



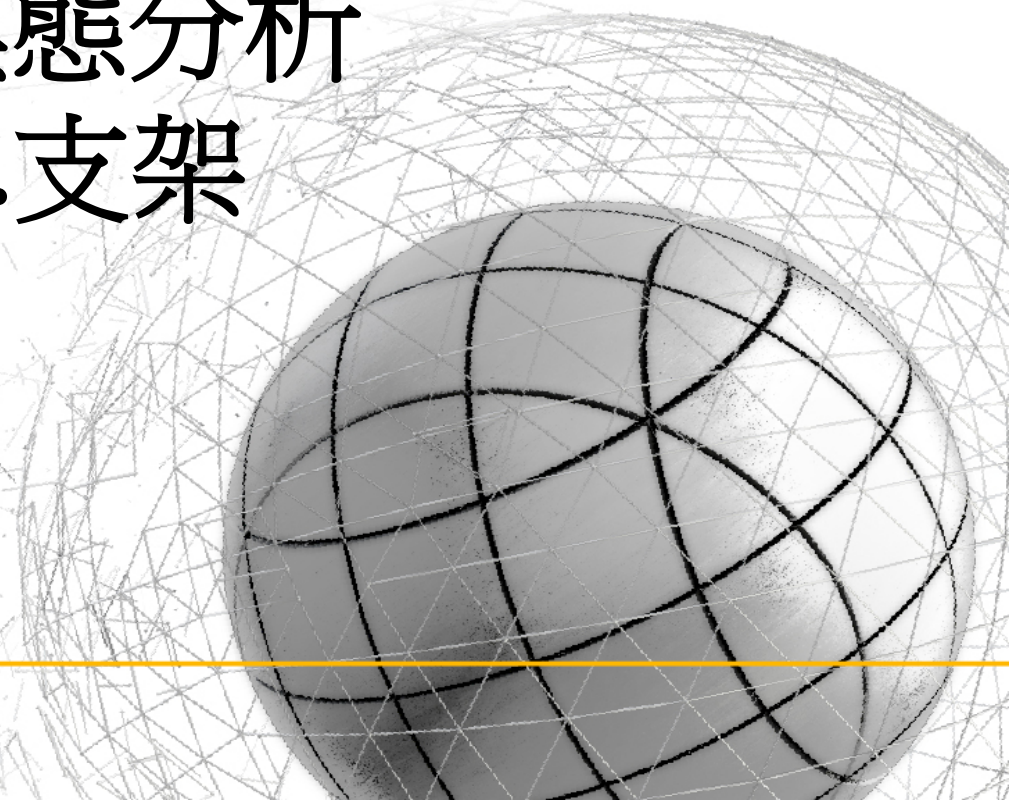
MIDAS

MESH FREE

預力模態分析

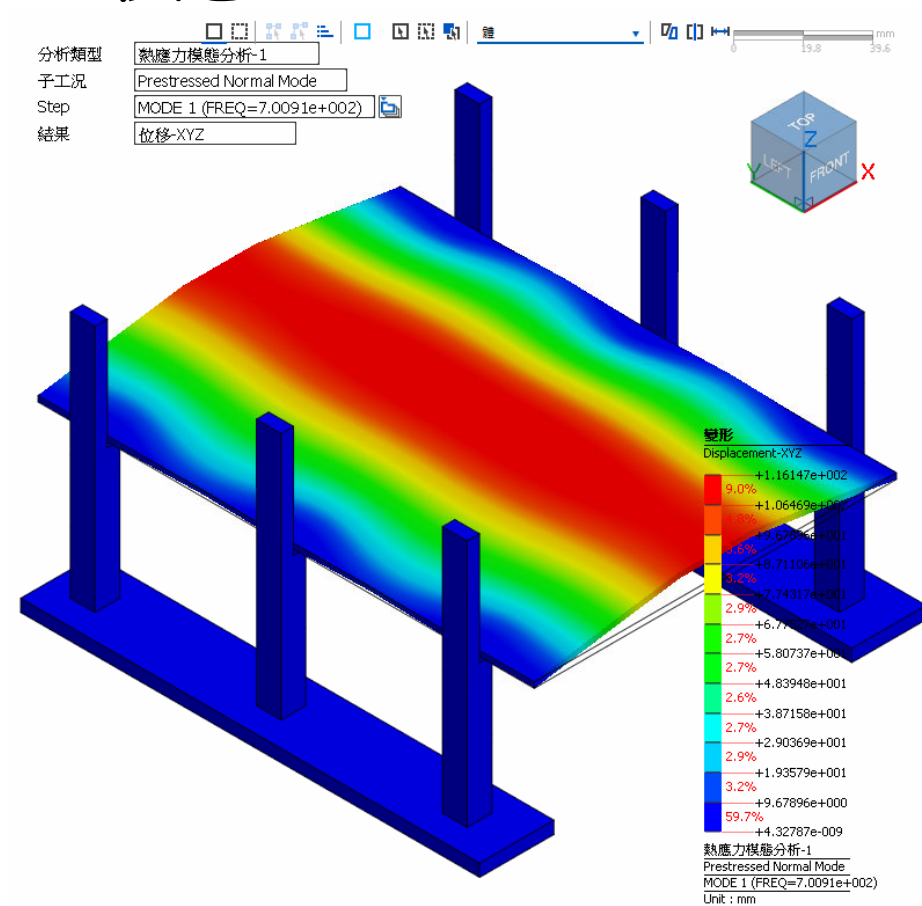
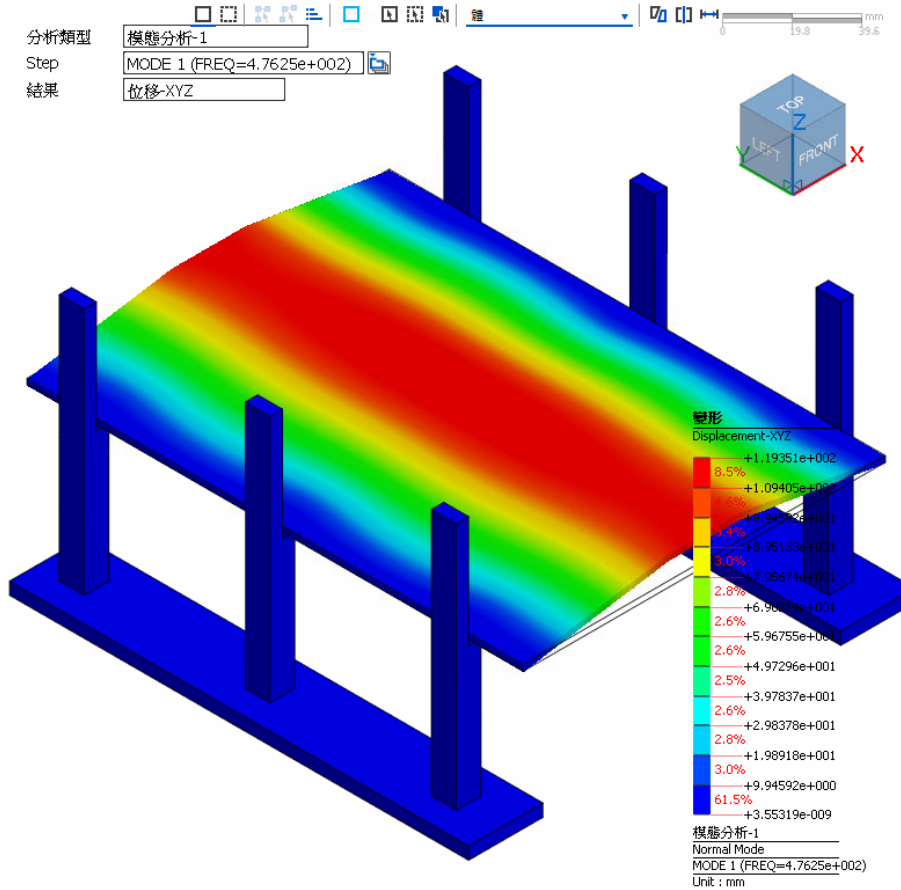
EX4. 支架

