**PDMS COMMANDS**

**PIPING COMMANDS**

1. ADD ALL PIP

2. REM ALL PIP

3. MOVE U THROU IDP@

4. MOVE E THROU IDP@

5. MOVE W THROU IDP@

6. MOVE N THROU IDP@

7. MOVE S THROU IDP@

8. Q DTXR (To See Name Of Component)

9. Q STEXT
10. STEXT ‘NOTE’ (Naming For Attachment)

11. Q ATT (To see the attributes)

12. REPR INSU ON/OFF UPDATE

13. Q ISPEC (To see the insulation)

14. ISPEC NULREF (To Remove the Insulation)

15. CONN NEXT (Connection to next element)

16. FCONN (For force connection)

17. DIST 500

18. AXES AT PH (To see Axes of Pipe Head)

19. AXES AT PT (To see Axes of Pipe Tail)
20. AXES OFF

21. BY U 500

22. BY D 500

23. BY E 500

24. BY W 500

25. BY S 500

26. BY N 500

27. Q NAME

28. ROTATE BY 45 (Rotated command)

29. ROT BY 90 ABOUT Z THRO ID@ (Rotated)

30. Q PARA (To check nozzle size)

31. Q CATREF (To See nozzle Rating)
32. Q POS IN WORLD

33. CH CE (check current element)

34. Q SPREF (check piping Spec)

35. Q ORI (To see the orientation)

36. DIR D (Direction Down) U E W N S (For elbow, tee, valve)

37. Q P1/P2/P3 (To see pipe Bore Direction Connection type and Position)

38. Q HBORE

39. Q TBORE

40. Q LBORE

41. NEW BRA COPY PREV BY E/W/S/N/U/D 100

42. Q U (To see the elevation)

43. Q ANGLE (For change the angle)

44. THRO NEXT (To connect element to next component)

45. Q LTLE (To check pipe length)

46. Q MEM
47. Q.RTEX OF DETREF (To see element type and detail)

48. CONN IDP@ TO IDP Q CE

49. Q PL (For Direction and position)

50. BRA CONN PH TO FIST MEM

51. BRA CONN PT TO NOZZ ID@

52. BRA CONN PT TO LAST

53. RAD 500 (Control Valve Radius)

54. HEI 500 (Control Valve Height)

55. BACK (Backward)

56. FORW (Forward)

57. For Drain pipe

   a. ADD ATT (For isometric note)

   b. Q ATT

   c. TCONN OPEN

   d. Q STEXT

   e. STEXT ‘DRAIN POINT’
58. For Slope Line /Rotated Elbow

a. FORWARDS (Select in piping components)

b. DIR TOW NEXT

c. BACKWARDS (Select in piping components)

d. DIR TOW NEXT

59. MTOC DOTD (Do not want in bill of material) You can see the Doted DOTD

60. MTOC ON (Want in bill of material)

61. MTOC OFF (Don’t Want in bill of material)

62. Q PA BOP/TOP (To see the pipe BOP/TOP)

63. Q LSTUBE (To Change the spec Brake)

64. Q PSPEC (To see the pipe spec)

65. CONN PH TO P3 OF ID@ ( AND SELECT THE PIPE P3)

66. CONN PT TO LAS MEM

--------------------------------------------------------------------------------------------------

