



*L'objectif de ce manuel, n'est pas de se substituer à la documentation de PDMS, mais de l'enrichir de commandes manuelles qui sont le quotidien de l'utilisateur.
Un partage des connaissances entre les utilisateurs est toujours bénéfique. C'est pourquoi, ce manuel est le vôtre, retournez nous vos idées vos remarques, d'utilisateurs de PDMS.*

"A valued PDMS user is one who freely shares his knowledge to help others"

DESIGN

AFFICHAGE

Réglage

- REPRE DARC 1 Set arc tolerance to 1 degree
- REPRE DARC DEF Set arc tolerance by default (10°)
- REPRE HOLES ON Set hole on
- REPRE HOLES OFF Set hole off
- REPRE PNODE COL YELLOW Set pnod colour Yellow
- REPRE PNODE ON Set pnod on
- REPRESENT PNODE SIZE 6 Set pnod size 6
- REPRESENT PROF ON CL OFF Set profile representation SOLID and Cline off
- REPRESENT SNODE ON Set snod on / off
- REFRESH Refresh the graphic window
- PREC 4 DP Give Precision decimal to 4 digits
- Q REPRESENT Give the representation status

Couleur

- Q COL ACTIVE Give the active current colour
- Q COL AIDS Give the actual colour of aids
- Q COL CE Give the active colour of CE
- Q COL VIS Give the visible colour
- Q COL 4 (Etc...) Give the Attributed colour (YELLOW)
- COL ACT BLUE Change active colour to BLUE
- COL CE VIOLET Change CE colour to VIOLET
- COL 39 YELLOW Change colour 39 to YELLOW
- ENHANCE CE TRANSL 0 Display CE SOLID
- ENHANCE CE TRANSL 60 Display CE TO 60% TRANSLUCENCY
- ENHANCE CE COL YELLOW Display CE YELLOW
-
- Q DRAW List the Drawlist display in graphic window.
(Take care! could be long if large drawlist)

(In general **CE** mean current element).



ADD to Drawlist

- ADD ALL WITHIN VOL CE Add all elements include and crossing the CE volume box
- ADD ALL WITHIN VOL CE 100 Add all disciplines that overlap CE with an additional clearance volume +100mm
- ADD ALL SCTN WITHIN VOL CE Add only the SCTN include and crossing the CE volume
- ADD ALL STRU WITH PURP EQ 'PS' Add only SCTN with their Purpose EQ to ' PS'
- ADD ALL WITHIN VOL CE 500 COL 4 Add ALL within vol CE + 500 colour yellow
- ADD CE Can be followed by AUTO CE to zoom adjusted around CE
- ADD CREF Add branch connected to cref
- ADD CE COL 39 Add CE colour 39
- ADD SITE ADD site (be careful this can take time to load)
- ADD CE Colour Blue TRANSL 75 Add CE colour blue with 75% of transparency
- ADD HREF TREFCREF Add connected branch to href tref or also cref with nozzle or TEE

REMOVE

- REM CE Remove Current element
- REM ALL Remove all element
- REM PIPE Remove pipe only
- REM EQUI Remove equi only
- REM ALL WITHIN VOL CE 100 Rem all include in CE volume box
- ETC.....

MARK

- MARK CE Mark CE name
- UNMARK CE or ALL Unmark CE name can be used with ALL
- MARKk CE Mark CE name
- MARK With 'TEMPORARY' CE Tag CE with temporary name 'TEMPORARY'
- MARK With (NAME OF CATREF) CE Tag CE with the name of Catref
- MARK With (GTYPE) CE
- MARK With 'TITI' CE
- 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

AXE

- AXES CE Add an Aid axe on current element
- AXE AT ID@ Add an Aid axe on element to be digit
- AXE OFF Suppress the display



AIDS

- 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 PPLI 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 P2 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

These commands has been defined with two (AT AT) values. Don't ask me why! ?? This is only I have founded to get the right result.

-
- AID ARROW AT AT P1 OF CE DIR OPPO PPOINT1 HEI1000
-
- AID ARROW AT AT P100 OF CE DIR AXES PPOINT100 HEI1000

- AID CLEAR ALL To suppress all aid display.

ALPHA REQUEST CLEAR Clear the command line window and its display.

MODIF on DESPARAMS

- DESP n2 500 n6 300 This change the design parameters number 2 and number 6 with its new value



CREATION d'OBJET PDMS

- NEW SUBS /name_of_subs AT IDP@ ORI Y IS N AND Z IS UP
- NEW BOX XLEN 500 YLEN 25 ZLEN 50 LEV 5 7 OBST 0
- NEW SUBS /name_of_subs COPY PREV BY East 1550
- NEW SUBS /name_of_subs POLAR N22.5W Dist 500
- NEW BOX XLEN 500 YLEN 10 ZLEN 250
- NEW PIPE /flow/area/pipe1
- NEW BRAN /flow/nom/pipe1/branch1
- NEW ELBOW SElect Wlth STYP EL
- NEW FLAN COPY PREV FLAN

