



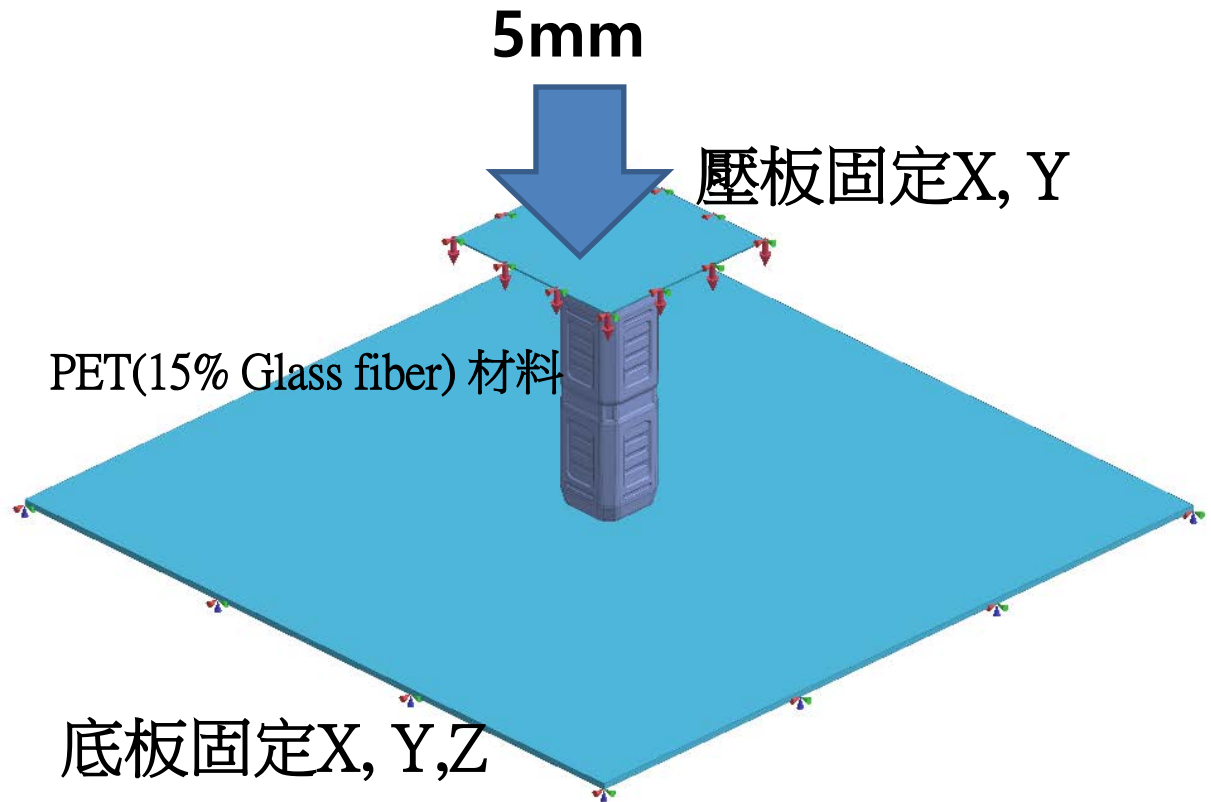
MIDAS

MESH FREE

寶特瓶_強制位移下壓
(非線性分析/反力計算)

Simple, but Everything.



