



PRODUCT SELECTION GUIDE

R - required
O - optional
S - suggest/recommended

This Product Selection Matrix is designed to aid in matching customer needs to our products. To ensure our products meet your needs, we recommend evaluating the software and consulting with a sales representative prior to purchasing any product.

	SINDA/FLUINT	Sinaps®	Thermal Desktop®	RadCAD®	FloCAD®	TD Direct®
General Usage						
Component level modeling	R	R*	R*			O
System level modeling	R	R*	R*			O
FE modeling	R		R			S
FD or lumped parameter modeling	R	R*	R*		O	
Build geometric CAD models	R		R		O	S
Build/view models as R-C networks	R	R				
Using abstract network representations	R	S	O		O	
Thermal/Fluid Analysis						
Calculation of temperatures	R	R*	R*			
Model fluid system	R	R†	R†		R†	
View results as colored contoured plots on geometry	R		R			
View results as colored R-C network	R	R				
Plotting of results	R	R*	R*			
Export data to Microsoft Excel		R*	R*			
Thermal Radiation Analysis						
Calculate form factors and radiation conductors				R		
Calculate orbital heating rates				R		
Calculation of trajectory heating rates				R		
CAD Integration						
2D and 3D mesh generation			R			S
Structured meshes, 2.5D meshes, and advanced mesh controls			R			R
Direct modeling						R
Simplify and repair "dumb" geometry						R
Midsurface thin solids						R
Volume or beam extraction						R
Rapid remeshing for changes in geometry			R			R
Geometry identifiers (surface, material, etc)			R			R

* Either Sinaps or Thermal Desktop GUI is required in addition to SINDA/FLUINT

† Either Sinaps, or FloCAD and Thermal Desktop is required in addition to SINDA/FLUINT



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	SINDA/FLUINT	Sinaps®	Thermal Desktop®	RadCAD®	FloCAD®	TD Direct®
Devices and Special Materials						
Heaters	R	O	O			
Heat pipes	R	O	S†		S†	
Loop heat pipes (LHP) & Thermoshyphons (LTS)	R	S			S	
Thermoelectric coolers (Peltier devices)	R	O	S			
Louvers	R			S		
Material Recession	R	O	S			
Phase change (PCM) and energy storage	R	O	S			
Anisotropic materials	R		S			
Advanced Design						
Trade studies and parametric analysis	R	O	O			O
Design Optimization	R	O	O			
Reliability engineering	R	O	O			
Worst-case scenario seeking	R	O	O			
Model correlation	R	O	O			
Export Capabilities						
SINDA/G and ESATAN			R			
TSS, Trasys, and STEP-TAS				R		
NASTRAN or ANSYS temperature mapping			R			
Step 209			R			
Import Capabilities						
SINDA/FLUINT text files		R				
SINDA/G text files	R	S*				
Virtually any geometry (IGES, STEP, etc.)			R			S
IDEAS FEM or FD			R			
TSS, Nevada, Trasys, STEP-TAS				R		
FEM mesh import (ANSYS, NASTRAN, FEMAP, STEP-209)			R			S

* Free SINDA/G Translator available

† FloCAD and Thermal Desktop is required in addition to SINDA/FLUINT

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