



SYNTAX LIBRARY

AVEVA PDMS

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1 COLOURS

PDMS standard Design colors					
By color name		By color number			
Aquamarine	38	Grey	1	Black	15
Beige	44	Red	2	White	10
Black	15	Orange	3	Whitesmoke	17
Blue	7	Yellow	4	Ivory	18
Brightorange	28	Green	5	Grey	1
Brightred	22	Cyan	6	Lightgrey	19
Brown	9	Blue	7	Darkgrey	20
Chocolate	49	Violet	8	Darkslate	21
Coralred	23	Brown	9	Red	2
Cyan	6	White	10	Brightred	22
Darkbrown	50	Pink	11	Coralred	23
Darkgreen	37	Mauve	12	Tomato	24
Darkgrey	20	Turquoise	13	Plum	25
Darkslate	21	Indigo	14	Deeppink	26
Deeppink	26	Black	15	Pink	11
Forestgreen	36	Magenta	16	Salmon	27
Gold	31	Whitesmoke	17	Orange	3
Green	5	Ivory	18	Brightorange	28
Grey	1	Lightgrey	19	Orangered	29
Indigo	14	Darkgrey	20	Maroon	30
Ivory	18	Darkslate	21	Yellow	4
Khaki	48	Brightred	22	Gold	31
Lightgold	33	Coralred	23	Lightyellow	32
Lightgrey	19	Tomato	24	Lightgold	33
Lightyellow	32	Plum	25	Yellowgreen	34
Magenta	16	Deeppink	26	Springgreen	35
Maroon	30	Salmon	27	Green	5
Mauve	12	Brightorange	28	Forestgreen	36
Midnight	42	Orangered	29	Darkgreen	37
Navyblue	40	Maroon	30	Cyan	6
Orange	3	Gold	31	Turquoise	13
Orangered	29	Lightyellow	32	Aquamarine	38
Pink	11	Lightgold	33	Blue	7
Plum	25	Yellowgreen	34	Royalblue	39
Powderblue	41	Springgreen	35	Navyblue	40
Red	2	Forestgreen	36	Powderblue	41
Royalblue	39	Darkgreen	37	Midnight	42
Salmon	27	Aquamarine	38	Steelblue	43
Sandybrown	47	Royalblue	39	Indigo	14
Springgreen	35	Navyblue	40	Mauve	12
Steelblue	43	Powderblue	41	Violet	8
Tan	46	Midnight	42	Magenta	16
Tomato	24	Steelblue	43	Beige	44
Turquoise	13	Beige	44	Wheat	45
Violet	8	Wheat	45	Tan	46
Wheat	45	Tan	46	Sandybrown	47
White	10	Sandybrown	47	Brown	9
Whitesmoke	17	Khaki	48	Khaki	48
Yellow	4	Chocolate	49	Chocolate	49
Yellowgreen	34	Darkbrown	50	Darkbrown	50

2 DESIGN

2.1 GENERAL SYNTAX

!!GPH3DDESIGN.VIEW. BACKGROUND = 206	Turns the background black
!!GPH3DDESIGN.VIEW. BACKGROUND = 207	Turns the background white
\$HR	History of possible commands
\$M/c:\TEMP\YXZ.TXT	Call a macro or a listing
\$Q	Will show all PDMS commands
\$R0	Debug mode off
\$R6	Debug mode on
\$S XX = BY U 100	Create synonyms
\$S+	Stops a macro
\$V1	Recall the variable V1
ALPHA REQest CLEAR	Clear up the Command Line
ALPHA LOG /C:FILENAME.wri OVER	To log all command window informations
ALPHA LOG /C:MDB.wri OVER LI MDB ALPHA LOG END SYSCOM 'C:MDB.wri'	Log and show all MDBs
ALPHA LOG END	To end the log recording
BACK	Backward mode
BACKWard	Backward mode
BY W 1000	move CE by W1000
DECLASH CHECK CE EXIT	Runs clash check on CE (type exit to clear macro and return to design modul)
DELETE CE	Delete the CE
DIR TOW NEXT	Rotates toe pleave towards the origin of the next item in the member list
DIR W45N	Change direction of CE to W45N (Rotate)
FINISH	End and savework PDMS session

