

GOOSY  
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# GOOSY

SI online offline stem

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## VAX Overview

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## Chapter 1

# GOOSY Commands

**\$ CLOSE ETHERNET /SHOW**  
Close Ethernet link.

**\$ COMMENT LINE1="first line of comments"**  
LINE2="second line of comments"  
LINE3=l3 LINE4=l4 LINE5=l5  
LINE6=l6 LINE7=l7 LINE8=l8  
/TERM /ERRL /SLOG /GLOG /PLOG  
Write comments to SYS\$OUTPUT and log files.

**\$ DCL** "DCL command line"  
Execute a single DCL command line.

**\$ DEBUG** -  
Enter DEBUGger.

**\$ DEFINE KEY KEY=k EQUIVALENCE=e**  
IF\_STATE=i SET\_STATE=s  
/NOECHO/LOCK\_STATE/TERMINATE/PROTECT  
Associates an equivalence string and a set of attributes with a key on  
the terminal keyboard.

**\$ RECALL KEY1=k KEY2=ke KEY3=ke KEY4=ke /ALL**  
Recall, list or file previous commands.

**\$ REPEAT COUNT=c LINE1=l1 LINE2=l2 ... LINE8=l8**  
WAIT=w /LOG/NOLOG  
/ONWARNING/ONERROR/ONFATAL  
Repeat a list of commands.

**\$ RESET DEFAULT profile**  
Reset default parameters from profile (=same values than after startup).

\$ SET DEFAULT profile program ....  
Set default parameters.

\$ SET GNA ETHERNET Link Read Write Acknow  
Wretry Lretry output  
/[NO]SWAP  
/[NO]ISTREAM  
/[NO]OSTREAM  
/[NO]DEBUG  
SET Ethernet modes.

\$ SHOW COMMAND token1 token2 token3 token4 output  
/BRIEF/PARAM/FULL/NAME  
Show command definitions

\$ SHOW GNA COMPONENTS LINK=link NAME=name  
Show status of GNA components.

\$ SHOW GNA ETHERNET /FULL /CLEAR  
Show Ethernet information.

\$ SHOW GNA LINKS LINK=link NAME=name  
Show status of GNA links.

\$ SHOW GNA MCBS LINK=link  
/PAQ/LCB/ALL /BRIEF/FULL  
Show status of MCB's.

\$ SHOW GNA PROCESS LINK=link  
Show process status of GNA object.

\$ SHOW GNA RPC LINK=link NAME=name  
Show status of GNA RPC handlers.

\$ SHOW GNA STATUS LINK=link  
Show global GNA status.

\$ SHOW KEY KEY=k STATE=k  
/FULL/BRIEF /DIRECTORY  
List key definitions.

\$ SHOW MEMORY -  
Show memory usage.

\$ SHOW TIMER -  
Show statistics of run time library functions.

**ALLOCATE DEVICE** name type xsize ysize  
/[NO]MAIN  
Allocate a graphical device

**ATTACH ANALYSIS** -  
Reinitialize analysis after DETACH ANALYSIS

**ATTACH BASE** base node  
/READ  
Attach data base.

**ATTACH DYNAMIC LIST** dyn\_list dyn\_dir base node  
/FAST  
Attach dynamic list

**CALCULATE FASTBUS PEDESTAL** loop throff thrfact  
pedoff pedfact sample trigger  
VMEcrate,processor ID dummy crate node  
/ON/OFF [=ONOFF]  
/LOAD  
/ALL/FEP/EB [=DESTINATION]  
/CVI/CAV/EBI [=CONTROL]  
Set fastbus pedestal subtraction on/off.

**CALCULATE SPECTRUM** -  
result operand\_1 operand operand\_2 factor  
spec\_dir base node  
/CONSTANT  
/[NO]KEEP  
Perform spectrum arithmetic operations.

**CALIBRATE SPECTRUM** spectrum calibration spec\_dir cal\_dir base node  
Connect calibration to a spectrum.

**CAMAC CLEAR** C=c  
Generate Dataway clear

**CAMAC CNAF** C=c N=n A=a F=f DATA=d Branch=b  
Perform a single CAMAC action

**CAMAC DEMAND** C=c  
/ENABLE/DISABLE/TEST  
Enable, disable or test Crate Demand

**CAMAC INHIBIT** C=c  
/SET/CLEAR/TEST  
Set, clear or test Dataway inhibit

**CAMAC INITIALIZE** C=c  
Generate Dataway Initialize

**CAMAC SCAN** C=c N=n F=f /CRATE/STATION/ADDRESS  
Perform a crate scan

**CLEAR CAMAC SPECTRUM** name spec\_dir base node  
/CAMAC  
/SPECTRUM  
/LOG  
/[NO]KEEP\_MAP  
clear one (or all) spectrum

**CLEAR CONDITION COUNTER** – name cond\_dir base node  
/[NO]KEEP\_MAP  
/LOG  
clear condition counters specified by name

**CLEAR DEVICE** –  
Clear all active workstations

**CLEAR ELEMENT** name dir base node  
/LOG  
/[NO]KEEP\_MAP  
Clear Element.Set values of a Data Element to zero.

**CLEAR PICTURE** picture frame pic\_dir base node  
/[NO]KEEP\_MAP  
/[NO]LOG  
Clear spectra defined in a picture data element

**CLEAR SPECTRUM** name spec\_dir base node  
/LOG  
/[NO]KEEP\_MAP  
clear one (or all) spectrum

**CLOSE FILE** –  
Close data input file.

**CLOSE OUTPUT FILE** –  
Close list mode dump file

**CNAF VME**      VMEmount,processor C N A F times data ID  
                          dummy node  
                          /LOAD  
                          /ALL/FEP/EB [=DESTINATION]  
                          /CVI/CAV/EBI [=CONTROL]

Execute CNAF

**COMPRESS BASE**    base file  
                          /DISMOUNT  
Compress and copy data base (the copy cannot be mounted as GOOSY data base!). Command is executed in MUTIL.

**CONVERT BASE**     base file size  
Convert data base.

**COPY BASE**        base file size area  
                          /DISMOUNT  
Expand and copy data base.

**COPY CONDITION**   name destname dir dest\_dir  
                          base destbase node destnode  
                          /REPLACE  
                          /CONFIRM  
                          /LOG  
                          /[NO]KEEP\_MAP

Copy source Condition to destination Condition

**COPY ELEMENT**      name destname dir destdir destpool  
                          base destbase node destnode  
                          /REPLACE  
                          /ALL  
                          /NOCONFIRM  
                          /[NO]KEEP\_MAP

Copy source Dataelement to destination Dataelement

**COPY FILE**          file outfile skip buffers  
Output GOOSY list mode data file (called in MUTIL).

**COPY MEMBER**        member destmember dir destdir  
                          base destbase node destnode  
                          /[NO]KEEP\_MAP

Copy Data Element member to another Data Element member

**COPY Polygon**        name destname poly\_dir destpoly\_dir  
                          base dest\_base node destnode

/REPLACE  
/CONFIRM  
/LOG  
/[NO]KEEP\_MAP

Copy source Polygon to destination Polygon

**COPY SPECTRUM** name dest\_name spec\_dir destspec\_dir  
base destbase node destnode  
/REPLACE  
/CONFIRM  
/LOG  
/[NO]KEEP\_MAP

Copy source Spectrum to destination Spectrum

**CREATE ALIAS** name string environment  
/GLOBAL  
Create alias name (GOOSY, MDBM, MDISP, MUTIL).  
In DCL use command ALIAS CREATE or CRALI  
Please use DCL-command CRALI to create alias.

**CREATE AREA** area base pool areabytes cluster  
/[NO]KEEP\_MAP

Create an Area in a Data Base

**CREATE BASE** – base basefile adentries mdentries pdentries tdentries basepages  
/PERMANENT/TEMPORARY  
/GLOBAL\_SEC/SYSTEM\_GLOBALSEC  
Create a new Data Base (section)

**CREATE CALIBRATION FIXED** name entries cal\_dir  
cal\_pool base node  
/[NO]KEEP\_MAP

Create a Data Element for fixed calibration.

**CREATE CALIBRATION FLOAT** name entries cal\_dir  
cal\_pool base node  
/KEEP\_MAP

Create Data Element for float calibration.

**CREATE CALIBRATION LINEAR** name cal\_dir cal\_pool  
base node  
/[NO]KEEP\_MAP

Create Data Element for linear calibration.

**CREATE CONDITION COMPOSED** name expression  
cond\_dir cond\_pool base node  
/[NO]DYNAMIC  
/[NO]DOCUMENT  
/[NO]KEEP\_MAP  
create a composed condition

**CREATE CONDITION FUNCTION** name function  
cond\_dir cond\_pool base node  
/[NO]DYNAMIC  
/[NO]DOCUMENT  
/[NO]KEEP\_MAP  
create a function condition

**CREATE CONDITION MULTIWINDOW** name limits dimension  
cond\_dir cond\_pool base node  
/[NO]DYNAMIC  
/[NO]DOCUMENT  
/[NO]KEEP\_MAP  
create a multiwindow condition

**CREATE CONDITION PATTERN** name pattern dimension  
cond\_dir cond\_pool base node invert  
/[IDENT/INCL/ANY/EXCL (=checkmode)  
/[NO]DYNAMIC  
/[NO]DOCUMENT  
/[NO]KEEP\_MAP  
create a pattern condition

**CREATE CONDITION POLYGON** name polygon dimension  
cond\_dir poly\_dir cond\_pool base node  
/[NO]DYNAMIC  
/[NO]DOCUMENT  
/[NO]KEEP\_MAP  
create a polygon condition

**CREATE CONDITION WINDOW** name limits dimension  
cond\_dir cond\_pool base node  
/[NO]DYNAMIC  
/[NO]DOCUMENT  
/[NO]KEEP\_MAP  
create a window condition

**CREATE DIRECTORY** dir dedentries base

/[NO]KEEP\_MAP

Create a Data Element Directory in a Data Base

**CREATE DYNAMIC ENTRY BITSPECTRUM** dyn\_list

spectrum parameter increment condition

dyn\_dir par\_dir cond\_dir spec\_dir base node

/UPDATE

/[NO]CHECK

/[NO]KEEP\_MAP

Create a spectrum dynamic list entry

**CREATE DYNAMIC ENTRY COMPOSED** dyn\_list condition dyn\_dir cond\_dir  
base node

/MASTER

/UPDATE

/[NO]CHECK

/[NO]KEEP\_MAP

Create a composed condition dynamic list entry

**CREATE DYNAMIC ENTRY FUNCTION** dyn\_list condition module parameter  
dyn\_dir par\_dir cond\_dir base node

/MASTER

/UPDATE

/[NO]CHECK

/[NO]KEEP\_MAP

Create a function condition dynamic list entry

**CREATE DYNAMIC ENTRY INDEXEDSPECTRUM** dyn\_list

spectrum parameter index increment condition

dyn\_dir par\_dir cond\_dir spec\_dir base node

/UPDATE

/[NO]CHECK

/[NO]KEEP\_MAP

Create an indexed spectrum dynamic list entry

**CREATE DYNAMIC ENTRY MULTIWINDOW** dyn\_list condition parameter  
dyn\_dir par\_dir cond\_dir base node

/UPDATE

/[NO]CHECK

/[NO]KEEP\_MAP

Create a multiwindow condition dynamic list entry

**CREATE DYNAMIC ENTRY PATTERN** dyn\_list condition parameter dyn\_dir base  
node

/MASTER  
/UPDATE  
/[NO]CHECK  
/[NO]KEEP\_MAP

Create a pattern condition dynamic list entry

**CREATE DYNAMIC ENTRY POLYGON** dyn\_list condition parameter polygon

dyn\_dir par\_dir cond\_dir poly\_dir base node  
/MASTER  
/UPDATE  
/[NO]CHECK  
/[NO]KEEP\_MAP

Create a polygon condition dynamic list entry

**CREATE DYNAMIC ENTRY PROCEDURE** dyn\_list module parameter condition

dyn\_dir par\_dir cond\_dir base node  
/MASTER  
/UPDATE  
/[NO]CHECK  
/[NO]KEEP\_MAP

Create a procedure call dynamic list entry

**CREATE DYNAMIC ENTRY SCATTER** dyn\_list picture process condition dyn\_dir

base node  
/UPDATE  
/[NO]CHECK  
/[NO]KEEP\_MAP

Create a scatter plot dynamic list entry

**CREATE DYNAMIC ENTRY SPECTRUM** dyn\_list

spectrum parameter increment condition  
dyn\_dir par\_dir cond\_dir spec\_dir base node  
/UPDATE  
/[NO]CHECK  
/[NO]KEEP\_MAP

Create a spectrum dynamic list entry

**CREATE DYNAMIC ENTRY WINDOW** dyn\_list condition parameter dyn\_dir

par\_dir cond\_dir base node  
/MASTER  
/UPDATE  
/[NO]CHECK  
/[NO]KEEP\_MAP

Create a window condition dynamic list entry

**CREATE DYNAMIC LIST**    dyn\_list entries dyn\_dir pool  
                              buffer base node  
                              /[NO]KEEP\_MAP  
Create a dynamic list in a Data Base

**CREATE ELEMENT**    name pool typename refer datalength  
                              cluster queuehead dir base node  
                              /[NO]PROTECT  
                              /[NO]REPLACE  
                              /[NO]KEEP\_MAP  
Create a Data Element in a Data Base

**CREATE ENVIRONMENT**    environment  
Create a GOOSY environment

**CREATE LINK**    link\_from link\_to dir base node  
                              /MULTIPLE  
                              /[NO]KEEP\_MAP  
Create a link between two Data Elements

**CREATE OVERLAY**    picture frame spectrum xparam yparam  
                              trans=(xfactor,xoffset,yfactor,yoffset) dynshift node base pic\_dir  
                              spec\_dir par\_dir  
                              /[NO]KEEP\_MAP  
Add spectrum or scatterparameter to frame of a picture data element

**CREATE PICTURE**    name frames condition object  
                              pic\_dir pic\_pool cond\_dir par\_dir  
                              base node  
                              /[NO]PROMPT  
                              /[NO]KEEP\_MAP  
Create a picture Data Element

**CREATE POLYGON**    polygon points  
                              poly\_dir poly\_pool base node  
                              /[NO]KEEP\_MAP  
Create a polygon in a Data Base

**CREATE POOL**    pool areaminsize base  
                              /[NO]KEEP\_MAP  
Create a Pool in a Data Base

**CREATE PROCESS**    S image type  
                              input output command priority  
                              /DEBUG/RESTART/DUMP

Create a component in GOOSY environment.

**CREATE PROGRAM** file structure

/MBD /J11  
/STRUCTURE  
/[NO]PROGRAM  
/COMPILE

Generates J11 stand alone programs and event data element declarations from CAMAC description file. (called in MUTIL)

**CREATE SESSION** environment session

Create a GOOSY session

**CREATE SPECTRUM** name type limits binsize

spec\_dir spec\_pool base node maxspec  
branch crate station offset

/CAMAC  
/[NO]DOCU  
/[NO]MEANVALUES  
/[NO]SQW  
/[NO]ERRV  
/[NO]ERRH  
/[NO]VARBINS  
/DYNAMIC/STATIC  
/ANALOG/DIGITAL  
/[NO]KEEP\_MAP  
create a spectrum

**CREATE TABLE CONDITION** name entries

directory pool base node  
/[NO]KEEP  
create condition bit table

**CREATE TABLE SPECTRUM** name entries

directory pool base node  
/[NO]KEEP  
create spectrum bit table

**CREATE TYPE** typefilename base

/COMPILE/REFERFILE/COMPREF/NOCOMPNOREF  
/[NO]KEEP\_MAP

Create a Type descriptor from a PL/I structure.

**DEALLOCATE DEVICE** device

Deallocate a graphical device

**DEBUG VME MEMORY** start end value

VMEmem,processor ID dummy crate node  
/READ/WRITE/COPY [=OPER]  
/LOAD  
/ALL/FEP/EB [=DESTINATION]  
/CVI/CAV/EBI [=CONTROL]

Read/write/copy VME memory.