Associate with COPY

- COPY PREV MOVE North(43.68 + 180 Add)East DISTance (1243.8 2 Down)
(43.68+180) = notation polonaise inverse (43.68 180 ADD)
- NEW SCTN COPY PREV BY E200
- NEW SCTN COPY PREV BY E200 COL 4
- NEW SCTN COPY PREV BY E200 WRT CE - Copy E200 wrt CE
- NEW SCTN COPY PREV MIRRO PLANE E THR E 1180 N8000 U2600
WRT/(PDMS) - Mirror copy CE with
coordinates and direction
- NEW STRU COPY PREV MOVE W WRT CE TO IDPL@ - Copy a new
STRU and move it west with respect CE and
toward Selected PLINE

COPY of GROUP d'objets

- COPY MEMber OF /Goup_member_name
- NEW xxx /nom COPY PREV
- NEW BOX COPY PREV BOX BY W1250
- NEW SUBS /nom_de_la_subs COPY PREV ROTate ABOUT Z BY 45
- NEW BRAN /CVT/RRI001 COPY /RRI001 RENAME /RRI /CVT/RRI



Move Objects

- MOVE N45E DIST 1500
- MOVE S DIST 1245
- MOVE U THROUGH P2 OF PREV BOX
- MOVE ALONG P1 DIST 547
- MOVE N45W TOWARDS ID@ DIST 500
- MOVE N45W TOWARDS IDP@ DIST 500
- MOVE \$_DIR WRT WORLD PLANE \$_PLAN CLEARANCE \$_DIST
\$_RELATIVE \$_CD.NNAME_NAME
- MOVE ALONG \$!SCTNDIR1 PLANE U THR U \$_ELEVATION
- MOVE P2 North DIST 500 FROM id@
- MOVE P2 North CLERANCE 100 THROUGH IDP@ MOVE E WRT CE TO ID@
Move CE wrt its own axe's East to an element chosen.
- MOVE U TO ID@(PDMS) Move UP TO A Selected ELEMENT
- MOVE W TO IDPL@(PDMS) Move WEST TO A Selected PLINE
- BY D 100 Move CE DOWN 100 mm
- BY E 100 Move CE EAST 100 mm
- BY E 2IN WRT CE Move CE E 2"(INCHES) WRT CE
(Determinate... correct CE axis first)
- BY E3.IDIN Move CE E3.1/2"(INCHES)
- BY N 100 Move CE NORTH 100 mm
- BY U 100 Move CE UP 100 mm
- BY X 100 Move CE X (EAST) 100 mm
- BY X 100 WRT/* Move CE X @AS") 100 mm wrt world
- AT IDP@ Move CE to selected PPOINT
- AT IDPL@ Move CE to selected PLINE

It's possible to define a common variable for any specific usage.
(Var !sctndir deriv ori of id@ ou var !plan cons plan u wrt /* thr idp@)
(Query with Q var !sctndir



ROTATE command (Object Rotation)

Remarques à la commande rotate:

Effectuer la rotation d'un objet "n" autour de l'axe "Z" spécifié d'un objet, et devant tourner jusqu'à la rencontre de l'axe "Y" d'un autre objet.

Pour exécuter cette commande, Spécifier l'axe de rotation, l'axe de l'objet que vous voulez modifier et ensuite la position vers l'intersection de l'objet sur lequel vous voulez vous aligner.

- ROTATE ABOUT <axis> AND <axis> IS TOWARDS <position>
Exemple de rotation autour de Z d'un élément et l'axe Y est dirigé vers le précédent dans la hiérarchie.
- ROTATE ABOUT X AND Y IS TOWARDS PREV
- ROTATE ABOUT Z THROU IDP@ BY 45 Rotation d'un angle x autour d'un ppoint
- ROTate BY -45
- ROTate BY 60 ABOUT East
- ROTate THROugh P3 ABOUT South BY 45
- ROTate AND Y IS N45W25D
- ROT THR WloooO N20000 U3000 WRT /* ABOut U BY 90
Rotate CE about coordinate wrt world about vertical axis by 90 degrees
- ROT THR POSE ABOut D BY 30 Rotate about posend axis down by 30
- ROT THR POSS ABOut D BY 45 Rotate about start axis d by 45
- ROT THR MIDPABO D BY 90 Rotate CE about middle sctn by 90
- ROT ABO IDP@ BY 90 Rotate CE local to ppoint by 90.
- ROT ABO IDPL@ BY 90 Rotate CE local to pline by 90. .
- ROT THR IDP@ BY 90 Rotate CE about any ppoint by 90.
- ROT THR IDPL@ BY 90 Rotate CE about any pline by 90.
- ROT ABOut P1 BY 90 Rotate CE about P1 by 90.
- ROT ABOut PPLIN TOS BY 15 Rotate CE about pline with pkey equal TOS by 15 degrees



PLANE command (Displacement of object according to the normal in the datum-line)

