Adding Openings in ModelIT

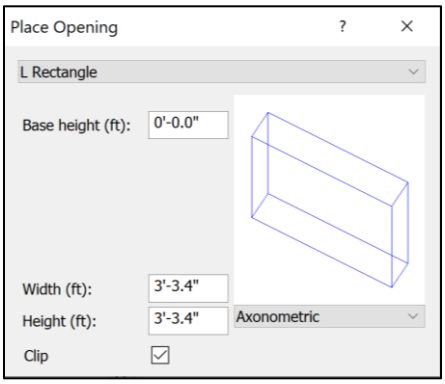
IES Technical Support

FAQ Document for Users

To add different kinds of openings (windows, doors or holes) in ModelIT, you can use either toolbar buttons or key-in commands.

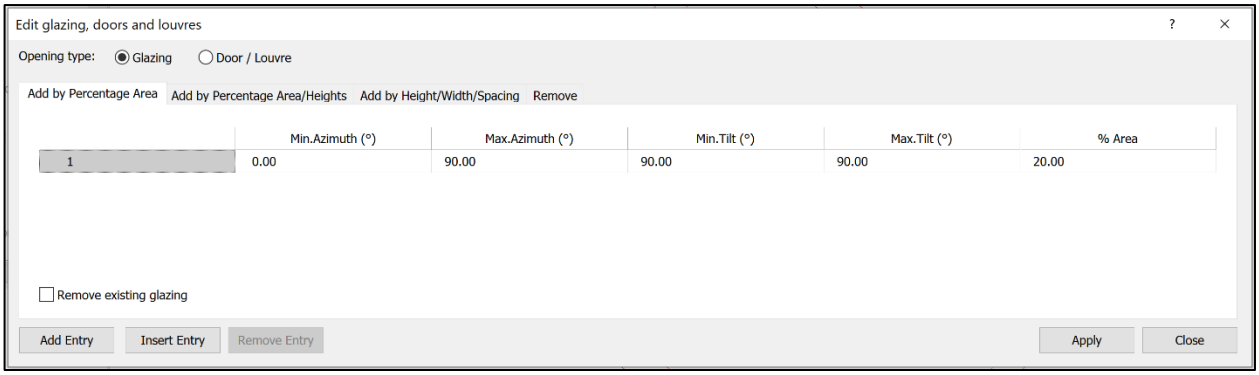
Toolbar Buttons

- At the model level, you can click on **add door**, **window** or **hole** buttons and then specify shape, base height, width and height for the selected opening type.

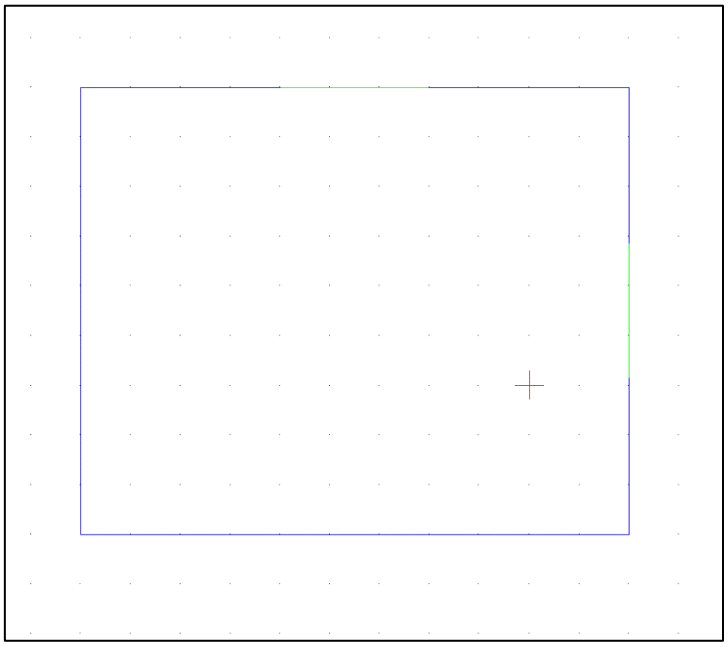


- You can also highlight the space you want to add openings to, and then click on **Edit glazing, doors and louvers (selected spaces)** button  . Select opening type, addition method and then fill in the corresponding fields and click *Apply*.

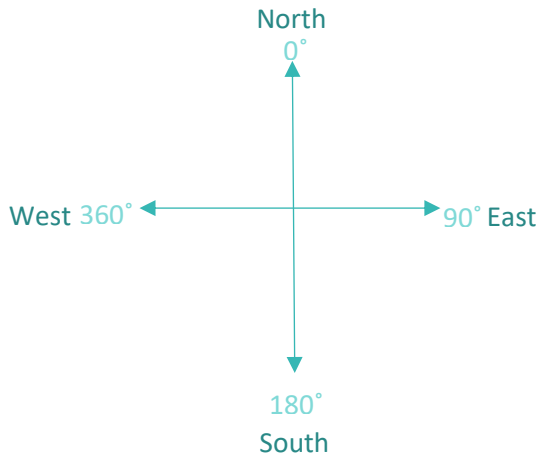
For example, you can select *Glazing*, *Add by Percentage Area* tab (as shown in the image below), Min. Azimuth = 0˚, Max. Azimuth = 90˚ (this will add glazing in Northern and Eastern walls), Min Tilt = 90˚, Max title = 90˚ (this will add glazing to walls with 90˚ tilt, i.e. vertical walls) and %Area = 20. Then click *Apply*.

