IRONCAD - PARAMETERS – NAME CONSTRUCTION

Parameter Names shall consist of a combination of uppercase and lowercase alphanumeric (letters and numbers) characters only. Non-alphanumeric characters (asterisks, brackets, commas, hashes, hyphens, spaces, symbols, underscores, etc.) aren't accepted in names.

Parameter Names shall be truncated; constructed using the first 3 letters of each word, with the first letter of each word using uppercase, and the remaining letters using lowercase. The following can also be added to differentiate between similar Parameter Names.

Numbers for identification:	1, 2, 3, ...
Numbers indicating orientation:	0, 90, 180, 270
Uppercase letters indicating direction:	X, Y, Z and H, L, W (regarding sizebox)
Uppercase letters for abbreviations:	AL, CS, EG, GS, SS (material types) CL (centerline), CRS (centers) NPS (nominal pipe size)

Parent (optional):	For "Multi-Body Parts" consider starting with the "Parent Geometry". That is, the Body (solid, surface), Layout (sketch) or Wireframe. For example: Bod1, Lay1, Wir1, etc.
Feature:	This describes the specific "Feature" within the "Parent Geometry". This may include its location within the Parent as well. For example: Base, Body, End Hub, Flange, Shape, Socket, Start Bevel, Wall, Web, etc.
Parameter:	This describes the specific "Parameter" (angle, distance, scalar). This may include its location within the Feature or a direction suffix as well. For example: Angle, End Distance, Inside Diameter, KFactor, HeightY, LengthZ, LocationH, SizeboxL, Suppression, Thickness, etc. Along with "User Defined" Parameters, there are also "Suppression" Parameters. These enable Features (to which they are applied) to be suppressed and unsuppressed using "scalar" type parameter values. 0 = Unsuppressed 1 = Suppressed
Reference:	This describes whether the Parameter is for reference purposes only. "Reference" Parameters are those that don't directly "drive" Features within the Parent Geometry. Instead, they exist for referencing by External Parameters and Custom Properties. For example, "Unlocked" Dimensions, Sketch Pattern Angle, etc.
Owner Type:	To assist identifying the Parameter Owner (**S**cene, **A**ssembly, **P**art or **F**eature), and when sorting Parameters by Name; a single uppercase suffix (S, A, P or F) shall be added to the end of the name.

The following pages provide some examples. See separate spreadsheet for comprehensive list.

Within the “Parameter Name” column of the Parameter Table, this is where the truncated Parameter Names should be used. For reference purposes, write the full Parameter Names within the “Comments” column

Examples Excluding the Optional Parent Name

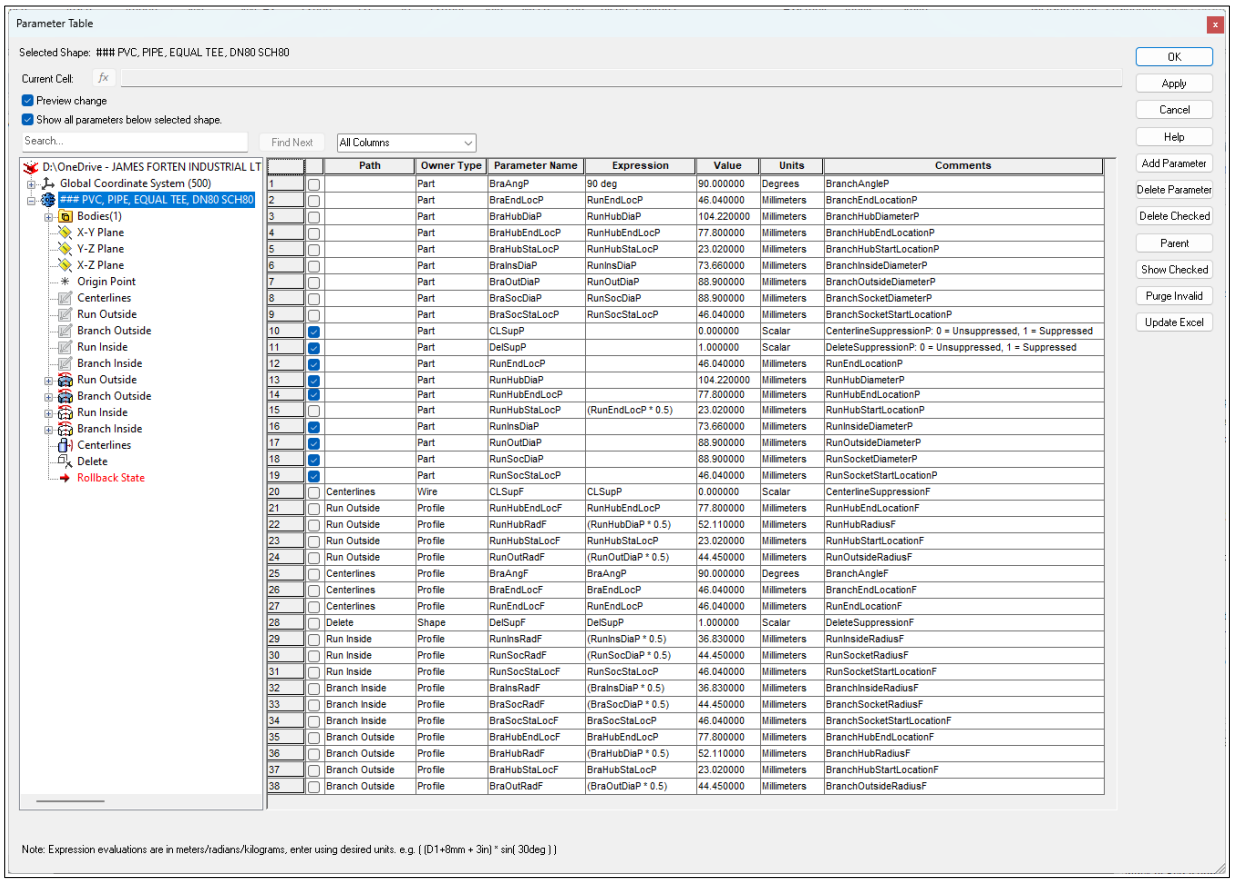
This should be used for Single Body Innovative and Structured Parts.