**DECALIBRATE SPECTRUM** spectrum spec\_dir base node

Disconnect a spectrum from its calibration.

**DECOMPRESS BASE** file base basefile

/MOUNT

Restores compressed and copied data base. Command is executed by MUTIL.

**DEFINE DISPLAY HEADER** string

Define display header line.

**DEFINE DISPLAY PICTURE** update refresh

/LIN/LOG /SQRT [SCALE]  
/XLIN/XLOG/XSQRT [=X\_SCALE]  
/YLIN/YLOG/YSQRT [=Y\_SCALE]  
/ZLIN/ZLOG/ZSQRT [=Z\_SCALE]  
/[NO]ACTIVE  
/[NO]ERROR  
/[NO]WINDOW  
/[NO]LIFE  
/[NO]ROTATE  
/[NO]SMOOTH  
/[NO]LETTER  
/[NO]NUMBER  
/NOCAL/CALAX/CALSPEC [=CALIB]  
/[NO]CHANNELS  
/FULL/LAST/ACTUAL [=RANGE]  
/AUTOSCALE/SCALE [=SCALE\_RANGE]  
/HISTO/VECTOR/MARKER [=STYLE]  
/CONTOUR/ISO/CLUSTER/SCATTER

Set Spectrum parameter

**DEFINE DISPLAY SPECTRUM** limits scalim update refresh  
/LIN/LOG /SQRT [SCALE]  
/XLIN/XLOG/XSQRT [=X\_SCALE]  
/YLIN/YLOG/YSQRT [=Y\_SCALE]  
/ZLIN/ZLOG/ZSQRT [=Z\_SCALE]  
/[NO]ACTIVE  
/[NO]ERROR  
/[NO]WINDOW  
/[NO]LIFE  
/[NO]ROTATE  
/[NO]SMOOTH  
/[NO]LETTER  
/[NO]NUMBER  
/NOCAL/CALAX/CALSPEC [=CALIB]  
/[NO]CHANNELS  
/FULL/LAST/ACTUAL [=RANGE]  
/AUTOSCALE/SCALE [=SCALE\_RANGE]  
/HISTO/VECTOR/MARKER [=STYLE]  
/CONTOUR/ISO/CLUSTER/SCATTER

Set Spectrum parameter

**DEFINE FRAME SETUP** tic\_number text\_font linewidth xyratio channels  
/[NO]GRID  
/[NO]TICOUTSIDE  
/[NO]INFO [=TYPE]

Define the design of picture frames

**DEFINE PICTURE SETUP** picture rows frames pic\_dir base node  
/EQUAL

Define frame organization on screen for one picture

**DELETE ALIAS** name environment  
/GLOBAL

Delete alias name (in MUTIL, GOOSY, MDBM, MDISP). Please use DCL-command DLALI to delete alias.

**DELETE CALIBRATION** calibration node base cal\_dir  
/[NO]LOG  
/[NO]KEEP\_MAP

Delete a calibration Data Element.

**DELETE CONDITION** – name cond\_dir base node  
/[NO]CONFIRM  
/[NO]KEEP\_MAP

delete a condition

**DELETE DYNAMIC ENTRY**    dyn\_type dyn\_list  
                              namelist aux dyn\_dir base node  
                              /UPDATE  
                              /[NO]KEEP\_MAP  
Delete a Dynamic List entry

**DELETE DYNAMIC LIST**    dyn\_list dyn\_dir base node  
                              /[NO]KEEP\_MAP  
Delete a Dynamic List

**DELETE ELEMENT**    name dir base node  
                              /UNPROTECT  
                              /[NO]KEEP\_MAP  
Delete a Data Element

**DELETE ENVIRONMENT**    -  
                              Delete a GOOSY environment

**DELETE LINK**    link\_from link\_to dir base node  
                              /ALL  
                              /MATCH/IN/OUT  
                              /[NO]KEEP\_MAP  
Delete Data Element link(s)

**DELETE OVERLAY**    picture frame node base pic\_dir  
                              /[NO]KEEP\_MAP  
Delete the defined overlayed spectra or scatterplot parameters for the specified frames.

**DELETE PICTURE**    picture node base pic\_dir  
                              /[NO]LOG  
                              /[NO]KEEP\_MAP  
Delete a Picture Data Element.

**DELETE POLYGON**    - name poly\_dir base node  
                              /[NO]CONFIRM  
                              /[NO]KEEP\_MAP  
delete a polygon

**DELETE POOL**    pool base  
                              /[NO]KEEP\_MAP  
Delete a Data Base Pool

**DELETE PROCESS** type  
Delete a GOOSY subprocess

**DELETE SECTION** base  
Delete Global Section attributes

**DELETE SPECTRUM** – name spec\_dir base node  
/CAMAC  
/[NO]CONFIRM  
/[NO]KEEP\_MAP  
delete a spectrum

**DETACH ANALYSIS** –  
Detach data base of analysis.

**DETACH BASE** base node  
Detach data base.

**DETACH BASE** base node  
Detach data base.

**DETACH DISPLAY** base  
Detach display data base.

**DETACH DYNAMIC LIST** dyn\_list dyn\_dir base node  
detach dynamic list

**DISMOUNT BASE** base  
Delete Global Section attribute of Data Base

**DISMOUNT TAPE** device  
/[NO]UNLOAD  
Dismount tape.

**DISPLAY CALIBRATION** name cal\_dir base node  
Display calibration table.

**DISPLAY CONDITION** condition frame dimension  
cond\_dir base node  
/CHAN/CALIB [=CALIBR]  
/DISTRIBUTE  
/XAXIS/YAXIS [=AXIS]  
Display window condition limits

**DISPLAY GRAPH** frame file module image  
Display user graphics.

**DISPLAY METAFILE** file directory

Read screen image from file and display it

**DISPLAY PICTURE** picture condition object dyn\_scat

binfactor update refresh  
binfactor update refresh  
node base pic\_dir dyn\_dir cond\_dir  
buffer\_size  
/LIN /LOG /SQRT [=SCALE]  
/XLIN /XLOG /XSQRT [=X\_SCALE]  
/YLIN /YLOG /YSQRT [=Y\_SCALE]  
/ZLIN /ZLOG /ZSQRT [=Z\_SCALE]  
/[NO]WINDOW  
/[NO]LIFE  
/[NO]ROTATE  
/[NO]SMOOTH  
/[NO]LETTER  
/[NO]NUMBER  
/NOCAL/CALAX/CALSPEC [=CALIB]  
/[NO]CHANNELS  
/SPECIFIED/FULL/LAST/ACTUAL [=RANGE]  
/AUTOSCALE/SCALE [=SCALE\_RANGE]  
/HISTO/VECTOR/MARKER/CONTOUR-  
/POINT/ISO/CLUSTER/SCATTER [=STYLE]  
/TEMP /GLOBAL [=MODE]  
/NOSCATTER  
/[NO]ERROR

Display screen image as described by picture

**DISPLAY POINT** point frame

/LOOP  
[CALIBR=]/CHAN/CALIB

Mark point on screen and get channel contents.

**DISPLAY POLYGON** polygon frame poly\_dir base node

/FILL

Display polygon points.

**DISPLAY SCATTER** xparam yparam limits condition

object dyn\_scat xletter yletter  
node base par\_dir dyn\_dir  
cond\_dir buffer\_size  
/LAST /ACTUAL [=RANGE]

/TEMP /GLOBAL [=MODE]  
/NOSCATTER

Display single scatter frame for two parameters.

**DISPLAY SPECTRUM** spectrum limits scalim  
binfactor update refresh cuts theta phi  
node base spec\_dir  
/LIN /LOG /SQRT [=SCALE]  
/XLIN /XLOG /XSQRT [=XSCALE]  
/YLIN /YLOG /YSQRT [=YSCALE]  
/ZLIN /ZLOG /ZSQRT [=ZSCALE]  
/[NO]WINDOW  
/[NO]LIFE  
/[NO]ROTATE  
/[NO]SMOOTH  
/[NO]LETTER  
/[NO]NUMBER  
/NOLOCAL/CALAX/CALSPEC [=CALIB]  
/[NO]CHANNEL  
/FULL/LAST/ACTUAL [=RANGE]  
/AUTOSCALE/SCALE [=SCALE\_RANGE]  
/HISTO/VECTOR/MARKER/CONTOUR-  
/POINT/ISO/CLUSTER/SCATTER [=STYLE]  
/TEMP /[NO]GLOBAL [=MODE]  
/[NO]ERROR

Display spectrum using default picture

**DISPLAY TEXT** text frame xposition yposition font size  
/CENTER /LEFT /RIGHT [=LOCATE]  
/ABSOLUTE /RELATIVE [=UNIT]

Display text into box specified by cursor

**DUMP MBD** FROM=f TO=t BDO=bdo BDD=bdd  
/HEXADECIMAL/DECIMAL/OCTAL/BIT  
/INSTRUCTION  
Format a MBD memory dump

**DUMP SPECTRUM** name spec\_dir base node output  
/[NO]KEEP\_MAP  
dump spectra to file 'outfile' in ASCII format for transfer to SATAN  
VSAM library on the IBM

**DUMP STARBURST** FROM=f TO=t C=c N=n TSK=file  
/HEXADECIMAL/DECIMAL/OCTAL/BIT

|                               |  |
|-------------------------------|--|
|                               | Format a STARBURST memory dump through MBD   |
| <b>EXECUTE VME</b>            | command VMEcrate,processor ID<br>dummy subcrate node<br>/LOAD<br>/ALL/FEP/EB [=DESTINATION]<br>/CVI/CAV/EBI [=CONTROL]   |
|                               | Execute command on remote VME processor  |
| <b>EXPAND</b>                 | limits frame<br>/CHAN/CALIB [=CALIBR]<br>/LOG/LIN/SQRT [=SCALE]<br>/XLOG/XLIN/XSQRT [=X_SCALE]<br>/YLOG/YLIN/YSQRT [=Y_SCALE]  |
|                               | Expand spectrum or scatterplot within specified window.  |
| <b>FIT SPECTRUM</b>           | frame poly window iter file<br>/[NO]OUTPUT<br>/[NO]APPEND<br>/BACKGROUND<br>/GAUSS<br>/SAMEWIDTH<br>/SHOW<br>/[NO]ZERO<br>/[NO]MARK<br>/[NOERROR /STATISTICAL [=ERROR] |
|                               | Fit spectrum with polynom and/or with gaussian peaks   |
| <b>FOREIGN ACQUISITION</b>    | string longword<br>/X /Y /Z [=QUAL]<br>/[NO]SWITCH   |
|                               | Whatever   |
| <b>FREEZE SPECTRUM</b>        | - name spec_dir base node<br>/[NO]KEEP_MAP<br>freeze a spectrum, inhibit accumulation  |
| <b>INITIALIZE ACQUISITION</b> | mailbox size count<br>in_buffers out_buffers<br>node command data<br>/MBD /J11 /FILE/FOREIGN/VME<br>/PAGE /BYTE /KBYTE<br>/MBX   |
|                               | Init data taking   |

**INITIALIZE ANALYSIS** base1 base2 base3  
/[NO]ANALYSIS  
/[NO]UNPACK  
/[NO]PACK  
/[NO]START  
/[NO]STOP  
/[NO]BASE  
Reinitialize analysis (Analaysis must be stopped)

**INITIALIZE CAMAC** VMEcrate,processor ID dummy node  
/LOAD  
/ALL/FEP/EB [=DESTINATION]  
/CVI/CAV/EBI [=CONTROL]  
Initialize CAMAC

**INTEGRATE** window frame file  
/[NO]OUTPUT  
/[NO]APPEND  
/CHAN/CALIB [=CALIBR]  
/LOOP  
Integrate specified window

**LOAD J11** file events  
/KEEP /COMPRESS  
Load CAMAC module table into J11

**LOAD LRS\_2365** file C=c N=n  
/[NO]LOG  
/[NO]DUMP  
Load definitions in a LRS 2365 logic matrix

**LOAD MBD** file  
/EXECUTIVE  
Load microcode in MBD, either executive or a channel program.

**LOAD MODULE ACQUISITION** image module init  
/START/STOP [=TYPE]  
Load module from sharable image.

**LOAD MODULE ANALYSIS** image module init  
/START/STOP/UNPACK/PACK/ANAL [=TYPE]  
Load module from sharable image.

**LOAD STARBURST** file C=c N=n  
/[NO]HALT

/BOOT/INIT

Load a system or task image in the STARBURST memory.

**LOAD VME PROGRAM** file procrate processor id subcrate

node

/TABLE

/[NO]LOAD

/RESET

/FEP/EB/ROP

/CVI/CVC/CAV/AEB/VME/EBI

/USER

/[NO]SYNC

/[NO]SYSTEM

Load programs into VME processors

**LOAD VME TABLE** file trigger VMEcrate,processor ID

subcrate node log

/[NO]LOAD

/LOG

/OVER

/FEP/EB

/ROP/ROC/AEB/VME

Load tables into VME processors. See also I\$VMETAB

**LOCATE BASE** base

/[NO]KEEP\_MAP

Locate a Data Base

For test purpose only.

**LOCATE DIRECTORY** dir base

/[NO]KEEP\_MAP

Locate a Data Element Directory

For test purpose only.

**LOCATE ELEMENT** name

/[NO]KEEP\_MAP

Locate a Data Element name array

For test purpose only.

**LOCATE ID** element dir base

/[NO]KEEP\_MAP

Locate a Data Element by Directory index

For test purpose only.

**LOCATE POOL** pool base  
/[NO]KEEP\_MAP  
Locate a Pool in a Data Base  
For test purpose only.

**LOCATE QUEUEELEMENT** element  
/[NO]KEEP\_MAP  
Locate a queue Data Element name array  
For test purpose only.

**LOCATE TYPE** name base  
/[NO]KEEP\_MAP  
Locate a Type descriptor  
For test purpose only.

**MODIFY DIRECTORY** dir entries base  
/[NO]KEEP\_MAP  
Modify a Data Element Directory in a Data Base

**MODIFY FRAME SCATTER** picture frame xparam yparam limits condition xletter  
yletter object node base pic\_dir par\_dir cond\_dir  
/[XLIN/XLOG/XSQR[X=SCALE]]  
/[YLIN/YLOG/YSQR[Y=SCALE]]  
/[NO]ROTATE  
/[NO]LETTER  
/[NO]NUMBER  
Modify a single frame in a picture data element.  
Specify only the parameters which should be changed

**MODIFY FRAME SPECTRUM** picture frame spectrum limits scallim scalefactor  
node base pic\_dir spec\_dir  
/[LIN/LOG/SQRT[=SCALE]]  
/[XLIN/XLOG/XSQR[X=SCALE]]  
/[YLIN/YLOG/YSQR[Y=SCALE]]  
/[ZLIN/ZLOG/ZSQR[Z=SCALE]]  
/[NO]WINDOW  
/[NO]LIFE  
/[NO]ROTATE  
/[NO]SMOOTH  
/[NO]LETTER  
/[NO]NUMBER  
/[NO]CALIB/CALAX/CALSPEC[=CALIB]  
/[NO]CHANNELS  
/[HISTO/VECTOR/MARKER/CONTOUR-

/POINT/ISO/CLUSTER/SCATTER [=STYLE]  
/[NO]ERROR

Modify a single frame in a picture Data Element. Specify only the parameters which should be changed.

