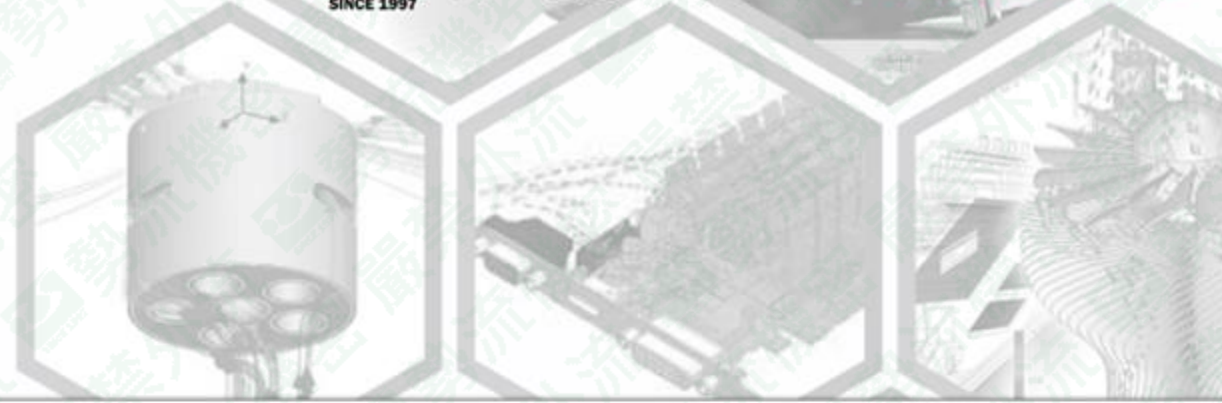




勢流科技

SIEMENS



FLOEFD 2306更新

新功能說明-Part 1



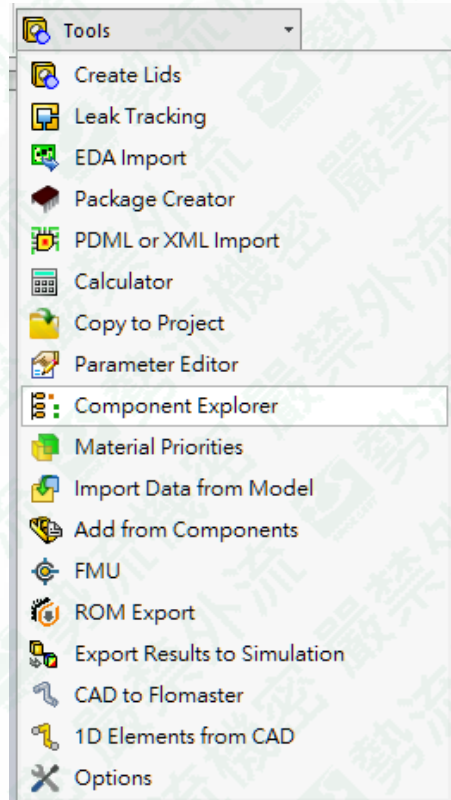
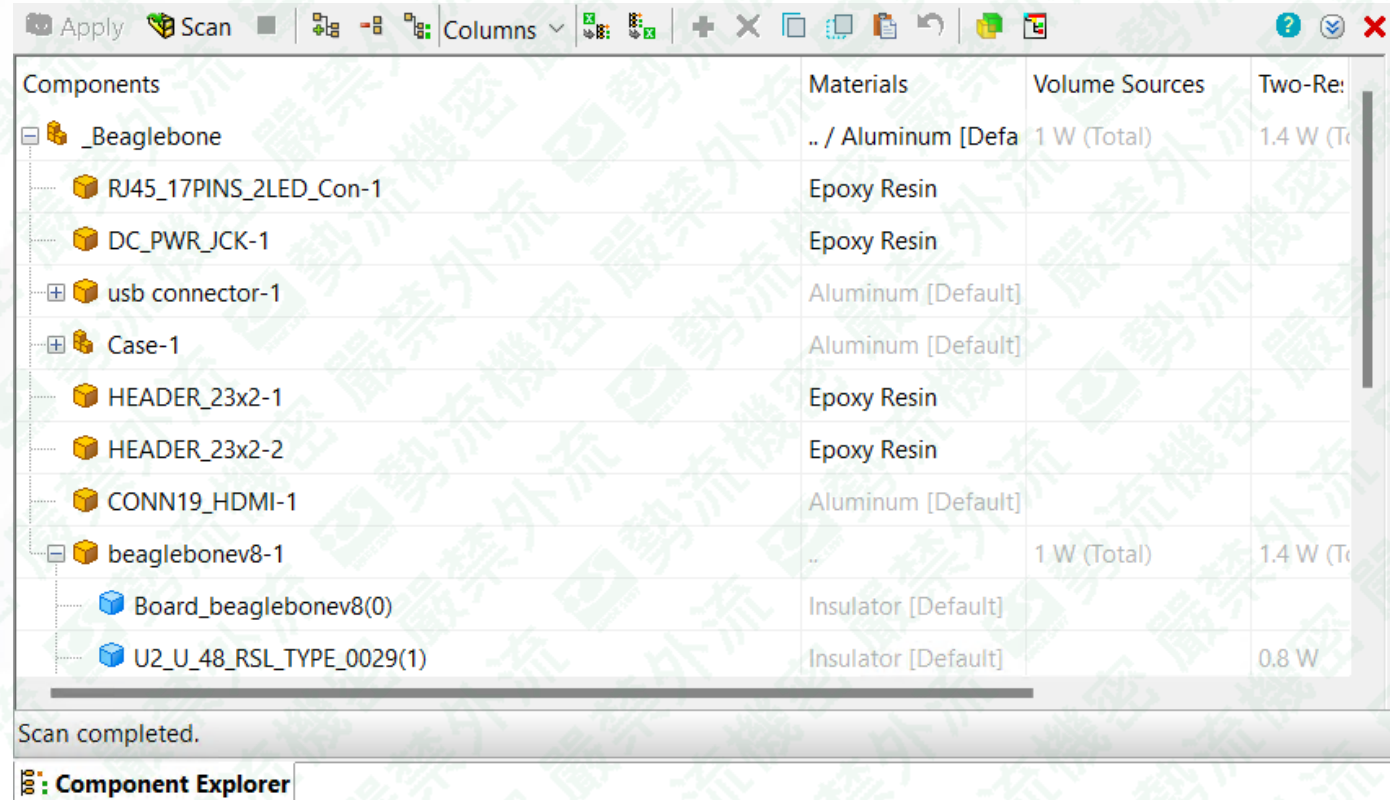
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-  北市信義區忠孝東路五段550號13樓