Simple, but Everything.



未施加載荷 模態1: $4.7625 \times 10^2 \text{ Hz}$

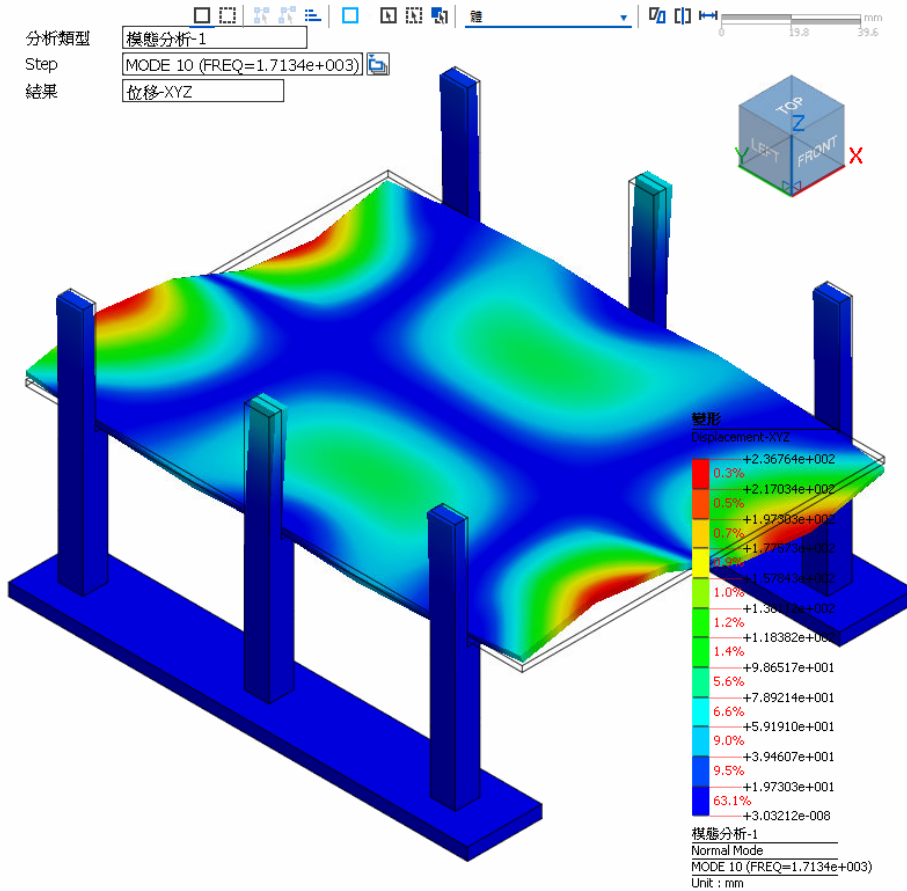
施加載荷 模態1: $7.009 \times 10^2 \text{ Hz}$



