

Pathfinder



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Getting Started

Pathfinder 2009

Downloading and Installation

Pathfinder can be downloaded from the Pathfinder web site at:

<http://www.thunderheadeng.com/pathfinder>

Once downloaded, double-click the installer file and follow the on-screen directions. The Pathfinder installer will place a link in the Windows Start Menu in the **Pathfinder 2009** program group. To run Pathfinder: on the Windows Start Menu, navigate to the **Pathfinder 2009** program group, then click **Pathfinder 2009**.

Licensing and Activation

The first time Pathfinder is opened it will display the **License** dialog, shown below. To enter your license information:

1. Select **Online Activation**.
2. In the **Key** box, enter your activation key (provided via email or online).
3. Click **Activate** to acquire your license. Pathfinder will automatically download and install your license file. Licensing information will appear at the bottom of the dialog.
4. Press **OK** to begin using Pathfinder.

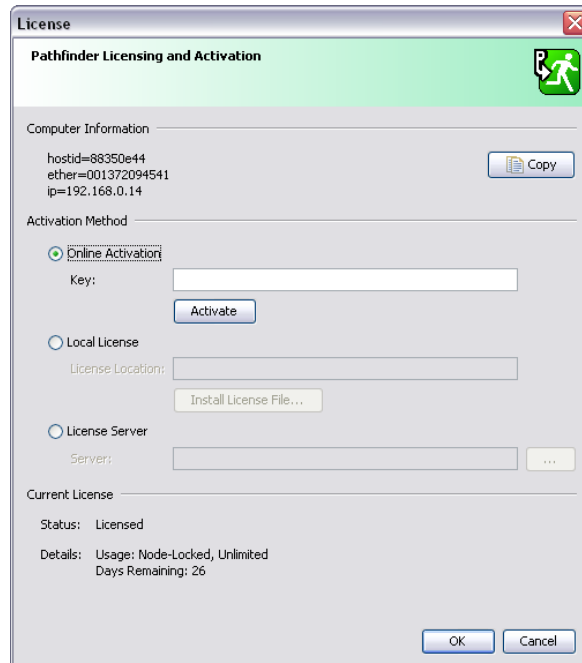


Figure 1: The Pathfinder Licensing Dialog

If you experience any problems with your activation key, you can retrieve an activation file manually at www.thunderheadeng.com/license. The activation file can then be used by selecting **Local License**

within the licensing dialog and clicking **Install License File**. Alternately, please contact support@thunderheadeng.com to request a license file by email.

Once Pathfinder has been activated, you should see the Pathfinder interface, shown below.

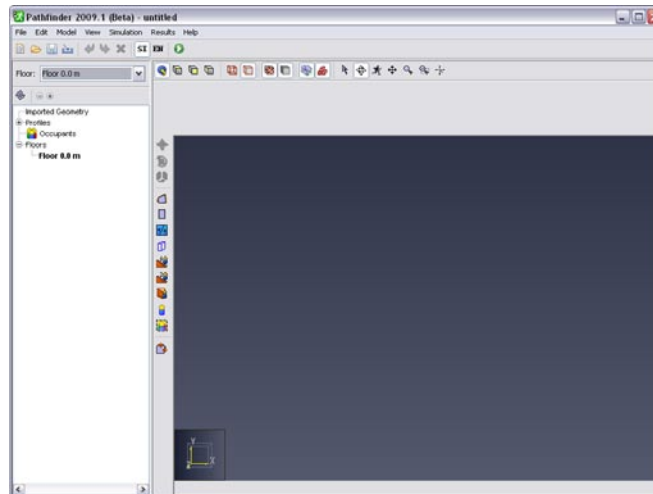


Figure 2: The Pathfinder Interface

Opening a Pathfinder Model

For the purposes of this guide, we will open an example file included with the Pathfinder software, `multi-floor-stairwell.pth`.

To open the file:

1. On the **File** menu, click **Open**.
2. Navigate to the directory where examples are stored. By default this will be `C:\Program Files\Pathfinder 2009\Examples`.
3. Select `multi-floor-stairwell.pth`, then click **Open**.
4. On the **File** menu, select **Save As...**
5. Save the model to a new folder on your computer. This folder will contain the simulation results.

