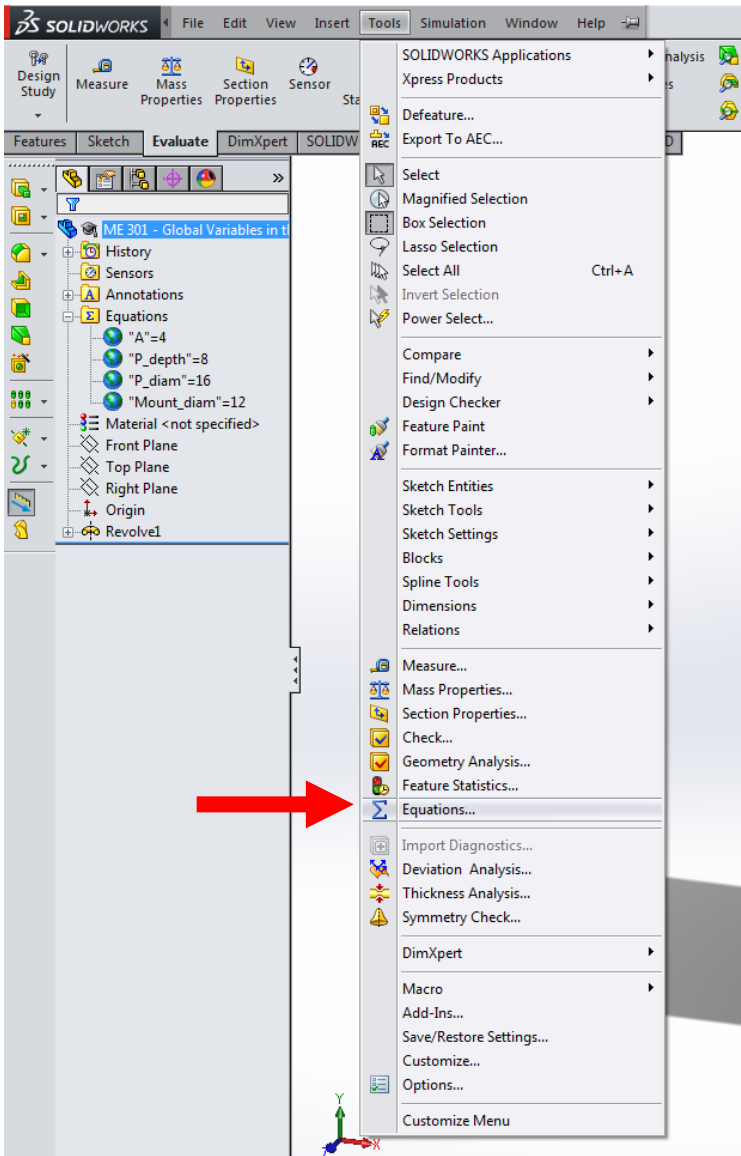


Global Variables Walkthrough

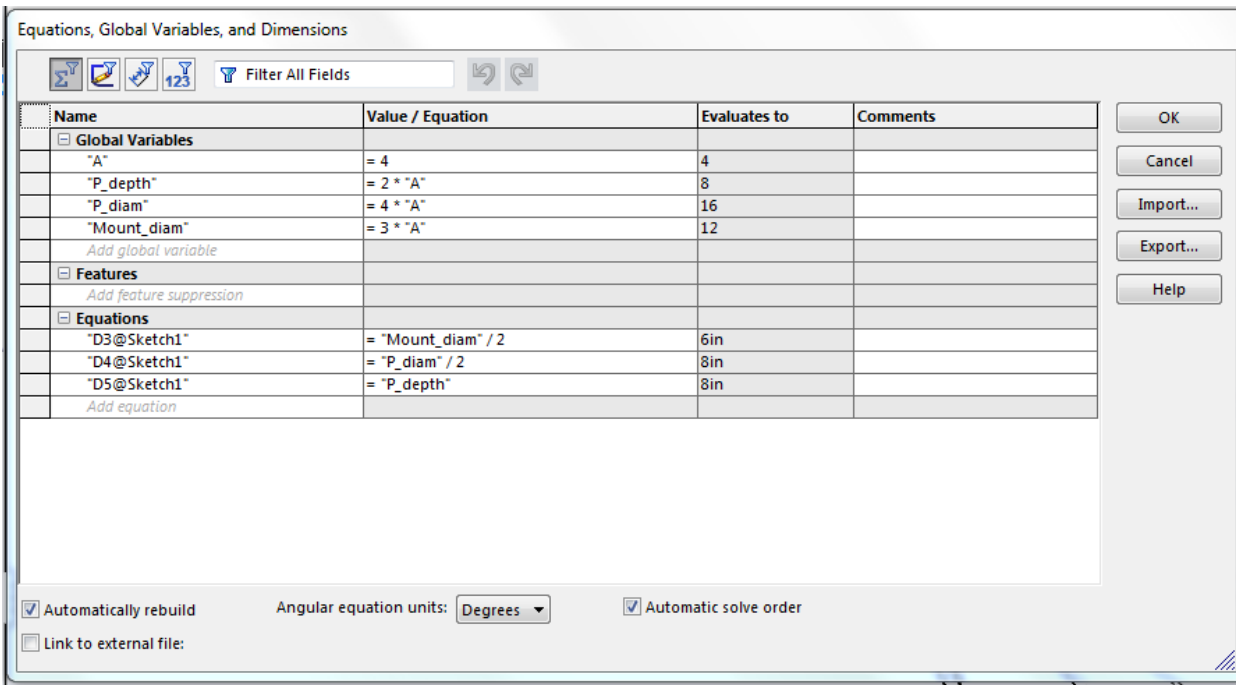
David Pick II



