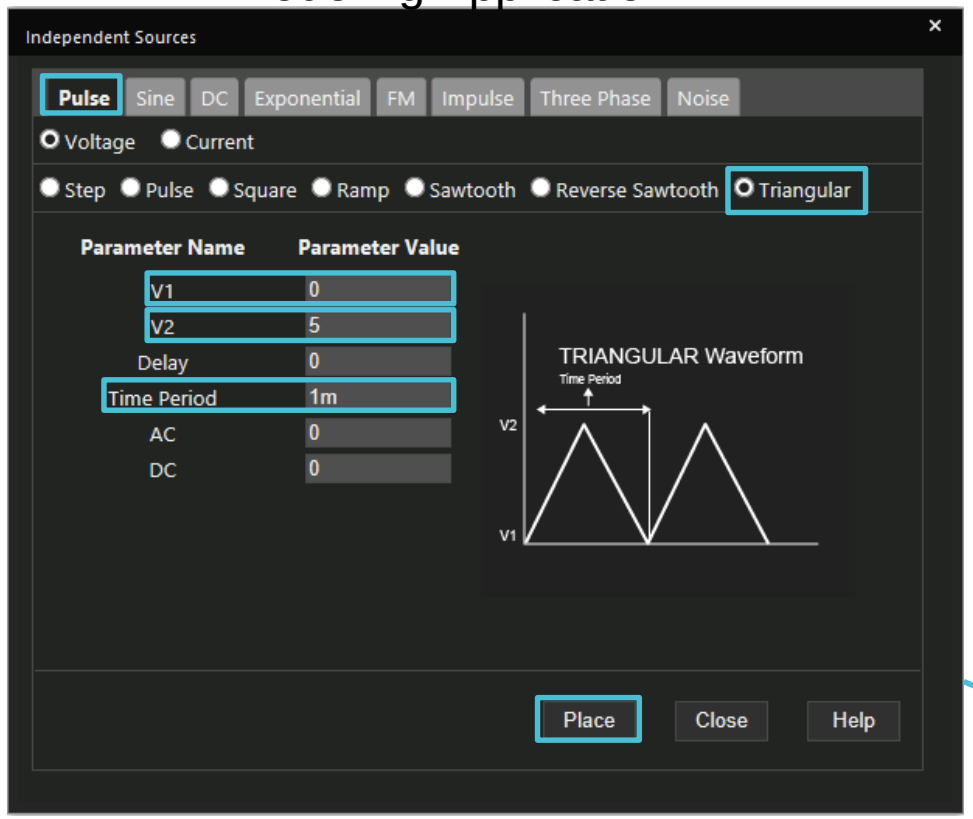
# Modeling application

## TI Precision Labs – PSpice® for TI

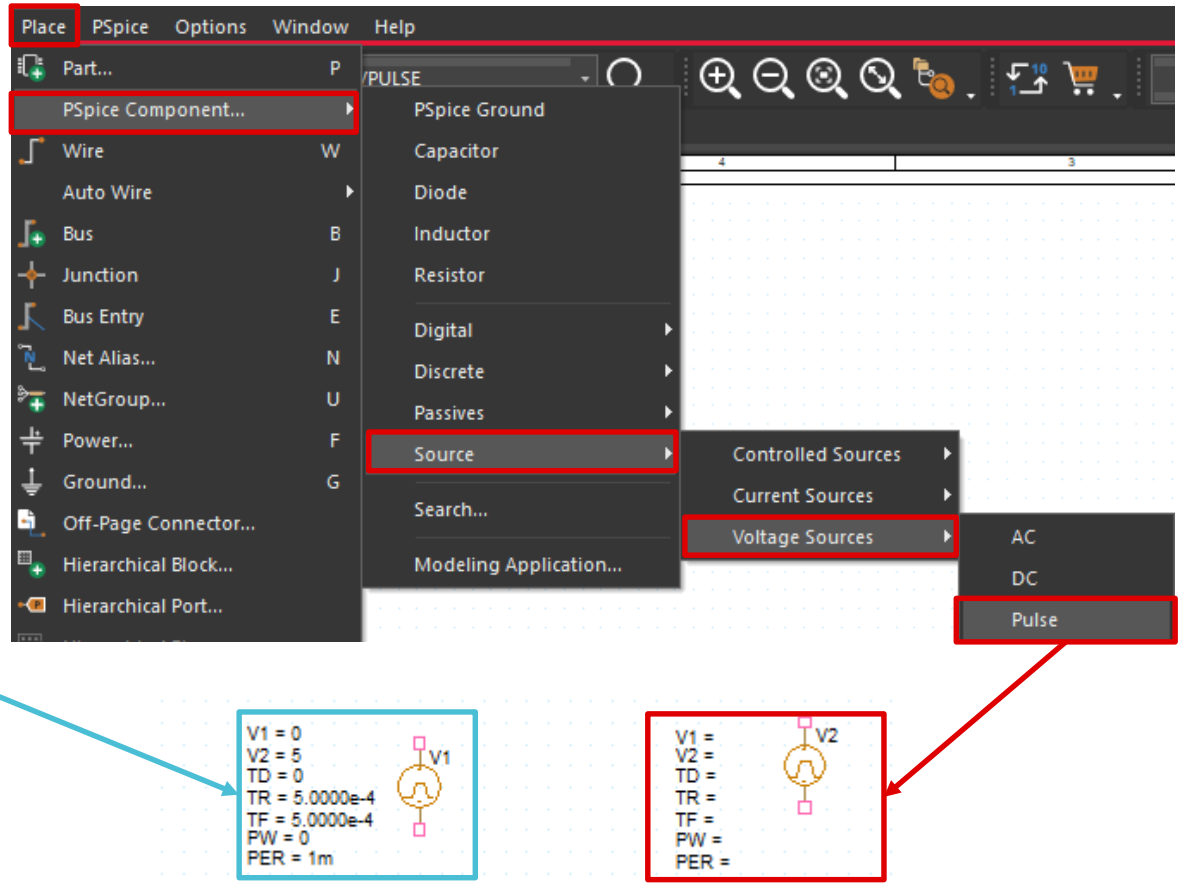
# What is the modeling application?