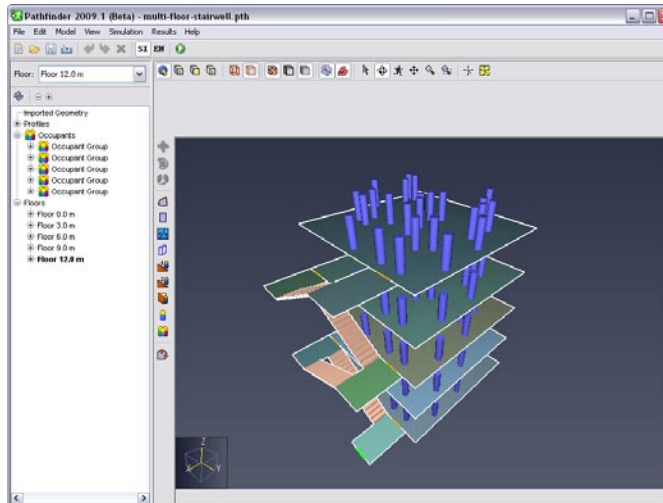



Figure 3: An example Pathfinder model

Running a Pathfinder Model

To run the simulation:

1. On the **Simulation** menu, click **Run Simulation** (). This will open the **Run Simulation** dialog. The **Run Simulation** dialog will track the progress of the simulation until it is completed.
2. Click **OK** to exit the **Run Simulation** dialog. You may also need to close the **3D Results** view, which opens automatically after the simulation has completed.

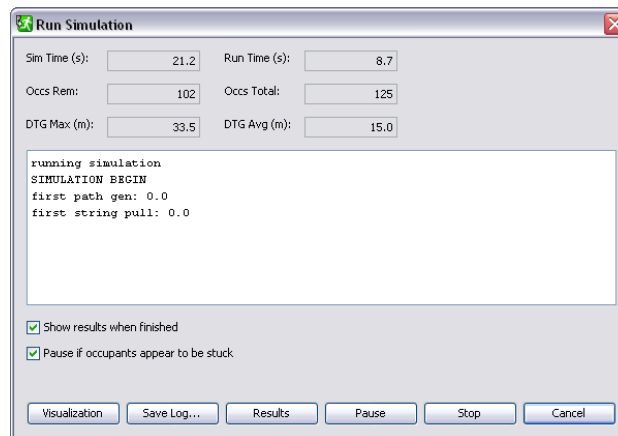


Figure 4: The Run Simulation dialog

Viewing Results

Running a Pathfinder model generates multiple forms of output. This guide will look at the summary file, the occupant count graph, and the 3D results. The summary file provides an overview of the simulation

results, the occupant count graph shows the number of people in areas over time, and the 3D results view allows you to replay the simulation as an animation.

To view the summary file, on the **Results** menu, click **Show Summary File**. For each room, the summary file shows when the first occupant entered, and when the last occupant exited. It also shows the total number of occupants to pass through the room and the average flow rate. This information is also shown in the **Run Simulation** dialog log window after a simulation has completed.

To view the room usage time history, on the **Results** menu, click **Room Usage**. The occupant count graph provides a visual representation of the number of occupants in an area over time. Click to check and uncheck the boxes on the left to display the lines for different areas. For example, checking the Remaining box will show the emptying of the model over time.

