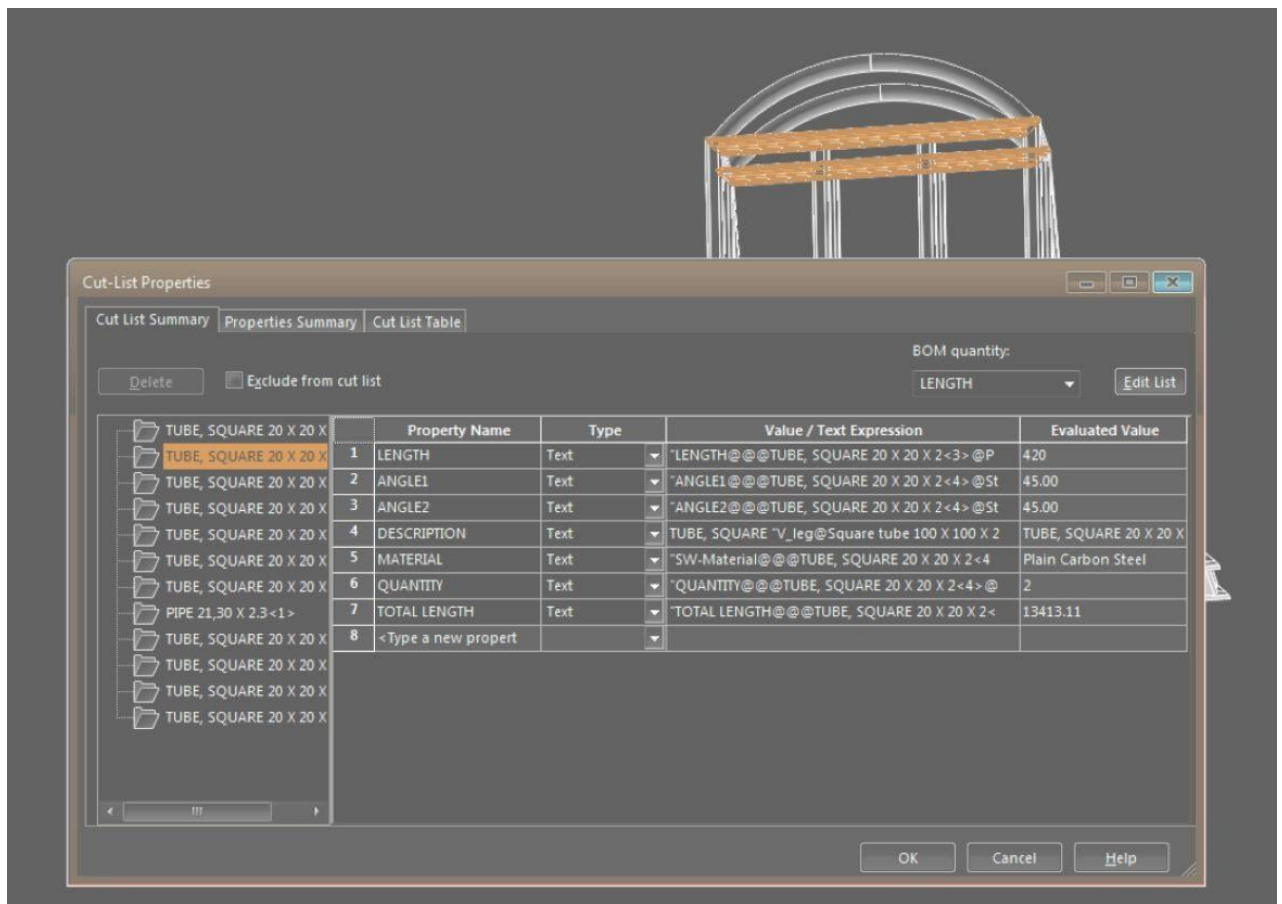


All available variables for custom properties (and cut lists)

[All available variables for custom properties \(and cut lists\) \(cadboost.com\)](http://cadboost.com)

2019-11-02 / by [Peter Brinkhuis](#) / in [Features](#) /



Below is **every single variable** that you can use within SOLIDWORKS custom properties and notes.

Most can be used with parts and assemblies.

Some can only be used for sheet metal or weldment bodies.

Only a few can be used for drawings.

How to work with custom properties and variables

For more background information on custom properties and cut lists, check out [this article](#). These two articles go hand in hand.

Notes

1. Not all variables are in every dropdown menu. Sometimes they still work though.
2. SOLIDWORKS makes regular improvements, so please let us know if you found a missing property.
3. The variable names are **sometimes case-sensitive**.
1. Usually “LENGTH” and “length” both work fine.

