAL≠ MENUS
            LENGTH:   141   LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               GLFIN
            CAN BE CALLED BY:
               IPICK
            CAN CALL THE FOLLOWING:
               SWITCHS  EXTABLE  DETABLE  PRTABLE  PPTABLE
               GLTABLE  TRKOFF   SETCAT   GICAT    EDITTI
               IGFTR

GLLON       ENTRY CLASS: MAIN          SEGMENT:   (GL1)
            DESC: DISPLAY NEXT LEVEL DOWN IN COMMAND TREE
            LENGTH:   123   LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
```

```
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               GLTOP    IGPCKM   PUTLIN   IGSON    IGLNK

GLLUP       ENTRY CLASS: MAIN          SEGMENT:   (GL1)
            DESC: DISPLAY NEXT LEVEL UP IN COMMAND TREE
            LENGTH:     76    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               GLTOP    IGPCKM   PUTLIN   IGFTR    IGLNK

GLOINT      ENTRY CLASS: MAIN          SEGMENT:   (DRIVE)
            DESC: INITIALIZE THE GLOBAL COMMAND TREE AND COMMON BLOCK VARIABLES
            LENGTH:     20    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRIVER
            CAN CALL THE FOLLOWING:
               ATT      BLIINT   GUBUF

GLSTDB      ENTRY CLASS: MAIN          SEGMENT:   (GL2)
            DESC: GET STATISTICS ABOUT DATA BASE
            LENGTH:    334    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               GLTOP    IBEAUT   NAMFNM   PUTLIN   IGATT
               IDBRIT   IDBLFT   IDBNAM   DBATT

GLSTDS      ENTRY CLASS: MAIN          SEGMENT:   (GL2)
            DESC: GET STATISTICS ABOUT DISPLAY FILE
            LENGTH:    275    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               GLTOP    IBEAUT   PUTLIN   IDBDRT   IDBNAM

GLSTOP      ENTRY CLASS: MAIN          SEGMENT:   (GL1)
            DESC: STOP THE S T A G I N G  SYSTEM
            LENGTH:      7    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               STOP.

GLTABLE     ENTRY CLASS: MAIN          SEGMENT:   (DRIVE)
            DESC: GLOBAL MENU SUBROUTINE SWITCH TABLE
            LENGTH:    141    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
```

```
            GLINIT
          CAN CALL THE FOLLOWING:
             SWITCHS   GLFIN     GLFILN    IGLDEC    MOAXNF
             MOZSRS    MORCNT    MOZCRS    MOZPLS    MOZMIN
             GLSTOP    GLCHCK    GLCHCT    GLCLOK    GLHIST
             GLLUP     GLLDN     GLSTDB    GLSTDS    GLDEFP
             GLDEFS    FRONTVU   SIDEVU    TOPVU     MOFILL
             MODRW     SVIEW     SVIEWP    MOSPLT    MOSOS
             MOFRE     MOFRZ     MOASHK    MOISHK    MOSSHK
             MOUSHK    SROTET    SROTST    ERASER    ERASEN
             MOREC     MOCYL     MOSPH     ONPENS

GLTOP      ENTRY CLASS: MAIN          SEGMENT:   (M30)
           DESC: MOVE ALPHA CURSOR TO HOME ON SCREEN
           LENGTH:     51    LANGUAGE: FTN
           HAS NO SECONDARY ENTRY POINTS
           CAN BE CALLED BY:
             GLCLOK    GLHIST    GLLUP     GLLDN     GLSTDB
             GLSTDS    GLDEFS
           CAN CALL THE FOLLOWING:
             ERASEN    GCHIGH    GCXMIN    GCYMAX    GITEM
             GIDELT    GUTEXT    GUSETP

GOTOER=    ENTRY CLASS: MAIN          SEGMENT:   (S0)
           DESC: COMPUTED GO TO ERROR PROCESSOP.
           LENGTH:     14    LANGUAGE: COMPASS
           SECONDARY ENTRY POINTS:
             GOTOER.
           THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
           CAN CALL THE FOLLOWING:
             ABNORM.  SYSERR.

GOTOER.    ENTRY CLASS: SECONDARY     SEGMENT:   (S0)
           DESC: (NOT AVAILABLE)
           SECONDARY ENTRY POINT FOR : GOTOER=
           CAN BE CALLED BY:
             DRIVER    IGLDEC    IPRDEC    CHNGP2    IDEDEC
             MXYP      SETWZ     GINIT     IDRWEL    IDRWAT
             GETGEN    SETUPG    IDRW      ICON      GCWORK
             GIBUTN    DMP       GIERR     DMSTGT    CMINIT

GPRESET    ENTRY CLASS: MAIN          SEGMENT:   (G0)
           DESC: INTERTEK - INITIALIZE CONSTANTS IN COMMON BLOCK
           LENGTH:      3    LANGUAGE: FTN
           HAS NO SECONDARY ENTRY POINTS
           CAN BE CALLED BY:
             GINIT
           THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

GRDNIT     ENTRY CLASS: MAIN          SEGMENT:   (M5)
           DESC: INITIALIZE DATA BASE DEPENDENT GRAPHICS INFO
           LENGTH:    146    LANGUAGE: FTN
           HAS NO SECONDARY ENTRY POINTS
           CAN BE CALLED BY:
             REACT     FILATT    DRAWFR
           CAN CALL THE FOLLOWING:
```

```
            INIT2D    IDCHR     IBEAUT    ISACT     IDBRIT
            IDBLFT    IDBNAM

GRFNIT      ENTRY CLASS: MAIN          SEGMENT:    (M5)
            DESC: INITIALIZE GRAPHICS FOR INTERTEK
            LENGTH:      71     LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRIVER
            CAN CALL THE FOLLOWING:
               GINIT     GICAT     SETVU     EDITTI

GRIDG       ENTRY CLASS: MAIN          SEGMENT:    (M8121)
            DESC: X-Y PLOTS - DRAW X-Y PLOT GRID
            LENGTH:     573     LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PROCXA
            CAN CALL THE FOLLOWING:
               LINESG    SETSMG    MLTPLG    SEGMTG    XTOI.

GRID        ENTRY CLASS: MAIN          SEGMENT:    (PR2)
            DESC: DRAW DRAFTING PACKAGE GRID
            LENGTH:     225     LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PRTABLE   DRAWER    CHNGP2
            CAN CALL THE FOLLOWING:
               GISUBF    GULIN     GITEM     GUSETP    GISHOW
               GIXTND

GRTJ.SQ     ENTRY CLASS: SECONDARY     SEGMENT:    (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : GET.SQ
            CAN BE CALLED BY:
               FSU.SQ

GSGXGY      ENTRY CLASS: SECONDARY     SEGMENT:    (DE41)
            DESC: X-Y PLOTS - SET LINEAR X / LINEAR Y
            SECONDARY ENTRY POINT FOR : INTFLG
            CAN BE CALLED BY:
               DETABLE

GSGXLY      ENTRY CLASS: SECONDARY     SEGMENT:    (DE41)
            DESC: X-Y PLOTS - SET LINEAR X / LOG Y
            SECONDARY ENTRY POINT FOR : INTFLG
            CAN BE CALLED BY:
               DETABLE

GSLXGY      ENTRY CLASS: SECONDARY     SEGMENT:    (DE41)
            DESC: X-Y PLOTS - SET LOG X / LINEAR Y
            SECONDARY ENTRY POINT FOR : INTFLG
            CAN BE CALLED BY:
               DETABLE

GSLXLY      ENTRY CLASS: SECONDARY     SEGMENT:    (DE41)
```

```
            DESC: X-Y PLOTS - SET LOG X / LOG Y
            SECONDARY ENTRY POINT FOR : INTFLG
            CAN BE CALLED BY:
               DETABLE

 GUBUF      ENTRY CLASS: MAIN          SEGMENT:    (G0)
            DESC: INTERTEK - INITIALIZE #IBUF#
            LENGTH:     20    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLOINT
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

 GULIN      ENTRY CLASS: MAIN          SEGMENT:    (G0)
            DESC: INTERTEK - PACK LINE DISPLAY INFORMATION
            LENGTH:    121    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GRID     PUTEDT   LINZZ    IDRWLN   GUTEXT
            CAN CALL THE FOLLOWING:
               GCUPXY   GCGETW   GCSET    GIERR

 GUSETP     ENTRY CLASS: MAIN          SEGMENT:    (G12)
            DESC: INTERTEK - ESTABLISH ITEM STARTING POSITION
            LENGTH:     60    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRIVER   EXSTAR   MOAXES   MOZCRS   GRID
               DRELN    LIBINS   PONPEN   MXYI     TYPNAM
               PUTEDT   SELATT   GLTOP    IPPRMT   MENNIT
               LINZZ    IDRWEL   IDRWND   IDISER
            CAN CALL THE FOLLOWING:
               GCUPXY   GCSET    GCSETW   GIERR

 GUTEXT     ENTRY CLASS: MAIN          SEGMENT:    (G12)
            DESC: INTERTEK - PACK CHARACTERS INTO #IBUF#
            LENGTH:    245    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRIVER   EXSTAR   MOLAX    MOZCRS   DRELN
               LIBINS   PONPEN   MXYI     TYPNAM   PUTEDT
               SELATT   GLTOP    IPPRMT   MENNIT   METAZZ
               IDRWND   IDRWAT   IDISER
            CAN CALL THE FOLLOWING:
               GCUPXY   GULIN    GCGETW   GCSET    GIERR

 GXIT.SQ    ENTRY CLASS: SECONDARY     SEGMENT:    (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : GET.SQ
            CAN BE CALLED BY:
               Z.SQ     FSU.SQ

 HOLD       ENTRY CLASS: MAIN          SEGMENT:    (S1)
            DESC: ERROR RECOVERY INQUIRY
            LENGTH:    327    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
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            CAN BE CALLED BY:
               RCOVER
            CAN CALL THE FOLLOWING:
               GERASE   ICCHR    IBEAUT   GETLIN   PUTLIN
               IYIELD1  DMP      IOCTAL

 IALATT     ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: MAKE UP ALPHANUMERIC VALUE FOR ATTRIBUTE
            LENGTH:     53    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PUTATT   IDRWAT
            CAN CALL THE FOLLOWING:
               ICCHR    IBEAUT

 IARSET     ENTRY CLASS: MAIN          SEGMENT:   (M822)
            DESC: SET UP ARROW DRAWING
            LENGTH:    130    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               ARROW
            CAN CALL THE FOLLOWING:
               SQRT.

 IBEAUT     ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: CONVERT NUMBER TO CHARACTERS
            LENGTH:    300    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLHIST   GLST03   GLSTDS   SVIEW    SROTST
               CHNGP1   OPELN    MATIN    LIBINS   ICKRNG
               CNTPRO   ELREPL   ELREPP   EMOVE    DYLOAD
               DYSEPO   DYSSTP   ATTREN   ATTRNG   ECREAN
               EATF     GRONIT   TYPNAM   TABPRC   TABXYM
               TABSCX   PUTLST   MOPUT    REPFA    NUMBRG
               IDRWAY   IALATT   NAMENM   HOLD     DMP
               IGETCH
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

 ICAN       ENTRY CLASS: MAIN          SEGMENT:   (G14)
            DESC: CHECK IF NEW INFORMATION WILL FIT IN DISPLAY FILE
            LENGTH:     11    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               MOFRZ
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

 ICCHR      ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: COUNT THE NUMBER OF CHARACTERS IN AN ARRAY
            LENGTH:     13    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               STARTM   FILATT   GLCHCK   GLCLOK   DRELN
               MATIN    LIBINS   IECPRC   PROCXA   GRONIT
               TYPNAM   PUTEOT   SELATT   INDATA   IDRWND
               IDRWAT   IALATT   HOLD     IPFUT    DBINIT
```

```
            IGETCH
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

ICHKED      ENTRY CLASS: MAIN          SEGMENT:   (S1)
            DESC: CHECK TO SEE IF ALL NUMERIC TYPE-IN INPUT IS CORRECT
            LENGTH:    131    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               MODRW     SVIEWP    SROTET    CHNGP2    GETRAG
               IECPRC    ETYPSV    RNGDEL    RNGDRW    PTYPE
               EQNUM     ELREPP    EMOVE     DYSFPU    DYSSTP
               ATTRNG    ATTRNP    ERNDLD    EATS      ESERCH
               ASERCH    SSAOFF    CNTPFE    TABXYP    TABSCL
               TABDM     PROFAC
            CAN CALL THE FOLLOWING:
               ICRACK    COMPACS

ICKACT      ENTRY CLASS: MAIN          SEGMENT:   (DB2)
            DESC: CHECK IF BEAD IS ACTIVE
            LENGTH:     21    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               ERO       ERNDLO    EADOWN    EATS      ORMACT
               EQUEUP    DELETE    ACTIVA    IDBCAN
            CAN CALL THE FOLLOWING:
               IDBORT

ICKATT      ENTRY CLASS: MAIN          SEGMENT:   (DB3)
            DESC: CHECK IF THE VALUES IN A BEAD ARE WITHIN RANGE
            LENGTH:     46    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               ESERCH    ASERCH    SSAOFF
            CAN CALL THE FOLLOWING:
               OBATT

ICKBYT      ENTRY CLASS: MAIN          SEGMENT:   (M80)
            DESC: GRAPHICS CHECKING - CHECK IF #IBUF# WILL BE OVERFLOWED
            LENGTH:     44    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               METAZZ    LINZZ     IDRWLN
            CAN CALL THE FOLLOWING:
               MEXTN     MITEM     DEDAD

ICKRNG      ENTRY CLASS: MAIN          SEGMENT:   (DE0)
            DESC: CHECK IF TYPE-IN VALUE IS IN THE DATA BASE
            LENGTH:     75    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               ETYPSV    RNGDEL    RNGDRW    EQNUM     ELREPP
               ERNDLD
            CAN CALL THE FOLLOWING:
               IBEAUT    IDBFND    IDBRIT    IDBLFT

ICKSL       ENTRY CLASS: MAIN          SEGMENT:   (DE3)
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          DESC: CHECK IF DISPLACEMENT SLICE IS ACTIVE IN DATA BASE
          LENGTH:     66    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DYSSTP   DYUNDE
          CAN CALL THE FOLLOWING:
             ISACT

ICON      ENTRY CLASS: MAIN          SEGMENT:    (M821)
          DESC: SET UP CONNECTIVITY ARRAYS FOR DRAWING
          LENGTH:    207    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             IDRWEL
          CAN CALL THE FOLLOWING:
             GOTOER.

