

***** ABSTRACT ONLY *****

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**FireCAD Development
For
Fire Hazard Analysis**

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ABSTRACT

This paper addresses the development of FireCAD, a tool for performing Fire Hazard Analysis using the capabilities of the computer aided design tool, AUTOCAD, and the zone fire model, CFAST. FireCAD uses an AUTOCAD drawing as a basis for generating input files to be modeled by CFAST. Results from CFAST are then displayed in terms of the original AUTOCAD drawing. FireCAD consists of a computer fire model, a CAD host interface, database linkages and topological analysis (analysis that determines how compartments are connected). The results of this research have direct application to fire modeling, fire hazard analysis and fire risk assessment. In addition, this research is important to the adoption of performance-based fire codes since it can assist in performance evaluations of buildings.

This effort involves the cooperative effort of fire protection engineers at Rolf Jensen & Associates, computer scientists at Lorrion Corporation and fire modelers at the National Institute of Standards and Technology (NIST).