Parameter Name (examples)	Comments (used to show the full parameter name)
AncLocHA	AnchorLocationHA
BorRadF	BoreRadiusF
CLSupP	CenterlineSuppressionP: 0 = Unsuppressed, 1 = Suppressed
DelSupP	DeleteSuppressionP: 0 = Unsuppressed, 1 = Suppressed
EndBevAngRefP	EndBevelAngleReferenceP
FlaHolRadF	FlangeHoleRadiusF
FlaHolPatAngRefF	FlangeHolePatternAngleReferenceF
FlaHolPatNumF	FlangeHolePatternNumberF
FlaHolPatRadF	FlangeHolePatternRadiusF
FlaOutRadF	FlangeOutsideRadiusF
FlaThiF	FlangeThicknessF
ShaHeiYRefF	ShapeHeightYReferenceF
StaBevAngF	StartBevelAngleF
ShaSizWF	ShapeSizeboxWF
StaBevSupS	StartBevelSuppressionS: 0 = Unsuppressed, 1 = Suppressed
WebThiP	WebThicknessP

Examples Including the Optional Parent Name

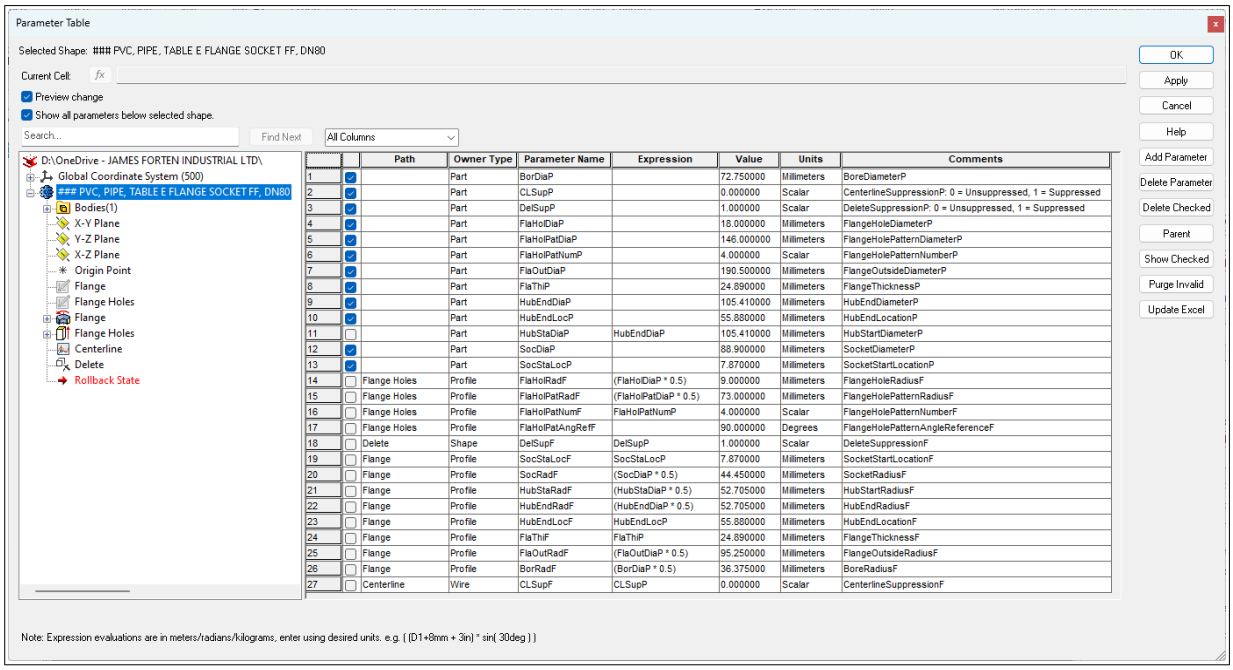
This option should be considered for Multi-Body Structured Parts.