振型相似但頻率差異很大

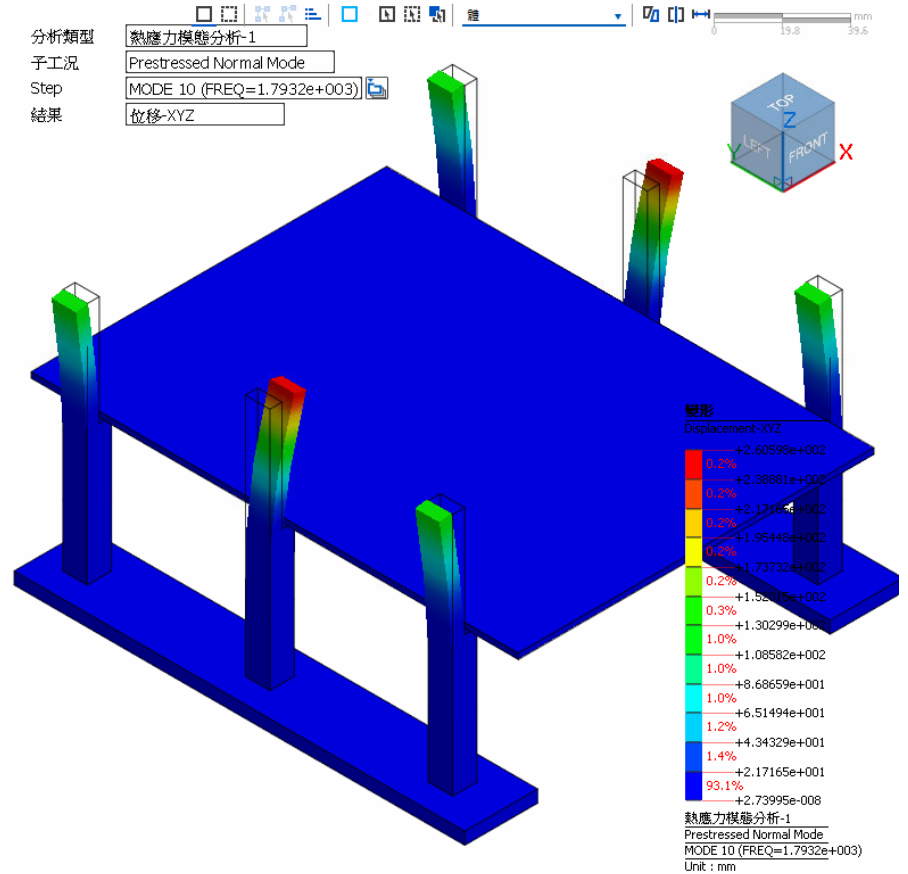
未施加載荷

模態10: $1.7134 \times 10^3 \text{ Hz}$



施加載荷

模態10: $1.79332 \times 10^3 \text{ Hz}$