FIRST	Go to first
FLIP CE	Turn CE 180 DEG
FORWARD	Forward mode
GETWORK	Get latest model from other users or database
INCLuDE CIRC 1 OF NOTE /TABLE	
INCLuDE ID@	Selected item to be transferred
INCLuDE NAME	Include the element by its name
INSTALL SETUP /C:VIEW1	Install PDMS view settings at the beginning of the next session
LAST	Go to last
LOCK ALL	Lock the CE and CE members
NAME /XYZ	Rename CE to /XYZ
NEXT	Got to next
OWNER	Go to owner of CE
PREV	Go to previos
QUIT	Stops PDMS without saving
RECREATE /C:VIEW1 OVER	Save PDMS view at the end of a session
REFRESH	Refresh the screen
RENAME ALL /XX/YY /XX/ZZ	Rename all from /YY to /ZZ
SAVEWORK	Save latest work
SET STAR	Copies the name of the CE into an * so you can use it later
SHOW !!GHPMOTION	Turn on motion macro
SYSCOM '/C:FILENAME.wri'	View the log file
UNCLAIM ALL	Unclaim al claimed members
UNLOCK ALL	Unlock CE and CE members
UNNAME CE	Unname the CE
VAR 1 XX	Define the variable V1
CONT DRAW	Switch to Draft Memberslist
CONT DES	Switch to Design Memberslist

2.1.1 REPRESENTATION

COL 39 YELLOW	Changes line col to yellow
COL ACT BLUE	Changes the active colour to blue
COL CE VIOLET	Changes the CE colour to violet
EDGES OFF	Edges off
ENHANCE CE COL YELLOW	Display CE in yellow
ENHANCE CE COLOR 5	Change the color of CE
ENHANCE CE TRANSL 0	Displays CE as a solid
ENHANCE CE TRANSL 50	Display CE in 50% translucency
PREC 4 DP	Give the precision decimal to 4 digits
REPRES DARC 1	Set arctolerance 1
REPRES DARC 1MM UPDATE	Change the repres. to 1mm arc tolerance and update
REPRES DARC DEF	Set arctolerance default
REPRES HOLES OFF	Set holes off
REPRES HOLES ON	Set holes on
REPRES PNODE COL YELLOW	Set pnode representation to yellow
REPRES PNODE ON	Set pnode on
REPRES PNODE SIZE 6	Set pnode representation size to 6
REPRES PROF ON CL OFF	Set profile representation solid
REPRES SNODE ON	Set snod on or off
UNENHANCE ALL	Remove all enhancement

2.1.2 ADD / REMOVE COMMAND

ADD ALL SCTN WITHIN VOL CE	Add all sctn that overlap CE
ADD ALL STRU WITH PURP EQ 'PS'	Add all stru with purpose attribute set at ps
ADD ALL STRU WITHIN COL CE 500 COL4	Add all stru that overlap CE 500mm in colour yellow
ADD ALL WITHIN VOL CE	Add all disciplines that overlay CE
ADD ALL WITHIN VOL CE 100	Add all disciplines that overlap CE with a volume of 100mm
ADD CE	Add CE to drawlist
ADD CE COL 39	Add CE with colour 39
ADD CE COLOUR BLUE TRANSL 75	Add CE with colour BLUE and 75 % transparency
ADD CREF	Add branch connected to cref
ADD HREF TREF ... CREF	Add connected branch to HREF TREF or also CREF with nozzle or tee
ADD SITE	Add SITE
REM ALL	Remove all from drawlist
REM ALL WITHIN VOL CE 100	Remove all included in CE volume box
REM CE	Remove CE from drawlist
REM EQUI	Remove EQUI only
REM PIPE	Remove PIPE only

2.1.3 MARK / UNMARK COMMAND

MARK CE	Marks CE name
MARK WITH (GTYPE) CE	
MARK WITH (NAME OF CATREF) CE	Tag CE with the name of CATREF
MARK WITH (STRING(DES P1) + '_' + NAME OF CATREF) CE	
MARK WITH (STRING(DES P1)) CE	
MARK WITH (STRING(LOHE)) CE	Tag PANEL CE with its thickness
MARK WITH (STRING(POS[3]) + NAME) ALL INST	Mark all instruments with name end position
MARK WITH (STRING(POS[3]) + NAME) CE	Mark command in combination with a list. It is necessary to use CE instead of ALL (in the action line)
MARK WITH 'HALLO' CE	Marks CE with "hallo"
UNMARK ALL	Unmarks all
UNMARK CE	Unmarks CE name

2.1.4 AXES COMMAND

AXES AT CE	Show axe at CE
AXES AT ID@	Add axe on choosed element
AXES OFF	Remove axe

2.1.5 DESP COMMANDS

DESP N2 500 N6 300	This change the design parameters number 2 and number 6 with its new value
--------------------	--