- PLANE N CLEAR 100 BEHIND CE Move Plane North clearance 100 behind CE
- PLANE E THROUgh PIN 1 Move Plane East through Pin 1
- PLANE U DIST 0 BEHIND IDP@ Move Plane Up distance 0 behind ppoint @.
- PLANE PIN 2 THRO IDP@ Move pin2 through ppoint @
- PLAN N DIST 500 Move to North distance 500
- PLAN N THROUgh ID@ Move North through element @
- PLAN U THROUgh U 1000 Move Up through up dist 1000
- PLAN N DIST -200 FROM IDP@ The distance is coming from south (-... equal opposite direction)

POSITION Command (Object position)

- POS PT DIST 500 FROM LAST MEM Pos branch tail 500 from last member
- POS PH DIST 500 FROM FIRST MEM Pos branch head 500 from first member
- VAR !P1 P1 POS IN WORLD Store P1 pos in variable \$!P1
- POS AT IDP@ Position at Ppoint chosen.
- POS ID@ AT PIN 2 Position object chosen at Pin2
- POS P6 AT P2 OF \$v1 Position object from its P6 to P2 of chosen
-
- Q POS WRT TO ID@ Give the distance from CE to start of indented member
- Q POS IN \$v1 Give the CE distance to \$V1 variable
- Q POS PIN1 WRT/* Give the CE coordinates OF PIN1
- Q POSE Give the CE END coordinates
- Q POS FITT Give the CE FITT coordinates start
- Q POS IDPL@ Give the CE PLINE coordinates CE start
- Q POS PPLI BOS WRT/* Give the BOS PLINE coordinates
- Q POS PPLI NA PROP 0.5 Give the centre coordinate position of the pline(PPLI) at (0.5 x derive length) on the N/A
- Q POSS Give the start coordinates
- Q POSS POSE Give the start and end coordinates



-
- Q POS WRT CE TO ID@ Query the distance from CE to identify object
- Q POS IN \$V1 Query the distance from CE to \$V1 object
- Q POS PIN1 WRT/* Query the position of pin1 wrt world
- Q POS End Query the position end of sctn
- Q POS FITT Query the fitting coordinates (start)
- Q POS IDPL@ Query the Pline coordinates at start of idpline
- Q POS PPLI BOS WRT/* Query the bottom BOS pline coordinates
- Q POS PPLI NA PROP 0.5 Query the neutral axis NA middle of pline coordinates (position of the pline at (PPLI) at (0.5 x DER LEN) on the NA

- Q POSS Query position start of the SCTN
- Q POSS POSE Query position start and end of the SCTN

PINS

Utilisation des pins.

- PIN1 AT PPLI BOS PROP 0.5 POS PIN1 at middle of pline BOS
- PIN1 PLAN N THR PIN2 Move the Pin1 through Pin2 with a normal to plan north

- PIN1 COPY IDP@ Create pin1 according Ppoint choosen
- PIN1 COPY PIN2 Create Pin2 by copy of Pin1
- PIN1 DIR D Orient PIN1 down
- PIN1 DIR U WRT/* THR IDP@ Move PIN1 UP TO A SELECTED PPOJNT
- PIN2 DIR D WRT/* THR IDPL@ Move PIN2 Down to a selected pline
- PIN1 BY D 8 Move PIN1 Down 8mm
- PIN6 OFF Turn PIN6 OFF
- POS PIN3 AT CE Position PIN3 at axis of CE
- Q DIR PIN1 Query Pin1 direction



Query PIPING.

- Q BORE Give the pipe bore
- Q POD1 Give the Outside diameter 1
- Q CLLE Give the branch length
- Q HPOS Give the CE pipe HEAD coord
- Q HT Give the CE hanger TAIL coord
- Q ISPEC Give the CE (PIPE) insulation
- Q PA Give the CE ARRIVE coordinates with Respect World

- Q PA TOP WRT/* Give the CE ARRIVE coord at TOP of pipe
- Q PA BOP WRT/* Give the CE arrive coord at BOP of pipe
- Q PH BORE Give the CE pipe head bore
- Q PH OD Give the CE pipe head external diameter
- Q PI WRT/* Give the CE (PIPE SUPPT) location
- Q PL WRT/* Give the CE LEAVE coordinates
- Q PT OD Give the Pipe tail Outside Diameter
- Q TPOS Give the pipe tail coordinates
- Q CREF Give the connection reference
- Q PT Give the pipe tail attributes
- Q ITLE Give the length of the implied tube
- CONN TO PREV Connect the CE to previous element
- CONN TO NEXT Connect the CE to next element
- FCONN TO PREV Force connection with incompatibles COCO
- Q MTOT Give the MTO Status for the tubing
- Q MTOC Give the MTO status for component
- Q TULE Give the Branch tube length
- Q MTLE Give Length of material tube
- Q MTLT Give CL. Length of material tube
- Q NCOF Give the CE net COG
- Q NSRF Give the CE net surface
- Q NVOL Give the CE net volume
- Q NWEI Give the net weight
- Q SPRE Give the CE specification reference
- Q GCOF Give the CE gross Centre OF Gravity
- Q GWEI Give the CE gross weight
- Q MASS Give the centre of gravity and surface and volume

- Q VOL CE Give the Volume box in coordinate ENU
- Q WVOL Give the Volume box in coordinate ENU



STRUCTURE.