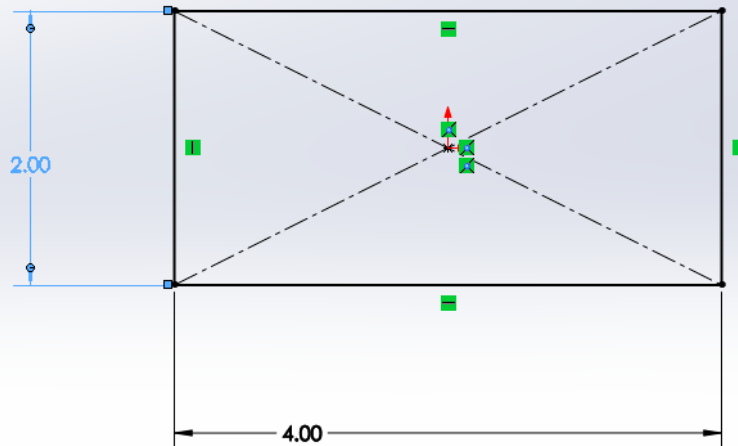
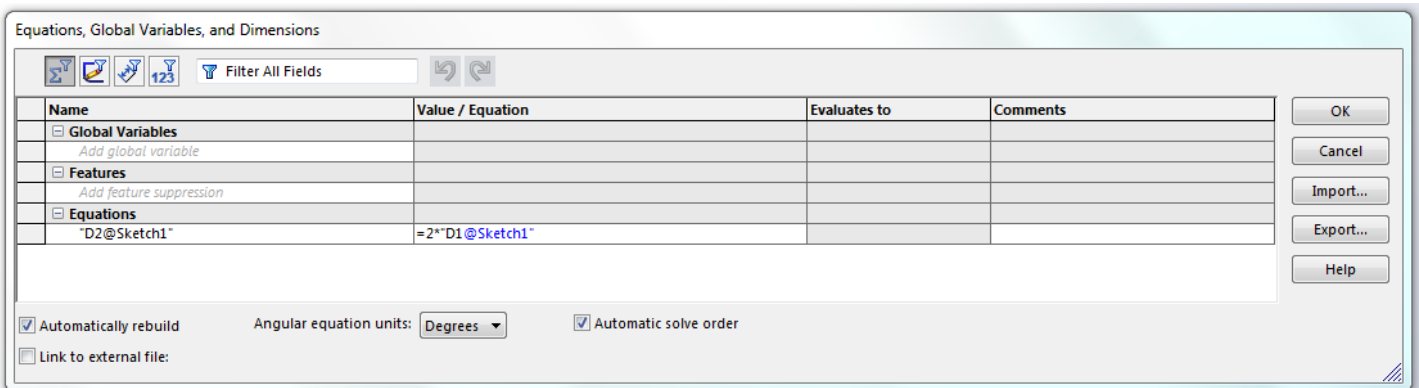
Global variables are found under *Equations*, in the *Tools* tab.

