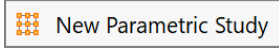
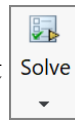


Design Point 1	Design Point 2	Design Point 3	Design Point 4
21.5	22	22.5	23
5.77119467e-05	8.42827405e-05	7.03715795e-05	0.000101917229
Finished	Finished	Finished	Finished
This computer	This computer	This computer	This computer

A. New Parametric Study.

Step 1. If necessary, open your PROPELLER ASSEMBLY file with the Flow Sim project.

Step 2. Click **Flow Simulation** tab  on the Command Manager toolbar.

Step 3. Click **New Parametric Study**  in the **Solve flyout**  on the Flow Simulation toolbar.

B. Add Parameter.

Step 1. In the Parametric Study pane set:

mode to **What If Analysis** study

key-in **ANGLE OF ATTACK** in Parametric Study Name input field, **Fig. 1**

click the **Input Variables** tab 

click **Add Dimension Parameter** 

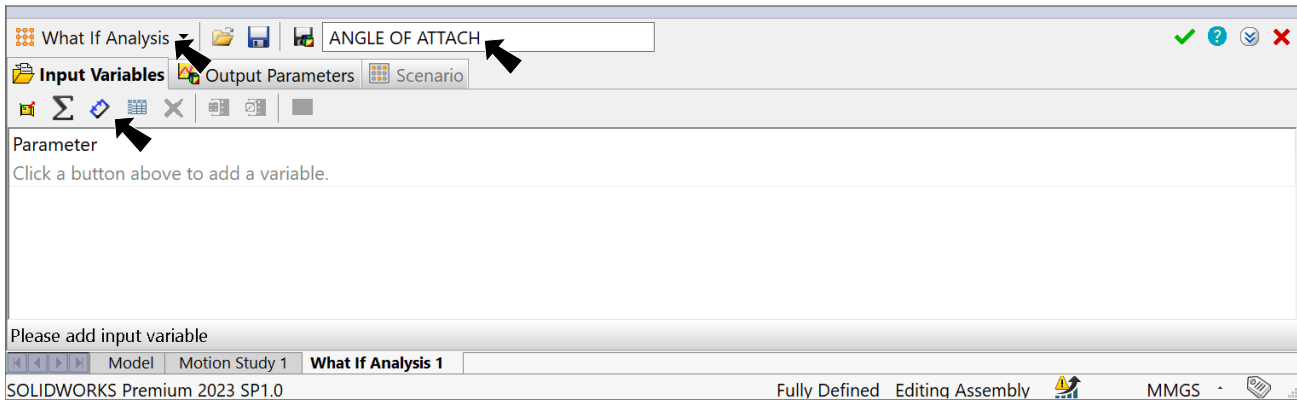


Fig. 1

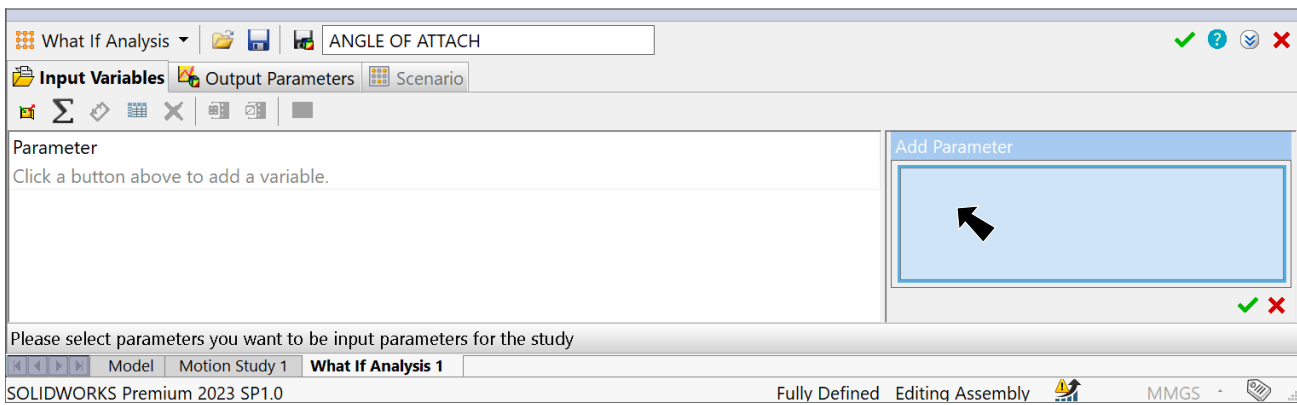





Fig. 2

Step 2. In the Add Parameters pane, Fig. 2.