2.1.6 QUERY COMMAND

Q (FROM ID@ TOWARD /EQUI1	Query direction of element to be ID@ to /EQUI1
Q ALL BOX WITH (ATTRIB EAST GT 200)	Query elements with Attrib East greater than 200
Q ALL PIPE EXCLUSIVE WITHIN VOLUME /XX/YY 1500	Query all pipe wholly include in the volume box of /XX/YY with an additional overall clearance volume of 1500mm
Q ALL PIPE WITH (MATCHWILD (NAME, '/NAME_OF_ELEMENT *'))	Query with wildcard keyword MATCHWILD. [*] replaces a chain of characters, [?] replaces only 1 character.
Q ATT	Attributes for CE
Q AUTOCOLOUR MODE	Query teh status autocolour
Q COL 4	Gives the attributes colour yellow
Q COL ACT	Shows the current active colour
Q COL AIDS	Shows the current aid line colour
Q COL CE	Shows the current attributed colour
Q COL VIS	Shows the current visible colour
Q DES	Query the description of CE
Q DESP	Query the CE DESignParameter
Q DIA	Diameter of CE
Q DISPLAY	Query the tolerances and representation levels
Q DNST	Query the density
Q DRAW	List the Drawlist display in graphic windows
Q EAST	Query the east coordinate of CE
Q ELEM	Query the CE element name
Q EVAR PDMSUSER	Gets the value of the variable %pdmsuser%
Q HARDTYP	Query the hard type coding for CE
Q HEI	Height of CE
Q LASMOD	Query the lasted date of modification
Q LEV	Query the CE level
Q LIST	Lif of all possible element-types as members of CE
Q LOCK	Query the LOCK status (true or false)
Q MCOUNT	Query the number of members
Q MCOUNT SCTN	Query the number of members type SCTN

Q MDB	Query the project MDB
Q MEM	List of all members of CE
Q MODE	Display mode (forward or backward)
Q OBS	Query the obstruction level (0,1,2)
Q OLIST	Query the possible types of owners
Q OWN	Query the CE owner
Q PARA	Query the CE parameters ie SERIAL SIZES
Q POS	Position of CE
Q POS FITT	Query the FITT coordinates of CE
Q POS IDPL@	Query the PLINE coordinates of CE start point
Q POS IN \$V1	Query the distance of CE to \$v1 variable
Q POS PIN 1 WRT /*	Query the coordinates of PIN 1
Q POS PPLI NA PROP 0.5	Query the centre coordinate position of the PLINE (PPLI) at (0.5 x derive lenght) on the NA
Q POS WRT /*	Position of CE with relation to WORLD
Q POS WRT SITE	Position of CE with relation to the SITE
Q POS WRT TO ID@	Query the distance from CE to start of choosen element
Q POSE	Query the END coordinates of CE
Q POSS	Query the start coordinates of CE
Q POSS POSE	Query the start and the end coordinates of CE
Q PPLI BOS WRT /*	Query the BOS PLINE coordinates
Q PPLS	Query the PPOINT list
Q PRLS	Query the DESignParameters (PROPerties) list
Q PURP	Query the purpose of CE
Q REPRES	Shows the representation status
Q SOFTTYP	Query the softtype coding for CE
Q STEXT	Query the ATTA penetration ident
Q TYPE	Query the CE type ie SCTN, PANE
Q USER	Query the name of the current user
Q USERMOD	Query the last user modify
Q ALL BOX WITH (ATTRIB EAST GT 200)	Query element with Attrib East greater than 200
Q (FROM ID@ TOWARD /EQUI2)	Query direction of element to be id@ to /EQUI2.

Q (FROM CE TO /EQUI2)	Query /EQUI2 direction from CE.
Q ALL PIPE EXCLUSIVE WITHIN VOLUME /CV1/BASA 1500	Query on all pipe wholly include in the volume box of /Zone with an additional overall clearance volume of 1500mm.
Q ALL PIPE WITH (MATCHWILD (NAME, '/NAME_OF_PIPE_OR_BRANCH*'))	Query with wildcard keyword MATCHWILD. This functionality Give the possibility to only tape a part of the word search.
Q DESGEO	Query the amount of the used SPREFs in the project. Therefore, use this command at the position in the hierarchy of the SPREF.
Q GEODEP	Query the amount of the used SPREFs in the project. Therefore, use this command at the position in the hierarchy of the SPREF.
Q DBWRITE	Query the access rights in the database.

2.1.7 DB LISTING IN COMMAND LINE

```

OUTPUT ALL BRANCH FOR /ATEST CHANGES SINCE 1 JUNE
OUTPUT /ZONE1 CHANGES
OUTPUT /PIPE1
OUTPUT CE CHANGES SINCE 10:00
OUTPUT SITE CHANGES SINCE SESSION 66