ICPART    ENTRY CLASS: MAIN          SEGMENT:    (PR1)
          DESC: CONVERSION(1) - DUMP OVERFLOW INFO INTO SUBSTRUCTURE BEAD
          LENGTH:     63    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             CNELEM
          CAN CALL THE FOLLOWING:
             CLEAR2   DMSET

ICRACK    ENTRY CLASS: MAIN          SEGMENT:    (S1)
          DESC: (NOT AVAILABLE)
          LENGTH:    467    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             MATIN    LIBINS   IPFUT    ICHKED
          CAN CALL THE FOLLOWING:
             UNPACK

IDBADB    ENTRY CLASS: MAIN          SEGMENT:    (DB2)
          DESC: ADD A BEAD AT A LEVEL
          LENGTH:    226    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             IDRNXT   CNTERM   ECPROC
          CAN CALL THE FOLLOWING:
             IDBRSV   DBRITE   DBLEFT   DBUPS    DBTYP
             DBSTAT   DBNAME   IDBRIT   IDBLFT   IDBUPN
             IDBDWN   IDBTYP   IDBNAM   DBCHA

IDBARR    ENTRY CLASS: MAIN          SEGMENT:    (DB3)
          DESC: CHANGE VALUES IN NO MANS LAND
          LENGTH:    105    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             DBARR
          CAN BE CALLED BY:
             ECPROC   ECHKL    DBTGET   GETLIM   IDBTFM
          CAN CALL THE FOLLOWING:
             DMSET    DMGET    DBCHBD   IDBTYP   IDBSTA
```

```
IDBCAN      ENTRY CLASS: MAIN          SEGMENT:   (DB2)
            DESC: (NOT AVAILABLE)
            LENGTH:    342    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DBCHA     DBUPT
            CAN CALL THE FOLLOWING:
               DMRLBD    DBCHBD    IDBRSV    DBRITE    DBLEFT
               DBUPP     DBDNP     DBLEN     DBSET     DBDLF
               DBDRT     IDBFIT    IDBLFT    IDBUPN    IDBDNN
               IDBTYP    IDBLEN    IDBSTA    IDBDLF    IDBDRT
               IDBUPP    IDBDNP    IDBGET    ICKACT

IDBCOL      ENTRY CLASS: SECONDARY     SEGMENT:   (DB3)
            DESC: GET COLUMN DIMENSION
            SECONDARY ENTRY POINT FOR : IDBTFM
            CAN BE CALLED BY:
               TABPRC

IDBDAC      ENTRY CLASS: SECONDARY     SEGMENT:   (DB0)
            DESC: ACTIVE ATTRIBUTE
            SECONDARY ENTRY POINT FOR : IDBRIT
            CAN BE CALLED BY:
               DRWATA    EATS      DRWACT

IDBDAD      ENTRY CLASS: SECONDARY     SEGMENT:   (DB0)
            DESC: #IDDAD#
            SECONDARY ENTRY POINT FOR : IDBRIT
            CAN BE CALLED BY:
               MOFRZ     IDEDEC    MXYP      ERD       ERNOLD
               EADOWN    IDRWEL    IDRWAT    DRWACT    EQUEUP
               IDRWSS    IDRWST    IDRW      DELETE    DBRITE

IDBDEP      ENTRY CLASS: SECONDARY     SEGMENT:   (DB3)
            DESC: GET DEPTH DIMENSION
            SECONDARY ENTRY POINT FOR : IDBTFM
            CAN BE CALLED BY:
               TABPRC

IDBDLF      ENTRY CLASS: SECONDARY     SEGMENT:   (DB0)
            DESC: ACTIVE LEFT POINTER
            SECONDARY ENTRY POINT FOR : IDBRIT
            CAN BE CALLED BY:
               REACT     INTSUB    MXYP      EALLS     RESTART
               CLRPIC    DELETE    ACTIVA    NEXTIN    IDBCAN

IDBDNN      ENTRY CLASS: SECONDARY     SEGMENT:   (DB0)
            DESC: NUMBER OF DOWN-POINTERS
            SECONDARY ENTRY POINT FOR : IDBRIT
            CAN BE CALLED BY:
               CNTERM    CNTER     DRELN     MATDEF    IDEDEC
               EMERGE    PORG      ELREPL    MXYP      NODAEL
               NODFEL    ERDOWN    EPUTDN    IDRWEL    GETCEN
               IDRWSS    IDRWST    NEXTIN    IDBCAN    DBUPT
               IDBADB    DBDEL
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```
IDBDNP      ENTRY CLASS: SECONDARY    SEGMENT:    (DB0)
            DESC: GET NTH DOWN-POINTER
            SECONDARY ENTRY POINT FOR : IDBUPP
            CAN BE CALLED BY:
               CNTERM    DRELN     MATDEF    EMERGE    PORG
               ELREPL    ELREPP    MXYP      NODAEL    NODFEL
               ERDOWN    ERUPDN    IDRWEL    GETCEN    IDRWSS
               IDRWST    NEXTIN    IDBCAN    DBUPT     DBDEL

IDBDRT      ENTRY CLASS: SECONDARY    SEGMENT:    (DB0)
            DESC: ACTIVE RIGHT-POINTER
            SECONDARY ENTRY POINT FOR : IDBRIT
            CAN BE CALLED BY:
               GLSTDB    MOFFZ     DRELN     MATDEF    IDEDEC
               DRWATA    RETAIN    LANODE    NODAEL    SSAOFF
               GETCNT    GETDAT    IENEXT    DACTSN    DRWACT
               DRWSS     NEXTIN    ICKACT    IDBCAN    EADDEL

IDBFND      ENTRY CLASS: MAIN         SEGMENT:    (DB0)
            DESC: FIND A READ ADDRESS
            LENGTH:    212    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRAWER    CNTERM    CNTER     CNTABL    MATDEF
               ICKRNG    IECPRC    SPCHK
            CAN CALL THE FOLLOWING:
               IDBRIT    IDBLFT    IDBNAM

IDBFTY      ENTRY CLASS: SECONDARY    SEGMENT:    (DB3)
            DESC: GET FORMAT TYPE
            SECONDARY ENTRY POINT FOR : IDBTFM
            CAN BE CALLED BY:
               TABACT

IDBGET      ENTRY CLASS: SECONDARY    SEGMENT:    (DB0)
            DESC: GET NTH WORD
            SECONDARY ENTRY POINT FOR : IDBUPP
            CAN BE CALLED BY:
               CNTERM    DZRST     DBCHBD    IDBCAN    DBUPT

IDBLEN      ENTRY CLASS: SECONDARY    SEGMENT:    (DB0)
            DESC: READ LENGTH
            SECONDARY ENTRY POINT FOR : IDBRIT
            CAN BE CALLED BY:
               DBCHBD    IDBUPP    IDBCAN

IDBLFT      ENTRY CLASS: SECONDARY    SEGMENT:    (DB0)
            DESC: LEFT DATA BASE POINTER
            SECONDARY ENTRY POINT FOR : IDBRIT
            CAN BE CALLED BY:
               GLSTDB    IDRNXT    CNTERM    CNTABL    MYINIT
               ICKRNG    ECREAN    EALLS     GRDNIT    IDBFND
               DBCHNM    IDBCAN    IDBADB    DBDEL

IDBNAM      ENTRY CLASS: SECONDARY    SEGMENT:    (DB0)
            DESC: GET NAME
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            SECONDARY ENTRY POINT FOR : IDBUPP
            CAN BE CALLED BY:
               GLSTDB   GLSTDS   IDRNXT   CNTER    MYINIT
               DRELN    ELRFPL   ECREAN   EATF     GETDAT
               GRDNIT   TYPNAM   IDRWAT   IDBFND   DBLKUP
               DBCHNM   IDBADB

IDBNDM      ENTRY CLASS: SECONDARY   SEGMENT:   (DB3)
            DESC: GET NUMBER OF DIMENSION
            SECONDARY ENTRY POINT FOR : IDBTFM
            CAN BE CALLED BY:
               TABPRC

IDBRIT      ENTRY CLASS: MAIN        SEGMENT:   (DB0)
            DESC: GRAB RIGHT DATA BASE POINTER
            LENGTH:   212   LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               IDBLFT   IDBUPS   IDBUPN   IDBDNN   IDBTYP
               IDBLEN   IDBDAD   IDBSTA   IDBDLF   IDBDRT
               IDBDAC
            CAN BE CALLED BY:
               GLSTDB   CNTERM   CNTER    MATDEF   ICKRNG
               RNGDEL   RNGDRW   EQNUM    PORG     MXYP
               ERNDLD   EPUTDN   ESERCH   ECHKL    GRDNIT
               TABACT   PUTNAM   IDBFND   DBLKUP   DBCHNM
               NEXTIN   IDBCAN   IDBADB   DBDEL
            CAN CALL THE FOLLOWING:
               DMGET

IDBROW      ENTRY CLASS: SECONDARY   SEGMENT:   (DB3)
            DESC: GET ROW DIMENSION
            SECONDARY ENTRY POINT FOR : IDBTFM
            CAN BE CALLED BY:
               TABPRC

IDBRSV      ENTRY CLASS: MAIN        SEGMENT:   (DB0)
            DESC: RESERVE A BEAD OF NEW LENGTH
            LENGTH:    26   LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNNEW    CNELEM   CNNODE   CNTABL   IFATT
               DBINIT   IDBCAN   IDBADB
            CAN CALL THE FOLLOWING:
               DMGTBD   DBLEN

IDBSTA      ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: START OF ATTRIBUTE LIST
            SECONDARY ENTRY POINT FOR : IDBRIT
            CAN BE CALLED BY:
               DBRITE   IDBUPP   IDBCAN   DBCHA    DBUPT
               DBTGET   IDBARR

IDBTFM      ENTRY CLASS: MAIN        SEGMENT:   (DB3)
            DESC: GET TABLE FORMAT
            LENGTH:   135   LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
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                IDBROW   IDBCOL   IDBDEP   IDBFTY   IDBNDM
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
                IDBTYP   IDBARR

 IDBTYP     ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: TYPE
            SECONDARY ENTRY POINT FOR : IDBRIT
            CAN BE CALLED BY:
                MOISHK   EDINIT   TYPNAM   GETCEN   DBCHBD
                IFATT    DBRITE   IDBUPP   DBLKUP   DBCHNM
                IDECAN   DBCHA    DBUPT    IDBADB   DBDEL
                DBTGET   IDBARR   IDBTFM

 IDBUPN     ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: NUMBER OF UP-POINTERS
            SECONDARY ENTRY POINT FOR : IDBRIT
            CAN BE CALLED BY:
                IDEDEC   MXYP     LFNOD    ERDOWN   EPUTDN
                EQUEUP   IDBCAN   DBUPT    IDBADB   DBDEL

 IDBUPP     ENTRY CLASS: MAIN        SEGMENT:   (DB0)
            DESC: GET NTH UP-POINTER
            LENGTH:   173   LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
                IDBDNP   IDBNAM   IDBGET   DBATT
            CAN BE CALLED BY:
                MXYP     LFNOD    ERDOWN   EPUTDN   EQUEUP
                IDBCAN   DBUPT    DBDEL
            CAN CALL THE FOLLOWING:
                DMGET    ISACT    IDBUPS   IDBTYP   IDBLEN
                IDBSTA

 IDBUPS     ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: START OF UP-POINTER
            SECONDARY ENTRY POINT FOR : IDBRIT
            CAN BE CALLED BY:
                DBRITE   IDBUPP   DBUPT

 IDEDEC     ENTRY CLASS: MAIN        SEGMENT:   (DE0)
            DESC: DISPLAY AND EDIT MENU DECISION FUNCTION
            LENGTH:   266   LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
                DETABLE
            CAN CALL THE FOLLOWING:
                NAMENM   GOTOER.  IGATT    IDBUPN   IDBONN
                IDBOAD   IDBORT

 IDINF      ENTRY CLASS: MAIN        SEGMENT:   (G14)
            DESC: SPLIT UP SEAD ADDRESS
            LENGTH:     7   LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
                DRELN    TYPNAM
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS
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IDISER    ENTRY CLASS: MAIN          SEGMENT:   (G0)
          DESC: DISPLAY AND EDIT ERRORS
          LENGTH:    332    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DRIVER   FILATT   GLCHCK   MODRW    SVIEWP
             MOFRZ    SROTET   MYINIT   GETRAG   MATIN
             ALLON    IECPRC   ETYPSV   RNGDEL   RNGDRW
             PTYPE    EQNUM    ELREPP   EMOVE    DYSFPU
             DYSSTP   ATTRNG   NODON    ECHOND   ERNOLD
             EATS     EPUTDN   ESERCH   ASERCH   SSAOFF
             CNTPRE   GETCNT   PROCXA   GETDAT   IENEXT
             SELATT   TABACT   TABPRC   TABXYP   TABSCL
             TABDM    DACTSN   PUTATT   PROFAC   DRWACT
             ESLOT    ONPEN
          CAN CALL THE FOLLOWING:
             GCDRAW   GCWIDE   GITEM    GIDELT   GUTEXT
             GUSETP

IDRNXT    ENTRY CLASS: MAIN          SEGMENT:   (PR2)
          DESC: GET NEXT BEAD AND NUMBER FOR ASSIGNMENT
          LENGTH:     37    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             BDSTR    FIXDAT
          CAN CALL THE FOLLOWING:
             IDBLFT   IDBNAM   IDBADB

IDRWAT    ENTRY CLASS: MAIN          SEGMENT:   (M820)
          DESC: DRAW BEAD AND ADD THE ATTRIBUTE
          LENGTH:    351    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             FIXDAT   DRWATA   DRWATT   DRWACT
          CAN CALL THE FOLLOWING:
             GETCSS   GETCEN   GETCOR   IDRW     ARROW
             GIDELT   GUTEXT   MEXTN    UTORAS   ICCHR
             IBEAUT   IALATT   NAMFNM   GOTOER.  IGATT
             DBDAD    DBDAC    IDBDAD   IDBNAM   DBATT
             GETSIZ   GETCES

IDRWEL    ENTRY CLASS: MAIN          SEGMENT:   (M820)
          DESC: DRAW ELEMENT BEAD
          LENGTH:    417    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             IDRWSS   IDRW
          CAN CALL THE FOLLOWING:
             IDRWLN   IDRWND   GETCEN   GETCOR   ICON
             GUSETP   UTORAS   GOTOER.  IDBONN   IDBDAD
             IDBDNP   DBATT

IDRWLN    ENTRY CLASS: MAIN          SEGMENT:   (M820)
          DESC: DRAW LINE IN 2D OR 3D
          LENGTH:     40    LANGUAGE: FTN
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            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               IDRWEL   ARROW
            CAN CALL THE FOLLOWING:
               ICKBYT   GULIN

 IDRWND     ENTRY CLASS: MAIN        SEGMENT:   (M820)
            DESC: DRAW NODE BEAD
            LENGTH:    65    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               IDRWEL   IDRW
            CAN CALL THE FOLLOWING:
               GETCOR   GUTEXT   GUSETP   UTORAS   ICCHR
               GETSIZ   IGETCH

 IDRWSS     ENTRY CLASS: MAIN        SEGMENT:   (M821)
            DESC: DRAW SUBSTRUCTURE BEAD
            LENGTH:    103   LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               IDRWST   IDRW
            CAN CALL THE FOLLOWING:
               IDRWEL   DBDAD    IDBDNN   IDBDAD   IDBDNP

 IDRWST     ENTRY CLASS: MAIN        SEGMENT:   (M821)
            DESC: DRAW STRUCTURE BEAD
            LENGTH:    67    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               IDRW
            CAN CALL THE FOLLOWING:
               IDRWSS   DBDAD    IDBDNN   IDBDAD   IDBDNP

