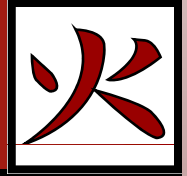
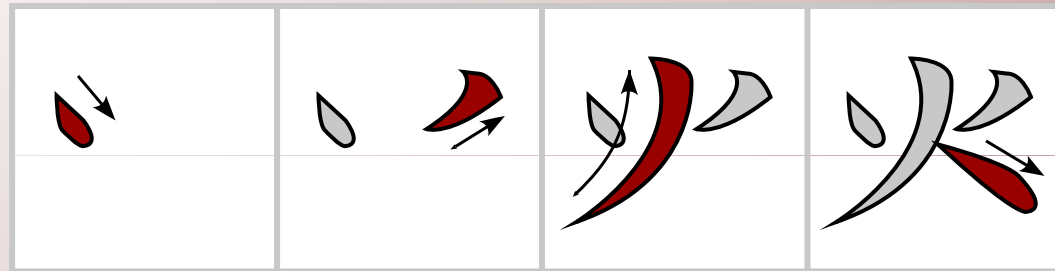


PyroSim

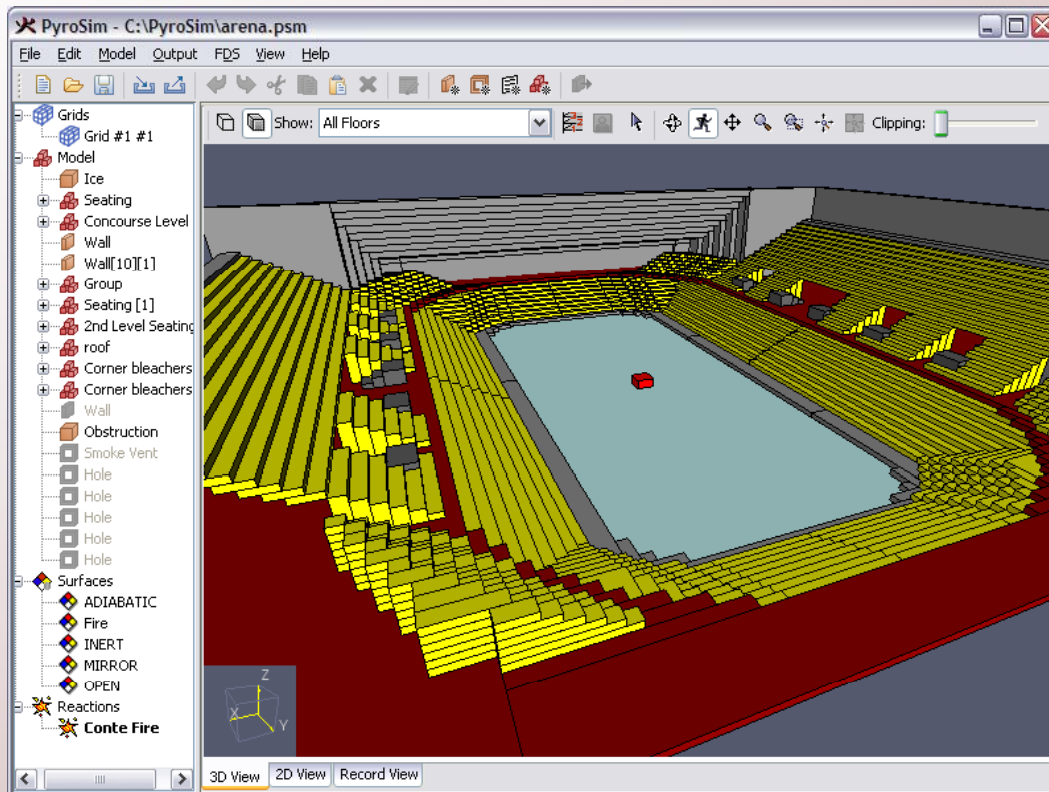


A MODEL CONSTRUCTION TOOL FOR FIRE DYNAMICS SIMULATOR (FDS)



Graphical fire modeling built around the Fire Dynamics Simulator (FDS) from the National Institute of Standards and Technology (NIST)