- Create a 1kHz 5V triangle waveform source

Modeling Application

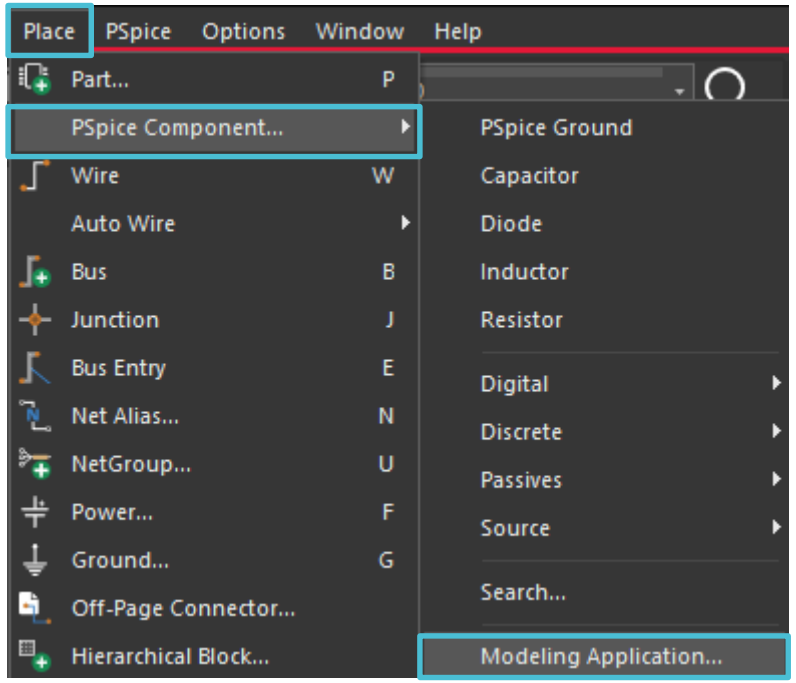



Place Menu



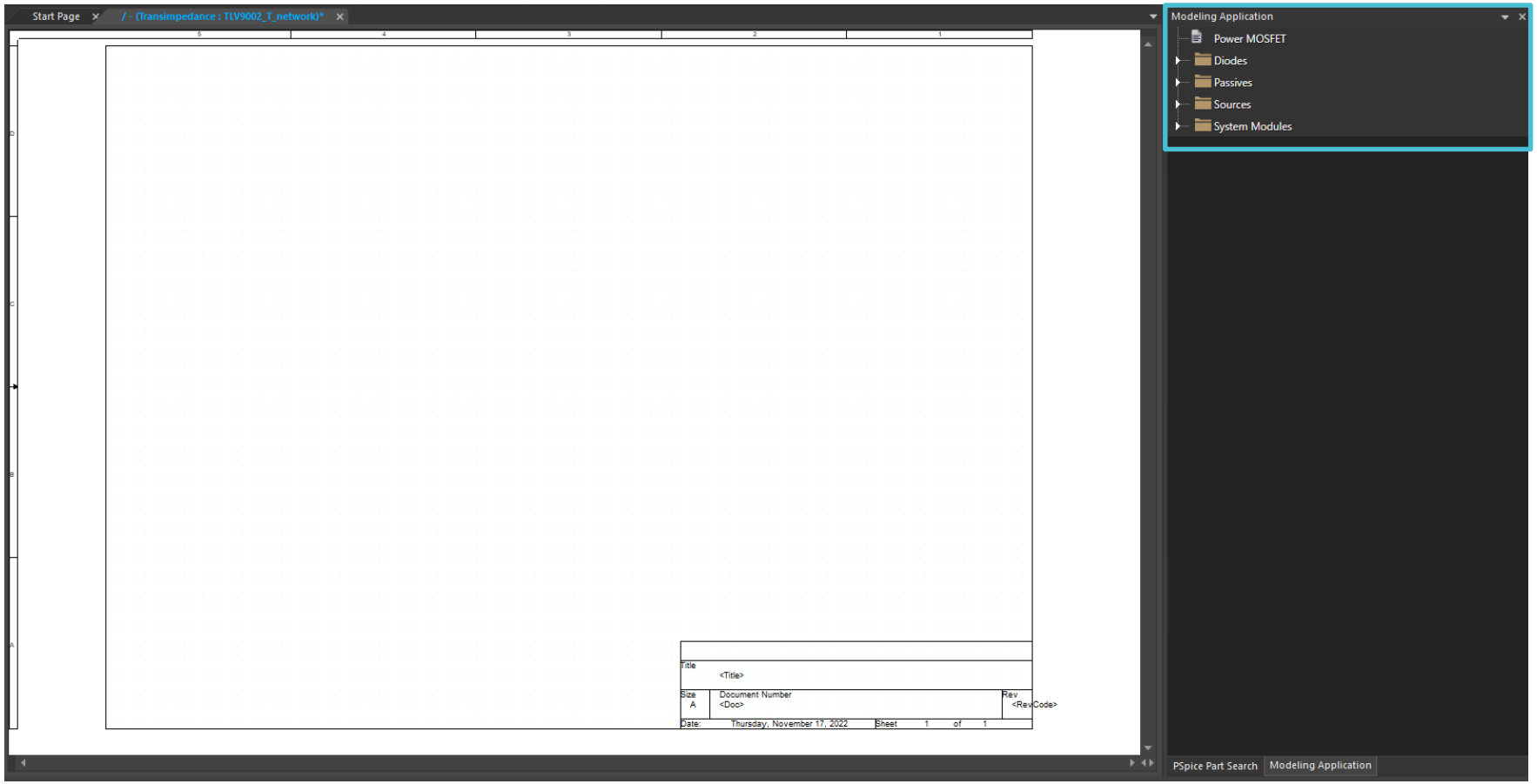
# Taskbar menu

- “Place” > PSpice Component…” > “Modeling Application…”