 IDRW       ENTRY CLASS: MAIN        SEGMENT:   (M821)
            DESC: DRAW ANY LEVEL BEAD IF UNDISPLAYED
            LENGTH:    100   LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               BDSTR    FIXEAT   ALLON    RNGDRW   NODAEL
               NODFEL   LFNOD    ASERCH   IDRWAT   DRWACT
               DRWSS
            CAN CALL THE FOLLOWING:
               IDRWEL   IDRWND   IDRWSS   IDRWST   MEXTN
               MITEM    GOTOER.  DBDAD    IDBDAD

 IECPRC     ENTRY CLASS: MAIN        SEGMENT:   (DE0)
            DESC: CHECK IF NAME TYPE-IN IS IN DATA BASE
            LENGTH:    147   LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               IECPROC  EATS
            CAN CALL THE FOLLOWING:
               PUTEDT   IDISER   ICCHR    ICHKED   COMPAC
               IDBFND
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IENEXT      ENTRY CLASS: MAIN          SEGMENT:   (M1)
            DESC: GET NEXT BEAD IN CYCLING THROUGH ACTIVE BEADS FOR EDITING
            LENGTH:    105    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               IENIT
            CAN BE CALLED BY:
               EATS
            CAN CALL THE FOLLOWING:
               IDISER   IUBDRT   NEXTIN   NEXTB

IENIT       ENTRY CLASS: SECONDARY   SEGMENT:   (M1)
            DESC: INITIALIZE #IENEXT#
            SECONDARY ENTRY POINT FOR : IENEXT
            CAN BE CALLED BY:
               EATS

IEXDEC      ENTRY CLASS: MAIN          SEGMENT:   (EX)
            DESC: EXECUTIVE MENU DECISION FUNCTION
            LENGTH:     53    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               EXTABLE
            CAN CALL THE FOLLOWING:
               NAMFNM   IGATT

IFATT       ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: FETCH THE LOCATION OF ALPHANUMBERIC ATTRIBUTE
            LENGTH:    150    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNNEW    MATDEF   ATTRNG   DBINIT   DBCHA
            CAN CALL THE FOLLOWING:
               DMRLBD   DMSET    DMGET    IGATT    ISACT
               IDBRSV   NUMFNM   IDBTYP

IGACT       ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: RETRIEVE ACTION INDICATOR FROM MENU BEAD
            SECONDARY ENTRY POINT FOR : IGFTR
            CAN BE CALLED BY:
               DRIVER

IGATT       ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: (NOT AVAILABLE)
            LENGTH:     45    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               IEXDEC   GLSTDB   IDEDEC   SELATT   PUTATT
               IDRWAT   IFATT    ISACT    IGETCH
            CAN CALL THE FOLLOWING:
               DMGET