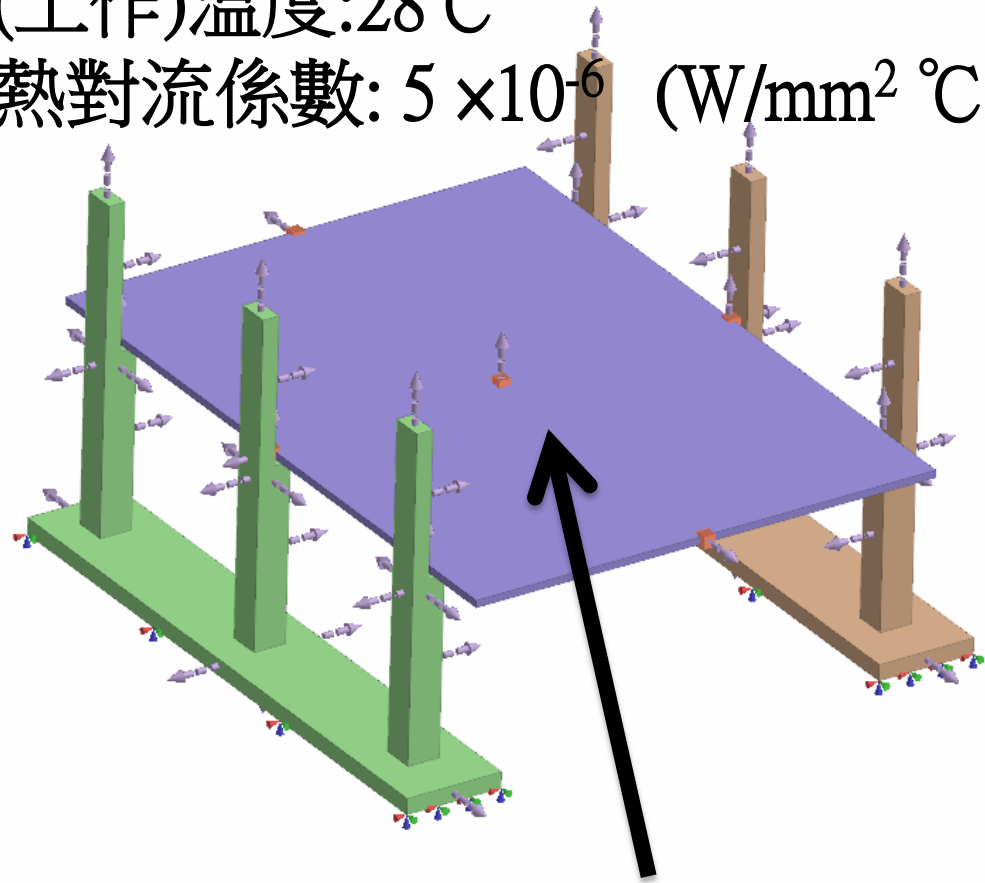
振型和頻率差異很大



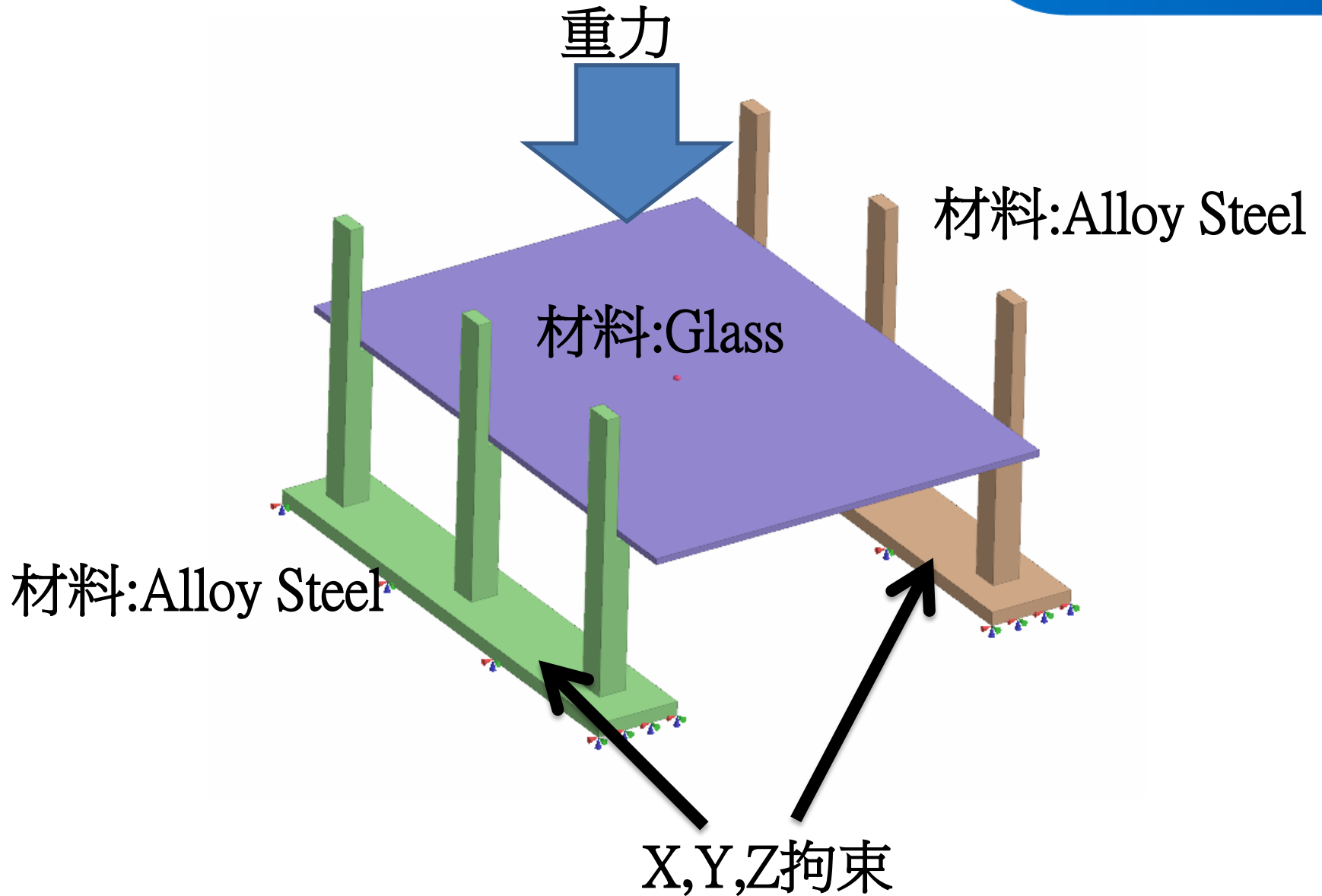
初始溫度:25 °C

環境(工作)溫度:28°C

空氣熱對流係數: 5×10^{-6} (W/mm² °C)