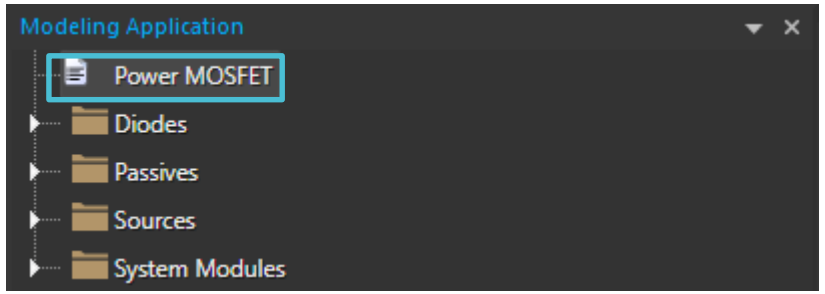
# Modeling application

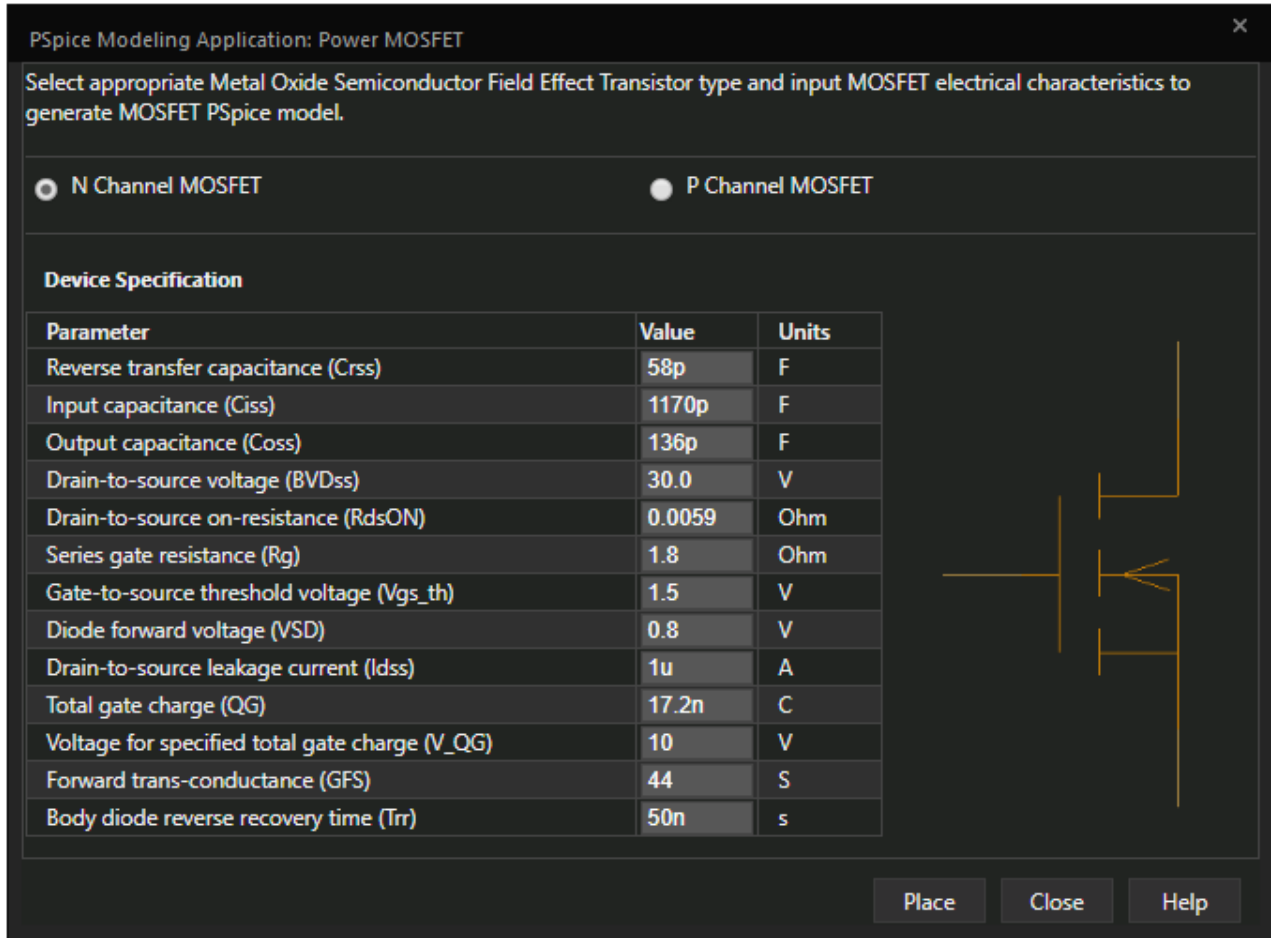
- By default, the “Modeling Application” docks on the right hand side of the screen



# Power MOSFET

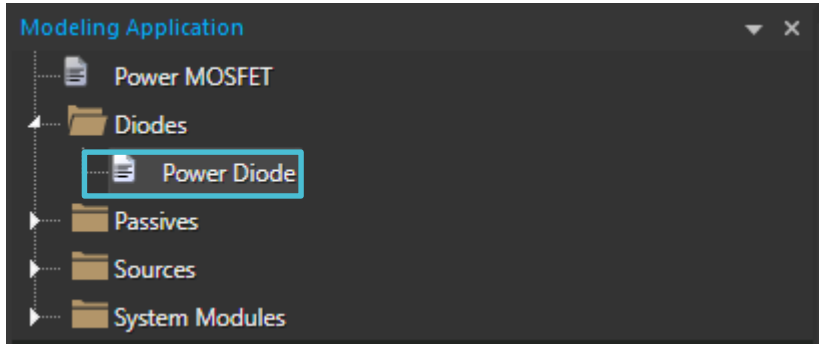
- Select appropriate MOSFET type and input electrical characteristics to generate a model.



# Power diode

- Input diode electrical characteristics to generate a model.




