Computer Models
For
Fire and Smoke

Model Name: BlenderFDS

Version: 3.0RC1

Date: 2014-02-04

Model Actively Supported?: Yes, by a thriving community of users from all around the world.

Classification: *Field Model/Miscellaneous* or *Field Model/GUI*

Very Short Description: The open user interface for NIST Fire Dynamics Simulator (FDS)

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User's Guide: https://code.google.com/p/blenderfds/wiki/Wiki_Home?tm=6

Technical References: https://code.google.com/p/blenderfds/wiki/Wiki_Home?tm=6

Validation References: https://code.google.com/p/blenderfds/wiki/Wiki_Home?tm=6

Availability: http://www.blenderfds.org

Price: free and open source (https://www.gnu.org/copyleft/gpl.html)

Necessary Hardware: BlenderFDS is cross-platform and runs equally well on Linux, Windows and Macintosh computers.

Computer Language: Python 3. BlenderFDS is developed as an add-on of the Blender platform (http://www.blender.org), a free and open source 3D suite.

Size: BlenderFDS 3.5 MB, Blender 70 MB

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Detailed Description:

BlenderFDS, the open user interface for NIST FDS

Have you ever passed long hours calculating and typing geometric coordinates of FDS objects by hand? That is a really slow, tedious and error prone procedure. BlenderFDS is the open source graphical interface for FDS that assists the user during the input file preparation.

BlenderFDS effort is completely unrelated and independent from FDS development performed at NIST and other organizations. None of these organizations finance, support, endorse, or otherwise recommend BlenderFDS.

The user retains the full control over the FDS input file.

BlenderFDS tool tries to be as flexible as possible, and is intended for those users that already have a basic knowledge on how FDS works. Geometry and thermophysical properties are modeled in a graphical environment. Pre-existing 2D and 3D data of buildings can be imported from many CAD tools.

From the Community, to the Community.

BlenderFDS development was started on September 2009. A blueprint was written and shared with the FDS and Blender worldwide communities. Many users from both communities, and from several universities offered their help and now contribute to the effort.

BlenderFDS development is public and open. If you wish to become a contributor, please contact us for inclusion. Don't be afraid, there is plenty of work available for non-developers, too: documentation, support, translation...

BlenderFDS is provided as it is, and support is community-based. If you need commercial grade support, please refer to good commercial alternatives, as Pyrosim.