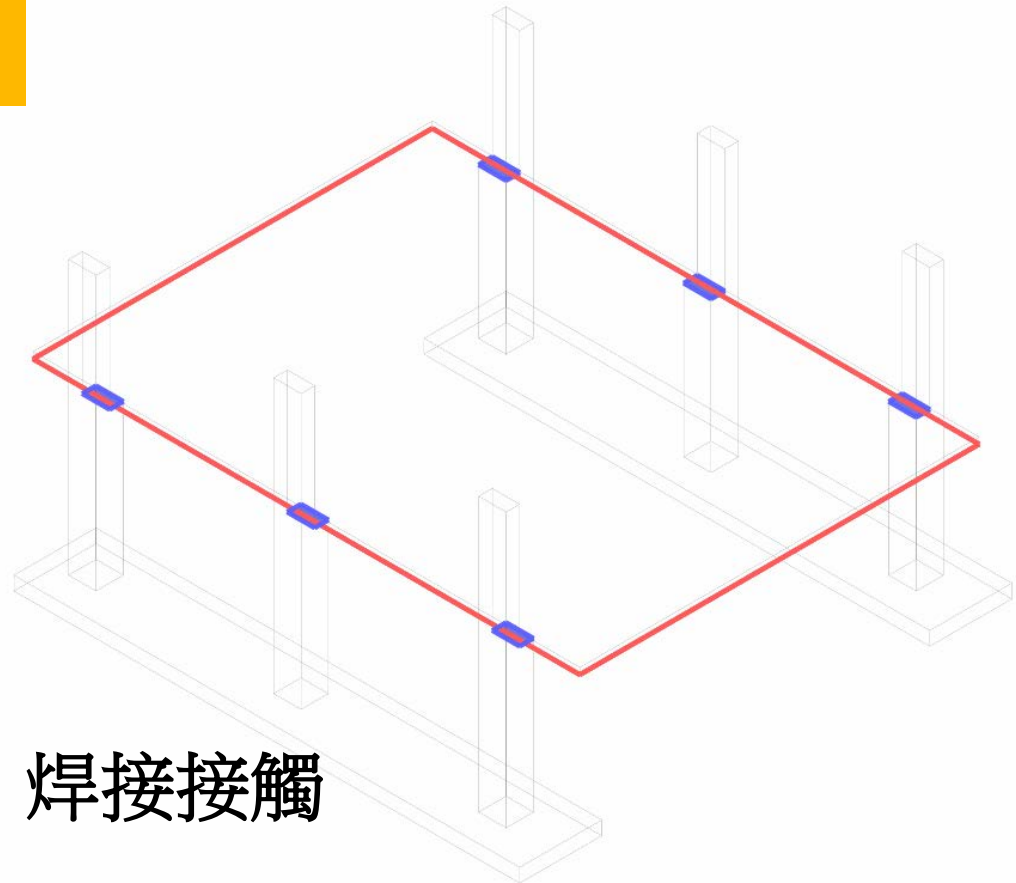
熱源:0.0001Watt/mm³



☑ ☑ 接觸(2)

☑ ☑ Open CASCADE.. 焊接

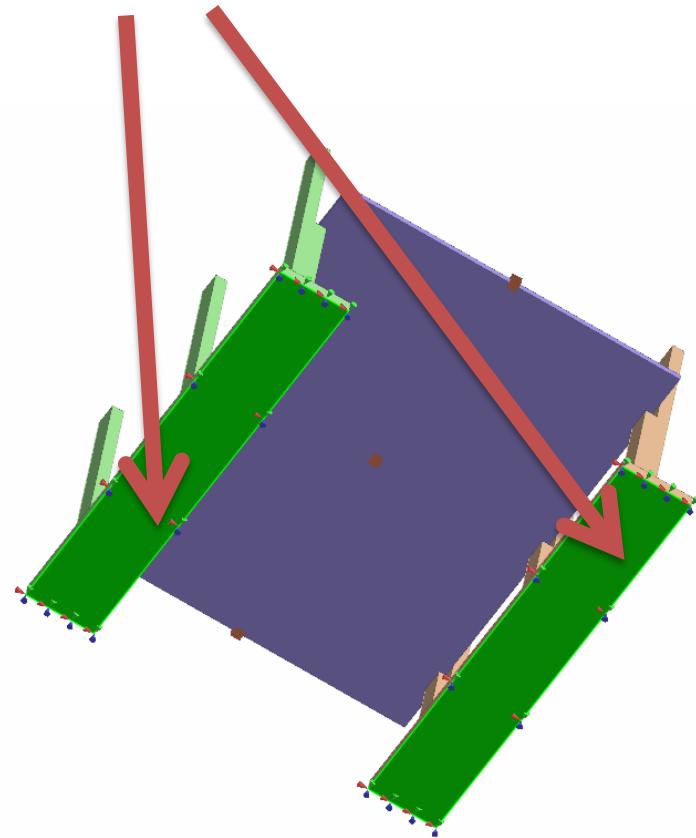
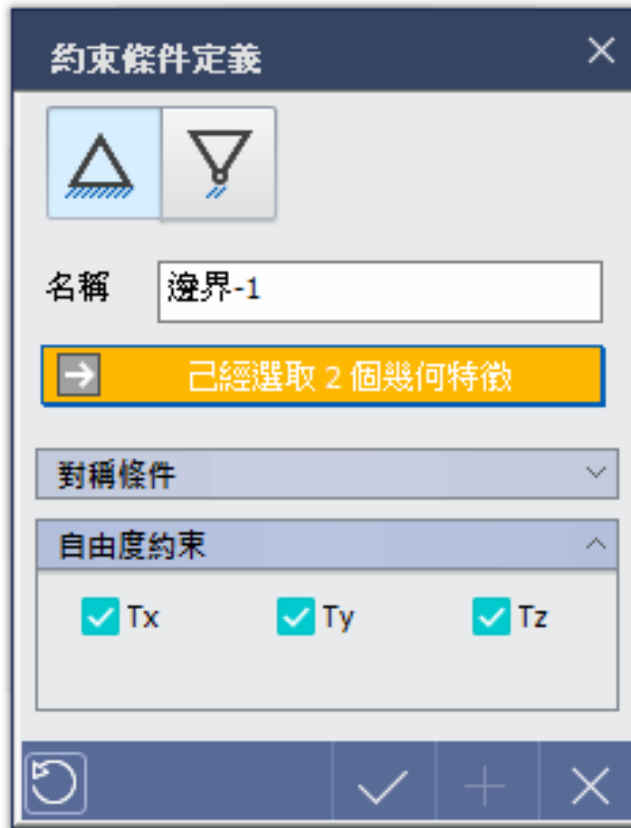
☑ ☑ Open CASCADE.. 焊接



焊接接觸



拘束(X,Y,Z)