**MODIFY TABLE CONDITION** name entries  
directory pool base node  
/[NO]KEEP  
modify condition bit table

**MODIFY TABLE SPECTRUM** name entries  
directory pool base node  
/[NO]KEEP  
modify spectrum bit table

**MOUNT BASE** base basefile  
/PERMANENT/TEMPORARY  
/GLOBAL\_SEC/SYSTEM\_GLOBALSEC  
Mount an existing Data Base (section)

**MOUNT TAPE** device label blocksize density  
/INITIALIZE  
/DISMOUNT  
/TK50 /TK70 /EXABYTE  
Mount RMS tape.

**OPEN FILE** filename device directory headerfile  
/[NO]HEADER  
Open file for data input stream.

**OPEN OUTPUT FILE** file size number  
device directory  
headerinput headeroutput  
/PROMPT  
/EDIT  
/AUTOMATIC  
/ALLOCATE  
/PAGE /BYTE /KBYTE /BUFFER  
Open list mode dump file

**OVERLAY** spectrum xpara ypara bnfactor  
trans=(xfactor,xoffset,yfactor,yoffset)  
frame node base spec\_dir par\_dir  
/ADJUST

/SAVE  
/[NO]ERROR  
/HISTO/VECTOR/MARKER - =[STYLE]  
/ISO/CLUSTER/CONTOUR/SCATTER  
Add spectrum to frame

**PATCH MBD**    ADDRESS=a VALUE=v C=c N=n A=a F=f  
                  /NOCONFIRM  
Patch a MBD memory location

**PATCH STARBURST**    ADDRESS=a VALUE=v C=c N=n  
                  /NOCONFIRM  
Patch a STARBURST memory location

**PLOT METAFILE**    file type command queue copies font  
Plot a metafile.

**PLOT PICTURE**    type command queue copies font file  
                  /[NO]FLAG  
                  /[NO]PRINT  
Send the current active picture to a plotter

**PLOT PLOTFILE**    file command queue copies  
                  /[NO]DELETE  
                  /[NO]FLAG  
Plot device specific plotfile

**PRINT**    command printer form file  
                  /DELETE  
Plot device specific plotfile

**PROJECT**    spectrum target window dimension node base spec\_dir  
                  /ADD/SUB/CLEAR [=ACTION]  
                  /POLYGON  
Project window in 2-dim spectrum

**PROTECT SPECTRUM**    name spec\_dir base node  
                  /LOG  
                  /[NO]KEEP\_MAP  
protect one (or all) spectrum

**PROTOCOL**    line  
                  /SESSION/COMMAND/GLOBAL  
Write line(s) into log file.

**READ CAMAC SPECTRUM** name spec\_dir base node  
    /ADD  
    /LOG  
    /[NO]KEEP\_MAP  
    Read spectrum data from MR2000 into GOOSY spectrum

**REFRESH** frame  
    /[NO]UPDATE  
    /[NO]WINDOW  
    /[NO]OVER  
    Refresh picture as displayed

**RELEASE MBD CHANNEL** channel\_no  
    Release MBD channel to allow loading of new code

**REPLACE CONDITION WINDOW** condition limits dimension cond\_dir base node  
    /CHANN/CALIBR [=CALIBR]  
    /XAXIS/YAXIS [=AXIS]  
    Set or replace window condition by cursor

**REPLACE POLYGON** polygon frame xpoints ypoints  
    poly\_dir base node poly\_pool  
    /DELETE/MODIFY [=MODE]  
    Set points in polygon

**RESET ACQUISITION** -  
    RESET ACQU

**RESET CAMAC** VMEcrate,processor ID dummy node  
    /LOAD  
    /ALL/FEP/EB [=DESTINATION]  
    /CVI/CAV/EBI [=CONTROL]  
    Reset CAMAC

**RESET MBD** -  
    Reset MBD and release all active channels

**SAVE DISPLAY** file directory  
    Save displayed picture in a metafile.

**SEND DATA** VMEcrate,processor ID dummy crate node  
    /LOAD  
    /ALL/FEP/EB [=DESTINATION]  
    /CVI/CAV/EBI [=CONTROL]  
    Read one subevent.

**SET ACQUISITION** in\_buffers out\_buffers events  
/[NO]SYNCHRONOUS  
/[NO]EXCLUSIVE  
/MAILBOX /NET  
/[NO]CHECK  
/[NO]COMPRESS  
/[NO]KEEP  
/[NO]START  
/[NO]STOP

Set data taking parameters.

**SET ANALYSIS** –  
/[NO]ANALYSIS  
/[NO]DYNAMIC  
/[NO]SYNCHRON  
/[NO]EVENT  
/[NO]START  
/[NO]STOP  
/[NO]FOREIGN  
/[NO]TABLES

Set analysis parameters.

**SET CALIBRATION FIXED** name unit start step input calib uncalib parameters  
polynom module image cal\_dir base node  
/[NO]FILE  
/FIT/MODULE/PARAMETER/PROMPT/TABLE [=ACTION]  
Set table for a fixed-type calibration.

**SET CALIBRATION FLOAT** name unit input module image  
cal\_dir base node  
/[NO]FILE  
Set table for a float-type calibrations.

**SET CALIBRATION LINEAR** name unit input parameters  
calib uncalib cal\_dir base node  
/FILE  
/FIT/PROMPT/PARAMETER [=ACTION]  
Set parameters for a linear calibration.

**SET CONDITION PATTERN** – name pattern invpat index cond\_dir base node  
/[NO]KEEP\_MAP  
set stored pattern of a pattern condition

**SET CONDITION WINDOW** condition limits dimension cond\_dir base node

/[NO]KEEP\_MAP  
Set window condition

**SET DEVICE COLOR** name index r g b  
/UPDATE  
Allocate a graphical device

**SET DISPLAY MODE** -  
/STANDARD/FAST [=VERSION]  
Select display version.

**SET DYNAMIC LIST** dyn\_list dyn\_type key value dyn\_dir base node  
Modify attached dynamic list

**SET EVENT INPUT** name type directory base  
Set input event data element.

**SET EVENT OUTPUT** name type directory base  
Set output event data element.

**SET FASTBUS PEDESTAL** sample trigger  
VMEcrate,processor ID dummy crate node  
/ON/OFF [=ONOFF]  
/LOAD  
/ALL/FEP/EB [=DESTINATION]  
/CVI/CAV/EBI [=CONTROL]  
Set fastbus pedestal subtraction on/off.

**SET LETTERING** - specname dim text spec\_dir base node  
/[NO]KEEP\_MAP  
set lettering at display axisses

**SET LOCK OUTPUT** -  
/[NO]PRCID  
/[NO]LKID  
/[NO]PARID  
/[NO]UIC  
/[NO]PRCNAM  
/[NO]STATE  
Set lock output spezification (called in MUTIL)

**SET MEMBER** mem\_spec value dir base node  
/[NO]KEEP\_MAP  
/[NO]LOG  
Change value of an Data Element member or a full Data Element member array (wildcarded).

**SET MWPC** id Number adc\_threshold dis\_threshold  
                  Reject\_pass  
                  /ALL/L/M/N CHAMBER  
                  /X/Y/A LAYER  
                  /[NO]REJECT  
                  /[NO]FASTCLEAR  
                  /SHOW  
                  /RESET  
                  /[NO]LOAD  
SET MWPC modes.

**SET RANDOM** type subtype channels datawords  
                  /COMPRESS  
                  /PRINT  
                  /SPAN  
Set some random generator parameters

**SET SCATTER BUFFER** value dyn\_list dyn\_dir base node  
Set scatter buffer size

**SET SPECTRUM POINT** spectrum xpoint ypoint file  
                  spec\_dir base node  
                  /[NO]KEEP\_MAP  
Set spectrum channel to specified value.

**SET VME BUFFER** buffers size VMEcrate,processor ID  
                  dummy node  
                  /LOAD  
                  /ALL/FEP/EB [=DESTINATION]  
                  /CVI/CAV/EBI [=CONTROL]  
                  /STOP/RESET [=LAST]  
Setup frontend buffers

**SET VME CONTROL** name value VMEcrate,processor ID  
                  dummy node  
                  /LOAD  
                  /ALL/FEP/EB [=DESTINATION]  
                  /CVI/CAV/EBI [=CONTROL]  
Set value in control structure

**SET VME INPUT** –  
                  /HVR /NET /TDAS /OFF /CHECK [=PATH]  
Select lmd data path

**SET VME TRIGGER**    VMEcrate,processor ID dummy  
                          crate fastclear conversion node  
                          /RESET  
                          /MASTER  
                          /ENABLE/DISABLE [=ENABLE]  
                          /[NO]LOAD  
                          /ALL/FEP/EB [=DESTINATION]  
                          /CVI/CAV/EBI [=CONTROL]

Set trigger module.

**SHOW ACQUISITION**    timer output  
                          /PRINT  
                          /OUTFILE  
                          /INFILE  
                          /CLEAR  
                          /RUN  
                          /SETUP  
                          /BRIEF  
                          /[NO]RATE

Show acquisition status

**SHOW ALIAS**        name environment  
                          /GLOBAL/ACTIVE [=SCOPE]  
Show alias name (in MUTIL, GOOSY, MDBM, MDISP).

**SHOW ANALYSIS**     timer output  
                          /PRINT  
                          /BRIEF  
                          /OUTFILE  
                          /INFILE  
                          /CLEAR  
                          /[NO]RATE

Show analysis status

**SHOW AREA**         area base output  
                          /[NO]FULL  
                          /[NO]DIRECTORY  
                          /[NO]KEEP\_MAP  
                          /PRINT

Show an Area in a Data Base

**SHOW BUFFER DUMP**    -  
                          Show writing to LMD file.

**SHOW CALIBRATION** calibration output cal\_dir base node  
/PRINT  
/LINKS  
/TABLE

Show calibration information

**SHOW CAMAC SPECTRUM** name spec\_dir  
base node output width

/PRINT  
/ATTRIBUTES/DATA/ALL/STATUS  
/FULL  
/MEMBERS  
/LOG  
/INTEGRAL  
/ZERO  
/CAMAC  
/[NO]KEEP\_MAP

show CAMAC spectra

**SHOW CONDITION** N name cond\_dir base node output

/PRINT  
/FULL  
/MEMBERS  
/ATTRIBUTES/COUNTERS/FLAGS/STATUS/ALL  
/POLY/WIND/MULTI/PATT/COMP/FUNC/ANY  
/[NO]KEEP\_MAP

show attributes of a condition

**SHOW DEVICES** SHOW DEVICE

Show all allocated user devices

**SHOW DIRECTORY** dir base output

/[NO]FULL  
/[NO]DIRECTORY  
/[NO]KEEP\_MAP  
/PRINT

Show Data Elements of a Data Base Directory

**SHOW DISPLAY GLOBALS** -

/SPECTRUM  
/PICTURE

Show global display parameter.

**SHOW DYNAMIC ATTACHED** dyn\_list dyn\_type dyn\_dir base node output

/PRINT  
/[NO]QUEUE  
/FULL  
Show attached dynamic list

**SHOW DYNAMIC LIST**    dyn\_list dyn\_type dyn\_dir base node output  
/[NO]KEEP\_MAP  
/PRINT  
Show Dynamic List (elements)

**SHOW ELEMENT**    name dir base node output  
/DECIMAL/HEXADECIMAL/OCTAL/BINARY  
/LONGWORD/WORD/BYTE  
/[NO]DATA  
/[NO]FULL  
/[NO]KEEP\_MAP  
/PRINT  
Show a Data Element descriptor and value

**SHOW GOOSY STATUS**    environment p1 p2 p3  
/\$TMR  
/\$ANL  
GOOSY Status report

**SHOW HOME\_BLOCK**    base output  
/PRINT  
/BITMAP  
Show the Home Block of a Data Base

**SHOW LINK**    link\_from dir base node  
output  
/IN/OUT/ALL  
/MATCH/TREE  
/[NO]KEEP\_MAP  
/PRINT  
Show Data Element link(s)

**SHOW LOCKS**    process lock request granted  
/PROCESS  
/LOCKS  
/EXCLUSIVE  
Display system locks

**SHOW MAPPING**    base area  
Show mapping of a Data Base

**SHOW MAPPING** base area  
Show mapping of a Data Base

**SHOW MAPPING** base area  
Show mapping of a Data Base

**SHOW MEMBER** mem\_spec dir base node output  
/[NO]KEEP\_MAP  
/PRINT  
Show value of a Data Element member or a full Data Element member array (wildcarded).

**SHOW PICTURE** picture output pic\_dir base node  
/PRINT  
/FULL  
/DATA  
/[NO]KEEP\_MAP  
Show picture information

**SHOW POLYGON** N name poly\_dir base node output  
/PRINT  
/[NO]FULL  
/[NO]DATA  
/[NO]KEEP\_MAP  
show attributes of a polygon

**SHOW POOL** pool base output  
/[NO]FULL  
/[NO]DIRECTORY  
/[NO]KEEP\_MAP  
/PRINT  
Show Areas of a Data Base Pool  
The name, size, filling level, cluster size, and number of fragments are shown for each Area. The Pool Directory can be shown with /DIRECTORY.

**SHOW SCATTER BUFFER** dyn\_list dyn\_dir base node  
Show scatter buffer size

**SHOW SPECTRUM** name spec\_dir base node output width  
/PRINT  
/ATTRIBUTES/DATA/ALL/STATUS  
/FULL  
/MEMBERS

/LOG  
/INTEGRAL  
/ZERO  
/CAMAC  
/[NO]KEEP\_MAP  
show spectra

**SHOW STARBURST** C=c N=n

Show the execution parameters of a STARBURST.

**SHOW TABLE**

name table tab\_dir base node output  
/CONDITION /SPECTRUM /ALL  
/CONTENT /COUNTS  
/PRINT  
/[NO]KEEP\_MAP  
show flag tables from the analysis

**SHOW TP0 KEYPAD** -

Display of GOOSY auxiliary keypad definition active in GOOSY prompter  
MGOOTP0 May be called by PF2 key.

**SHOW TREE**

base output  
/[NO]KEEP\_MAP  
/PRINT  
Show indices of a Data Base Pool Directory  
For test purpose only.

**SHOW TYPE**

type base output  
Show a Type descriptor. Wild card are allowed.

**SHOW VME CONTROL**

name VMEcrate,processor ID  
dummy node  
/LOAD  
/ALL/FEP/EB [=DESTINATION]  
/CVI/CAV/EBI [=CONTROL]

Show values in control structure

**SHOW VME SETUP** file /FULL

Show VME setup.

**SLEEP**

-  
Put the prompter in a HIBERNATE state.

**START ACQUISITION** buffers events

skip\_buf skip\_event

/CLEAR /NET /STOP /RESET

Start data taking

**START ANALYSIS OUTPUT** file size bufsize

device directory

type subtype stream

headerinput headeroutput

/PROMPT

/EDIT

/[NO]OPEN

/[NO]SYNCHRON

/COPY/COMPRESS/INPUT

/MBD/J11

/BYTE/KBYTE/PAGE/BUFFER

Start data output from analysis. Output is done to DECnet. If a file is specified, output is written to file too.

**START ANALYSIS RANDOM** buevents events

Start analysis for Monte Carlo.

**START BUFFER DUMP** file buffers size

/ANALYSIS

/KBYTE

Open file and write buffers to LMD file.

**START DYNAMIC LIST** -

dyn\_list dyn\_type dyn\_dir base node

Start execution of dynamic list

**START INPUT FILE** file buffers events

skip\_buffer skip\_event

device directory

/CLEAR

/OPEN

/FOREIGN

/[NO]HEADER

Start data analysis from file at current position. Open it if it was not open.

**START INPUT MAILBOX** mbx\_name mbx\_number

buffers events buevents

skip\_buffers size

Open input stream from mailbox

**START INPUT NET** node environment component  
buffers events  
/TMR/ANL  
/MULTI  
Open input stream from network

**START MR2000** 0 branch crate station  
/INITIALIZE  
Start/initialize MR2000.

**START OUTPUT FILE** file size number  
device directory  
headerinput headeroutput  
/PROMPT  
/EDIT  
/[NO]OPEN  
/AUTOMATIC  
/ALLOCATE  
/PAGE /BYTE /KBYTE /BUFFER  
Start list mode dump

**START RUN** name  
Start run.

**START SCATTER** -  
/SYNCHRONOUS /ASYNCHRONOUS [=MODE]  
Start scatter plots for actual picture

**START VME** VMEcrate,processor ID dummy node  
/LOAD  
/ALL/FEP/EB [=DESTINATION]  
/CVI/CAV/EBI [=CONTROL]  
Send START command to NET

**STOP ACQUISITION** /ABORT /CLOSE /STOP/RESET  
Stop data taking

**STOP ANALYSIS OUTPUT** /[NO]CLOSE  
Stop data output from analysis

**STOP ANALYSIS RANDOM** -  
Close input stream from mailbox

**STOP BUFFER DUMP** -  
Stop writing to LMD file. Close File

**STOP DYNAMIC LIST**    dyn\_list dyn\_type dyn\_dir base node  
                            Stop execution of dynamic list

**STOP INPUT FILE**    -  
                            /CLOSE  
                            Stop reading input file, optional close.