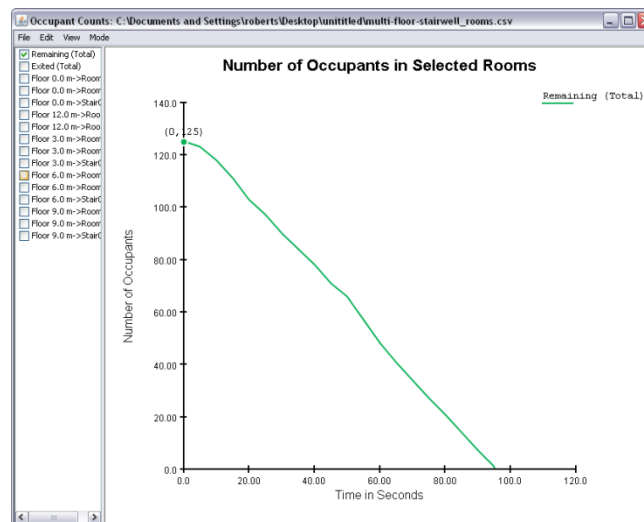


Figure 5: The occupant count graph

To view **3D Results**, on the Results menu, click **View 3D Results...** The **3D Results** view is used to replay an animation of the simulation. Click the play button to view the animation. Occupants will file down the stairs and out the exit.

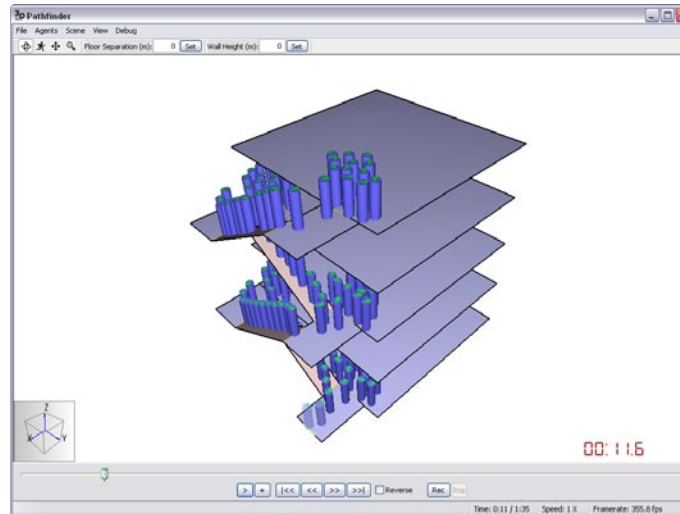


Figure 4: The 3D Results view with agents displayed as cylinders

The **3D Results** view also includes several options to assist in viewing a model.

To show occupant trails, on the **View** menu, click **Show Occupant Paths**. This will cause occupants to leave a colored trail as they move through the simulation.

To view each floor from above, on the **Scene** menu, click **Layout Floors Horizontally**. This will collapse each floor to a single viewing plane where they can all be viewed simultaneously. To re-center the view after changing the floor layout, press **CTRL+R**

To show occupants using human models, on the **Agents** menu, click **Show as People**. Occupants will be rendered using realistic human models. The specific models displayed are selected based on the occupant profile information from the simulation input.

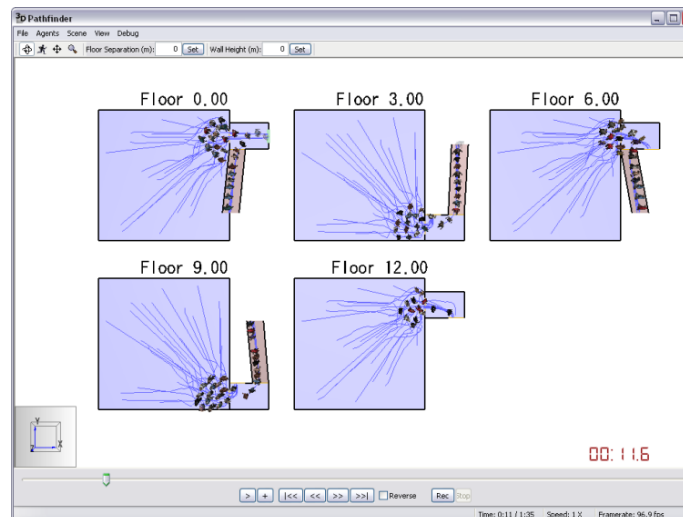


Figure 6: The 3D Results view with features enabled

Learn More

To learn more about Pathfinder, you can use the following sources of additional Pathfinder documentation:

- The **Pathfinder Example Guide** contains several examples designed to help familiarize new users with advanced features of Pathfinder.
- The **Pathfinder User Manual** provides an overview of Pathfinder and its features.
- The **Pathfinder Technical Reference** contains more in-depth information about Pathfinder's functionality and file formats.