重力
✕

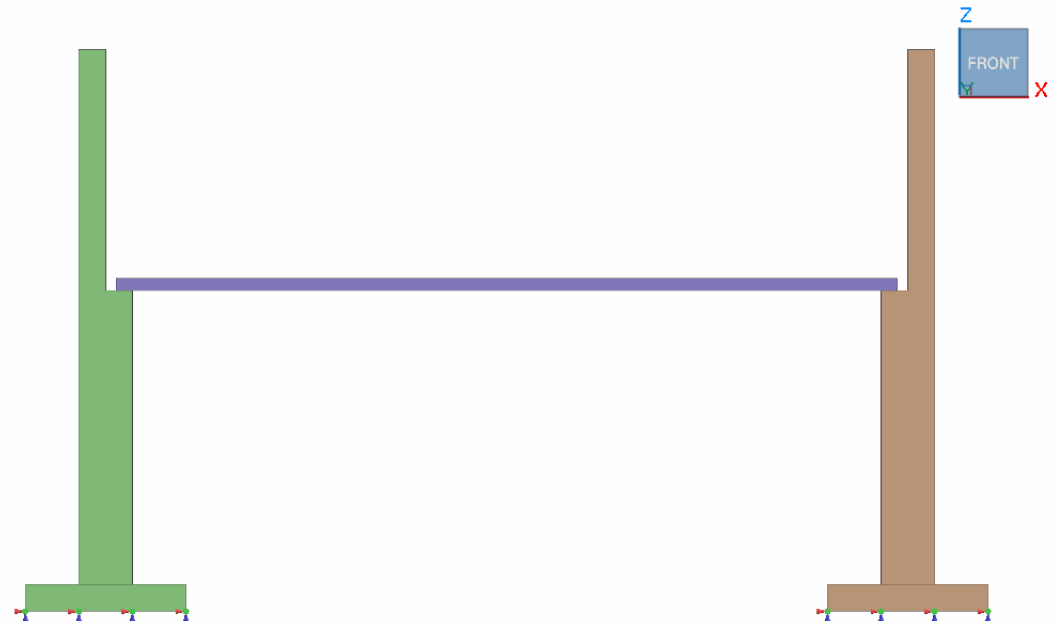
名稱

比例因子 ^

Gx	<input style="width: 80%;" type="text" value="0"/>	mm/sec ²
Gy	<input style="width: 80%;" type="text" value="0"/>	mm/sec ²
Gz	<input style="width: 80%;" type="text" value="-9806"/>	mm/sec ²

↻
✓
+
✕

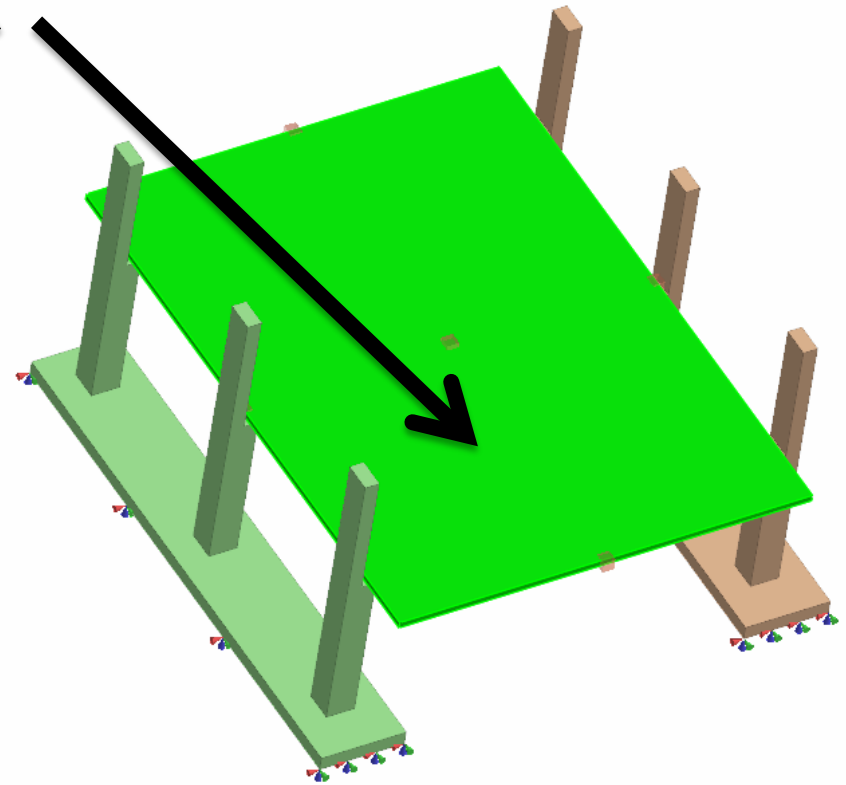
Z方向-重力





載荷

Step1. 選擇面板幾何



Step2. 熱源 0.0001 W/mm^3



載荷

Step1. 選擇所有特徵面

熱對流 [X]

名稱 熱對流-1

→ 已經選取 60 個幾何特徵

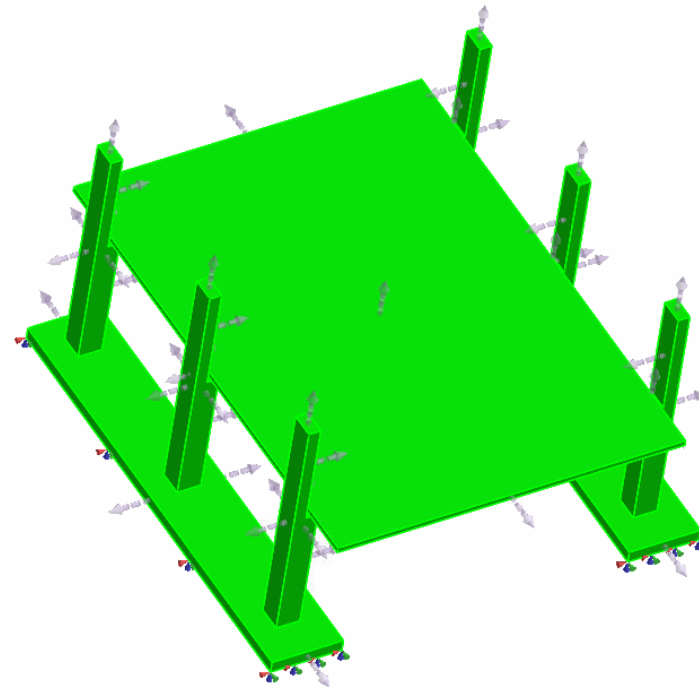
環境溫度 ^

數值 28 [°C]