PSpice Modeling Application: Power Diode

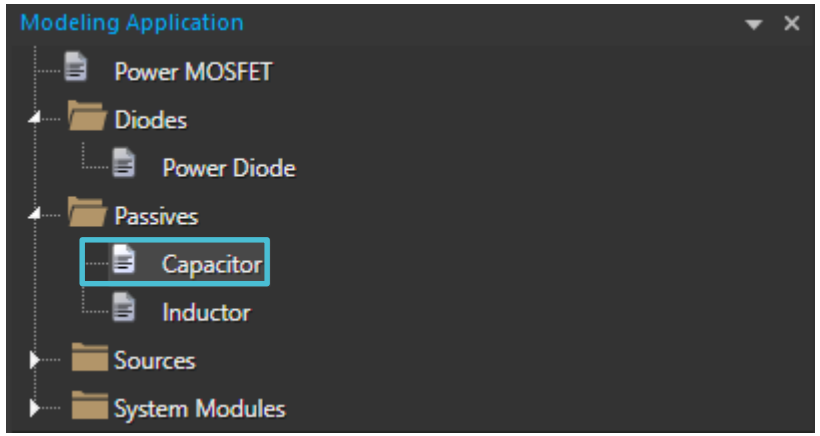
Input diode electrical characteristics to generate power diode PSpice model.

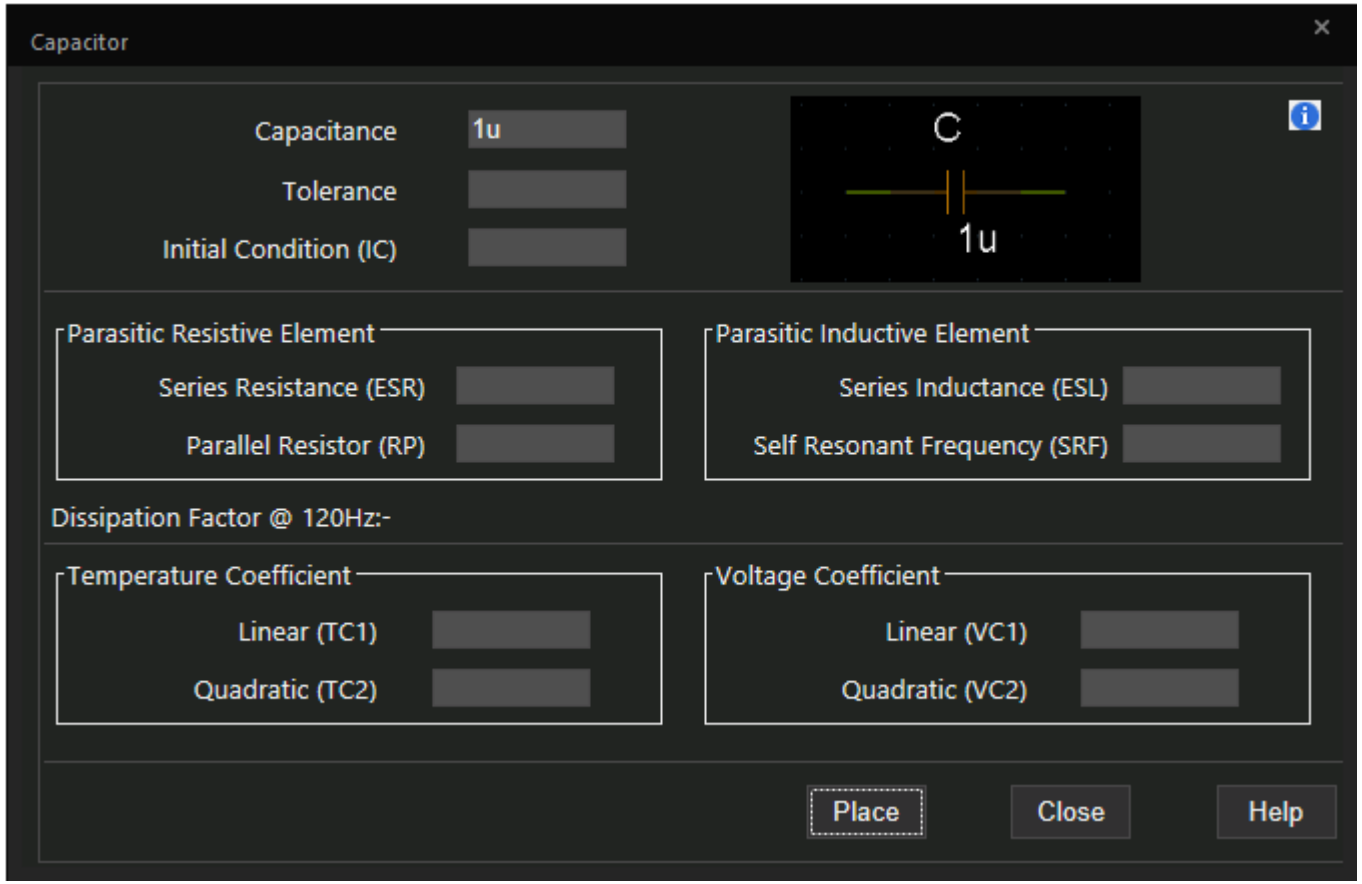
| | Parameter | Description | Value | Units |
|---|---|---|---|---|
| 1 | V_BR | Breakdown voltage, reverse peak voltage | 600 | V |
| 2 | I_Rev_Leak | Reverse Leakage current | 1e-5 | A |
| 3 | CT_Zero_Volts | Total junction capacitance at 0V | 300p | F |
| 4 | VJ_Knee | Threshold voltage for forward current flow | 0.9 | V |
| 5 | VJ_Spec | Diode voltage drop at specified forward current (If_Spec) | 1.6 | V |
| 6 | IF_Spec | Specified forward current | 6 | A |

Place Close Help

# Capacitor

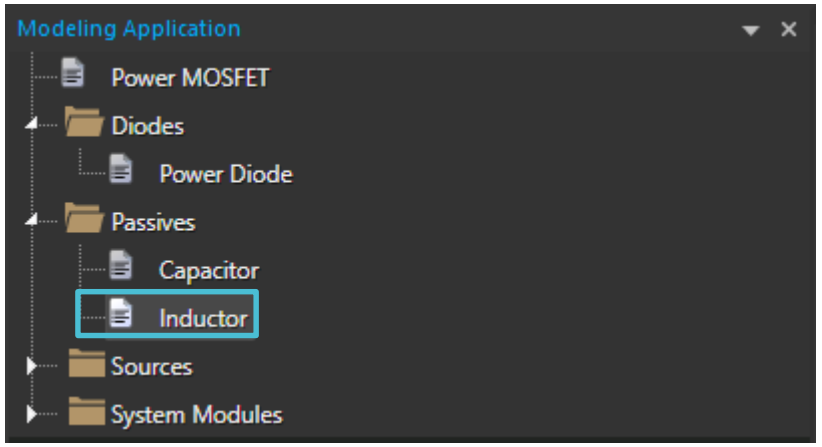
- Input capacitor electrical characteristics to generate a model.