新功能：Component Explorer



- Component Explorer以CAD元件作為基礎結構進行設定
- 可快速查看、編輯元件參數，例如:材料、熱源、2R、LED 等

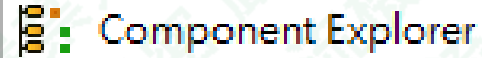



Components	Materials	Volume Sources	Two-Re:
.. / Aluminum [Defa	1 W (Total)	1.4 W (T	
RJ45_17PINS_2LED_Con-1	Epoxy Resin		
DC_PWR_JCK-1	Epoxy Resin		
usb connector-1	Aluminum [Default]		
Case-1	Aluminum [Default]		
HEADER_23x2-1	Epoxy Resin		
HEADER_23x2-2	Epoxy Resin		
CONN19_HDMI-1	Aluminum [Default]		
beaglebonev8-1	..	1 W (Total)	1.4 W (T
Board_beaglebonev8(0)	Insulator [Default]		
U2_U_48_RSL_TYPE_0029(1)	Insulator [Default]		0.8 W

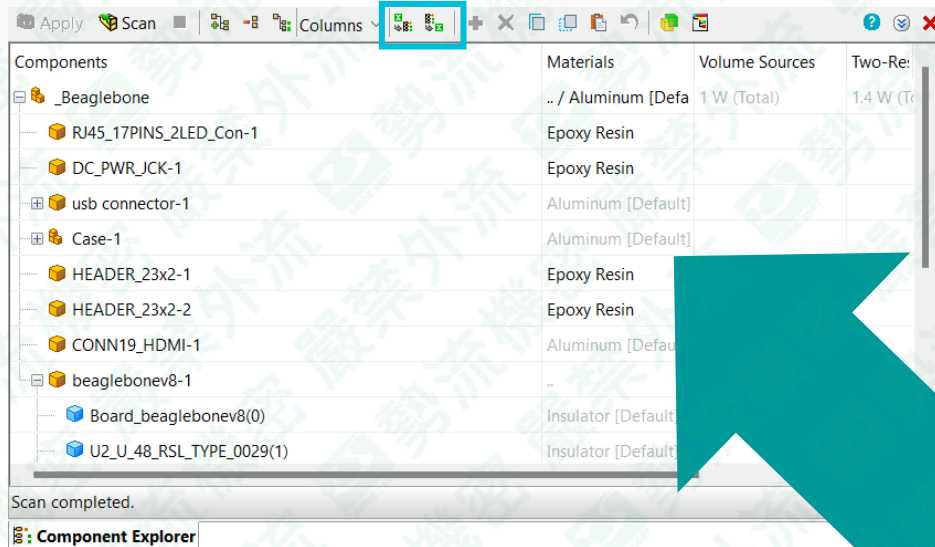
Scan completed.