Click the **Feature Manager** tab  up at top of the Feature Manager, Fig. 3.

Expand **BLADE 4412**  part in the Feature Manager design tree, expand **Mates** folder  and click **Angle1**  mate.

Step 3. Switch back to the **Flow Simulation** tab

 in the Feature Manager, Fig. 4.

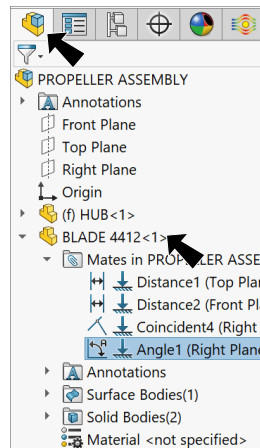


Fig. 3

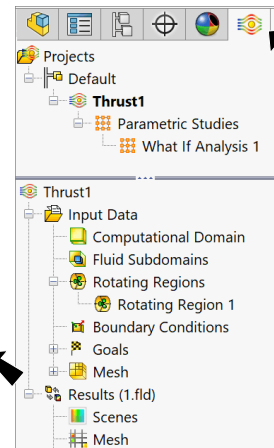


Fig. 4

Step 4. Click OK  at bottom of Add Parameters pane, Fig. 5.

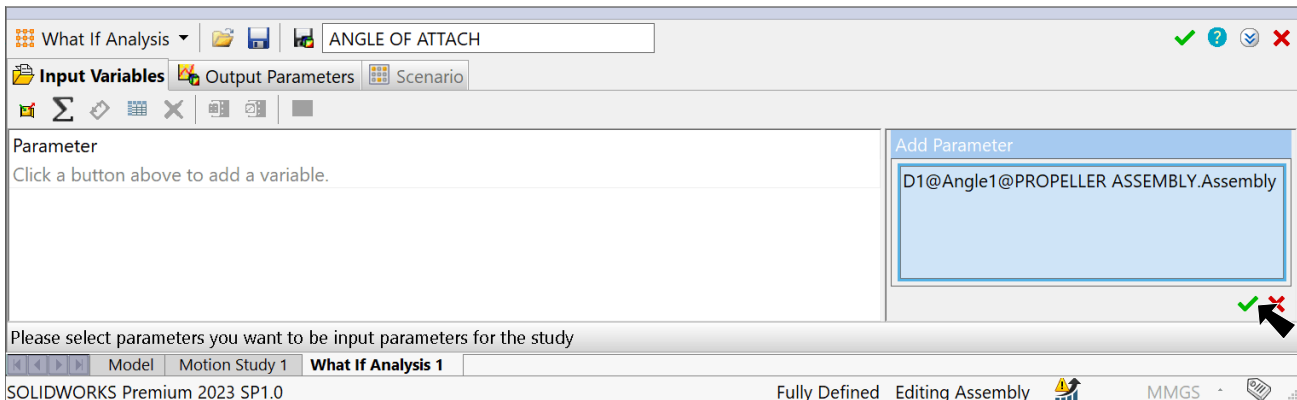


Fig. 5

C. Value Variations.

Step 1. Back in the Parametric Study pane set:

double click field 25 under Values column, **Fig. 6**
in the Valves pane

click the **Step Around** 
set:

Minimum N- 7

Maximum N+ 2

Step Between Value S .5

click OK  at bottom of Values pane.