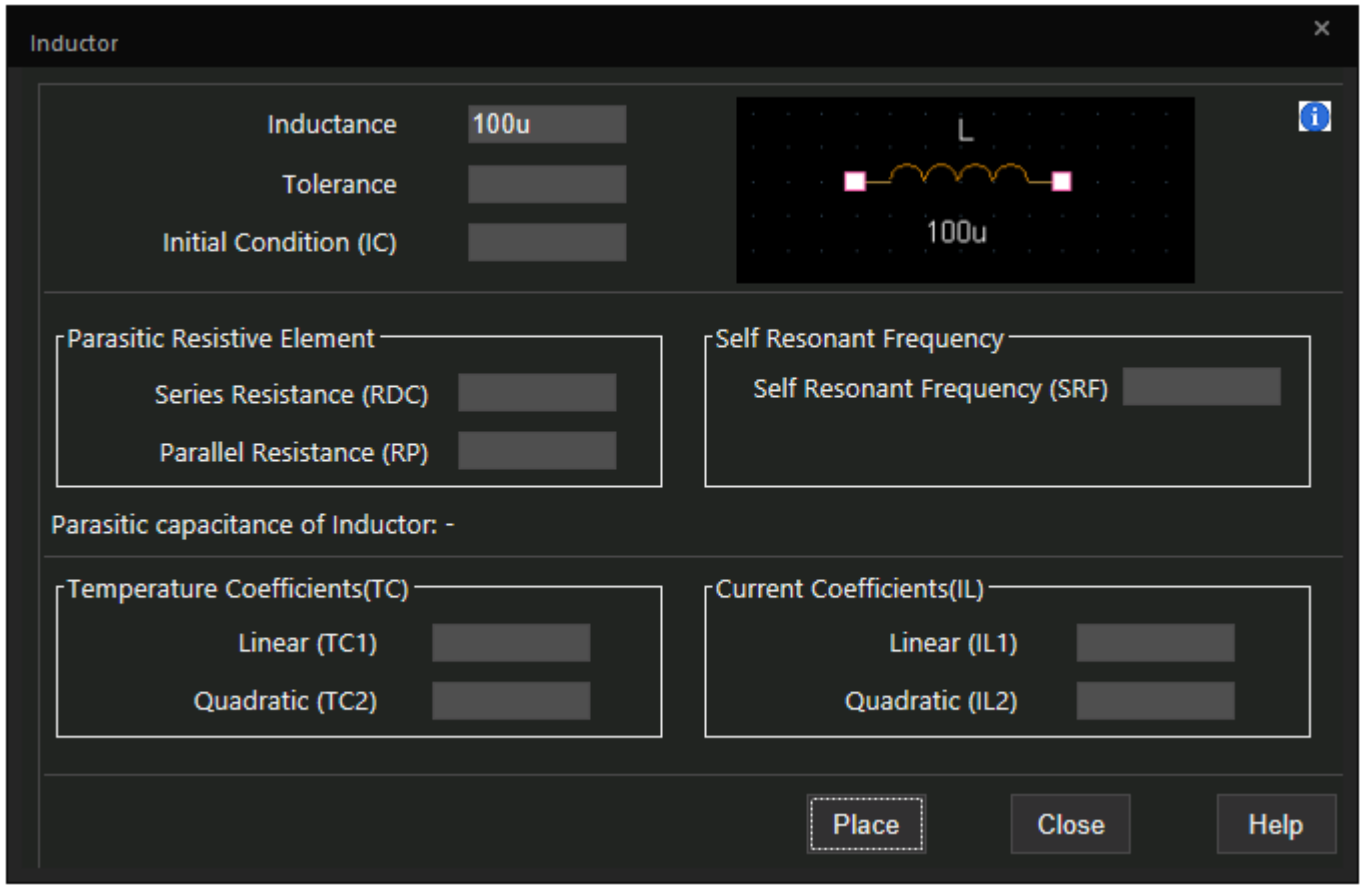


# Inductor

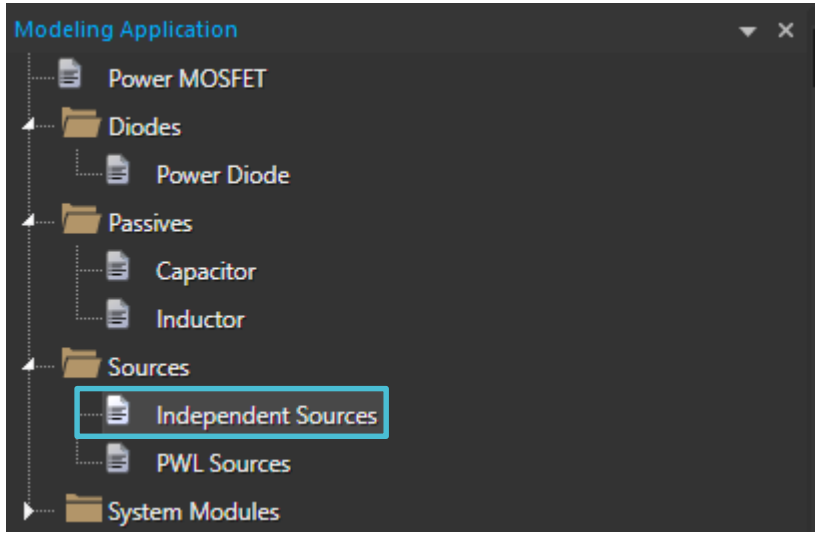
- Input inductor electrical characteristics to generate a model.

