

GRAPHISOFT® ARCHICAD 9

Special Edition Library
Illustrated Doors

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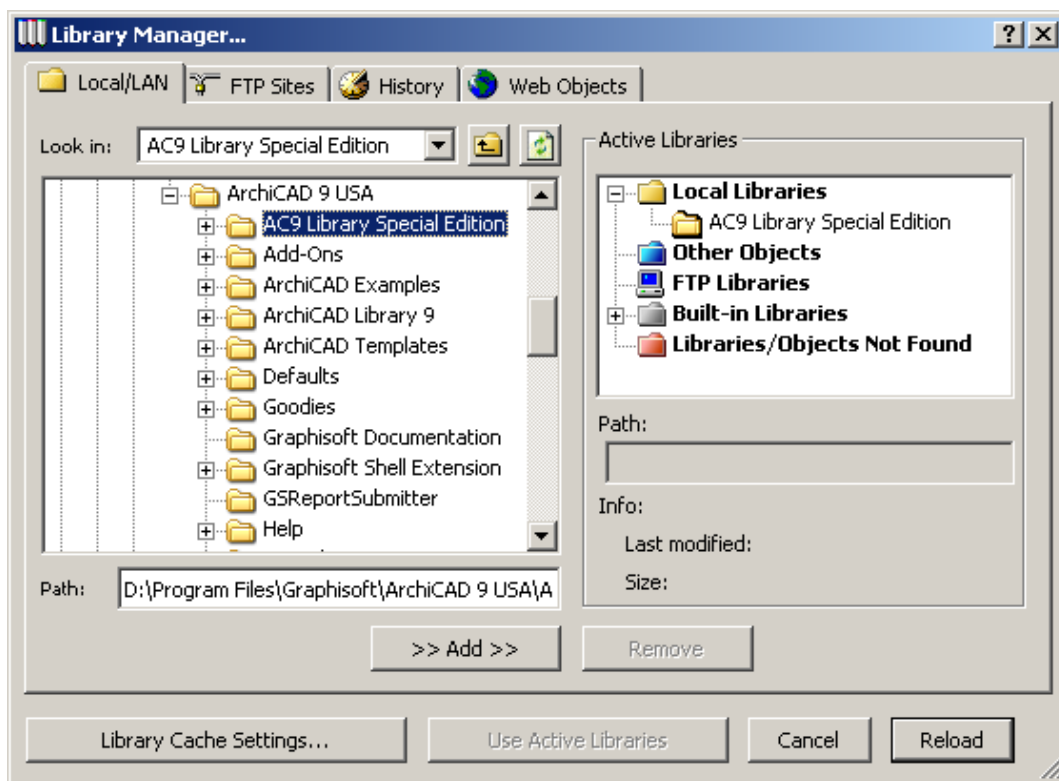
1. Introduction

In this document we would like to introduce you the doors of the *ArchiCAD 9 Special Edition Library*. These objects are highly parametric and have options for important details such as frame, panel, casing, arch, shutter, handle and many more. There are 52 doors in this library including internal, external, metal and wood-plastic ones. Below we'll describe how you can customize these library parts to your needs and how you can place and modify them.

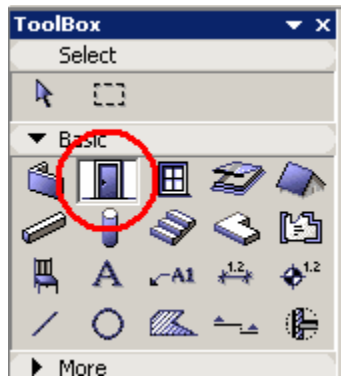
2. Placing Doors

In ArchiCAD, doors can only be placed in walls. Consequently, you must have drawn at least one wall on your floor plan in order to place any door. If you want to use a door from the Special Edition Library you have to load it first.

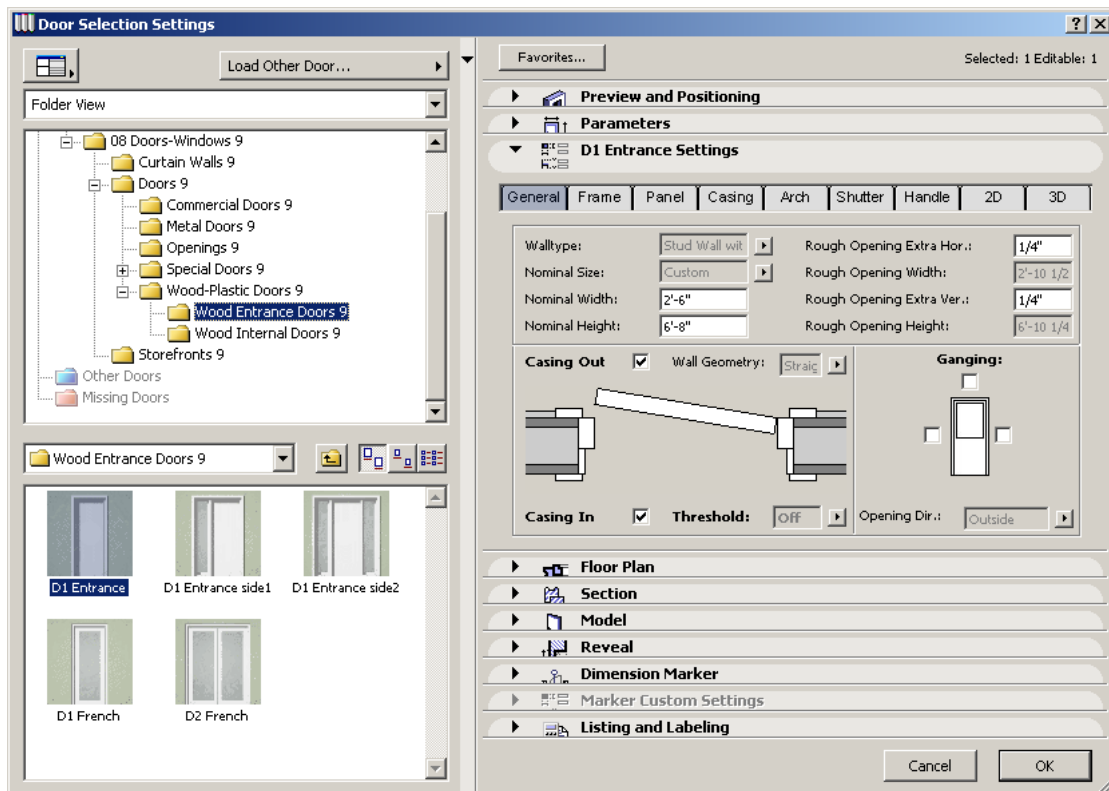
1. Open the library manager, select the “AC9 Library Special Edition” folder and load it.



2. Choose the *Door Tool* from the *Toolbox*



3. Select the preferred door type in the object browser on the left side of the dialog. In this example we'll use the *D1 Entrance* door. You will find it under *Object Library 9\08 Doors-Windows 9\Doors 9\Wood-Plastic Doors 9\Wood Entrance Doors 9*



4. The selected objects parameters will appear on a graphical user interface on the left side of the object setting dialog. Before you place the door on the floor plan you have to define at least the most important parameters (e.g. size) on the General user interface tab page. *Note: It is very important to set the values for the Wall Type and Wall Geometry parameters in order to get a correct result on the floor plan and 3D doors. For more details please read the description of the General user interface page below.*

D1 Entrance Settings

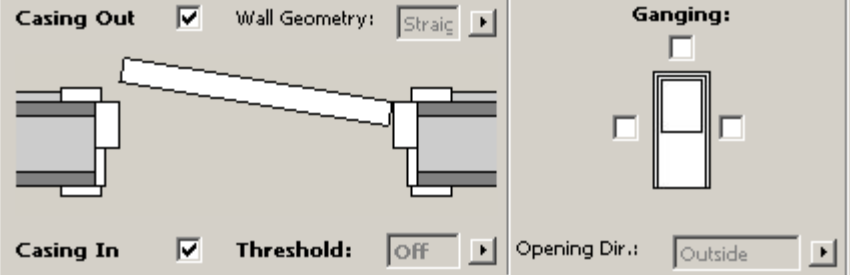
General | Frame | Panel | Casing | Arch | Shutter | Handle | 2D | 3D

Walltype: Stud Wall wit
 Nominal Size: Custom
 Nominal Width: 2'-6"
 Nominal Height: 6'-8"

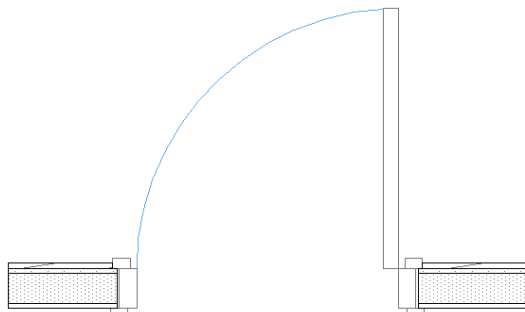
Rough Opening Extra Hor.: 1/4"
 Rough Opening Width: 2'-10 1/2"
 Rough Opening Extra Ver.: 1/4"
 Rough Opening Height: 6'-10 1/4"

Casing Out ☒ Wall Geometry: Straig
 Casing In ☒ Threshold: Off
 Opening Dir.: Outside

Ganging:



5. After closing this dialog with *OK*, you are ready to place the door. Make sure to insert it in the same type of wall that you've specified in the door setting dialog. Now, define its position on the base line of a wall. With a second click beside the wall you show the opening direction and opening side of the door.



Floor Plan

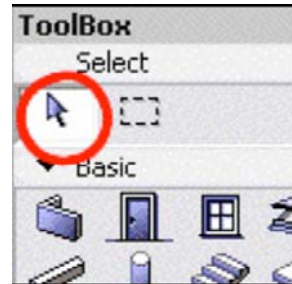


3D View (external)

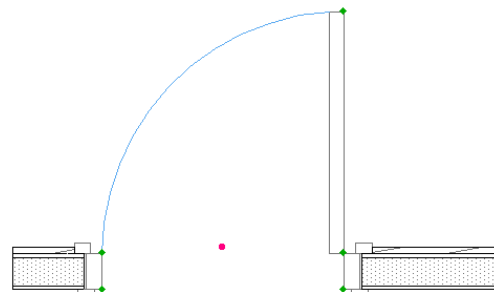
3. Visual Editing

Once the door has been placed, you have the ability to alter some of its properties right on the floor plan. You get immediate graphical feedback from the changes made, that's what we call visual editing.