**STOP INPUT MAILBOX**    mbx\_num  
                            Close input stream from mailbox

**STOP INPUT NET**    -  
                            Close input stream from DECnet

**STOP MR2000**    0 branch crate station  
                            Stop MR2000.

**STOP OUTPUT FILE**    -  
                            /[NO]CLOSE  
                            Stop list mode dump

**STOP RUN**    /STOP /ABORT /CLOSE  
                            Stop run.

**STOP SCATTER**    -  
                            Stop scatter plots for actual picture

**STOP VME**    VMEcrate,processor ID dummy node  
                            /LOAD  
                            /ALL/FEP/EB [=DESTINATION]  
                            /CVI/CAV/EBI [=CONTROL]  
                            Send STOP command to NET

**STORE LRS\_2365**    C=c N=n FILE=file  
                            /DUMP/NODUMP  
                            Read back definitions from a LRS 2365 logic matrix and write them  
                            formated to a file (or SYS\$OUTPUT).

**STORE MBD**    file  
                            Store a MBD memory dump in a file.

**SUMUP SPECTRUM**    spectrum window file spec\_dir base node  
                            /CHAN/CALIB [=CALIBR]  
                            /[NO]OUTPUT  
                            /[NO]APPEND  
                            /[NO]KEEP\_MAP  
                            Integrate specified window

- TEST BOR\_1802** -  
B=b C=c N=n  
REPEAT=r  
/LIST /STOP /RUN /START /LOOP  
/FULL  
Perform tests with a BORER 1802 Dataway display
- TEST CAMAC** B=b C=c N=n TYPE=\*  
/STOP  
/LIST  
Common functions for CAMAC tests.
- TEST GSI\_IOL** -  
B=b C=c N=n  
REPEAT=r  
/LIST /STOP /RUN /START /LOOP  
/LOOPBACK  
Test a GSI I/O LAM (IOL) module.
- TEST LRS\_2228** -  
B=b C=c N=n  
REPEAT=r  
/LIST /STOP /RUN /START /LOOP  
/VALUE  
Test a LRS 2228 TDC module.
- TEST LRS\_2249** -  
B=b C=c N=n  
REPEAT=r  
/LIST /STOP /RUN /START /LOOP  
/PEDESTAL  
Test a LRS 2249 ADC module.
- TEST LRS\_2551** -  
B=b C=c N=n  
REPEAT=r  
/LIST /STOP /RUN /START /LOOP  
Test a LRS 2551 scaler module.
- TEST LRS\_4432** -  
B=b C=c N=n  
REPEAT=r  
/LIST /STOP /RUN /START /LOOP  
Test a LRS 4432 scaler module.

|                      |   |  |
|----------------------|---|--|
| <b>TEST LRS_4434</b> | -   | B=b C=c N=n<br>REPEAT=r<br>/LIST /STOP /RUN /START /LOOP<br>Test a LRS 4434 scaler module.   |
| <b>TEST MPI_BIT</b>  | -   | B=b C=c N=n<br>REPEAT=r<br>/LIST /STOP /RUN /START /LOOP<br>Test a MPI bit encoder module.   |
| <b>TEST MPI_TDC</b>  | -   | B=b C=c N=n<br>REPEAT=r<br>/LIST /STOP /RUN /START /LOOP<br>/VALUE<br>Test a MPI slow TDC module.  |
| <b>TEST REGISTER</b> | -   | B=b C=c N=n<br>A=a F=f<br>REPEAT=r<br>/LIST /STOP /RUN /START /LOOP<br>WIDTH=w /FULL<br>Perform tests with a any register in a CAMAC module. |
| <b>TEST SEN_2047</b> | -   | B=b C=c N=n<br>REPEAT=r<br>/LIST /STOP /RUN /START /LOOP<br>Test a SEN 2047 pattern unit.  |
| <b>TEST SEN_2090</b> | -   | B=b C=c N=n<br>REPEAT=r<br>/LIST /STOP /RUN /START /LOOP<br>Test a SEN 2090 video display driver.  |
| <b>TYPE BUFFER</b>   | number /HEADER<br>Start to type data buffers      |  |
| <b>TYPE EVENT</b>    | number id /SAMPLE /HEADER<br>Start to type events |  |

**TYPE FILE** file skip buffers events id outfile  
/HEADER /DATA  
/EVENTHEADER  
/SAMPLE  
/PRINT  
Output GOOSY list mode data file (called in MUTIL).

**UNFREEZE CONDITION** name cond\_dir base node  
/[NO]KEEP\_MAP  
unfreeze a condition, enable the execution of a condition

**UNFREEZE SPECTRUM** name spec\_dir base node  
/[NO]KEEP\_MAP  
unfreeze a spectrum, enable the accumulation

**UNPROTECT SPECTRUM** name spec\_dir base node  
/LOG  
/[NO]KEEP\_MAP  
Unprotect one (or all) spectrum

**UPDATE BASE** base  
Update a Data Base, write all pages to Section File

**UPDATE DYNAMIC LIST** dyn\_list dyn\_dir base node  
/[NO]KEEP\_MAP  
Update a Dynamic List

**UPDATE FRAMES** frames seconds  
/REFRESH  
Update frames in the actual picture on screen

**WAIT** seconds  
Wait n seconds.

**WRITE CAMAC SPECTRUM** name spec\_dir base node  
/ADD  
/LOG  
/[NO]KEEP\_MAP  
Write spectrum data from GOOSY spectrum into MR2000

**ZOOM FRAME** frame picture dyn\_scat  
pic\_dir dyn\_dir buffer\_size base node  
Zoom one frame of a picture.

## Chapter 2

# GOOSY Macros

|                 |   |
|-----------------|---|
| <b>\$ACCU</b>   | (type,base,dir,name,incr,dim,x1,x2,...)<br>Accumulate spectrum  |
| <b>\$ACCU1</b>  | (type,base,dir,name,ind,incr,dim,x1,x2,...)<br>Accumulate 1-dim. indexed spectrum                       |
| <b>\$ACCU2</b>  | (type,base,dir,name,i1,i2,incr,dim,x1,x2,...)<br>Accumulate 2-dim. indexed spectrum                     |
| <b>\$ATTACH</b> | (type,base,access)<br>Attach data base items  |
| <b>\$COND</b>   | (type,base,dir,name,result,dim,x1,x2,...)<br>Executes condition and returns result.                     |
| <b>\$COND1</b>  | (type,base,dir,name,ind,result,dim,x1,x2,...)<br>Executes 1-dim. indexed condition and returns result   |
| <b>\$COND2</b>  | (type,base,dir,name,i1,i2,result,dim,x1,x2,...)<br>Executes 2-dim. indexed condition and returns result |
| <b>\$DE</b>     | (base,dir,name,member)<br>Data elements reference   |
| <b>\$DE1</b>    | (base,dir,name,index,member)<br>Data elements reference   |
| <b>\$DE2</b>    | (base,dir,name,i1,i2,member)<br>Data elements reference (2-dim)   |
| <b>\$DETACH</b> | (type,base)<br>Detach data base items   |

|                    |  |
|--------------------|--|
| <b>\$LOC</b>       | (type,base,dir,name,access,descr)<br>Locate data elements for analysis   |
| <b>\$LOC1</b>      | (type,base,dir,name,ll,ul,access,descr)<br>Locate 1-dim. data element arrays for analysis  |
| <b>\$LOC2</b>      | (type,base,dir,name,l1,u1,l2,u2<br>,access,descr)<br>Locate 2-dim. data element arrays for analysis  |
| <b>\$MACRO</b>     | @INCLUDE \$MACRO(\$MACRO)<br>Initialize analysis macros  |
| <b>\$SPEC</b>      | (type,base,dir,name,value,dim,x1,x2,...)<br>Set spectrum channel   |
| <b>\$SPEC1</b>     | (type,base,dir,name,ind,value,dim,x1,x2,...)<br>Set channel in 1-dim. indexed spectrum   |
| <b>\$SPEC2</b>     | (type,base,dir,name,i1,i2,value,dim,x1,x2,...)<br>Set channel in 2-dim. indexed spectrum   |
| <b>ADD_MSG</b>     | @ADD_MSG(errorcode,arg1,arg2,arg3)<br>accomplish the error message belonging to the errorcode by the specified arguments and write the message on the internal error- message stack. |
| <b>BYTE</b>        | @BYTE(integer)<br>returns the ASCII(EBCDIC) character whose code is equivalent to the given integer.   |
| <b>CALL</b>        | @CALL procedure<br>performs a function call  |
| <b>CLR_MSG</b>     | @CLR_MSG<br>clear the internal message stack on  |
| <b>DCL_MSG</b>     | @DCL_MSG(errorname);<br>declaration of error   |
| <b>DMP_CLR_MSG</b> | @DMP_CLR_MSG<br>write the internal message stack on the screen   |
| <b>ENTRY</b>       | label: @ENTRY<br>remember name of entry  |
| <b>INCLUDE</b>     | @INCLUDE lib(member)<br>include PPL code   |

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|--------------------|--|
| <b>LOCAL_ERROR</b> | @LOCAL_ERROR()<br>resignals errors from lower procedure levels   |
| <b>ON_ANY_E</b>    | @ON_ANY_E(u_cleanup)<br>catches all signaled errors, calls <u_cleanup> before resignaling the error  |
| <b>ON_ANY_F</b>    | @ON_ANY_F(u_cleanup)<br>catches all signaled errors, calls <u_cleanup> before resignaling the error  |
| <b>ON_ANY_W</b>    | @ON_ANY_W(u_cleanup)<br>catches all signaled errors, calls <u_cleanup> before resignaling the error  |
| <b>PROCEDURE</b>   | <label>:@PROCEDURE<br>remembers the name of the current module   |
| <b>PUT_CLR_MSG</b> | @PUT_CLR_MSG<br>write the internal message stack on the screen   |
| <b>RANK</b>        | @RANK(char)<br>returns a BIN FIXED (15) number which corresponds to the input character <char>.  |
| <b>REPEAT</b>      | @REPEAT(cv,i_repeat)<br>return the string cv concatenated to cv i_repeat times   |
| <b>RET</b>         | @RET(errorcode)<br>returns the error code to the calling procedure,  |
| <b>RET_ADD_MSG</b> | @RET_ADD_MSG(errorcode,arg1,arg2,arg3)<br>return and write specified message onto error stack  |
| <b>RET_SET_MSG</b> | @RET_SET_MSG(errorcode,arg1,arg2,arg3)<br>return and write specified message onto error stack  |
| <b>SIZE</b>        | @SIZE(reference)<br>returns number of bytes allocated to the referenced variable   |
| <b>STORAGE</b>     | @STORAGE(reference)<br>returns number of bytes allocated to the referenced variable  |
| <b>TRACE_MSG</b>   | @TRACE_MSG(errorcode,arg1,arg2,arg3)<br>Write a trace message to the internal error stack. The errorcode is normally returned by another routine signaling an error. |
| <b>TRIM</b>        | @TRIM(cv_string,cv_lead,cv_trail)<br>remove leading and/or trailing characters from a string   |



# Chapter 3

## DCL Commands

|                  |  |
|------------------|--|
| <b>acctng</b>    | @acctng p1 p2 p3<br>Takes the ACCOUNTNG file of VMS and do selective inquiries using ACCOUNTING (the VMS utility).                         |
| <b>ALIAS</b>     | command arguments<br>Handle GOOSY alias command names  |
| <b>ATENVIR</b>   | ATENV*IR environment<br>Attach environment.  |
| <b>BFXT</b>      | @GOO\$EXE:BFXT inirep action file /ID=MYDATA/MODE=CHAR<br>/FILELN=fileln/MSGLEVEL=msglevel/NOEXECUTE<br>send data to the IBM via BFX/NETEX |
| <b>CADDRESS</b>  | infile outfile /PRINTER=p<br>Create and optional print address files..   |
| <b>CADJUST</b>   | infile outfile /ADJUST/TAB<br>Adjust GOOSY documentation headers.  |
| <b>CALLEX</b>    | library filespec GL-switches<br>Extract Calling sequence from PLI source.  |
| <b>CALLTREE</b>  | input /MODULE= /OUTPUT= /TT /EXCLUDE=<br>Makes a calling tree out of a cross reference   |
| <b>CBACKUP</b>   | P1 P2 ... P8<br>Execute the VMS BACKUP utility and return an exit status based on the analysis of all errors.                              |
| <b>CBATCHDCL</b> | ”dcl_line1” ”dcl_line2”<br>”dcl_line3” ”dcl_line4”   |

/LOGFILE=file /DEFAULT=dir  
/QUEUE=q /AFTER=time /NAME=n  
/CHARACTERISTICS=c/CPUTIME=t/RESTART  
/NODE=n  
/VERIFY/ACCOUNTING  
/WARNING/ERROR/FATAL

Executes up to 4 DCL command lines in a BATCH job under the current default directory either on the local or an remote node.

**CBINHEX**

in\_file out\_file

This procedure creates a HEX file containing the FDL description and the contents in hexadecimal format of another file. Those HEX files can be converted back with CHEXBIN and are usefull for sending them over stupid communication links.

**CDBLQUOTE**

input

Replace every quote in a text string by a double quote.

**CDCLCOM**

inc module

performs a compile of PL/I text contained in 'file' within a dummy frame (GOO\$DM:U\$DCLDU.PPL)

**CDCLLIST**

dsc p1 p2 p3 p4 p5 p6 p7

This procedure provides a mechanism which allows to pass parameters and qualifiers to DCL procedures in the same way as to DCL commands.

**CDELSYM**

prefix start end

Delete global symbols created by CNAMELIST or CWILDCARD

**CDIFFER**

file1 file2 /LIST/PARA/DIFFER

Allows wildcarded DIFFERENCE with suppressed output.

**CDIRO**

file-spec. /SIZE /DATE /FULL/TEST

sorts a DIR command output

**CDOCUM**

CDOC module type formatter library

Generates documentation from source file and inserts text module to library

**CEASYMAIL**

@GOO\$EXE:CEASYMAIL file recipient /SUBJECT=s/DELETE

Send a file as MAIL to a High Energy Physics DECnet user via EARN via the Mailer at CUNYVM.

**CREDITDOC**

CED file key

Calls MGENHEAD for header generation and the VMS editor LSEDIT.