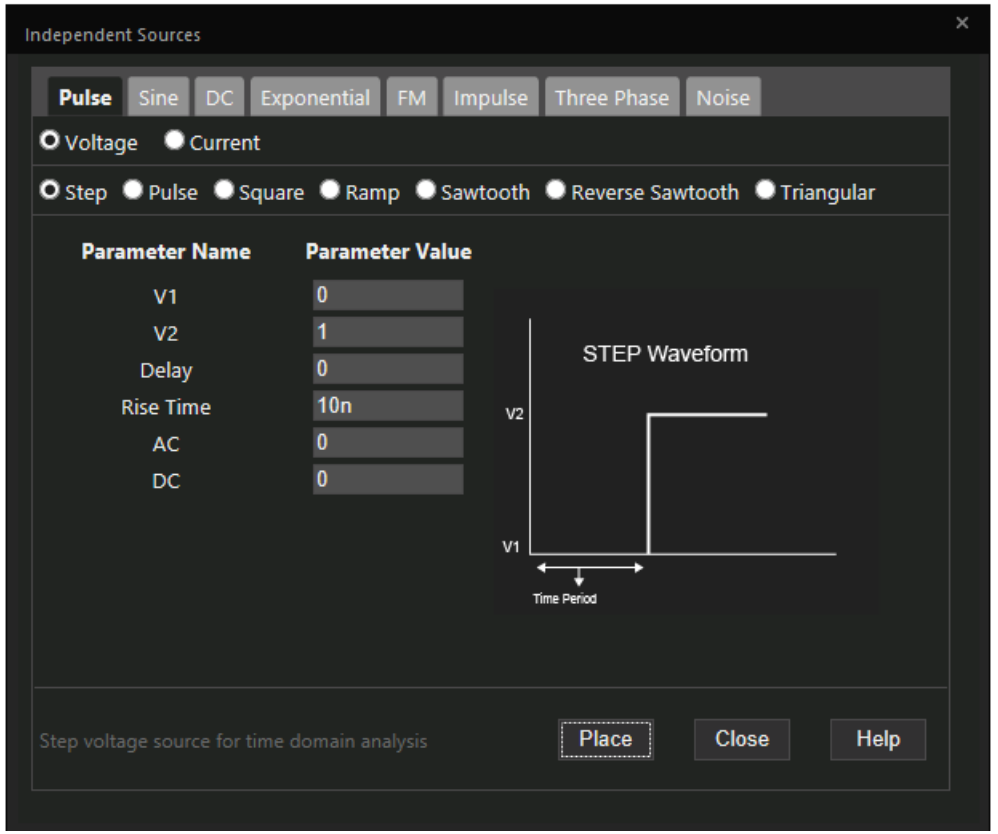


# Independent sources

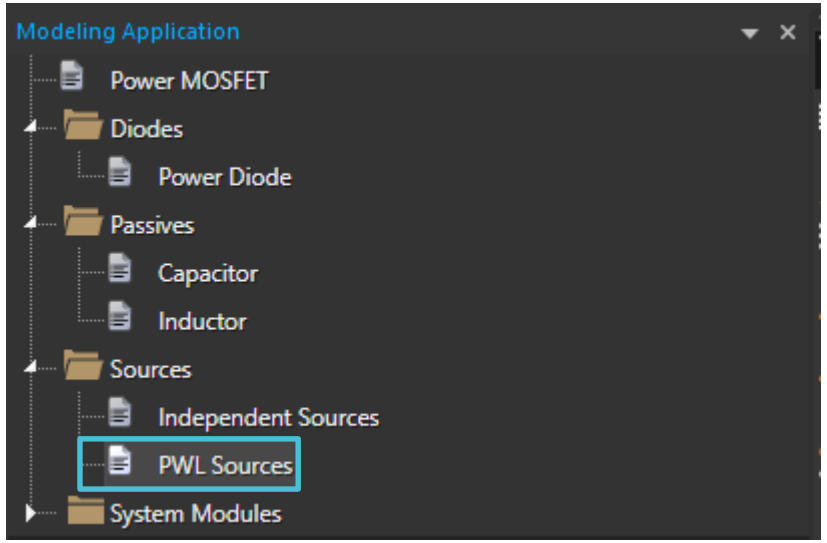
- Input source parameters to generate a model.