2. Check other capitalizations if you cannot get your property to work. Select the variable from a dropdown or check official SOLIDWORKS documentation for its spelling.
3. Please let us know when you found a place where capitalization is important. We'll add it to this post and ask SOLIDWORKS to fix it.
4. To use file properties:
 1. You may need to write the variable name a second time between brackets.
 2. Example: \$PRP:"SW-Author(Author)"
 3. Sometimes it works without the second name in brackets, sometimes it does not.
5. The bounding box introduced in SOLIDWORKS 2018 uses properties from the feature.
 1. It uses <property>@@@<feature>@@<configuration>@<file name>
 2. Example: "SW-Total Bounding Box Length@@@Bounding Box@@Default<As Machined>@Strongback.SLDPRT"
6. These routing properties are not really variables. SOLIDWORKS uses custom properties with this name in routing BOMs.
 1. [Help article about routing BOMs](#)

All variables

Description	Properties Name	See note	Model			Cut list	
			Part	Assembly	Drawing	Weldment	Sheet metal
1	2	3	4	5	6	7	8
File properties							
Author	SW-Author	*4	x	x	x		
BOM part number / name	SW-BOM Part Number		x	x	x		
Comments	SW-Comments		x	x	x		
Configuration name *3	SW-Configuration Name		x	x	x		
Date created	SW-Created Date		x	x	x		
Date modified	SW-Last Saved Date		x	x	x		
Date today – long	SW-Long date		x	x	x		
Date today – short	SW-Short date		x	x	x		
Filename	SW-File Name		x	x	x		
Folder name	SW-Folder Name		x	x	x		
Keywords	SW-Keywords		x	x	x		
Last saved by	SW-Last Saved By		x	x	x		
Subject	SW-Subject		x	x	x		
Title	SW-Title	x	x	x			
Drawings							
Current sheet name	SW-Sheet Name				x		
Current sheet format size	SW-Sheet Format Size				x		
Current sheet number	SW-Current Sheet				x		
Current sheet scale	SW-Sheet Scale				x		
Drawing template size	SW-Template size				x		
Sheet count	SW-Total Sheets				x		

View name	SW-View Name				x		
View scale	SW-View Scale				x		
Physical properties							
Axes of inertia	SW-ix SW-iy SW-iz		x	x		x	x
Bounding box (SOLIDWORKS 2018 and newer Requires bounding box feature)	SW-Total Bounding Box Length SW-Total Bounding Box Width SW-Total Bounding Box Thickness SW-Total Bounding Box Volume	*5	x	x			
Center of mass	SW-CenterOfMassX SW-CenterOfMassY SW-CenterOfMassZ		x	x		x	x
Density	SW-Density		x	x		x	x
Mass	SW-Mass		x	x		x	x
Material	SW-Material		x	x		x	x
Moments of inertia (Taken at center of mass Aligned with output coordinate system)	SW-Lxx SW-Lxy SW-Lxz SW-Lyx SW-Lyy SW-Lyz SW-Lzx SW-Lzy SW-Lzz		x	x		x	x
Principal moments of inertia	SW-Px SW-Py SW-Pz		x	x		x	x
Surface area	SW-SurfaceArea		x	x		x	x
Volume	SW-Volume		x	x		x	x
Weldment & sheet metal							
Description	Is filled automatically (e.g. sheet, pipe)					x	x
Cut list item name	SW-CutListItemName					x	x
Quantity	Quantity					x	x
Weldment							
Length	Length					x	
Angle	Angle1 Angle2					x	
Angle description between two cut ends (-, Same, Opposite or Out Of Plane)	Angle Direction					x	
Angle along the longitudinal axis between two cut ends	Angle Rotation					x	

(0-180 degrees)							
Total length	Total length					x	
Unit of measure (= usually length)	Unit_of_measure					x	
Sheet metal							
Bend allowance	SW-Bend Allowance						x
Bend radius	SW-Bend Radius						x
Bounding box	SW-Bounding Box Length						x
	SW-Bounding Box Width						
	SW-Bounding Box Area						
	SW-Bounding Box Area-Blank						
Cutting length	SW-Cutting Length-Outer						x
	SW-Cutting Length-Inner						
Flattened mass	SW-FlattenedMass						x
Number of bends	SW-Bends						x
Number of cut outs	SW-Cut Outs					x	
Surface treatment	SW-Surface Treatment					x	
Thickness	SW-Sheet Metal Thickness					x	
DimXpert block tolerances							
Angular block tolerance	SW-AngBlockTol		x			x	x
Angular general block tolerance	SW-AngGeneralBlockTol		x			x	x
Linear block tolerance 1, 2 and 3	SW-LinBlockTol1		x			x	x
	SW-LinBlockTol2						
	SW-LinBlockTol3						
Linear block tolerance decimals	SW-LinBlockTol1Decimal	x			x	x	
	SW-LinBlockTol2Decimal						
	SW-LinBlockTol3Decimal						
Linear general block tolerance	SW-LinGeneralBlockTol	x			x	x	
Multibody costing							
For entire part							
Manufacturing cost	SW-Cost-ManufacturingCost		x	x		x	x
Material cost	SW-Cost-MaterialCost		x	x		x	x
Template name	SW-Cost-TemplateName		x	x		x	x
Total cost	SW-Cost-TotalCost		x	x		x	x
Per body							
Cost calculation time	SW-Cost-CostCalculationTime		x	x		x	x
Material name	SW-Cost-MaterialName		x	x		x	x
Stock type	SW-Cost-StockType		x	x		x	x
Stock size	SW-Cost-StockSize		x	x		x	x

Routing							
Part number	SWbompartno	*6					
Pipe length	SWPipeLength						

Check out [our other article](#) to learn how to use these variables.