Computer Models
For
Fire and Smoke

Model Name: SMACS

Very Short Description: Simulates smoke movement through air-conditioning systems in buildings

Modeler, Organization: J.H. Klote, Center for Fire Research, National Institute of Standards and Technology

References: Klote, J.H., Fire Technology 24, 299-311 (Nov. 1988)

Availability: Will be incorporated into a future version of FAST

Detailed Description:

System represented by a network of nodes, connected by fans, ducts, etc. Assume quasi-steady mass flow; smoke moves as plug flow; perfect insulation of ducts; negligible heat transfer to air-conditioning components; negligible effect of buoyancy; compressibility neglected. Calculates flows, concentrations, and temperatures by an iterative procedure.