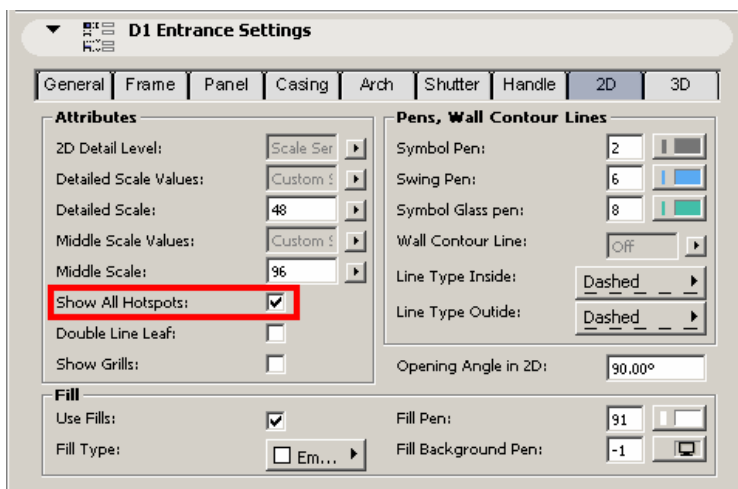
Select the door with the *Arrow Tool*, by clicking on it with the pointer.

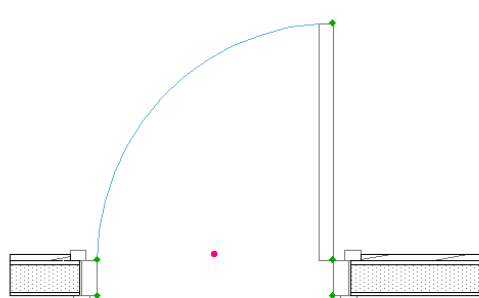


The cursor turns into arrow-shaped over the hotspots and into magnet-shaped over other selectable region. When selected, the hotspots of the door become highlighted

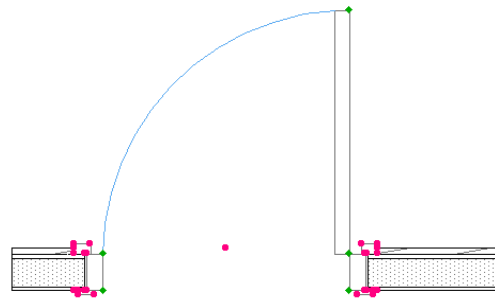


Usually you find hotspots on the corners and on other characteristic points of objects. With the *Special Edition Library* doors there are always hotspots on the nominal opening and the door leaf. You can turn on additional hotspots on the 2D user interface tab page with the *Show All Hotspots* option. *Note that these hotspots are not hotspot editable.*





Show All Hotspots = OFF



Show All Hotspots = ON

On the floor plan, you can change two different things.

Position of the door

Click once on any of the highlighted hotspots. The pet palette pops up. Choose *Move*. With a second click you specify the size of the displacement. Of course, openings can be moved only in the plane of the wall.

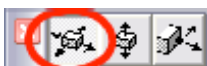


Width

Click once on any of the hotspots on the nominal opening. Choose *Stretch* from the popup palette. Specify the new corner with a second click. *Note that hotspots editing is available only if the Custom option is set for the Nominal Size (this is the default).*



In addition to the above two options in 2D, you can also change the vertical position of the door in the 3D view.



Use *Drag horizontally* for changing the position of the door.

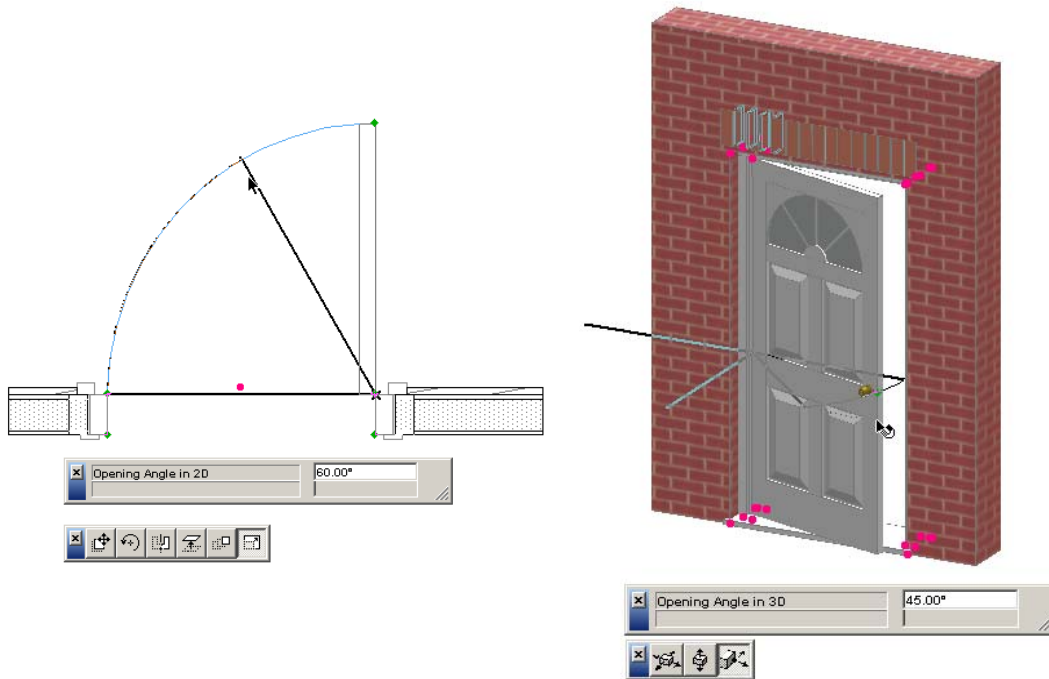


Move it up or down with *Elevate*.



Use *Stretch* for adjusting the width.

You can also open the doors in floor plan and 3D view with the help of the editable hotspots. Editable hotspots are differentiated from normal ones by a green color and a diamond-shape. It works like a real life door: snap the handle (the hotspot) with the cursor and pull it until the door is open at the desired angle. Alternatively, you can type in the opening angle numerically into the corresponding palette.



Opening the door leaf in 2D

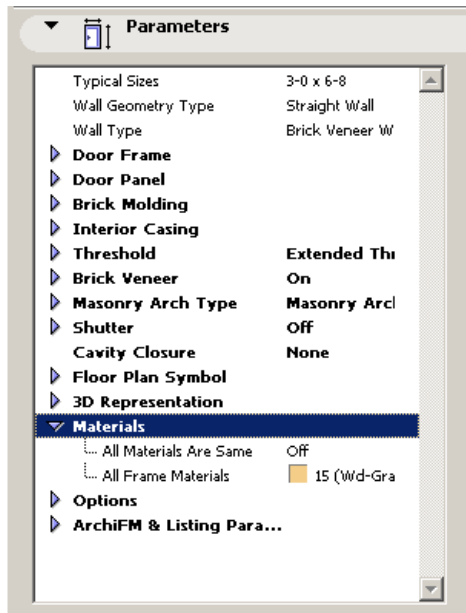
Opening the door leaf in 3D

While the default settings apply, no other editable hotspots are available. As far as the *H-V Grid* panel style is selected for the *French* doors you will see more of them. That will be discussed later.

4. Parameter Setting

4.1 Parameter List

Each ArchiCAD door has the list of parameters located under the parameters panel. The list contains all the available parameters of the object. See the description of the parameter list at *Chapter 6*.



4.2 Basic Parameters

On this page you can also find the Basic parameters that control the doors size and position. Even empty door openings are provided with them. You can find them right from the custom parameter list in the *Parameters* panel.

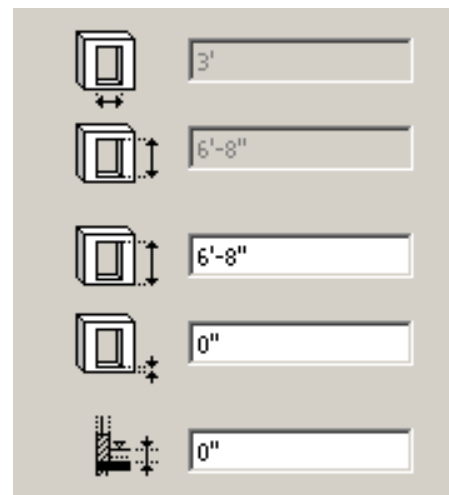
Door Width

Door Height

Door Header Height

Door Sill Height

Subfloor Thickness



Note that the width and height input fields are disabled until parameter Nominal Size has been set to Custom.

4.3 Custom Settings (Graphic User Interface)

All the doors in the SE library are having a graphic user interface that contains all the parameters (except a few ones that will be discussed at chapter 6.) You can

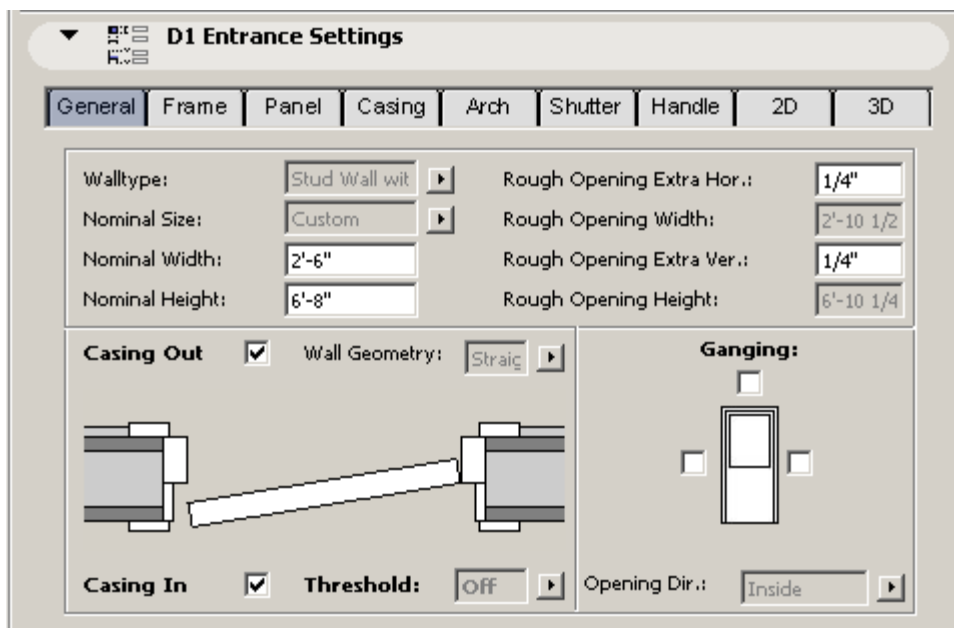
find this panel under the parameter list. See the detailed description in the next chapter

Note: You can modify the object's parameters from both the parameter list and the Graphic User Interface. The doors of the Special Edition library have their Custom Settings Dialog turned on by default in the door setting dialog.

