

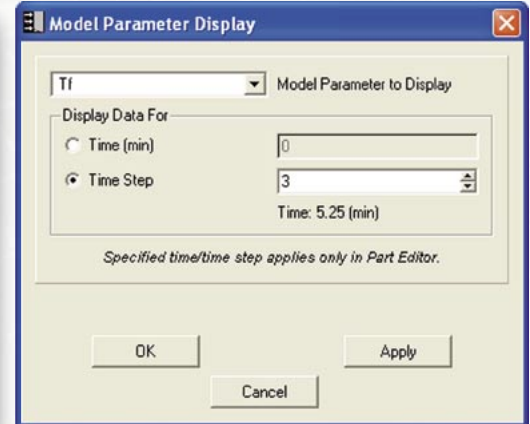
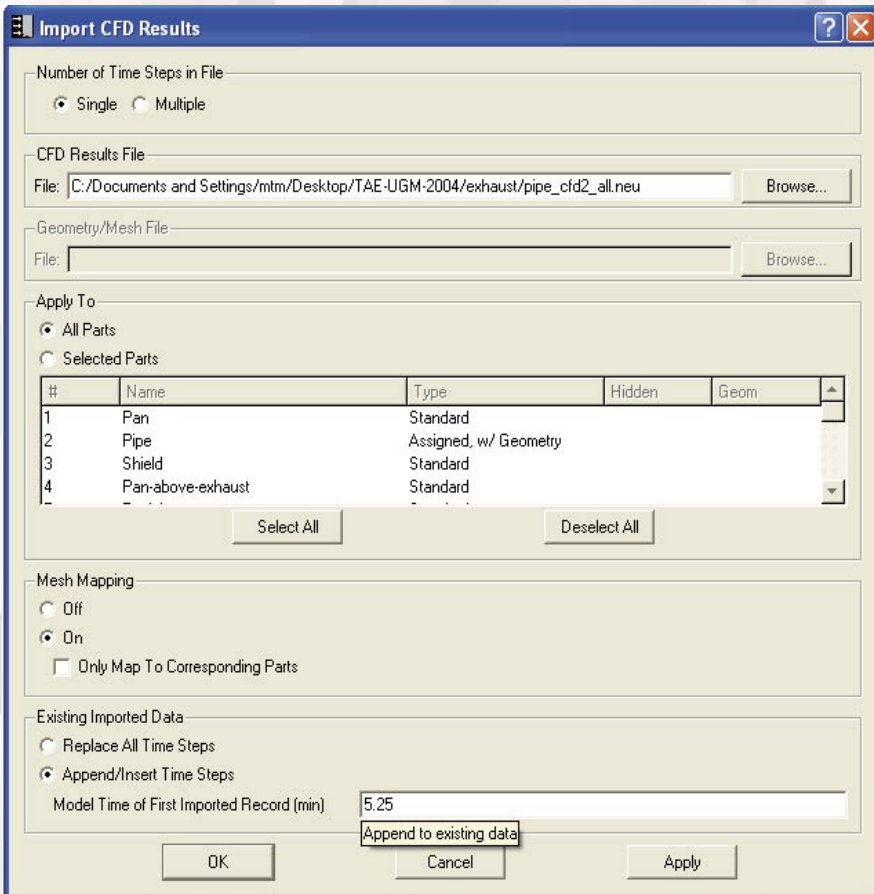
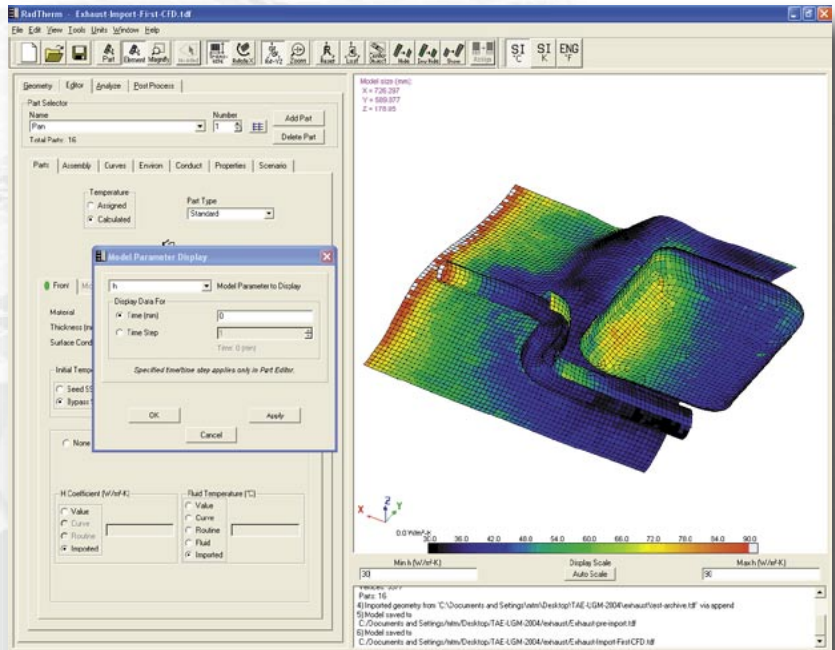