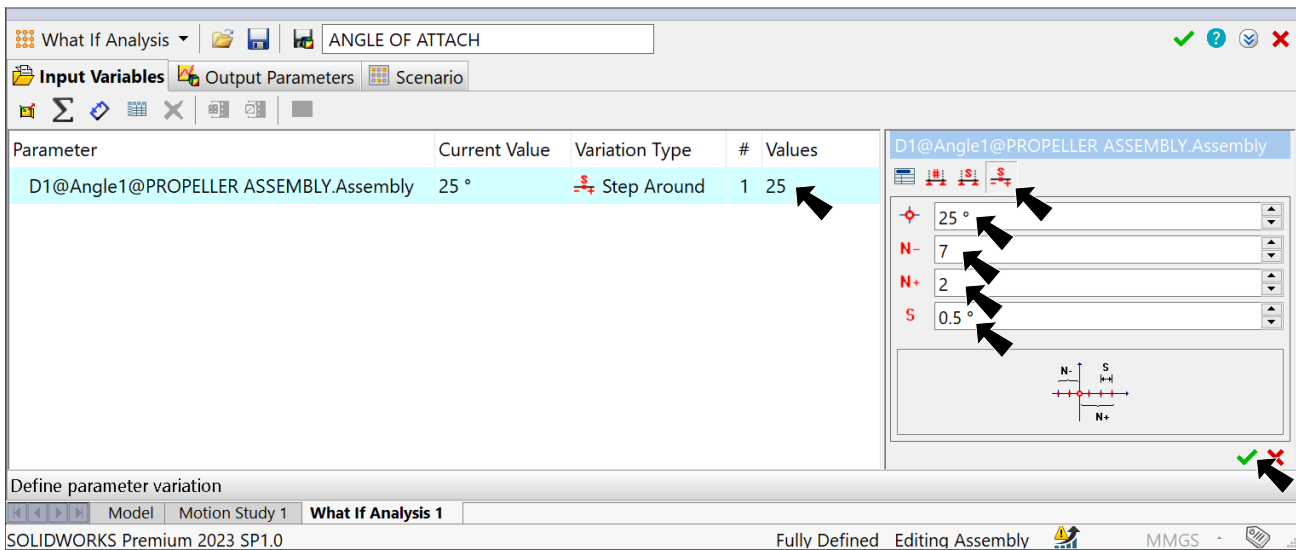


Fig. 6

Step 2. Back in the Parametric Study pane confirm new Values, **Fig. 7**.

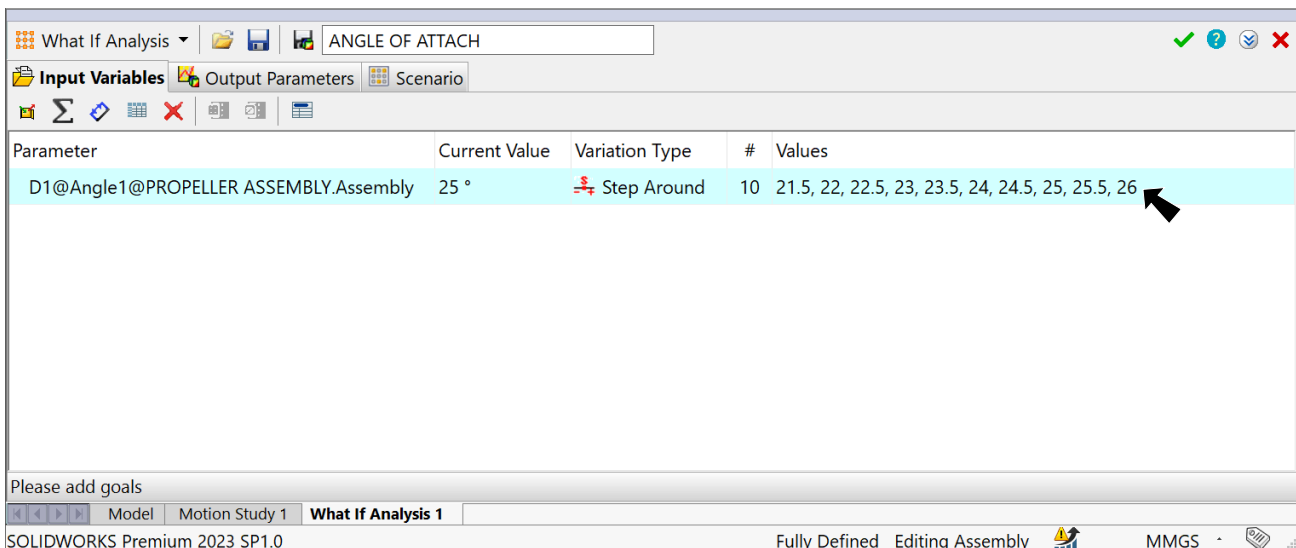


Fig. 7

D. Add Goals.

Step 1. Click the **Output Parameters** tab  **Output Parameters**, Fig. 8

click **Add Goal** 

in Add Goal pane set:

check **All**

click **OK**  at bottom of pane.