- Q BANG Give the beta angle of the SCTN
- Q DRNE Give the end cut plane direction
- Q JUSL Give the justification line
- Q DTYPE Give the FRMW style type (ie STLS)
- Q JLnV Give the CE JOINT LINE
- Q DRNS Give the start cut plane direction
- 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 PANEL COPY PREV MOV TOWard ID@ DIST 100 COPY THE
PANEL FROM ITS POSITION TOWARD ELEMNT
DISTANCE 100
- Q IDPL@ give the Pline information using cursor
- CALLSTL GSCTNTAG CE mark CE sctn START &END
- DRNS PERP Cut the SCTN end AT 90DEG to section
- Q CUTLE Give the CE CUT LENGTH
- Q HEI Give the CE (PLOO LVL) PLT THK
- Q FRAD Give the PLOO/PAVE RADIUS ie 100mm OR
the NXTR/VERT radius ie 100mm
- Q SJUS Give the PLOO justification ie UTOP
- Q NCOF Give the CE net COG
- Q NSRF Give the CE net surface
- Q NVOL Give the CE net volume
- Q NWEI Give the CE NET weight
- Q PLNA Give the CE PLINE NAMES
- Q SPRE Give the CE specification reference
- Q GRADE Give the CE MATERIAL GRADE
- Q GTYP Give the GENERIC TYPE ie OD,HP,TG
- Q GCOF Give the CE gross Centre OF Gravity
- Q GWEI Give the CE gross weight
- Q MATREF Give the CE MATERIAL REP
- Q DER LEN Give the CE exact length
- Q TCTL OR (Q CUTL) Give the TRUE cut length



EQUIPEMENT

Object Connection

- CONN IDP@ to IDP@ Connection from idp to idp
- CONN P2 to P3 OF PREV BOX Connection of P2 to P3 of previous box
- Q GCOF Give the gross centre of gravity
- Q GWEI Give the gross weight

PDMS TYPICAL COMMANDS

ATTRIBUT GENERAL

- AID CLEAR LINE ALL Remove all aid lines
- AXES AT CE Place axe at CE
- AXES AT PA CE Place axe at CE ppoint Parrive
- AXES AT PPLI TOS PROP 1 Place axe at the end of TOS pline
- AXES OFF Remove axe
- CHECK CE Query the consistency of the ce
- FINISH End & savework Pdms session
- FLIP CE Turn 180 degrees the component itself
- GETWORK Get latest model from other users

INCLUDE (To use that command you MUST be on the right getting hierarchy)

- INCLude CIRC 1 OF NOTE /TABLE Transfer with item full name
- INCLude ID@ Select the item to be transferred
- INCLude NAME Include with by its name, you could use\$V1

- LOCK ALL Lock the CE & CE members
- NAME /TEMPORARY Rename CE TEMPORARY
- NEW FITT COPY PREV BY ZDIST PROP 1 BANG 180 Copy the fitting at the end of sctn and turn it 180°
 - PROP 0 = START POSITION
 - PROP 0.5 = MIDDLE POSITION
 - PROP 1 = END POSITION

-
- RENAME ALL /xxx/XXX /xxx/YYY Rename all from /xxx/XXX to /yyy/YYY
- **SAVEWORK** SAVE LATEST WORK
- UNCLAIM ALL Unlock all claimed memembers
- UNLOCK ALL Unlock CE & CE members
- FINISH Savework and Exit



QUERY et la mise à jour des Attributs

- 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.

Query on all pipe wholly include in the volume box of /Zone with an additional overall clearance volume of 1500mm.

- Q ALL PIPE EXCLUSIVE WITHIN VOLUME /CV1/BASA 1500

Query with wildcard keyword **MATCHWILD**. This functionality Give the possibility to only tape a part of the word search.

- Q ALL PIPE WITH (MATCHWILD (NAME, 'name_of_pipe_or_branch*'))

Example with MATCHWILD :

- * Characters joker replaces a chain of characters.
- ? Characters joker replace only 1 character.(but can be use more than one time)

i.e.: RR? 001*

- Search results : RRX001P0
RRA001EC



The first Query command you should know is Q ATT to query all attributes of a component.