熱對流係數 ^

數值 5e-006 W/(mm²·[°C])

[Refresh] [OK] [Add] [Close]

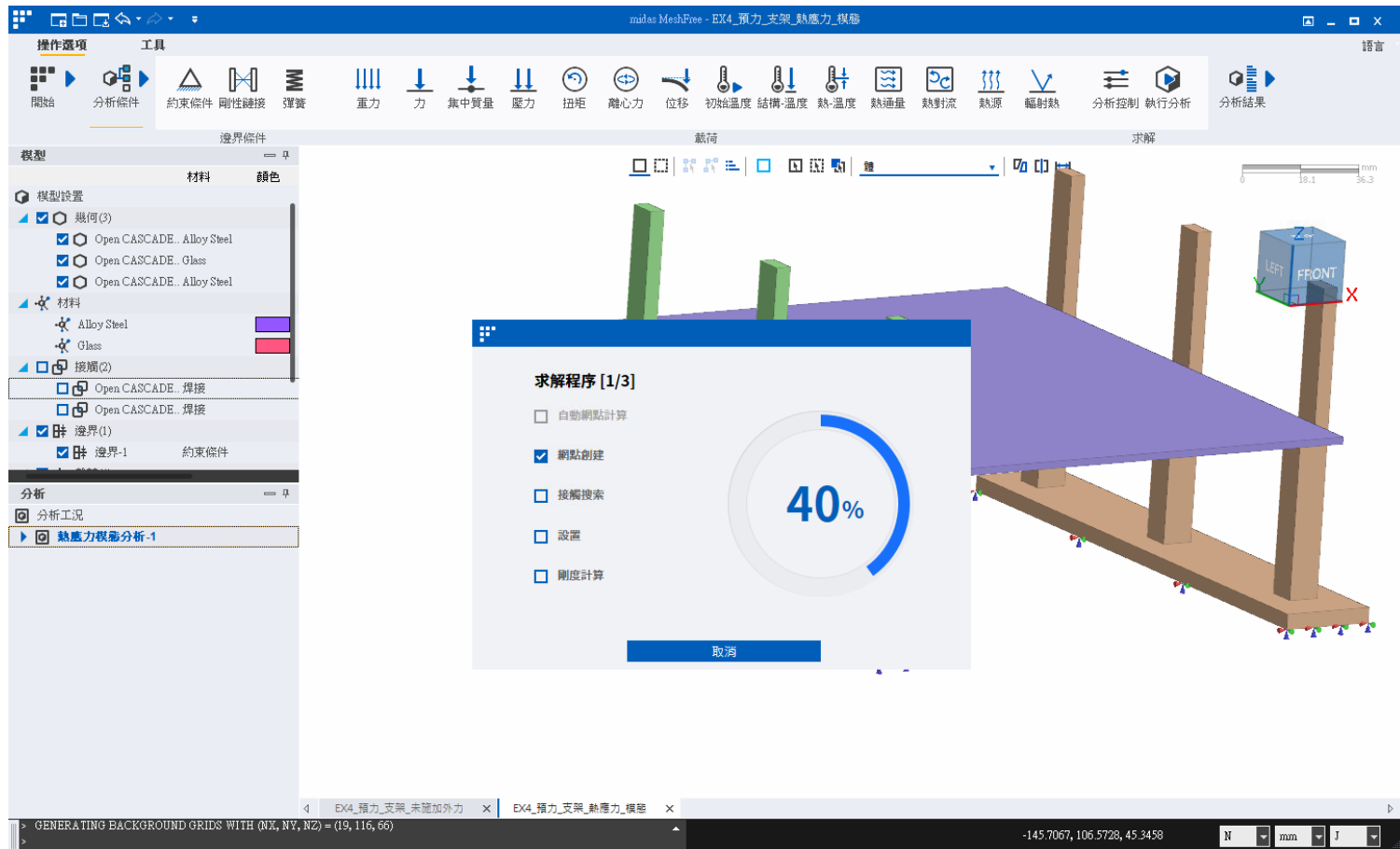


Step2.