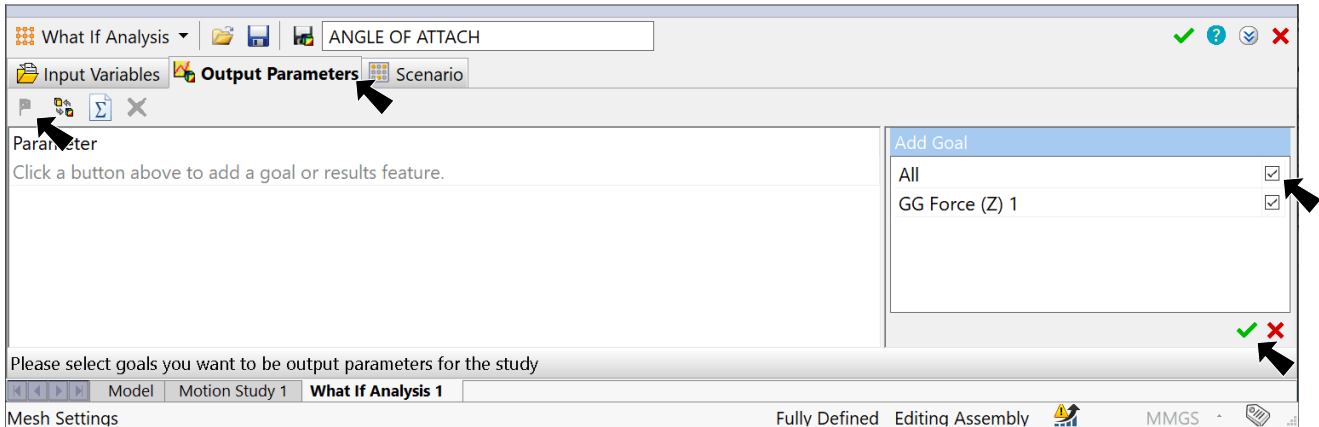


Fig. 8

E. Run.

Step 1. Click the **Scenario** tab  **Scenario**, Fig. 9

click **Run**  **Run**.

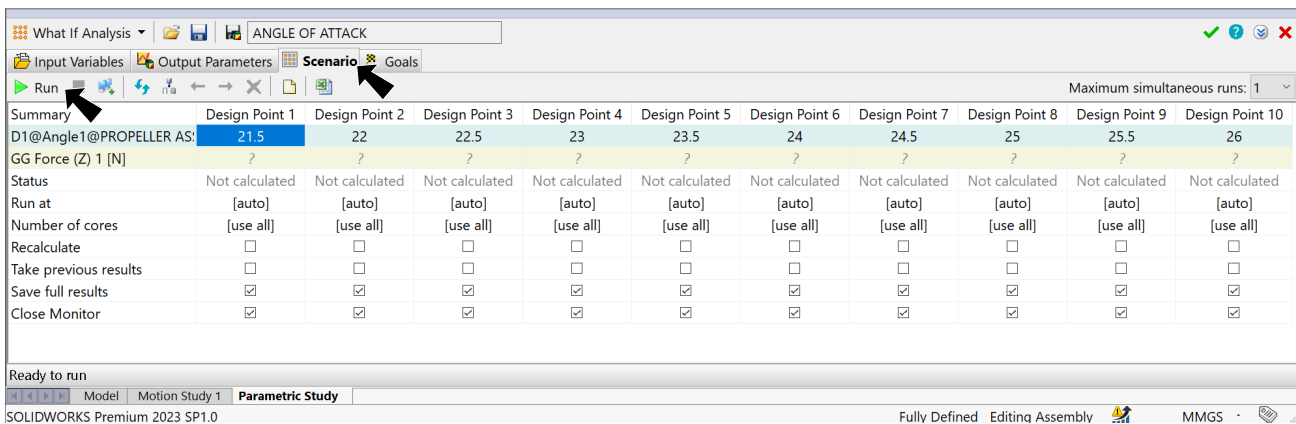


Fig. 9

Step 2. In the Solver dialog box you can view Calculation time left. Each Design Point will run. Could take a few minutes.