新功能：Component Explorer



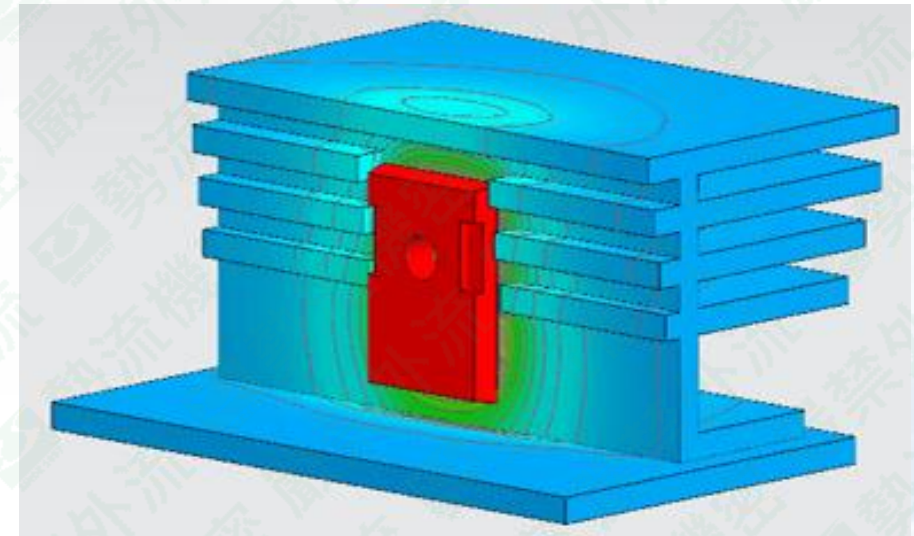
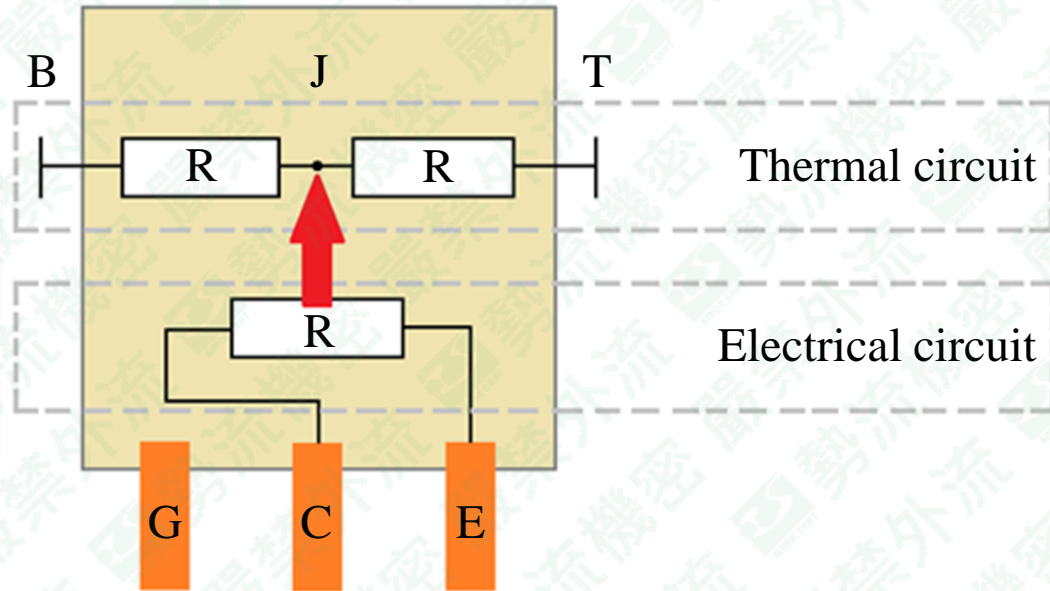
- 當擁有大量元件時可加快處理速度，避免設定錯誤發生
- 可將表格匯出成Excel進行編輯，完成後可直接匯入設定



