

Computer Models For Fire and Smoke

<i>Model Name:</i>	FireWind
<i>Version:</i>	3.5
<i>Classification:</i>	Zone Model
<i>Very Short Description:</i>	One- and two-room zone models
<i>Modeler(s), Organization(s):</i>	Victor O. Shestopal, Fire Modelling & Computing, Sydney, Australia
<i>User's Guide:</i>	Manual accompanies the software
<i>Technical and Validation References:</i>	(all of the following papers cite experimental comparisons with the model): "Computer program for an uninhibited smoke plume and associated computer software". Fire Technology, v. 29, No. 3, 1993, p. 246-267 "Smoke exhaust through the common plenum and its computer modelling". Interflam '93, p. 95, Interscience Communications, London 1993 "Sprinkler activation submodel for a zone-model computer program". SAFE '99, Int. Seminar on Safety & Fire Engineering, Cochin, India, Nov. 24-26, 1999, pp. 73-88
<i>Availability:</i>	Available from Fire Modelling & Computing (see http://www.mpx.com.au/~firecomp)
<i>Price:</i>	Negotiable
<i>Necessary Hardware:</i>	IBM PC, Windows 95, NT and higher
<i>Computer Language:</i>	C

Size: Approximately 600 kB

Contact Information: Victor Shestopal, +61 2 9487 4858, firecomp@mpx.com.au

Detailed Description:

FireWind is a collection of 18 programs which include one- and two-room zone models, heat radiation calculations, egress calculations, a heat conductivity model and more.

The zone model programs are based on the proprietary physical fire plume model developed by CSIRO Australia and have been validated upon the laboratory tests and site tests in a wide range of data. The model includes sprinkler operation, wall and roof openings and mechanical ventilation.

The computer implementation is a Windows software utilizing various user friendly features of Windows (clipboard saving, printing etc).