

#1344: OptiStruct – Output of Multiple Failure Theories for Composites

Product: OptiStruct

Product Version: OptiStruct 2017.2 or above

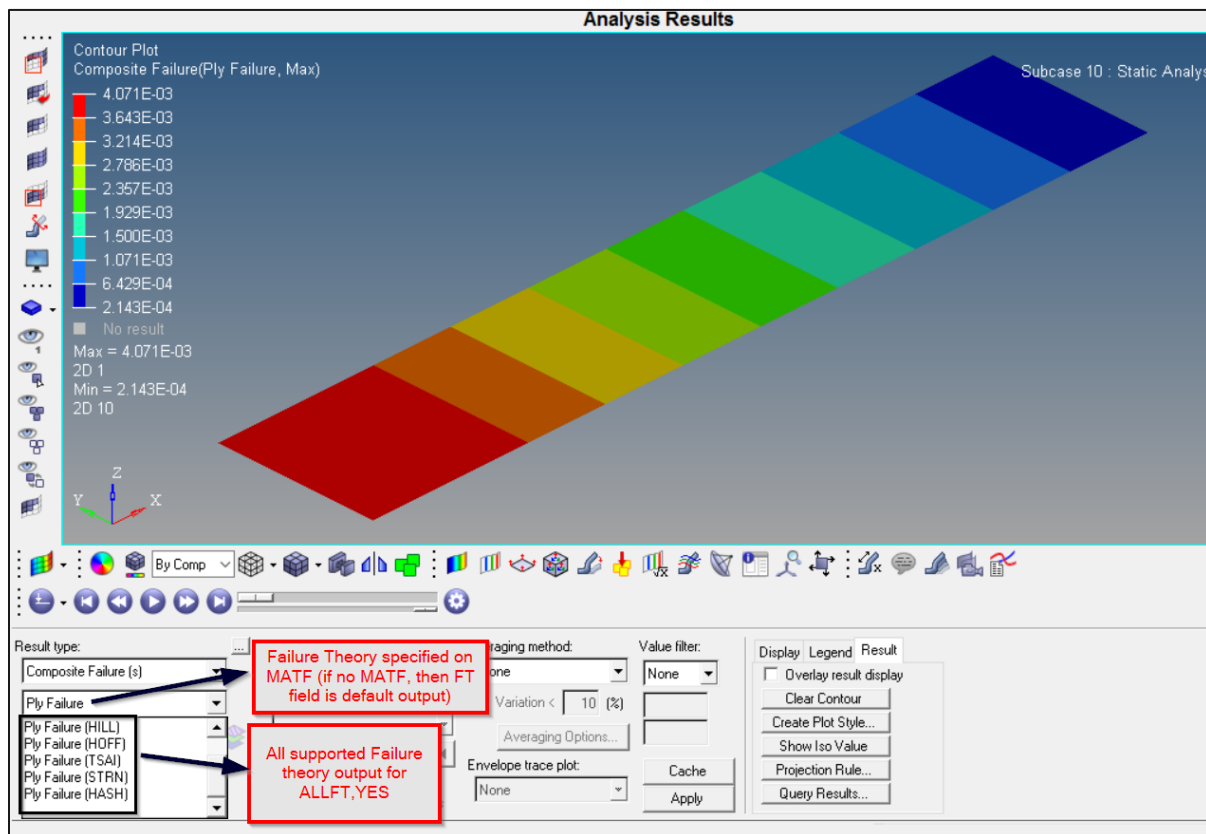
Topic Objective

Output of multiple failure theories for composites in OptiStruct.

Topic Detail

Failure output was previously supported via CFAILURE only for the specified failure theory on the FT field of PCOMP/PCOMPP/PCOMPG entries. In OptiStruct 2017.2, inclusion of PARAM, ALLFT, YES will generate failure output via CFAILURE for all supported failure theories (except PUCK).

- If a MATF entry with PUCK criteria exists and it is referenced in the model, then PUCK failure criteria are also output (regardless of the presence of ALLFT, YES).
- ALLFT, YES output is supported only for H3D (.h3d) and OPTI (.cstr) formats.



FAILURE INDICES FOR LAYERED COMPOSITE: SUBCASE 10							
ELEMENT ID	FAILURE THEORY	PLY ID	LOC	FP=FAILURE INDEX FOR PLY (DIRECT STRESSES/STRAINS)	FB=FAILURE INDEX FOR BONDING (INTER-LAMINAR STRESSES)	FAILURE INDEX FOR ELEMENT MAX FP,FB FOR LISTED PLIES	
1	HILL	1	MID	1.6577E-05			
	HOFFMAN		MID	1.6577E-05			
	TSAI-WU		MID	1.6577E-05			
	MX-STRN		MID	4.0714E-03			
	HASHIN		MID	1.6577E-05			
	PUCK		MID	4.0714E-03 (FC)	6.2798E-15 (MA)		
						7.5000E-05	
			2	MID	1.6577E-05		
	HOFFMAN	MID		1.6577E-05			
	TSAI-WU	MID		1.6577E-05			
MX-STRN	MID	4.0714E-03					
			MID	1.6577E-05			
			MID	4.0714E-03 (FT)	6.2773E-15 (MB)		
						4.0714E-03	
2	HILL	1	MID	1.3270E-05			
	HOFFMAN		MID	1.3270E-05			
	TSAI-WU		MID	1.3270E-05			
	MX-STRN		MID	3.6429E-03			
	HASHIN		MID	1.3270E-05			
	PUCK		MID	3.6429E-03 (FC)	1.0639E-14 (MA)		
					7.5000E-05		

All supported Failure Theory output for ALLFT,YES