5. Graphical User Interface

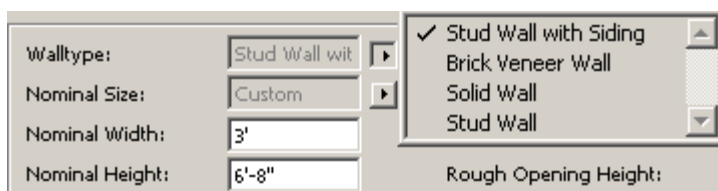
5.1 General Tab Page

The *General* page contains only the most important parameters like wall types, door size, casing, threshold and ganging. Find below the detailed description of these parameters.



Wall Types

You have to set this parameter correctly prior to placing the door in a wall. The value of this parameter and the type of the wall in which you want to place the object has to match since the 3D model and the 2D symbol of the door will change significantly according to this setting.

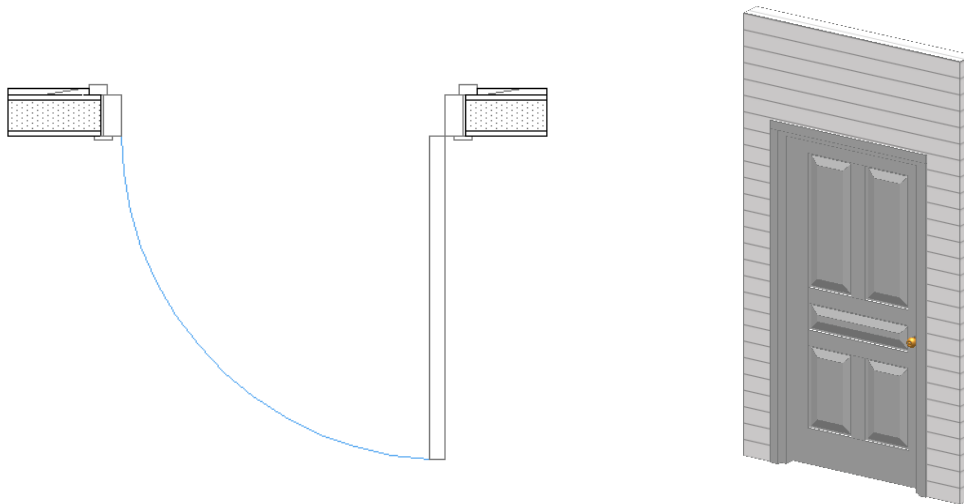


There are four wall types to choose from for entrance, garage, arch top and sliding doors: *Solid wall*, *Stud wall*, *Stud Wall with Siding*, and *Brick Veneer Wall*.

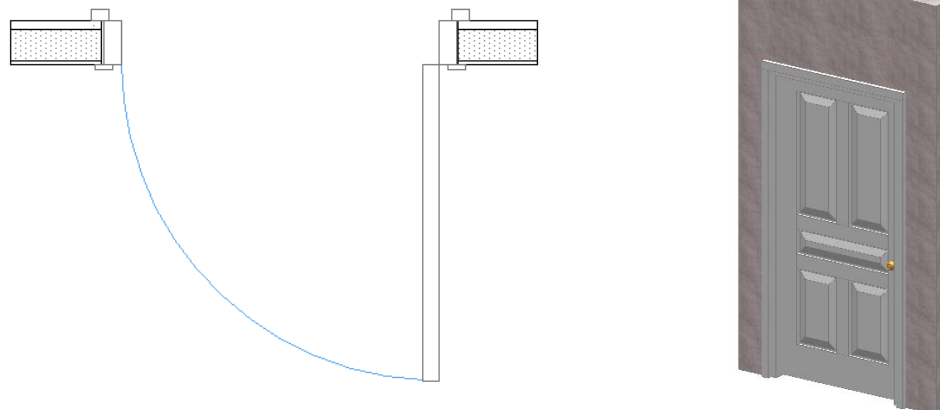
There are three wall types in the internal and bifold doors: *Solid wall*, *Stud wall* and *Stud Wall with Siding*

There are two types in the commercial and metal doors (as they don't have casing): *Solid wall*, *Stud wall*

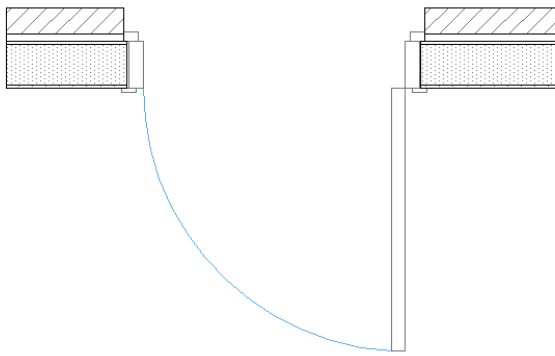
And there are no wall type parameters in the pocket and sliding doors as the door frame doesn't depend on the wall type.



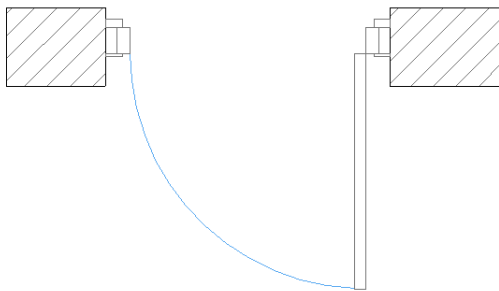
Stud Wall with Siding



Stud Wall



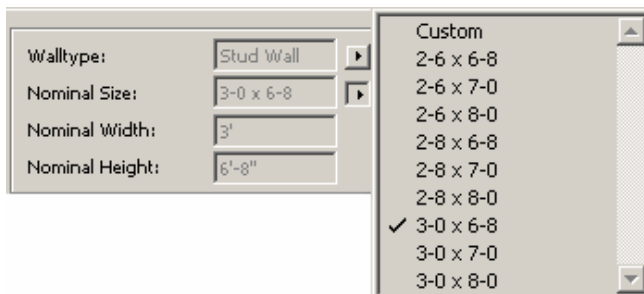
Brick Veneer Wall



Solid Wall

Nominal Size

With the very first parameter called *Nominal Size* you set the most important properties of the door: width and height. For your convenience, many common sizes are predefined. You just choose the preferred one from the list. Of course, this doesn't mean you are only restricted to these default sizes. After choosing *Custom Size*, the door can take any arbitrary size. *Note that if you use a typical size you can't edit the width and height with a hotspot.*



Below the *Nominal Size* you see the actual value of *Nominal Width* and *Nominal Height* parameters. If a typical size is selected these parameters will be displayed with grey indicating that you can't modify their values. If you set the *Custom* option they become black and you can simply enter their custom value into the parameter field.

Rough Opening

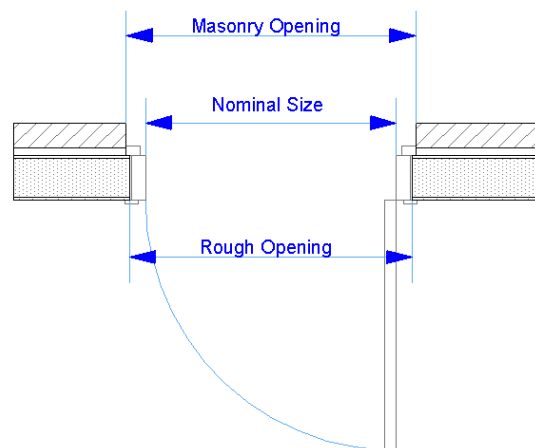
Rough Opening is the size of the hole that has to be cut in the wall for the door. It is calculated from the *Nominal Size*, the *frame width* and the *Rough Opening Extra* value. The parameters *Rough Opening Horizontal* and *Vertical* add extra airspace to the door hole on the corresponding side. This is used to fit the door in by enlarging the frame so it fits in a larger opening.

Rough Opening Extra Hor.:	1/4"
Rough Opening Width:	3'-4 1/2"
Rough Opening Extra Ver.:	1/4"
Rough Opening Height:	6'-10 1/4"

Masonry Opening

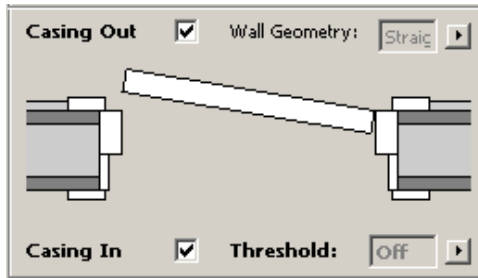
These parameters become active only if you select the *Brick Veneer* wall type (available for entrance, garage, arch top and sliding doors only). Here you can define the size of the opening in the exterior brick wall layer.

Mas. Op.E. Hor:	2"
Mas. Op. W.:	3'-4 1/2"
Mas. Op.E. Ver:	2"
Mas. Op. H.:	6'-11 3/4"



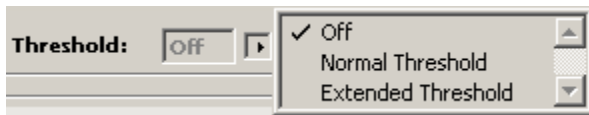
Casing In/Out,

With these checkboxes you can turn on and off the casing on the interior and exterior sides. The size and configuration of these elements can be set on the *Casing* tab panel.



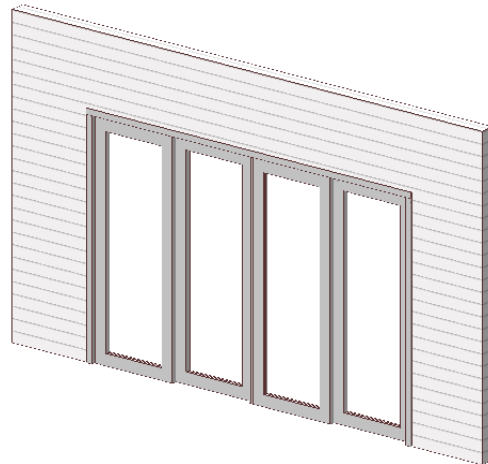
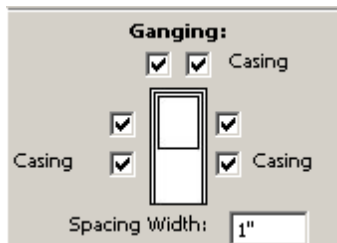
Threshold

You can turn the threshold on and off with this parameter. There are options to choose from *Normal* and *Extended Threshold* types. The size of these elements can be set on the *Threshold* tab panel.