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| <b>CFILTYPES</b> | CFILT*YPES file switches /D*IRECT<br>Outputs list of all file types on a directory  |
| <b>CHANAL</b>    | infile outfile /COPY/FULL<br>Check GOOSY analysis programs.   |
| <b>CHECKDATE</b> | newfile oldfile<br>Checks whether newfile is younger than oldfile (status=1) or not (status=11)   |
| <b>CHEPMAIL</b>  | @GOO\$EXE:CHEPMAIL file recipient /SUBJECT=s/DELETE<br>Send a file as MAIL to a High Energy Physics DECnet user via EARN via the Mailer at CERNVAX. |
| <b>CHEXBIN</b>   | in_file out_file<br>This procedure processes a HEX file send of a stupid communication network and creates the file described in the HEX file.      |
| <b>CINCHLP</b>   | CINC*HLP format incl.libr.(module) help-libr.<br>Generates documentation of include modules.  |
| <b>CINSNUM</b>   | CINS input output<br>Inserts line numbers (9 char.) to source files   |
| <b>CLCOUNT</b>   | file symbol /NOHEAD<br>Outputs number of lines of source files  |
| <b>CLINK</b>     | CL file/switches /switches<br>Link programs. Defaults are updated.  |
| <b>CMAIL</b>     | file recipient /ED*IT /DEL*ETE /SUB*JECT=s<br>/NOSE*LF /SPOOL=s<br>Send or spool a MAIL with VMSmail or other mail systems on V8600B only           |
| <b>CMANUAL</b>   | CMAN <utility list> <format> <prefix><br>Composes GOOSY manuals (Programs, modules, procedures)   |
| <b>CMESSAGE</b>  | facility [switch]<br>Utility to insert a new message in a message file  |
| <b>CMODMAP</b>   | file /COMPILE /OUTPUT=file<br>Outputs list of modules called by module in file. (Only first level calls)  |
| <b>CMSGLIST</b>  | CMSG*LIST [directory][module]<br>Generates script and help file of all GOOSY messages   |

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| <b>CMTBACK</b>   | output<br>Perform an image system backup for all disk devices on a magtape without verification.   |
| <b>CNAMELIST</b> | <namelist> <prefix><br>/DIR*ECTORY<br>/SHORT<br>/LIB*RARY=<library><br>/SEL*ECT=<string><br>/EXC*LUDE=<string><br>/SEA*RCH=<string><br>/SIN*CE=<date><br>/BEF*ORE=<date><br>/OUT*PUT=<file><br>Defines a set of symbols with names got from <namelist>.                    |
| <b>CNOTICE</b>   | recipient/NOSELF<br>"subject" "line 1" ... "line 6"<br>Send a short notice with VMSmail  |
| <b>COMPILE</b>   | COM*PILE file /PRE*QUAL=(list)/Q*UALIFIER=(list)<br>/G*IPSY=list/LIBRARY=(list)/DEBUG/KEEP<br>/OLB=library/SINCE=time/BEFORE=time/NEWPLI<br>/FAST/MACRO/CALL/BATCH/COMPILE<br>General compile procedure for all compilers THE PREVIOUS VERSION CAN BE CALLED BY OCOMPILE ! |
| <b>CONCAT</b>    | infile outfile /LOG/DELETE/CONFIRM/APPEND<br>Concatenates input files to one output file.  |
| <b>COPTLIST</b>  | list keylist<br>Parse IBM styled optional parameter list for DCL procedures.   |
| <b>CPLICOM</b>   | PPL_file/switches /switches %DEB %NEWPLI<br>Compile PLI programs including certain text libraries. Defaults are updated.   |
| <b>CPRECOM</b>   | CPRE*COM file(switches)<br>Call precompiler  |
| <b>CPRINT</b>    | file_list /DESTINATION=d<br>Print a file on a spooled printer.   |
| <b>CPURGE</b>    | CPU*RGE filespec [purge qual.]<br>Does a secure purging  |

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| <b>CREDB</b>      | basename filename size[KB]<br>/DYNLISTS=d /SPECTRA=s /CONDITIONS=c<br>/PICTURES=p /DIRECTORIES=d /POOLS=p<br>/POLYGONS=p /NEW /SAVE=file<br>Create an preformat a new GOOSY data base.                               |
| <b>CREMNUM</b>    | CREM input output col check<br>Removes line numbers (<col> char.) from source files checking first <check> characters to be digits.  |
| <b>CRENVIR</b>    | CRENV*IR environment program component<br>/ONLINE/OFFLINE/DEFAULT<br>/\$TMR/\$ANL/\$DSP/\$DBM/J11<br>/[NO]DECWINDOW<br>/PRIORITY=p/DELETE<br>Creates a GOOSY environment and optional some GOOSY standard components |
| <b>CREPEAT</b>    | CREP*EAT dcl_line<br>Repeats a dcl command continuously, beginning on screen top.  |
| <b>CREPLACE</b>   | CREPL*ACE file old new /U*PPER/P*RINT/F*ORMAT/OUT=file<br>Replaces old string by new calling MREPLACE. Documentation headers will be adjusted optionally.  |
| <b>CSYMDIR</b>    | @GOO\$EXE:CSYMDIR<br>Create symbols for SET DEFAULT from the directory tree  |
| <b>CSYMHLP</b>    | CSYM input output<br>Calls MSYMHLP to generate help files from command procedures.   |
| <b>CTEXCOM</b>    | file /NOLIST/NOLATEX/PASSES=n/DVI=drv/DELETE=l<br>'Compile' TEX source using PLAIN TeX or LaTeX  |
| <b>CTEXMANUAL</b> | manual /REF*ORMAT<br>/REL*EASE=r/VER*SION=v/BR*IEF<br>Create GOOSY manual  |
| <b>CTRL_T</b>     | [process][output]<br>Similar to an interactive CTRL_T, but works in DCL procedures.  |
| <b>CVTISOL</b>    | <input file>,<output file>[/SHORT]<br>Convert ISOLDE spectra into SATAN readable format.   |
| <b>CWHAT</b>      | options arguments<br>Activates the WHAT Utility to display details about the VMS system status.  |

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| <b>CWV</b>      | -<br>inquires a diary, 'Wiedervorlage'   |
| <b>D0_BACK</b>  | @D0_BACK output ALL<br>Perform an image backup for disk device DUA0: on a magtape without verification.  |
| <b>DCFIBM</b>   | vaxfile "parm list"  |
|                 | Sends VAXfile to IBM DCFTTEMP.TEXT and starts batch job calling DCF on IBM   |
| <b>DLENVIR</b>  | DLENV*IR<br>Delete current environment and all subprocesses  |
| <b>DOCIBM</b>   | DOC vaxfile [dest]PROP TWOPASS<br>Sends a file to IBM DOCTEMP.TEXT(DUMMY) and starts batch job calling DOC   |
| <b>Document</b> | Description of the module documentation tools<br>The following commands are provided to generate documentation for VMS help utility and printer output (RNO and SCRIPT).   |
| <b>DTENVIR</b>  | DTENV*IR<br>Detach environment.  |
| <b>DVIIBM</b>   | dvifile switches<br>Sends DVI-file to IBM. via batch job   |
| <b>DVIPRI</b>   | -<br>file(s) /DEVICE=dev /STARTPAGE=spage<br>/PAGES=npage /DELETE /SEP*ARATE/[NO]PR*INT<br>Print TeX's device independant (DVI) file   |
| <b>ECLINE</b>   | ECL*INE dcl-line /LIS*T /CONF*IRM /NOASS*IGN<br>/ \$\$1=list / \$\$2=list<br>/1LIB*RARY=lib /2LIB*RARY=lib<br>/1SIN*CE=date /2SIN*CE=date<br>/1SH*ORT /2SH*ORT<br>/1DIR*ECT /2DIR*ECT<br>/1SEA*RCH=list /2SEA*RCH=list<br>Execute dcl line with dummies replaced from list |
| <b>EDDT</b>     | file /READ/PROFILE=prof<br>Call full screen edit with a profile depending on the file type.  |

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| <b>Error_Handling</b> | Error and Message Handling, User's Guide Vers. 1.05<br>This documentation is available on-line, say 'HELP ERROR_HANDLING'.  |
| <b>ETHDEF</b>         | destination ethernet protocol interface<br>Define logicals for ethernet connection to VME.  |
| <b>EXTRECALL</b>      | libfile<br>Calls MCALLSYS or MCALLRTL to extract procedure call statements from a listing LIB /EXTRACT from a library   |
| <b>GIPSY</b>          | input output /LIST/DELETE<br>Call GIPSY processor.  |
| <b>GLCNVPROJECT</b>   | @GOO\$EXE:GLCNVPROJECT file project<br>Convert project name within a history file   |
| <b>GLCNVV31</b>       | @GOO\$EXE:GLCNVV31 file<br>Convert history file format from version 3.1 to 4.0  |
| <b>GLCOMPILE</b>      | file<br>Compile a file in the local test environment  |
| <b>GLCREATE</b>       | option arguments<br>Creates datasets or entries in the history file directories.  |
| <b>GLDELETE</b>       | option arguments<br>Deletes either datasets or information in the history file.   |
| <b>GLDOCUMENT</b>     | GLDOC*UMENT filespec /PUT extr.qual form.qual<br>Generate documentation with GLEXTRACT and GLFORMAT.  |
| <b>GLEDIT</b>         | dataset /COMMENT=c/NOMARK/NOSUBMIT/NOCONFIRM<br>Edit a dataset.   |
| <b>GLEXTRACT</b>      | file_list /MLIB=ml /CLIB=cl<br>/MTLB=mt /MHLB=mh /CTLB=ct /CHLB=ch<br>/TYPE=t/NOSUBMIT /SORT /DIRECT=file<br>/CALL*LIB=tl<br>Extract documentation from source files or libraries and store in libraries or file. |
| <b>GLFORMAT</b>       | input output /SELECT=sl /EXCLUDE=el<br>/TEX/SCRIPT/HELP/PRINT/RNO<br>/BRIEF/COMMAND/TOC/HL2/LEV2<br>/LIB=l /HLB=ml /NOSUBMIT<br>/LOG/DIAGNOSIS<br>Format extracted documentation headers.                         |

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| <b>GLGET</b>     | dataset file /COMMENT="comm"<br>Copy a dataset from a project directory or library to the current working directory.   |
| <b>GLINFO</b>    | key<br>Call GOOSY information system   |
| <b>GLMAIL</b>    | "subject" /AUTHOR/USER/PROJECT/KEY=key/CONF=conf<br>Send MAIL to current projects author group or user group and add this message in the appropriate news file.  |
| <b>GLMANAGER</b> | option arguments<br>Performs all project manager functions.  |
| <b>GLPUT</b>     | file dataset<br>/COMMENT="comm"<br>/SOURCE/GENERATED/FOREIGN<br>/NOMARK /NOCORRELATE /NOSUBMIT<br>/DOCUMENT /COMPILE /LINK<br>/PROLOGUE /EPILOGUE /UPDATE<br>/NEW/NOCONFIRM/NODELETE<br>/MFORMAT=lib/CFORMAT=lib<br>Store a file from the working directory to a project directory or library. |
| <b>GLRELEASE</b> | dataset /COMMENT=c /NOINTERLOCK<br>Release a locked dataset without storing a dataset.   |
| <b>GLSATTR</b>   | GLSAT*TR type module /UPD*ATE<br>Set attributes for certain types of modules   |
| <b>GLSET</b>     | option arguments<br>Defines or changes attributes and characteristics of datasets in the history file or modifies execution characteristics of module management operations.   |
| <b>GLSHOW</b>    | option arguments<br>Displays information about the current status of the project and it's modules.   |
| <b>GLTEST</b>    | option arguments<br>Collects all operations of the local test environment.   |
| <b>GLTOOL</b>    | option arguments<br>This command is a collection is software development tools available under the module managemant system.   |

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| <b>GLUPDATE</b>   | dataset<br>/NOMARK /NOCORRELATE /NOSUBMIT<br>/DOCUMENT /COMPILE /LINK<br>/PROLOGUE /EPILOGUE<br>/UPDATE<br>Mark a file for update actions.      |
| <b>GNEWS</b>      | outfile /SYSTEM/FILE<br>Output all GOOSY mails.   |
| <b>GNOTES</b>     | command<br>Read or write notes in one of the GOOSY notebooks.   |
| <b>GOOCONTROL</b> | GOOC*ONTROL [CREATE]or [DISMOUNT]<br>Defines logical name GOO\$CONTROL for control data base. The data base is created and mounted optionally.  |
| <b>GUIDE</b>      | facility level /INIT=string/BRIEF/LIST/LASER<br>Menu driven guide to use facilities.  |
| <b>HPSCR</b>      | help-library module<br>Extracts modules from a Help library and generates a new output file for SCRIPT  |
| <b>IBMSUBMIT</b>  | IBMSUBMIT vaxfilejcl<br>/MAILADDR= /NOANSWER/MSGLEVEL=<br>submit a JCL on the ibm and send optionally back the resulting output to the VAX      |
| <b>LANL</b>       | LA*NL obj_list /OLB=objlib/OPT=optfile/CMD=cmdfile<br>/EXE=exefile /MAP=mapfile<br>/DEBUG /SHARE/NOSHARE<br>Link user specific analysis program |
| <b>LIBCOPY</b>    | source_lib source_mod target_lib target_mod<br>/EDIT /GL /LOG<br>Copies text modules from one library to another.                               |
| <b>LIBDEL</b>     | LIBD*EL library module<br>Handle text library modules   |
| <b>LIBDIFF</b>    | source_lib source_mod target_lib target_mod<br>/DIFFER<br>Compare text modules from two libraries.  |

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| <b>LIBEXT</b>    | library module output<br>Extract modules from text library.   |
| <b>LIBLIS</b>    | library module /FULL/SIN*CE=time<br>/BEF*ORE=time/EXT*RACT/OUT*PUT=file-spec<br>Lists or extracts specified modules of a library                          |
| <b>LIBSEARCH</b> | LIBS*EARCH library module list="search args"<br>/SINCE=time/BEFORE=time/FILE<br>Calls SEARCH on modules temporarily extracted from libraries (text only). |
| <b>LIBTYPE</b>   | LIBT*YPE library module /PRINT /EDIT<br>Handle text library modules   |
| <b>LINKJ11</b>   | objfile /COMPILE<br>Link a J11 stand alone task   |
| <b>LOADKEYS</b>  | -<br>Load F-keys of VT200/VT300.  |
| <b>LSHARIM</b>   | module image<br>/GLOBAL=list<br>/SHARE*LOG=name<br>/MAP=mapfile<br>/KEEP<br>/GROUP<br>/DEBUG<br>Link modules into a sharable image.                       |
| <b>MESDEF</b>    | facility /CLIB=/[NO]NEW/GLPUT/DELETE/LIST<br>Generate message definition file for C programs.   |
| <b>MOVE</b>      | filespec dest /CONF /LOG<br>Copies files and deletes them on source directory.  |
| <b>MTAPE</b>     | device name<br>/INI*TIALIZE/DENS*ITY=d/BLOCK*SIZE=b/DIS*MOUNT<br>Initialize and mount a GOOSY tape  |
| <b>NEWMOD</b>    | * /SINCE=<date> /HELP<br>Outputs a list of all new help modules   |
| <b>NWCOPY</b>    | node source dest<br>Copy one or more files to one or more nodes   |

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| <b>NWDCL</b>     | node dcl_line output<br>Execute a single DCL command line on one or more nodes.   |
| <b>NWDEFINE</b>  | user paszwort<br>Define logical names for DECNET functions  |
| <b>NWDIFDIR</b>  | node file_spec<br>Compare a directory on a remote node with the local directory and create a list of differences.   |
| <b>NWDIRECT</b>  | node dir_spec dir_qual<br>Compares directories on different nodes   |
| <b>NWLIBRARY</b> | node library file qual<br>Perform a library operation on one or more nodes  |
| <b>NWUPDATE</b>  | node file_list<br>/DESTINATION=d<br>/EXCLUDE=l<br>/LOG/JOURNAL<br>/SINCE=t/BEFORE=t<br>/MODIFIED/CREATED/EXPIRED/BACKUP<br>/REPLACE/OVERLAY/NEW_VERSION<br>/GENERIC<br>Transfer a set of files to one or more nodes using the BACKUP utility. |
| <b>OPSER</b>     | command<br>Execute privileged operator commands   |
| <b>PFKEY</b>     | —<br>Define terminal auxiliary keypad keys.   |
| <b>PLOTMET</b>   | metafile type command plotter<br>/COPIES=c /FONT=f<br>Plot a metafile on specified plotter  |
| <b>PRIL</b>      | vaxfile switches<br>Sends VAX-file to IBM PRILTMP1.LIST and starts batch job calling PRIL on IBM (VAX-780 only)   |
| <b>PRILS</b>     | file /PROP<br>prints VAX sources on the laser printer   |
| <b>PROMPT</b>    | prompt-string default /REQUIRED help<br>Prompt input from SYS\$COMMAND  |