IGDEF       ENTRY CLASS: SECONDARY   SEGMENT:   (DB0)
            DESC: RETRIEVE DEFINITION FIELD FROM MENU BEAD
            SECONDARY ENTRY POINT FOR : IGFTR
            CAN BE CALLED BY:
               GLDEFP
```

IGDFV ENTRY CLASS: SECONDARY SEGMENT: (M32)
DESC: RETRIEVE DEFAULT VALUE FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGPCKM
CAN BE CALLED BY:
DRIVER EXEC

IGDVN ENTRY CLASS: SECONDARY SEGMENT: (DB0)
DESC: RETRIEVE DEFAULT INFO COUNTER FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGFTR
CAN BE CALLED BY:
IGPCKM

IGDVS ENTRY CLASS: SECONDARY SEGMENT: (DB0)
DESC: RETRIEVE DEFAULT INFO FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGFTR
CAN BE CALLED BY:
IGPCKM

IGETCH ENTRY CLASS: MAIN SEGMENT: (DB3)
DESC: GET ATTRIBUTE NAME ABBREVIATION
LENGTH: 132 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
IDRWND
CAN CALL THE FOLLOWING:
IGCHR IBEAUT IGATT DBATT

IGFTR ENTRY CLASS: MAIN SEGMENT: (DB0)
DESC: RETRIEVE POINTER TO FATHER FROM MENU BEADS
LENGTH: 360 LANGUAGE: FTN
SECONDARY ENTRY POINTS:
IGSON IGLNK IGACT IGRUT IGTBL
IGPSX IGPSY IGDEF IGPNC IGPNW
IGPS IGPRC IGPRW IGPRS IGPCN
IGPCS IGDVN IGDVS IGOPT
CAN BE CALLED BY:
DRIVER STARTM GLINIT GLHIST GLLUP
CAN CALL THE FOLLOWING:
DMGET

IGLDEC ENTRY CLASS: MAIN SEGMENT: (GL0)
DESC: GLOBAL MENU DECISION FUNCTION
LENGTH: 123 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
GLTABLE
CAN CALL THE FOLLOWING:
GOTOER.

IGLNK ENTRY CLASS: SECONDARY SEGMENT: (DB0)
DESC: RETRIEVE POINTER TO NEXT BROTHER FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGFTR
CAN BE CALLED BY:
DRIVER GLLUP GLLDN MENNIT

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IGNM        ENTRY CLASS: MAIN          SEGMENT:    (GL2)
            DESC: (NOT AVAILABLE)
            LENGTH:     35    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLDEFP
            CAN CALL THE FOLLOWING:
               DMGET

IGOPT       ENTRY CLASS: SECONDARY     SEGMENT:    (OBO)
            DESC: RETRIEVE OPTION FIELD FROM MENU BEAD
            SECONDARY ENTRY POINT FOR : IGFTR
            CAN BE CALLED BY:
               DRIVER

IGPCKM      ENTRY CLASS: MAIN          SEGMENT:    (M32)
            DESC: RETRIEVE PICK MESSAGE
            LENGTH:    140    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               IGPRMM   IGDFV
            CAN BE CALLED BY:
               DRIVER   GLHIST   GLLUP   GLLDN    GLDEFP
               MENNIT
            CAN CALL THE FOLLOWING:
               IGPNC    IGPNW    IGPS     IGPRC    IGPRW
               IGPRS    IGPCN    IGPCS    IGDVN    IGDVS
               DMGET

IGPCN       ENTRY CLASS: SECONDARY     SEGMENT:    (OBO)
            DESC: RETRIEVE = WORDS IN ID BLOCK FOR PICK MSG FROM MENU BEAD
            SECONDARY ENTRY POINT FOR : IGFTR
            CAN BE CALLED BY:
               IGPCKM

IGPCS       ENTRY CLASS: SECONDARY     SEGMENT:    (OBO)
            DESC: RETRIEVE ADDR OF ID WORDS FROM MENU BEAD
            SECONDARY ENTRY POINT FOR : IGFTR
            CAN BE CALLED BY:
               IGPCKM

IGPNC       ENTRY CLASS: SECONDARY     SEGMENT:    (OBO)
            DESC: RETRIEVE = CHARACTERS IN PICK MESSAGE FROM MENU BEAD
            SECONDARY ENTRY POINT FOR : IGFTR
            CAN BE CALLED BY:
               IGPCKM

IGPNW       ENTRY CLASS: SECONDARY     SEGMENT:    (OBO)
            DESC: RETRIEVE = WORDS IN PICK MESSAGE FROM MENU BEAD
            SECONDARY ENTRY POINT FOR : IGFTR
            CAN BE CALLED BY:
               IGPCKM

IGPRC       ENTRY CLASS: SECONDARY     SEGMENT:    (OBO)
            DESC: RETRIEVE = CHARACTERS IN PROMPTING MESSAGE FROM MENU BEAD
            SECONDARY ENTRY POINT FOR : IGFTR
            CAN BE CALLED BY:
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IGPCKM

IGPRMM ENTRY CLASS: SECONDARY SEGMENT: (M32)
DESC: RETRIEVE PROMPT MESSAGE FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGPCKM
CAN BE CALLED BY:
IPPRMT

IGPRS ENTRY CLASS: SECONDARY SEGMENT: (DB0)
DESC: RETRIEVE ADDR OF PROGMPTING MESSAGE FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGFTR
CAN BE CALLED BY:
IGPCKM

IGPRW ENTRY CLASS: SECONDARY SEGMENT: (DB0)
DESC: (NOT AVAILABLE)
SECONDARY ENTRY POINT FOR : IGFTR
CAN BE CALLED BY:
IGPCKM

IGPSX ENTRY CLASS: SECONDARY SEGMENT: (DB0)
DESC: RETRIEVE X-POSITION ON SCREEN FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGFTR
CAN BE CALLED BY:
DRIVER

IGPSY ENTRY CLASS: SECONDARY SEGMENT: (DB0)
DESC: RETRIEVE Y-POSITION ON SCREEN FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGFTR
CAN BE CALLED BY:
DRIVER

IGPS ENTRY CLASS: SECONDARY SEGMENT: (DB0)
DESC: RETRIEVE ADDR OF PICK MESSAGE FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGFTR
CAN BE CALLED BY:
IGPCKM

IGRUT ENTRY CLASS: SECONDARY SEGMENT: (DB0)
DESC: RETRIEVE SUBROUTINE NAME FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGFTR
CAN BE CALLED BY:
DRIVER

IGSON ENTRY CLASS: SECONDARY SEGMENT: (DB0)
DESC: RETRIEVE BEAD ADDRESS OF SON FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGFTR
CAN BE CALLED BY:
DRIVER GLLON

IGTBL ENTRY CLASS: SECONDARY SEGMENT: (DB0)
DESC: RETRIEVE ADDRESS OF SUBROUTINE FROM MENU BEAD
SECONDARY ENTRY POINT FOR : IGFTR
CAN BE CALLED BY:
DRIVER

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INBUF     ENTRY CLASS: MAIN          SEGMENT:   (060)
          DESC: (NOT AVAILABLE)
          LENGTH:     17    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DMREAD   DMINIT
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

INDATA    ENTRY CLASS: MAIN          SEGMENT:   (M32)
          DESC: READ TEXT INPUT AND FORMAT IT FOR CRACKING ALGORITHMS
          LENGTH:    164    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             IREAD
          CAN CALL THE FOLLOWING:
             ICCHR    GETLIN

INITXY    ENTRY CLASS: MAIN          SEGMENT:   (DE41)
          DESC: X-Y PLOTS - INITIALIZE X-Y PLOTS
          LENGTH:    133    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             CLRPIC   RSETMG   GCXMIN   GCYMIN   GCYMAX

INIT2D    ENTRY CLASS: MAIN          SEGMENT:   (M5)
          DESC: INITIALIZE 2D DRAWING MODE
          LENGTH:     72    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE  DRAWFR   GRDNIT   INIT3N
          CAN CALL THE FOLLOWING:
             CLRPIC   GCXMIN   GCYMIN   GCYMAX   SETVU

INIT3N    ENTRY CLASS: MAIN          SEGMENT:   (M5)
          DESC: INITIALIZE 3D MODE
          LENGTH:     23    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             INIT2D   CLRPIC   SETVU

INTFLG    ENTRY CLASS: MAIN          SEGMENT:   (DE41)
          DESC: X-Y PLOTS - SET FLAGS FOR GRID STYLE
          LENGTH:    162    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             GSLXLY   GSLXGY   GSGXLY   GSGXGY   LSSLD
             LSSDH    LSLDH
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          CAN CALL THE FOLLOWING:
             SETSMG

INTSUBM   ENTRY CLASS: SECONDARY     SEGMENT:   (PRM1)
          DESC: INITIALIZE MATERIAL PROPERTY GENERATION
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          SECONDARY ENTRY POINT FOR : INTSUB
          CAN BE CALLED BY:
             MYINIT

INTSUBS   ENTRY CLASS: SECONDARY   SEGMENT:   (PRM1)
          DESC: INITIALIZE MATERIAL PROPERTY DEFINITION FOR ENTIRE STRUCTURE
          SECONDARY ENTRY POINT FOR : INTSUB
          CAN BE CALLED BY:
             PRTABLE

INTSUBS   ENTRY CLASS: SECONDARY   SEGMENT:   (PRM1)
          DESC: INITIALIZE MATERIAL PROPERTY DEFINITION FOR PICKED ELEMENTS
          SECONDARY ENTRY POINT FOR : INTSUB
          CAN BE CALLED BY:
             PRTABLE

INTSUB    ENTRY CLASS: MAIN        SEGMENT:   (PRM1)
          DESC: INITIALIZE MATERIAL PROPERTY DATA BASE PROCESSING
          LENGTH:    115    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
             INTSUBS  INTSUBS  INTSUBM
          CAN BE CALLED BY:
             PRTABLE
          CAN CALL THE FOLLOWING:
             CLRPIC   ONPENN   DBOAD    DBORT    DBDAC
             IDBDLF

IOCTAL    ENTRY CLASS: MAIN        SEGMENT:   (S1)
          DESC: CONVERT INTEGER TO OCTAL REPRESENTATION
          LENGTH:     37    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             HOLD     DMP
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

IPFUT     ENTRY CLASS: MAIN        SEGMENT:   (S1)
          DESC: DO PERM FILE MANIPULATION FROM FORTRAN
          LENGTH:    221    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             EXSTAR   FILATT   GLCHCK
          CAN CALL THE FOLLOWING:
             ICCHR    UNPACK   PERMFIL  ICRACK

IPICK     ENTRY CLASS: MAIN        SEGMENT:   (M30)
          DESC: PROCESS BUTTON PICK
          LENGTH:    104    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DRIVER   PAGER
          CAN CALL THE FOLLOWING:
             GLINIT   ERASER   ERASEN   GIBUTN   GICAT

IPPDEC    ENTRY CLASS: MAIN        SEGMENT:   (PP)
          DESC: POST-PROCESSOR MENU DECISION FUNCTION
          LENGTH:     11    LANGUAGE: FTN
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          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PPTABLE
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

IPPRMT    ENTRY CLASS: MAIN          SEGMENT:    (M32)
          DESC: DISPLAY PROMPTING MESSAGE
          LENGTH:    336    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DRIVER
          CAN CALL THE FOLLOWING:
             IGPRMM    GITEM    GIDELT    GUTEXT    GUSETP
             GISHOW

IPROEC    ENTRY CLASS: MAIN          SEGMENT:    (PRO)
          DESC: PRE-PROCESSOR MENU DECSION FUNCTION
          LENGTH:     25    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PRTABLE
          CAN CALL THE FOLLOWING:
             GOTOER.

IREAD     ENTRY CLASS: MAIN          SEGMENT:    (M32)
          DESC: READ A TEXT STRING INTO NVALS IN EDITT COMMON BLOCK
          LENGTH:    156    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DRIVER
          CAN CALL THE FOLLOWING:
             INDATA

ISACT     ENTRY CLASS: MAIN          SEGMENT:    (MBO)
          DESC: SCAN THE ACTIVE ATTRIBUTE LIST OF THE LEVEL FOR THE NAME GIVEN
          LENGTH:     70    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PRINCP    EQSTR    CNNEW    ICKSL    GRONIT
             IFATT     IDBUPP
          CAN CALL THE FOLLOWING:
             IGATT     NUMENM

ISWTCHD   ENTRY CLASS: SECONDARY     SEGMENT:    (DRIVE)
          DESC: CALL THE SITUATION DEPENDENT FUNCTION
          SECONDARY ENTRY POINT FOR : SWITCH
          CAN BE CALLED BY:
             DRIVER

ITOJ=     ENTRY CLASS: MAIN          SEGMENT:    (S0)
          DESC: INTEGER TO INTEGER EXPONENTIATION.
          LENGTH:     16    LANGUAGE: COMPASS
          SECONDARY ENTRY POINTS:
             ITOJ.
          THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS
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ITOJ.       ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : ITOJ=
            CAN BE CALLED BY:
               SETUPG   GIDAE    DMINIT   RFILEB   SETFETR

IYIELDE     ENTRY CLASS: SECONDARY   SEGMENT:   (S1)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : YIELD=
            CAN BE CALLED BY:
               EXECC    YIELD1=

IYIELDS     ENTRY CLASS: SECONDARY   SEGMENT:   (S1)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : YIELD=
            CAN BE CALLED BY:
               EXECC    YIELD1=

IYIELD1     ENTRY CLASS: SECONDARY   SEGMENT:   (S1)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : YIELD1=
            CAN BE CALLED BY:
               EXECC    GLCLOK   HOLD

IYIELD      ENTRY CLASS: SECONDARY   SEGMENT:   (S1)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : YIELD=
            CAN BE CALLED BY:
               YIELD1=

LABELG      ENTRY CLASS: MAIN        SEGMENT:   (M8122)
            DESC: X-Y PLOTS - GENERATE X-Y PLOT LABELS
            LENGTH:    1002    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PROCXA
            CAN CALL THE FOLLOWING:
               NUMBRG   SETSMG   MLTPLG   SEGMTG   ALOG10.
               XTOI.

LANODE      ENTRY CLASS: MAIN        SEGMENT:   (DE3)
            DESC: DRAW ALL ELEMENTS THAT OWN ALL THE NODES DISPLAYED ON THE SCREEN
            LENGTH:      24    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               LFNOD    IDBURT

LEGNDG      ENTRY CLASS: MAIN        SEGMENT:   (M810)
            DESC: (NOT AVAILABLE)
            LENGTH:      26    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               NUMBRG   TITLEG
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            CAN CALL THE FOLLOWING:
               METAZZ

LFNODE      ENTRY CLASS: MAIN          SEGMENT:    (DE3)
            DESC: DRAW ALL ELEMENTS THAT OWN ALL THE NODES PICKED BY THE USER
            LENGTH:      17    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               LFNOD     MBEAD

LFNOD       ENTRY CLASS: MAIN          SEGMENT:    (DE3)
            DESC: MAKE THE CALL TO #IDRW# FOR LANODE AND LFNODE
            LENGTH:      57    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               LANODE    LFNODE
            CAN CALL THE FOLLOWING:
               IDRW      IDBUPN    IDBUPP    ACTIVA

LIBINSA     ENTRY CLASS: SECONDARY     SEGMENT:    (PRM2)
            DESC: PROCESS MATERIAL PROPERTY LIBRARY REQUEST
            SECONDARY ENTRY POINT FOR : LIBINS
            CAN BE CALLED BY:
               PRTABLE

LIBINS      ENTRY CLASS: MAIN          SEGMENT:    (PRM2)
            DESC: PROCESS MATERIAL PROPERTY DATA BASE
            LENGTH:     532    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               LIBINSA   CLRLIB
            CAN BE CALLED BY:
               PRTABLE
            CAN CALL THE FOLLOWING:
               CNTABL    MATCEF    PUTEDT    GCDRAW    GCWIDE
               GITEM     GUTEXT    GUSETP    ICCHR     IBEAUT
               ICRACK    DMGET

LIBIN       ENTRY CLASS: MAIN          SEGMENT:    (PRM1)
            DESC: PROCESS GENERIC MATERIAL TYPE
            LENGTH:     114    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PRTABLE
            CAN CALL THE FOLLOWING:
               TYPVAL    DMGET

LINESG      ENTRY CLASS: MAIN          SEGMENT:    (M810)
            DESC: CREATE X-Y PLOT OR CONTOUR PLOT LINE SEGMENT
            LENGTH:     103    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNTOR     QIKGRF    GRIDG     SCAN
            CAN CALL THE FOLLOWING:
               METAZZ
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LINZZ       ENTRY CLASS: MAIN          SEGMENT:   (M610)
            DESC: 4060/IGS - DRAWS A LINE WITH BEAM ON OR OFF
            LENGTH:     67    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               METAZZ
            CAN CALL THE FOLLOWING:
               ICKBYT   SCALZZ   GULIN    GUSETP   UTORAS

LSLOH       ENTRY CLASS: SECONDARY   SEGMENT:   (DE41)
            DESC: X-Y PLOTS - SET LONG DASH PLOT
            SECONDARY ENTRY POINT FOR : INTFLG
            CAN BE CALLED BY:
               DETABLE

LSSDH       ENTRY CLASS: SECONDARY   SEGMENT:   (DE41)
            DESC: X-Y PLOTS - SET SHORT DASH PLOT
            SECONDARY ENTRY POINT FOR : INTFLG
            CAN BE CALLED BY:
               DETABLE

LSSLD       ENTRY CLASS: SECONDARY   SEGMENT:   (DE41)
            DESC: X-Y PLOTS - SET SOLID LINE PLOT
            SECONDARY ENTRY POINT FOR : INTFLG
            CAN BE CALLED BY:
               DETABLE

LTEST       ENTRY CLASS: MAIN          SEGMENT:   (M8140)
            DESC: CONTOUR PACKAGE CRITERIA TESTER
            LENGTH:     46    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               TMESH2
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

MARK        ENTRY CLASS: SECONDARY   SEGMENT:   (DRIVE)
            DESC: INITIALIZE RECOVERY PACKAGE
            SECONDARY ENTRY POINT FOR : RCOVER
            CAN BE CALLED BY:
               DRIVER   GLCLOK

MATDEF      ENTRY CLASS: MAIN          SEGMENT:   (PRM2)
            DESC: (NOT AVAILABLE)
            LENGTH:    301    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               MATIN    LIBINS
            CAN CALL THE FOLLOWING:
               IDBFND   IFATT    IDBRIT   IDBDNN   IDBORT
               IDBONP   DBATT    DBCHA

MATINS      ENTRY CLASS: SECONDARY   SEGMENT:   (PRM2)
            DESC: RETRIEVE USER INPUT FOR MPDB
            SECONDARY ENTRY POINT FOR : MATIN
            CAN BE CALLED BY:
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            PRTABLE

MATIN       ENTRY CLASS: MAIN          SEGMENT:   (PRM2)
            DESC: ROUTINE TO INPUT MATERIAL PROPERTIES FROM (TYPE-IN)
            LENGTH:    301    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               MATINS
            CAN BE CALLED BY:
               PRTABLE
            CAN CALL THE FOLLOWING:
               CNTABL   MATDEF   PUTEDT   IDISER   ICCHR
               IBEAUT   ICRACK

MBEAD       ENTRY CLASS: MAIN          SEGMENT:   (OB0)
            DESC: MAKE A BEAD ADDRESS FROM ID ARRAY
            LENGTH:     11    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               MOISHK   BDSTR    ASUB4    ASUB5    ASUB8
               EMERGE   DRWATT   DELPIC   RETAIN   LFNODE
               NODFEL   ERD      EACTPN   EADOWN   EQPEN
               TABPRC   SSOFF
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

MCT.RM      ENTRY CLASS: MAIN          SEGMENT:   (S1)
            DESC: (NOT AVAILABLE)
            LENGTH:    227    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CLSF.RM  OPEN.RM  CLSF.RM
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

MENNIT      ENTRY CLASS: MAIN          SEGMENT:   (M32)
            DESC: START GLOBAL AND EXECUTIVE MENUS
            LENGTH:    273    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRIVER
            CAN CALL THE FOLLOWING:
               STARTM   GIASID   IGPCKM   GISUBF   GCHIGH
               GCWIDE   GITEM    GICAT    GIDAE    GUTEXT
               GUSETP   IGLNK

METAZZ      ENTRY CLASS: MAIN          SEGMENT:   (M810)
            DESC: 4060/IGS - LOW-LEVEL DRIVER WHICH FORMATS ALL PLOT COMMANDS
            LENGTH:    545    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNTOR    QIKGRF   LEGNDG   LINESG   POINTG
               MLTPLG   SEGMTG
            CAN CALL THE FOLLOWING:
               ICKBYT   LINZZ    SCALZZ   GUTEXT   MEXTN
               MITEM    UTORAS   GETSIZ

MEXTN       ENTRY CLASS: MAIN          SEGMENT:   (G14)
            DESC: GRAPHICS CHECKING - EXTENDS AN EXISTING ITEM
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            LENGTH:     20    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               ICKBYT   METAZZ   IDRWAT   IDRW
            CAN CALL THE FOLLOWING:
               GIXTND

MITEM       ENTRY CLASS: MAIN          SEGMENT:   (G14)
            DESC: GRAPHICS CHECKING - GENERATE AN ITEM
            LENGTH:     40    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               ICKBYT   METAZZ   IDRW
            CAN CALL THE FOLLOWING:
               GITEM

MLTPLG      ENTRY CLASS: MAIN          SEGMENT:   (M8120)
            DESC: (NOT AVAILABLE)
            LENGTH:     64    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GRIDS    LABELG
            CAN CALL THE FOLLOWING:
               METAZZ

MOASHK      ENTRY CLASS: MAIN          SEGMENT:   (GL3)
            DESC: MOD PICTURE - SHRINK ALL ELEMENTS ON SCREEN
            LENGTH:     21    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE  MOZSRS
            CAN CALL THE FOLLOWING:
               MOUSHK   DRWACT

MOAXES      ENTRY CLASS: MAIN          SEGMENT:   (GL0)
            DESC: MOD PICTURE - DRAW 3D AXES
            LENGTH:    130    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               MOAXNF   MOAXET
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               MOLAX    ARROW    GITEM    GIDELT   GUSETP
               UTORAS

MOAXET      ENTRY CLASS: SECONDARY     SEGMENT:   (GL0)
            DESC: REDRAW AXES
            SECONDARY ENTRY POINT FOR : MOAXES
            CAN BE CALLED BY:
               MORDRW

MOAXNF      ENTRY CLASS: SECONDARY     SEGMENT:   (GL0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : MOAXES
            CAN BE CALLED BY:
               GLTABLE
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MOBOTH      ENTRY CLASS: MAIN          SEGMENT:   (M5)
            DESC: MOD PICTURE - RESET ZOOM AND VIRTUAL WINDOW FOR #IDAEM#
            LENGTH:     20    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               MOZSRS
            CAN CALL THE FOLLOWING:
               SETWZ    ERASEM

MOCYL       ENTRY CLASS: SECONDARY     SEGMENT:   (M33)
            DESC: MOD PICTURE - SET POLAR OR CYLINDRICAL ENTRY MODE FOR PLOT LIMITS
            SECONDARY ENTRY POINT FOR : MOREC
            CAN BE CALLED BY:
               DETABLE  GLTABLE

MODRW       ENTRY CLASS: MAIN          SEGMENT:   (GL3)
            DESC: MOD PICTURE - REDRAW ALL ACTIVELY DISPLAYED BEADS IN NEWLY SPECIF
            LENGTH:    122    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               MORDRW   PUTEOT   IDISER   SCALST   CNVTOC
               ICHKED   COMPAC

MOFILL      ENTRY CLASS: MAIN          SEGMENT:   (GL3)
            DESC: MOD PICTURE - RESCALE TO CURRENT MINS AND MAXES
            LENGTH:     41    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               MORDRW   SCALST

MOFRE       ENTRY CLASS: MAIN          SEGMENT:   (GL3)
            DESC: MOD PICTURE - GENERATE FREE COPY OF WORKING DAE
            LENGTH:     21    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               GISHOW

MOFRZ       ENTRY CLASS: MAIN          SEGMENT:   (GL3)
            DESC: MOD PICTURE - GENERATE FROZEN COPY OF WORKING DAE
            LENGTH:    141    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               GISUBF   IDISER   DELSF    GISHOW   GIDUP
               ICAN     IDBDAD   IDBDRT

MOISHK      ENTRY CLASS: MAIN          SEGMENT:   (GL3)
            DESC: MOD PICTURE - SHRINK ALL PICKED ELEMENTS ON SCREEN
            LENGTH:     25    LANGUAGE: FTN
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            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               DRWONE   IGBTYP   MBEAD

MOLAX       ENTRY CLASS: MAIN          SEGMENT:   (GL0)
            DESC: MOD PICTURE - LABEL 3D AXES WITH CHARACTERS X, Y, AND Z
            LENGTH:     53    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               MOAXES
            CAN CALL THE FOLLOWING:
               GUTEXT   UTORAT   GETSIZ

MOPUT       ENTRY CLASS: MAIN          SEGMENT:   (M33)
            DESC: DISPLAY SCALE LIMITS IN USER COORDINATE TERMS
            LENGTH:    130    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               MOPU
            CAN BE CALLED BY:
               MOREC
            CAN CALL THE FOLLOWING:
               PUTEDT   PLINIT   CNVTOU   IBEAUT

MOPU        ENTRY CLASS: SECONDARY   SEGMENT:   (M33)
            DESC: UNUSED
            SECONDARY ENTRY POINT FOR : MOPUT
            CAN BE CALLED BY:
               DETABLE

MORCNT      ENTRY CLASS: MAIN          SEGMENT:   (GL0)
            DESC: MOD PICTURE - RECENTER DISPLAY FILE AROUND CROSSHAIRS
            LENGTH:     34    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               GIFETS   SETWZ    GITRAK   ERASEM

MORDRW      ENTRY CLASS: MAIN          SEGMENT:   (GL0)
            DESC: MOD PICTURE - REDRAW ACTIVE BEADS
            LENGTH:     20    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               FRONTVU   SIDEVU   TOPVU   MOFILL   MODRW
               SVIEWP   SROTET
            CAN CALL THE FOLLOWING:
               MOAXET   ERASEN   DRWACT

MOREC       ENTRY CLASS: MAIN          SEGMENT:   (M33)
            DESC: MOD PICTURE - SET RECTANGULAR ENTRY MODE FOR PLOT LIMITS
            LENGTH:     26    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               MOCYL    MOSPH
            CAN BE CALLED BY:
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                DETABLE  GLTABLE
            CAN CALL THE FOLLOWING:
                MOPUT

MORGUE.     ENTRY CLASS: SECONDARY   SEGMENT:   (S1)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : SYS=1ST
            CAN BE CALLED BY:
                SYS=AID

MOSOS       ENTRY CLASS: MAIN        SEGMENT:   (GL3)
            DESC: MOD PICTURE - DEACTIVATE SPLIT-SCREEN MODE
            LENGTH:     33    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
                GLTABLE  MOZSRS
            CAN CALL THE FOLLOWING:
                SETWZ    GIDELT   ERASEM

MOSPH       ENTRY CLASS: SECONDARY   SEGMENT:   (M33)
            DESC: MOD PICTURE - SET SPHERICAL COORDINATES ENTRY MODE FOR PLOT LIMIT:
            SECONDARY ENTRY POINT FOR : MOREC