	B	C	D	E	F	G
1	Components	Materials (Material)	Volume Sources	Printed Circuit Boards	Two-Resistor Components	Two-Resistor Components
2	.. / Beaglebone	.. / Aluminum [Default]	1 W (Total)		1.4 W (Total)	..
3	RJ45_17PINS_2LED_Con-1	Epoxy Resin [Pre-Defined\Polymers]				
4	DC_PWR_JCK-1	Epoxy Resin [Pre-Defined\Polymers]				
5	HEADER_23x2-1	Epoxy Resin [Pre-Defined\Polymers]				
6	HEADER_23x2-2	Epoxy Resin [Pre-Defined\Polymers]				
7	beaglebonev8-1	..	1 W (Total)		1.4 W (Total)	..
8	beaglebonev8-1/U2_U_48_RSL_TYPE_0029(1)	Insulator [Default]			0.8 W	U2 [User Defined\beaglebonev8.prt\beaglebonev8]
9	beaglebonev8-1/U4_S08-25X75_TYPE_0026(2)	Typical Plastic Package [Pre-Defined\IC Packages]				
10	beaglebonev8-1/U5_AM33XX_15X15_TYPE_0032(3)	Typical Plastic Package [Pre-Defined\IC Packages]	1 W			
11	beaglebonev8-1/U6_S0P8_DCT_TYPE_0025(4)	Typical Plastic Package [Pre-Defined\IC Packages]				
12	beaglebonev8-1/U8_DGN-16X60_TYPE_0002(5)	Typical Plastic Package [Pre-Defined\IC Packages]				
13	beaglebonev8-1/U11_QFN64S9X9P5_TYPE_0024(6)	Insulator [Default]			0.3 W	U11 [User Defined\beaglebonev8.prt\beaglebonev8]
14	beaglebonev8-1/U12_BGA96_T9_P8_9X14_TYPE_0001(7)	Typical Plastic Package [Pre-Defined\IC Packages]				
15	beaglebonev8-1/U13_BGA153_P14_P5_11P5X13_TYPE_0012(8)	Typical Plastic Package [Pre-Defined\IC Packages]				
16	beaglebonev8-1/U14_QFN32_5X5MM_EP3P3MM_TYPE_0028(9)	Insulator [Default]			0.3 W	U14 [User Defined\beaglebonev8.prt\beaglebonev8]
17	beaglebonev8-1/Y1_XTAL4_126-216SMD_TYPE_0013(10)	Typical Plastic Package [Pre-Defined\IC Packages]				

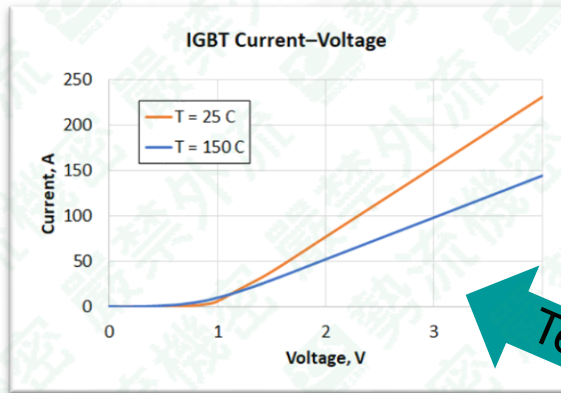
新功能：IGBT compact model

- 預測具有非線性電壓-電流特性 IGBT 之 T_{Junction} 溫度
- 所需輸入參數: 2R、電壓 or 電流



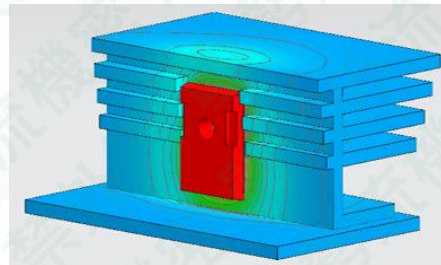
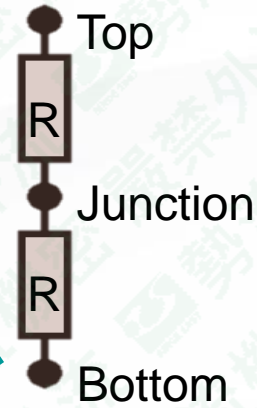
新功能：IGBT compact model