Parameter Name (examples)	Comments (used to show the full parameter name)
Bod1AncLocHA	Body1AnchorLocationHA
Bod1BorRadF	Body1BoreRadiusF
Bod1CLSupF	Body1CenterlineSuppressionF
Bod1DelSupF	Body1DeleteSuppressionF
Bod1EndBevAngRefP	Body1EndBevelAngleReferenceP



		Path	Owner Type	Parameter Name	Expression	Value	Units	Comments
1			Part	BraAngP	90 deg	90.000000	Degrees	BranchAngleP
2			Part	BraEndLocP	RunEndLocP	46.040000	Millimeters	BranchEndLocationP
3			Part	BraHubDiaP	RunHubDiaP	104.220000	Millimeters	BranchHubDiameterP
4			Part	BraHubEndLocP	RunHubEndLocP	77.800000	Millimeters	BranchHubEndLocationP
5			Part	BraHubStaLocP	RunHubStaLocP	23.020000	Millimeters	BranchHubStartLocationP
6			Part	BraInsDiaP	RunInsDiaP	73.660000	Millimeters	BranchInsideDiameterP
7			Part	BraOutDiaP	RunOutDiaP	88.900000	Millimeters	BranchOutsideDiameterP
8			Part	BraSocDiaP	RunSocDiaP	88.900000	Millimeters	BranchSocketDiameterP
9			Part	BraSocStaLocP	RunSocStaLocP	46.040000	Millimeters	BranchSocketStartLocationP
10	☑		Part	CLSupP		0.000000	Scalar	CenterlineSuppressionP: 0 = Unsuppressed, 1 = Suppressed
11	☑		Part	DelSupP		1.000000	Scalar	DeleteSuppressionP: 0 = Unsuppressed, 1 = Suppressed
12	☑		Part	RunEndLocP		46.040000	Millimeters	RunEndLocationP
13	☑		Part	RunHubDiaP		104.220000	Millimeters	RunHubDiameterP
14	☑		Part	RunHubEndLocP		77.800000	Millimeters	RunHubEndLocationP
15	☐		Part	RunHubStaLocP	(RunEndLocP * 0.5)	23.020000	Millimeters	RunHubStartLocationP
16	☑		Part	RunInsDiaP		73.660000	Millimeters	RunInsideDiameterP
17	☑		Part	RunOutDiaP		88.900000	Millimeters	RunOutsideDiameterP
18	☑		Part	RunSocDiaP		88.900000	Millimeters	RunSocketDiameterP
19	☑		Part	RunSocStaLocP		46.040000	Millimeters	RunSocketStartLocationP
20	☐	Centerlines	Wire	CLSupF	CLSupP	0.000000	Scalar	CenterlineSuppressionF
21	☐	Run Outside	Profile	RunHubEndLocF	RunHubEndLocP	77.800000	Millimeters	RunHubEndLocationF
22	☐	Run Outside	Profile	RunHubRadF	(RunHubDiaP * 0.5)	52.110000	Millimeters	RunHubRadiusF
23	☐	Run Outside	Profile	RunHubStaLocF	RunHubStaLocP	23.020000	Millimeters	RunHubStartLocationF
24	☐	Run Outside	Profile	RunOutRadF	(RunOutDiaP * 0.5)	44.450000	Millimeters	RunOutsideRadiusF
25	☐	Centerlines	Profile	BraAngF	BraAngP	90.000000	Degrees	BranchAngleF
26	☐	Centerlines	Profile	BraEndLocF	BraEndLocP	46.040000	Millimeters	BranchEndLocationF
27	☐	Centerlines	Profile	RunEndLocF	RunEndLocP	46.040000	Millimeters	RunEndLocationF
28	☐	Delete	Shape	DelSupF	DelSupP	1.000000	Scalar	DeleteSuppressionF
29	☐	Run Inside	Profile	RunInsRadF	(RunInsDiaP * 0.5)	36.830000	Millimeters	RunInsideRadiusF
30	☐	Run Inside	Profile	RunSocRadF	(RunSocDiaP * 0.5)	44.450000	Millimeters	RunSocketRadiusF
31	☐	Run Inside	Profile	RunSocStaLocF	RunSocStaLocP	46.040000	Millimeters	RunSocketStartLocationF
32	☐	Branch Inside	Profile	BraInsRadF	(BraInsDiaP * 0.5)	36.830000	Millimeters	BranchInsideRadiusF
33	☐	Branch Inside	Profile	BraSocRadF	(BraSocDiaP * 0.5)	44.450000	Millimeters	BranchSocketRadiusF
34	☐	Branch Inside	Profile	BraSocStaLocF	BraSocStaLocP	46.040000	Millimeters	BranchSocketStartLocationF
35	☐	Branch Outside	Profile	BraHubEndLocF	BraHubEndLocP	77.800000	Millimeters	BranchHubEndLocationF
36	☐	Branch Outside	Profile	BraHubRadF	(BraHubDiaP * 0.5)	52.110000	Millimeters	BranchHubRadiusF
37	☐	Branch Outside	Profile	BraHubStaLocF	BraHubStaLocP	23.020000	Millimeters	BranchHubStartLocationF
38	☐	Branch Outside	Profile	BraOutRadF	(BraOutDiaP * 0.5)	44.450000	Millimeters	BranchOutsideRadiusF