There are two ways to set global variables:

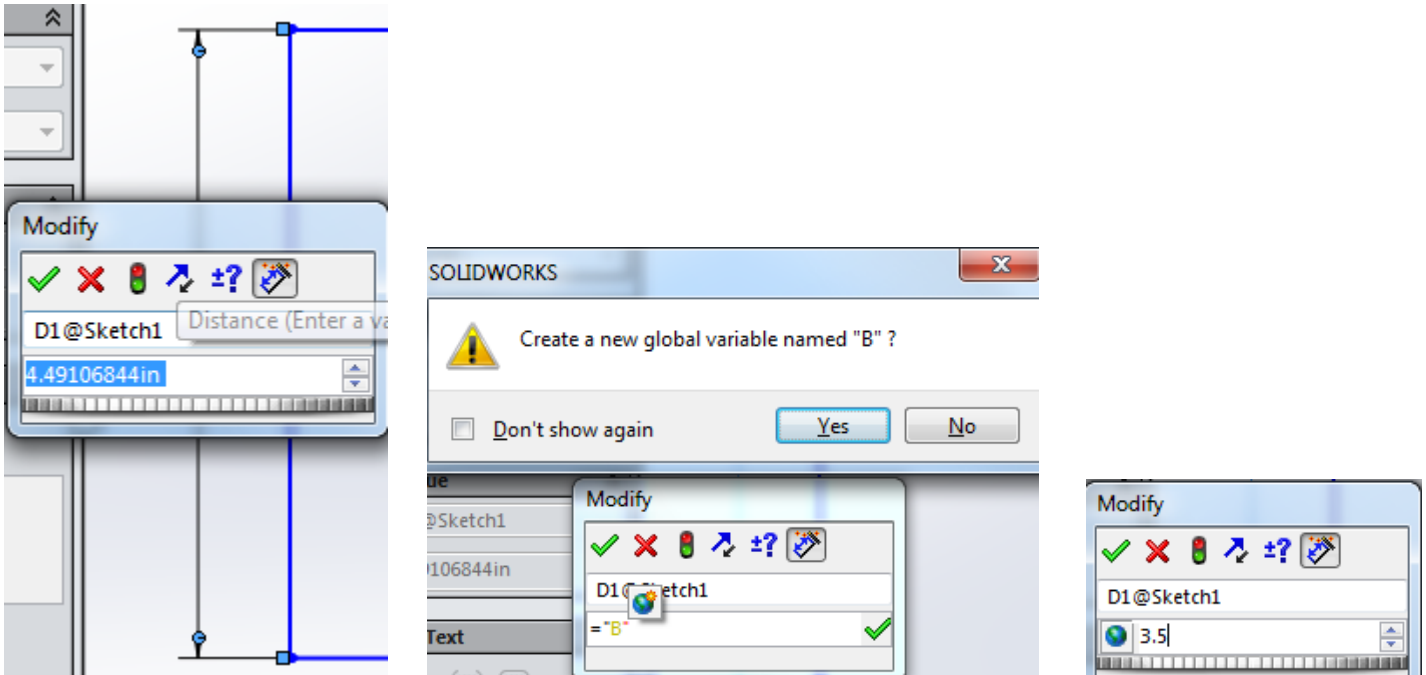
The first method is to open the equations tab and create a global variable in the form of “variable name” and set a value to it.