Ganging

You can align doors and windows horizontally and vertically with these parameters. If you click on these checkboxes the structure of the door will change on the selected side (e.g. trim will be turned off) so that you can connect it to another door or window. *Note that you have to turn on this parameter on the corresponding side of the connecting objects as well.*



Ganging has some important consequences on the door structure:

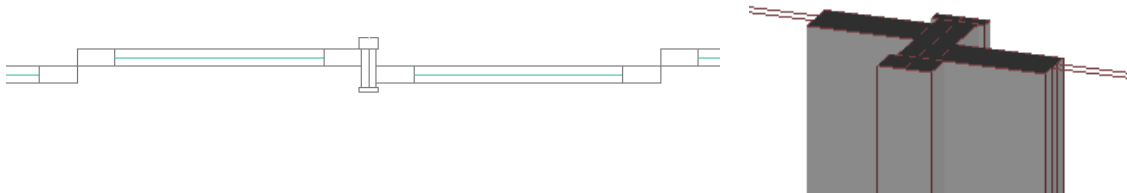
- There is no place for shutters. Therefore, the parameter *Shutter* will be hidden.
- Trim doesn't have to run along the frame of each door, but around the whole group. So the trim and sill on the affected sides will be cut away.

- There is no need to specify any *Cavity Closure* for doors placed between two other ones and aren't adjacent to the wall. Accordingly, if the ganging is turned on both sides, *Cavity Closure* will be hidden.

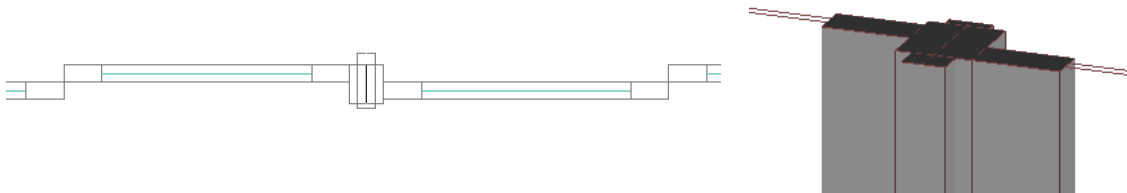
There is an extra option to define a *Casing* on the connection and also an additional *Spacing* between the two doors.



Casing= OFF, No Spacing



Casing= ON, No Spacing



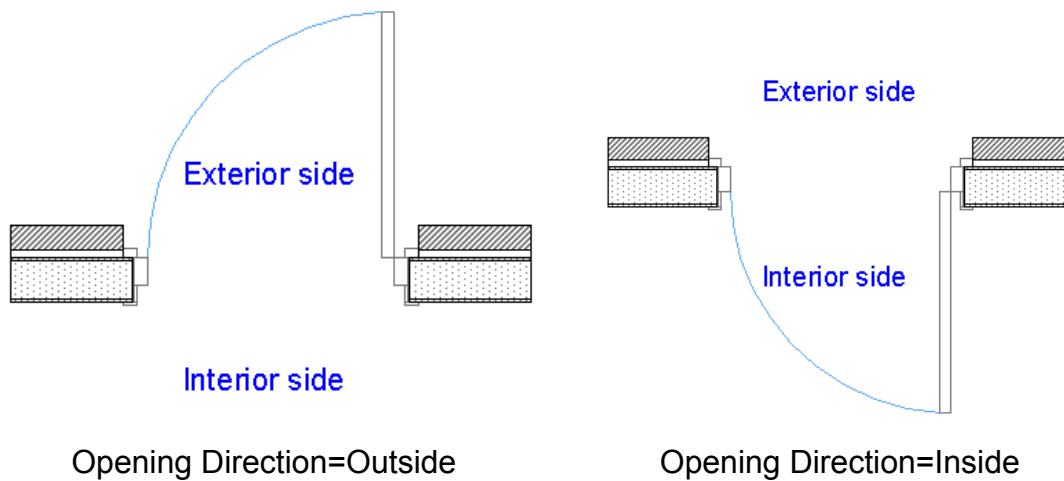
Casing= ON, Spacing ON

Wall Geometry

With this parameter you can adjust the door to the geometry of the wall. There are three options: *Straight Wall*, *Trapezoid Wall* and *Curved Wall*. This parameter has to be set according to the geometry of the wall in which the door will be placed.

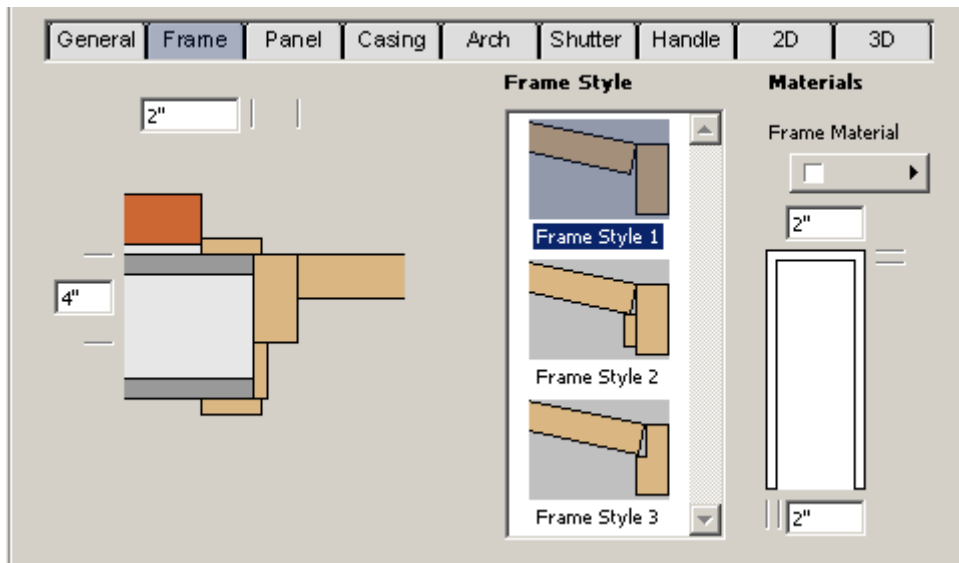
Opening Direction

In case of external you can set opening direction of the door leaf with this parameter. *Note that the same result can be achieved with the flip option.*



5.2 Frame

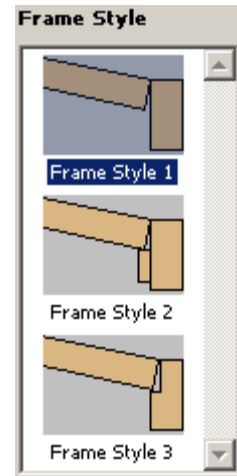
This group collects the parameters that control the appearance of the frame:
Frame Depth, *Frame Width*, *Frame Styles* and *Frame Material*



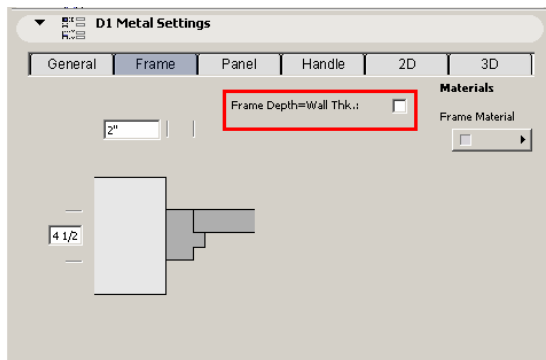
When *Frame Width* grows, the size of the sash will be reduced. It doesn't influence the outside dimensions of the whole door. You can define different frame width for the side and for the header of the door.

Frame Material is affected only if *Use Object's Materials* from the panel *Model* is chosen. Otherwise, the whole object will be displayed with the color specified there.

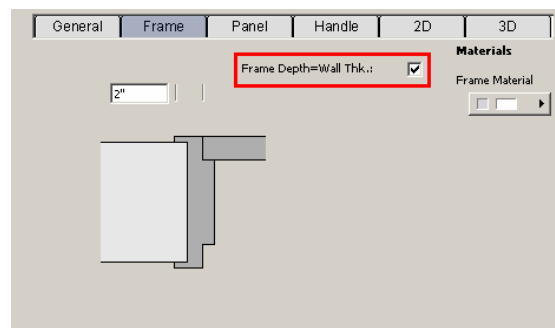
There are three frame styles available for wood and plastic windows including ones with door stop.



For metal and commercial windows there is an additional switch *Frame Depth=Wall Thickness* with which you can automatically adjust the frame to the thickness of the wall. You can achieve the same effect in wood-plastic windows if you turn off the *Jamb Extension* on the *Casing* tab page.



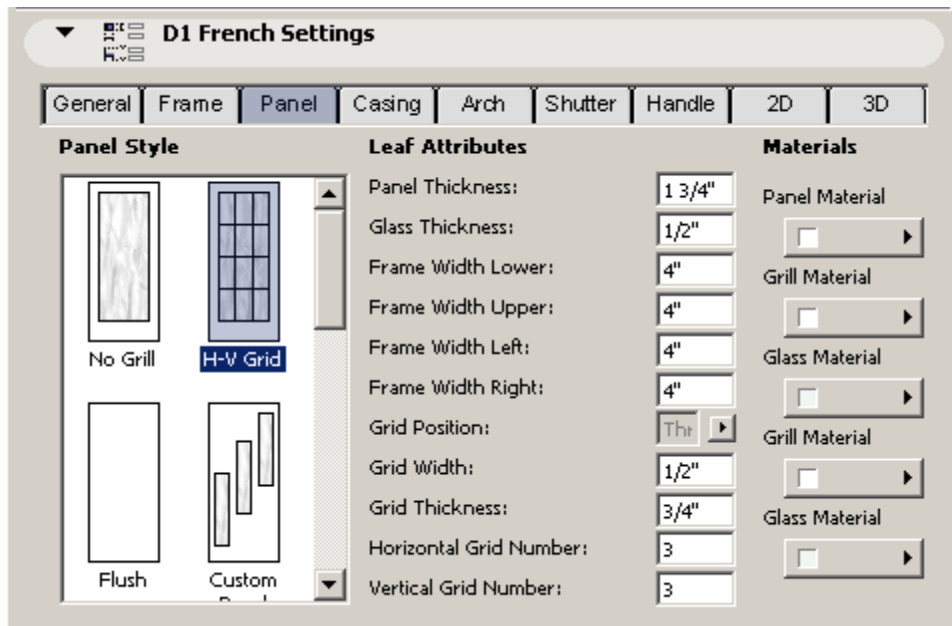
Frame Depth=Wall Thickness



Frame Depth≠Wall Thickness

5.3 Panel

This tab page collects the parameters related to the door leaf panel. On the left side you can select from the available panel styles, in the middle you can set the leaf attributes such as the panel thickness and on the right you choose the material of the leaf, glass and mullions.

