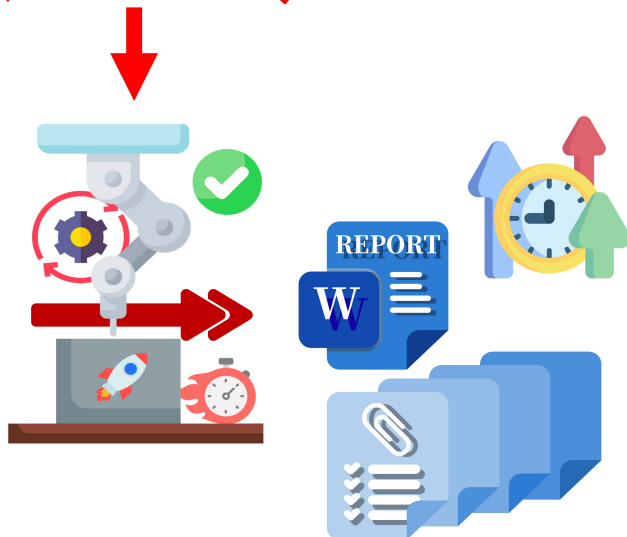
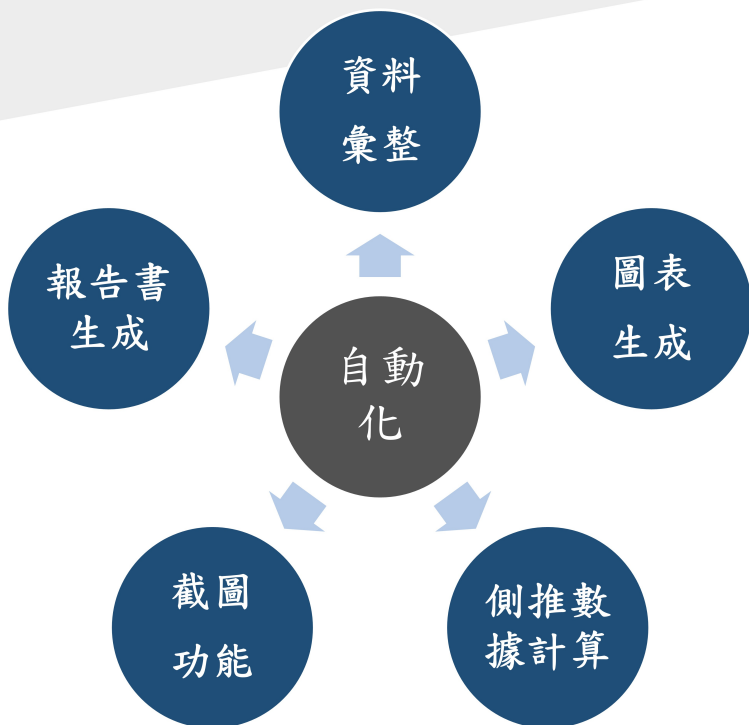


SERCB Tools 簡介



程式自動化建立之**結構計算書內容**符合建築物公共安全檢查申報相關規定、住宅性能評估或耐震設計標之查核要點，並可作為建築物詳評與補強報告書之內容。報告書內數據與圖表皆由本程式自動輸入，無需使用者手動計算、輸入數值或匯入圖表，**可節省大量時間，避免人為錯誤。**

報告書需要內容



程式自動匯出

既有

新建

自動產生建築物耐震能力詳細評估檢查報告書(側推分析法)

- | | |
|----------------------|-------------------------|
| ✓ 1. 建築物基本資料及評估結果摘要表 | ✓ 8. EPA-Sd 圖 |
| 2. 材料試驗 | 9. 分析模型圖 |
| 3. 結構物基本分析資料 | 10. 補強方案規劃位置圖 |
| ✓ 4. 耐震能力詳細評估表 | 11. 分析模型平面圖 |
| ✓ 5. 容量曲線圖 | ✓ 12. 模型塑鉸位置設定圖 |
| ✓ 6. 容量震譜圖 | ✓ 13. 模型Final Step塑鉸發展圖 |
| ✓ 7. 側推分析結果表 | |

SERCB Tools 功能簡介-動力歷時分析輔助工具



塑鉸平行運算



構件數 x 1800根

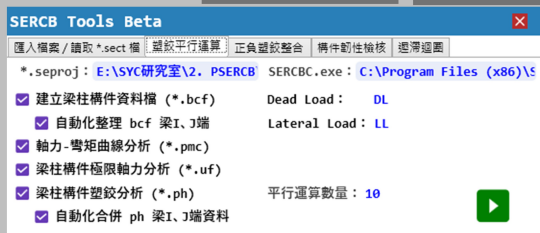
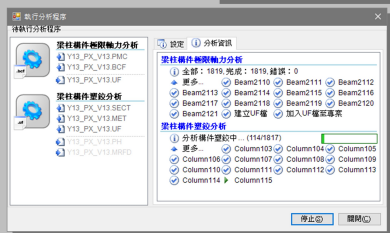
SERCBWin 塑鉸計算

1 時 14 分

塑鉸平行運算

13 分

效率提升



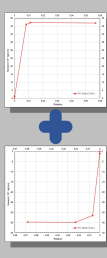
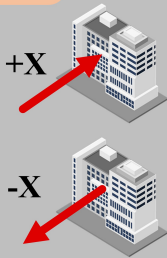
自動化合併雙向塑鉸