```

2.1.8 AID COMMAND

```

AID TEXT (NAME OF CATREF) AT AT P1

AID TEXT (STRing(DESP1)+'_'+NAME OF CATREF) AT AT P1

AID TEXT (STRing(MATREF)+'_'+STRing(LOHE)+'_'+NAME OF SPREF) AT
AT P1

AID TEXT (STRing(MATREF)+'_'+STRing(TCTL)+'_'+NAME OF CATREF)
AT AT PPLI TOS

AID TEXT ('MAT:'+STRing(MATREF)) AT AT PPLI LTOS

AID TEXT ('LONG:'+STRing(TCTL)) AT AT PPI NA

AID TEXT ('TYPE:'+NAME OF CATREF) AT AT PPLI RBOS

AID TEXT ('THK:'+STRing(LOHE)) AT AT P1

AID TEXT ('TYPE:'+STRing(SPREF)) AT AT P1

AID TEXT ('MAT:'+STRing(MATREF)) AT AT P3

AID TEXT ('TYPE:'+SUBSTRing(NAME OF CATREF,14)) AT AT P2

AID TEXT ('ELEVATION:'+STRing(P100 UP IN WORLD)) AT AT P3

AID ARROW AT AT P1 OF CE DIR OPPO PPOINT1 HEI100

AID ARROW AT AT P100 OF CE DIR AXES PPOINT100 HEI1000

AID CE ARROW HEIGHT 500

AID CE ARROW ON

AID CE ARROW OFF
    
```

AID CLEAR LINE ALL

Surpress all aids

2.1.9 CREATE / COPY OBJECTS

```
NEW SUBS /name_of_subs AT IDP@ ORI Y IS N AND Z IS UP
NEW SUBS /name_of_subs COPY PREV BY E1550
NEW SUBS /name_of_subs POLAR N12W DIST 1000
NEW BOX XLEN200 YLEN200 ZLEN200
NEW BOX XLEN200 YLEN200 ZLEN200 LEV 5 7 OBST 0
NEW PIPE /name_of_pipe
NEW BRAN /name_of_branch
NEW FLAN COPY PREV FLAN
COPY PREV MOVE N(43+180 ADD)E DISTance (1000 Down)
NEW SCTN COPY PREV BY E200
NEW SCTN COPY PREV BY E200 COL 4
NEW SCTN COPY PREV BY E200 WRT CE
NEW SCTN COPY PREV MIRROw PLANE E THROugh E1000 N3000 U 1000
WRT /*
NEW STRU COPY PREV MOVE W WRT CE TO IDPL@
COPY MEMber OF /group_member_name
NEW SUBS /name_of_subs COPY PREV ROTate ABOUT Z BY 45
NEW BRAN /name1/BR1 COPY /BR1 RENAME /BR2
```

2.1.10 MOVE OBJECTS

```
BY D100
BY D100 WRT /*
AT IDP@
AT IDPL@
BY E 100 WRT CE
MOVE N45E DISTance 1500
MOVE S DISTance 1200
MOVE U THROugh P2 OF PREV BOX
MOVE ALONG P1 DISTance 500
MOVE N45W TOWARDS ID@ DISTance 500
MOVE N45W TOWARDS IDP@ DISTance 500
MOVE P2 N DISTance 500 FROM ID@
MOVE P2 N CLEARANCE 100 THROugh IDP@
MOVE E WRT CE TO ID@
```

2.1.11 ROTATE OBJECTS

```

ROTate BY 45

ROTate BY 45 ABOut E

ROTate ABOut IDP@ BY 90

ROTate ABOut IDPL@ BY 90

ROTate THRough IDP@ BY 90

ROTate THRough IDPL@ BY 90

ROTate THRough P3 ABOut S BY 45

ROTate AND Y IS N45W25D

ROTate THRough W1000 N2000 U3000 WRT /* ABOut U BY 90

ROTate ABOut Z THRough IDP@ BY 45

ROTate THRough POSEnd ABOut D BY 30

ROTATE ABOUT X AND Y IS TOWARDS PREV

ROTate THRough MIDPoint ABOut D BY 90

ROTate ABOut PPLIN TOS BY 30

ORI AND P3 IS W
    
```

2.1.12 PLANE COMMAND

PLANE E THROUGH PIN 1	Move plane east through PIN 1
PLANE N CLEAR 100 BEHIND CE	Move plane north clearance 100
PLANE N DISTANCE 500	Move to north with distance 500
PLANE N THROUGH ID@	Move north through element @
PLANE PIN 2 THROUGH IDP@	Move PIN 2 through PPOINT @

PLANE U DIST 0 BEHIND IDP@	Move plane up distance 0 behind PPOINT @
PLANE U THROUGH U 1000	Move up through up with distance 1000

2.1.13 POSITION COMMAND

POS AT IDP@	Position of chosen PPOINT
POS ID@ AT PIN 2	Position of chosen element to PIN 2
POS P6 AT P2 OF \$V1	Position of chosen element from its P6 to P2 of chosen
POS PH DIST 500 FROM FIRST MEMBER	Position of branch head 500 from first member
POS PT DIST 500 FROM LAST MEMBER	Position of branch tail 500 from last member
VAR !P1 P1 POS IN WORLD	Store P1 position in variable \$!P1

2.1.14 PIN COMMAND

PIN1 AT PPLI BOS PROP 0.5 POS	PIN 1 at middle of PLINE BOS
PIN1 COPY IDP@	Create PIN 1 according to chosen PPOINT
PIN1 COPY PIN2	Create PIN 2 by copy of PIN 1
PIN1 DIR D	Orientate PIN 1 down
PIN1 OFF	Turn off PIN 1
PIN1 PLANE N THROUGH PIN2	Move the PIN 1 through PIN 2 with a normal to plane north
POS PIN1 AT CE	Position PIN 1 at axis of CE
Q DIR PIN1	Query direction of PIN 1

2.1.15 NEW COMMANDS IN PDMS 12

NEW LOCATE ZONE /EQUI.ZONE	Query the zone above the hierarchy and if that is true, insert the related equipment under the zone.
NEW REPLACE EQUIPMENT /C-1101	Query the related equipment and replace it. No delete and insert will happen. The reference of the equipment will remain.