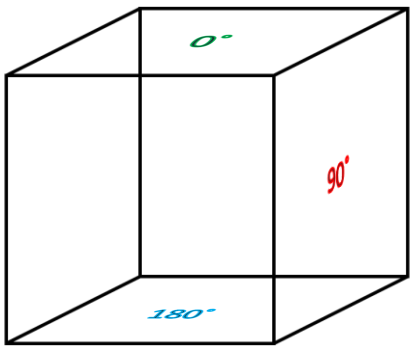


As shown in the below image; you will have glazing in two walls and their areas are equal to 20% of each of these walls.

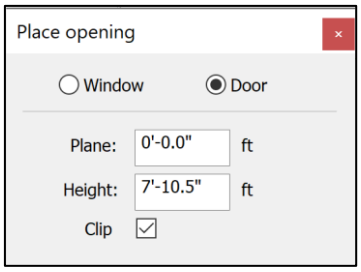


The image on the left shows the four directions or surface orientation, i.e. Azimuth. Min azimuth of 90˚ and max. azimuth of 180˚ will add glazing to every wall with surface orientation between 90˚ and 180˚ (East and South facing walls). While the image on the left shows surface tilt. Min. Tilt of 0˚ and max. Tilt of 90 will add glazing to every wall with tilt value between 0˚ and 90˚.

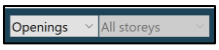


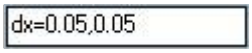


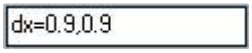
- If you want to add openings while you are in *Plan* view (tracing over a .dxf file for example); you can click on **Add window/door to wall (in Plan)** button  . Select opening type then specify plane and height.



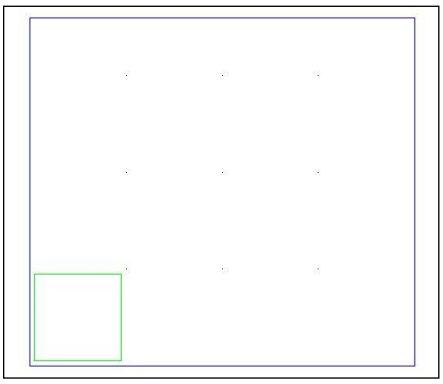
Key-in Commands:

- You can also use **X=x,y** and **DX=x,y** commands. First, select the space where you want to add openings >> go down one level  >> select the surface you want to add openings to >> go down one level again  . Then at the *Opening* level 

click on **Add Window** button  and enter the displacement relative to the bottom left corner, for example: 

and press *Enter.* Then define the size of the window (e.g. 0.9 by 0.9) 

and press *Enter*.

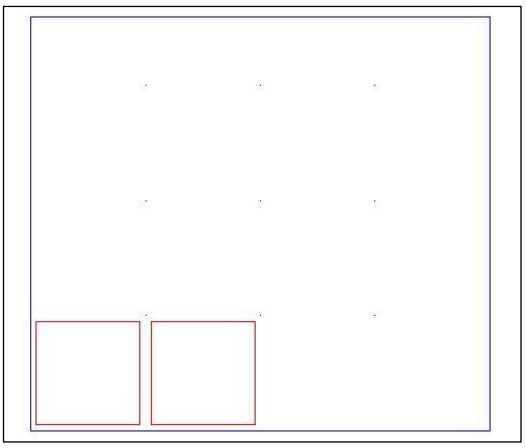


We can see above a 0.9 by 0.9 window with 0.05 offset in X and Y axes relative to the bottom left corner.

To copy this window; stay at the same level (openings) and click on it and then on the **Copy selection set** button  . Define a starting position by inputting 

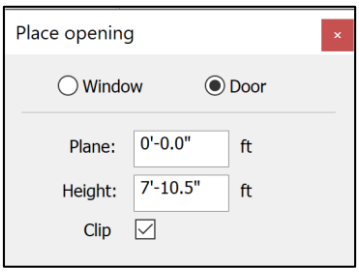
to the key-in field and press *Enter*. This command will set the current coordinates to be the absolute position. Then input a displacement relative to the selected window 

and press *Enter*.



By repeating this process with different displacements, you can create the desired glazing effect.

- If you want to add openings while you are in *Plan* view (tracing over a .dxf file for example); you can type **PSWIN** in the key-in field and press *Enter* then select the opening type and specify plane and height.



- You can also use other key-in commands such as **G=x** and **GW=x** to add skylight and windows respectively, where **x** is the skylight or window area percentage of the roof or wall. Select the space you want to add the opening to, then type in **G=20** in the key-in field and press *Enter*. 20 is the skylight area percentage of the roof it is added to. Or you can type **GW=40**, where 40 is the glazing or window area percentage of its corresponding wall area.