Powerful Fire Modeling

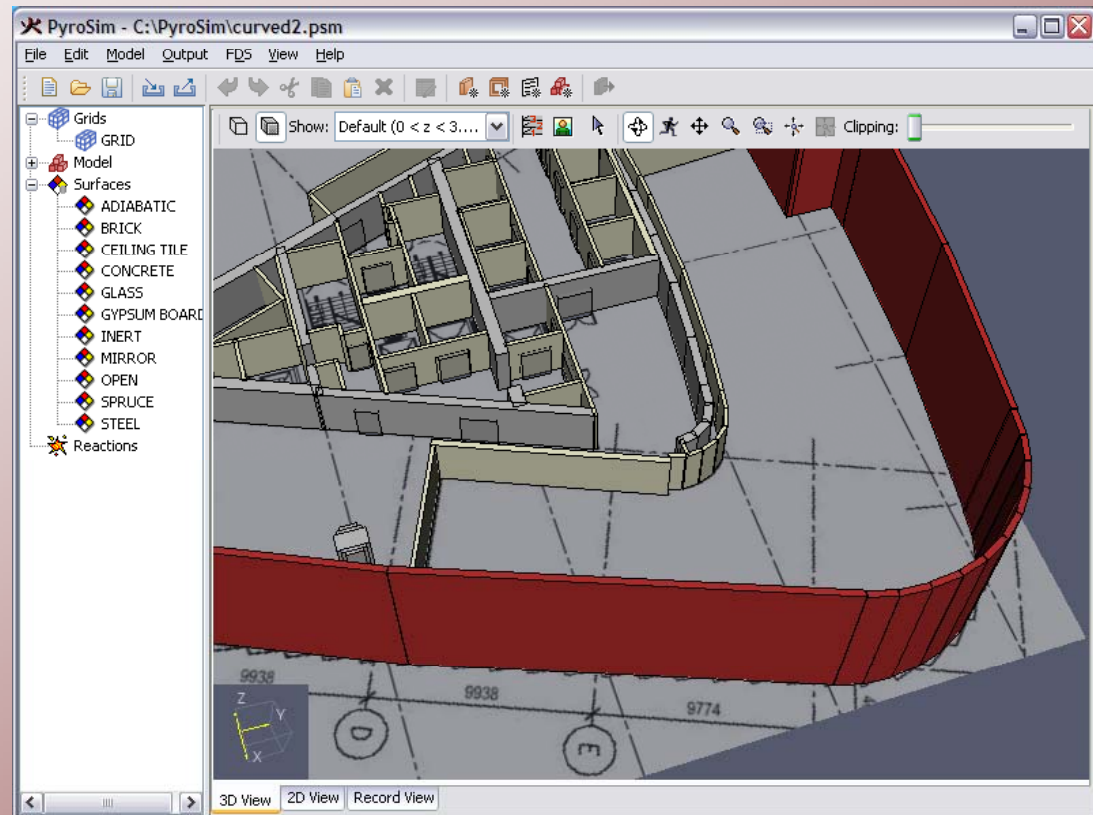


Create large, complex fire models quickly and easily with PyroSim. You can develop advanced simulation models in a small fraction of the time required to manually create FDS input files.

PyroSim

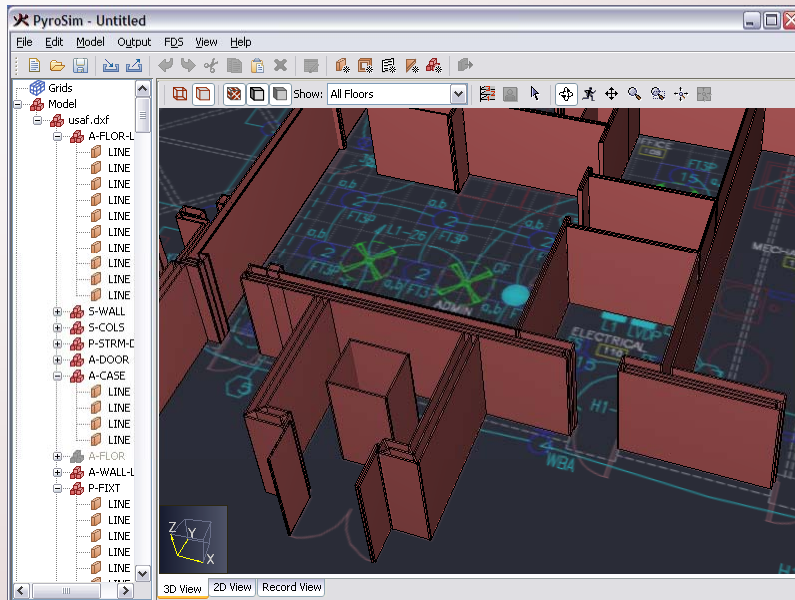
Draw Using Floor Plan Guides

Accurately sketch model geometry using background images. You can quickly create fire model geometry directly from floor plan data without repetitive coordinate entry.

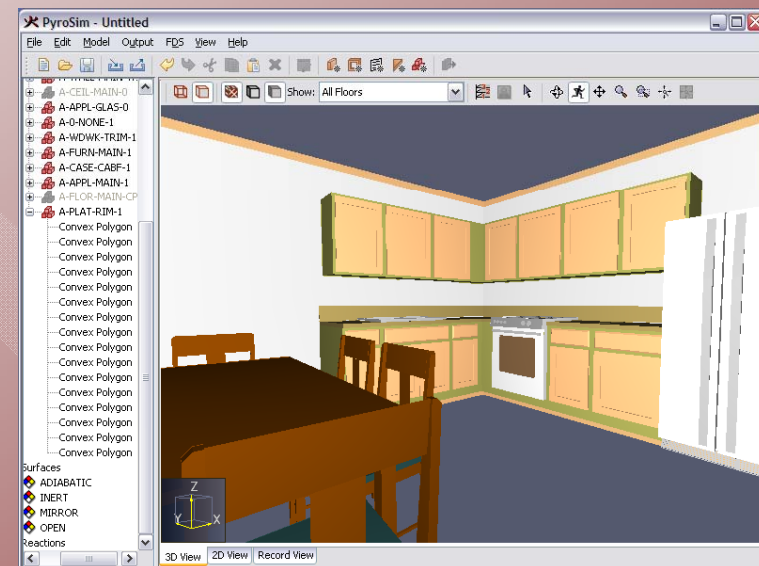


Import CAD Geometry

Import geometry from AutoCAD DXF files. PyroSim can import 2D and 3D geometry files. Geometry can be used as a background guide and extruded to create walls.