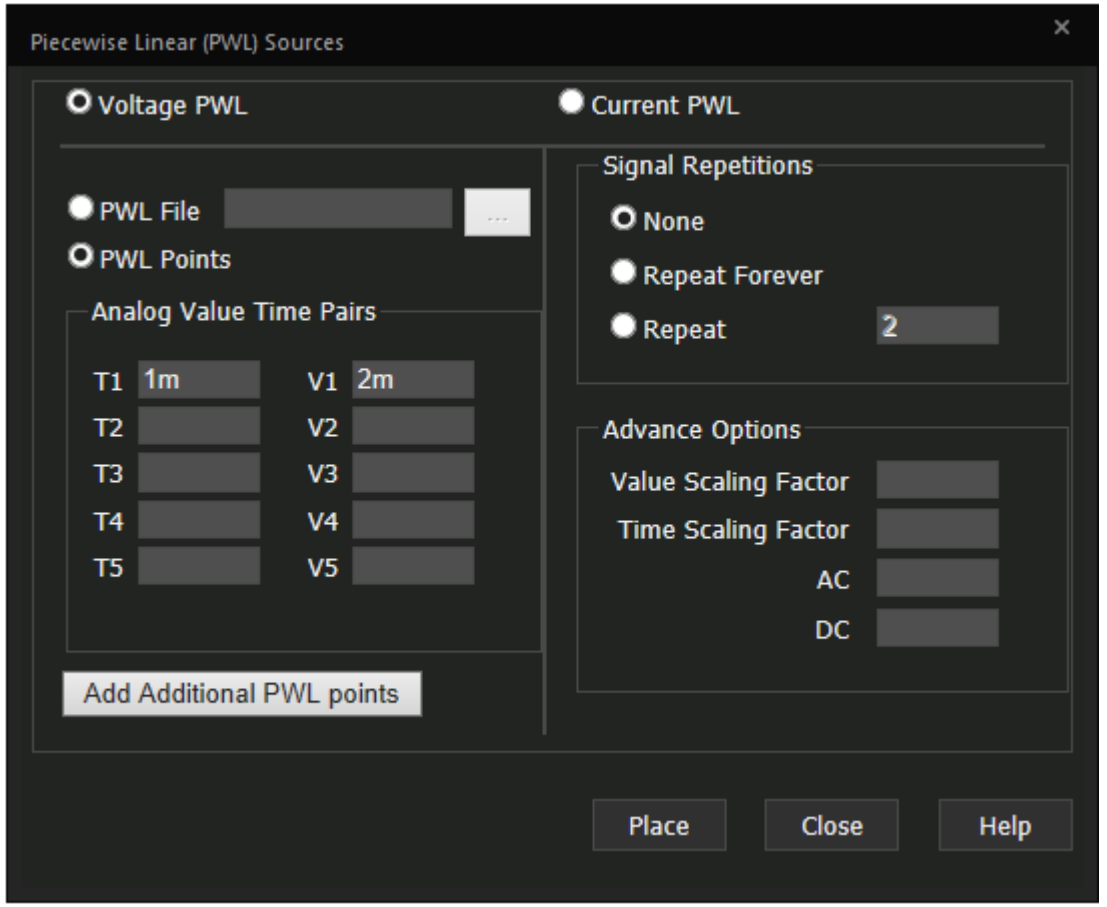


# PWL sources

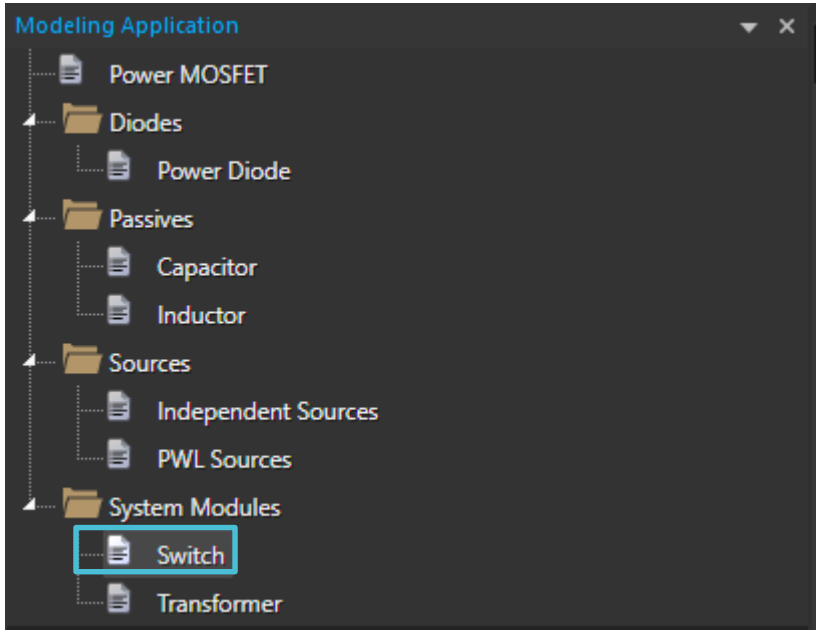
- Input time pairs and repetitions or upload a source file to generate a model.