- Q ATT Give the whole attributes of a component
- Q DISPLAY Give the tolerance and repre levels
- Q DNST Give the density
- Q East Give the CE East coordinates
- Q ELEM Give the CE element name
- Q IDP @ WRT/* Give the CE P POINT CO-ORDINATES
- Q ITLE Give the LENGTH of implied tube
- Q LASMOD Give the lastest date of modification
- Q LEV Give the CE level
- Q LIST Give the list of possible type in that hierarchy
- Q LOCK Give the lock status (true or false)
- Q MCOUNT Give the number of members
- Q MCOUNT SCTN Give the numbers of members type SCTN
- Q MDB Give the project MDB
- Q MEM Give the CE members
- Q MIDP Give the CE MIDPOINT coordinates
- Q NAM Give the CE name
- Q OBS Give the CE obstruction level (0 1 2)
- Q OLIST Give the possible types of owner for CE
- Q OWN Give the CE owner
- Q PARA Give the CE parameters ie SERIAL SIZES
- Q POS Give the CE coordinates (START)
- Q PRLS Give the DESParam (PROPerties) LIST
- Q PPLS Give the Ppoint list
- Q TYPE Give the CE type ie. SCTN, PANE
- Q HARDTYP Give the hard type coding for CE
- Q SOFTTYP Give the softype of the CE
- Q USER Give the name of the current user
- Q USERMOD Give the last user modify
- Q ZDIST Give the fitting pos along sctn
-
- \$R6 Give the macro listing for the current macro
- \$R Exit the previous command \$R6
- \$HR History of possible commands



DRAFT

SORT DIM

Sort the dimensions in order to use

NEW GLAB COPY PREV DDNAME ID@

New glab copy previous glab and choice the new design element.

NEW GLAB COPY ID@ DDNAME ID@
NEW SLAB COPY PREV DDNAME ID@
NEW SLAB COPY ID@ DDNAME ID@
NEW LDIM COPY ID LDIM @
NEW DPPT DDNAME ID@

Atext.

- Atext '#OWNER(C13:13)'
- Atext ' - -PLAN VIEW AT EL.#POSU+ T.O.S.'
*VUE EN PLAN SANS RENVOI DE PLAN ET AVEC L'ELEVATION INTELLIGENTE
(SUR UNE SECTION)*
- Atext ' - -PLAN VIEW AT EL.#P3POSU+ T.O.P.'
*VUE EN PLAN SANS RENVOI DE PLAN ET AVEC L'ELEVATION INTELLIGENTE
(SUR LE PAVE D'UN PANEL)*
- Atext ' - -ELEVATION VIEW ROW #OWNER(C13:13)'
ELEVATION VIEW SANS RENVOI DE PLAN ET AVEC LA FILE INTELLIGENTE
- NEW TEXP COPY PREV BY Y10 *COPY TEXT CE Y 10*
- Atext ' -071-#pose(c3:8) EAST ELEVATION - #FRMW(C2:).'



Btext. (example of solutions to get the text values)

- Btext '* BRACINGS ARE #SPREF(P/3:)(C2:3)"x0#SPREF(P/3:)(C9:12) - CL
EL.#POSU+'
*NOTE POUR LES CONTREVENTEMENTS HORIZONTALS AVEC ELEVATION
INTELLIGENTE*
- Btext '#SPREF(P/1:)(C2:4) #SPREF(P/2:)(C2:)'
DENOMINATION COMPLETE DES JIS
- Btext '#SPREF(P/1:)(C2:4) #SPREF(P/2:)(C2:9)'
DENOMINATION NOMINALE DES JIS
- Btext '#SPREF(P/3:)(C2:2)"x0#SPREF(Px2:)(C2:)'
SECTION DES TUBES INFERIEUR A 10" AVEC EPAISSEUR INFERIEURE A 1.000"
- Btext '#SPREF(P/3:)(C2:2)"x#SPREF(Px2:)(C2:)'
SECTION DES TUBES INFERIEUR A 10" AVEC EPAISSEUR SUPERIEURE A 1.000"
- BTEXT '#SPREF(P/3:)(C2:3)"x0#SPREF(Px2:)(C2:)'
SECTION DES TUBES AVEC EPAISSEUR INFERIEURE A 1.000"
- BTEXT '#SPREF(P/3:)(C2:3)"x#SPREF(Px2:)(C2:)'
SECTION DES TUBES AVEC EPAISSEUR SUPERIEURE A 1.000"
- BTEXT '#SPREF(P/3:)(C2:3)'"
SECTION DES TUBES SANS EPAISSEUR
- Btext 'PG #DESP[1]x#DESP[2]x#DESP[3]x#DESP[4]'
DENOMINATION COMPLETE DES PG
- Btext 'PG #DESP[1]x#DESP[2]'
DENOMINATION NOMINALE DES PG
- BTEXT '#EQUI(P/4:)(C4:)'
REPERAGE DES EQUIPEMENTS
- BTEXT 'ELLIPTICAL #SPREF(P-4:)(C2:)S #DESP(P 2:)(C2:3) THK PL.'
DENOMINATION DES COQUILLES ELLIPITTIQUES
- BTEXT '#SPREF(P-4:)(C2:)S #DESP(P 2:)(C2:3) THK PL.'
DENOMINATION DES COQUILLES RONDES
- Btext 'CONC. REDUC. #DESP[1]x#DESP[2]x#DESP[3] THK.'
DENOMINATION DES REDUCTIONS CONCENTRIQUES
- Btext '#SPREF(P5:)(C2:5) ~D#DESPARA[1] x ~D#DESPARA[2] #/x
#DESPARA[3]Thk. ROLLED PLATE' *DENOMINATION DES CONES*
- Btext 'TOP OF BRACINGS EL.#PKG^POSEU+<WRT /*>'
*INDICATION DE L'ELEVATION TOP D'UN TUBE (JUSTIFIE EN NA) SUR LA PLINE
SUPERIEURE*
- Btext 'PLATE #LOHE THK'
INDICATION DE L'EPAISSEUR D'UNE TOLE.
- BTEXT '8518J-0#NAME(C20:22)DW-3642#NAME(C25:28)' compose with
name parts
-
-