Extrude 2D Objects

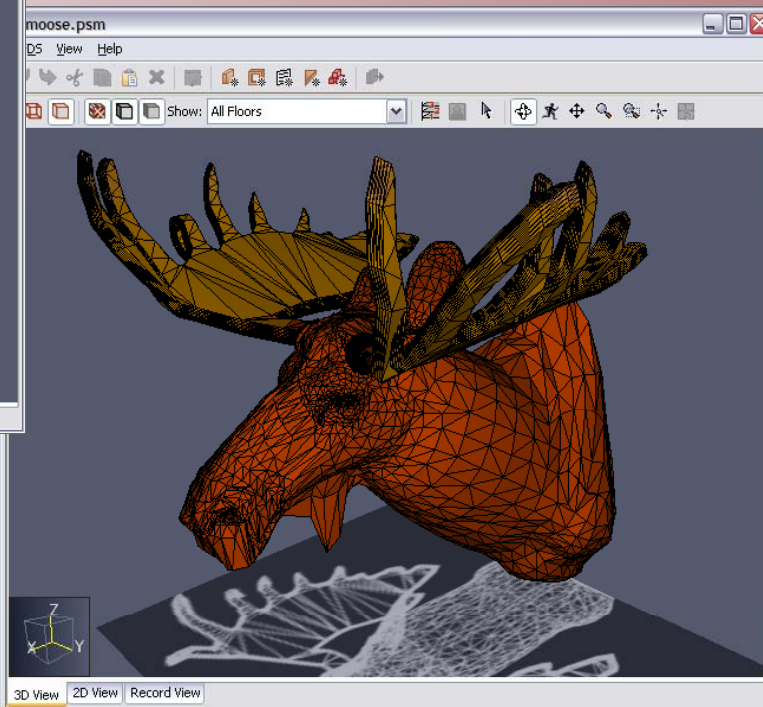
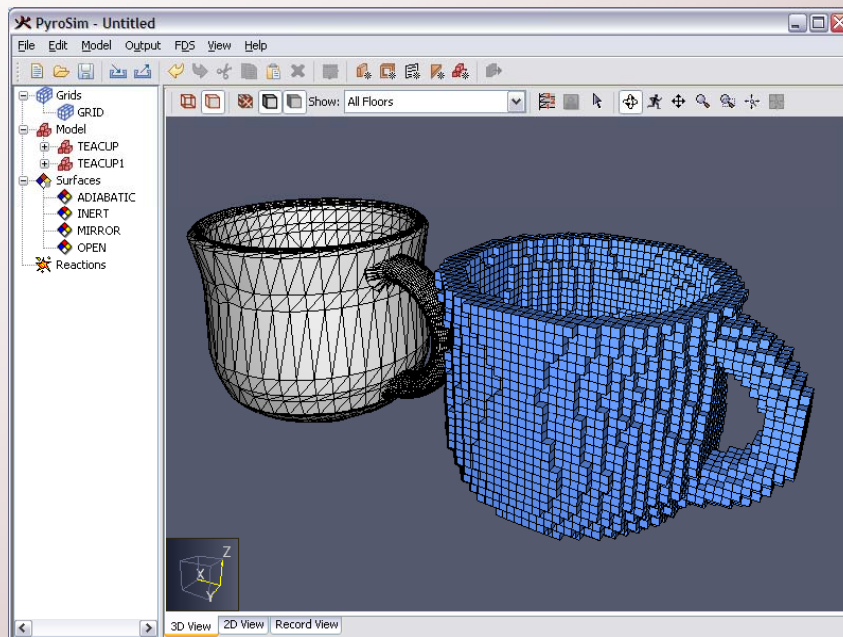