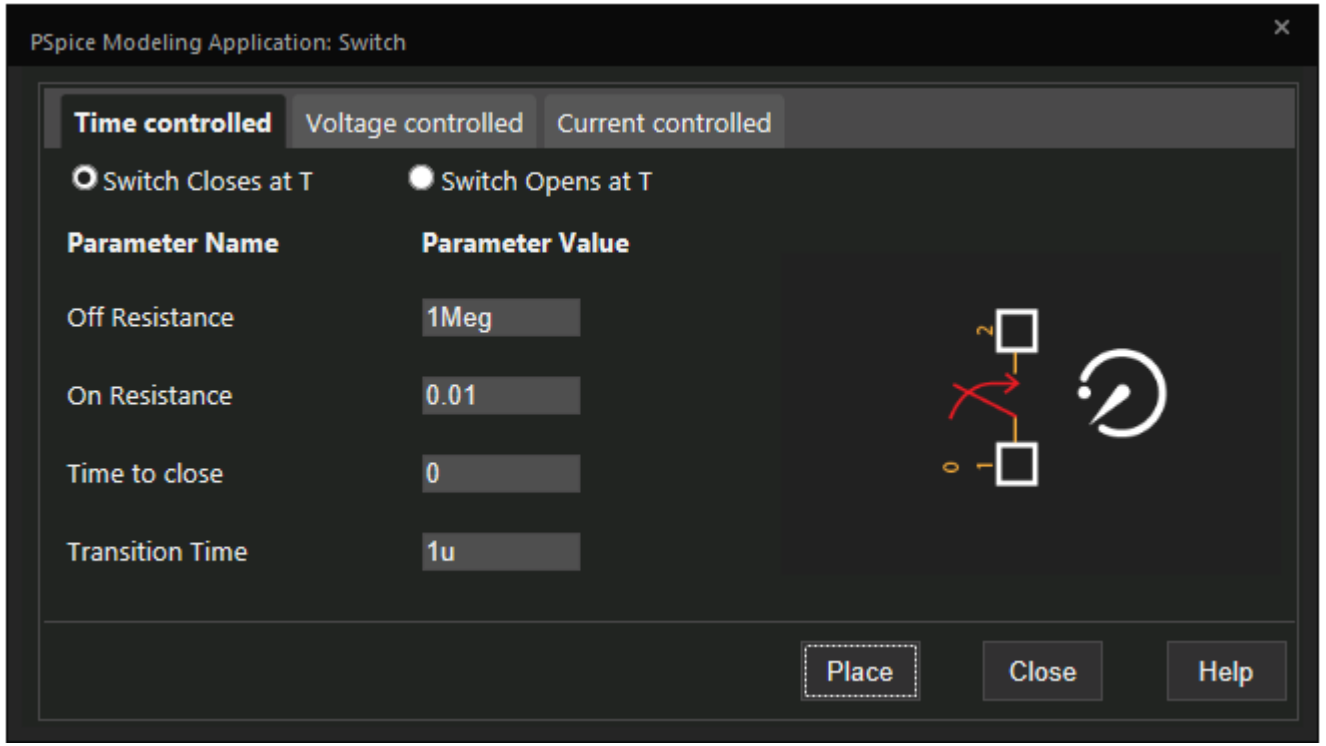


# Switch

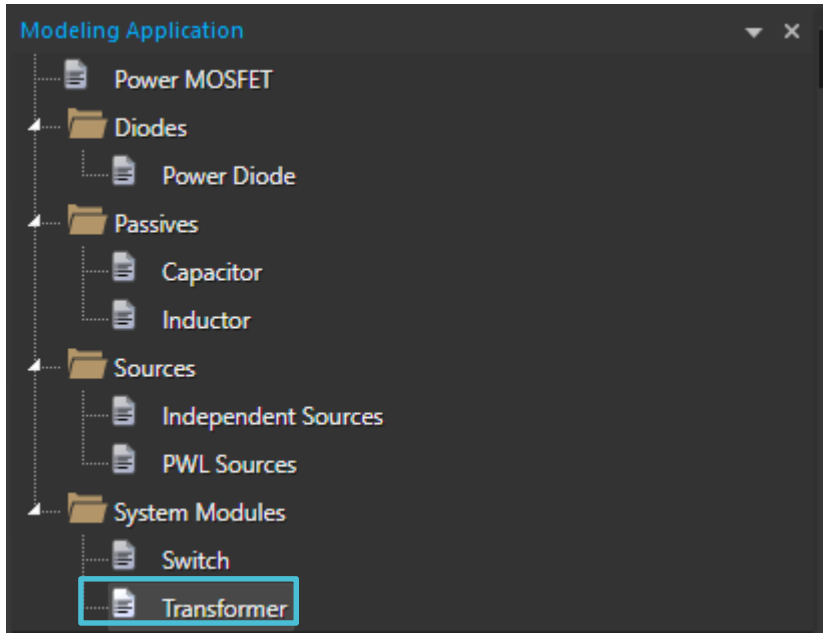
- Input switch electrical characteristics to generate a model.

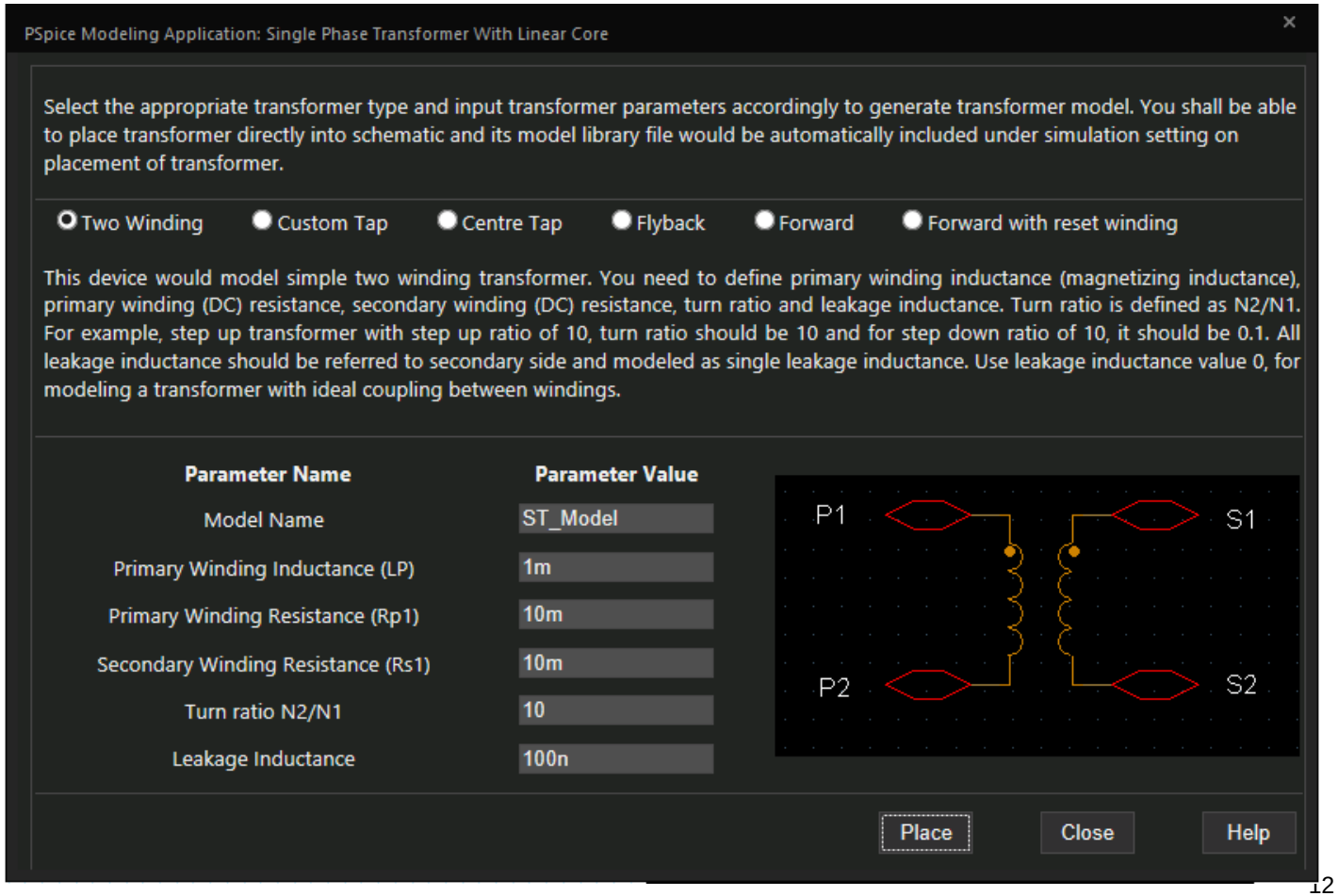


# Single phase transformer with linear core

- Select appropriate transformer type and input electrical characteristics to generate a model.



# Thanks for your time!

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