計算正、負向塑鉸資料

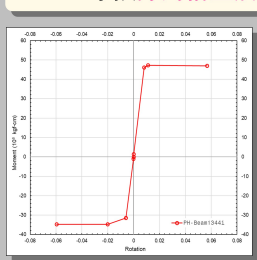
+PH

-PH

e2k



一、三象限非對稱塑鉸



HINGE "PH-Beam13341"	BEHAVIOR "Deformation Control"
HINGE "PH-Beam13341"	"-R" -633.8752 -35.7787
HINGE "PH-Beam13341"	"-D" -116.3914 -35.9355
HINGE "PH-Beam13341"	"-C" -15.9560 -34.5247
HINGE "PH-Beam13341"	"-B" 0.0000 -1.0000
HINGE "PH-Beam13341"	"B" 0.0000 1.0000
HINGE "PH-Beam13341"	"C" 0.0826 32.1289
HINGE "PH-Beam13341"	"D" 133.5932 35.2818
HINGE "PH-Beam13341"	"E" 752.3323 35.1293
HINGE "PH-Beam13341"	MOMENTSFP 1342745.6918 ROTATIO
HINGE "PH-Beam13341"	TO 0.0826 LS 133.5932 CP 752.3
HINGE "PH-Beam13341"	BEHAVIOR "Deformation Control"
HINGE "PH-Beam13341"	"-R" -644.4348 -35.5364
HINGE "PH-Beam13341"	"-D" -129.5078 -35.6941
HINGE "PH-Beam13341"	"-C" -8.9048 -32.5568
HINGE "PH-Beam13341"	"-B" 0.0000 -1.0000
HINGE "PH-Beam13341"	"B" 0.0000 1.0000
HINGE "PH-Beam13341"	"C" 18.0514 33.0159
HINGE "PH-Beam13341"	"D" 46.3093 34.2484
HINGE "PH-Beam13341"	"E" 793.5423 34.0827
HINGE "PH-Beam13341"	MOMENTSFP 1233555.9873 ROTATIO
HINGE "PH-Beam13341"	TO 18.0514 LS 133.5932 CP 793.5

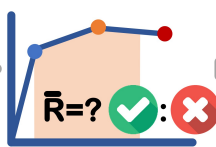
建立模型

塑鉸設定

動力歷時分析

構件檢核

彙整檢核資料



構件韌性比檢核



自動產生建築物耐震能力
詳細評估檢查報告書(動力歷時分析)

ETABS 匯出 Max/Min HingeStates

TABLE: Hinge States					H	I	J	K	L	M	N	O	P	Q	R	S	T	U		
Story	Frame/Wall	Case/Coigned Hn	Generated Hinge	Active Dist	Absolute Distance	P	V2	V3	T	M2	M3	U1 Plastic	U2 Plastic	U3 Plastic	PlasticR1	PlasticR2	PlasticR3	PlasticHinge	Stabing	Statu
				cm	cm	kgf	kgf	kgf	kgf-cm	kgf-cm	kgf-cm	cm	cm	cm	rad	rad	rad	rad		
7F	B1	TAP024_9/PH-Beam8 B1H11		0	0	0	0	0	0	0	0.26635352	0	0	0	0	0	0.001006	D to E	A to IO	
7F	B1	TAP024_9/PH-Beam8 B1H12		1	620	0	0	0	0	0	33238327	0	0	0	0	0	0.008988	D to E	LS to CF	
6F	B1	TAP024_9/PH-Beam8 B1H11		0	0	0	0	0	0	0	-3.1E+07	0	0	0	0	0	-0.00988	B to C	LS to CF	
7F	B1	TAP024_9/PH-Beam8 B1H12		1	620	0	0	0	0	0	-6.8E+05	0	0	0	0	0	-0.00988	D to E	LS to CF	

OK/NG 構件塑鉸資訊 Load Case R值

OK/NG	Frame/Wall	Case/Combo	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge	Plastic Hinge
OK	7F	B44	TAP024_921_475 0	PH-Beam8 B44H11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OK	7F	B44	TAP024_921_475 0.05	PH-Beam8 B44H12	1	626.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OK	7F	B44	TAP024_921_475 0.05	PH-Beam8 B44H11	1	626.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OK	7F	B44	TAP024_921_475 0.1	PH-Beam8 B44H11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



構件遲滯迴圈



ETABS 匯出 Step-by-Step HingeStates

Story	Frame/Wal	Load Case/Combo	igned Hinerated	Hitive Dist	lute Dist	M2	M3
				cm	cm	kgf-cm	kgf-cm
7F	B44	TAP024_921_475 0	PH-Beam8 B44H11	0	0	0	-15411
7F	B44	TAP024_921_475 0	PH-Beam8 B44H12	1	626.64	0	41454
7F	B44	TAP024_921_475 0.05	PH-Beam8 B44H11	0	0	0	-15411
7F	B44	TAP024_921_475 0.05	PH-Beam8 B44H12	1	626.64	0	41454
7F	B44	TAP024_921_475 0.1	PH-Beam8 B44H11	0	0	0	-15380