2.2 PIPING

2.2.1 GENERAL

AXES AT PH	Show axes at pipe head
AXES AT PT	Show axes at pipe tail
CHECK BRANCH	Consistency check of branch
CHECK CE	Consistency check of CE
CHECK PIPE	Consistency check of pipe
CONN	Connect of CE to prev.
CONN IDP@ TO IDP@	Connect of mouse input to mouse input
CONN NEXT	Connect and go to next
CONN P1 OF ID@ TO IDP@	Connect of p1 of one mouse selected primitive to mouse selected PPOINT
CONN P2 TO IDP@	Connect of p2 to mouse input
CONN PT TO LAST MEM	Connect pipe tail to the last member of list
CONN TO NEXT	Connect to the next
CONN TO PREV	Connect to the previos
DIST 1000	Moves CE along the rubberband to a distance of prev with 1000
DRAG MOVE PLANE S DIST 100	Move the branch S100 (good for sloped pipes, slope is in this case not relevant)
DRAG POS PH AT IDP@	Moves the branch alon all 3 planes X,Y and Z
FCONN TO PREV	Force connection to previos
MTOC OFF	At component level it will shut off the MTO availability
PLAN N THR N IDP@	
THR W 1000	Moves CE along the rubberband to a W1000 coordinate

2.2.2 QUERY

CE IL TUB OF CE Q ATT	Query lenght of TUBI element. (Element before TUBI must be CE)
Q BORE	Query pipe bore
Q BRCON	Query the branch connection information
Q CATREF	Catalog reference of CE
Q CLLE	Query the branch length
Q CONNECTIONS	Query the connection informations
Q CREF	Query the connection reference
Q GCOF	Query the CE gross centre of gravity
Q GWEI	Query the gross weight
Q HPOS	Query the pipe head coordinates of CE
Q IDP@	Mouse input for ppoint query
Q ISPEC	Insulation specification of the CE
Q ISPEC	Query the insulation of CE
Q ITLE	Query the length of the implied tube
Q MASS	Query the centre of gravity and surface and volume
Q MTLE	Query the material tube lenght
Q MTL	Query the CL lenght of material tube
Q MTOC	Query the MTO status for the component
Q MTOT	Query the MTO status for the tubing
Q NCOF	Query the CE net COG (centre of gravity)
Q NSRF	Query the CE net surface
Q NVOL	Query the CE net volume
Q NWEI	Query the CE net weight
Q P1 BOLT1 BLEN Q P1 BOLT1 BDIA Q P1 BOLT1 SPREF Q P1 BOLT1 NOFF	With this commands you can generate a bolt report in design modul (under level FLAN, INST, VALV)
Q P2	Attributes of ppoint2 of CE
Q P2BOR	Nominal bore of ppoint2
Q PA	Query the ARRIVE coordinates of CE
Q PA BOP WRT /*	Query the ARRIVE coordinates at bottom of pipe of CE with relation to WORLD

Q PA TOP WRT /*	Query the ARRIVE coordinates at top of pipe of CE with relation to WORLD
Q PH BORE	Query pipe head bore of CE
Q PH OD	Query the pipe head external diameter of CE
Q PL QRT /*	Query the LEAVE coordinates of CE with relation to WORLD
Q POD1	Query the outside diameter
Q POS P2	Position of ppoint2 of CE
Q PSATTS	
Q PT	Query the pipe tail attributes
Q PT OD	Query the pipe tail external diameter of CE
Q SPREF	Specification reference of CE
Q TPOS	Query the pipe tail coordinates of CE
Q TULE	Query the branch tube length
Q VOL CE	Query the volume box in coordinate ENU
Q WVOL	Query the volume box in coordinate ENU
SHOW!!COMGOTOREF	Shows the PH and PT connection information
VAR !DIST CONST DIST PL TO PA OF NEXT	Query distance between ARRIVE and LEAVE

2.3 STRUCTURE

2.3.1 GENERAL

CALLSTL GSCNTAG CE	Mark CE SCTN start and end
DRNS PERP	Cut the SCTN end at 90 DEG to section
EXTEND TO ID@	Extend the SCTN end to a selected item
EXTEND TO IDP@	Extend the SCTN end to a selected PPOINT
EXTEND TO IDPL@	Extend the SCTN end to a selected PLINE
NEW FITT COPY PREV BY ZDIST PROP 1 BANG 180	Copy the fitting at the end of SCTN and turn it 180 DEG PROP 0 = Start Position PROP 0.5 = Middle Position PROP 1 = End Position