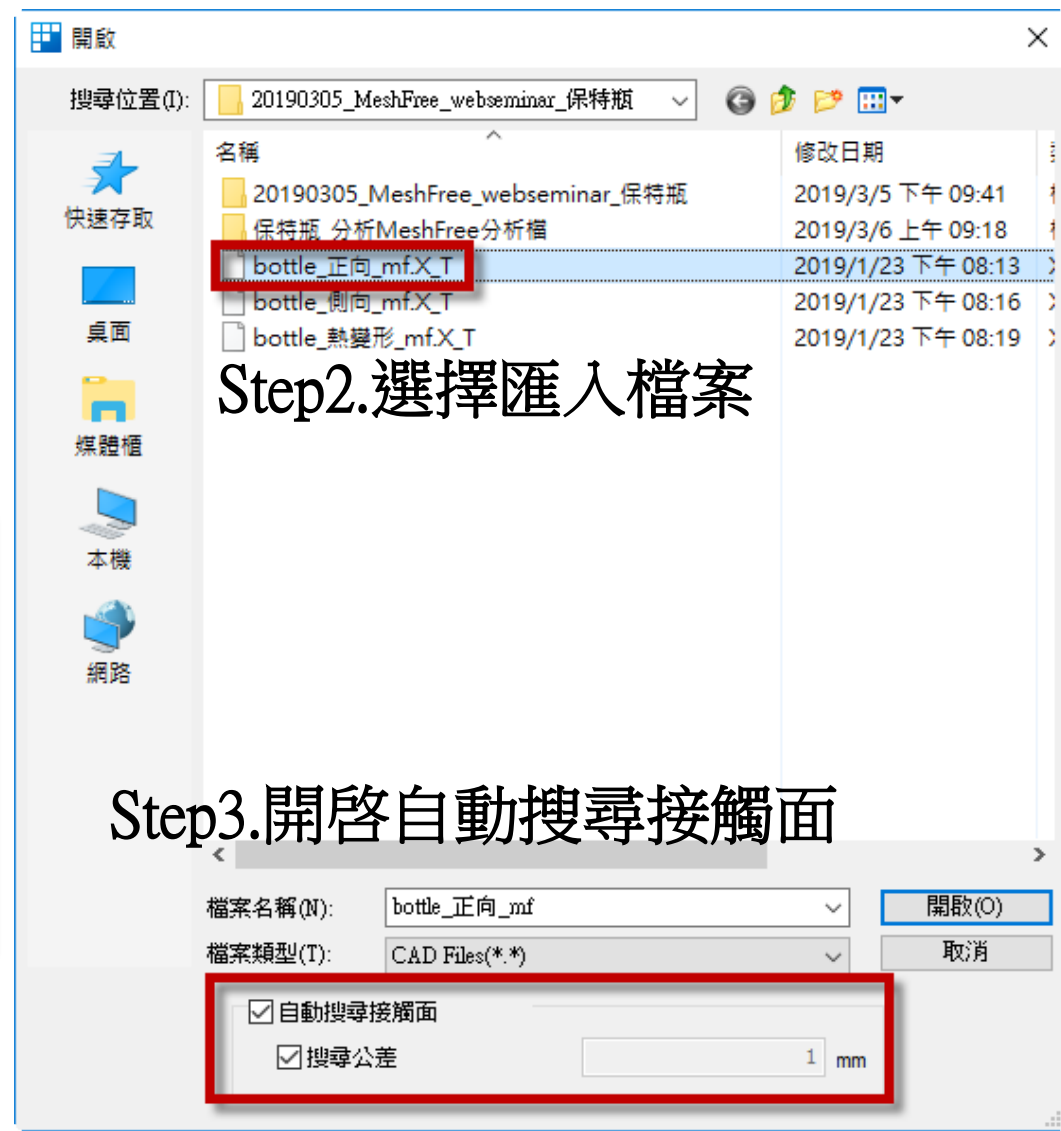




Step1.匯入3D 模型

MeshFree支援各類CAD 格式

- Parasolid (9 - 29) Files (*.x_t;*.xmt_txt;*.x_b;*.xmt_bin)
- ACIS (R1 - 2017 1.0) Files (*.sat;*.sab;*.asat;*.asab)
- STEP (AP203, AP214, AP242) Files (*.stp;*.step)
- IGES (Up to 5.3) Files (*.igs;*.iges)
- Pro-E (16 - Creo 3.0) Files (*.prt;*.prt.*;*.asm;*.asm.*)
- CATIA V4 (CATIA 4.1.9 - 4.2.4) Files (*.model;*.exp;*.session)
- CATIA V5 (V5R8 - V5-6R2016) Files (*.CATPart;*.CATProduct)
- Solid Works (98 - 2017) Files (*.sldprt;*.sldasm)
- Unigraphics (11 - NX11) Files (*.prt)
- Inventor Part (V6 - V2017) Files (*.ipt)
- Inventor Assembly (V11 - V2017) Files (*.iam)
- Solid Edge (V18 - ST9) Files (*.par;*.asm;*.psm)




Step2.選擇匯入檔案

Step3.開啓自動搜尋接觸面

新增PET(15% Glass fiber) 材料

材料定義

名稱: PET (15 Glass fiber) 顏色: 

