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STAR-CCM+ 2502 Design Manager 新功能介紹(下)



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STAR-CCM+ 2502版更新功能

• Challenge:

- Design Manager snapshots 資料過大，造成檔案管理及分享結果的困難度。
- Snapshot 中無法新增註解，較不方便理解。

• Solution:

- 提供資料壓縮功能減少專案檔案大小。
- Snapshot 中新增註解功能。

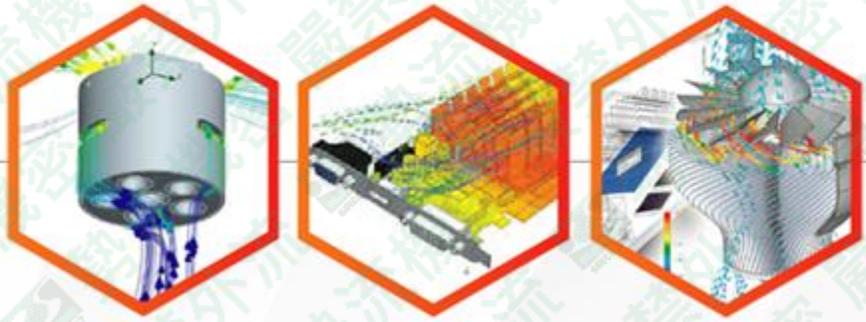
• Benefit:

- 減少專案檔案大小可快速且容易將結果分享。
- 快速設定完整的snapshot。





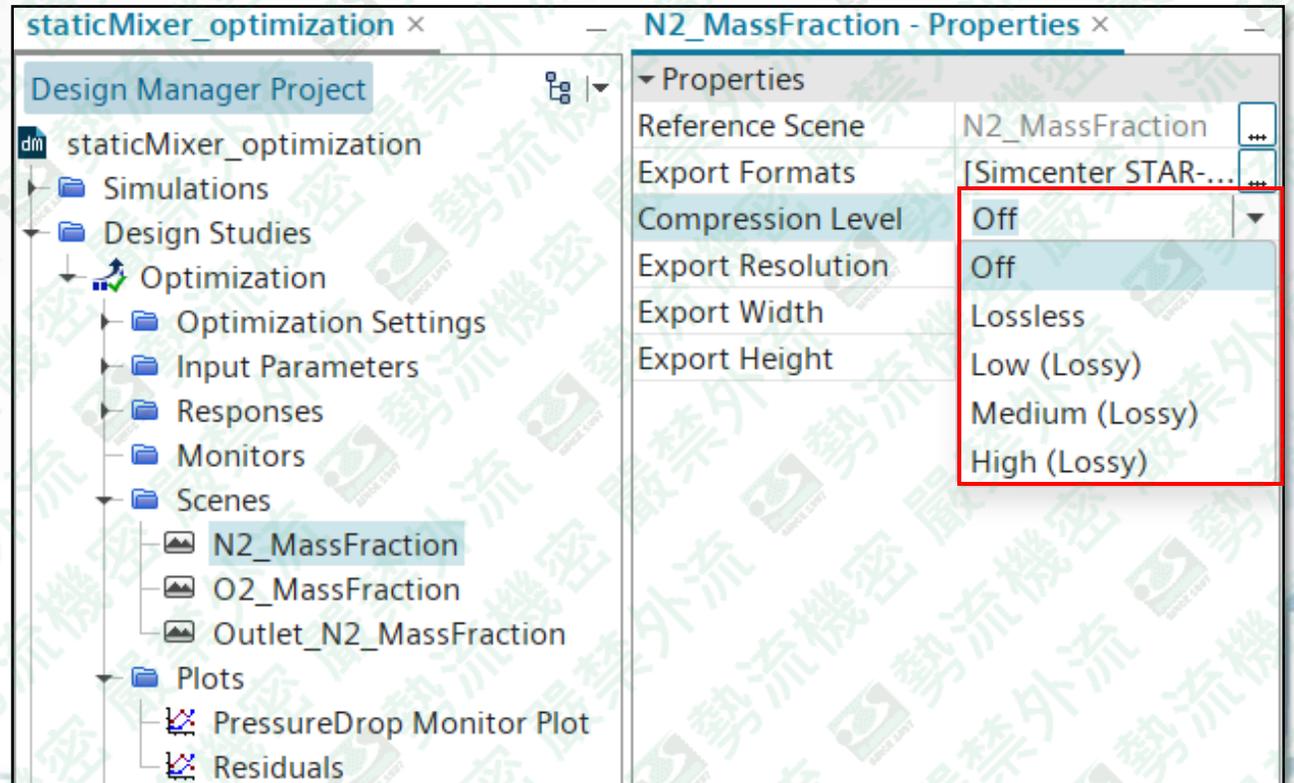
Design Manager snapshots 資料壓縮功能



Design Manager snapshots 資料壓縮功能介紹

將Design Manager snapshots 資料壓縮以增強資料管理

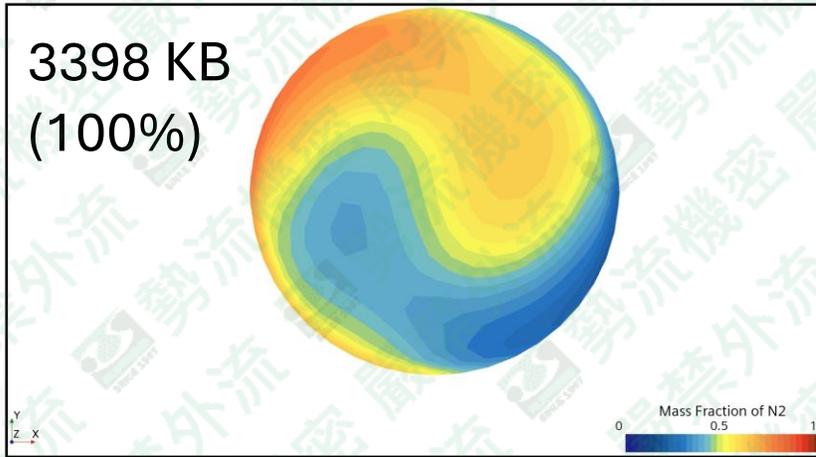
- 以資料壓縮減少專案檔案大小。
 - 無損壓縮：在不影響資料品質的前提下減少檔案大小。
 - 有損壓縮：Viewer檔中的資料會受到改變。
- 更快速且容易的結果分享。



Outlet_N2_MassFraction (出口截面氮氣(N₂)所佔的質量分率) :