Import 3D Geometry

PyroSim

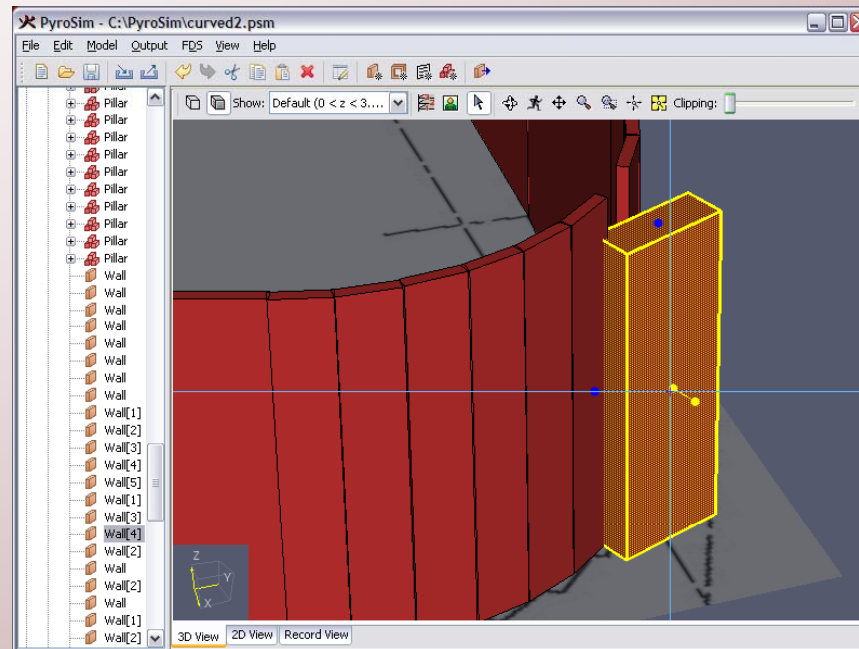
Represent Complex Objects

Import arbitrary geometry and convert into blocks for FDS input.



PyroSim

Interactive Drawing Tools

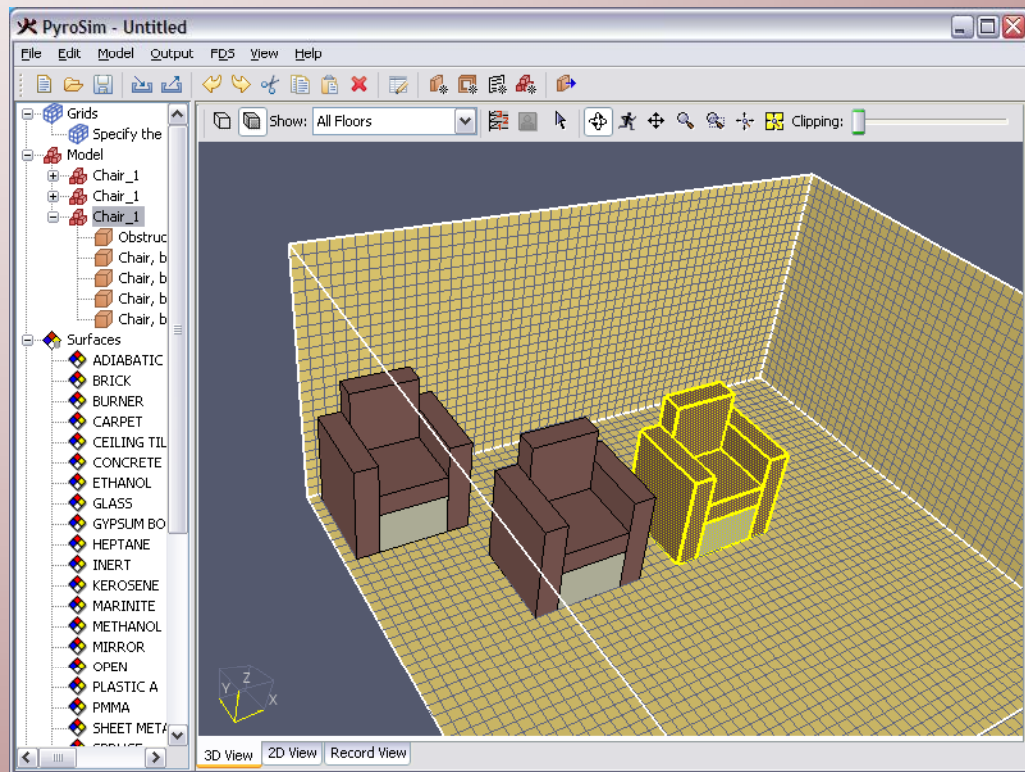


Graphical tools for drawing geometry in 2D and 3D let you quickly create objects with the help of instant visual feedback. A variety of different tools are available for fast creation and editing of geometry with full undo/redo capability.