環境(工作)溫度: 28°C

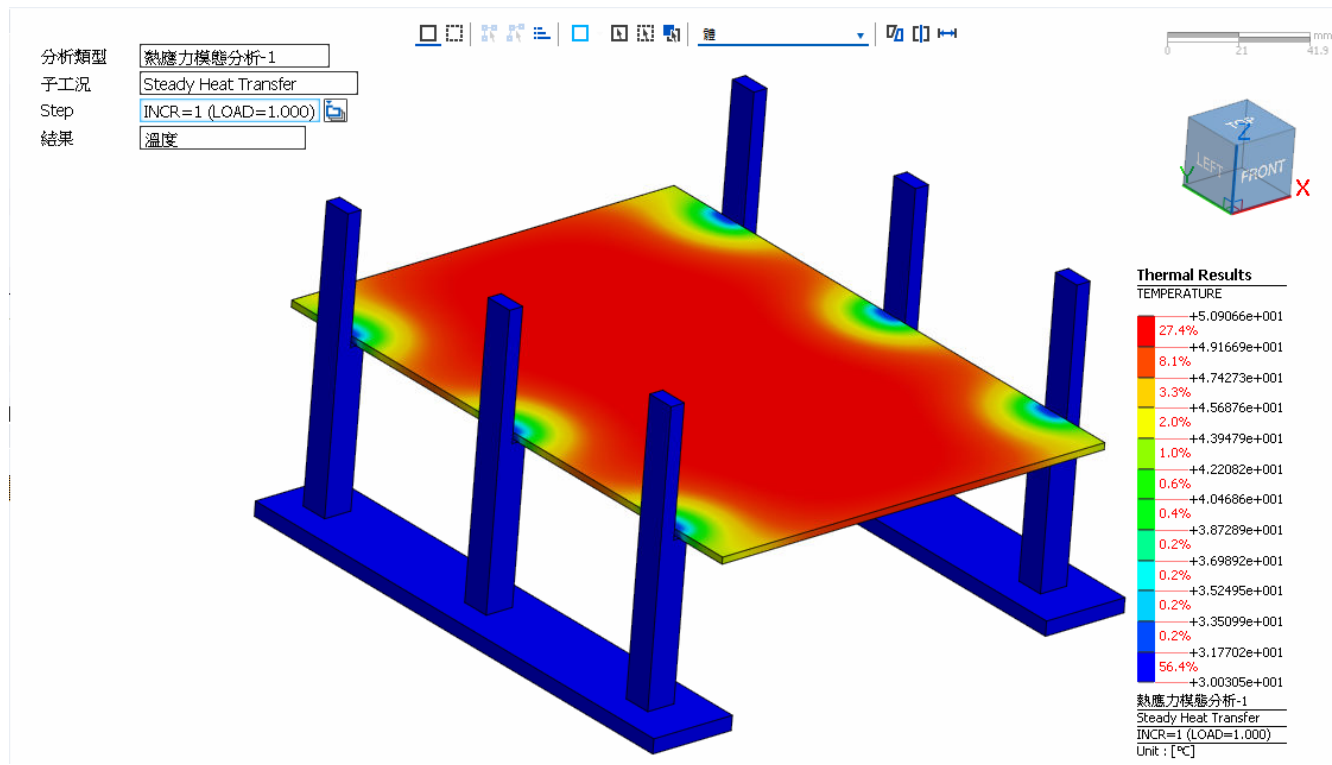
空氣熱對流係數: 5×10^{-6} (W/mm² °C)

執行分析



分析類型	熱應力模態分析-1
子工況	Steady Heat Transfer
Step	INCR=1 (LOAD=1.000)
結果	溫度

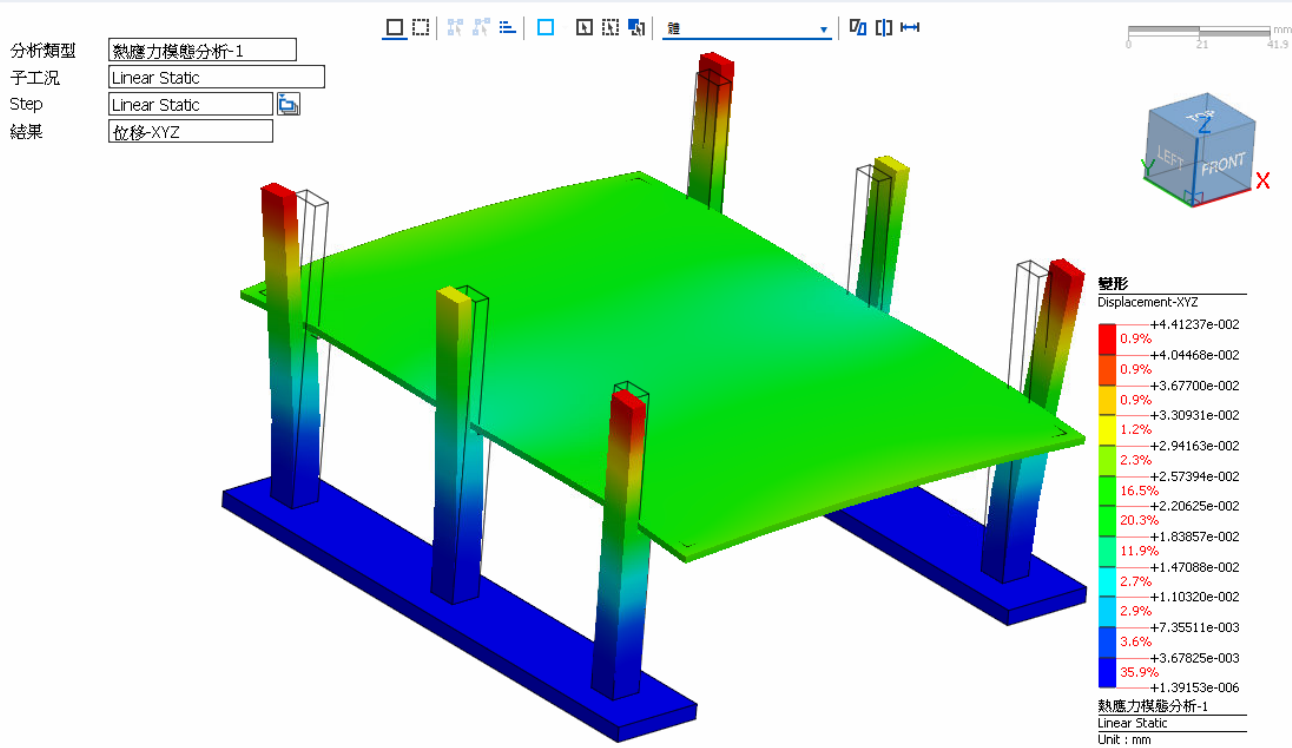
子工況: 選取Steady Heat Transfer



溫度

分析類型	熱應力模態分析-1
子工況	Linear Static
Step	Linear Static 
結果	位移-XYZ

← 子工況: 選取Linear Static



變形(mm)

分析類型

熱應力模態分析-1

子工況

Prestressed Normal Mode

Step

MODE 10 (FREQ=1.7932e+003)

結果

位移-XYZ

子工況: 選擇Pre-stressed Normal Model

Step: 選擇各模態