- 將電壓-電流數據用於計算 T_{Junction} 溫度
- 將計算後得到的功率應用於2R Model中

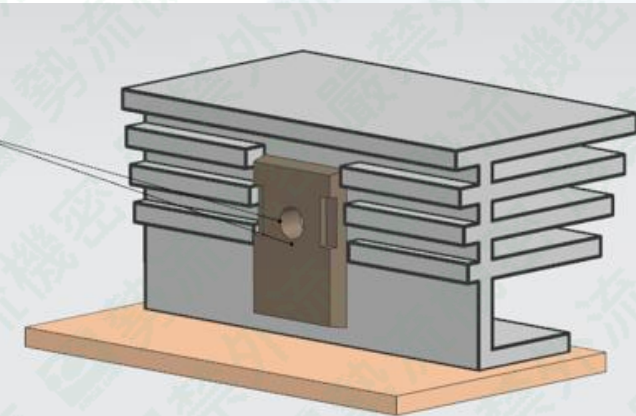


Electrical Power

Temperature

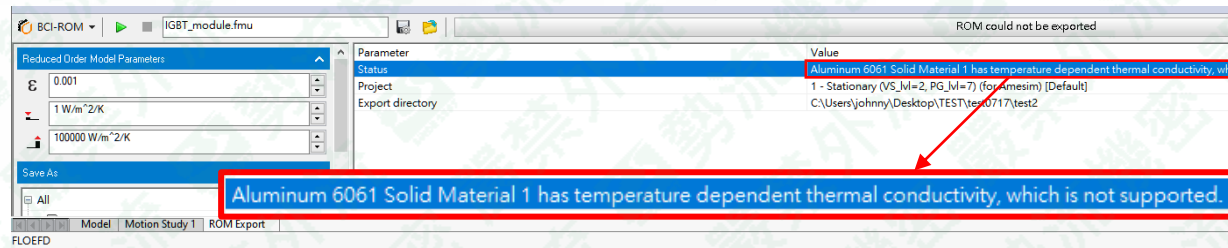


IGBT (Input)	
Type	Typical IGBT
Current	40 A
IGBT (Output)	
T junction	51.28 °C
Heat Generation Rate	61.982 W
Voltage	1.550 V
Current	40.000 A
Electrical Resistance	0.0387 Ohm

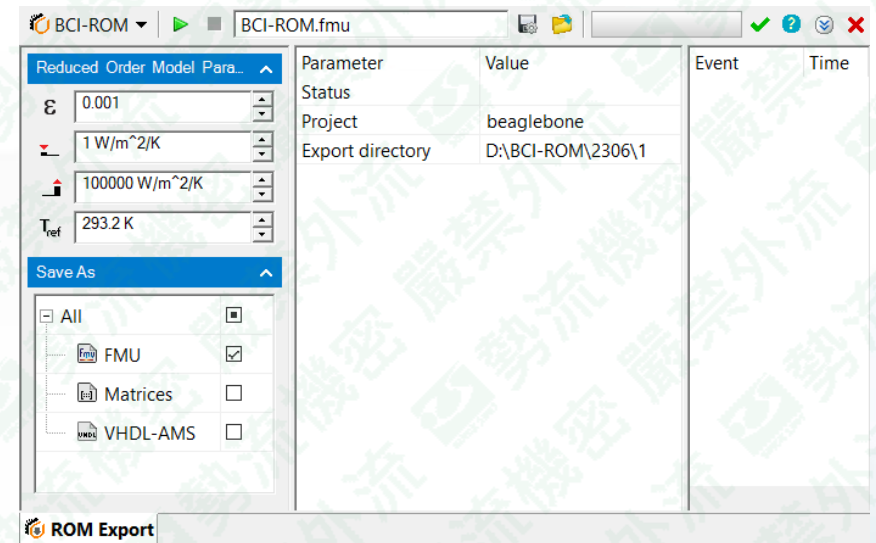


新功能：BCI-ROM 提取的參考溫度

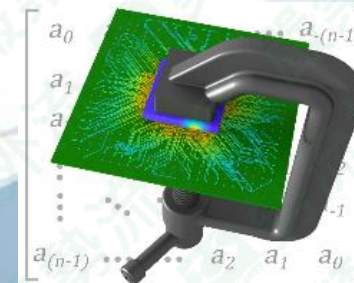
- 先前的版本中的BCI-ROM無法使用隨溫度改變而變化的材料特性，現在BCI-ROM會自動從這些材料參數自動提取定值