Q ANGLE Angle of the CE
Q ADEG Draft C/View Angle (i.e. 90 deg)
Q ATEX Draft Slab/Glab Text Attributes
Q BORE Piping Pipe Inside Data
Q BSRF Draft ATTACHEDDRG/SHT (Drawing Level)
Q BTEX Draft Dead Text Attributes
Q CE Current element
Q CHEI Draft Text Character Height
Q EVAR <evar> Query Environment Variable.
Q LOGIN Current Login Name
Q MDB Current MDB
Q MEM CE Members
Q NAME CE Name
Q REF CE Reference Name
Q USER Current User
Q TEAM Valid Teams for the Current User
Q TYPE CE Type
Q ATT CE Attributes
Q LIST CE Available Element Types
Q PARA CE Parameters
Q ORI CE Orientation
Q OWN CE Owner
Q POS Position with respect to Owner
Q POS WRT /* Position with respect to World
Q N/S/E/W/U/D Position N/S/E/W/U/D
Q POSS POSE Position Start/End
Q CUTLEN Cut Length
Q DERLEN Derived Length
Q PSIZE Pane Box Size
Q BANG Beta Angle
Q GTYPE Geometry Type
Q SPRE Specification Reference
Q HEI Plate Height
Q MATREF          Material Reference
Q MIDPOI          Midpoint
Q JUS             Justification Line
Q MEML            Member Line
Q DRNS/E          Direction Start/End
Q LEVEL           Obstruction Level
Q BAN             Current Version
Q USER            Current User
Q LASTMOD         Last Modified
Q USERMOD         User Modified
Q DBNAME          Database Name
Q PA/L DO         Outer Diameter of the Arrive/Leave of Pipe

Q ADEG (DRAFT) GIVES THE C/VIEW ANGLE ( ie 90 DEG )
Q ANGLE (HVAC) GIVES THE CE ANGLE
Q ATEX(DRAFT) GIVES THE SLAB/GLAB TEXT ATTRIBUTES
Q ATT GIVES THE CE ATTRIBUTES
Q BANG GIVES THE CE BETA ANGLE
Q BORE (PIPING) GIVES THE PIPE INSIDE DIA.
Q BSRF (DRAFT) GIVES THE ATTACHEDDRG/SHT (DRWG_LVL)
Q BTEX(DRAFT) GIVES THE DEAD TEXT ATTRIBUTES
Q CHEI (DRAFT) GIVES THE TEXT CHARACTER HEIGHT
Q COL ACT GIVES THE CURRENT ACTIVE COLOUR
Q COL AIDS GIVES THE CURRENT AID LINE COLOUR
Q COL CE GIVES THE CURRENT ATTRIBUTED COLOUR
Q COL VIS GIVES THE CURRENT VISIBLE COLOUR
Q COL 4 (ETC) GIVES THE ATTRIBUTED COLOUR (YELLOW)

Axes at CE= to check the axes of component like North, South, East, West direction
Q axes at ph= to check the head of the branch of the pipe.
Q axes at pt= to check the tail of the branch of the pipe.
Q Hstu= to show the branch head tube attribute
Q Lstu= to show the branch tail tube attribute
Q Hbore= to check the arrive bore or diameter of the component
Q Tbore= to check the leave bore or diameter of the component
Q Spre= to check the specification of the particular component
Q pspec= to check material class of the pipe.
New elbow choo all= to create new elbow through command line
New tee choo all= to create new tee through command line
New gasket choo all= to create new gasket through command line
New flange choo all= to create new flange through command line
New olet choo all= to create new olet through command line
Unclaim all= to remove claim the by user so other user can work in that pipe, equipment, member, structure.
Getwork= to refresh the design model. After get work all the change done any user will show in the model.
Axes at hpos= To check the branch head axes
Axes at tpos= To check the branch tail axes
Q ltle= to check the length of the spool between the two component
Conn ph to fir member= to connect the branch head to first member of the next branch by common line
Conn pt to fir member= to connect the branch tail to last member of the next branch by common line
Q ori = to check the orientation of the component
Dist= to give the distance between two component
Clea= to give the spool length between the two component
Conn= connect to the member
Fconn= to component forcefully
Q styp= to check the component selection type
Q dtxr= to check the detail text description of the component
Q mtxx= to check the material of the component
Q mode= to check the mode weather it in forward mode or backward mode
Q para= to check the parameter of the component
Dir tow next= to connect the next member by direction
Q ref= to check the reference
Add all the pipe within vol ce 500= all pipes to added in the area 500 around the selected component.
Incl= to include the component from one branch to other branch
Ori and p3 is up= to orientate the point 3 of the tee in up direction
Own= navigate the owner of component
Q angle= to check the angle of the component
Q atle= to check the length of the first tube of the branch

Attype ccnn= comment attachment without dimensions
Attype cccc= comment attachment with dimensions
Attype xxxx= to set the attachment for isometric break up