- *get the HREF from the component itself*
- BTEXT |#BRAN<FR OWNER HREF OWNER>(C2:)|
- BTEXT |#HVAC< FR OWNER HREF OWNER>(C2:)|

Pltxt.

- Pltxt 'EL. #POSu+ T.O.S.'
INDICATION DE L'ELEVATION SUR LIGNE DE RAPPEL D'UNE COTE
- Pltxt 'T.O.G. EL. #P3POSu+##/%U[#P3POSu+]%U'
Dim text with 2 mesures (inches and m)
- 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. '

Various commands

FPT @	Move the 1 point of primitive STRA
TPT @	Move the last point of primitive STRA
PLCL @	Pclearance at @
GAP @	Create gap on dim line
GAP DELETE @	Choose the Gap to delete
GAP Delete ALL	Suppress all GAP

REPEAT 5 BY X0 Y610

Copy 5 times the current STRA by Y -10

How to get back the rule applied on an object in draft view.

RECUPERATION DE LA REGLE ET DU STYLE APPLIQUE SUR UN OBJET

- Q STYF <object type> ie :SBFI or BRAN ID@



DRAFT QUERY COMMANDS

- Q RRSF Give the current VIEW RULE SETTINGS
- Q SIZE Give the VIEW O/ALL DIMENSIONS
- Q ADEG Give the C/VIEW ANGLE (ie 90 DEG)
- Q APOF Give the CE (NOTE) TERMINATOR POS'N
- Q BSRF Give the DRG. SIFT. REF. (STRU LVL)
- Q CHEIGHT Give the TEXT CHARAc HEIGHT
- Q CPOF Give the CE (NOTE) LEADER LINE POS'
- Q DIR Give the C/VIEW DIRECTION(ie N)
- Q DPOS Give the LDIM POSITION ON SHEET
- Q DTER Give the LAYER/LDIM TERM'TR DEPAULT
- Q FPT Give the STRA FROM POINT CO-ORDS)
- Q JUST Give the C/VIEW JUSTIF (ie LEFT)
- Q LEN Give the LENGHT
- Q LHEI Give the TEXT LETTER HEIGHT
- Q LSHAPE Give the LABEL LEADER LINE STATUS
- Q LVIS Give the CE VISIBILITY
- Q MPT Give the STRA FROM POINT CO-ORDS
- Q PKEY Give the DIM PLINE STATUS (ie TCTF)
- Q POS PLRF Give the CURRENT VSEC CO-ORDS
- Q RCOD Give the VIEW ORIENTATION
- Q RRSF Give the CURRENT VIEW RULE SETTINGS
- Q SIZE Give the VIEW O/ALL DIMENSIONS
- Q SNAP Give the SNAP SETTINGS (ON/OFF)
- Q THPOS Give the C/VIEW MATCHLINE CO-ORDS
- Q TMRF Give the CE (SYMBOL) NAME
- Q TPEN Give the TEXP COLOUR ATTRIBUTES
- Q TPT Give the STRA TAIL POINT CO-ORDS
- Q VLIMITS Give the VIEW LIMITS
- Q VRAT Give the VIEW SCALE RATIO (ie 1 TO 25)
- Q VSCALE Give the C/VIEW SCALE (ie 0.5)
- Q VTYP Give the VIEW ATTRIBUTES
- Q XYPOS Give the POSITION ON THE SHEET
- Q XYPOS OF PTRF Give the POSITION OF THE SYMBOL
- Q DIR Give the C/VIEW DIRECTION(ie N)
- Q DMTXT Give the DIM TEXT ATTRIBUTES
- Q DPOS Give the LDIM POSITION ON SHEET
- Q FPT Give the CE FUNCTION
- Q DTER Give the LAYER/LDIM TERM'TR DEFAULT