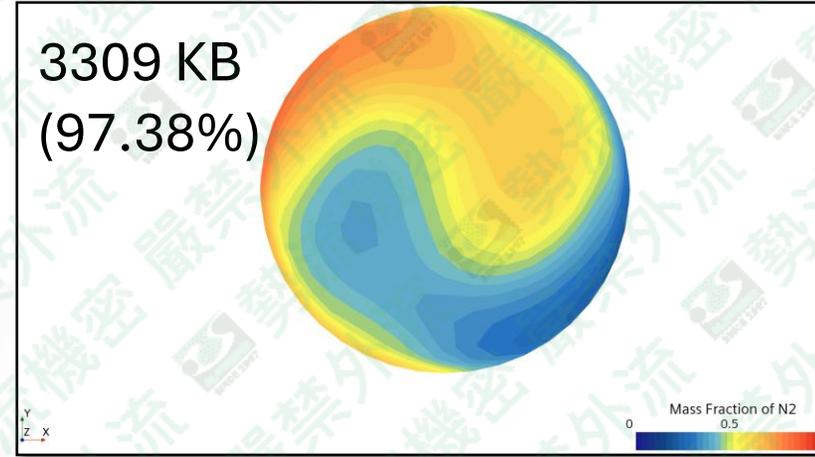
壓縮等級: Off

3398 KB
 (100%)



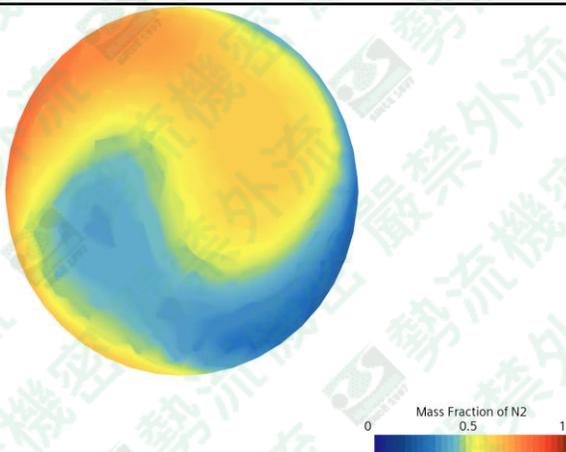
壓縮等級 : Lossless

3309 KB
 (97.38%)



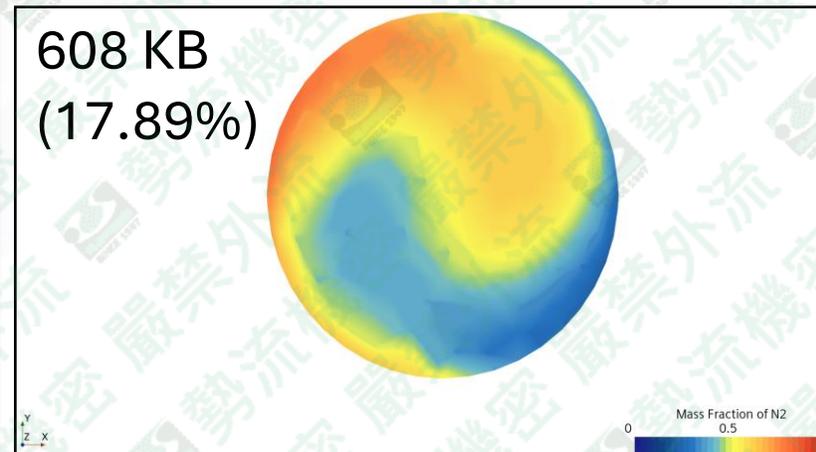
壓縮等級 : Low (Lossy)

653 KB
 (19.22%)



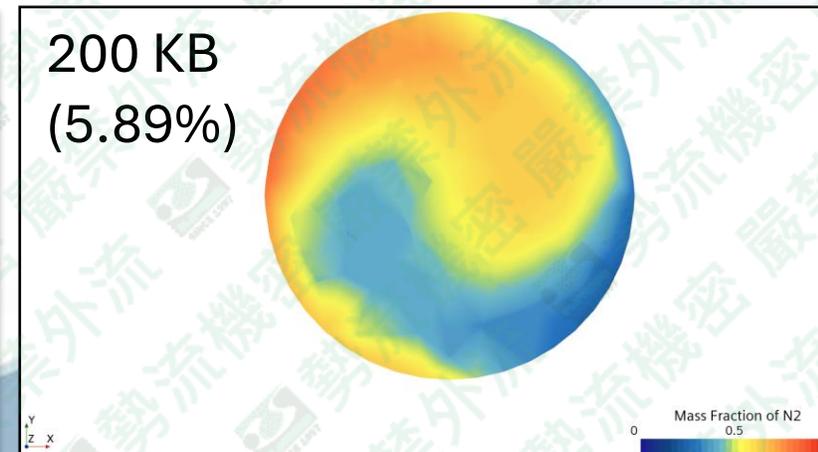
壓縮等級 : Medium (Lossy)

608 KB
 (17.89%)



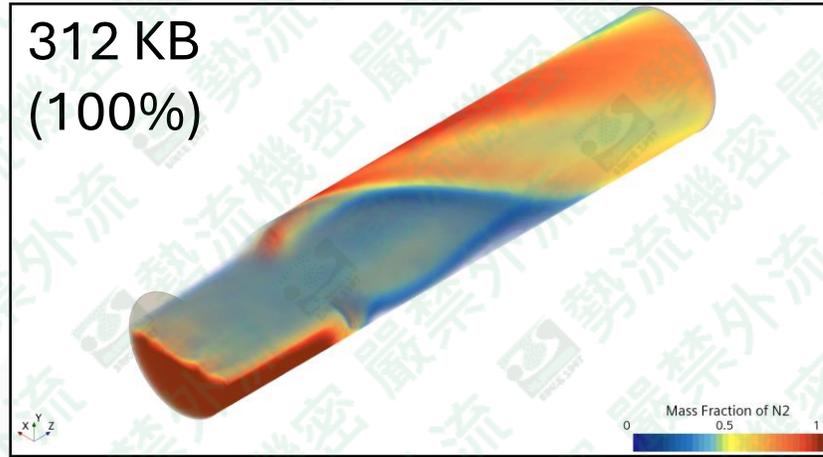
壓縮等級 : High (Lossy)

