

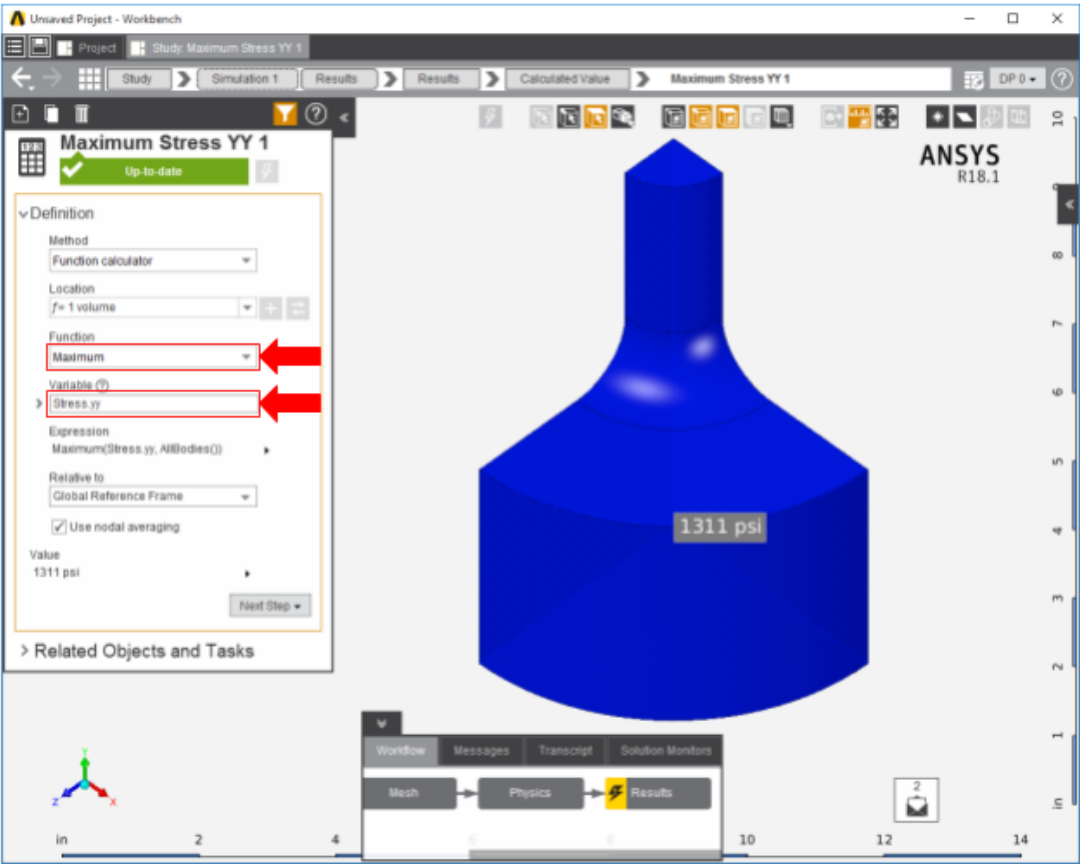
# AIM Stepped Shaft in Axial Tension - Validation

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- Problem Specification
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  - 2. Geometry
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## Verification

In the pre-analysis, the maximum stress was calculated. To verify that our simulation was accurate, a comparison must be made. In order to view the maximum stress of the simulation, in the **Add** drop down menu select **Calculated Value**, change **Function** to **Maximum** and the **Variable** to **Stress YY**.



The table below compares the calculated and simulated values for maximum stress in the stepped shaft. There is a less than 5% difference between the finite element calculation and the simulation result.

Calculated Value	Simulated Value	Percent Difference
1376 psi	1373.2 psi	4.84%

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