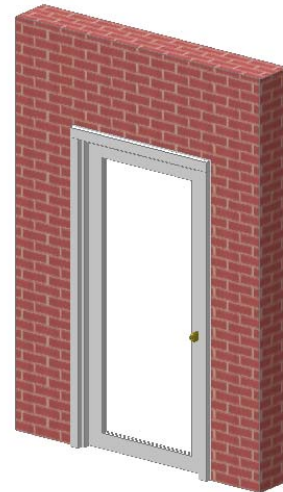
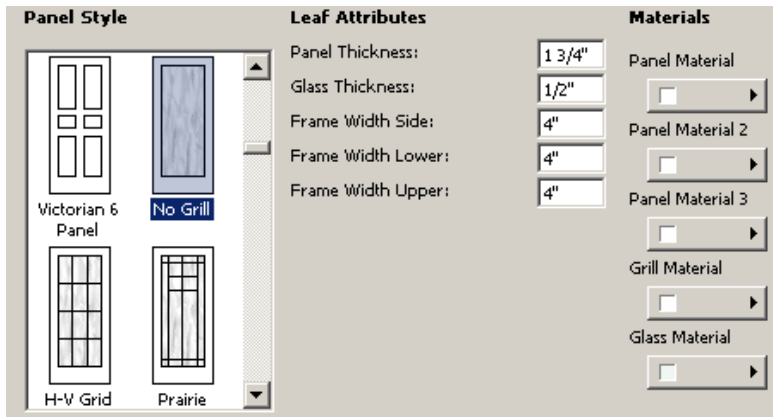


There are different panel styles available for the different door types. E.g. there are 50 styles in the internal wood doors while there are only 5 in the French doors. The most common US styles can be found on the list such as flush, standard 4-6-8, horizontal, equal, eyebrow or Victorian panels.

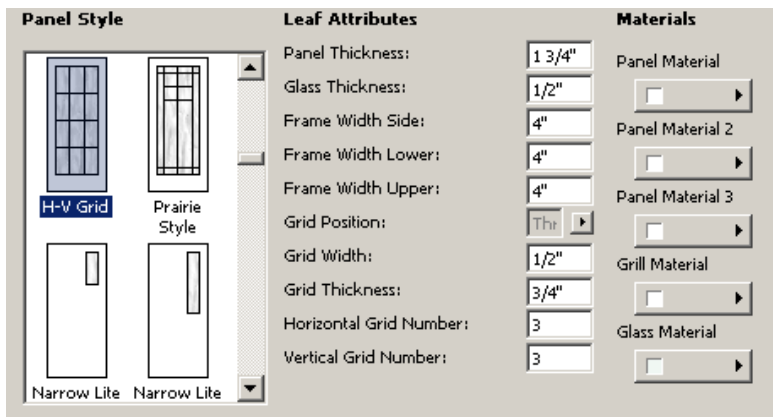


Most of these panel styles don't require any additional settings but some of them allow you to change their parameters. See the description of these special styles below.

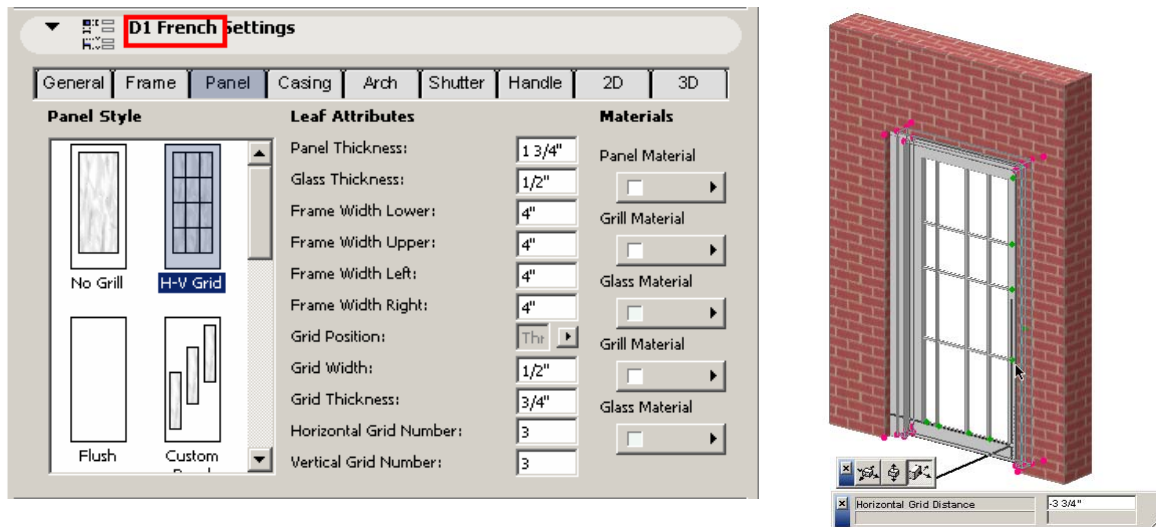
1. *No Grill* creates a glass infill in the door leaf. There are parameters to set the leaf width on the four sides of the glazed panel.



2. *H-V Grid* allow you to create a glazed panel that is divided into a given number of panes by vertical and horizontal bars. The bars are placed at an equivalent distance. If you select this option new parameters will become visible under *Leaf Attributes* allowing you to set the number of panes and the size of the mullions.

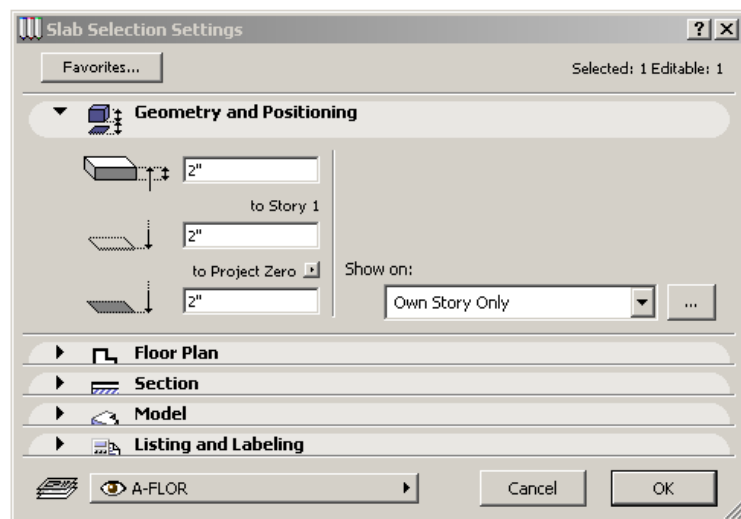
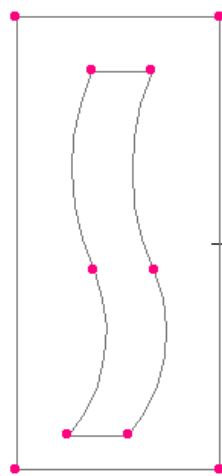


3. If you select the *H-V Grid* option for the *D1 French* and *D2 French* doors you can modify the position of mullions manually with editable hotspots. The only limitation is that the bars can only be horizontal or vertical, not inclined. If you select the door in the 3D door with the Arrow tool you'll see green editable hotspots on each mullion with which you can modify their position.

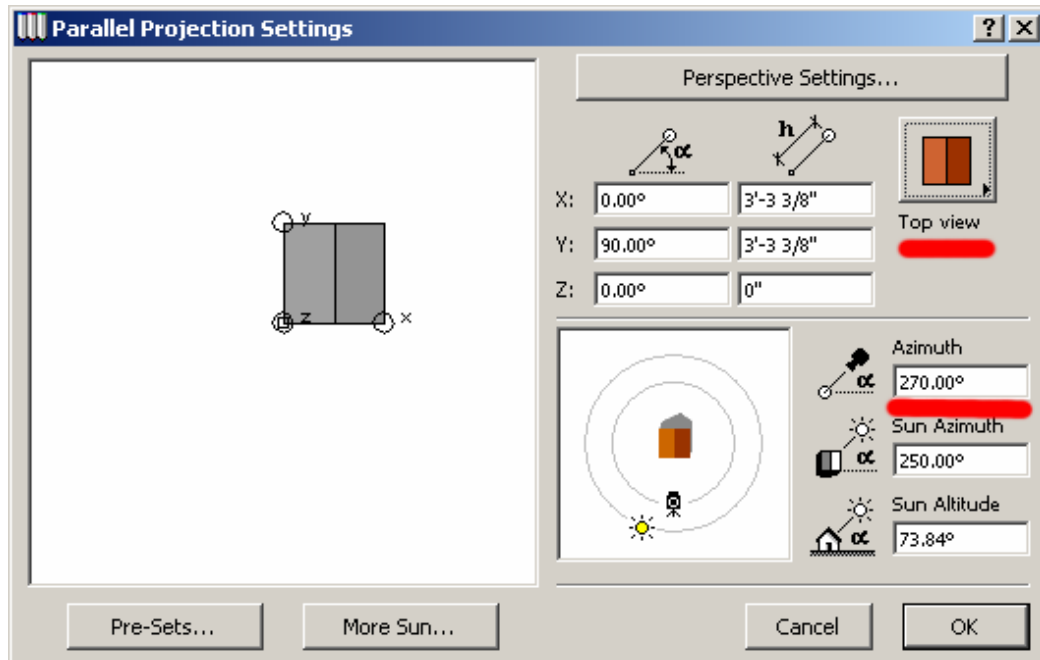


5. At *Custom Panel* a GDL macro object can be inserted as a door panel. You can also create such objects without any GDL knowledge. For this you have to do the following:

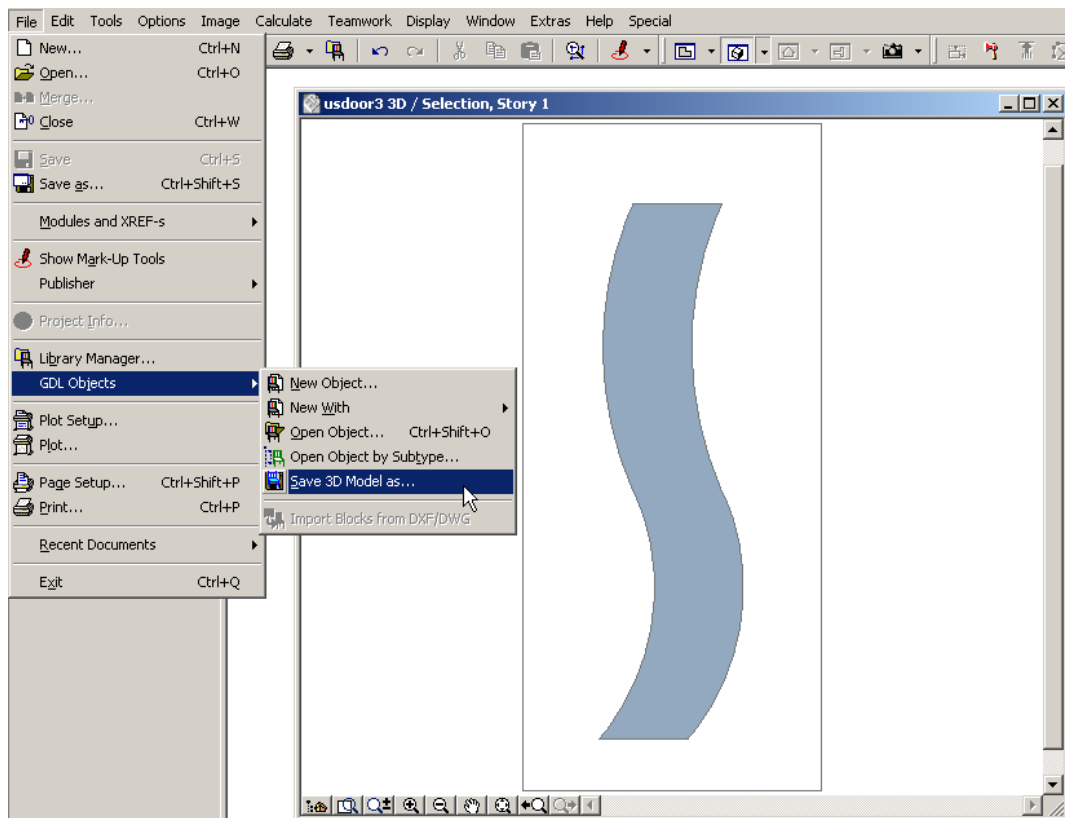
1. Model the required door panel on the floor plan using the AC tools (e.g. slabs walls etc.) Make sure that the size of the panel matches with the actual door frame in which you want to insert it. AC is able to stretch this panel into any leaf size but then the object will be proportionally distorted.



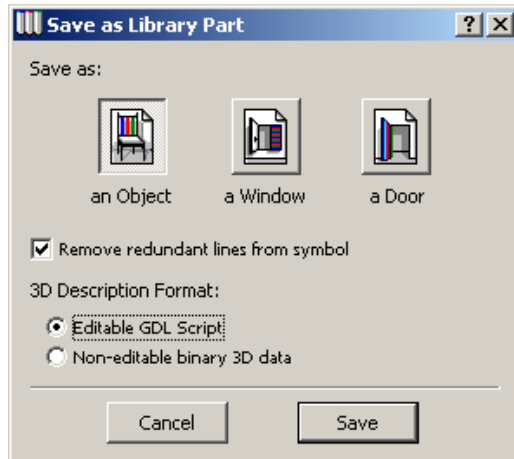
2. Open the 3D window and set the top view and the camera azimuth to 270 at the *3D Projection Settings* dialog



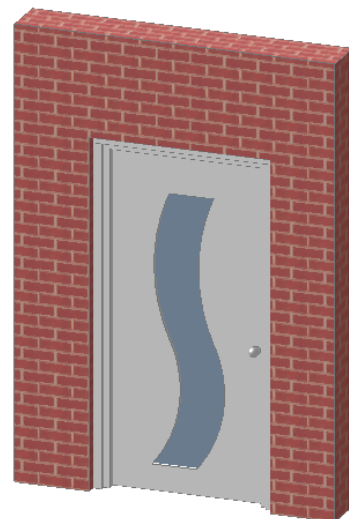
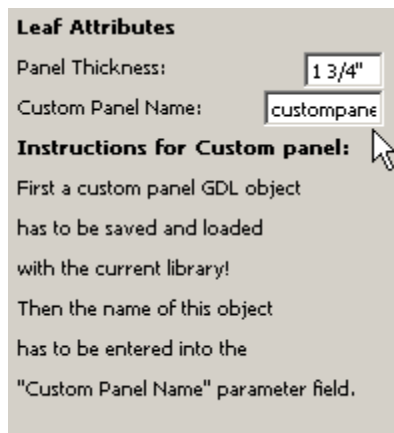
3. Go to *File/GDL Objects/Save 3D Model as...*



4. Select the *Object* option



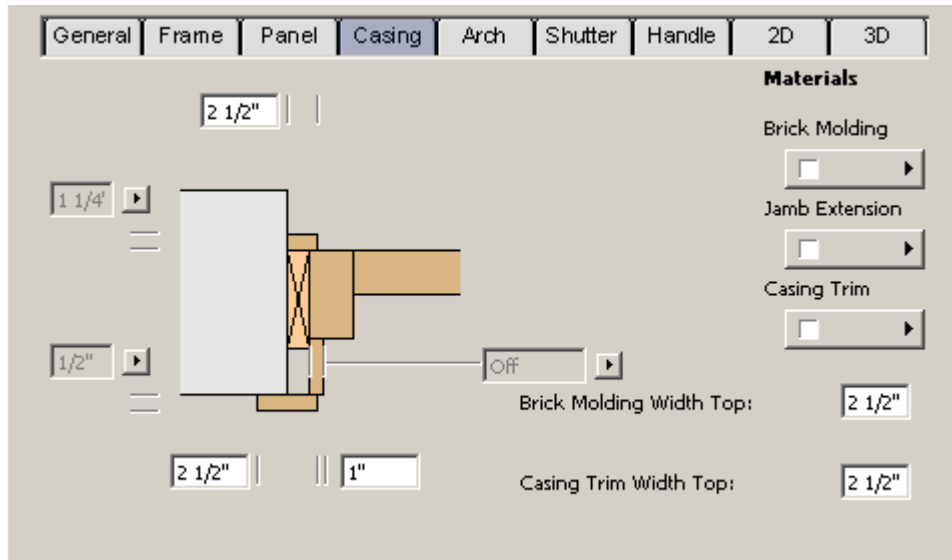
5. Define a name for the object and save it in the loaded project library
6. Select the required door in the *Door Setting Dialog*, open the *Panel* tab page and select the *Custom Panel* option
7. Enter the name of the custom door panel object (without the GSM extension) in the *Custom Panel Name* field



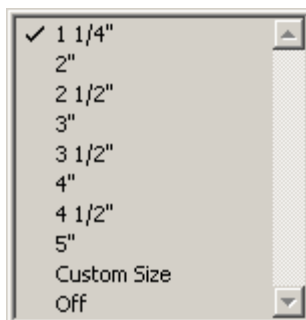
5.4 Casing

This group deals with the internal and external side of the door. *Note that this panel is empty if the Casing In and Casing Out parameters have been turned off on the General tab page.* Casing trim is a board running around the door frame on the interior side in order to cover the joint gap between the frame and the wall.

The exterior casing is also known as brick molding. *Brick Molding* is a bar extending and decorating the frame of the outer side of the door.



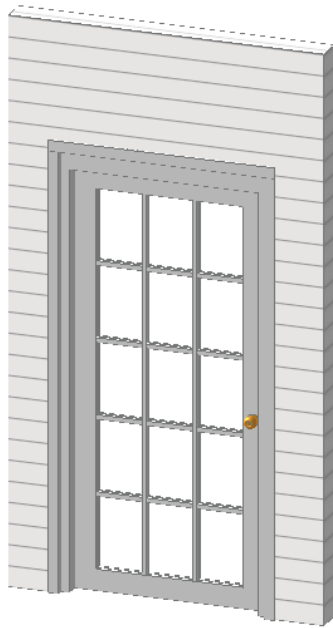
You can set different thickness and width for the internal casing and the brick molding. The most common thickness values are available from a pop up list however you can also set custom values.



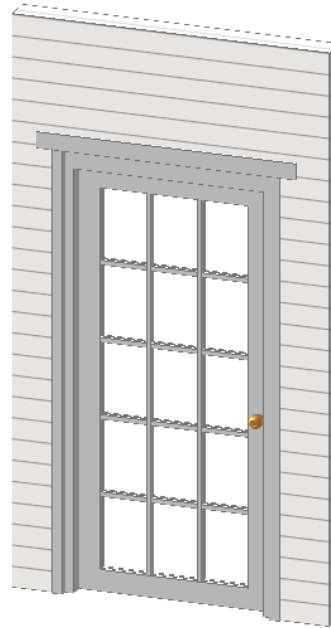
The top casing dimensions can also be defined on this tab page. The width of head casing can be different from the side casing.

Casing Trim Offset prescribes the distance of the trim from the internal edge of the frame. *Brick Molding Offset* means the distance of the molding from the door opening's edge.

You can also define an *Overhang* for the head casing trim and brick molding. This way you can set traditional style door casing like shown on the picture. If the *Brick Veneer* wall type is selected on the *General* tab page the *Brick Molding Offset* parameter is not available.