類別: Plastics

- ABS
- ABS PC
- ABS-GF
- Acrylic
- Acrylic (Medium-high impact)
- EPDM
- Epoxy
- Gypsum bonded particleboard, par
- Gypsum bonded particleboard, per
- MGR
- Nylon
- Nylon 6/10
- PA Type 6
- PBT General Purpose
- PC
- PC High Viscosity
- PCB
- P-Cu
- PDMS (Polydimethylsiloxane)
- PE High Density
- PE Low/Medium Density
- PET (15% Glass fiber)**
- PET (33% Glass fiber)
- PET (unfilled, amorphous)
- PMMA
- Polycarbonate
- Polycarbonate-GF
- Polyethylene

載入 編輯

線性 彈塑性

結構

彈性模量	5710	N/mm ²
泊松比	0.3735	
質量密度	1.33e-006	kg/mm ³
屈服應力	0	N/mm ²

熱膨脹

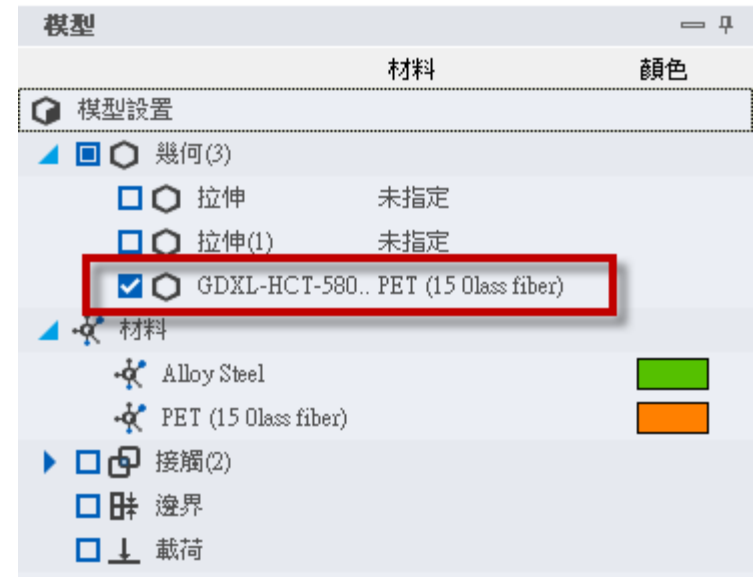
熱膨脹係數	3.1e-005	
參考溫度	0	[°C]

熱

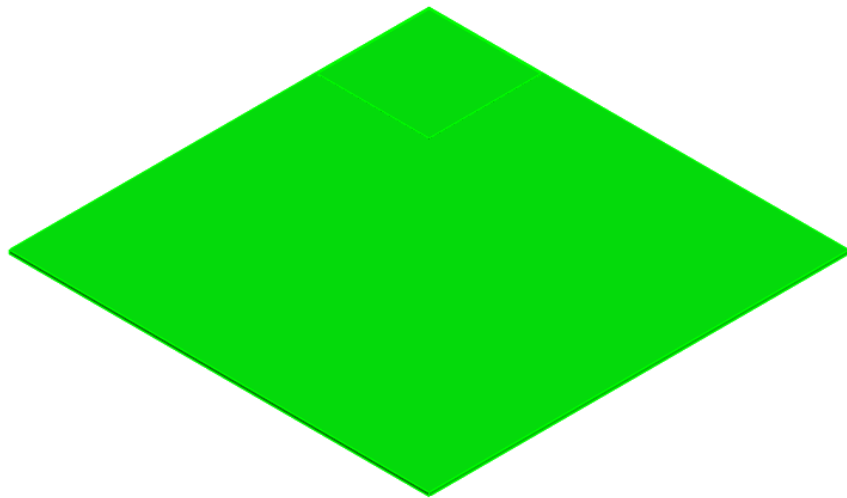
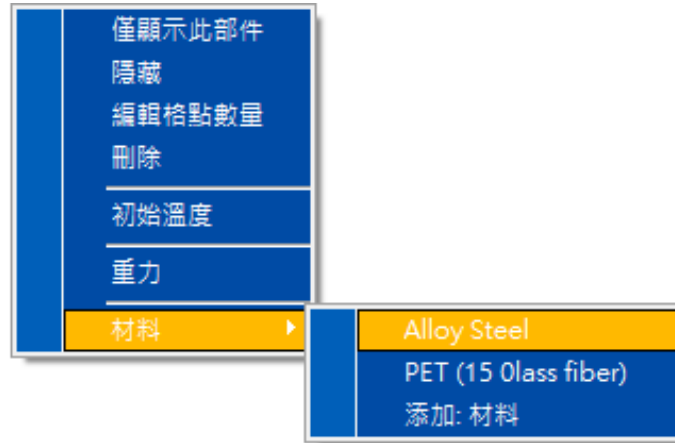
熱傳導係數	0.00038	W/(mm·[°C])
比熱	1460	J/(kg·[°C])
發熱係數	1	