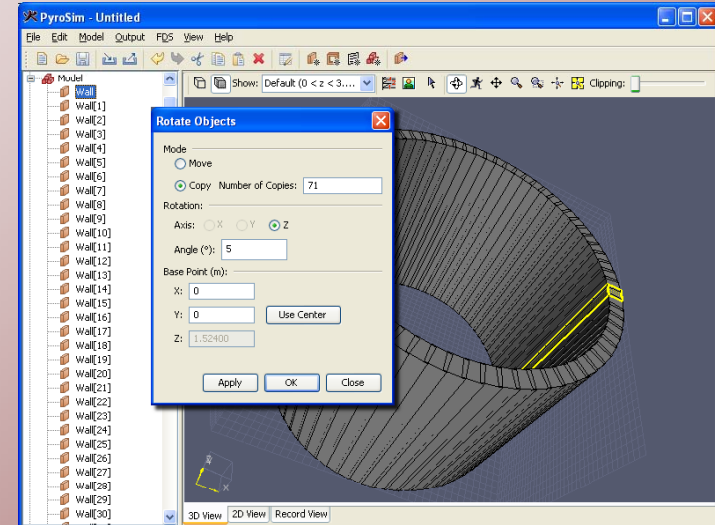
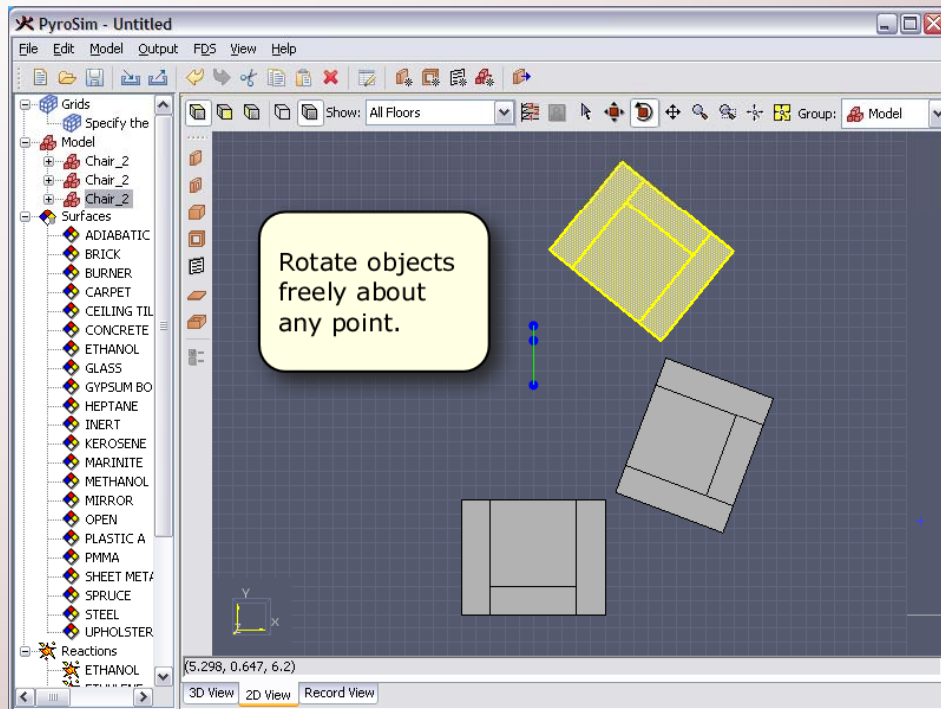
PyroSim

Move and Copy Objects

Save time by moving and copying objects to new locations. You can move, copy, scale, and replicate all geometry in your model to quickly accomplish repetitive tasks and leverage existing models.

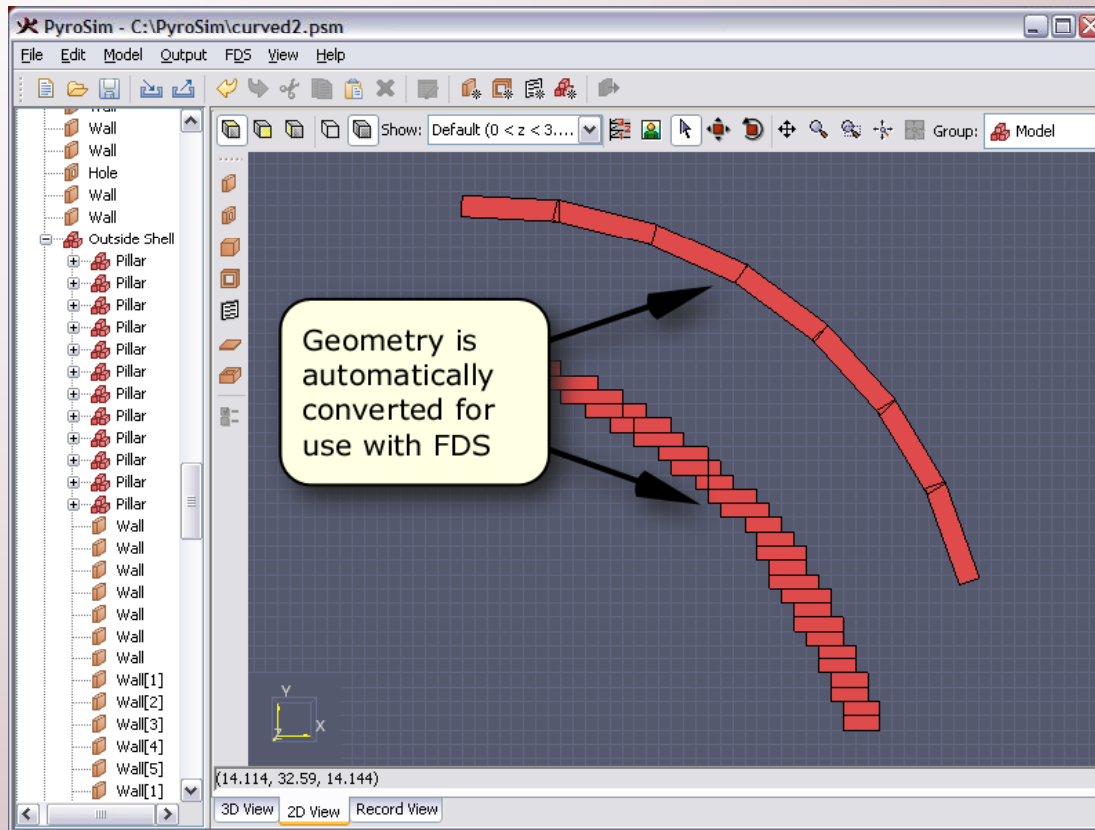


Rotate Objects



You can also rotate geometry in PyroSim to quickly arrange geometry and create circular shapes.