            CAN BE CALLED BY:
                DETABLE  GLTABLE

MOSPLT      ENTRY CLASS: MAIN        SEGMENT:   (GL3)
            DESC: MOD PICTURE - DECREASE THE ZOOM OF ITEM TO FIT NEXT SPLIT ON SCRE:
            LENGTH:     45    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
                GLTABLE
            CAN CALL THE FOLLOWING:
                SETWZ    GIDAE    ERASEM

MOSSHK      ENTRY CLASS: MAIN        SEGMENT:   (GL3)
            DESC: MOD PICTURE - SET SHRINK MODE
            LENGTH:     13    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
                MOUSHK
            CAN BE CALLED BY:
                GLTABLE
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

MOUSHK      ENTRY CLASS: SECONDARY   SEGMENT:   (GL3)
            DESC: MOD PICTURE - TERMINATE SHRINK MODE
            SECONDARY ENTRY POINT FOR : MOSSHK
            CAN BE CALLED BY:
                GLTABLE  MOASHK

MOVE.RM     ENTRY CLASS: MAIN        SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:     64    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
                PUT.SQ   FSU.SQ
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS
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MOZCRS      ENTRY CLASS: MAIN          SEGMENT:   (GL0)
            DESC: MOD PICTURE - ZOOM AROUND CROSSHAIRS
            LENGTH:    161    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               GIFETS   SETWZ    GIALRM   GCDRAW   GITEM
               GIDELT   GITRAK   GUTEXT   GUSETP   ERASEM

MOZMIN      ENTRY CLASS: SECONDARY   SEGMENT:   (GL0)
            DESC: DECREASE ZOOM LEVEL 50 PER CENT
            SECONDARY ENTRY POINT FOR : MOZPLS
            CAN BE CALLED BY:
               GLTABLE

MOZPLS      ENTRY CLASS: MAIN          SEGMENT:   (GL0)
            DESC: MOD PICTURE - ZOOM ONE LEVEL MORE (ENLARGE)
            LENGTH:     24    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               MOZMIN
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               SETWZ    ERASEM

MOZSRS      ENTRY CLASS: MAIN          SEGMENT:   (GL0)
            DESC: MOD PICTURE - RESTORE ORIGINAL PICTURE
            LENGTH:     15    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               MOSOS    MOASHK   MOBOTH

MSG=        ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : SYS.RM
            CAN BE CALLED BY:
               COMPIO   Q8.IO.   FORSYS=  PUT.SQ   ERR.RM
               YIELD=   PERMFIL  REQUEST

MXYI        ENTRY CLASS: MAIN          SEGMENT:   (DE2)
            DESC: INITIALIZE MOVING A NODE BY CROSSHAIRS
            LENGTH:    104    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               MXYP     GETCEN   GIALRM   GCDRAW   GITEM
               GIDELT   GITRAK   GUTEXT   GUSETP   UTORAS

MXYP        ENTRY CLASS: MAIN          SEGMENT:   (DE2)
            DESC: PROCESS THE CROSSHAIR MOVE OF NODE
            LENGTH:    325    LANGUAGE: FTN
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            SECONDARY ENTRY POINTS:
               MXYTP
            CAN BE CALLED BY:
               DETABLE  MXYI
            CAN CALL THE FOLLOWING:
               EUPPNT   CORSHF   RASTOU   GIFETS   DRWONE
               EQUEUP   TRKOFF   GOTOER.  DBOLF    IDBRIT
               IDBUPN   IDBONN   IDBOAD   IDBOLF   IDBUPP
               IDBONP

MXYTP       ENTRY CLASS: SECONDARY   SEGMENT:   (DE2)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : MXYP
            CAN BE CALLED BY:
               EMOVE

MYINIT      ENTRY CLASS: MAIN        SEGMENT:   (PRM1)
            DESC: INITIALIZE MPDB PROCESSING
            LENGTH:    121    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PRTABLE
            CAN CALL THE FOLLOWING:
               INTSUBM  DEINIT1  IDISER   PERMFIL  IDBLFT
               IDBNAM   DMINIT   RETURN

NAMENM      ENTRY CLASS: MAIN        SEGMENT:   (S0)
            DESC: CONSTRUCT ATTRIBUTE NAME FROM NUMBER
            LENGTH:     35    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               IEXDEC   GLSTOB   IDEDEC   SELATT   PUTATT
               IDRWAT
            CAN CALL THE FOLLOWING:
               IBEAUT

NEXTB       ENTRY CLASS: SECONDARY   SEGMENT:   (DB2)
            DESC: GET NEXT BEAD
            SECONDARY ENTRY POINT FOR : NEXTIN
            CAN BE CALLED BY:
               PRINCP   EQSTR    ALLON    ASERCH   IENEXT

NEXTIN      ENTRY CLASS: MAIN        SEGMENT:   (DB2)
            DESC: INITIALIZE NEXT BEAD FOR LOOKING ALL PIECES OF DATA BASE
            LENGTH:    133    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               NEXTB
            CAN BE CALLED BY:
               PRINCP   EQSTR    ALLON    ASERCH   IENEXT
            CAN CALL THE FOLLOWING:
               IDBRIT   IDBONN   IDBOLF   IDBORT   IDBONP

NODACT      ENTRY CLASS: SECONDARY   SEGMENT:   (M0)
            DESC: SET NODES AS THE LEVEL TO WORK ON
            SECONDARY ENTRY POINT FOR : STRACT
            CAN BE CALLED BY:
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                DETABLE  PRTABLE

NODAEL      ENTRY CLASS: MAIN          SEGMENT:   (DE3)
            DESC: DRAW ALL NODES OWNED BY ALL ELEMENTS ON SCREEN
            LENGTH:     55    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               IDRW     IDBDNN   IDBDRT   IDBDNP    ACTIVA

NODE        ENTRY CLASS: MAIN          SEGMENT:   (PR2)
            DESC: (NOT AVAILABLE)
            LENGTH:      3    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PRTABLE
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

NODFEL      ENTRY CLASS: MAIN          SEGMENT:   (DE3)
            DESC: DRAW ALL NODES FOR EACH ELEMENT PICKED BY THE USER
            LENGTH:     44    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               IDRW     IDBDNN   IDBDNP   MBEAD     ACTIVA

NODON       ENTRY CLASS: MAIN          SEGMENT:   (DE3)
            DESC: CHECK IF ANY NODES ARE ACTIVE TO BE CONNECTED
            LENGTH:     12    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               IOISER

NUMBRG      ENTRY CLASS: MAIN          SEGMENT:   (M810)
            DESC: (NOT AVAILABLE)
            LENGTH:     36    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               LABELG   SCAN
            CAN CALL THE FOLLOWING:
               LEGNDG   IBEAUT

NUMFNM      ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: GENERATE ATTRIBUTE NUMBER FROM NAME
            LENGTH:    107    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               IFATT    ISACT
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

OBJCTG      ENTRY CLASS: MAIN          SEGMENT:   (M8131)
            DESC: SET OBJECT SPACE FOR X-Y PLOT
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            LENGTH:    211    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNTOR    SETUPG
            CAN CALL THE FOLLOWING:
               ALOG10.

ONPENA      ENTRY CLASS: SECONDARY   SEGMENT:   (G12)
            DESC: TURN ALL ITEMS OF TYPE #IACTYP# ON AS STRING PICKS
            SECONDARY ENTRY POINT FOR : ONPEN
            CAN BE CALLED BY:
               TABPEN

ONPENE      ENTRY CLASS: SECONDARY   SEGMENT:   (G12)
            DESC: TURN ONLY ELEMENTS ON AS STRING PICK
            SECONDARY ENTRY POINT FOR : ONPEN
            CAN BE CALLED BY:
               DETABLE

ONPENN      ENTRY CLASS: SECONDARY   SEGMENT:   (G12)
            DESC: TURN ONLY NODES ON AS STRING PICK
            SECONDARY ENTRY POINT FOR : ONPEN
            CAN BE CALLED BY:
               DETABLE  INTSUB

ONPENS      ENTRY CLASS: SECONDARY   SEGMENT:   (G12)
            DESC: TURN ALL ITEMS OF ALL TYPES ON AS STRING PICKS
            SECONDARY ENTRY POINT FOR : ONPEN
            CAN BE CALLED BY:
               GLTABLE

ONPEN       ENTRY CLASS: MAIN        SEGMENT:   (G12)
            DESC: ACTIVATE ITEMS IN ACTIVE TYPE TO LIGHT-PEN
            LENGTH:    100    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               ONPENE   ONPENN   ONPENA   ONPENS
            CAN BE CALLED BY:
               DETABLE  PRTABLE  BDSTR    EONPD    EONPEN
               RETAIS
            CAN CALL THE FOLLOWING:
               IDISER   SETCAT

OPEN.RM     ENTRY CLASS: MAIN        SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:    237    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               FORSYS=  YIELD=
            CAN CALL THE FOLLOWING:
               OSUB.RM  ERR.RM   MCT.RM

OPEN.SQ     ENTRY CLASS: MAIN        SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:    262    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               OPXX.SQ
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            CAN BE CALLED BY:
               FORSYS=
            CAN CALL THE FOLLOWING:
               OPEX.SQ  ERR.RM   RSPT.SQ  RM.CIO   CHWR.SQ

OPEX.SQ     ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:     14    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               OPEN.SQ
            CAN CALL THE FOLLOWING:
               OPXX.SQ  ERR.RM   RSPT.SQ  RM.CIO

OPXX.SQ     ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : OPEN.SQ
            CAN BE CALLED BY:
               OPEX.SQ

OSUB.RM     ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:     65    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               OPEN.RM
            CAN CALL THE FOLLOWING:
               ERR.RM

OUTBUF      ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: DATA HANDLER FOR LOW LEVEL OUTPUT ROUTINE
            LENGTH:     17    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DMWRITE  DMFLSH   DMINIT
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

PAGER       ENTRY CLASS: MAIN          SEGMENT:   (M30)
            DESC: WAIT FOR USER TO PICK ERASE OR REDRAW
            LENGTH:     66    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DRIVER   FILATT   TYPNAM   PUTEDT   SELATT
            CAN CALL THE FOLLOWING:
               ERASER   ERASEN   IPICK    GIALRM   GCDRAW

PDUMP       ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: DATA HANDLER ERROR DUMP
            LENGTH:     24    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DMSTGT
            CAN CALL THE FOLLOWING:
               GFLUSH   PUTLIN

PERMFIL     ENTRY CLASS: MAIN          SEGMENT:   (S1)
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          DESC: PERMANENT FILE FUNCTIONS
          LENGTH:    1177    LANGUAGE: COMPASS
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             START4   EXSTAR   MYINIT   IPFUT
          CAN CALL THE FOLLOWING:
             SYS=     MSG=

PLINIT    ENTRY CLASS: MAIN          SEGMENT:   (M33)
          DESC: SET UP INITIAL VOLUME FOR ELEMENTS SEARCHED
          LENGTH:      13    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             GETABLE   PONPEN   MOPUT
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

POINTG    ENTRY CLASS: MAIN          SEGMENT:   (M811)
          DESC: DISPLAY A DTA POINT ON AN X-Y PLOT
          LENGTH:      24    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             CINGRF
          CAN CALL THE FOLLOWING:
             METAZZ

PONPEN    ENTRY CLASS: MAIN          SEGMENT:   (DE1)
          DESC: SET UP RECTANGLE TO GENERATE DOWN-POINTERS
          LENGTH:     157    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             GETABLE
          CAN CALL THE FOLLOWING:
             PORG     CORSHF   RASTOU   GIFETS   PLINIT
             SYSERM   GITEM    GIDELT   GITRAK   GUTEXT
             GUSETP

PORG      ENTRY CLASS: MAIN          SEGMENT:   (DE1)
          DESC: LOOK FOR ELEMENTS LYING WITHIN SQUARE OR VOLUME
          LENGTH:     101    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PONPEN   PTYPE
          CAN CALL THE FOLLOWING:
             GETJOR   IDBFIT   IDBDNN   IDBDNP   DBUPT
             DBONT

PPINIT    ENTRY CLASS: MAIN          SEGMENT:   (M32)
          DESC: (NOT AVAILABLE)
          LENGTH:      16    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             EXTABLE
          CAN CALL THE FOLLOWING:
             START4   DEINIT1

PPTABLE   ENTRY CLASS: MAIN          SEGMENT:   (DRIVE)
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          DESC: (NOT AVAILABLE)
          LENGTH:     23    LANGUAGE: COMPASS
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             STARTM   GLINIT
          CAN CALL THE FOLLOWING:
             SWITCHS  IPPDEC   PRINCP   EQSTR    EXINIT

PRINCP    ENTRY CLASS: MAIN         SEGMENT:   (PP)
          DESC: CALCULATE PRINCIPAL STRESSES
          LENGTH:    172    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PPTABLE
          CAN CALL THE FOLLOWING:
             PRINC3   ELEACT   ISACT    DBATT    NEXTIN
             NEXT3    DBCHA

PRINC3    ENTRY CLASS: MAIN         SEGMENT:   (PP)
          DESC: CALCULATE PRINCIPAL VALUES FROM COMPONENTS
          LENGTH:    136    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             PRINCP
          CAN CALL THE FOLLOWING:
             PROOT

PRINIT    ENTRY CLASS: MAIN         SEGMENT:   (M32)
          DESC: INITIALIZE PRE-PROCESSOR MENU
          LENGTH:     16    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             EXTABLE
          CAN CALL THE FOLLOWING:
             STARTM   DEINIT1

PROCCHR   ENTRY CLASS: MAIN         SEGMENT:   (DE42)
          DESC: X-Y PLOTS - PROCESS PLOT CHARACTER TYPE-IN
          LENGTH:     12    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

PROCTIT   ENTRY CLASS: MAIN         SEGMENT:   (DE41)
          DESC: X-Y PLOTS - PROCESS TITLE TYPE-IN
          LENGTH:     14    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

PROCXA    ENTRY CLASS: MAIN         SEGMENT:   (DE40)
          DESC: MOD PICTURE - PROCESS X-AXIS ATTRIBUTE
          LENGTH:    527    LANGUAGE: FTN
          SECONDARY ENTRY POINTS:
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            PROCYA   REPXY    RSCXY    TABRDR
         CAN BE CALLED BY:
            DETABLE  TABIND
         CAN CALL THE FOLLOWING:
            SORTXY   GETDAT   CLPPIC   ACTATT   QIKGRF
            SETSMG   TITLEG   SETUPG   GRIDG    LABELG
            SUBJEG   GIDELT   IDISER   ICCHR

PROCYA   ENTRY CLASS: SECONDARY   SEGMENT:   (DE40)
         DESC: MOD PICTURE - PROCESS Y-AXIS ATTRIBUTE
         SECONDARY ENTRY POINT FOR : PROCXA
         CAN BE CALLED BY:
            DETABLE  TABIND

PROFAC   ENTRY CLASS: MAIN        SEGMENT:   (M33)
         DESC: PROCESS REPEAT FACTOR
         LENGTH:     42    LANGUAGE: FTN
         HAS NO SECONDARY ENTRY POINTS
         CAN BE CALLED BY:
            DETABLE
         CAN CALL THE FOLLOWING:
            PUTEDT   IDISER   ICHKED   COMPAC

PROOT    ENTRY CLASS: MAIN        SEGMENT:   (PP)
         DESC: FIND ROOTS OF REAL POLYNOMIAL
         LENGTH:    500    LANGUAGE: FTN
         HAS NO SECONDARY ENTRY POINTS
         CAN BE CALLED BY:
            PRINC3
         CAN CALL THE FOLLOWING:
            SQRT.

PRTABLE  ENTRY CLASS: MAIN        SEGMENT:   (DRIVE)
         DESC: PRE-PROCESSOR MENU SUBROUTINE SWITCH TABLE
         LENGTH:    123    LANGUAGE: COMPASS
         HAS NO SECONDARY ENTRY POINTS
         CAN BE CALLED BY:
            STARTM   GLINIT
         CAN CALL THE FOLLOWING:
            SWITCHS  IPREEC   DRAWFR   NODE     GRID
            CHNGP1   CHNGP2   BDSTR    CNCTBD   FIXDAT
            SETLN    SETND    CLROUT   MYINIT   ASUB4
            ASUB5    ASUB7    ASUB7S   DISPLB   ELNAM
            GETRAG   GETFAG1  INTSUB   INTSUB5  INTSUBS
            LIBIN    MATIN    MATINS   LIBINS   LIBINSA
            CLRLIB   EOPEN    ELEACT   NODACT   PUTNAM
            EXINIT   ONPEN

PTYPE    ENTRY CLASS: MAIN        SEGMENT:   (DE1)
         DESC: PROCESS TYPE-IN POINTS, AREA, OR VOLUME
         LENGTH:    100    LANGUAGE: FTN
         HAS NO SECONDARY ENTRY POINTS
         CAN BE CALLED BY:
            DETABLE
         CAN CALL THE FOLLOWING:
            PORG     PUTEDT   IDISER   CNVTOC   ICHKED
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COMPAC

PUTATT ENTRY CLASS: MAIN SEGMENT: (M33)
DESC: DISPLAY 1ST GROUP OF ATTRIBUTES ACTIVE ON THIS LEVEL
LENGTH: 156 LANGUAGE: FTN
SECONDARY ENTRY POINTS:
PUTAT
CAN BE CALLED BY:
DETABLE EATF
CAN CALL THE FOLLOWING:
PUTEDT IDISER IALATT NAMFNM IGATT
DBATT

PUTAT ENTRY CLASS: SECONDARY SEGMENT: (M33)
DESC: IF MORE THAN MAXSCR ACTIVE ATTRIBUTES, DISPLAY THE NEXT BATCH
SECONDARY ENTRY POINT FOR : PUTATT
CAN BE CALLED BY:
EATS EATF ESERCH ASERCH SSAOFF

PUTEDT ENTRY CLASS: MAIN SEGMENT: (M30)
DESC: FORMAT TYPE-INS FOR USER
LENGTH: 377 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
DRIVER FILNAM MODRW SVIEW SVIEWP
SROTET SROTST CHNGP1 GETRAG MATIN
LIBINS IECPRC ETYPSV CNTPRD RNGDEL
RNGDRW PTYPE EONUM ELREPL ELREPP
EMOVE DYLOAD DYSFPU DYSSTP ATTPRC
ATTREN ATTRNG ECREAN ERNDLD EATS
EATF ESERCH ASERCH SSAOFF CNTPRE
CNTITL ERASER TABPRC TABXYP TABXYM
TABSCX TABSCL TABDM PUTLST MOPUT
SPSBL PUTATT PROFAC REPFA GTITLE
CAN CALL THE FOLLOWING:
PAGER GISUBF GULIN GCHIGH GCWIDE
GITEM GIDFLT GUTEXT GUSETP ICCHR

PUTLIN ENTRY CLASS: SECONDARY SEGMENT: (S0)
DESC: PUT LINE OF TEXT TO TERMINAL WITHOUT RECORD MANAGER
SECONDARY ENTRY POINT FOR : GET.PUT
CAN BE CALLED BY:
GLCLOK GLHIST GLLUP GLLDN GLSTDB
GLSTDS GLDEFP GLDEFS CNTABL CNTOR
CONHUL TMESH2 HOLD DMP GIERR
POUMP

PUTLST ENTRY CLASS: MAIN SEGMENT: (M31)
DESC: PUT UP #SET# TYPE-IN FOR NODE AND ELEMENT RANGES
LENGTH: 51 LANGUAGE: FTN
SECONDARY ENTRY POINTS:
PUTLS
CAN BE CALLED BY:
DETABLE
CAN CALL THE FOLLOWING:
PUTEDT I@EAUT

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PUTLS       ENTRY CLASS: SECONDARY   SEGMENT:   (M31)
            DESC: RE-DISPLAY ERRONEOUS NODE AND ELEMENT TYPE-INS
            SECONDARY ENTRY POINT FOR : PUTLST
            CAN BE CALLED BY:
               GETRAG   ETYPSV   RNGDEL   RNGDRW   EQNUM
               ERNOLD

PUTNAM      ENTRY CLASS: MAIN        SEGMENT:   (M31)
            DESC: PUT UP FIRST GROUP OF NAMES OF CROSSHAIR PICK
            LENGTH:    105    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               PUTNM    PUTNMM
            CAN BE CALLED BY:
               DETABLE  PRTABLE
            CAN CALL THE FOLLOWING:
               TYPNAM   IOBEIT

PUTNMM      ENTRY CLASS: SECONDARY   SEGMENT:   (M31)
            DESC: PUT UP ALL BUT THE LAST BEAD (FOR MERGING)
            SECONDARY ENTRY POINT FOR : PUTNAM
            CAN BE CALLED BY:
               DETABLE

PUTNM       ENTRY CLASS: SECONDARY   SEGMENT:   (M31)
            DESC: PUT UP NEXT GROUP OF NAMES OF CROSSHAIR PICK
            SECONDARY ENTRY POINT FOR : PUTNAM
            CAN BE CALLED BY:
               ASU84    ASU05    EMERG    EACTPN   EQPEN

PUT.C       ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : BTRT.SQ
            CAN BE CALLED BY:
               FCL.C.

PUT.SQ      ENTRY CLASS: MAIN        SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:   1403    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               FORSYS=
            CAN CALL THE FOLLOWING:
               REW.SQ   WEOP.SQ  ERR.RM   RM.CIO   RM.RCLA
               RM.RCLP  CHWR.SQ  CLSV.SQ  MOVE.RM  WAR.SQ
               RLEQ.RM  WNB=     MSG=

QIKGRF      ENTRY CLASS: MAIN        SEGMENT:   (M810)
            DESC: (NOT AVAILABLE)
            LENGTH:     70    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PROCXA
            CAN CALL THE FOLLOWING:
               METAZZ   LINESG   SETSMG   POINTG
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QTITLE      ENTRY CLASS: MAIN          SEGMENT:   (M33)
            DESC: X-Y PLOTS - DISPLAY OLD X- AND Y-AXIS AND GRAPH TITLES
            LENGTH:     34    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               OFTABLE
            CAN CALL THE FOLLOWING:
               PUTEDT

Q8NTRY=     ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: FCL INITIALIZATION ROUTINE.
            LENGTH:      3    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               Q8NTRY.
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

Q8NTRY.     ENTRY CLASS: SECONDARY     SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : Q8NTRY=
            CAN BE CALLED BY:
               DRIVER

RASTOU      ENTRY CLASS: MAIN          SEGMENT:   (M1)
            DESC: SCALING - CONVERT RASTERS TO USER UNITS
            LENGTH:     23    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               FIXOAT   PONPEN   MXYP
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

RCOVER      ENTRY CLASS: MAIN          SEGMENT:   (DRIVE)
            DESC: ERROR RECOVERY TRAP ROUTINE
            LENGTH:     72    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               MARK     EXITT
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               EXIT     HOLD

REACT       ENTRY CLASS: MAIN          SEGMENT:   (MEN1)
            DESC: (NOT AVAILABLE)
            LENGTH:    115    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               EXSTAR   GLCHCK
            CAN CALL THE FOLLOWING:
               GRDNIT   D8ORT    ID8DLF   DBINIT

READR       ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: (NOT AVAILABLE)
            LENGTH:                    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DMREAD   DMINIT
            CAN CALL THE FOLLOWING:
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                CPC

REPFA       ENTRY CLASS: MAIN          SEGMENT:    (M33)
            DESC: X-Y PLOTS - DISPLAY REPEAT FACTOR FOR X-Y PLOT LONE
            LENGTH:      23    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               PUTEOT    IBEAUT

REPXY       ENTRY CLASS: SECONDARY   SEGMENT:    (DE40)
            DESC: X-Y PLOTS - REPLOTS X-Y PLOT
            SECONDARY ENTRY POINT FOR : PROCXA
            CAN BE CALLED BY:
               DETABLE

REQUEST     ENTRY CLASS: MAIN          SEGMENT:    (S1)
            DESC: FTN-CALLABLE EQUIPMENT REQUEST PROCESSOR
            LENGTH:     423    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               FILATT    GLCHCK    CNNEW     GINIT
            CAN CALL THE FOLLOWING:
               SYS=      MSG=

RESTART     ENTRY CLASS: MAIN          SEGMENT:    (M5)
            DESC: FLUSH APPROPRIATE INFO NEEDED TO RESTART APPLICATION
            LENGTH:     344    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               EXSTAR    GLCHCK    CNTERM
            CAN CALL THE FOLLOWING:
               DMGTBD    DMSET     DMGET     DBDRT     IDBDLF
               DMFLSH

RETAIN      ENTRY CLASS: MAIN          SEGMENT:    (DE2)
            DESC: DEACTIVATE ALL BEADS EXCEPT THOSE THAT ARE PICKED
            LENGTH:      54    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               DELETE    IDBDRT    MBEAD

RETAIS      ENTRY CLASS: MAIN          SEGMENT:    (DE2)
            DESC: INITIALIZE THE *RETAIN* PROCESS
            LENGTH:      10    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ONPEN

RETURN      ENTRY CLASS: MAIN          SEGMENT:    (DB1)
            DESC: FTN-CALLABLE FILE RETURN/UNLOAD
```

```
            LENGTH:      70    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               STARTM   EXSTAR   FILATT   GLCHCK   DRAWFR
               CLROUT   CANEW    MYINIT   GINIT    OBINIT
            CAN CALL THE FOLLOWING:
               CLSF.RM  SYS=

REW.SQ      ENTRY CLASS: MAIN          SEGMENT:   (SO)
            DESC: (NOT AVAILABLE)
            LENGTH:      33    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PUT.SQ
            CAN CALL THE FOLLOWING:
               ERR.RM   RSPT.SQ  RM.CIO

RFILEB      ENTRY CLASS: MAIN          SEGMENT:   (OB1)
            DESC: (NOT AVAILABLE)
            LENGTH:      35    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               OMINIT
            CAN CALL THE FOLLOWING:
               ITOJ.

RLEQ.RM     ENTRY CLASS: MAIN          SEGMENT:   (SO)
            DESC: (NOT AVAILABLE)
            LENGTH:      42    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PUT.SQ   WAR.SQ
            CAN CALL THE FOLLOWING:
               ERR.RM

RMU0.SQ     ENTRY CLASS: SECONDARY     SEGMENT:   (SO)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : FSU.SQ
            CAN BE CALLED BY:
               GET.SQ

RMU2.SQ     ENTRY CLASS: SECONDARY     SEGMENT:   (SO)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : FSU.SQ
            CAN BE CALLED BY:
               GET.SQ

RM.CIO      ENTRY CLASS: SECONDARY     SEGMENT:   (SO)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : CIO.RM
            CAN BE CALLED BY:
               OPEN.SQ  OPEX.SQ  GET.SQ  PUT.SQ   REW.SQ
               WEOX.SQ  ERR.RM   CLSF.SQ CLSV.SQ  WAR.SQ

RM.RCLA     ENTRY CLASS: SECONDARY     SEGMENT:   (SO)
            DESC: (NOT AVAILABLE)
```