滑鼠右鍵,材料定義



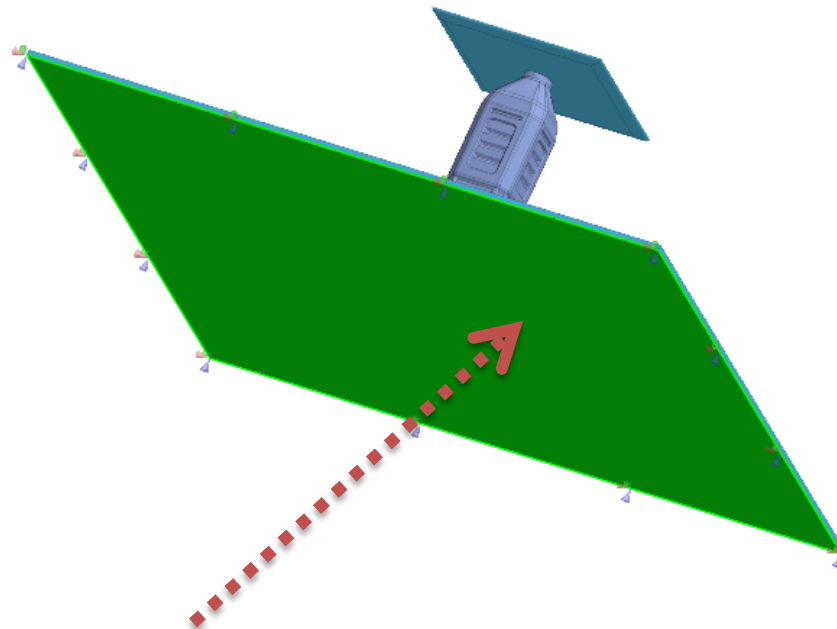
模型樹顯示指定材料



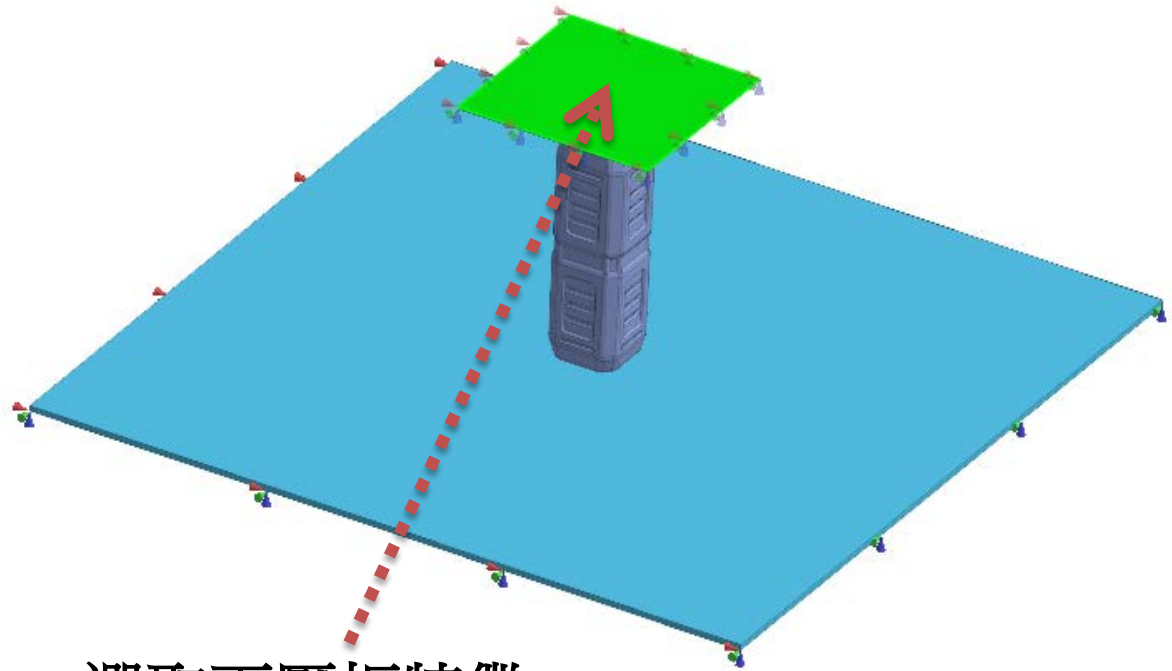
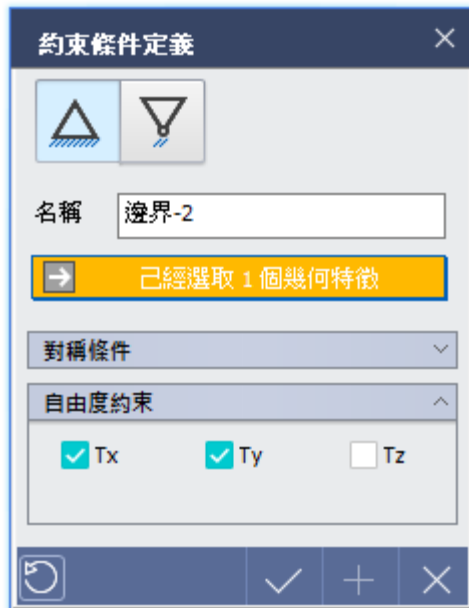