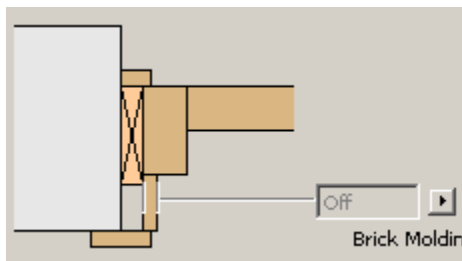


Brick Molding Top Overhang=OFF

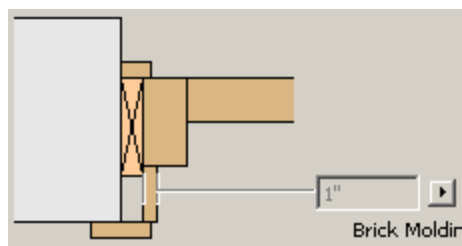
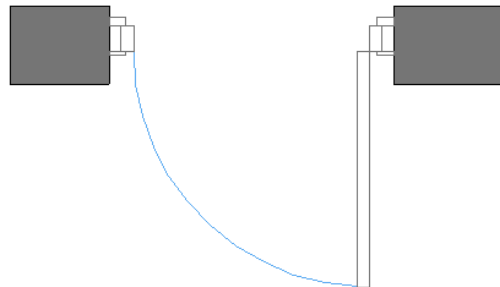


Brick Molding Top Overhang=ON

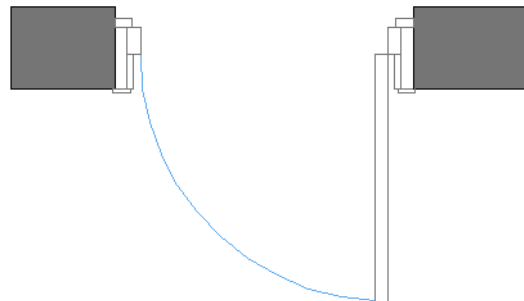
Jamb Extension is an optional frame member which is added onto the jamb to extend the frame to match wall thickness. This structural element is primarily used in thick walls. You can define the thickness of this element from a value list and you can also turn it off there.



Jamb Extension=OFF



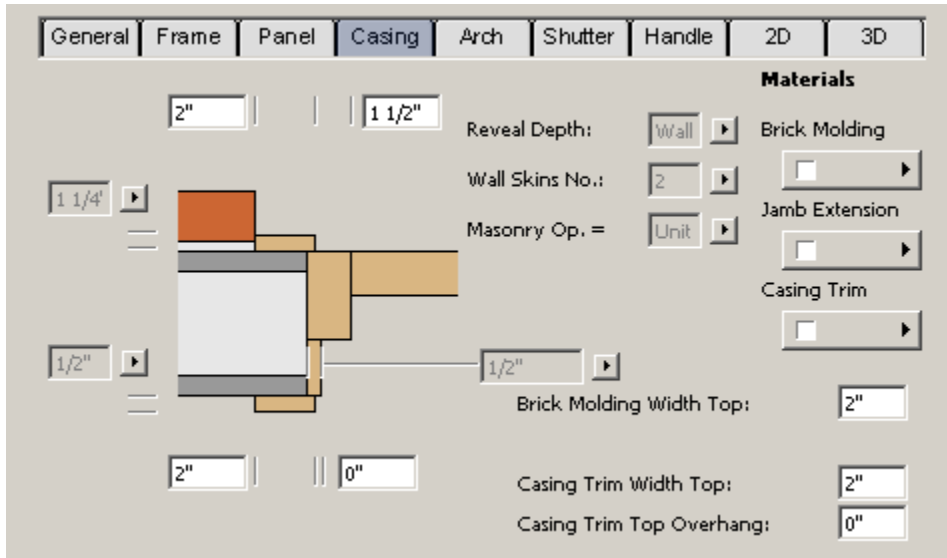
Jamb Extension=ON



Under the *Materials* section you can modify the materials of the *Brick molding*, *Jamb Extension* and *Casing Trim* elements

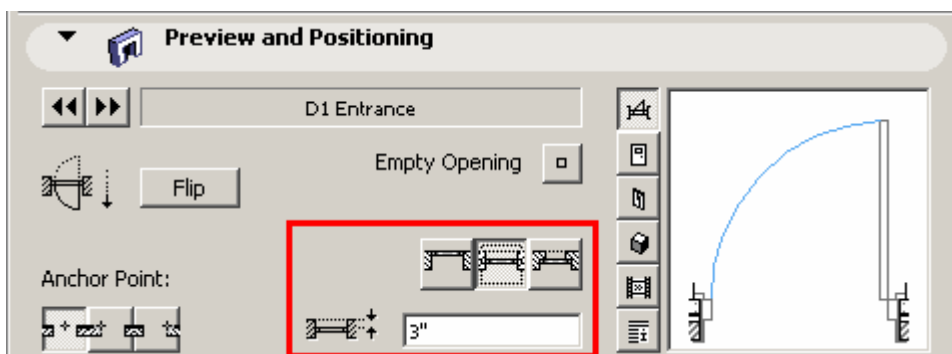
Brick veneer

Brick veneer parameters will only become active if the *Bick Veneer* wall type is selected on the *General* tab page.

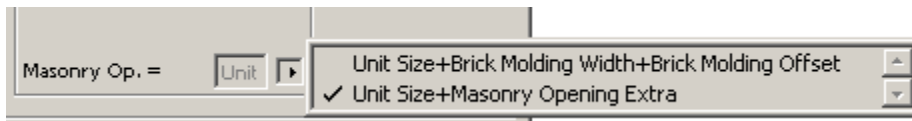


There are two ways to define the *Reveal Depth*:

1. If the *Wall Skins Number* option is selected the *Reveal Depth* is automatically calculated from the number of wall skins set at the corresponding parameter.
2. With the *Reveal Depth Option* you can define the depth manually using the door reveal setting.



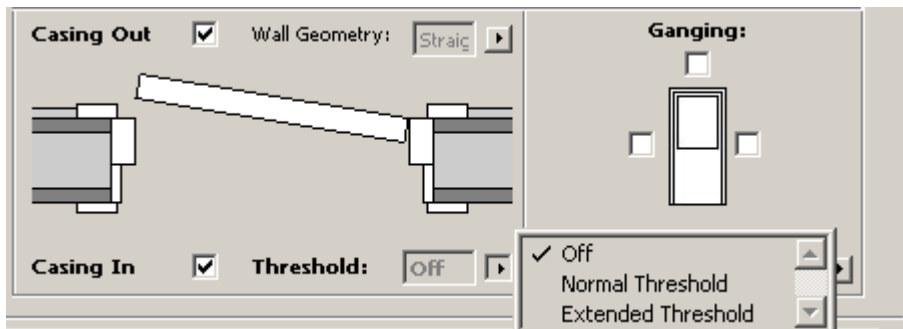
The *Masonry Opening* is the hole in the exterior brick layer. There are two options to set its size:



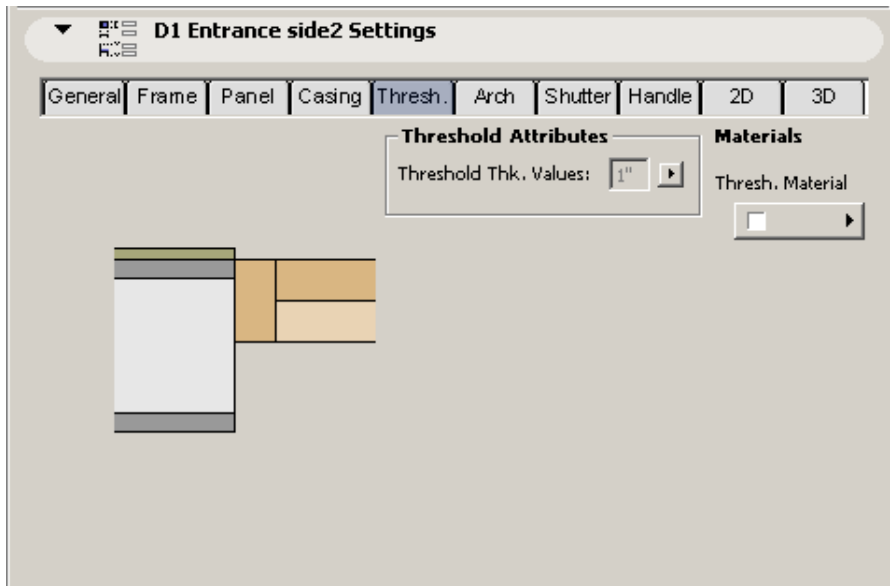
1. *Masonry Opening Width=Unit Size+Brick Molding Width+Brick Molding Offset.* In this case there are no *Masonry Opening Extra* parameters on the *General* tab page, but the *Brick Molding Offset* appears on the *Casing* page. The value of the *Rough Opening Extra* parameter is automatically calculated from the above three parameters. Brick Molding Width and Brick Molding Offset remain constant when you stretch the door on the floor plan or in 3D.
2. *Masonry Opening Width=Unit Size+Masonry Opening Extra.* *Masonry Opening Extra* parameters are available on the *General* tab page, while the *Brick Molding Offset* is hidden on the casing page. The *Brick Molding Offset* value is automatically calculated from the above two parameters. *Masonry Extra* remains constant when you stretch the door on the floor plan or in 3D.

5.5 Threshold

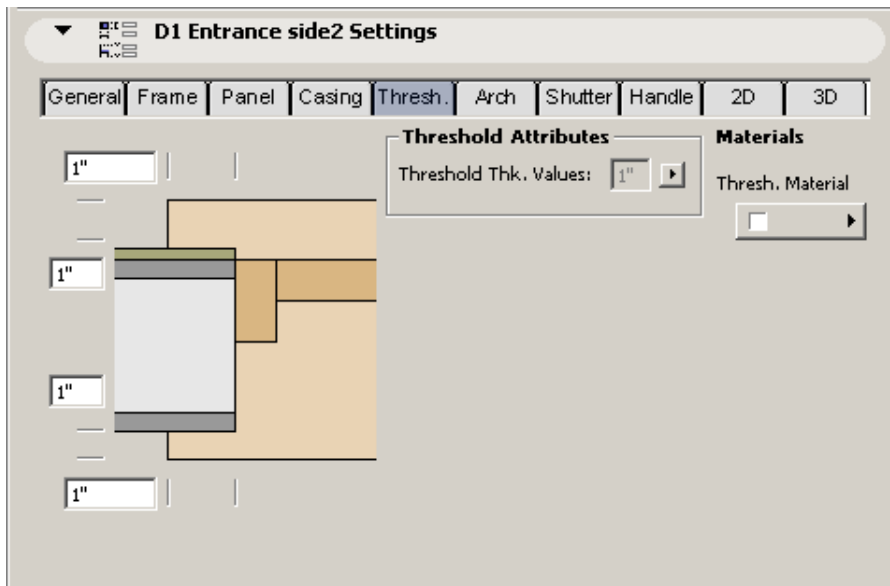
Note that this panel is empty if the *Threshold* parameter is turned off on the *General* tab page. The appearance of this page also depends on the threshold parameter.