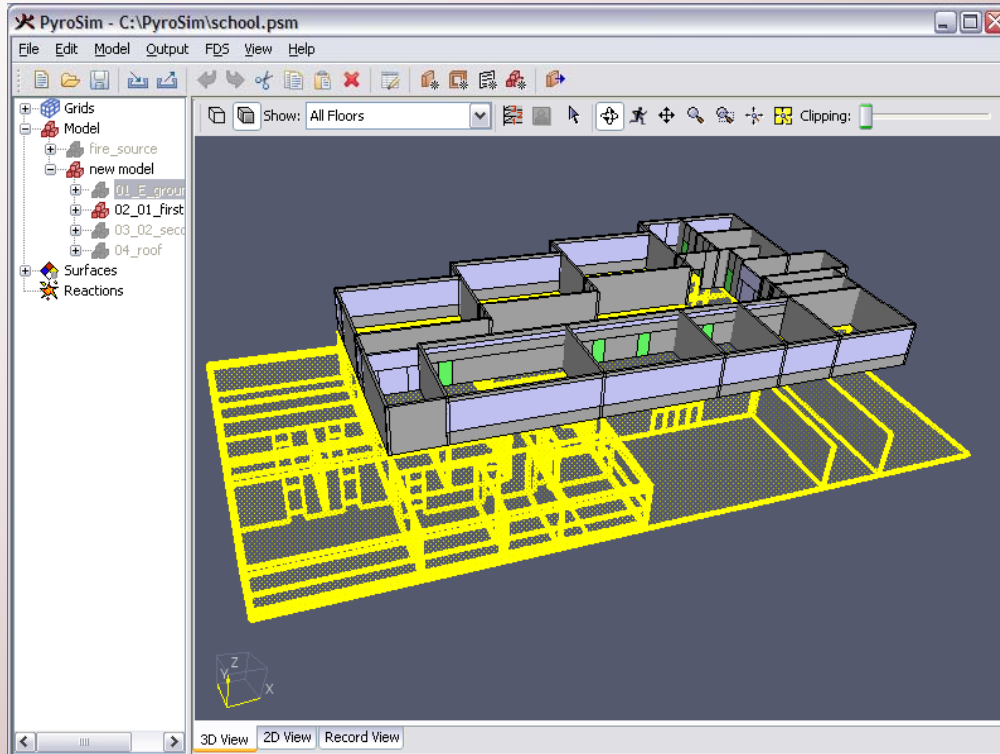
Automatic Geometry Decomposition



PyroSim automatically breaks up complex diagonal and curved geometry into the grid-aligned blocks required for FDS input.

PyroSim

Model Organization



Save time and simplify edits to your large models with tools to group similar geometry and manage multiple floors.

PyroSim

Simplified FDS Input

Organized input forms simplify the specification of fire and material properties and significantly reduce errors.