Example Excluding the Optional Parent Name
(single body structured part with wireframe centerline)



		Path	Owner Type	Parameter Name	Expression	Value	Units	Comments
1	☑		Part	BorDiaP		72.750000	Millimeters	BoreDiameterP
2	☑		Part	CLSupP		0.000000	Scalar	CenterlineSuppressionP: 0 = Unsuppressed, 1 = Suppressed
3	☑		Part	DelSupP		1.000000	Scalar	DeleteSuppressionP: 0 = Unsuppressed, 1 = Suppressed
4	☑		Part	FlaHolDiaP		18.000000	Millimeters	FlangeHoleDiameterP
5	☑		Part	FlaHolPatDiaP		146.000000	Millimeters	FlangeHolePatternDiameterP
6	☑		Part	FlaHolPatNumP		4.000000	Scalar	FlangeHolePatternNumberP
7	☑		Part	FlaOutDiaP		190.500000	Millimeters	FlangeOutsideDiameterP
8	☑		Part	FlaThiP		24.890000	Millimeters	FlangeThicknessP
9	☑		Part	HubEndDiaP		105.410000	Millimeters	HubEndDiameterP
10	☑		Part	HubEndLocP		55.880000	Millimeters	HubEndLocationP
11	☐		Part	HubStaDiaP	HubEndDiaP	105.410000	Millimeters	HubStartDiameterP
12	☑		Part	SocDiaP		88.900000	Millimeters	SocketDiameterP
13	☑		Part	SocStaLocP		7.870000	Millimeters	SocketStartLocationP
14	☐	Flange Holes	Profile	FlaHolRadF	(FlaHolDiaP * 0.5)	9.000000	Millimeters	FlangeHoleRadiusF
15	☐	Flange Holes	Profile	FlaHolPatRadF	(FlaHolPatDiaP * 0.5)	73.000000	Millimeters	FlangeHolePatternRadiusF
16	☐	Flange Holes	Profile	FlaHolPatNumF	FlaHolPatNumP	4.000000	Scalar	FlangeHolePatternNumberF
17	☐	Flange Holes	Profile	FlaHolPatAngRefF		90.000000	Degrees	FlangeHolePatternAngleReferenceF
18	☐	Delete	Shape	DelSupF	DelSupP	1.000000	Scalar	DeleteSuppressionF
19	☐	Flange	Profile	SocStaLocF	SocStaLocP	7.870000	Millimeters	SocketStartLocationF
20	☐	Flange	Profile	SocRadF	(SocDiaP * 0.5)	44.450000	Millimeters	SocketRadiusF
21	☐	Flange	Profile	HubStaRadF	(HubStaDiaP * 0.5)	52.705000	Millimeters	HubStartRadiusF
22	☐	Flange	Profile	HubEndRadF	(HubEndDiaP * 0.5)	52.705000	Millimeters	HubEndRadiusF
23	☐	Flange	Profile	HubEndLocF	HubEndLocP	55.880000	Millimeters	HubEndLocationF
24	☐	Flange	Profile	FlaThiF	FlaThiP	24.890000	Millimeters	FlangeThicknessF
25	☐	Flange	Profile	FlaOutRadF	(FlaOutDiaP * 0.5)	95.250000	Millimeters	FlangeOutsideRadiusF
26	☐	Flange	Profile	BorRadF	(BorDiaP * 0.5)	36.375000	Millimeters	BoreRadiusF
27	☐	Centerline	Wire	CLSupF	CLSupP	0.000000	Scalar	CenterlineSuppressionF

Example Excluding the Optional Parent Name
(single body structured part with wireframe centerline)