Ch ce= to check the data inconsistency
Dir tow next elb= to align the elbow with next elbow
Dir tow id@= to align the elbow by using mouse click on the component
Q hcon= to check head connection attached with which branch
Q tcon= to check tail connection attached with which branch
Q ispec= to check the insulation of pipe
Ispec nulref= to remove the insulation of the pipe

Mtoc dotd= to appear the component in doted in the isometric
Mtoc off= to remove the material off the component. With this command material of the component will not appear in isometric

Nex conn= connect to next component
Nex thro ce= align the next component in same direction
Q p3 = to check the p3 point of the component
Q pa= to check arrive point
Q pl= to check the leave point
Attype flow= to create the flow direction attachment

These are the few commands which are using in the PDMS equipment design module.

New site= for creating the new site in pdms
New zone= for creating the new zone in pdms
New equi= for creating the new equipment in pdms
New sube= for creating the new sub equipment in pdms
New nozzle= for creating the new nozzle in the pdms
New box= for creating new box in the pdms
New cylinder= for creating new cylinder in the pdms
Conn idp to idp= to connect design point of two cylinder/box etc.
Mark with (nam) all nozz for ce= to mark the all nozzle of equipment with name in pdms
Q level= to check the level of the component
Axes at p1= to check p1 point of the primitive
Axes at p2= to check p2 point of the primitive
New cylinder copy prev by n 500= to copy the previous cylinder by north direction by 500

PDMS Commands (Piping)

DELETE BRAN - Delete Branch
Q HSTU - To Display Branch Head Side Tube Attributes
Q LSTU - To Display Component Leave Side Tube Attributes
Q ABORE - To Display Arrive Bore Of A Component
Q LBORE - To Display The Leave Side Bore Of A Component
ADD HREF TREF - Add Head & Tail Reference
Q HBORE - To Display The Head Side Bore Of A Branch
Q TBORE - To Display The Tail Side Bore Of A Branch
Q SPRE - To Display The Specification Of The Component
Q PSPEC - To Display The Specification Of The Pipe
NEW ELBO CHOO - Create New Elbo
NEW ELBO SEL WITH STYP EA - To Create The Elbo With Specific Selection Type
AXES AT HPOS - Axes At Head Possition Of The Branch
AXES AT TPOS - Axes At Tail Possition Of The Branch
NEX TUBI - Asking For Tube Being On The Component
Q ITLE - To Display The Length Of The Tube Between Two Components
Q HREF - To Display The Head Reference Of A Branch
Q TREF - To Display The Tail Reference Of A Branch
Q DIR - To Display The Direction Of The Selected Component
CONN PH TO FIR MEM - Connect Branch Head To The First Member Of The Branch
CONN PT TO LAS MEM - Connect The Branch Tail To The Last Member Of The Branch
Q ORI - To Display The Orientation Of Selected Component
DIST - Giving The Distance Between Two Component Centers
CLEA (SPOOL) - Giving The Spool Distance Between Two Components
Q CATREF - To Display The Catalogue Reference At Component Level
CONN - Connect
FCONN - Force Connect
Q STYP - To Display The Component Selection Type
Q DTXR - To Display The Detail Text(Description Of The Component
DRAG BY E 1000 - Strech The Component By East 1000 (Not Prefered)
Q MTXX - To Display The Material Of The Component

Q MODE - To Display The Mode Of Direction (For/Back)
FOR - To Set The Forward Mode
BACK - To Set The Backward Mode

FIRST MEM - To Navigate The First Member
LAST MEM - To Navigate The Last Member
FIRST FLAN - To Navigate The First Flange In Hierarchy
Q PARA - To Display The Parameters
Q ACONN - To Display The Arrive Connection Detail Of A Component
Q LCONN - To Display The Leave Connection Details Of A Component
DIR TOW NEX - Direction Towards The Next Component
Q REF - To Display Reference
INCL - Include
ORI AND P3 IS UP - Orient P3 Of Tee To Up (Specified Direction)
OWN - Navigate Owner
GOTO OWN - Go To Owner Of The Selected Component
Q ABOP/LBOP - Details Of The Arrive/Leave Bopotm Of Pipe
Q ANGLE - Details Of A Angle Of An Elbo
Q ATLE - Length Of First Tube Of A Branch