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            SECONDARY ENTRY POINT FOR : CIO.RM
            CAN BE CALLED BY:
               GET.SQ   BTRT.SQ  PUT.SQ   ERR.RM   CLSF.SQ
               WAR.SQ

 RM.RCLP    ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : CIO.RM
            CAN BE CALLED BY:
               GET.SQ   PUT.SQ

 RNGDEL     ENTRY CLASS: MAIN        SEGMENT:   (DE1)
            DESC: DELETE ALL NODES AND ELEMENTS RANGES
            LENGTH:    101    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ICKRNG   PUTEDT   PUTLS    IDISER   DELETE
               ICHKED   COMPAC   IDBRIT

 RNGDRW     ENTRY CLASS: MAIN        SEGMENT:   (DE1)
            DESC: DISPLAY NODES AND ELEMENTS IN TYPE-IN RANGE
            LENGTH:    107    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ICKRNG   PUTEDT   PUTLS    IDRW     IDISER
               ICHKED   COMPAC   IDBRIT   ACTIVA

 RSCXY      ENTRY CLASS: SECONDARY   SEGMENT:   (DE40)
            DESC: X-Y PLOTS - RESCALE ON X-Y PLOT TO ABSOLUTE MINS AND MAXES
            SECONDARY ENTRY POINT FOR : PROCXA
            CAN BE CALLED BY:
               DETABLE

 RSETMG     ENTRY CLASS: MAIN        SEGMENT:   (M810)
            DESC: 4060/IGS - INITS MODE ARRAY AND SCALING INTERFACE W/ INTERTEK
            LENGTH:    214    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNTINT   INITXY
            CAN CALL THE FOLLOWING:
               SCALST

 RSPT.SQ    ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : CLSF.SQ
            CAN BE CALLED BY:
               OPEN.SQ  OPEX.SQ  GET.SQ   REW.SQ   CLSV.SQ

 RWRITER    ENTRY CLASS: MAIN        SEGMENT:   (DB0)
            DESC: (NOT AVAILABLE)
            LENGTH:     11    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
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            CAN BE CALLED BY:
               DMWRITE  DMFLSH
            CAN CALL THE FOLLOWING:
               CPC

RWRITE      ENTRY CLASS: MAIN          SEGMENT:   (DB0)
            DESC: (NOT AVAILABLE)
            LENGTH:      6    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DMWRITE
            CAN CALL THE FOLLOWING:
               CPC

SCALST      ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: SCALING - SET UP SCALE FACTORS
            LENGTH:     70    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               MOFILL   MODRW    SET1     RSETMG
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

SCALZZ      ENTRY CLASS: MAIN          SEGMENT:   (M810)
            DESC: (NOT AVAILABLE)
            LENGTH:     66    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               METAZZ   LINZZ
            CAN CALL THE FOLLOWING:
               ALOG10.