200 KB
 (5.89%)

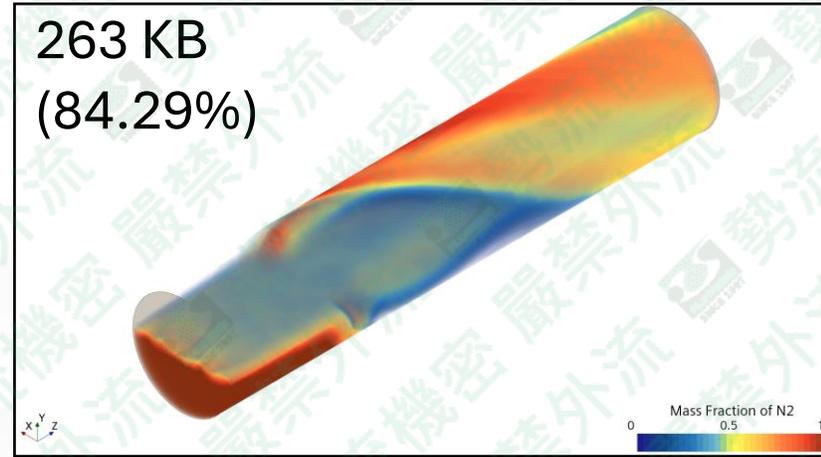


N2_MassFraction (管內氮氣(N₂)所佔的質量分率) :