滑鼠右鍵,材料定義



模型樹顯示指定材料



選取底板特徵
拘束(TX/TY/TZ)



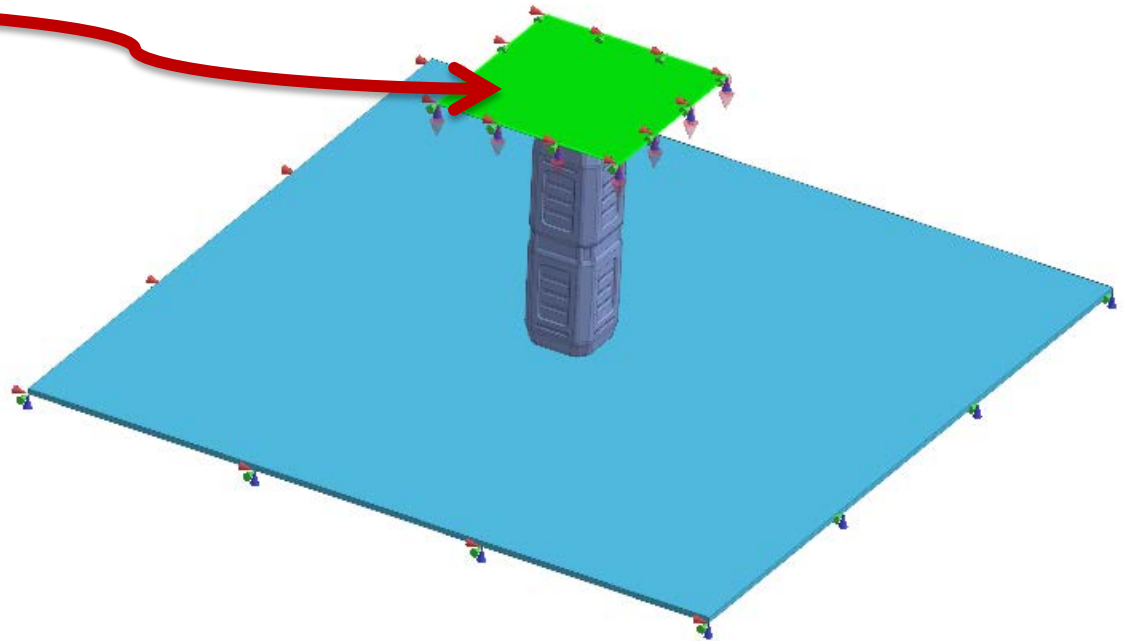
選取下壓板特徵
拘束(TX/TY)