FLOEFD 2205



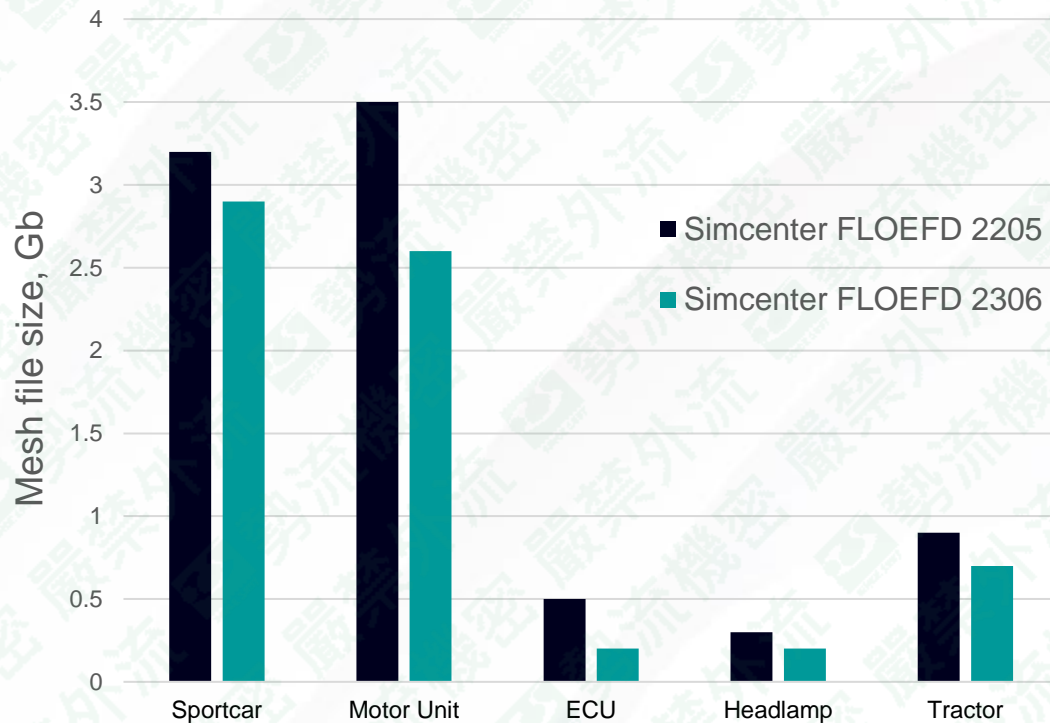
FLOEFD 2306



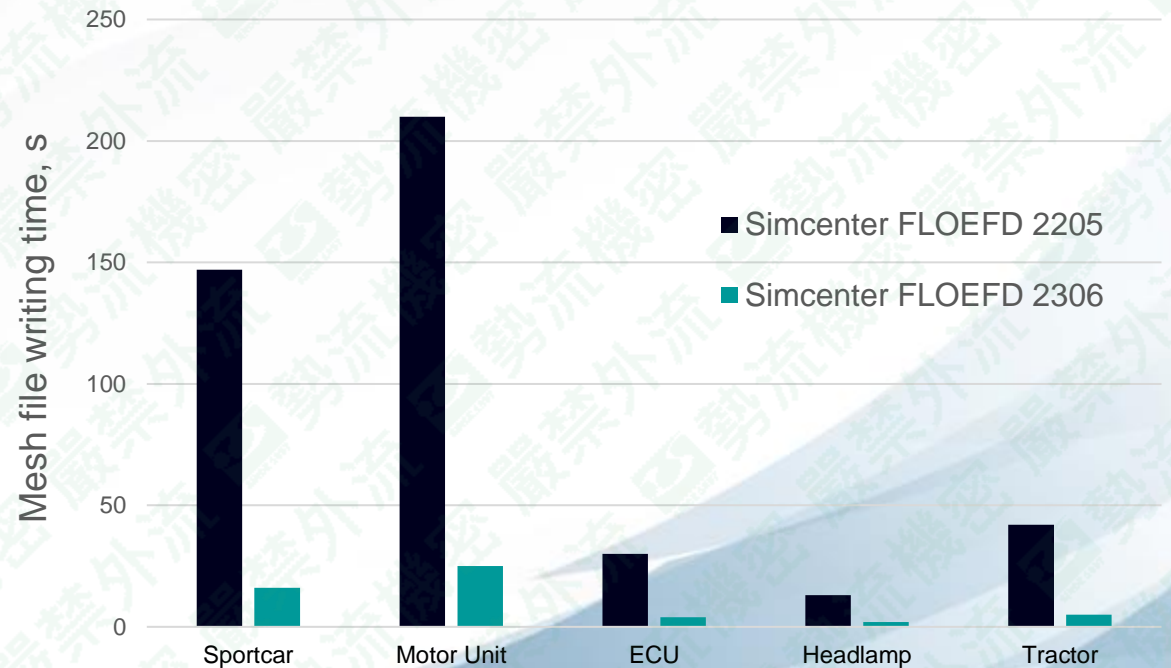
FLOEFD加速：網格生成

- 與2205相比，2306在32個核上生成10M~20M網格的速度提升為9-12倍

Mesh file size optimization