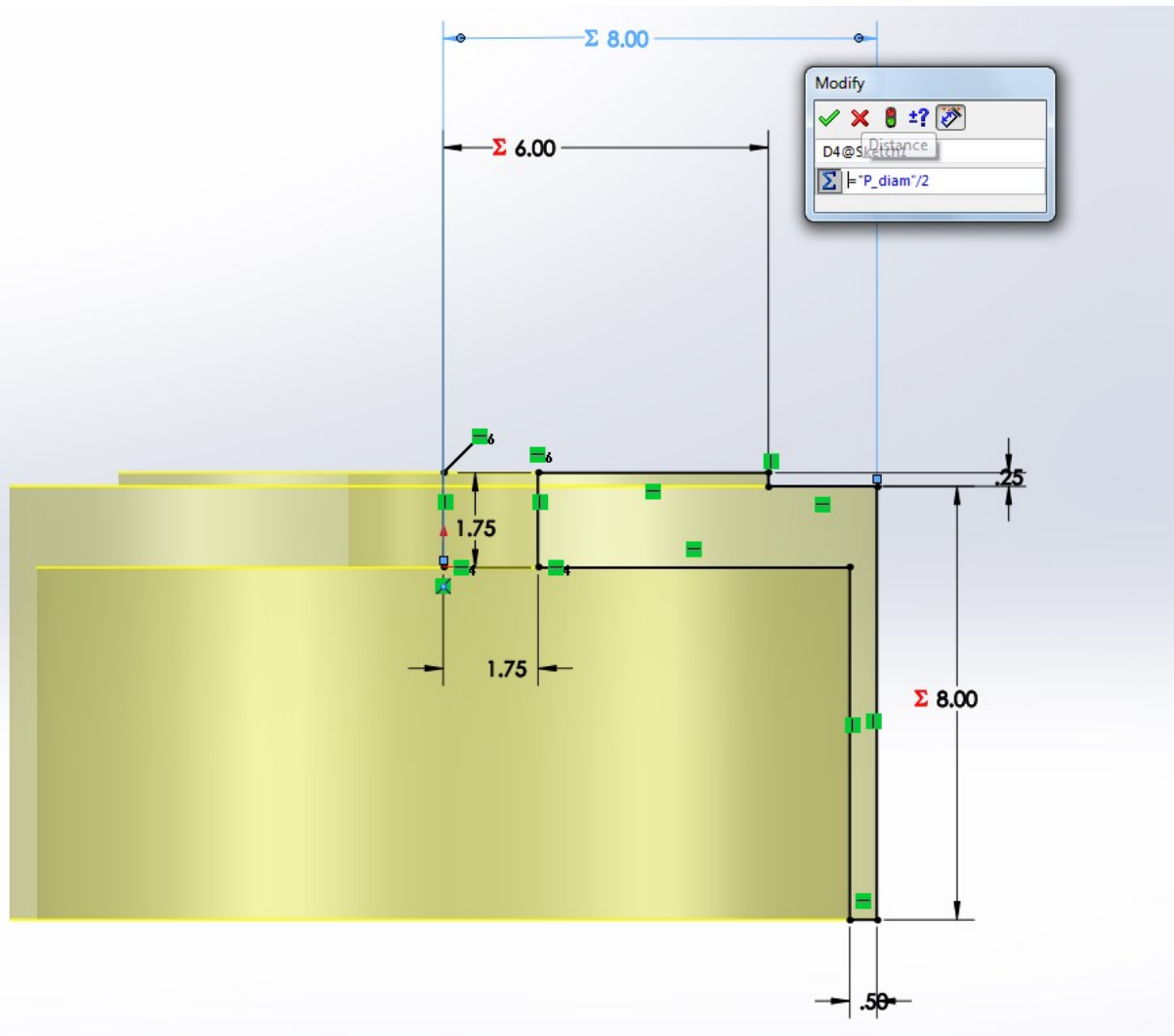


This is the Equations dialog box. As you can see, the global variables are defined first, allowing for relating relations to each other through arithmetic. The equations are auto-populated when a dimension is defined using one or more global variables. You can also select a dimension and create relations between given dimensions without using global variables as shown below.

