



## 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.

	Thermal Desktop®*	RadCAD®	FloCAD®	TD Direct®
<b>General Usage</b>				
Component-level modeling	R			O
System-level modeling	R			O
FE modeling	R			S
FD or lumped parameter modeling	R		O	
Build geometric CAD models	R			S
Using schematic network representations	R		O	
<b>Thermal/Fluid Analysis</b>				
Calculation of temperatures	R			
Model fluid system	R		R	
View results as colored contoured plots on geometry	R			
Plotting of results	R			
Export plot data to Microsoft Excel	R			
<b>Thermal Radiation Analysis</b>				
Calculate form factors and radiation conductors		R		
Calculate orbital heating rates		R		
Calculation of trajectory heating rates		R		
<b>CAD Integration</b>				
Direct modeling				R
Simplify and repair geometry				R
Midsurface thin solids				R
Volume or beam extraction				R
2D and 3D mesh generation	R			S
tet/tri elements	R			S
quad elements				R
Curved thermal finite elements				R
Advanced mesh controls				R
Assembly-level meshing options				R
Rapid remeshing for changes in geometry				R
Geometry tagging to identify surfaces, materials, etc.	R			R

\* SINDA/FLUINT required for simulation runs



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<b>Devices and Special Materials</b>				
Heaters	R	O		
Heat pipes	R		R	S
Loop heat pipes (LHP) & Thermoshyphons (LTS)	R		R	S
Thermoelectric devices (Peltier)	R			
Louvers	R	S		
Material recession	R	S		
Complex tanks	R		R	S
Heat exchangers	R		R	
Phase change (PCM) and energy storage	R			
Anisotropic materials	R			
<b>Advanced Design</b>				
Trade studies and parametric analysis	R	O	O	
Design optimization	R	O	O	
Reliability engineering	R	O	O	
Worst-case scenario seeking	R	O	O	
Model correlation to data	R	O	O	
<b>Export Capabilities</b>				
ESATAN		R		
TSS, Trasys, and STEP-TAS		R		
NASTRAN or ANSYS temperature mapping		R		
Step 209		R		
<b>Import Capabilities</b>				
Virtually any geometry (IGES, STEP, etc.)		R		
IDEAS FEM or FD		R		
TSS, Nevada, Trasys, STEP-TAS		R		
FEM mesh import (ANSYS, NASTRAN, FE-MAP, STEP-209)		R		

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**C&R TECHNOLOGIES®**

Phone 303.971.0292

Facsimile 303.971.0035

[www.crtech.com](http://www.crtech.com)