ZZYZZX, LLC

Product Development Engineering

Zzyzzx, LLC is an engineering firm committed to offering detailed engineering analysis services to industry. Our expertise in heat transfer analysis and thermal modeling can aid your company in determining what temperature effects may occur from various product design and performance changes. Please contact me because I would like to discuss how we may help you in your thermal analysis efforts.

Best Regards,

Phil Van Herle, P.E.
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Managing Engineer
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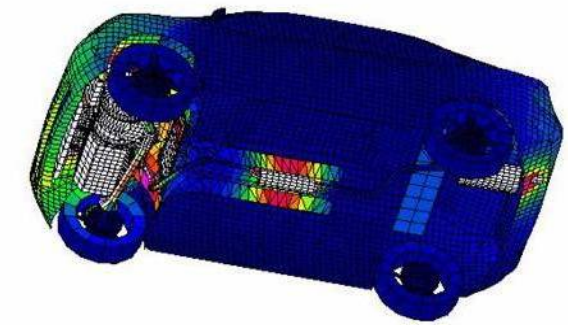
T: (562) 706-6940



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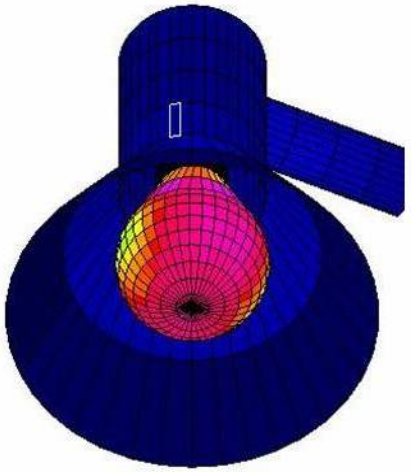
Thermal Analysis & Modeling Services

Let our analysis engineers help you shed some light as to how HOT it can get....



Tel: (562) 706-6940
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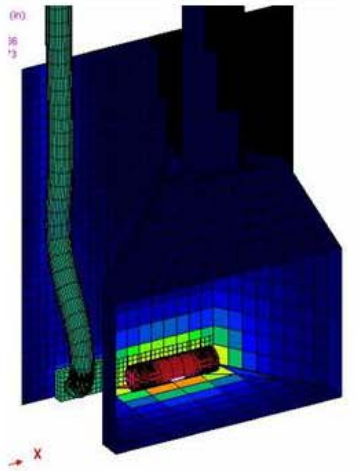
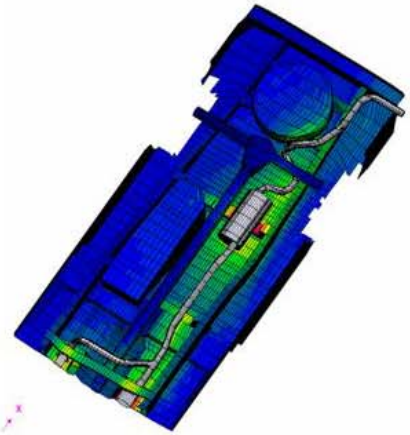
Detailed 3D thermal modeling capabilities...



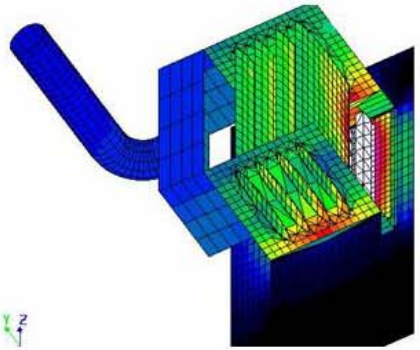
Our computerized thermal modeling capabilities allow us to create 3D models that will simulate all three heat transfer modes simultaneously: Conduction, Convection & Radiation.

The fireplace model shown above is a good example of such a simulation. In this model a burning wood log is placed within the hearth with a given heat output rate. The goal of the simulation was to model the effects of heat transfer to the interior walls of a home if all of the heated exhaust gas were to improperly exit through the intake air duct and tube on the back of the unit. As shown from the complexity of the geometry and conditions, this type of analysis would be near impossible to analyze by hand or spreadsheet calculation methods.

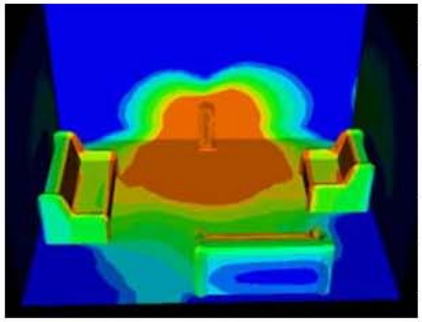
Thermal Model Gallery



Vehicle Exhaust System: This model was used to show the resulting temperatures imparted to the undercarriage of a vehicle due to the heat of its exhaust system.

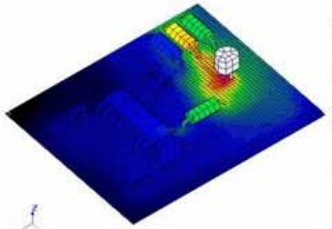


Attic Furnace: This is a model of the CPSC recalled, Consolidated Industries brand attic furnace. The model was created to show the temperatures generated within the heat exchanger and to the supporting plywood floor at the time of failure.

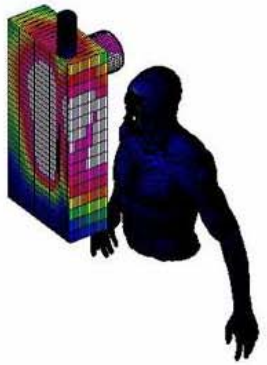


Radiant Electric Heater: The effect of a radiant electric heater on the room and furniture surface temperatures was modeled in this simulation.

Thermal Model Gallery

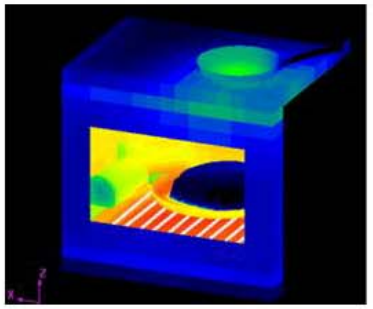


Circuit Board: The temperature distribution caused by an overheating transistor on a circuit board is shown in this model.



Arc Flash: This model demonstrates the radiant heat that is transferred to an individual's skin during a circuit fault at an electrical panel which resulted in an arc flash.

Just for the Holidays: Here is a thermal model of a Turkey baking in an oven.



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