ATTYPE CCNN - Comment Attachment Without Dimension
ATTYPE CCCC - Comment Attachment With Dimension
ATTYPE XXXX - Atta For Setting The Isometric Limit

CH CE - Check Current Element (For Consistency Check)
DIR TOW NEXT ELBO - Align A Elbo With The Next Elbo
DIR TOW ID@ - Align The Elbow
EXTEND 100 START/END - Extend By 100 The Start/End Of A Cross Member
Q HCON/TCON - Details Of Head/Tail Connection Of A Branch
Q HDIR - Direction Of The Flow From The Branch Head
Q HPOS/TPOS - Details Of Head/Tail Possition Of A Branch
Q ISPE - Insulation Specification
ISPEC NULREF - For Removing Insulation
SPKBRK T - For Removing Insulation (Use In Case Fof Atta)
LOOSE - Used By Isodraft Where The Flange Is Supplied Loose

MTOC DOTD - Mto Component Dotted With Dimension
MTOC DOTU - Mto Component Dotted Without Dimension
MTOC OFF - Mto Component Off

NEX CONN - Next Connect
NEX THRO CE - Move The Current Componet To Next
ORI AND P3 IS TOW ID@ & DIR TOW ID@ - Aligning The 3Rd P-Point Of A Tee Towards Next Elbow
Q P3 - Details Of P-Point P3 (In Case Of Tee Only)
Q PA/P1 - Details Of The P-Point 1
Q PL - Derails Of The P-Point 2
STEXT 'TEXT' - Setting The Comment Text
TCONN OPEN - Tail Connection Type Open (Ce Should Be Branch)
TDIR - Direction Of The Flow From The Branch Tail
ISPEC /W - To Give The Insulation
Q LBORE - To Query Leave Bore
Q TBORE - To Query The Tail Bore
THRO PH - Through Pipe Head
THRO PREV - Through Previous
THRO PT - Through Pipe Tail
Q TPOS - To Query Tail Position
Q HCON - To Query The Head Connection
Q TCON - To Query The Tail Connection
Q ACON - To Query Arrive Connection
Q LCON - To Query Leave Connection
ATTYPE FLOW - To Create Flow Direction Of Attachment
DIR N - Direction Of Component Towards North
BACK CONN - Backward Connection
MTOC UNSET - To Freeze The Component From Mto Report

-------------------------------------------------------------------------------------------------
OTHERS COMMAND.

For copy equip/sub equipment from one project to another project.
FILE /FILE NAME.TXT
OUTPUT CE
TERM

For pest equipment / sub equipment from one project to another project.

a. $M FILE NAME.TXT

------------------------------------------------------------------------

GET DETAIL INFO ON CURRENT OBJECT

Q STYP (GIVES YOU YOUR SELECTION)
Q DTXR (GIVES YOU DESCRIPTION)
Q MTXX (MATERIAL/VENDOR INFO)
Q SPRE (PDMS DATABASE INFO)
Q PL BOP WRT SITE (Allows you to query the bottom of pipe elevation with respect to the site)
Q PL BOP WRT WORLD (Allows you to query the bottom of pipe elevation with respect to the world)
Q INSU (Gives you the insulation thickness)
Q SEQ (Gives you the sequence of the CE in the hierarchy)
Q ALL BRAN WHERE (HBORE GT 1) FOR CE (Done at the pipe level and GT stands for greater than)
Q ALL BRAN WHERE PSPEC EQ /SOMESPEC FOR CE (Done at pipe level and EQ stands for equal)
Q ATT (Gives you a list of CE attributes)
Q POS WRT SITE (WRT = WITH RESPECT TO?)
Q POS WRT ID STRU@