- Q RCOD Give the VIEW ORIENTATION
- Q SNAP Give the SNAP SETTING (ON/OFP)
- Q THPOS Give the C/VIEW MATCHLINES COORDINATES
- Q TMRF Give the CE SYMBOL NAME
- Q TPT Give the STRA TAIKL POINT COORDINATES
- Q VLIMITS Give the VIEW LIMITS
- Q VSCALE Give the C/VIEW SCALE(ie 0.5) 0.5 = 1:2 0.2 = 1:5
0.1 = 1:10
- Q XYPOS Give the POSITION ON SHEET
- Q XYPOS OF TMRF Give the Symbol position
- Q VTYPE Give the VIEW ATT(ie GLOBAL HIDDEN)
- Q BSRF Give the ATTACHED DRG/SHT (DRWG LVL)
- Q CHEI Give the TEXT CHARACTER HEIGHT
- Q MPT Give the STRA MIDPOINT COORDINATES
- Q PLTXT Give the PROJ TEXT ATTRIBUTES
- Q POS PLRF Give the CURRENT VSEC CO-ORDS.
- Q LSHAPE Give the LABEL LEADER LINE STATUS
- Q OSRF Give the SHEET OVERLAY (VIEW ONLY)
- Q PKEY Give the DIM PLINE STATUS (ie TCTF)
-
- RCODE RIGHT Rotate VIEW onto the right
- NEW GLAB COPY \$V1 COPY THE GLAB REFERENCED \$V1
- NEW GLAB COPY PREV AT @ COPY GLAB TO PICK LOCATION

DRAFT (interesting gobal commands)

- DELETE NULL ANNOtation Supprime toutes les annotations bad ref
- DELETE NULL GLAB Supprime toutes les glab bad ref
- DELETE NULL DIM Supprime toutes les dimensions bad ref
- DELETE NULL SYMB Supprime toutes les symboles bad ref
- DELETE NULL \$Q Interrogation des mots clés
-



(How can use Collect and Evaluate command)(has been write in French for better understanding by French people)

Méthodologie pour Utiliser des Commandes COLLECT et EVALUATE

OPERATEURS LOGIQUES**

GT	+GRAND
LT	+ PETIT
EQ	=
NEQ	PAS =
LE	+ PETIT OU =
GE	+ GRAND OU =
AND	A prendre comme lien entre deux questions qui doivent être vrais si cumulées.
OR	À prendre comme lien entre deux questions pour extraire deux valeurs
NOT	Non égal à ...

Exemple: `MATCHWILD(name,'/??A*')` for ce

-- Vous recherchez la partie d'un nom d'une position et (10) nombre de caractères fixes (3)

`SUBSTRING(NAME,10,3)` for ce /COLLECTEUR-EA-100

Résultat = **R-E** 0 123456789 01234567890

-- Vous testez la partie 2 d'un nom fullname (objet pdms « non nommé ») et cette partie est un nombre réel à l'intérieur de la string fullname

Full name = `SCTN 52 of SBFRAMEWORK 1 of FRMWORK /SF/CHARP-1/Z1/F1`

52 est le terme 2 (65 dans l'exemple pour partie 2 plus grande égale 65)

`REAL(PART(FULLNAME,2,' ')) GE 65` for ce

-- Vous cherchez la partie d'un nom (ABC) avec valeur vraie si trouvée

`MATCH(NAME,'ABC') GT 1` vrai si trouvé dans le mot cherché

--

`COMP(U) OF POS WRT WORLD` Retourne la valeur de la position Up

`AFTER(NAME,'XXX')` Donne la suite du nom après les caractères

choisis

Exemple : `/MAVARIABLEXXXAMOI` = AMOI



BEFORE(NAME,'WXC') Donne les caractères précédent les caractères choisis (si pas trouvé le résultat est ' ')
Exemple : /MAVARIABLEWXCXAMOI = /MAVARIABLE

AFTER(BEFORE(NAME,'xxx'),'') Combiner les deux termes After et Before pour obtenir le résultat souhaité

Exemple : /MAVARIABLExxxAMOI = MAVARIABLE

PART(NAME,2,'/') Retourne le champ 2 du nom après le 2eme /

PART('NAME-MICHEL','-') Retourne NAME

PART('ABDCEFG',4) Retourne C

REPLACE(NAME OF PSPEC,'/A150','TOTO') Substitue /A150 par TOTO

REPLACE((STRING(TEMP)),'-100000','100') Substitue le real temp à besoin d'être en string sinon ne marche pas.

Récupération du diam en Inches

Bore Inch = (DIST (NOMBORE(false,p1bor),false,true,true,64,true))

Multiple avec choix des BEFORE AFTER

Name = (before(after(namn of owner,'MDS-'),'s'))

Récupération de nombre avec un nombre de décimales définies

(string((nweight),'d2'))

Utilisation de COMPOSE

Pos EL. \ (STR (comp(U) of pos wrt /* , 'D1'))

Test sur Nom de Site dont on retient le 6 caratere pour comparaison si valeur > 3

(REAL(subs(name of site,6,1))) GE 3



La fonction COLLECT

La fonction **COLLECT** (collecte d'éléments), associée avec **ENHANCE** (restaurer), permet de rapidement sélectionner les éléments Design de la MDB courante, que l'on souhaite isoler pour leur affichage, pour les mettre en évidence (couleur), les supprimer, etc .. / ..