2.3.2 QUERY

Q BANG	Query the beta angle of the SCTN
Q CUTL	Query cut lenght of CE
Q DER LEN	Query the CE exact length
Q DRNE	Query the end cut plane direction
Q DRNS	Query the start cut plane direction
Q DTYPE	Query the FRMW style type
Q FRAD	Query the PLOO/PAVE radius ie 100mm or the NXTR/VERT radius ie 100mm
Q GCOF	Query the CE gross centre of gravity
Q GRADE	Query the E material grade
Q GTYPE	Query the generic type IE OD, HP, TG
Q GWEI	Query the CE gross weight
Q HEI	Query the CE PLT THK (PLOO LVL)
Q IDPL@	Query PLINE information of choosen CE
Q JLVN	Query the joint line of CE

Q JUST	Query the justification line
Q MATREF	Query the CE material reference
Q NCOF	Query the CE net COG
Q NSRF	Query the CE net surface
Q NVOL	Query the CE net volume
Q NWEI	Query the CE net weight
Q PLNA	Query the CE PLINE names
Q SJUS	Query the PLOO justification IE UTOP
Q SPREF	Query the specification reference
Q TCTL (OR Q CUTL)	Query the true cut length
Q ZLIST	Query the fitting pos along SCTN

2.4 COLLECT AND EVALUATE COMMANDS

2.4.1 OPERATORS

GT	Greater than
LT	Lower than
EQ	Equal
NEQ	Not equal
LE	Lower or equal than
GE	Greater or equal than
AND	
OR	
NOT	

2.4.2 MATCHWILD COMMAND

MATCHWILD (NAME OF BRANCH, '*XX*') EQUAL TRUE	Search about all branches which have a 'XX' included in the name
--	--

2.4.3 SUBSTRING COMMAND

Name: /COLLECTOR-EE45-100

SUBSTRING (NAME, 10, 3) FOR CE	Collect the characters of the CE name from position 10 up to 3 digits after
-----------------------------------	---

Result of Substring Command: R-E

2.4.4 REAL COMMAND

REAL (PART (FULLNAME, 2, ' ')) GE 65 FOR CE	
---	--

2.4.5 MATCH COMMAND

MATCH (NAME, 'ABC') GT 1	Search of name 'ABC' greater than 1
--------------------------	-------------------------------------

2.4.6 COMPOSE COMMAND

COMP (U) OF POS WRT WORLD	
POS EL. \ (STRING (COMP (U) OF POS WRT /*, 'D1'))	
QUERY SQRT (POW (COMP (X) OF POS WRT /*, 2) + POW (COMP (Y) OF POS WRT /*, 2))	

2.4.7 AFTER AND BEFORE COMMAND

AFTER (NAME, 'XXX')	Give the rest of the characters after 'XXX'
BEFORE (NAME, 'YYY')	Give the characters before 'YYY'
AFTER (BEFORE (NAME, 'XXX'), '/')	Combine the AFTER and BEFORE command

2.4.8 PART COMMAND

PART (NAME, 2, '/')	
PART ('NAME-MICHEL', '-')	Return NAME
PART ('ABCDEFGF', 4)	Return C

2.4.9 REPLACE COMMAND

REPLACE (NAME OF PSPEC, '/A150', 'TOTO')	Substitute /A150 with TOTO
REPLACE ((STRING (TEMP)), '-100000', '100')	Substitute -100000 with 100

2.4.10 REAL COMMAND

REAL (SUBS (NAME OF SITE, 6, 1)) GE3	
--------------------------------------	--

2.4.11 REAL COMMAND

ENHANCE ALL SCTN WITH (USERMOD EQ 'INSERT USER NAME HERE') FORCE COL RED	Search by user login

ENHANCE ALL SCTN WITH (MATCHW(LASTMOD, '*3 MAY 2010')) FOR CE COL GREEN	Search by last modified date
ENHANCE ALL SCTN WITH (USERMOD EQ ' INSERT USER NAME HERE' AND MATCHW (LAST MOD, '*3 MAY 2010')) FOR CE COL RED	Complex search