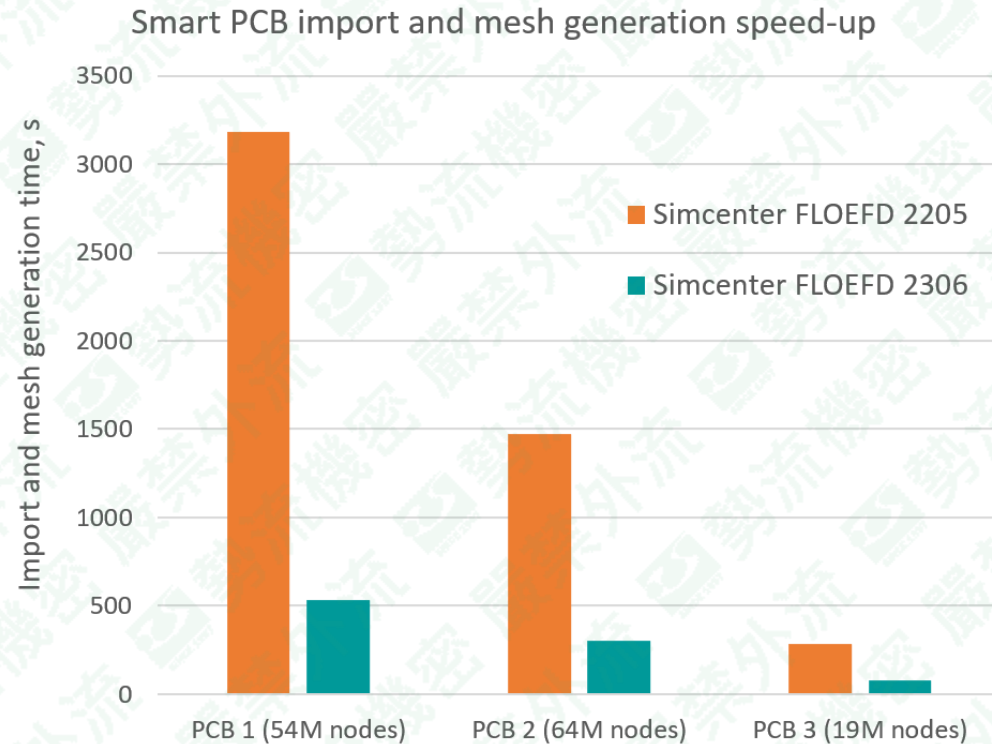


Reading and writing mesh file time optimization

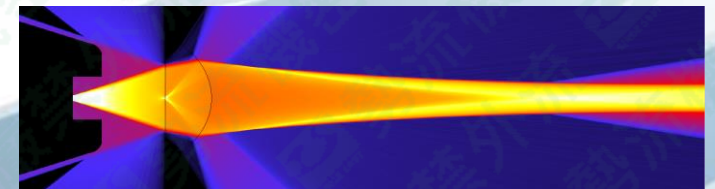
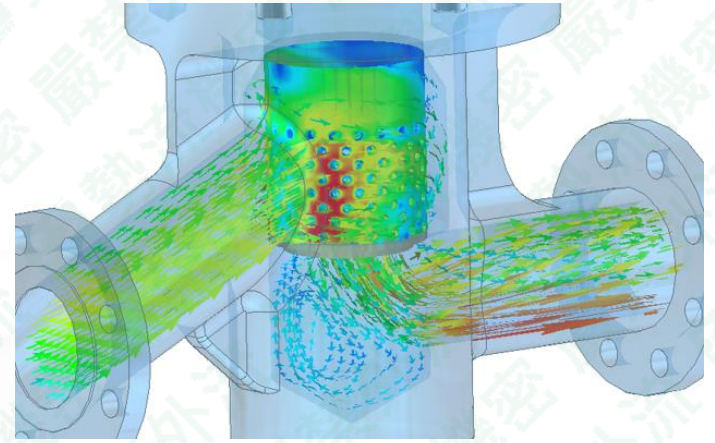
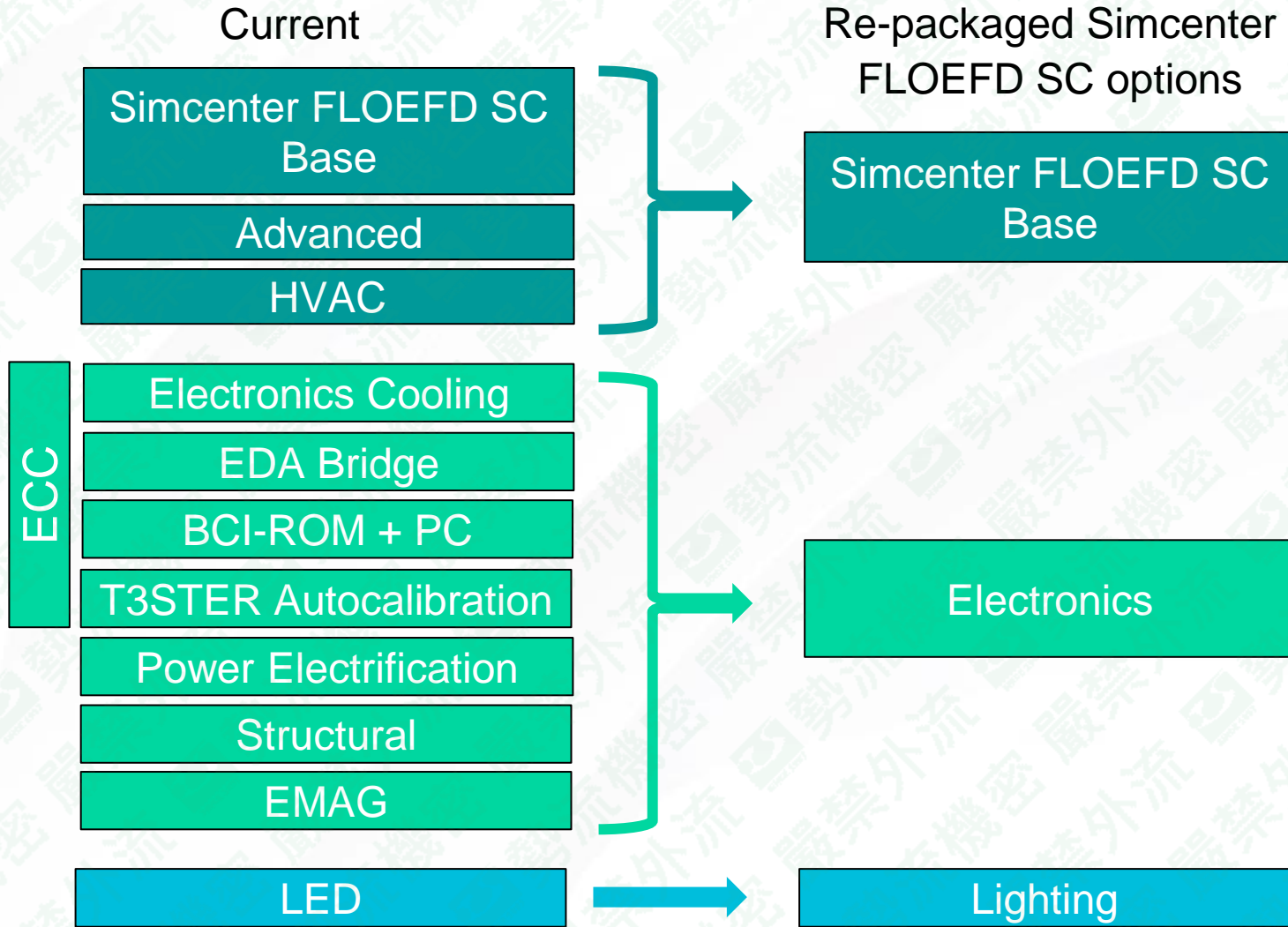