CREATING QUICK COMMANDS

A SYNONYM IS USUALLY A FEW LETTERS WHICH CAN BE USED TO FIRE
OFF A BUNCH OF SYNTAX, SUCH AS:
$S CO = Q ORI (WILL GIVE THE ORIENTATION OF YOUR CE)
**SOME GOOD COMMAND TO EXIST PDMS**

EXIT  (exits you to MONITOR with a SAVE)
FINISH  (exits you entirely out of PDMS with a SAVE)
QUIT  (exits you to MONITOR without saving whatever you've done since the last savework)

**COMMAND LINE COPY FOR PDMS OBJECTS**

NEW BRAN COPY PREV BY N 2'
NEW STCN COPY PREV BY E 3’2
NEW BOX COPY PREV BY D 1’2.3/8

DATABASE NAME
Q DBNAME

NAME OBJECT
NAME /(WHAT EVER)

**INSTRUMENTS**

RADIUS 3.1/16
HEIGHT 4

DESPARAM 165.1 DEFAULTS TO (MM) OR IF YOU WOULD LIKE INCH/FEET THEN TYPE DESOARAM 6.1/2 IN

Name /PSV-40135-039A

MOVING OBJECTS ON THE SCREEN - CE IS ELBOS
(N = NORTH, S = SOUTH, E = EAST, W = WEST)

BY N 40'1.3/8
BY S 6.3/4
BY E 1'
BY W 2'
BY U 48.5/16
BY D 1

SOME COMMAND SHORT CUTS AND MEANINGS

CONN=CONNECT
PH=PIPE HEAD
MEM=MEMBER
BRAN=BRANCH
PT=POINT
POS=POSITION
DRAG=MOVE
@
  = “SCREEN PICK”
WRT=WITHE RESPECT TO
DIST=DISTANCE
E=EAST, W=WEST, N=NORTH, S=SOUTH, U=UP, D=DOWN
BOP=BOTTOM OF PIPE
ORI=ORIGAN

MANIPULATING COMPONENTS – MOVING

Move a branch to an entirely different spot
CONN PH TO FIRST MEM
DRAG POS PH AT PT OF ID BRAN @
Move a primitive in the proper direction irregardless of its owners’ orientation
MOVE E WRT SITE DIST 1’
Move the bottom of a piping component 5’ up past an identified STRU
BOP ONTO U 5’ WRT ID STRU @
Move an item west through the plane of another item
MOVE W THRO ID @

MANIPULATING COMPONENTS – COPING

Copy an existing branch’s member into another branch
COPY MEM 4 TO 10 OF ID BRAN @
COPY MEM OF /EQUIP 10
MANIPULATING COMPONENTS – ROTATE

Rotate a pipe tee or valve
ORI AND P3 IS W
CONN AND P3 IS W45N

RECOMMENDED DISPLAY SETTING

Q DISP
TOLERANCE ANGLE: 0.0573
TOLERANCE OFFSET: 0.1/32
TOLERANCE RATIO: 0.001

Want help on your syntax (PDMS Commands) then type
show !!syntaxhelp

Q PARAM
Query the parameters of the catref of the spref
Q DTXR
Query the rtext of the detref of the spref _ can also use dtxs or dtxt
Q MTXX
Query the xtext of the matref of the spref _ can also use mtxy or mtxz
Q PSATTS
Query the list of pseudo attributes available for the CE.

General Queries
Q LIST
Query what you can create below the current element

Q OLIST
Query the type of elements which can own CE

Q ORDER
Query the list position

Q PROP DESC
Query the data element with the dkey equal to DESC in the component’s dataset (Steelwork and Piping elements)

Q PRLS
Query the list of properties in the component’s dataset

Q PURP XXX
Query the purpose attribute of the property XXX

Piping Attributes
Q CHOICE
Query the answers of the selectors of the spref

Q CHOICE STYP
Query the styp used to select the component

Q PL BOP
Query the bottom of pipe elevation of the leave point

Q PA INSU
Query the insulation thickness at the arrive point

Q PGRAD 1
Query the slope at ppoint 1

Q ITLE
Query the length of implied tube (must navigate first by using 'IL TUBE' at a component)