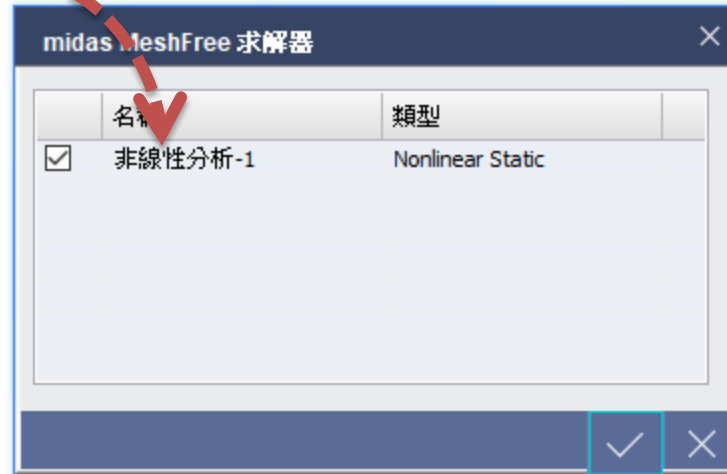
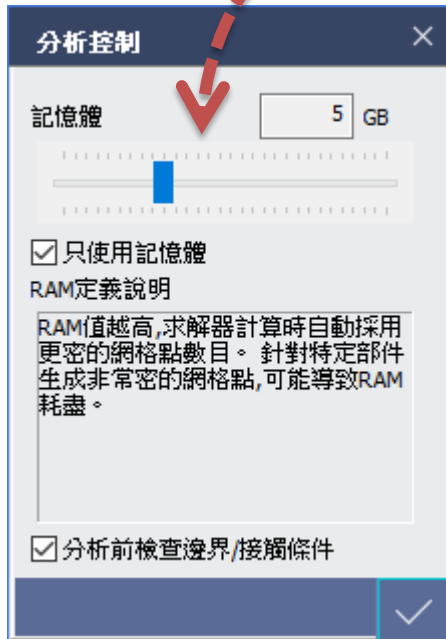
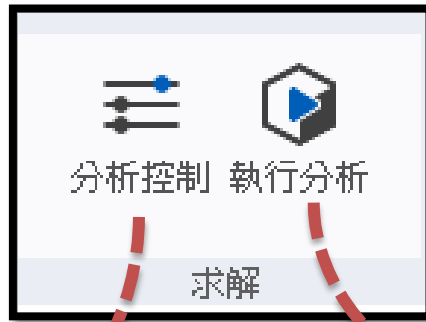
載荷



選擇下壓板特徵



下壓10mm



記憶體大小

- 1.計算速度
- 2.分析準確性

midas MeshFree - 保特爾_強制位移下壓

操作選項 工具

開始 分析條件 約束條件 剛性連接 運算 重力 力 集中質量 壓力 扭矩 離心力 位移 初始溫度 結構溫度 分析控制 執行分析 分析結果

邊界條件 載荷 求解

模型 材料 顏色

模型設置

- 幾何(3)
- 材料
 - Alloy Steel
 - PET (1.5 Glass fiber)
- 接觸(2)
- 邊界(2)
- 載荷(1)

分析

分析工況

- 非線性分析-1
 - 分析工況控制
 - 模型(3)
 - 接觸(2)
 - 邊界(2)
 - 載荷(1)

求解程序 [1/1]

- 自動網點計算
- 網點創建
- 接觸搜索
- 設置
- 迭代計算

80%

取消

Maximum Displacement vs. Load Scale Factor

Load Scale Factor	Maximum Displacement
0.00e+000	0.00e+000
0.25e+000	-1.82e+000
0.50e+000	-3.64e+000
0.75e+000	-5.46e+000
1.00e+000	-7.28e+000

Maximum Rotation vs. Load Scale Factor

Load Scale Factor	Maximum Rotation
0.00e+000	0.00e+000
0.25e+000	0.00e+000
0.50e+000	0.00e+000
0.75e+000	0.00e+000
1.00e+000	0.00e+000