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| <b>RIBM</b>       | ibmds vaxfile<br>/COL=/CHECK=/MEMLIST=/\$ALL/INTERACTIVE/NOANSWER<br>Send IBM dataset to VAX file.  |
| <b>RRUN</b>       | RR file/switches /switches<br>Runs programs. Defaults are updated.  |
| <b>SCRIBM</b>     | SCRI vaxfile [profile][edit]<br>Sends VAX-file to IBM SCRITEMP.TEXT and starts batch job calling SCRIPT on IBM  |
| <b>SELECT_MBD</b> | mbd<br>Select a valid MBD controller on a VAX   |
| <b>SETMESSAGE</b> | facility qualifier<br>Control Message output of GOOSY and VMS   |
| <b>SETSYM</b>     | symbol value<br>Checks if symbol already exist and outputs message in this case. Sets symbol to value.  |
| <b>SIBM</b>       | vaxfile ibmds /MODE=<br>/MAILADDR=/NOANSWER/INTERACTIVE<br>Sends VAX-file(s) to IBM-dataset(s) and overwrites existing datasets or members  |
| <b>SIBMGKS</b>    | metafile /PLOTTER=p<br>Output GKS-Metafile on Plotter RP01,RP02   |
| <b>SIBMSPEC</b>   | datafile VSAMlib /RUNID=runid /TIME=<br>/NOL*IST<br>Dump GOOSY spectra to SATAN VSAM library  |
| <b>SSYMBOL</b>    | SSYM [<name>][/SEARCH=<string>]<br>Displays symbol translation  |
| <b>SWSIZE</b>     | proc.-name /W*SMIN=min/S*STATUS=status/R*EPEAT=n<br>Show processes with their workin set sizes.   |
| <b>TDOCUMENT</b>  | TDOC*UMENT file /TOC /INDEX /GOOSY /REP*ORT<br>/REL*EASE=r /VER*SION=v<br>/TITLE=tt /AU*THORS=a<br>/LABEL=lt /LOGO=ll<br>Format TeX source, e.g. produced by GLFORMAT of GLDOC, in the GOOSY document style |

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| <b>TLOCK</b>            | -<br>Lock terminal by password   |
| <b>VMESTRUC</b>         | inputfile /PLI/FOR/C/PLIB=/CLIB=/FLIB=<br>/GLPUT/DELETE<br>Generate declarations from language independent source.                                       |
| <b>VMS_Primer</b>       | Short introduction for VAX users at GSI.<br>"Common DEC-IBM PLI Standard" by W.F.J.Mueller and H.G.Essel<br>"GOOSY Conventions (Standards)" by H.G.Essel |
| <b>WCLOSE</b>           | file<br>Wait for file to be closed.  |
| <b>MADDR</b>            | -<br>Format addresses from the source INPUT and writes the result to the destination OUTPUT  |
| <b>MADJUST</b>          | input[,output]/ADJUST/TAB<br>Adjusts right margins of documentation headers  |
| <b>MANALCH switches</b> | MANALCH<br>Check GOOSY analysis routines.  |
| <b>MANL</b>             | RUN GOO\$EXE:MANL<br>Attach and execute dynamic lists  |
| <b>MBASE</b>            | -<br>Mount/dism GOOSY data base.   |
| <b>MBINHEX</b>          | binfile<br>Convert binary files to ASCII HEX format.   |
| <b>MCALLEX</b>          | /PPL/PLI<br>Extract calling sequence.  |
| <b>MCALLRTL</b>         | -<br>Extracts call-statements out of a GOORTL listing  |
| <b>MCALLSYS</b>         | -<br>Extracts calling-statements out of a listing from PLISTRARLET with the system services  |
| <b>MCALLTREE</b>        | [module-name]<br>Makes a calling tree out of a cross reference list  |

|                  |   |
|------------------|---|
| <b>MCMD</b>      | R GOO\$EXE:MCMD<br>Test and demonstration program for the command dispatcher. This programm is used to validate command dispatcher functions after changes and is part of the command dispatcher tuturial |
| <b>MCOMHLP</b>   | input output [/HELP]<br>Reformats a text module generated by MEXTHEA for command decription for MFORMDO.  |
| <b>MCTRL</b>     | STS=MCTRL<br>Control inactive users   |
| <b>MDBCOPY</b>   | –<br>Compress and decompress GOOSY data bases.  |
| <b>MDBM</b>      | –<br>Activate different Data Base Management Activities.  |
| <b>MDCLANAL</b>  | MDCL*ANAL <command line><br>Commands to analyze DCL procedures (Call tree) and generate 'debug' versions.   |
| <b>MDCLDEB</b>   | MDCLD <key list><br>Generates debug versions of command procedures.   |
| <b>MDCLLIST</b>  | ”dsc” p2 p3 .. p8<br>This procedure provides a mechanism which allows to pass parameters and qualifiers to DCL procedures in the same way as to DCL commands.   |
| <b>MDISP</b>     | or by display commands<br>GOOSY display program   |
| <b>MDVICNVV</b>  | RUN GOO\$EXE:MDVICNV<br>Convert TeX DVI-file to ASCII Hex-code  |
| <b>MEXTHEA</b>   | MEXT<br>Extracts documentation blocks generated by MGENHEAD and generates a text module for MFORMDOC  |
| <b>MFIC_CTRL</b> | –<br>Activate different Activities using the command dispatcher.  |
| <b>MFORMDO</b>   | MFORM list<br>Generates SCRIPT and RUNOFF files from textmodules created by MEXTHEA for help and documentation  |

|                    |   |
|--------------------|---|
| <b>MGENCIM</b>     | -<br>Generate card image file to send to IBM  |
| <b>MGENHEA</b>     | MGEN language type mode<br>Generates interactively documentation headers for programs, procedures and command procedures.                       |
| <b>MGNS_ESONE</b>  | RUN GOO\$EXE:MGNS_ESONE<br>Network object to perform remote CAMAC accesses.   |
| <b>MGOOWAIT</b>    | process<br>Wait for analysis completion   |
| <b>MGTOOL</b>      | GTOOL [LIBRARY—DOCUMENT—MESSAGE]<br>Calls GOOSY tools like code management or documentation tools by menu.                                      |
| <b>MGUIDE_DISP</b> | RUN MGUIDE_DISP<br>Called in guide.com to display one menu  |
| <b>MHEXBIN</b>     | binfile<br>Convert ASCII HEX format file created by BINHEX to binary files.   |
| <b>MHPSCR</b>      | from DCL Procedure HLPSCR<br>Generates a file for SCRIPT output from a Help file  |
| <b>MHLPTEX</b>     | from DCL Procedure HLPTEX<br>Generates a file for TEX output from a Help file   |
| <b>MINSNUM</b>     | MINS<br>Inserts line numbers to PLI source files  |
| <b>MJCLTRIM</b>    | file trimmedfile<br>trim JCL output files from the IBM  |
| <b>MLCOUNT</b>     | input /LIST /NOHEAD<br>/PPL/PLI/FOR/MAR/COM<br>Looks for longest record and assignes value to DCL symbols MLCOUNT_MAX_LENGTH and MLCOUNT_LINES. |
| <b>MLIBWILD</b>    | <module spec>[/FULL]<br>Reads input as generated by LIB/LIST and outputs list of matching module names.   |
| <b>MLOCKS</b>      | -<br>Show VMS locks.  |

|                                 |  |
|---------------------------------|--|
| <b>MMESDEF</b>                  | <facility><br>Generate PL1 program to generate file for messages linked.   |
| <b>MMESLIST</b>                 | MMES <facility><br>List all messages linked.   |
| <b>MMODMAP</b>                  | switches<br>Formats output from "SEARCH module.lis ENTRY"  |
| <b>MOPER</b>                    | -<br>Execute privileged operator commands.   |
| <b>MPFKEY</b>                   | or <PF2><br>Display of DCL auxiliary keypad definition   |
| <b>MPLOTMET</b>                 | \$GOO\$EXE:MPLOTMET metafile,type,command,<br>queue,copies,font<br>Send a metafile to a plotter.   |
| <b>MPOSTRIBM</b>                | RUN GOO\$EXE:MPOSTRIBM file columns<br>removes leading numbers, performs necessary character conversions and<br>chops into several files if PDS format |
| <b>MPRECOM</b>                  | MPREC file TAGS(tag list) OUT(out file)<br>Precomposer for PLI programs. Extracts marked lines from master<br>source and outputs PLI source            |
| <b>MPREMES switches MPREMES</b> | Concatenate continuation lines   |
| <b>MRENUM</b>                   | MREM trunc,check<br>Removes line numbers from PLI source files (<trunc> char.) (<check><br>char. are checked to be digits)                             |
| <b>MREPLACE</b>                 | input[,output]/PRINT/FORMAT/UPPER<br>Replaces old string by new string. Adjusts Documentation headers by<br>option.                                    |
| <b>MSECTION</b>                 | basename [/version]<br>Check if a data base is mounted.  |
| <b>MSHOSYM</b>                  | from DCL Procedure CSHOWSYM.COM<br>Display the current value of a global symbol (wildcard)   |
| <b>MSHOW</b>                    | \$GOO\$EXE:MSHOW <command><br>Show commands for use in spawned processes   |

|                 |   |
|-----------------|---|
| <b>MSTATUS</b>  | SHOW GOOSY STATUS proc1 [proc2 [proc3]]<br>GSTATUS proc1 [proc2 [proc3]]<br>Activate GOOSY status program. Equivalent to SHOW GOOSY STATUS command. |
| <b>MSYMHLP</b>  | MSYM<br>Reads a command procedure and generates help file.  |
| <b>MTMR</b>     | RUN GOO\$EXE:MTMR<br>DCL process with a subset of the transport manager functions.  |
| <b>MTRIM</b>    | switches<br>Remove trailing spaces from source INPUT and writes result to destination OUTPUT  |
| <b>MTXTSORT</b> | MTXTS*ORT input file,[output file]<br>Sorts 2+ blocks in text file alphabetically.  |
| <b>MUAMODI</b>  | MUA <action string> <match string><br>Runs AUTHORIZE and modifies all user accounts (Called in CUAMODI.COM)   |
| <b>MUDIRO</b>   | \$GOO\$EXE:MUDIRO.EXE<br>sorts a given directory list   |
| <b>MUTIL</b>    | —<br>Activate different Activities using the command dispatcher.  |
| <b>MVMECMD</b>  | —<br>VME command executor.  |
| <b>MVOICEEX</b> | MVOICE<br>Extracts documentation blocks generated by MGENHEAD and generates a text module for U\$TALK.  |
| <b>MWV</b>      | —<br>inquires a diary, 'Wiedervorlage'  |



## **Chapter 4**

# **GOOSY Command Keywords**

## **GOOSY\_keywords**

**Keywords** In the following the GOOSY command keywords are listed with their occurrence in the commands.

\$

```
$ CLOSE ETHERNET
$ COMMENT
$ DCL
$ DEBUG
$ DEFINE KEY
$ RECALL
$ REPEAT
$ RESET DEFAULT
$ SET DEFAULT
$ SET GNA ETHERNET
$ SHOW COMMAND
$ SHOW GNA COMPONENTS
$ SHOW GNA ETHERNET
$ SHOW GNA LINKS
$ SHOW GNA MCBS
$ SHOW GNA PROCESS
$ SHOW GNA RPC
$ SHOW GNA STATUS
$ SHOW KEY
$ SHOW MEMORY
$ SHOW PROCESS
$ SHOW TIMER
```

**1802**

TEST BOR 1802

**2047**

TEST SEN 2047

**2090**

TEST SEN 2090

**2228**

TEST LRS 2228

**2249**

TEST LRS 2249

**2365**

LOAD LRS 2365  
STORE LRS 2365

**2551**

TEST LRS 2551

**4432**

TEST LRS 4432

**4434**

TEST LRS 4434

**ACQUISITION**

FOREIGN ACQUISITION  
INITIALIZE ACQUISITION  
LOAD MODULE ACQUISITION  
RESET ACQUISITION  
SET ACQUISITION  
SHOW ACQUISITION  
START ACQUISITION  
STOP ACQUISITION

### **ALIAS**

CREATE ALIAS  
DELETE ALIAS  
SHOW ALIAS

### **ALLOCATE**

ALLOCATE DEVICE

### **ANALYSIS**

ATTACH ANALYSIS  
DETACH ANALYSIS  
INITIALIZE ANALYSIS  
LOAD MODULE ANALYSIS  
SET ANALYSIS  
SHOW ANALYSIS  
START ANALYSIS OUTPUT  
START ANALYSIS RANDOM  
STOP ANALYSIS OUTPUT  
STOP ANALYSIS RANDOM

### **AREA**

CREATE AREA  
SHOW AREA

### **ATTACH**

ATTACH ANALYSIS  
ATTACH BASE  
ATTACH DYNAMIC LIST

**ATTACHED**

SHOW DYNAMIC ATTACHED

**BASE**

ATTACH BASE  
COMPRESS BASE  
CONVERT BASE  
COPY BASE  
CREATE BASE  
DECOMPRESS BASE  
DETACH BASE  
DETACH BASE  
DISMOUNT BASE  
LOCATE BASE  
MOUNT BASE  
UPDATE BASE

**BIT**

TEST MPI BIT

**BITSPECTRUM**

CREATE DYNAMIC ENTRY BITSPECTRUM

**BLOCK**

SHOW HOME BLOCK

**BOR**

TEST BOR 1802

## **BUFFER**

SET SCATTER BUFFER  
SET VME BUFFER  
SHOW BUFFER DUMP  
SHOW SCATTER BUFFER  
START BUFFER DUMP  
STOP BUFFER DUMP  
TYPE BUFFER

## **CALCULATE**

CALCULATE FASTBUS PEDESTAL  
CALCULATE SPECTRUM

## **CALIBRATE**

CALIBRATE SPECTRUM

## **CALIBRATION**

CREATE CALIBRATION FIXED  
CREATE CALIBRATION FLOAT  
CREATE CALIBRATION LINEAR  
DELETE CALIBRATION  
DISPLAY CALIBRATION  
SET CALIBRATION FIXED  
SET CALIBRATION FLOAT  
SET CALIBRATION LINEAR  
SHOW CALIBRATION

## **CAMAC**

CAMAC CLEAR  
CAMAC CNAF  
CAMAC DEMAND  
CAMAC INHIBIT

CAMAC INITIALIZE  
CAMAC SCAN  
CLEAR CAMAC SPECTRUM  
INITIALIZE CAMAC  
READ CAMAC SPECTRUM  
RESET CAMAC  
SHOW CAMAC SPECTRUM  
TEST CAMAC  
WRITE CAMAC SPECTRUM

**CHANNEL**

RELEASE MBD CHANNEL

**CLEAR**

CAMAC CLEAR  
CLEAR CAMAC SPECTRUM  
CLEAR CONDITION COUNTER  
CLEAR DEVICE  
CLEAR ELEMENT  
CLEAR PICTURE  
CLEAR SPECTRUM

**CLOSE**

\$ CLOSE ETHERNET  
CLOSE FILE  
CLOSE OUTPUT FILE

**CNAF**

CAMAC CNAF  
CNAF VME

**COLOR**

SET DEVICE COLOR

**COMMAND**

\$ SHOW COMMAND

**COMMENT**

\$ COMMENT

**COMPONENTS**

\$ SHOW GNA COMPONENTS

**COMPOSED**

CREATE CONDITION COMPOSED  
CREATE DYNAMIC ENTRY COMPOSED

**COMPRESS**

COMPRESS BASE

**CONDITION**

CLEAR CONDITION COUNTER  
COPY CONDITION  
CREATE CONDITION COMPOSED  
CREATE CONDITION FUNCTION  
CREATE CONDITION MULTIWINDOW  
CREATE CONDITION PATTERN  
CREATE CONDITION POLYGON  
CREATE CONDITION WINDOW  
CREATE TABLE CONDITION  
DELETE CONDITION  
DISPLAY CONDITION  
FREEZE CONDITION  
MODIFY TABLE CONDITION