ThermoAnalytics Software

Feature Focus: CFD IMPORT

Fast CFD Results Import & Mapping

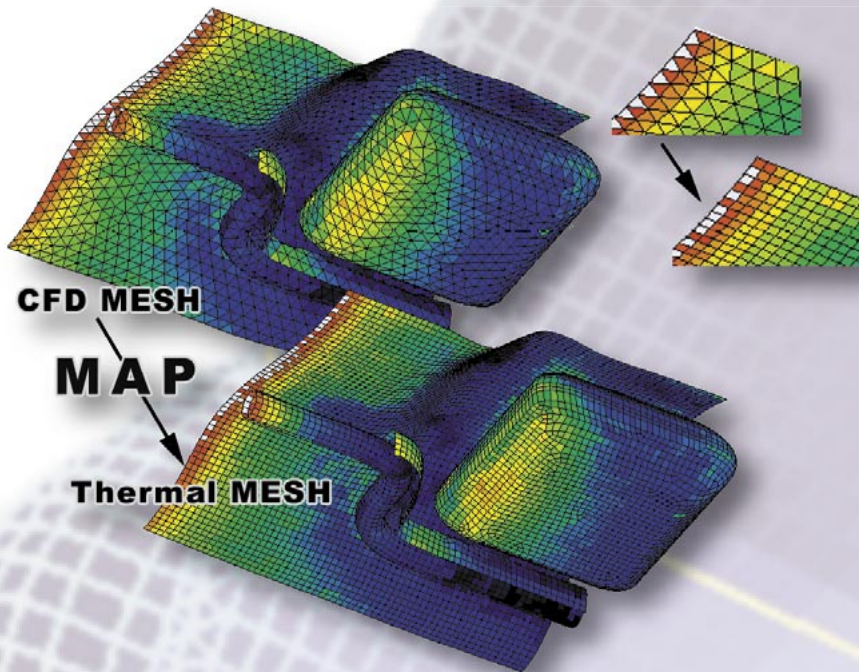
Version 7.1 of RadTherm, RadThermIR, and MuSES Pro software includes our new CFD Import Wizard. Launched directly from the File Menu, the CFD Import Wizard lets you set all relevant import parameters (see the screenshot below). CFD Results are automatically mapped by element location to selected parts. The wizard lets you import either a single CFD data set or multiple data sets and apply them to different transient solution times. The transient solution will automatically interpolate the CFD data for all time steps, insuring a smooth convection boundary condition.



Version 7.1 features the new Model Parameter Display dialog (see screenshot above) to verify the imported CFD data and mapping. Windows>Model Parameter Display This window lets you color the geometry by convection coefficients or fluid temperatures. For models with multiple CFD data sets, you can view the data at any timestep. This insures accurate convection mapping in your model.



Feature Focus: CFD IMPORT



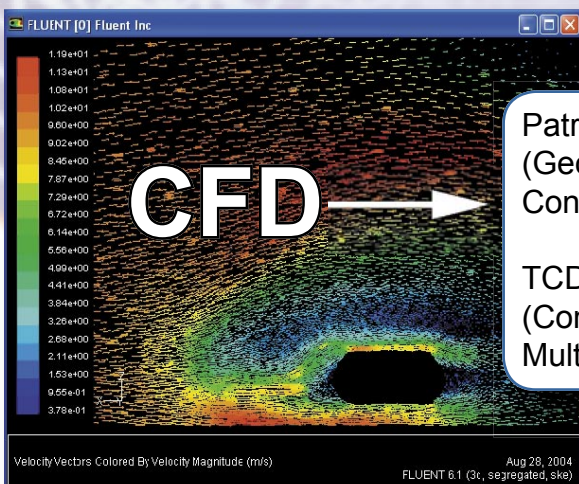
Get the most out of your engineering analysis codes by importing CFD results. Whether you need accurate underbody convection or plume impingement effects for infrared signature analysis, ThermoAnalytics' software augments your CFD code with the fastest thermal solution available. Our radiation solver remains the fastest, most cost effective solution on the market — saving you time while improving analysis accuracy.

The CFD Import Wizard accurately maps data from the original CFD mesh to the thermal mesh. ThermoAnalytics' proprietary ray tracer is used to determine the nearest neighbor elements and assign the convection data on both front and back sides.

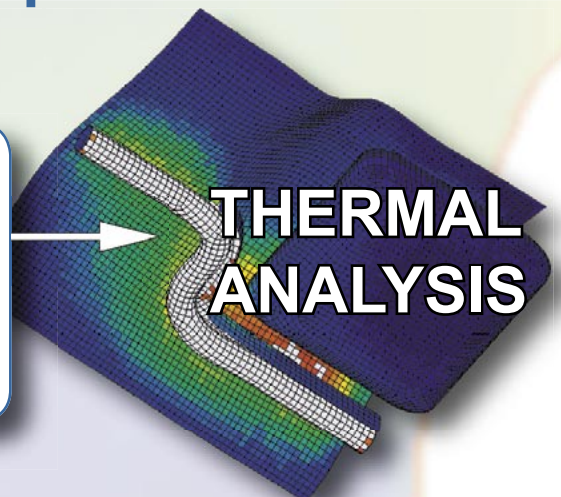
Two file formats are accepted: the Patran Neutral format and the Transient Convection Data (TCD) file format. Because the TCD format does not contain geometry, a separate mesh file can be used for mapping data to the thermal grid.

The CFD Import Wizard allows you to easily update your thermal results by overwriting previous CFD data with new results. This permits you to perform an iterative solution between RadTherm and your CFD code. After performing an updated thermal analysis, a standalone export utility allows you to export thermal results back to CFD. Code-specific translators are available for some CFD programs. Contact our sales engineers to discuss data exchange with your in-house CFD code.

Version 7.1 CFD Results Import Workflow



Patran Neutral File
(Geometry and
Convection Data)
OR
TCD File
(Convection Data Only,
Multiple Timesteps)



ThermoAnalytics, Inc.