Cette fonction demande de stocker dans une variable tableau les objets à travailler. Il est donc nécessaire de connaître la commande PML de mise en variable VAR.

EXEMPLES D'UTILISATION DIRECTE

```
#-----  
VAR !charp collect all SUBS with ( matchwild ( NAME,'/M*')) within N103750 E479075 U4950  
TO N87500E494500U33500  
Enhance all from !charp COLO 43.
```

```
#-----  
VAR !charp append collect all PIPE within N103750 E479075 U4950 TO  
N87500E494500U33500  
Enhance all PIPE from !charp COLO 35.
```

EXEMPLE D'UTILISATION PAR MACRO

Exécuter le fichier script dans lequel ces lignes auront été écrites.

\$d1=100 \$* paramètre par défaut du choix du diamètre à prendre en compte.

\$d2=22 \$* paramètre par défaut de la couleur d'affichage.

```
Var !branch collect all bran with hbor eq $1
```

```
Enhance all from !branch colour $2.
```

```
Return
```

```
#-----  
Lancement du fichier en exécution.
```

```
$M /nom du fichierscript 150 35
```

```
#-----  
Autre exemple :
```

```
$d1=A33H
```

```
$d2=22
```

```
Var !collect collect all bran with dsco eq [$1]
```

```
Enhance all from !collect colour $2.
```

```
Return
```

```
#-----  
Lancement du fichier en exécution.
```

```
$M /nom du fichierscript A44BN 27 (A44BN et 27 sont les variables $1 et $2 de l'action)
```



EXEMPLE des OPERATEURS LOGIQUES avec la fonction COLLECT.

Question : Récupérer toutes les SUBS dont le nom de site est /LD03 et dont le nom contient le caractère "V".

```
Var !voil collect all SUBS with ( NAME OF SITE EQ '/LD03') AND ( matchwild  
( NAME, '/*V*'))
```

```
Enhance all from !voil colo 39.
```

Question : Récupérer toutes les boîtes dont l'échelle en x,y,z est supérieure à 1000.

```
Var !box collect all BOX with ( xlen GT 1000) AND ( ylen GT 1000) AND ( zlen GT 1000)  
remove all BOX from !box
```

Question : Récupérer tout ce qui est compris dans le volume /CV1/BASA et dont le nom commence par /CV1/RR1???

```
Add CE /CV1/BASA colo 2 $*.
```

ATTENTION pour l'utilisation du volume par le nom, le site doit être présent.

```
Var !rri collect all with ( matchwild ( NAME, '/CV1/RR1/*')) 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.
```

Question : Supprimer de l'affichage toutes les boîtes dont l'ATTRIBUT XLEN est plus grand que 12350

```
Remove all box with ( XLEN GT 12350 ) from !box.
```

Question : Addition dans un groupe de pipes dont on veut enlever une branche.

```
Gadd all BRAN MEM FOR /PIPE2 EXCLUDE BRAN 1 OF /PIPE2
```

Opérateurs particuliers :

ARRAYWidth - Longueur de la chaîne de caractères contenus dans une variable.

```
!long = ARRAYWidth ( !collect )
```

```
$P $!long
```

Récupération du mot n dans le contenu d'une variable.

```
Var !local 'local 2 - local 3 - local 4'
```

```
Var !localnom (PART(VTEXT(!local),3))
```

```
$P $!localnom           Affiche le nom 3 (local 4)
```



La commande COLLECT (suite)

Collection de toutes les SUBS don't le nom ne commence pas par /M
VAR!charp collect all subs with NOT (matchwild (name,'/M*')) within N10375 E4790 U4950
TO N8750 E4945 U335

enhance all from !charp colo 43

#-----

Collection avec addition dans la variable !Charp
var !charp append collect all pipe within N103750 E479075 U4950 TO
N87500 E494500 U33500

enhance all pipe from !charp colo 35

#-----

Position relative d'un Nozzle en fonction de sa position Est et Nord

Query sqrt (pow(comp(x) of pos wrt /* , 2) + pow (comp(y) of pos wrt /* , 2))



PARAGON

To only replace only one parameters ie: 100 23 FGD 12 56 without type the whole values

PARAM **N3** ABC

and the result is 100 23 **ABC** 12 56

Set the values before loading an object with many DESP or DATA

```
Model set des para 1 23
Model set des para 2 100
Model set des para 3 ABC
Model set des para 4 10
```

Model setting DDRADIUS 75 DDHEIGHT 200

Macro to set by defaults the Catalogue parameters
We can write a script file and load it as a macro or datal.

```
$M .....
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
```

Also to create component in PARAGON, we should take care about
Obstruction volume
Representation level
And use data with their default values set to a minimum
A data value can be ?????XXXXX!!!!!!

Then by default any catalogue component will be defined with 3 or 4 levels of representation

CL centre line	isometric view representation
Default geometrie	Simple shape to facilitate the design motion.
Obstruction geometrie	Very simple and efficient to save time with clasher
And detail geometrie use.	Full geometry could be closed of real design but not for common