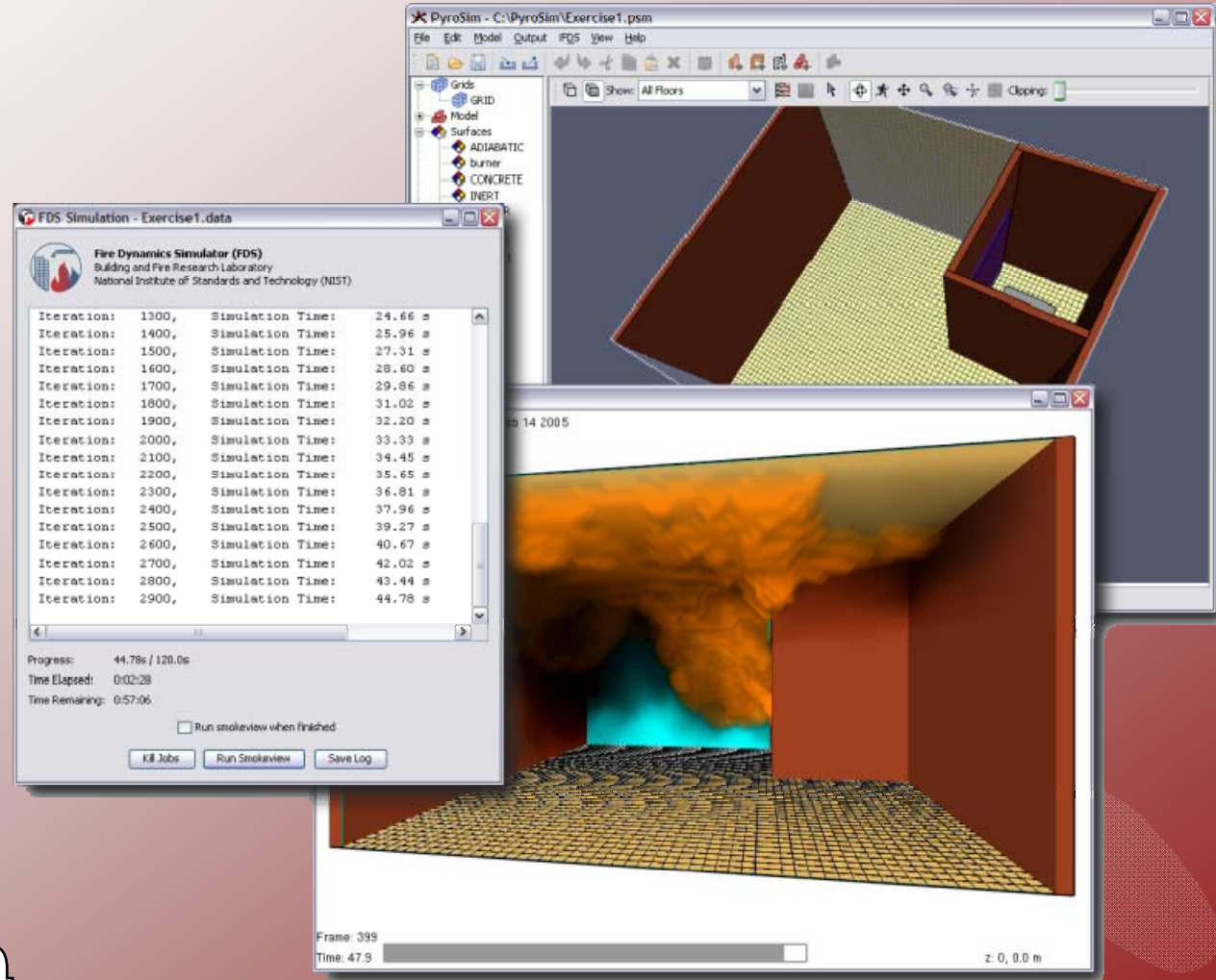
The screenshot shows the 'Surface Manager' dialog box with the following details:

- Surface ID:** GYPSUM BOARD
- Color:** [Color selection box]
- Texture:** [Texture selection box]
- Surface Type:** Flammable Solid (Constant HRR) (dropdown menu is open showing options: Burner Fire, Fan/Wind, Flammable Solid, Flammable Solid (Constant HRR), Non-Flammable Solid, Liquid Fuel, Charring Fuel, Liquid Thermoplastic)
- Boundary Type:** [Dropdown menu]
- Initial Surface Temperature:** [Value] °C
- Thermal Conductivity:** Constant [Value] W/(m·K)
- Specific Heat:** Constant [Value] kJ/(kg·K)
- Wall Thickness:** [Value] m
- Density:** [Value] kg/m³
- Specify Surface Density:** [Value] kg/m²
- Specify Diffusivity:** [Value] m²/s
- Internal Wall Points:** [Value]
- Specify First Cell Thickness:** [Value] m
- Allow Surface to Burn Away**
- Set the Ignition Temperature:** [Value] °C

Buttons at the bottom: Apply, OK, Cancel.

Integration with FDS

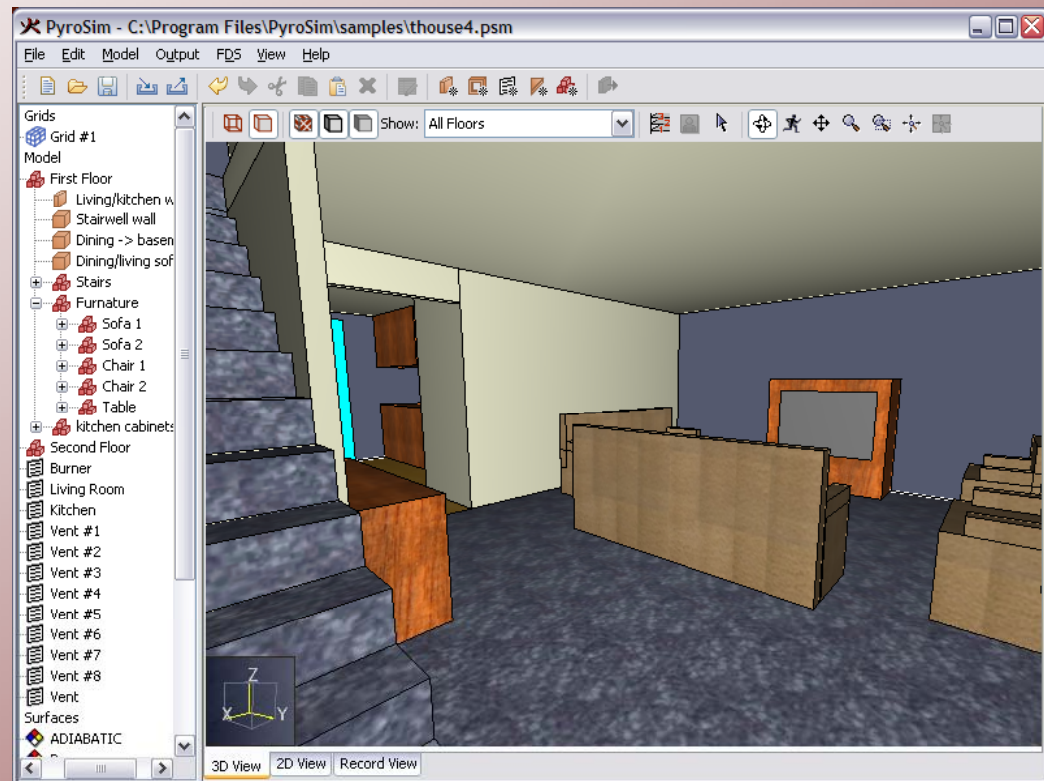
Run FDS seamlessly from within the PyroSim user interface and quickly interpret results using PyroSim and Smokeview.