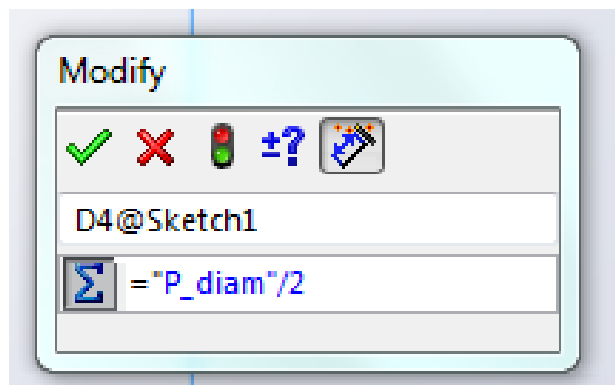


A second, on-the-fly method of setting global variables is to set a dimension equal to the name of the variable you want to create directly in the dimension's *Modify* box (e.g., D1@Sketch 1 = "variable name"). Then it will ask you if you want to create a global variable with that name. Select 'yes' and a global variable is created with its value set as the previous value of the dimension. You can now enter a different value in the *Modify* box (as shown in the third image below), and it will update the value of the global variable in the Equations, Global Variables, and Dimensions dialog box.

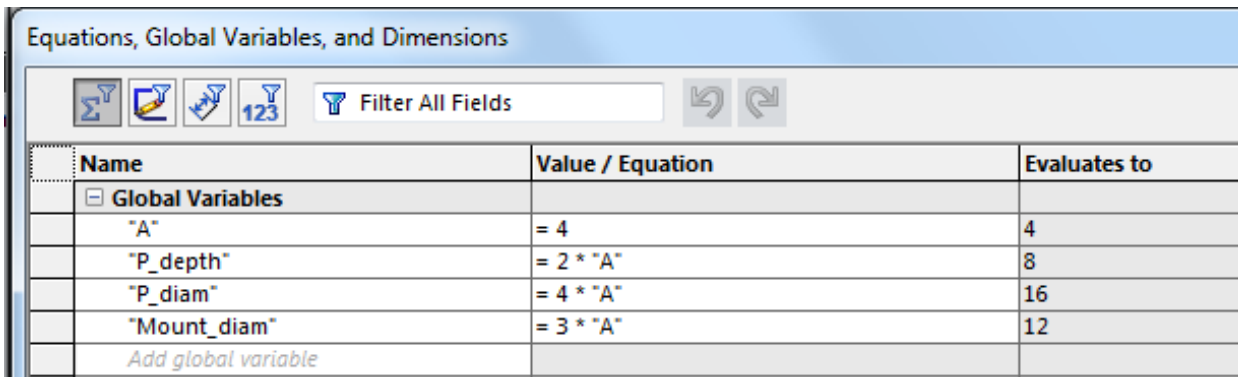




When you define a dimension using global variables, a Σ will appear signifying “Equation Driven”. When defining a dimension using global variables, the variable must be typed as: “variable name”.



As you manipulate global variables your part will update to display the changes. Good practice for global variables is to define variables that could be useful to change for various configurations of a part as well as utilizing a base dimension that relates several other dimensions as shown in the equations dialog box.



| Name | Value / Equation | Evaluates to |
|----------------------------|------------------|--------------|
| Global Variables | | |
| "A" | = 4 | 4 |
| "P_depth" | = 2 * "A" | 8 |
| "P_diam" | = 4 * "A" | 16 |
| "Mount_diam" | = 3 * "A" | 12 |
| <i>Add global variable</i> | | |