SCAN        ENTRY CLASS: MAIN          SEGMENT:   (M8141)
            DESC: CONTOUR - TRACE THRU TRIANGULAR GRID TO EXTEND CONTOUR LINE
            LENGTH:    465    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNTOR
            CAN CALL THE FOLLOWING:
               LINESG   NUMbRG

SEGMTG      ENTRY CLASS: MAIN          SEGMENT:   (M8120)
            DESC: DRAW GROUP OF LINE SEGMENTS
            LENGTH:     27    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GRIDG    LABELG
            CAN CALL THE FOLLOWING:
               METAZZ

SELATC1     ENTRY CLASS: SECONDARY     SEGMENT:   (M30)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : SELATT
            CAN BE CALLED BY:
               ERASER

SELATC      ENTRY CLASS: SECONDARY     SEGMENT:   (M30)
```

```
            DESC: DISPLAY NEXT BATCH OF ATTRIBUTE NAMES
            SECONDARY ENTRY POINT FOR : SLLATT
            CAN BE CALLED BY:
               ACTATT

SELATT      ENTRY CLASS: MAIN          SEGMENT:   (M30)
            DESC: DISPLAY ATTRIBUTE NAMES FOR PICKING
            LENGTH:    362    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               SELATC   SELATC1   SELAT1
            CAN BE CALLED BY:
               DETABLE   ERASER
            CAN CALL THE FOLLOWING:
               PAGER    GISUBF    GITEM     GIDELT    IDISER
               SETCAT   GUTEXT    GUSETP    ICCHR     NAMFNM
               IGATT

SELAT1      ENTRY CLASS: SECONDARY   SEGMENT:   (M30)
            DESC: DISPLAY ATTRIBUTE NAMES FOR PICKING WITHOUT *DELETE ATTRIBUTE*
            SECONDARY ENTRY POINT FOR : SELATT
            CAN BE CALLED BY:
               DETABLE   ERASER

SETCAT      ENTRY CLASS: MAIN          SEGMENT:   (G12)
            DESC: SET CATEGORIES FOR CROSSHAIR PICKS
            LENGTH:     20    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLINIT    ATTLST    TYPNAM    SELATT    TABACX
               TABPRC    ONPEN
            CAN CALL THE FOLLOWING:
               GICAT

SETFETR     ENTRY CLASS: MAIN          SEGMENT:   (DB1)
            DESC: (NOT AVAILABLE)
            LENGTH:     31    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               CLRFETR
            CAN BE CALLED BY:
               DMFLSH   DMINIT
            CAN CALL THE FOLLOWING:
               ITOJ.

SETLN       ENTRY CLASS: MAIN          SEGMENT:   (PR2)
            DESC: SET LINE MODE IN DRAFTING
            LENGTH:      5    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PRTABLE   BDSTR    FIXDAT
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

SETND       ENTRY CLASS: MAIN          SEGMENT:   (PR2)
            DESC: SET NODE MODE IN DRAFTING
            LENGTH:      4    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
```

```
            PRTABLE  DRAWER   BDSTR    FIXDAT
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

SETPRAT   ENTRY CLASS: MAIN          SEGMENT:   (0B0)
          DESC: (NOT AVAILABLE)
          LENGTH:      6    LANGUAGE: COMPASS
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
            DMRL0D
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

SETSMG    ENTRY CLASS: MAIN          SEGMENT:   (M810)
          DESC: 4060/IGS -
          LENGTH:    275    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
            PROCXA   INTFLG   QIKGRF   TITLEG   GRIDG
            LABELG
          CAN CALL THE FOLLOWING:
            ALOG10.  XTOY.

SETUPG    ENTRY CLASS: MAIN          SEGMENT:   (M8130)
          DESC: SET UP GRID SPACE FOR X-Y PLOT OR CONTOUR PLOT
          LENGTH:    251    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
            PROCXA
          CAN CALL THE FOLLOWING:
            OBJCTG   SUBJEG   GOTOER.  ITOJ.    ALOG10.

SETVU     ENTRY CLASS: MAIN          SEGMENT:   (G13)
          DESC: MOD PICTURE - CALCULATE NEW PERSPECTIVE VIEW
          LENGTH:    260    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
            FRONTVU  SIDEVU   TOPVU    SVIEWP   SROTET
            GRFNIT   INIT2D   INIT3N
          CAN CALL THE FOLLOWING:
            GC3DA    SQRT.    COS.     SIN.

SETWZ     ENTRY CLASS: MAIN          SEGMENT:   (M5)
          DESC: MOD PICTURE - RESET THE VIRTUAL WINDOW AND PICTURE LIMITS TO EXIS
          LENGTH:    136    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
            MORCNT   MOZCRS   MOZPLS   MOSPLT   MOSOS
            CLRPIC   MOBOTH
          CAN CALL THE FOLLOWING:
            GIZOOM   GOTOER.

SET1      ENTRY CLASS: MAIN          SEGMENT:   (M5)
          DESC: SCALING - GET THE DISPLAY SPACE FOR THE MODEL FROM A SUBSTRUCTURE
          LENGTH:     37    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
            CLRPIC
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            CAN CALL THE FOLLOWING:
               SCALST   GETLIM

SHELL       ENTRY CLASS: MAIN          SEGMENT:   (M8141)
            DESC: A SHELL SORT INCREASING X AND DECREASING Y
            LENGTH:     64    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GETCNT
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

SIDEVU      ENTRY CLASS: MAIN          SEGMENT:   (GL3)
            DESC: MOD PICTURE - SET Y-Z PLANE
            LENGTH:     13    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               MORORW   SETVU

SINCOS=     ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: TRIGONOMETRIC SINE OR COSINE OF X. OPT=ALL.
            LENGTH:     66    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               COS.     SIN.
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               SYSIST.

SIN.        ENTRY CLASS: SECONDARY     SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : SINCOS=
            CAN BE CALLED BY:
               SROTET   SETVU   GC30A   CNVTOC

SKFL.SQ     ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:     51    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               FORSYS=
            CAN CALL THE FOLLOWING:
               SKGT.SQ  DXIT.SQ  ERR.RM

SKGT.SQ     ENTRY CLASS: SECONDARY     SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : GET.SQ
            CAN BE CALLED BY:
               SKFL.SQ

SORTXY      ENTRY CLASS: MAIN          SEGMENT:   (DE40)
            DESC: X-Y PLOTS - SORT X- OR Y- DATA
            LENGTH:     75    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PROCXA
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            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

SPCHK       ENTRY CLASS: MAIN          SEGMENT:    (OB3)
            DESC: (NOT AVAILABLE)
            LENGTH:      47    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               IOBEND

SPSBLC      ENTRY CLASS: SECONDARY     SEGMENT:    (M33)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : SPSBL
            CAN BE CALLED BY:
               DETABLE

SPSBL       ENTRY CLASS: MAIN          SEGMENT:    (M33)
            DESC: X-Y PLOTS - SET UP TYPE-IN OF NEW PLOT SYMBOL
            LENGTH:      35    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               SPSBLC
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               PUTEDT

SQRT        ENTRY CLASS: MAIN          SEGMENT:    (S0)
            DESC: COMPUTE THE SQUARE ROOT OF X. OPT=ALL.
            LENGTH:      43    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               SQRT.
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               SYSIST.

SQRT.       ENTRY CLASS: SECONDARY     SEGMENT:    (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : SQRT
            CAN BE CALLED BY:
               EQSTR     PROOT     STEST     ARROW     IARSET
               TMESH2    GCWORK    SETVU     GC3DA     CNVTOU

SROTET      ENTRY CLASS: MAIN          SEGMENT:    (GL4)
            DESC: MOD PICTURE - ROTATE IMAGE FROM HOST
            LENGTH:     221    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               MORDRW    PUTEDT    IDISER    SETVU     GCMAT
               COS.      SIN.      ICHKED    COMPAC

SROTST      ENTRY CLASS: MAIN          SEGMENT:    (GL4)
            DESC: MOD PICTURE - PUT CURRENT ROTATION ANGLES AND ASK FOR INCREMENTS
            LENGTH:      37    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
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            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               PUTEDT   IBEAUT

SSAOFF      ENTRY CLASS: MAIN          SEGMENT:   (DE7)
            DESC: DEACTIVATE ACTIVE BEADS ON A LEVEL
            LENGTH:    103    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               ELNCHK   PUTEDT   PUTAT    IDISER   DELETE
               ICHKED   COMPAC   IDBORT   ICKATT

SSOFF       ENTRY CLASS: MAIN          SEGMENT:   (M31)
            DESC: DEACTIVATE PICKED BEAD
            LENGTH:     22    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               DACTS    DELETE   MBEAD

SSTACT      ENTRY CLASS: SECONDARY     SEGMENT:   (M0)
            DESC: SET SUBSTRUCTURES AS THE LEVEL TO WORK ON
            SECONDARY ENTRY POINT FOR : STRACT
            CAN BE CALLED BY:
               DETABLE

STARTA      ENTRY CLASS: SECONDARY     SEGMENT:   (DRIVE)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : STARTM
            CAN BE CALLED BY:
               EXSTAR

STARTM      ENTRY CLASS: MAIN          SEGMENT:   (DRIVE)
            DESC: START UP THE MENU ON THE SPECIFIED LOCAL FILE NAME
            LENGTH:    233    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               STARTA
            CAN BE CALLED BY:
               EXINIT   DEINIT   PRINIT   PPINIT   MENNIT
            CAN CALL THE FOLLOWING:
               EXTABLE  DETABLE  PRTABLE  PPTABLE  ERASER
               ICCHR    PERMFIL  IGFTR    DMINIT   RETURN

STEST       ENTRY CLASS: MAIN          SEGMENT:   (M8140)
            DESC: CONTOURING PACKAGE CRITERIA TESTER
            LENGTH:    317    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               TMESH3   TMESH2
            CAN CALL THE FOLLOWING:
               SQRT.
```

```
STOP.       ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : FORSYS=
            CAN BE CALLED BY:
               ORIVER   EXSTAR   GLSTOP

STRACT      ENTRY CLASS: MAIN        SEGMENT:   (M0)
            DESC: SET STRUCTURES AS THE LEVEL TO WORK ON
            LENGTH:     23    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               SSTACT   ELEACT   NODACT
            CAN BE CALLED BY:
               DETABLE
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

SUBJEG      ENTRY CLASS: MAIN        SEGMENT:   (M8132)
            DESC: SET SUBJECT SPACE FOR X-Y PLOT OR CONTOUR PLOT
            LENGTH:    122    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               CNTOR    PROCXA   SETUPG
            CAN CALL THE FOLLOWING:
               ALOG10.

SVIEWP      ENTRY CLASS: MAIN        SEGMENT:   (GL3)
            DESC: PROCESS VIEW TYPE-IN
            LENGTH:    203    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               MORDRW   PUTEOT   IDISER   SETVU    ICHKED
               COMPAC   COMPACS

SVIEW       ENTRY CLASS: MAIN        SEGMENT:   (GL3)
            DESC: DISPLAY VIEW TYPE-IN VALUES
            LENGTH:     65    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               GLTABLE
            CAN CALL THE FOLLOWING:
               PUTEOT   IBEAUT

SWITCHS     ENTRY CLASS: SECONDARY   SEGMENT:   (DRIVE)
            DESC: SAVE ADDRESS OF SUBROUTINE TABLE AND DECISION FUNCTION
            SECONDARY ENTRY POINT FOR : SWITCH
            CAN BE CALLED BY:
               EXTABLE  DETABLE  PRTABLE  PPTABLE  GLTABLE
               GLINIT

SWITCH      ENTRY CLASS: MAIN        SEGMENT:   (DRIVE)
            DESC: CALL SUBROUTINE SPECIFIED IN COMMAND TREE
            LENGTH:     20    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               SWITCHS  ISWTCHD
            CAN BE CALLED BY:
```

```
                DRIVER
              THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

SYSAID=       ENTRY CLASS: MAIN          SEGMENT:    (S0)
              DESC: LINK BETWEEN SYS=AID AND INITIALIZATION CODE.
              LENGTH:      1    LANGUAGE: COMPASS
              HAS NO SECONDARY ENTRY POINTS
              CAN BE CALLED BY:
                 Q8.IO.    SYS=1ST
              THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

SYSAID.       ENTRY CLASS: SECONDARY   SEGMENT:    (G13)
              DESC: (NOT AVAILABLE)
              SECONDARY ENTRY POINT FOR : SYS=AID
              CAN BE CALLED BY:
                 ATAN2

SYSEND.       ENTRY CLASS: SECONDARY   SEGMENT:    (S0)
              DESC: (NOT AVAILABLE)
              SECONDARY ENTRY POINT FOR : FORSYS=
              CAN BE CALLED BY:
                 SYSTEM

SYSERR.       ENTRY CLASS: SECONDARY   SEGMENT:    (S0)
              DESC: (NOT AVAILABLE)
              SECONDARY ENTRY POINT FOR : FORSYS=
              CAN BE CALLED BY:
                 Q8.IO.    GOTOER=   SYSTEM

SYSE3.        ENTRY CLASS: SECONDARY   SEGMENT:    (S0)
              DESC: (NOT AVAILABLE)
              SECONDARY ENTRY POINT FOR : FORSYS=
              CAN BE CALLED BY:
                 SYSTEM

SYSTEM        ENTRY CLASS: MAIN        SEGMENT:    (DB0)
              DESC: USER CALLABLE ERROR PROCESSOR.
              LENGTH:     21    LANGUAGE: COMPASS
              HAS NO SECONDARY ENTRY POINTS
              CAN BE CALLED BY:
                 DMGTBD   DMRLBD   DMSTGT   DMINIT
              CAN CALL THE FOLLOWING:
                 SYSEND.  SYSE3.   SYSERR.  MEOS.SQ

SYS1ST.       ENTRY CLASS: SECONDARY   SEGMENT:    (S1)
              DESC: (NOT AVAILABLE)
              SECONDARY ENTRY POINT FOR : SYS=1ST
              CAN BE CALLED BY:
                 ACOSIN=  SYS=AID  SQRT     SINCOS=  ALOG
                 EXP