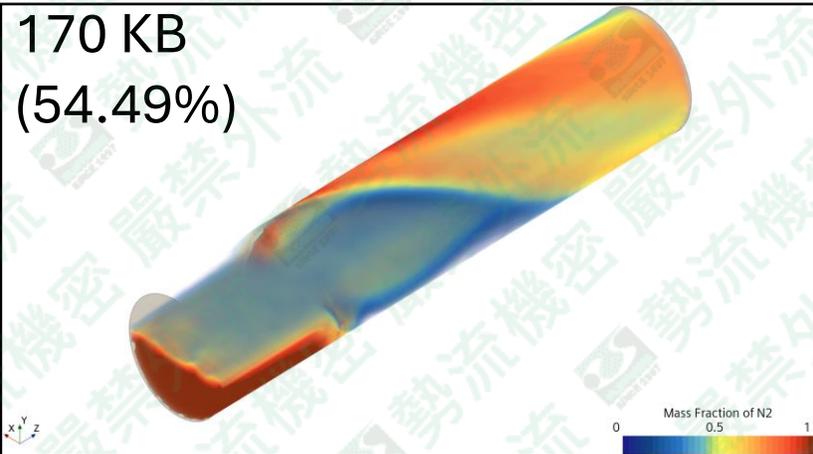
壓縮等級: Off



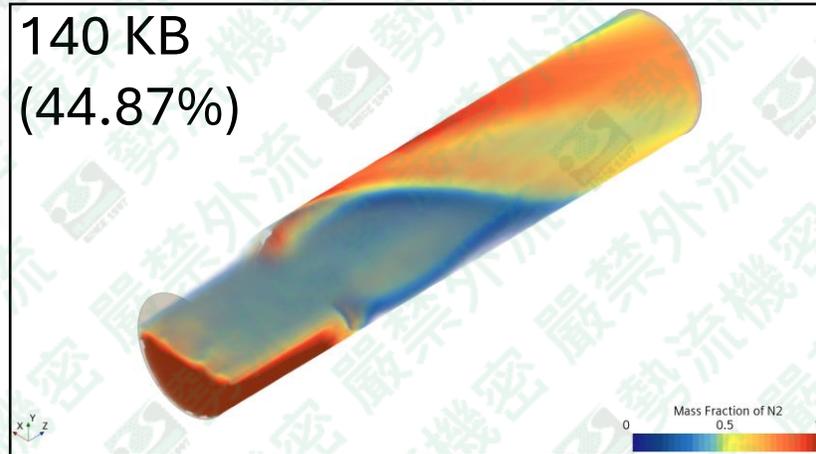
壓縮等級 : Lossless



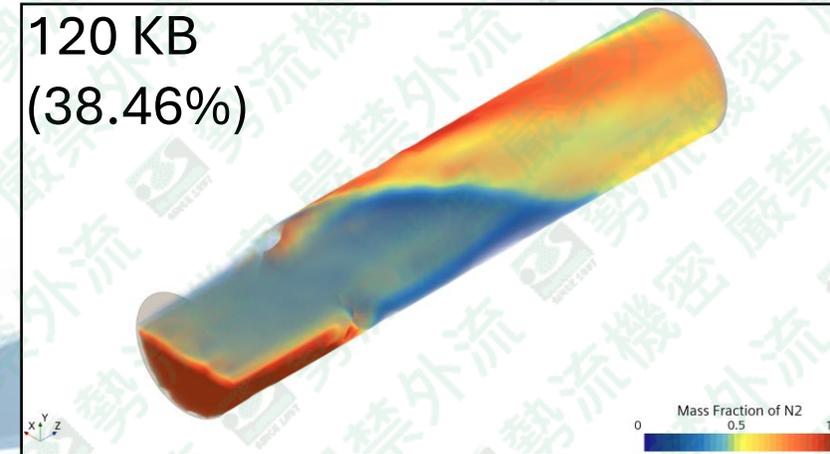
壓縮等級 : Low (Lossy)



壓縮等級 : Medium (Lossy)

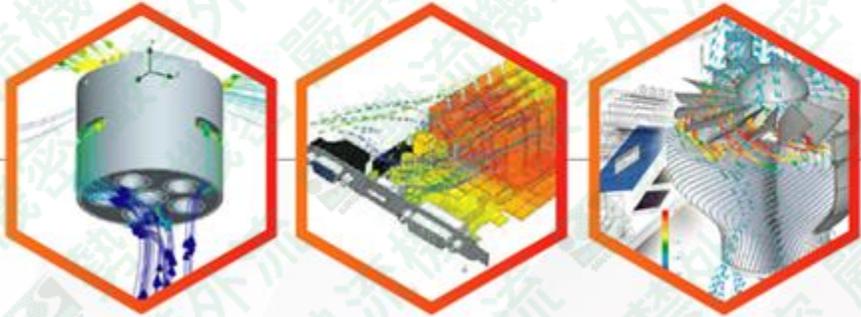


壓縮等級 : High (Lossy)





Snapshot新增註解功能

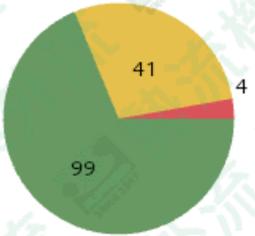


Snapshot新增註解功能

- 更快速的設定完整的snapshot

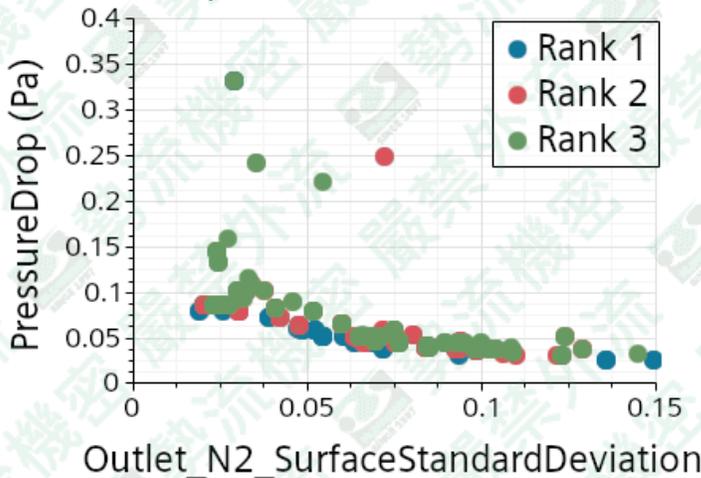
Optimization - Dashboard - Optimization - Snapshot ×