PyroSim

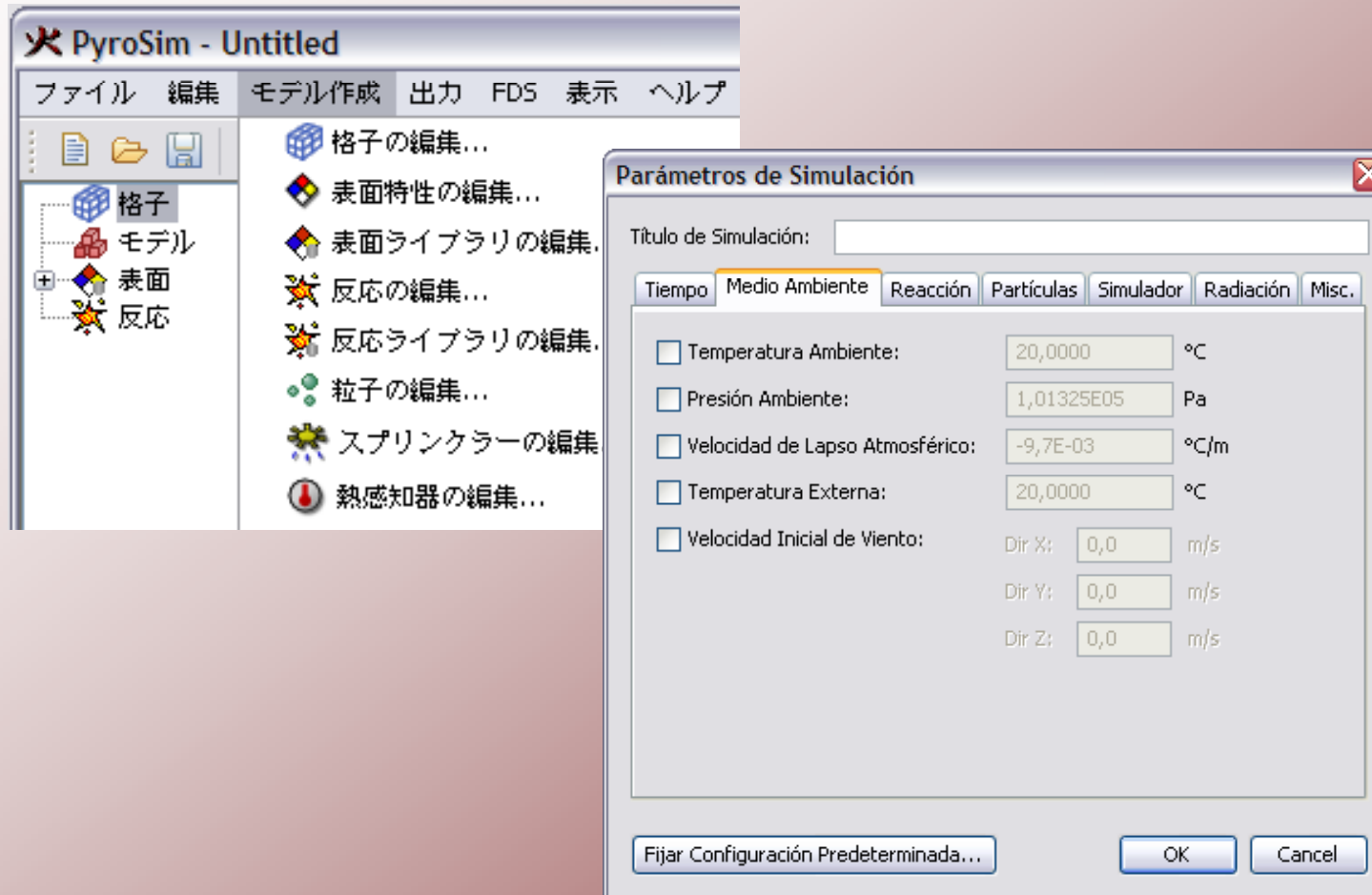
High Quality Graphics

Create realistic presentation graphics with support for textures, advanced shading, and fly-through modes.



PyroSim

International Versions



PyroSim



Simulation Software for Performance-Based Design

PyroSim 

Graphical User Interface for FDS

PathFinder

Next-Generation Evacuation Simulator

in collaboration with
 RJA[®]