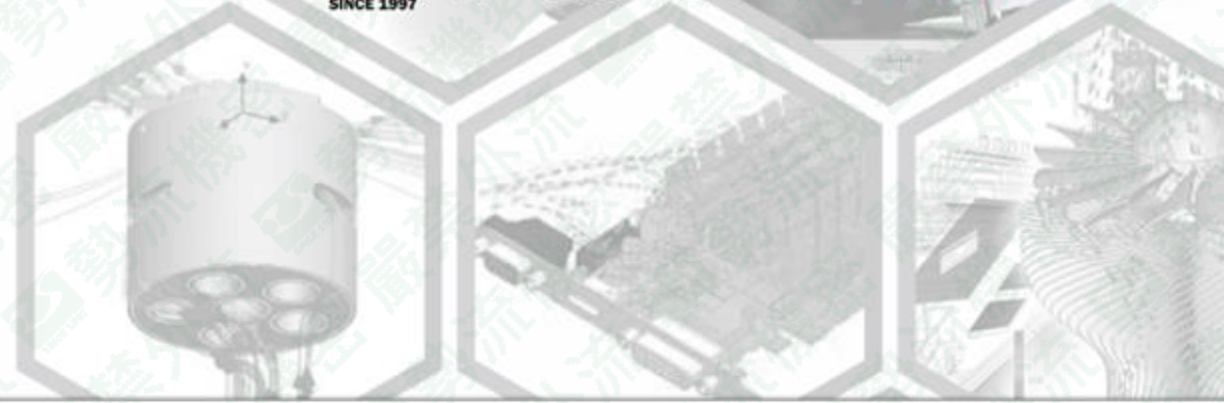




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如何查看 Command Center 文件數據



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Introduction

• Challenge:

- 使用者在Flotherm 的 Command Center求解後，不開啟軟體狀況下查看數據
- Command Center求解後，如何確認結果檔文件儲存位置
- Command Center求解後，如何應用結果檔文件判別資料內容

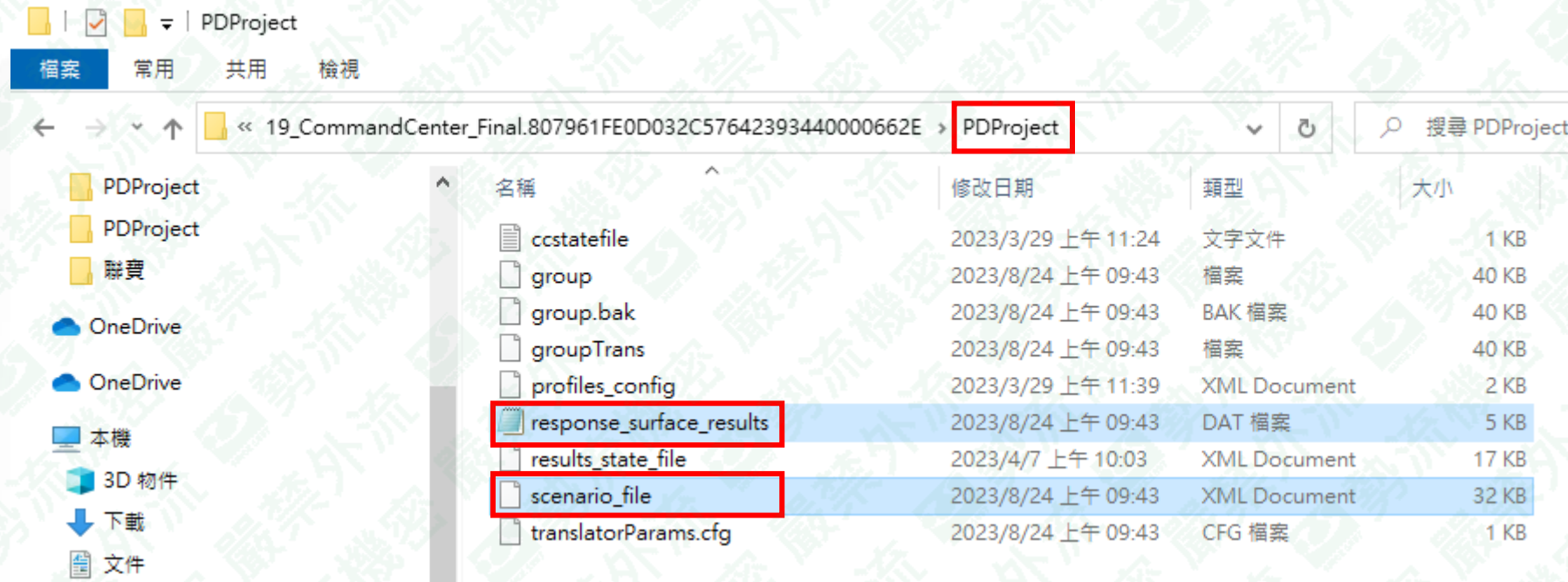
• Solution:

Command Center求解後，在存檔位置可以找到response_surface_results、scenario_file，可查看設定參數與最佳參數。



設定方式

- 在存檔位置下找到(PDProject)選單，選取response_surface_results、scenario_file，內部可以看到Command Center求解設定與最佳化結果。



測試結果

- Command Center求解後開啟response_surface_results - 記事本

- 各參數範圍、求解後參數範圍內數據(最大、最小)
- 最佳化參數



	Base Project	Design 1	Design 2	Design 3	Design 4	Design 5	Design 6	Design 7	Design 8	Design 9	Design 10	RSO Design-11
U1[CBGAFC_27x27mm_2R] : Junction Power (W)	5	0.44444444	1.11111111	0	0.22222222	2	1.33333333	1.55555556	1.77777778	0.66666667	0.88888889	0
Heatsink : Internal Fin Height (mm)	8	9.11111111	6.88888889	6.44444444	8.22222222	7.33333333	6	9.55555556	8.66666667	10	7.77777778	10
GR-U1 [CBGAFC_27x27mm_2R] : Absolute Size Z (mm)	14.36	15.471111	13.24889	12.80444	14.58222	13.69333	12.36	15.91556	15.02667	16.36	14.13778	16.36
GR-50x50 voucher : Absolute Size Z (mm)	15.96	17.07111	14.84889	14.40444	16.18222	15.29333	13.96	17.51556	16.62667	17.96	15.73778	17.96
MB_Power : Conduction Total Power (W)	3	0.44444444	0	1.7777778	4	1.3333333	3.1111111	0.8888889	3.5555556	2.6666667	2.2222222	0
Solution Status	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...
Store Results?	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
Initialize From	No Project	Base Project	Base Project	Base Project	Base Project	Base Project	Base Project	Base Project	Base Project	Base Project	Base Project	Base Project
Motherboard : Maximum Temperature (°C)	91.8	44.8	49.4	51.4	66.9	64.2	67.6	57.7	71.3	60.5	59.2	35.1
U1[Case_Temperature] : Temperature (°C)	94.6	45.1	50.8	47.4	58.7	65.6	67	58.7	70.6	57.2	58.4	35.1
Cost Function	140	67.5	75.5	73.1	92.2	97.7	101	87.6	106	87.4	88	52.6

response_surface_results - 記事本

檔案(F) 編輯(E) 格式(O) 檢視(V) 說明

0

Design values:

```

junctionPower;finHeight;totalPower;
5.0000000000      8.0000003800      3.0000000000
0.4444444444      9.1111111111      0.4444444444
1.1111111111      6.8888888889      0.0000000000
0.0000000000      6.4444444444      1.7777777778
0.2222222222      8.2222222222      4.0000000000
2.0000000000      7.3333333333      1.3333333333
1.3333333333      6.0000000000      3.1111111111
1.5555555556      9.5555555556      0.8888888889
1.7777777778      8.6666666667      3.5555555556
0.6666666667      10.0000000000     2.6666666667
0.8888888889      7.7777777778     2.2222222222
0.0000000000      10.0000000000     0.0000000000
    
```

Bounds

```

junctionPower;      0.0000000;      2.0000000 (1)
finHeight;          6.0000000;      10.0000000
totalPower;         0.0000000;      4.0000000
maximumTemperature_0; 35.053707;      91.783737
temperature_1;      35.060215;      94.572151
Cost Function;      52.587069;      140.46402
    
```

Optimum Values

```

junctionPower;      0.0000000 (2)
finHeight;          10.0000000
totalPower;         0.0000000
    
```



測試結果

- Command Center求解後開啟scenario_file - 記事本
- (a)初始條件、(b)case名稱、(c)是否為最佳化參數、(d)是否收斂、(e)是否儲存結果