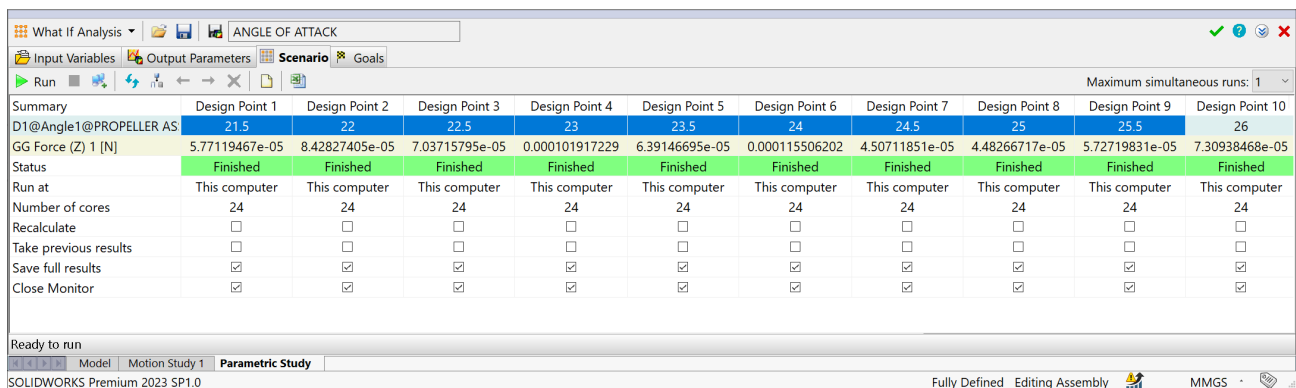



Fig. 10

F. Goals.

Step 1. Click the **Goals** tab , **Fig. 11**
click **Highlight Min/Max** 

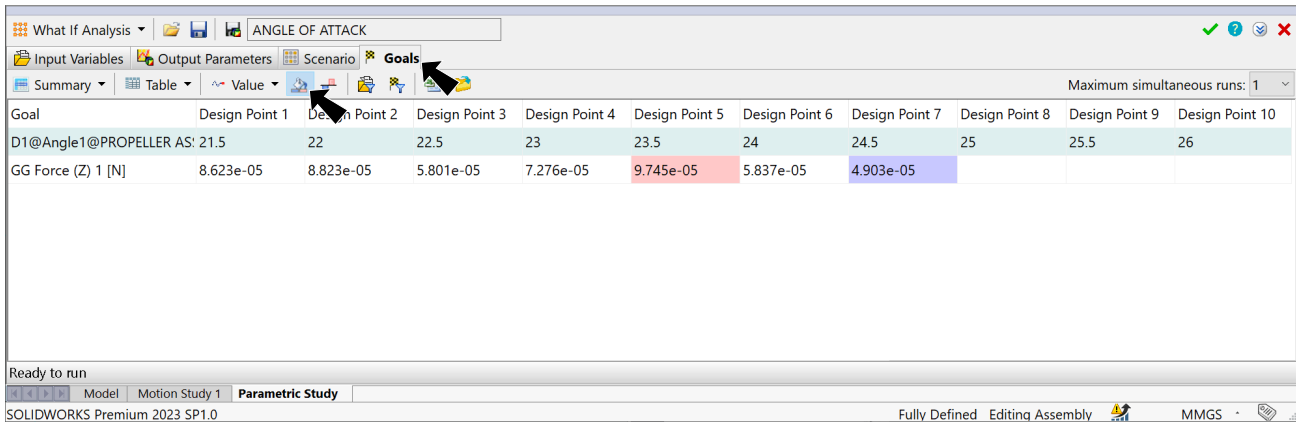


Fig. 11

Step 2. Set Data View to **Chart** , **Fig. 11**.

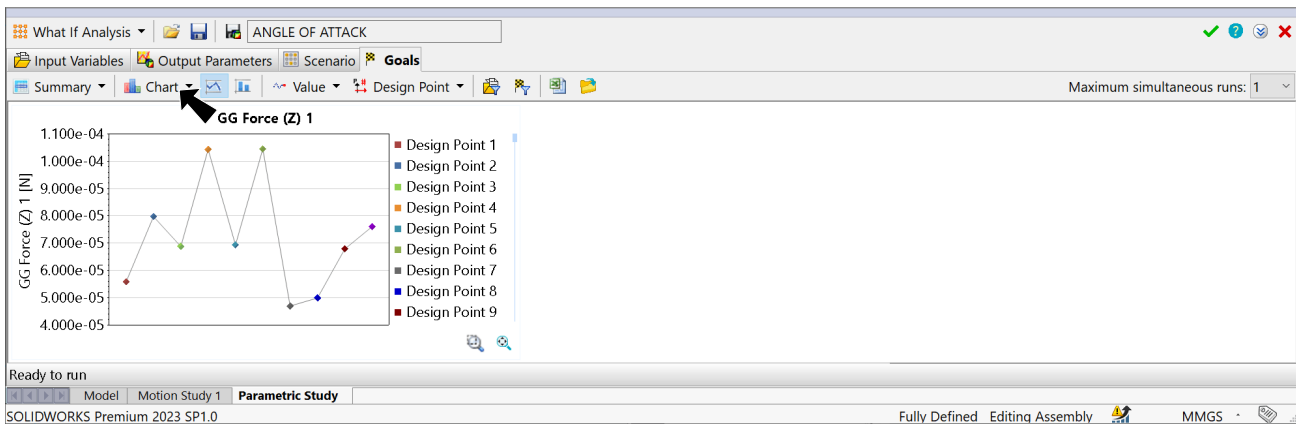


Fig. 12

Step 3. To exit, click **OK**  in the Parametric Study pane.

Step 4. Save  (**Ctrl-S**).