MAXIMUM TRANSLATION = 7.2874E+000(13.375437), MAXIMUM ROTATION = 0.0000E+000(0.330)

INCREMENT = 7 (70.00%), ITERATION = 0, ERROR NORMS: P(1.00E+000/1.0E-003) W(1.75E-003/1.0E-006)

-367.8315, 188.7483, -245.1051

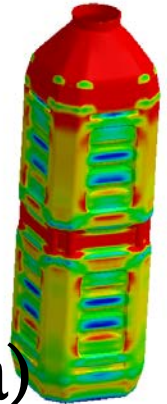
mm



變形量(mm)



分析類型: 非線性分析-1
Step: (INCR=10 (LOAD=1.000))
結果: STRESS VON MISES



應力(MPa)





查詢



反力

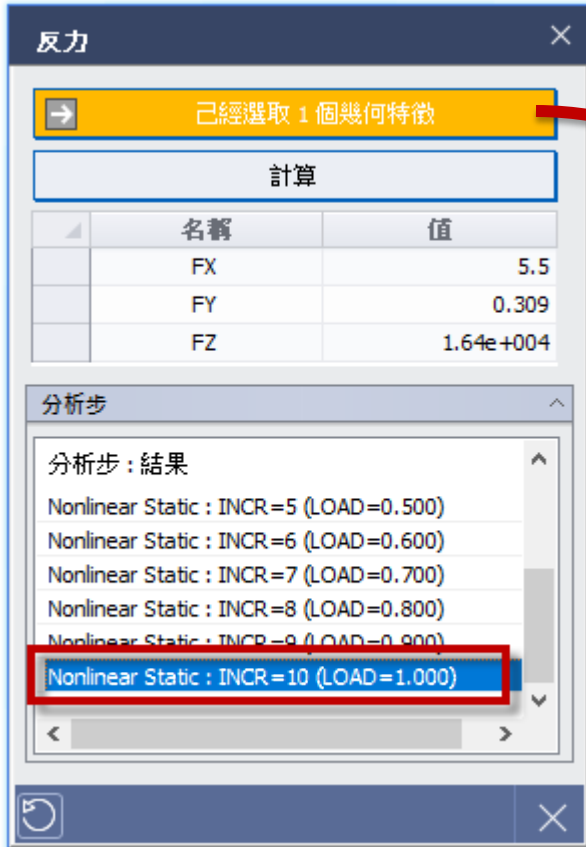


曲線結果

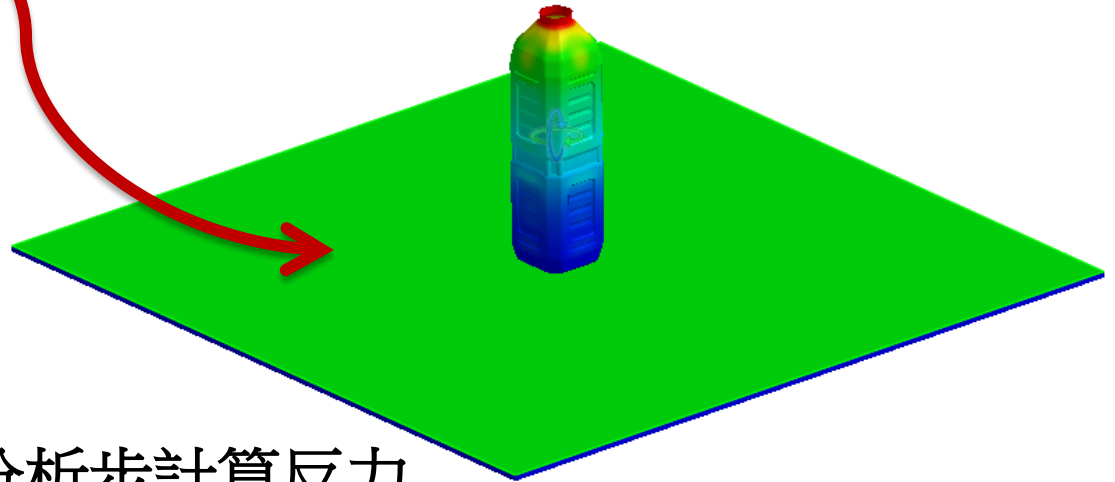


結果檔

分析結果



選取底板特徵



選擇分析步計算反力