	Base Project	Design 1	Design 2	Design 3	Design 4	Design 5	Design 6	Design 7	Design 8	Design 9	Design 10	SO Step-1
U1[CBGAFC_27x27mm_2R] : Junction Power (W)	5	0.4444444	1.111111	0	0.2222222	2	1.333333	1.555556	1.777778	0.6666667	0.8888889	0.2444444
Heatsink : Internal Fin Height (mm)	8	9.111111	6.888889	6.444444	8.222222	7.333333	6	9.555556	8.666667	10	7.777778	9.511111
GR-U1 [CBGAFC_27x27mm_2R] : Absolute Size Z (mm)	14.36	15.47111	13.24889	12.80444	14.58222	13.69333	12.36	15.91556	15.02667	16.36	14.13778	15.87111
GR-50x50 voucher : Absolute Size Z (mm)	15.96	17.07111	14.84889	14.40444	16.18222	15.29333	13.96	17.51556	16.62667	17.96	15.73778	17.47111
MB_Power : Conduction Total Power (W)	3	0.4444444	0	1.777778	4	1.333333	3.111111	0.8888889	3.555556	2.666667	2.222222	0.04444444
Solution Status	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Steady State ...	Good Enough
Store Results?	Full	History Only	History Only	History Only	History Only	History Only	History Only	History Only	History Only	History Only	History Only	Full
Initialize From	No Project	Base Project	Base Project	Base Project	Base Project	Base Project	Base Project	Base Project	Base Project	Base Project	Base Project	Design 1
Motherboard : Maximum Temperature (°C)	91.8	44.8	49.4	51.4	67	64.2	67.6	57.7	71.3	60.5	59.3	39.5
U1[Case_Temperature] : Temperature (°C)	94.6	45.1	50.8	47.4	58.8	65.6	67	58.7	70.6	57.3	58.5	39.8
Cost Function	139	67.3	74.8	75.1	96.4	97	101	87	107	89.1	88.5	59.4

```

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  <scenario initialized_from="0" name="Design 9" optimum_state="notOptimum" state="steadyStateConverged" store_results="historyOnly"/>
  <scenario initialized_from="0" name="Design 10" optimum_state="notOptimum" state="steadyStateConverged" store_results="historyOnly"/>
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```



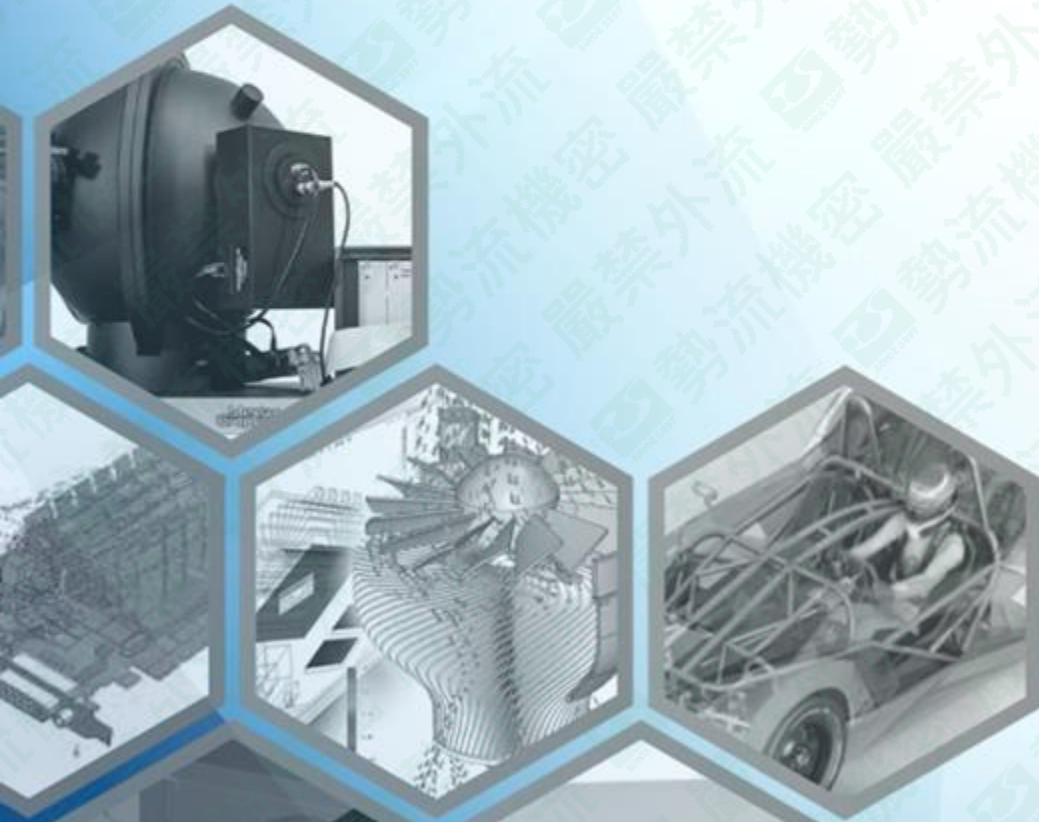
結論

1. 在存檔位置下找到 (PDProject) 選單，選取 response_surface_results、scenario_file，內部可以看到 Command Center 求解設定與最佳化結果
2. response_surface_results - 記事本可以看到
 - a) 參數設定
 - b) 各參數範圍、求解後參數範圍內數據(最大、最小)
 - c) 最佳化參數
3. scenario_file - 記事本
 - a) 初始條件
 - b) case 名稱
 - c) 是否為最佳化參數
 - d) 是否收斂
 - e) 是否儲存結果



The End

謝 謝



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