2.4.12 COLLECT EXAMPLES

Examples with COLLECT and ENHANCE command:

```

#-----
VAR !CHARP COLLECT ALL SUBS WITH ( MATCHWILD
( NAME, '/M*') ) WITHIN N103750 E479075 U4950 TO
N87500 E494500 U33500
ENHANCE ALL FROM !CHARP COLO 43
#-----
VAR !CHARP APPEND COLLECT ALL PIPE WITHIN
N103750 E479075 U4950 TO N87500 E494500 U33500
ENHANCE ALL PIPE FROM !CHARP COLO 35.
#-----
$d1=100
$d2=22
Var !branch collect all bran with hbor eq $1
Enhance all from !branch colour $2.
Return
#-----
$d1=A33H
$d2=22
Var !collect collect all bran with dsco eq [$1]
Enhance all from !collect colour $2.
Return
#-----
VAR !VOIL COLLECT ALL SUBS WITH ( NAME OF SITE EQ '/LD03')
AND ( MATCHWILD( NAME, '/*V*') )
ENHANCE ALL FROM !VOIL COLO 39
#-----
VAR !BOX COLLECT ALL BOX WITH ( XLEN GT 1000)
AND ( YLEN GT 1000) AND ( ZLEN GT 1000)
REMOVE ALL BOX FROM !BOX
#-----
VAR !RRI COLLECT ALL WITH ( MATCHWILD ( NAME, ' /CV1/RRI/*') )
WITHIN VOL '/CV1/BASA'
VAR !SEC COLLECT ALL WITH ( MATCHWILD ( NAME, ' /CV1/SEC/*') )
WITHIN VOL '/CV1/BASA'
ENHANCE ALL FROM !RRI COLO 8.
ENHANCE ALL FROM !SEC COLO 16.
#-----

```

```
#-----
VAR!CHARP COLLECT ALL SUBS WITH NOT (MATCHWILD (NAME, '/M*'))
WITHIN N10375 E4790 U4950 TO N8750 E4945 U335
ENHANCE ALL FROM !CHARP COLO 43
#-----
VAR !CHARP APPEND COLLECT ALL PIPE WITHIN
N103750 E479075 U4950 TO N87500 E494500 U33500
ENHANCE ALL PIPE FROM !CHARP COLO 35
#-----
```

3 DRAFT

3.1 GENERAL SYNTAX

3.1.1 QUERY

Q ADEG	Query current VIEW ANGLE ie 90 DEG
Q APOF	Query the CE terminator position
Q BSRF	Query the STRU LVL
Q CHEI	Query text character height
Q CHEIGHT	Query the text character height
Q CPOF	Query the CE leader line position
Q DIR	Query the current VIEW direction
Q DMTXT	Query the DIM TEXT attributes
Q DPOS	Query the LDIM position on the sheet
Q DTER	Query the LAYER / LDIM term default
Q FPT	
Q JUST	Query the current VIEW justification ie left
Q LEN	Query the length
Q LHEI	Query the text letter height
Q LSHAPE	Query the label leader line status
Q LVIS	Query the CE visibility
Q MPT	

Q OSRF	Query sheet overlay (view only)
Q PKEY	Query the DIM PLINE status ie TCTF
Q POS PLRF	Query the current VSEC coordinates
Q RCOD	Query the VIEW orientation
Q RRSF	Query the current VIEW RULE SETTING
Q SIZE	Query the VIEW O/ALL DIMENSIONS
Q SNAP	Query the SNAP SETTINGS (on/off)
Q THPOS	Query the current VIEW matchline coordinates
Q TMRF	Query the CE (symbol) name
Q TPEN	Query the TEXP COLOUR attributes
Q TPT	
Q VLIMITS	Quer the VIEW limits
Q VRAT	Query the VIEW scale ration ie 1 to 25
Q VSCALE	Query the current VIEW scale ie 0.5
Q VTYP	Query the VIEW attributes
Q XYPOS	Query the position on the sheets
Q XYPOS OF PTRF	Query the position of the symbol
QPLTXT	Query project text attributes

3.1.2 MISCELLANEOUS

BSRF /PROJECT/A1-BORDER	Change the border in DRAFT (at sheet level)
DELETE NULL \$Q	
DELETE NULL ANNOTATION	Delete annotations with bad reference
DELETE NULL DIM	Delete DIMs with bad reference
DELETE NULL GLAB	Delete GLABs with bad reference
DELETE NULL SYMB	Delete SYMBOLs with bad reference
FTP@	Move the first point of primitive STRA
GAP DELETE ALL	Delete all gaps
GAP DELETE@	Delete the gap on choosen element
GAP@	Create gap on choosen dim line

NEW DPPT DDNAME ID@	
NEW GLAB COPY PREV DDNAME ID@	New GLAB copy of previos and chose the new design element
NEW LDIM COPY ID LDIM @	
NEW SLAB COPY ID@ DDNAME ID@	
NEW SLAB COPY PREV DDNAME ID@	
NEW TEXP COPY PREV BY Y10	Copy previos text by Y10
PLCL@	P Clearance at choosen element
PTP@	Move the last point of primitive STRA
RCODE RIGHT	Rotate VIEW onto the right
REPEAT 5 BY X0 Y10	Copy 5 times the current STRA by Y10
SORT DIM	Sort the dimensions in order to use