Optimization - Status

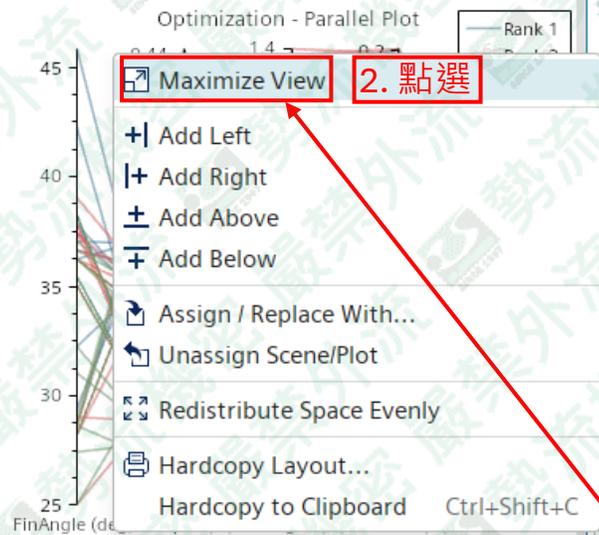


in	Name	State	Outlet_N2_SurfaceStandardDeviation	PressureDrop	Performance	FinAngle	FinDepth	FinLength	FinWidth	NumFins
87	Design 87	✓	0.108204	0.0381136 Pa	-3.36322	34.6 deg	0.3045 m	1.31 m	0.1838 m	5
88	Design 88	✓	0.128594	0.0380838 Pa	-3.83126	25.4 deg	0.2715 m	1.31 m	0.164 m	6
89	Design 89	✓	0.0641235	0.0513069 Pa	-2.64576	36.2 deg	0.343 m	1.25 m	0.1946 m	6
90	Design 90	✓	0.158427	0.0388597 Pa	-36.0973	28.2 deg	0.2935 m	0.64 m	0.119 m	6
91	Design 91	✓	0.0231541	0.0869277 Pa	-2.5117	29 deg	0.442 m	0.68 m	0.065 m	6
92	Design 92	✓	0.0696674	0.0515888 Pa	-2.77999	33 deg	0.343 m	1.24 m	0.1766 m	5
93	Design 93	✓	0.040726	0.0832028 Pa	-2.83207	28.6 deg	0.442 m	0.68 m	0.0506 m	6
94	Design 94	✓	0.153195	0.0396033 Pa	-8.96981	25.8 deg	0.2715 m	1.33 m	0.1622 m	6
95	Design 95	✓	0.0840626	0.0502821 Pa	-3.08214	29 deg	0.3155 m	1.32 m	0.1676 m	6
96	Design 96	✓	0.128939	0.0374676 Pa	-3.82518	35.4 deg	0.299 m	0.93 m	0.1946 m	5
97	Design 97	✓	0.102347	0.0381834 Pa	-3.2284	34.6 deg	0.3045 m	1.31 m	0.1982 m	5
98	Design 98	✓	0.0521258	0.0584172 Pa	-2.53094	36.2 deg	0.3815 m	1.27 m	0.1982 m	5
99	Design 99	✓	0.0677391	0.0517771 Pa	-2.73982	36.2 deg	0.3485 m	1.22 m	0.191 m	6
100	Design 100	✓	0.0644257	0.0507659 Pa	-2.64042	36.2 deg	0.343 m	1.23 m	0.191 m	6