REPLACE CONDITION WINDOW  
SET CONDITION PATTERN  
SET CONDITION WINDOW  
SHOW CONDITION  
UNFREEZE CONDITION

**CONTROL**

SET VME CONTROL  
SHOW VME CONTROL

**CONVERT**

CONVERT BASE

**COPY**

COPY BASE  
COPY CONDITION  
COPY ELEMENT  
COPY FILE  
COPY MEMBER  
COPY POLYGON  
COPY SPECTRUM

**COUNTER**

CLEAR CONDITION COUNTER

**CREATE**

CREATE ALIAS  
CREATE AREA  
CREATE BASE  
CREATE CALIBRATION FIXED  
CREATE CALIBRATION FLOAT  
CREATE CALIBRATION LINEAR  
CREATE CONDITION COMPOSED  
CREATE CONDITION FUNCTION

CREATE CONDITION MULTIWINDOW  
CREATE CONDITION PATTERN  
CREATE CONDITION POLYGON  
CREATE CONDITION WINDOW  
CREATE DIRECTORY  
CREATE DYNAMIC ENTRY BITSPECTRUM  
CREATE DYNAMIC ENTRY COMPOSED  
CREATE DYNAMIC ENTRY FUNCTION  
CREATE DYNAMIC ENTRY INDEXEDSPECTRUM  
CREATE DYNAMIC ENTRY MULTIWINDOW  
CREATE DYNAMIC ENTRY PATTERN  
CREATE DYNAMIC ENTRY POLYGON  
CREATE DYNAMIC ENTRY PROCEDURE  
CREATE DYNAMIC ENTRY SCATTER  
CREATE DYNAMIC ENTRY SPECTRUM  
CREATE DYNAMIC ENTRY WINDOW  
CREATE DYNAMIC LIST  
CREATE ELEMENT  
CREATE ENVIRONMENT  
CREATE LINK  
CREATE OVERLAY  
CREATE PICTURE  
CREATE POLYGON  
CREATE POOL  
CREATE PROCESS  
CREATE PROGRAM  
CREATE SESSION  
CREATE SPECTRUM  
CREATE TABLE CONDITION  
CREATE TABLE SPECTRUM  
CREATE TYPE

### DATA

SEND DATA

### DCL

\$ DCL

**DEALLOCATE**

DEALLOCATE DEVICE

**DEBUG**

\$ DEBUG  
DEBUG VME MEMORY

**DECALIBRATE**

DECALIBRATE SPECTRUM

**DECOMPRESS**

DECOMPRESS BASE

**DEFAULT**

\$ RESET DEFAULT  
\$ SET DEFAULT

**DEFINE**

\$ DEFINE KEY  
DEFINE DISPLAY HEADER  
DEFINE DISPLAY PICTURE  
DEFINE DISPLAY SPECTRUM  
DEFINE FRAME SETUP  
DEFINE PICTURE SETUP

**DELETE**

DELETE ALIAS  
DELETE CALIBRATION  
DELETE CONDITION

DELETE DYNAMIC ENTRY  
DELETE DYNAMIC LIST  
DELETE ELEMENT  
DELETE ENVIRONMENT  
DELETE LINK  
DELETE OVERLAY  
DELETE PICTURE  
DELETE POLYGON  
DELETE POOL  
DELETE PROCESS  
DELETE SECTION  
DELETE SPECTRUM

### **DEMAND**

CAMAC DEMAND

### **DETACH**

DETACH ANALYSIS  
DETACH BASE  
DETACH BASE  
DETACH DISPLAY  
DETACH DYNAMIC LIST

### **DEVICE**

ALLOCATE DEVICE  
CLEAR DEVICE  
DEALLOCATE DEVICE  
SET DEVICE COLOR

### **DEVICES**

SHOW DEVICES

### **DIRECTORY**

CREATE DIRECTORY

LOCATE DIRECTORY  
MODIFY DIRECTORY  
SHOW DIRECTORY

**DISMOUNT**

DISMOUNT BASE  
DISMOUNT TAPE

**DISPLAY**

DEFINE DISPLAY HEADER  
DEFINE DISPLAY PICTURE  
DEFINE DISPLAY SPECTRUM  
DETACH DISPLAY  
DISPLAY CALIBRATION  
DISPLAY CONDITION  
DISPLAY GRAPH  
DISPLAY METAFILE  
DISPLAY PICTURE  
DISPLAY POINT  
DISPLAY POLYGON  
DISPLAY SCATTER  
DISPLAY SPECTRUM  
DISPLAY TEXT  
SAVE DISPLAY  
SET DISPLAY MODE  
SHOW DISPLAY GLOBALS

**DUMP**

DUMP MBD  
DUMP SPECTRUM  
DUMP STARBURST  
SHOW BUFFER DUMP  
START BUFFER DUMP  
STOP BUFFER DUMP

**DYNAMIC**

ATTACH DYNAMIC LIST  
CREATE DYNAMIC ENTRY BITSPECTRUM  
CREATE DYNAMIC ENTRY COMPOSED  
CREATE DYNAMIC ENTRY FUNCTION  
CREATE DYNAMIC ENTRY INDEXEDSPECTRUM  
CREATE DYNAMIC ENTRY MULTIWINDOW  
CREATE DYNAMIC ENTRY PATTERN  
CREATE DYNAMIC ENTRY POLYGON  
CREATE DYNAMIC ENTRY PROCEDURE  
CREATE DYNAMIC ENTRY SCATTER  
CREATE DYNAMIC ENTRY SPECTRUM  
CREATE DYNAMIC ENTRY WINDOW  
CREATE DYNAMIC LIST  
DELETE DYNAMIC ENTRY  
DELETE DYNAMIC LIST  
DETACH DYNAMIC LIST  
SET DYNAMIC LIST  
SHOW DYNAMIC ATTACHED  
SHOW DYNAMIC LIST  
START DYNAMIC LIST  
STOP DYNAMIC LIST  
UPDATE DYNAMIC LIST

### ELEMENT

CLEAR ELEMENT  
COPY ELEMENT  
CREATE ELEMENT  
DELETE ELEMENT  
LOCATE ELEMENT  
SHOW ELEMENT

### ENTRY

CREATE DYNAMIC ENTRY BITSPECTRUM  
CREATE DYNAMIC ENTRY COMPOSED  
CREATE DYNAMIC ENTRY FUNCTION  
CREATE DYNAMIC ENTRY INDEXEDSPECTRUM  
CREATE DYNAMIC ENTRY MULTIWINDOW  
CREATE DYNAMIC ENTRY PATTERN  
CREATE DYNAMIC ENTRY POLYGON

CREATE DYNAMIC ENTRY PROCEDURE  
CREATE DYNAMIC ENTRY SCATTER  
CREATE DYNAMIC ENTRY SPECTRUM  
CREATE DYNAMIC ENTRY WINDOW  
DELETE DYNAMIC ENTRY

## **ENVIRONMENT**

CREATE ENVIRONMENT  
DELETE ENVIRONMENT

## **ETHERNET**

\$ CLOSE ETHERNET  
\$ SET GNA ETHERNET  
\$ SHOW GNA ETHERNET

## **EVENT**

SET EVENT INPUT  
SET EVENT OUTPUT  
TYPE EVENT

## **EXECUTE**

EXECUTE VME

## **EXPAND**

EXPAND

## **FASTBUS**

CALCULATE FASTBUS PEDESTAL  
SET FASTBUS PEDESTAL

## **FILE**

CLOSE FILE  
CLOSE OUTPUT FILE  
COPY FILE  
OPEN FILE  
OPEN OUTPUT FILE  
START INPUT FILE  
START OUTPUT FILE  
STOP INPUT FILE  
STOP OUTPUT FILE  
TYPE FILE

**FIT**

FIT SPECTRUM

**FIXED**

CREATE CALIBRATION FIXED  
SET CALIBRATION FIXED

**FLOAT**

CREATE CALIBRATION FLOAT  
SET CALIBRATION FLOAT

**FOREIGN**

FOREIGN ACQUISITION

**FRAME**

DEFINE FRAME SETUP  
MODIFY FRAME SCATTER  
MODIFY FRAME SPECTRUM  
ZOOM FRAME

**FRAMES**

UPDATE FRAMES

**FREEZE**

FREEZE CONDITION  
FREEZE SPECTRUM

**FUNCTION**

CREATE CONDITION FUNCTION  
CREATE DYNAMIC ENTRY FUNCTION

**Globals**

SHOW DISPLAY GLOBALS

**GNA**

\$ SET GNA ETHERNET  
\$ SHOW GNA COMPONENTS  
\$ SHOW GNA ETHERNET  
\$ SHOW GNA LINKS  
\$ SHOW GNA MCBS  
\$ SHOW GNA PROCESS  
\$ SHOW GNA RPC  
\$ SHOW GNA STATUS

**GOOSY**

SHOW GOOSY STATUS

**GRAPH**

DISPLAY GRAPH

**GSI**

TEST GSI IOL

**HEADER**

DEFINE DISPLAY HEADER

**HOME**

SHOW HOME BLOCK

**HVR**

**ID**

LOCATE ID

**INDEXEDSPECTRUM**

CREATE DYNAMIC ENTRY INDEXEDSPECTRUM

**INHIBIT**

CAMAC INHIBIT

**INITIALIZE**

CAMAC INITIALIZE  
INITIALIZE ACQUISITION  
INITIALIZE ANALYSIS  
INITIALIZE CAMAC

**INPUT**

SET EVENT INPUT  
SET VME INPUT  
START INPUT FILE  
START INPUT MAILBOX

START INPUT NET  
STOP INPUT FILE  
STOP INPUT MAILBOX  
STOP INPUT NET

**INTEGRATE**

INTEGRATE

**IOL**

TEST GSI IOL

**J11**

LOAD J11

**KEY**

\$ DEFINE KEY  
\$ SHOW KEY

**KEYPAD**

SHOW TP0 KEYPAD

**LETTERING**

SET LETTERING

**LINEAR**

CREATE CALIBRATION LINEAR  
SET CALIBRATION LINEAR

**LINK**

CREATE LINK  
DELETE LINK  
SHOW LINK

### **LINKS**

\$ SHOW GNA LINKS

### **LIST**

ATTACH DYNAMIC LIST  
CREATE DYNAMIC LIST  
DELETE DYNAMIC LIST  
DETACH DYNAMIC LIST  
SET DYNAMIC LIST  
SHOW DYNAMIC LIST  
START DYNAMIC LIST  
STOP DYNAMIC LIST  
UPDATE DYNAMIC LIST

### **LOAD**

LOAD J11  
LOAD LRS 2365  
LOAD MBD  
LOAD MODULE ACQUISITION  
LOAD MODULE ANALYSIS  
LOAD STARBURST  
LOAD VME PROGRAM  
LOAD VME TABLE

### **LOCATE**

LOCATE BASE  
LOCATE DIRECTORY  
LOCATE ELEMENT  
LOCATE ID  
LOCATE POOL  
LOCATE QUEUEELEMENT

LOCATE TYPE

**LOCK**

SET LOCK OUTPUT

**LOCKS**

SHOW LOCKS

**LRS**

LOAD LRS 2365  
STORE LRS 2365  
TEST LRS 2228  
TEST LRS 2249  
TEST LRS 2551  
TEST LRS 4432  
TEST LRS 4434

**MAILBOX**

START INPUT MAILBOX  
STOP INPUT MAILBOX

**MAPPING**

SHOW MAPPING  
SHOW MAPPING  
SHOW MAPPING

**MBD**

DUMP MBD  
LOAD MBD  
PATCH MBD  
RELEASE MBD CHANNEL  
RESET MBD

STORE MBD

**MCBS**

\$ SHOW GNA MCBS

**MEMBER**

COPY MEMBER  
SET MEMBER  
SHOW MEMBER

**MEMORY**

\$ SHOW MEMORY  
DEBUG VME MEMORY

**MESSAGE**

**METAFILE**

DISPLAY METAFILE  
PLOT METAFILE

**MODE**

SET DISPLAY MODE

**MODIFY**

MODIFY DIRECTORY  
MODIFY FRAME SCATTER  
MODIFY FRAME SPECTRUM  
MODIFY TABLE CONDITION  
MODIFY TABLE SPECTRUM

**MODULE**

LOAD MODULE ACQUISITION  
LOAD MODULE ANALYSIS

**MOUNT**

MOUNT BASE  
MOUNT TAPE

**MPI**

TEST MPI BIT  
TEST MPI TDC

**MR2000**

START MR2000  
STOP MR2000

**MULTIWINDOW**

CREATE CONDITION MULTIWINDOW  
CREATE DYNAMIC ENTRY MULTIWINDOW

**MWPC**

SET MWPC

**NET**

START INPUT NET  
STOP INPUT NET

**OPEN**

OPEN FILE  
OPEN OUTPUT FILE

## **OUTPUT**

CLOSE OUTPUT FILE  
OPEN OUTPUT FILE  
SET EVENT OUTPUT  
SET LOCK OUTPUT  
START ANALYSIS OUTPUT  
START OUTPUT FILE  
STOP ANALYSIS OUTPUT  
STOP OUTPUT FILE

## **OVERLAY**

CREATE OVERLAY  
DELETE OVERLAY  
OVERLAY

## **PATCH**

PATCH MBD  
PATCH STARBURST

## **PATTERN**

CREATE CONDITION PATTERN  
CREATE DYNAMIC ENTRY PATTERN  
SET CONDITION PATTERN

## **PEDESTAL**

CALCULATE FASTBUS PEDESTAL  
SET FASTBUS PEDESTAL

## **PICTURE**

CLEAR PICTURE

CREATE PICTURE  
DEFINE DISPLAY PICTURE  
DEFINE PICTURE SETUP  
DELETE PICTURE  
DISPLAY PICTURE  
PLOT PICTURE  
SHOW PICTURE

**PLOT**

PLOT METAFILE  
PLOT PICTURE  
PLOT PLOTFILE

**PLOTFILE**

PLOT PLOTFILE

**POINT**

DISPLAY POINT  
SET SPECTRUM POINT

**POLYGON**

COPY POLYGON  
CREATE CONDITION POLYGON  
CREATE DYNAMIC ENTRY POLYGON  
CREATE POLYGON  
DELETE POLYGON  
DISPLAY POLYGON  
REPLACE POLYGON  
SHOW POLYGON

**POOL**

CREATE POOL  
DELETE POOL  
LOCATE POOL

SHOW POOL

**PRINT**

PRINT

**PROCEDURE**

CREATE DYNAMIC ENTRY PROCEDURE

**PROCESS**

\$ SHOW GNA PROCESS  
\$ SHOW PROCESS  
CREATE PROCESS  
DELETE PROCESS

**PROGRAM**

CREATE PROGRAM  
LOAD VME PROGRAM

**PROJECT**

PROJECT

**PROTECT**

PROTECT SPECTRUM

**PROTOCOL**

PROTOCOL

**QUEUEELEMENT**

LOCATE QUEUEELEMENT

**RANDOM**

SET RANDOM  
START ANALYSIS RANDOM  
STOP ANALYSIS RANDOM

**READ**

READ CAMAC SPECTRUM

**RECALL**

\$ RECALL

**REFRESH**

REFRESH

**REGISTER**

TEST REGISTER

**RELEASE**

RELEASE MBD CHANNEL

**REPEAT**

\$ REPEAT

**REPLACE**

REPLACE CONDITION WINDOW  
REPLACE POLYGON

**RESET**

```
$ RESET DEFAULT  
RESET ACQUISITION  
RESET CAMAC  
RESET MBD
```

**RPC**

```
$ SHOW GNA RPC
```

**RUN**

```
START RUN  
STOP RUN
```

**SAVE**

```
SAVE DISPLAY
```

**SCAN**

```
CAMAC SCAN
```

**SCATTER**

```
CREATE DYNAMIC ENTRY SCATTER  
DISPLAY SCATTER  
MODIFY FRAME SCATTER  
SET SCATTER BUFFER  
SHOW SCATTER BUFFER  
START SCATTER  
STOP SCATTER
```