Q LBOR
Query the leave bore

Q ABOR
Query the arrive bore

Q APOS
Query the arrive position
Q LPOS
Query the leave position
At Branch Level
Q TULEN
Query the length of tube in a branch
Q CLLEN
Query the centerline length through all components

Steelwork
Q ODESP
Query the design params of the joint owner
Q ADESP
Query the design params of the joint attached beam
Q DRPS
Query the derived position of the beam start
Q NWEI
Query the net weight (considering joint cut outs)
Q GWEI
Query the gross weight (beam before cutting)
Q NCOF
Query the net centre of gravity for the beam
Q NSRF
Query the net surface area
Q MIDP
Query the mid point
Q POS PLINE TOS START WRT /*
Query TOS of current element (SCTN)
Q PLINE TOS DIR
Query the direction of the TOS pline on a SCTN
The Construct Syntax

The construct syntax is described more fully in the Design reference manual and it is worth looking at it in more detail. CONST allows distances and angles to be calculated from the design data and is invaluable when you are writing applications. For example

Q CONST ANGLE N AND W

gives 90°

CONST A PIN1 TO PIN2 TO PIN3

Q CONST DIST FROM P1 to P2 TO P2 OF/BOX1

gives a distance

CONST DIST FROM PA TO PL OF PREV

$ S  QA=Q  ATT                   Create a synonym to query attributes

Q  EVAR  PDMSUSER        Query the operating system location of user file directory PDMSUSER

Reporting Syntax

You can create an array which includes a number of elements which all satisfy specific selection criteria, as defined by yourself. The syntax is:

VAR !Array COLLECT selection criteria

!Array is the name of the array that will be created to contain the elements selected.

The following general criteria can be used to define the selection:

A class of elements or element types

A logical expression to be satisfied at all selected elements

A physical volume in which all selected elements must lie

A point in the hierarchy below which all selected elements must lie

Eg VAR !PIPECOMPS COLLECT ALL BRANCH MEMBERS

This would create the array !PIPECOMPS and set it to contain the reference numbers of every piping component in the MDB. Logical expressions use the WITH and WHERE option; a volume is defined by the WITHIN keyword; and the hierarchy criteria is defined by the FOR keyword.

Eg VAR !ELBO COLL ALL ELBO WITH SPREF EQ /A300B/100

Evaluating Selected DB Elements
Using the facilities described here you can create an expression and have it evaluated for all elements which satisfy particular selection criteria. The results of the expression are then placed in a named array.

The command syntax is:

VAR !Array EVALUATE (Expression) FOR Select

!Array is the name of the array that will be created

(expression) is the expression that will be carried out for all elements that match the select criteria

Select is the selection criteria

Eg VAR !BOXES EVALUATE (XLEN * YLEN) FOR ALL BOXES

IF ALL ELSE FAILS!

As you can see, there are a lot of commands available to the PDMS user and the list above is only scratching the surface. Almost all of the command syntax is described in the reference manuals but in some cases you might find it difficult to compose the required command from these alone. In these cases, it might be necessary to build a command by using the query syntax itself, using $Q and $H syntax.

The command: $Q gives a list of all possible commands at any one time. On it's own, $Q gives a complete list of top level commands in any PDMS module. When applied in the middle of a command line, it lists the options available at that point.

E.G. the command:

SETUP FORM

Yields an error incomplete command line

SETUP FORM $Q

list_name as required

SETUP FORM _FRED $Q

lists a number of options including:

'BLOCK/ING' 'RESI/ZABLE' 'AT' 'SIZE' 'COPY' and Newline

Each of the words in quotes can be used at this point. There may be further options after these words and the same technique can be used to find the way through. The characters before the '/' indicate the minimum abbreviation which may be used for each part of the command. The presence of the Newline keyword without the quotes indicates that the return key may be pressed at this point and the command is executed.

Another form of syntax querying is the $H command. $H is a slightly more sophisticated form of $Q, which lists the available options numerically as the following example shows:
SETUP $H
1 <create a new form>
SETUP $H1
'FORM'
SETUP FORM $H
UNAME
And so on.

---------------------------------------------------------------