FLOEFD加速：EDA Import

- 減少PCB匯入時間，並加速其他對Smart PCB操作
- 加速項目包含導入PCB和網格生成、可視化顯示時間、參數更改後更新時間

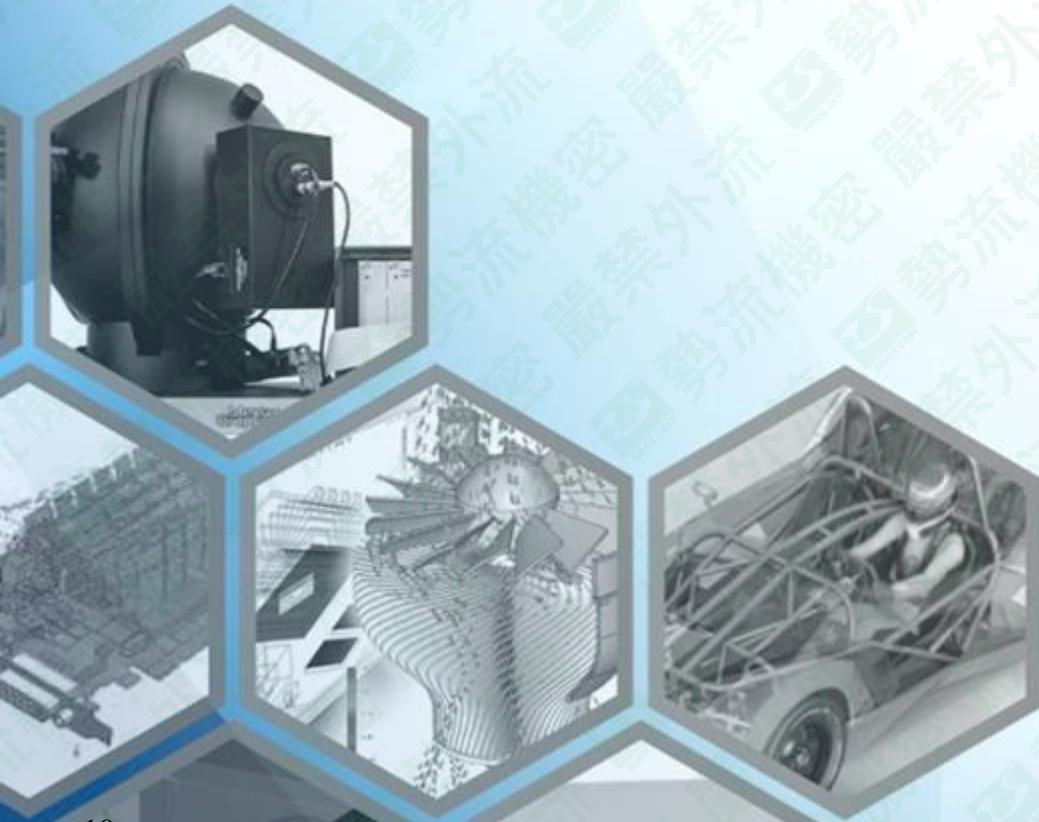


FLOEFD 模組整合 (近期)



Thanks

謝謝



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