

Computer Models For Fire and Smoke

<i>Model Name:</i>	Brilliant
<i>Version:</i>	# 1
<i>Classification:</i>	CFD and CFD mixed with analytical models.
<i>Very Short Description:</i>	Brilliant is a family of programs that has the CFD technique in common. They are aimed for different purposes and as such they include different complexity and models. There is also a general building block available that is used for development of new applications. Object based code for simulation of fire, gas dispersion, conductivity problems, flow problems and process simulations.
<i>Modeler(s), Organization(s):</i>	Geir Berge, Organisation: Petrell AS
<i>User's Guide:</i>	Different user guides depending on application
<i>Technical References:</i>	-----
<i>Validation References:</i>	-----
<i>Availability:</i>	Some models are available for sale.
<i>Price:</i>	The price depends on type of application.
<i>Necessary Hardware:</i>	The codes run on PC's.
<i>Computer Language:</i>	C++ and Fortan
<i>Size:</i>	Depends on the code but generally not a problem.
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Detailed Description:

There are a several models depending on purpose of the program.

One application called VESSFIRE will be available for sale within a short time. This application simulates what happens if a flame impinges a vessel containing hydrocarbon fuel and the inventory is evacuated through safety- and/or blow-down valves. The inventory of the vessel might be oil, gas or a mixture. The inventory mixture can consist of up to 20 hydrocarbon components chosen from a list of 196 species.