3.2 ATEXT

EXAMPLES of ATEXT SYNTAX:

```

Atext '#OWNER(C13:13)'
Atext ' - -PLAN VIEW AT EL.#POSU+ T.O.S.'
Atext ' - -PLAN VIEW AT EL.#POSU+ T.O.S.'
Atext ' - -PLAN VIEW AT EL.#P3POSU+ T.O.P.'
Atext ' - -ELEVATION VIEW ROW #OWNER(C13:13)'
Atext ' -071-#pose(c3:8) EAST ELEVATION - #FRMW(C2:)'

```

3.3 BTEXT

EXAMPLES of BTEXT SYNTAX:

```

BTEXT '#SPREF(P/1:)(C2:4) #SPREF(P/2:)(C2:)'
BTEXT '#SPREF(P/1:)(C2:4) #SPREF(P/2:)(C2:9)'
BTEXT '#SPREF(P/3:)(C2:2)"x0#SPREF(Px2:)(C2:)'
BTEXT '#SPREF(P/3:)(C2:2)"x#SPREF(Px2:)(C2:)'
BTEXT '#SPREF(P/3:)(C2:3)"x0#SPREF(Px2:)(C2:)'
BTEXT '#SPREF(P/3:)(C2:3)"x#SPREF(Px2:)(C2:)'
BTEXT '#SPREF(P/3:)(C2:3)'''
BTEXT 'PG #DESP[1]x#DESP[2]x#DESP[3]x#DESP[4]'
BTEXT 'PG #DESP[1]x#DESP[2]'
BTEXT '#EQUI(P/4:)(C4:)'
BTEXT 'ELLIPTICAL #SPREF(P-4:)(C2:)S #DESP(P 2:)(C2:3) THK PL.'
BTEXT '#SPREF(P-4:)(C2:)S #DESP(P 2:)(C2:3) THK PL.'
BTEXT 'CONC. REDUC. #DESP[1]x#DESP[2]x#DESP[3] THK.'
BTEXT '#SPREF(P5:)(C2:5) ~D#DESPARA[1] x ~D#DESPARA[2]
#/x#DESPARA[3]Thk. ROLLED PLATE'
BTEXT 'TOP OF BRACINGS EL.#PKG^POSEU+<WRT /*>'
BTEXT 'PLATE #LOHE THK'
BTEXT '8518J-0#NAME(C20:22)DW-3642#NAME(C25:28)'
BTEXT |#BRAN<FR OWNER HREF OWNER>(C2:)|
BTEXT |#HVAC< FR OWNER HREF OWNER>(C2:)|

```

3.4 PLTEXT

EXAMPLES of PLTEXT SYNTAX:

```
Pltxt 'EL. #POSu+ T.O.S.'
```

```
Pltxt 'T.O.S. EL. #POSu+#/%U[#POSu+ ]%U'
```

```
Pltxt 'T.O.S. EL. #POSEU+#/%U[#POSEU+ ]%U'
```

```
Pltxt 'T.O.S. EL. #DIMPOSU+'
```

```
Pltxt 'EL. #PKBOS^POSSU+ B.O.S. '
```


4 PML

4.1 GENERAL

\$M	Runs a macro in PDMS
\$!	Evaluate a variable
\$.	Terminates a macro
\$S	Defines a synonym
\$G	Defines a global synonym
\$S-	Turns a synonym off
\$S+	Turns a synonym on
\$QS	Queries the synonyms
\$H	Help
\$Q	Another syntax help
\$P	Prints a line to your command line
\$ \$	Adds a \$ symbol
\$D	Defaults argument value
\$*	Comment line
\$ (Starts a block command
\$)	Ends a block command

4.2 TRACE

\$R	Turn pml trace off
\$R1	Tracing to shell windows
\$R2	Tracing to request windows
\$R4	Tracing of only input lines executed
\$R6	Turn pml trace on
\$R8	Tracing of all input lines
\$R16	Tracing without \$ expression (default off)
\$R32	Tracing includes line numbers

\$R64	Tracing of macro/function changes
\$R100	General debugging
\$R102	Capture trace in ALPHA LOG

5 EXPORT PDMS

5.1 REVIEW EXPORT

```
ON ERROR CONTINUE
EXPORT FILE /PROJECT.RVM OVER
EXPORT HOLES ON
REPRESENTATION PROFIES ON
REPRESENTATION INSU OFF
REPRESENTATION LEVEL 6
REPRESENTATION LEVEL PIPE 5
REPRESENTATION LEVEL NOZZ 5
REPRESENTATION LEVEL STRU 7
EXPORT AUTOLOUR RESET
EXPORT AUTOLOUR ON
EXPORT AUTOLOUR ALL PIPE COLOUR 3 $* orange
EXPORT AUTOLOUR ALL EQUI COLOUR 5 $* green
EXPORT ALL SITES
EXPORT FINISH
```