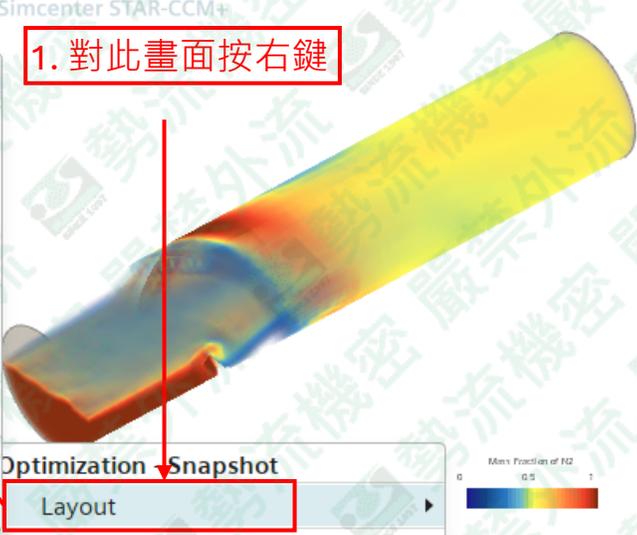
Optimization - Pareto Plot



Optimization - Parallel Plot



Simcenter STAR-CCM+



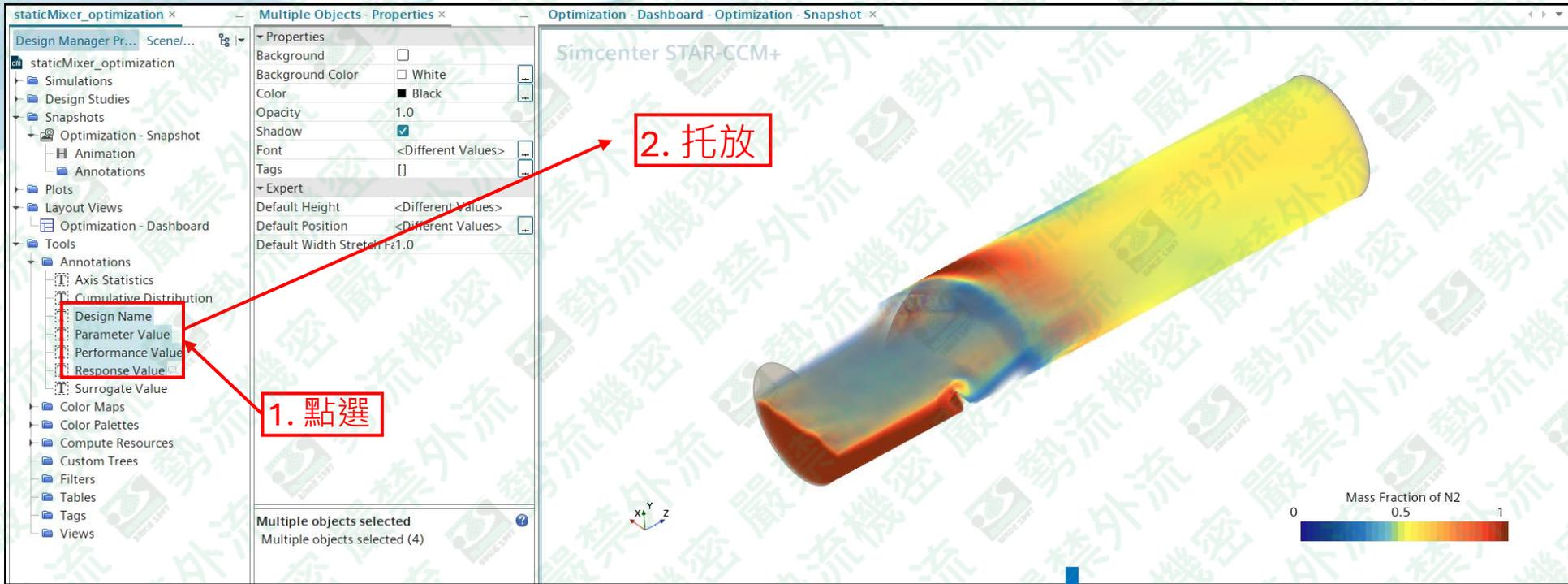
1. 對此畫面按右鍵

2. 點選

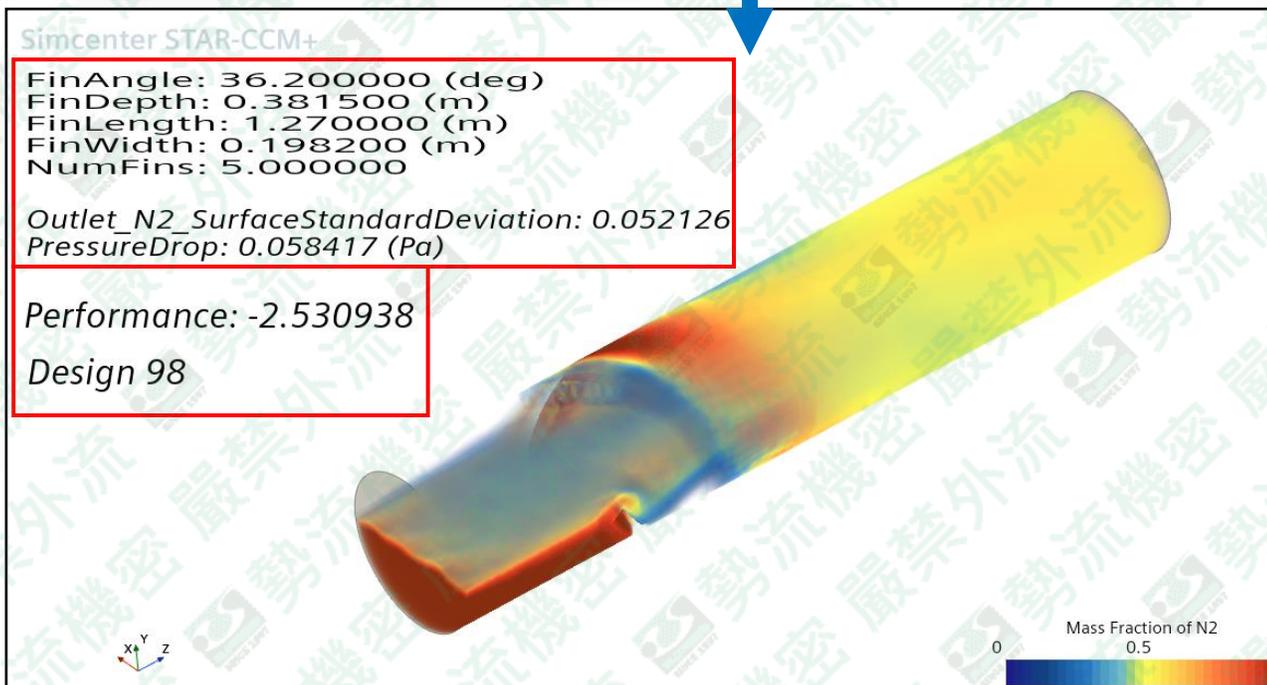
Optimization Snapshot

Layout





拖放註解功能