SYS=AID       ENTRY CLASS: MAIN        SEGMENT:    (G13)
              DESC: AUXILIARY MATH LIBRARY LINK FOR ERRORS.
              LENGTH:      7    LANGUAGE: COMPASS
              SECONDARY ENTRY POINTS:
                 SYSAID.
```

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            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               SYS1ST.  MORGUE.

SYS=1ST     ENTRY CLASS: MAIN          SEGMENT:   (S1)
            DESC: MATH LIBRARY LINK TO ERROR MESSAGE PROCESSOR.
            LENGTH:     62    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               SYS1ST.  MORGUE.
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               SYSAID=

SYS=        ENTRY CLASS: SECONDARY   SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : SYS.RM
            CAN BE CALLED BY:
               COMPIO   Q8.IO.   FORSYS=  ERR.RM   YIELD=
               COPYFL   PERMFIL  CLOCK=   REQUEST  RETURN

SYS.RM      ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: PROCESS SYSTEM REQUEST.
            LENGTH:     40    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               SYS=     WNB=     MSG=
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

TABACT      ENTRY CLASS: MAIN          SEGMENT:   (M31)
            DESC: X-Y PLOTS - ACTIVATE TABLES FOR X-Y PLOT
            LENGTH:     53    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               IDISER   DEBRT    IDBRIT   ACTIVA   IDBFTY

TABACX      ENTRY CLASS: MAIN          SEGMENT:   (M31)
            DESC: X-Y PLOTS - GET TABLE FOR Y-AXIS
            LENGTH:     23    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               TABACY
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               DACTSN   SETCAT

TABACY      ENTRY CLASS: SECONDARY   SEGMENT:   (M31)
            DESC: X-Y PLOTS - GET TABLE FOR X-AXIS
            SECONDARY ENTRY POINT FOR : TABACX
            CAN BE CALLED BY:
               DETABLE

TABDEL      ENTRY CLASS: MAIN          SEGMENT:   (DE42)
            DESC: X-Y PLOTS - DELETE CURVE FROM X-Y PLOT
            LENGTH:    124    LANGUAGE: FTN
```

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          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             TABRDR   CLRPIC   GIDELT

TABDM     ENTRY CLASS: MAIN        SEGMENT:   (M31)
          DESC: X-Y PLOTS - PROCESS TYPE-IN FOR PART OF TABLE TO PLOT
          LENGTH:    107    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             PUTEDT   IDISER   ICHKED   COMPAC

TABIND    ENTRY CLASS: MAIN        SEGMENT:   (DE41)
          DESC: X-Y PLOTS - USE INDEX OF TABLE ON AXIS
          LENGTH:     16    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE  TABVAL
          CAN CALL THE FOLLOWING:
             PROCXA   PROCYA

TABLIN    ENTRY CLASS: MAIN        SEGMENT:   (DE41)
          DESC: X-Y PLOTS - PROCESS PICK OF CURVE ON X-Y PLOT
          LENGTH:     20    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

TABPEN    ENTRY CLASS: MAIN        SEGMENT:   (G12)
          DESC: X-Y PLOTS - ACTIVATE LINES ON GRAPH FOR PICK
          LENGTH:     10    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             ONPENA

TABPRC    ENTRY CLASS: MAIN        SEGMENT:   (M31)
          DESC: X-Y PLOTS - PROCESS TABLE NAME AND DISPLAY DIMENSIONALITY OF TABL
          LENGTH:    147    LANGUAGE: FTN
          HAS NO SECONDARY ENTRY POINTS
          CAN BE CALLED BY:
             DETABLE
          CAN CALL THE FOLLOWING:
             PUTEDT   DACTS    IDISER   SETCAT   IBEAUT
             MBEAD    IDBROW   IDBCOL   IDBDEP   IDBNDM

TABRDR    ENTRY CLASS: SECONDARY   SEGMENT:   (DE40)
          DESC: X-Y PLOTS - REDRAW ONE LINE ON GRAPH
          SECONDARY ENTRY POINT FOR : PROCXA
          CAN BE CALLED BY:
             DETABLE  TABDEL
```

TABSCL
ENTRY CLASS: MAIN SEGMENT: (M31)
DESC: X-Y PLOTS - PROCESS SCALE/OFFSET TYPE-IN
LENGTH: 56 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
DETABLE
CAN CALL THE FOLLOWING:
PUTEOT IDISER ICHKED COMPAC

TABSCX
ENTRY CLASS: MAIN SEGMENT: (M31)
DESC: X-Y PLOTS - PUT UP CURRENT LINE SCALE/OFFSET (X-AXIS)
LENGTH: 53 LANGUAGE: FTN
SECONDARY ENTRY POINTS:
TABSCY
CAN BE CALLED BY:
DETABLE
CAN CALL THE FOLLOWING:
PUTEOT IBEAUT

TABSCY
ENTRY CLASS: SECONDARY SEGMENT: (M31)
DESC: X-Y PLOTS - PUT UP CURRENT LINE SCALE/OFFSET (Y-AXIS)
SECONDARY ENTRY POINT FOR : TABSCX
CAN BE CALLED BY:
DETABLE

TABVAL
ENTRY CLASS: MAIN SEGMENT: (DE41)
DESC: X-Y PLOTS - USE VALUE OF TABLE ON AXIS
LENGTH: 15 LANGUAGE: FTN
HAS NO SECONDARY ENTRY POINTS
CAN BE CALLED BY:
DETABLE
CAN CALL THE FOLLOWING:
TABIND

TABXD
ENTRY CLASS: SECONDARY SEGMENT: (M31)
DESC: X-Y PLOTS - SORT X DECREASING
SECONDARY ENTRY POINT FOR : TABXI
CAN BE CALLED BY:
DETABLE

TABXI
ENTRY CLASS: MAIN SEGMENT: (M31)
DESC: X-Y PLOTS - SORT X INCREASING
LENGTH: 37 LANGUAGE: FTN
SECONDARY ENTRY POINTS:
TABYI TABXD TABYD TABXN TABYN
CAN BE CALLED BY:
DETABLE
THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

TABXN
ENTRY CLASS: SECONDARY SEGMENT: (M31)
DESC: X-Y PLOTS - DO NOT SORT X
SECONDARY ENTRY POINT FOR : TABXI
CAN BE CALLED BY:
DETABLE

```
TABXYM      ENTRY CLASS: MAIN          SEGMENT:    (M31)
            DESC: X-Y PLOTS - PUT UP CURRENT MINS AND MAXES FOR X-Y PLOT
            LENGTH:     44    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               PUTEDT   IBEAUT

TABXYP      ENTRY CLASS: MAIN          SEGMENT:    (M31)
            DESC: X-Y PLOTS - PROCESS TYPE-IN OF NEW MINS AND MAXES
            LENGTH:     73    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DETABLE
            CAN CALL THE FOLLOWING:
               PUTEDT   IDISER   ICHKED   COMPAC   COMPACS

TABYD       ENTRY CLASS: SECONDARY     SEGMENT:    (M31)
            DESC: X-Y PLOTS - SORT Y DECREASING
            SECONDARY ENTRY POINT FOR : TABXI
            CAN BE CALLED BY:
               DETABLE

TABYI       ENTRY CLASS: SECONDARY     SEGMENT:    (M31)
            DESC: X-Y PLOTS - SORT Y INCREASING
            SECONDARY ENTRY POINT FOR : TABXI
            CAN BE CALLED BY:
               DETABLE

TABYN       ENTRY CLASS: SECONDARY     SEGMENT:    (M31)
            DESC: X-Y PLOTS - DO NOT SORT Y
            SECONDARY ENTRY POINT FOR : TABXI
            CAN BE CALLED BY:
               DETABLE

TIME        ENTRY CLASS: SECONDARY     SEGMENT:    (S1)
            DESC: RETURN CURRENT CLOCK TIME
            SECONDARY ENTRY POINT FOR : CLOCK=
            CAN BE CALLED BY:
               EXSTAR

TITLEG      ENTRY CLASS: MAIN          SEGMENT:    (M811)
            DESC: CREATE TITLE FOR X-Y PLOT OR CONTOUR PLOT
            LENGTH:    252    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PROCXA
            CAN CALL THE FOLLOWING:
               LEGNDG   SETSMG

TMESH2      ENTRY CLASS: MAIN          SEGMENT:    (M8142)
            DESC: CONTOUR - CREATE TRIANGULAR MESH OVER CONVEX HULL
            LENGTH:   1057    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
```

```
                CNTOR
            CAN CALL THE FOLLOWING:
                LTEST    STEST    PUTLIN    SQRT.

TMESH3      ENTRY CLASS: MAIN          SEGMENT:    (M8141)
            DESC: CONTOUR - ITERATIVELY IMPROVE TRIANGULATION
            LENGTH:     64    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
                CNTOR
            CAN CALL THE FOLLOWING:
                STEST

TOPVU       ENTRY CLASS: MAIN          SEGMENT:    (GL3)
            DESC: MOD PICTURE - SET X-Z PLANE
            LENGTH:     13    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
                GLTABLE
            CAN CALL THE FOLLOWING:
                MORDRW   SETVU

TRIORD      ENTRY CLASS: MAIN          SEGMENT:    (M8141)
            DESC: CONTOUR - REORDER THE LINE INDICES
            LENGTH:     41    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
                CNTOR
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

TRKOFF      ENTRY CLASS: MAIN          SEGMENT:    (G11)
            DESC: TURN OFF TRACKING SYMBOL (CROSSHAIRS)
            LENGTH:     30    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
                GLINIT   CLROUT   MXYP
            CAN CALL THE FOLLOWING:
                GITRAK

TYPNAM      ENTRY CLASS: MAIN          SEGMENT:    (M30)
            DESC: PUT UP NAMES FOR PICKING
            LENGTH:    264    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
                TYPVAL
            CAN BE CALLED BY:
                ERDOWN   EPUTON   ERASER   DACTSN   PUTNAM
            CAN CALL THE FOLLOWING:
                PAGER    GISUBF   GITEM    GIDELT   SETCAT
                GUTEXT   GUSETP   IDINF    ICCHR    IBEAUT
                IDBTYP   IDBNAM

TYPVAL      ENTRY CLASS: SECONDARY     SEGMENT:    (M30)
            DESC: DISPLAY THE ALPHANUMERIC STRING IN #NAMES#
            SECONDARY ENTRY POINT FOR : TYPNAM
            CAN BE CALLED BY:
                DISPLB   ELNAM    LIBIN    ATTLST   ERASER
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UNPACK      ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: GET NEXT CHARACTER FOR #IBEAUT#
            LENGTH:     23    LANGUAGE: FTN
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               EXECC    IPFUT    ICRACK
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

UTORAS      ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: SCALING - CONVERT USER UNITS TO RASTERS
            LENGTH:    212    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
               UTORAT
            CAN BE CALLED BY:
               MOAXES   DRELN    MXYI     METAZZ   LINZZ
               IDRWEL   IDRWND   IDRWAT   ARROW
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

UTORAT      ENTRY CLASS: SECONDARY     SEGMENT:   (S0)
            DESC: SCALING - GET X,Y,Z FROM PARAMETER LIST RATHER THEN COMMON BLOCK
            SECONDARY ENTRY POINT FOR : UTORAS
            CAN BE CALLED BY:
               MOLAX

WAR.SQ      ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:    260    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               PUT.SQ   WEOX.SQ
            CAN CALL THE FOLLOWING:
               RM.CIO   RM.RCLA  RLEQ.RM

WEOP.SQ     ENTRY CLASS: SECONDARY     SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : WEOX.SQ
            CAN BE CALLED BY:
               PUT.SQ

WEOS.SQ     ENTRY CLASS: SECONDARY     SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : WEOX.SQ
            CAN BE CALLED BY:
               SYSTEM

WEOX.SQ     ENTRY CLASS: MAIN          SEGMENT:   (S0)
            DESC: (NOT AVAILABLE)
            LENGTH:    144    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               WEOP.SQ  WEOS.SQ
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               ERR.RM   RM.CIO   WAR.SQ

WNB=        ENTRY CLASS: SECONDARY     SEGMENT:   (S0)
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            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : SYS.RM
            CAN BE CALLED BY:
               GET.SQ    PUT.SQ

WRITER      ENTRY CLASS: MAIN          SEGMENT:    (DB1)
            DESC: (NOT AVAILABLE)
            LENGTH:      11    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DMINIT
            CAN CALL THE FOLLOWING:
               CPC

WRITE       ENTRY CLASS: MAIN          SEGMENT:    (DB0)
            DESC: (NOT AVAILABLE)
            LENGTH:       6    LANGUAGE: COMPASS
            HAS NO SECONDARY ENTRY POINTS
            CAN BE CALLED BY:
               DMWRITE
            CAN CALL THE FOLLOWING:
               CPC

XTOI=       ENTRY CLASS: MAIN          SEGMENT:    (S1)
            DESC: REAL TO INTEGER EXPONENTIATION.
            LENGTH:      10    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               XTOI.
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            THIS PROGRAM DOES NOT INVOKE ANY OTHER PROGRAMS

XTOI.       ENTRY CLASS: SECONDARY     SEGMENT:    (S1)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : XTOI=
            CAN BE CALLED BY:
               GRIDG     LABELG

XTOY=       ENTRY CLASS: MAIN          SEGMENT:    (S1)
            DESC: REAL TO REAL EXPONENTIATION.
            LENGTH:       7    LANGUAGE: COMPASS
            SECONDARY ENTRY POINTS:
               XTOY.
            THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
            CAN CALL THE FOLLOWING:
               ALOG.     EXP.

XTOY.       ENTRY CLASS: SECONDARY     SEGMENT:    (S1)
            DESC: (NOT AVAILABLE)
            SECONDARY ENTRY POINT FOR : XTOY=
            CAN BE CALLED BY:
               SETSMG

XYERAS      ENTRY CLASS: MAIN          SEGMENT:    (M5)
            DESC: X-Y PLOTS - ERASE BUT NO DEACTIVATE
            LENGTH:      52    LANGUAGE: FTN
            SECONDARY ENTRY POINTS:
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            XYRET1   XYRET
         CAN BE CALLED BY:
            DETABLE
         CAN CALL THE FOLLOWING:
            CLRPIC

XYRET1   ENTRY CLASS: SECONDARY   SEGMENT:   (M5)
         DESC: X-Y PLOTS - ERASE AND DEACTIVATE, RETURN TO ACTIVATE-AND-DRAW MOD
         SECONDARY ENTRY POINT FOR : XYERAS
         CAN BE CALLED BY:
            DETABLE

XYRET    ENTRY CLASS: SECONDARY   SEGMENT:   (M5)
         DESC: X-Y PLOTS - ERASE AND DEACTIVATE, STAY IN NO DRAW MODE
         SECONDARY ENTRY POINT FOR : XYERAS
         CAN BE CALLED BY:
            DETABLE.

YIELD1=  ENTRY CLASS: MAIN        SEGMENT:   (S1)
         DESC: FORTRAN CALLABLE 1-CALL PROGRAM PREEMPT
         LENGTH:     13    LANGUAGE: COMPASS
         SECONDARY ENTRY POINTS:
            IYIELD1
         THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
         CAN CALL THE FOLLOWING:
            IYIELDE  IYIELDS  IYIELD

YIELD=   ENTRY CLASS: MAIN        SEGMENT:   (S1)
         DESC: (NOT AVAILABLE)
         LENGTH:    437    LANGUAGE: COMPASS
         SECONDARY ENTRY POINTS:
            IYIELDE  IYIELDS  IYIELD
         THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
         CAN CALL THE FOLLOWING:
            CLSF.RM  OPEN.RM  SYS=      MSG=

Z.SQ     ENTRY CLASS: MAIN        SEGMENT:   (S0)
         DESC: (NOT AVAILABLE)
         LENGTH:    101    LANGUAGE: COMPASS
         SECONDARY ENTRY POINTS:
            GET.Z
         THIS ENTRY IS NOT INVOKED BY ANY OTHER PROGRAMS
         CAN CALL THE FOLLOWING:
            GXIT.SQ
```


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