**SECTION**

DELETE SECTION

**SEN**

TEST SEN 2047  
TEST SEN 2090

**SEND**

SEND DATA

**SESSION**

CREATE SESSION

**SET**

\$ SET DEFAULT  
\$ SET GNA ETHERNET  
SET ACQUISITION  
SET ANALYSIS  
SET CALIBRATION FIXED  
SET CALIBRATION FLOAT  
SET CALIBRATION LINEAR  
SET CONDITION PATTERN  
SET CONDITION WINDOW  
SET DEVICE COLOR  
SET DISPLAY MODE  
SET DYNAMIC LIST  
SET EVENT INPUT  
SET EVENT OUTPUT  
SET FASTBUS PEDESTAL  
SET LETTERING  
SET LOCK OUTPUT  
SET MEMBER  
SET MWPC  
SET RANDOM  
SET SCATTER BUFFER  
SET SPECTRUM POINT

SET VME BUFFER  
SET VME CONTROL  
SET VME INPUT  
SET VME TRIGGER

### **SETUP**

DEFINE FRAME SETUP  
DEFINE PICTURE SETUP  
SHOW VME SETUP

### **SHOW**

\$ SHOW COMMAND  
\$ SHOW GNA COMPONENTS  
\$ SHOW GNA ETHERNET  
\$ SHOW GNA LINKS  
\$ SHOW GNA MCBS  
\$ SHOW GNA PROCESS  
\$ SHOW GNA RPC  
\$ SHOW GNA STATUS  
\$ SHOW KEY  
\$ SHOW MEMORY  
\$ SHOW PROCESS  
\$ SHOW TIMER  
SHOW ACQUISITION  
SHOW ALIAS  
SHOW ANALYSIS  
SHOW AREA  
SHOW BUFFER DUMP  
SHOW CALIBRATION  
SHOW CAMAC SPECTRUM  
SHOW CONDITION  
SHOW DEVICES  
SHOW DIRECTORY  
SHOW DISPLAY GLOBALS  
SHOW DYNAMIC ATTACHED  
SHOW DYNAMIC LIST  
SHOW ELEMENT  
SHOW GOOSY STATUS  
SHOW HOME BLOCK

SHOW LINK  
SHOW LOCKS  
SHOW MAPPING  
SHOW MAPPING  
SHOW MAPPING  
SHOW MEMBER  
SHOW PICTURE  
SHOW POLYGON  
SHOW POOL  
SHOW SCATTER BUFFER  
SHOW SPECTRUM  
SHOW STARBURST  
SHOW TABLE  
SHOW TP0 KEYPAD  
SHOW TREE  
SHOW TYPE  
SHOW VME CONTROL  
SHOW VME SETUP

## SLEEP

SLEEP

## SPECTRUM

CALCULATE SPECTRUM  
CALIBRATE SPECTRUM  
CLEAR CAMAC SPECTRUM  
CLEAR SPECTRUM  
COPY SPECTRUM  
CREATE DYNAMIC ENTRY SPECTRUM  
CREATE SPECTRUM  
CREATE TABLE SPECTRUM  
DECALIBRATE SPECTRUM  
DEFINE DISPLAY SPECTRUM  
DELETE SPECTRUM  
DISPLAY SPECTRUM  
DUMP SPECTRUM  
FIT SPECTRUM  
FREEZE SPECTRUM  
MODIFY FRAME SPECTRUM

MODIFY TABLE SPECTRUM  
PROTECT SPECTRUM  
READ CAMAC SPECTRUM  
SET SPECTRUM POINT  
SHOW CAMAC SPECTRUM  
SHOW SPECTRUM  
SUMUP SPECTRUM  
UNFREEZE SPECTRUM  
UNPROTECT SPECTRUM  
WRITE CAMAC SPECTRUM

**STARBURST**

DUMP STARBURST  
LOAD STARBURST  
PATCH STARBURST  
SHOW STARBURST

**START**

START ACQUISITION  
START ANALYSIS OUTPUT  
START ANALYSIS RANDOM  
START BUFFER DUMP  
START DYNAMIC LIST  
START INPUT FILE  
START INPUT MAILBOX  
START INPUT NET  
START MR2000  
START OUTPUT FILE  
START RUN  
START SCATTER  
START VME

**STATUS**

\$ SHOW GNA STATUS  
SHOW GOOSY STATUS

**STOP**

STOP ACQUISITION  
STOP ANALYSIS OUTPUT  
STOP ANALYSIS RANDOM  
STOP BUFFER DUMP  
STOP DYNAMIC LIST  
STOP INPUT FILE  
STOP INPUT MAILBOX  
STOP INPUT NET  
STOP MR2000  
STOP OUTPUT FILE  
STOP RUN  
STOP SCATTER  
STOP VME

**STORE**

STORE LRS 2365  
STORE MBD

**SUMUP**

SUMUP SPECTRUM

**TABLE**

CREATE TABLE CONDITION  
CREATE TABLE SPECTRUM  
LOAD VME TABLE  
MODIFY TABLE CONDITION  
MODIFY TABLE SPECTRUM  
SHOW TABLE

**TAPE**

DISMOUNT TAPE

MOUNT TAPE

**TDC**

TEST MPI TDC

**TEST**

TEST BOR 1802  
TEST CAMAC  
TEST GSI IOL  
TEST LRS 2228  
TEST LRS 2249  
TEST LRS 2551  
TEST LRS 4432  
TEST LRS 4434  
TEST MPI BIT  
TEST MPI TDC  
TEST REGISTER  
TEST SEN 2047  
TEST SEN 2090

**TEXT**

DISPLAY TEXT

**TIMER**

\$ SHOW TIMER

**TP0**

SHOW TP0 KEYPAD

**TREE**

SHOW TREE

## **TRIGGER**

SET VME TRIGGER

## **TYPE**

CREATE TYPE  
LOCATE TYPE  
SHOW TYPE  
TYPE BUFFER  
TYPE EVENT  
TYPE FILE

## **UNFREEZE**

UNFREEZE CONDITION  
UNFREEZE SPECTRUM

## **UNPROTECT**

UNPROTECT SPECTRUM

## **UPDATE**

UPDATE BASE  
UPDATE DYNAMIC LIST  
UPDATE FRAMES

## **VME**

CNAF VME  
DEBUG VME MEMORY  
EXECUTE VME  
LOAD VME PROGRAM  
LOAD VME TABLE  
SET VME BUFFER

SET VME CONTROL  
SET VME INPUT  
SET VME TRIGGER  
SHOW VME CONTROL  
SHOW VME SETUP  
START VME  
STOP VME

**VOICE**

**WAIT**

WAIT

**WINDOW**

CREATE CONDITION WINDOW  
CREATE DYNAMIC ENTRY WINDOW  
REPLACE CONDITION WINDOW  
SET CONDITION WINDOW

**WRITE**

WRITE CAMAC SPECTRUM

**ZOOM**

ZOOM FRAME

# Contents

|                                 |           |
|---------------------------------|-----------|
| <b>1 GOOSY Commands</b>         | <b>1</b>  |
| <b>2 GOOSY Macros</b>           | <b>39</b> |
| <b>3 DCL Commands</b>           | <b>43</b> |
| <b>4 GOOSY Command Keywords</b> | <b>61</b> |
| GOOSY_keywords . . . . .        | 62        |
| \$ . . . . .                    | 62        |
| 1802 . . . . .                  | 62        |
| 2047 . . . . .                  | 63        |
| 2090 . . . . .                  | 63        |
| 2228 . . . . .                  | 63        |
| 2249 . . . . .                  | 63        |
| 2365 . . . . .                  | 63        |
| 2551 . . . . .                  | 63        |
| 4432 . . . . .                  | 63        |
| 4434 . . . . .                  | 63        |
| ACQUISITION . . . . .           | 63        |
| ALIAS . . . . .                 | 64        |
| ALLOCATE . . . . .              | 64        |
| ANALYSIS . . . . .              | 64        |
| AREA . . . . .                  | 64        |
| ATTACH . . . . .                | 64        |
| ATTACHED . . . . .              | 65        |
| BASE . . . . .                  | 65        |
| BIT . . . . .                   | 65        |
| BITSPECTRUM . . . . .           | 65        |
| BLOCK . . . . .                 | 65        |
| BOR . . . . .                   | 65        |
| BUFFER . . . . .                | 66        |

|                       |    |
|-----------------------|----|
| CALCULATE . . . . .   | 66 |
| CALIBRATE . . . . .   | 66 |
| CALIBRATION . . . . . | 66 |
| CAMAC . . . . .       | 66 |
| CHANNEL . . . . .     | 67 |
| CLEAR . . . . .       | 67 |
| CLOSE . . . . .       | 67 |
| CNAF . . . . .        | 67 |
| COLOR . . . . .       | 67 |
| COMMAND . . . . .     | 68 |
| COMMENT . . . . .     | 68 |
| COMPONENTS . . . . .  | 68 |
| COMPOSED . . . . .    | 68 |
| COMPRESS . . . . .    | 68 |
| CONDITION . . . . .   | 68 |
| CONTROL . . . . .     | 69 |
| CONVERT . . . . .     | 69 |
| COPY . . . . .        | 69 |
| COUNTER . . . . .     | 69 |
| CREATE . . . . .      | 69 |
| DATA . . . . .        | 70 |
| DCL . . . . .         | 70 |
| DEALLOCATE . . . . .  | 71 |
| DEBUG . . . . .       | 71 |
| DECALIBRATE . . . . . | 71 |
| DECOMPRESS . . . . .  | 71 |
| DEFAULT . . . . .     | 71 |
| DEFINE . . . . .      | 71 |
| DELETE . . . . .      | 71 |
| DEMAND . . . . .      | 72 |
| DETACH . . . . .      | 72 |
| DEVICE . . . . .      | 72 |
| DEVICES . . . . .     | 72 |
| DIRECTORY . . . . .   | 72 |
| DISMOUNT . . . . .    | 73 |
| DISPLAY . . . . .     | 73 |
| DUMP . . . . .        | 73 |
| DYNAMIC . . . . .     | 73 |
| ELEMENT . . . . .     | 74 |
| ENTRY . . . . .       | 74 |
| ENVIRONMENT . . . . . | 75 |
| ETHERNET . . . . .    | 75 |

|                           |    |
|---------------------------|----|
| EVENT . . . . .           | 75 |
| EXECUTE . . . . .         | 75 |
| EXPAND . . . . .          | 75 |
| FASTBUS . . . . .         | 75 |
| FILE . . . . .            | 75 |
| FIT . . . . .             | 76 |
| FIXED . . . . .           | 76 |
| FLOAT . . . . .           | 76 |
| FOREIGN . . . . .         | 76 |
| FRAME . . . . .           | 76 |
| FRAMES . . . . .          | 76 |
| FREEZE . . . . .          | 77 |
| FUNCTION . . . . .        | 77 |
| GLOBALS . . . . .         | 77 |
| GNA . . . . .             | 77 |
| GOOSY . . . . .           | 77 |
| GRAPH . . . . .           | 77 |
| GSI . . . . .             | 77 |
| HEADER . . . . .          | 78 |
| HOME . . . . .            | 78 |
| HVR . . . . .             | 78 |
| ID . . . . .              | 78 |
| INDEXEDSPECTRUM . . . . . | 78 |
| INHIBIT . . . . .         | 78 |
| INITIALIZE . . . . .      | 78 |
| INPUT . . . . .           | 78 |
| INTEGRATE . . . . .       | 79 |
| IOL . . . . .             | 79 |
| J11 . . . . .             | 79 |
| KEY . . . . .             | 79 |
| KEYPAD . . . . .          | 79 |
| LETTERING . . . . .       | 79 |
| LINEAR . . . . .          | 79 |
| LINK . . . . .            | 79 |
| LINKS . . . . .           | 80 |
| LIST . . . . .            | 80 |
| LOAD . . . . .            | 80 |
| LOCATE . . . . .          | 80 |
| LOCK . . . . .            | 81 |
| LOCKS . . . . .           | 81 |
| LRS . . . . .             | 81 |
| MAILBOX . . . . .         | 81 |

|                        |    |
|------------------------|----|
| MAPPING . . . . .      | 81 |
| MBD . . . . .          | 81 |
| MCBS . . . . .         | 82 |
| MEMBER . . . . .       | 82 |
| MEMORY . . . . .       | 82 |
| MESSAGE . . . . .      | 82 |
| METAFILE . . . . .     | 82 |
| MODE . . . . .         | 82 |
| MODIFY . . . . .       | 82 |
| MODULE . . . . .       | 82 |
| MOUNT . . . . .        | 83 |
| MPI . . . . .          | 83 |
| MR2000 . . . . .       | 83 |
| MULTIWINDOW . . . . .  | 83 |
| MWPC . . . . .         | 83 |
| NET . . . . .          | 83 |
| OPEN . . . . .         | 83 |
| OUTPUT . . . . .       | 84 |
| OVERLAY . . . . .      | 84 |
| PATCH . . . . .        | 84 |
| PATTERN . . . . .      | 84 |
| PEDESTAL . . . . .     | 84 |
| PICTURE . . . . .      | 84 |
| PLOT . . . . .         | 85 |
| PLOTFILE . . . . .     | 85 |
| POINT . . . . .        | 85 |
| POLYGON . . . . .      | 85 |
| POOL . . . . .         | 85 |
| PRINT . . . . .        | 86 |
| PROCEDURE . . . . .    | 86 |
| PROCESS . . . . .      | 86 |
| PROGRAM . . . . .      | 86 |
| PROJECT . . . . .      | 86 |
| PROTECT . . . . .      | 86 |
| PROTOCOL . . . . .     | 86 |
| QUEUEELEMENT . . . . . | 86 |
| RANDOM . . . . .       | 87 |
| READ . . . . .         | 87 |
| RECALL . . . . .       | 87 |
| REFRESH . . . . .      | 87 |
| REGISTER . . . . .     | 87 |
| RELEASE . . . . .      | 87 |

---

|                     |    |
|---------------------|----|
| REPEAT . . . . .    | 87 |
| REPLACE . . . . .   | 87 |
| RESET . . . . .     | 88 |
| RPC . . . . .       | 88 |
| RUN . . . . .       | 88 |
| SAVE . . . . .      | 88 |
| SCAN . . . . .      | 88 |
| SCATTER . . . . .   | 88 |
| SECTION . . . . .   | 88 |
| SEN . . . . .       | 89 |
| SEND . . . . .      | 89 |
| SESSION . . . . .   | 89 |
| SET . . . . .       | 89 |
| SETUP . . . . .     | 90 |
| SHOW . . . . .      | 90 |
| SLEEP . . . . .     | 91 |
| SPECTRUM . . . . .  | 91 |
| STARBURST . . . . . | 92 |
| START . . . . .     | 92 |
| STATUS . . . . .    | 92 |
| STOP . . . . .      | 93 |
| STORE . . . . .     | 93 |
| SUMUP . . . . .     | 93 |
| TABLE . . . . .     | 93 |
| TAPE . . . . .      | 93 |
| TDC . . . . .       | 94 |
| TEST . . . . .      | 94 |
| TEXT . . . . .      | 94 |
| TIMER . . . . .     | 94 |
| TP0 . . . . .       | 94 |
| TREE . . . . .      | 94 |
| TRIGGER . . . . .   | 95 |
| TYPE . . . . .      | 95 |
| UNFREEZE . . . . .  | 95 |
| UNPROTECT . . . . . | 95 |
| UPDATE . . . . .    | 95 |
| VME . . . . .       | 95 |
| VOICE . . . . .     | 96 |
| WAIT . . . . .      | 96 |
| WINDOW . . . . .    | 96 |
| WRITE . . . . .     | 96 |
| ZOOM . . . . .      | 96 |