結論

STAR-CCM+ 2502版 Design Manager功能更新

- 以資料壓縮以增強資料管理
 - 無損壓縮: 在不影響資料品質的前提下減少檔案大小。
 - 有損壓縮: Viewer檔中的資料會受到改變。
- 以註解拖放功能提升使用者體驗
 - 更快速的設定完整的snapshot。

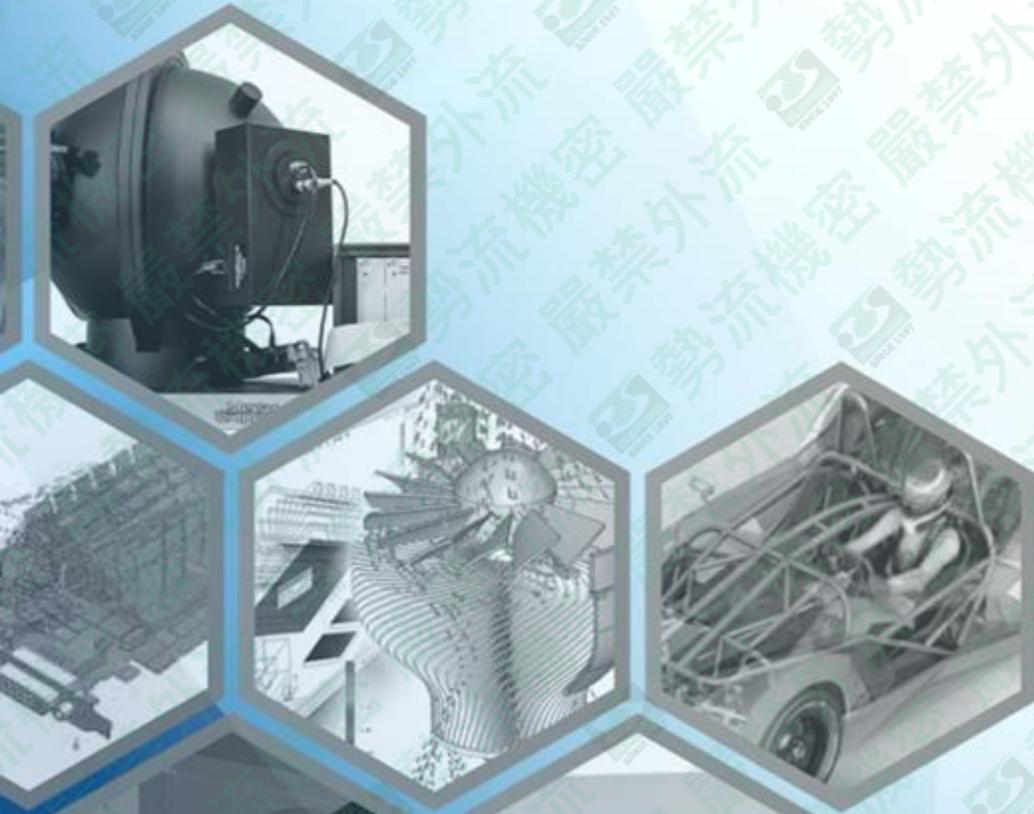




勢流科技



Thanks 謝謝



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