If this parameter is set to *Normal* the threshold will be created as a horizontal member of the door frame with the same width as the side members. In this case you can only modify its thickness.



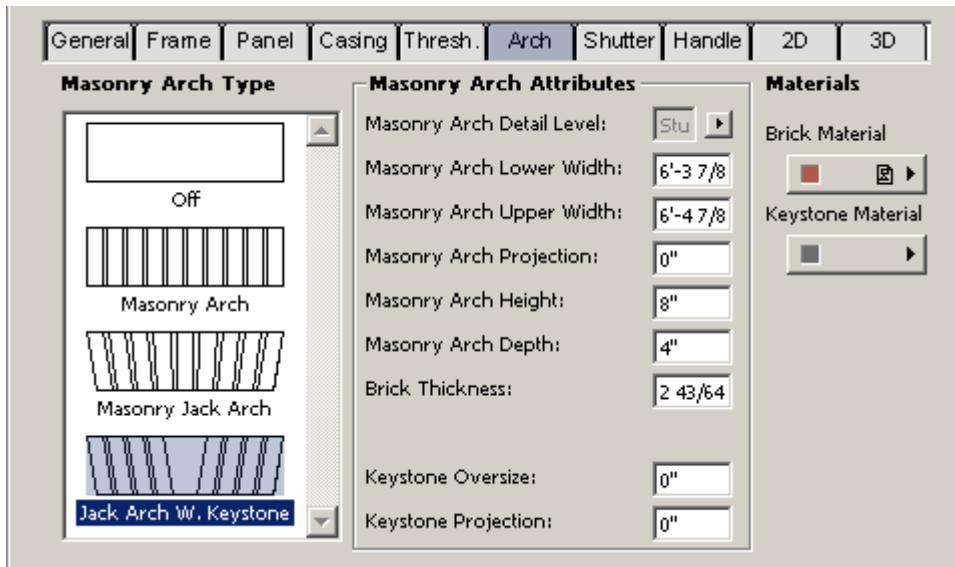
When the *Extended Threshold* is selected you have options to set the nosing and the side overhangs on both the interior and exterior sides.



Naturally you can also modify the threshold material on this tab page.

5.6 Arch Types

Turn *Masonry Arch Type* on and choose one of the three options, such as *Masonry Arch*, *Masonry Jack Arch*, and *Masonry Jack Arch with Keystone*. If turned on, the structural parameters of the arch will be visible: *Height*, *Depth*, *Lower Width*, *Projection* and *Brick Thickness*.



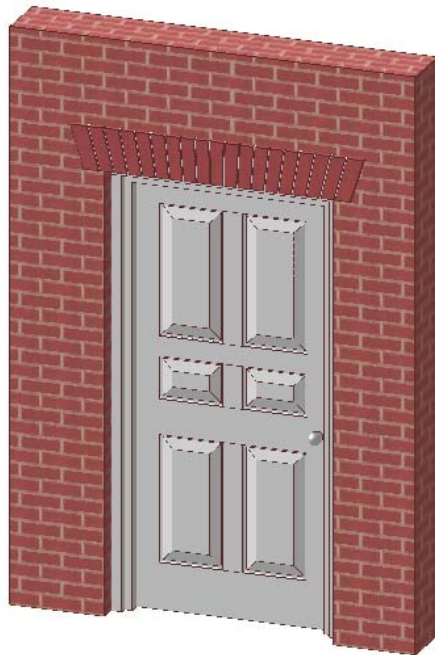
You can select from two types of arches at the *Detail Level Parameter*: *Stucco* and *Brick Arch*. The *Brick* option will show up with mortars between the bricks thus it result more surfaces in the 3D model. If you want to reduce it you can select the stucco option and assign a material that has a brick texture on it on rendering views.



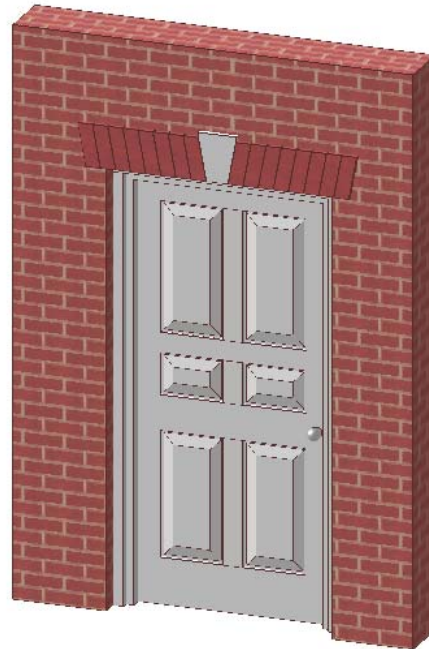
Masonry Arch, Stucco



Masonry Arch, Brick



Masonry Jack Arch

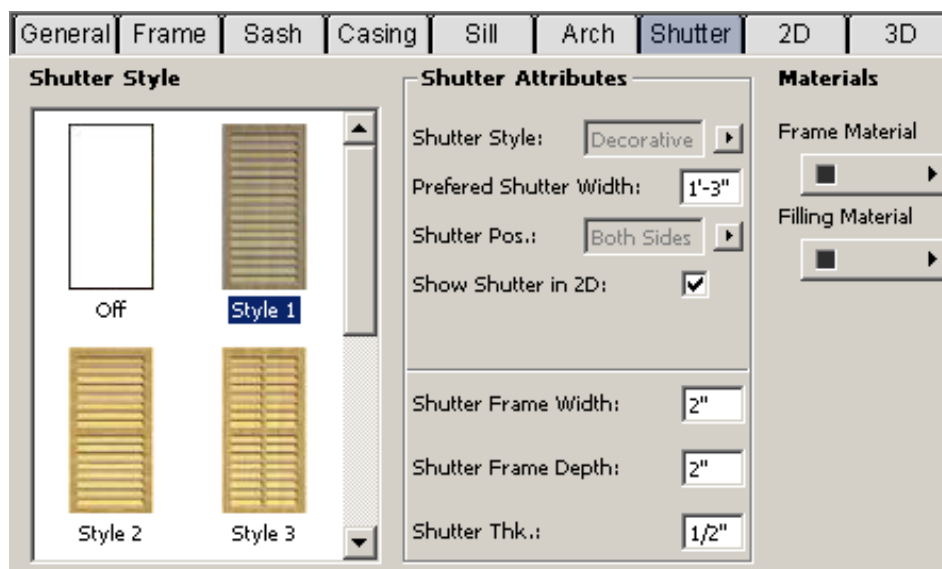


Masonry Jack Arch with Keystone

There are parameters to adjust the brick thickness, height angle offset and even the mortar thickness.

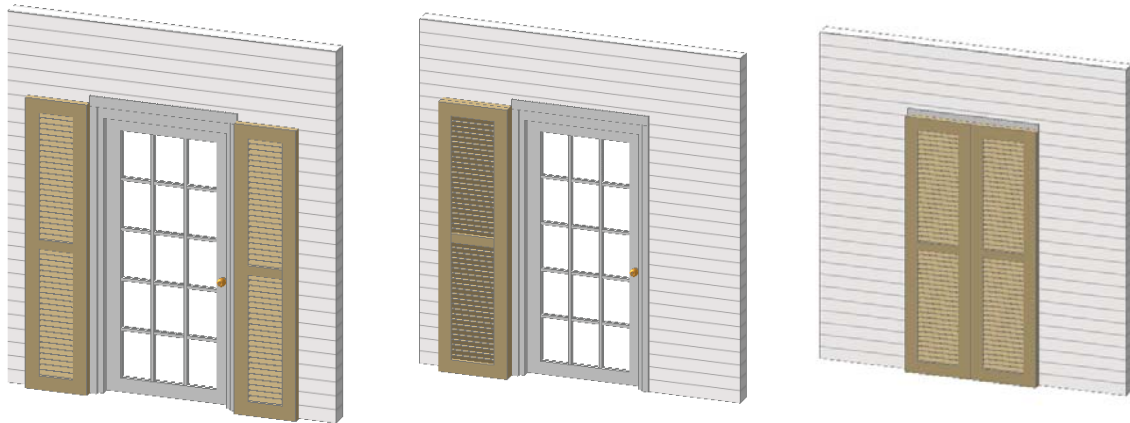
5.7 Shutter

Upon activating any *Shutter Styles* on the graphical value list on the left side, the group with the corresponding parameters will unfold. Only parameters that have a meaning in the actual context appear. Most of the styles provide the parameter *Shutter Style* which offers two options: *Decorative* and *Functional*.



The first one is just a fixed decoration element on the façade thus it can't be closed or folded. The overall width of decorative shutters doesn't necessary match with the door width.

The overall width of *Functional* shutters is equal with the width of the door and it is automatically calculated by ArchiCAD. With the *Shutter Panes Number* parameter you can define foldable shutter panes if the number is bigger then 1.



Decorative Shutters on
Two Sides

Functional Shutter on One
Side

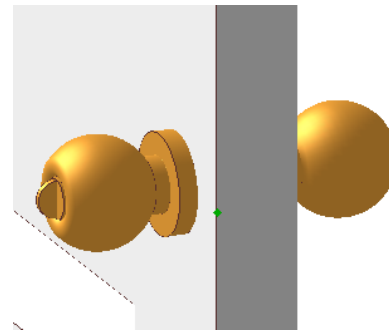
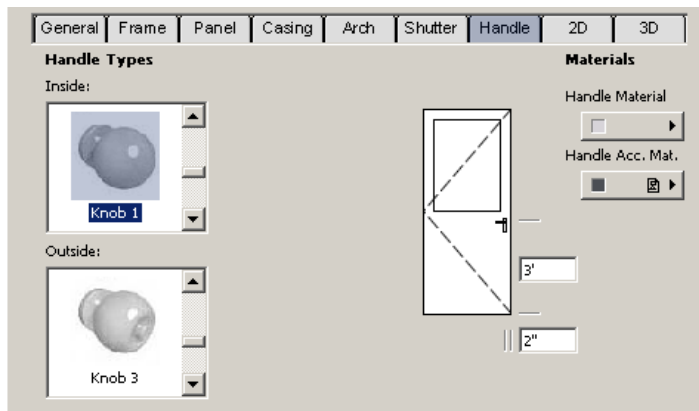
Functional Shutter
Closed

Functional shutters can be opened and closed with the parameter *Close Shutter*. Intermediate angle values cannot be specified. The effect is visible only in the 3D door.

Just like for any other door component you can define the structural sizes and the materials of shutters separately.

5.8 Handles

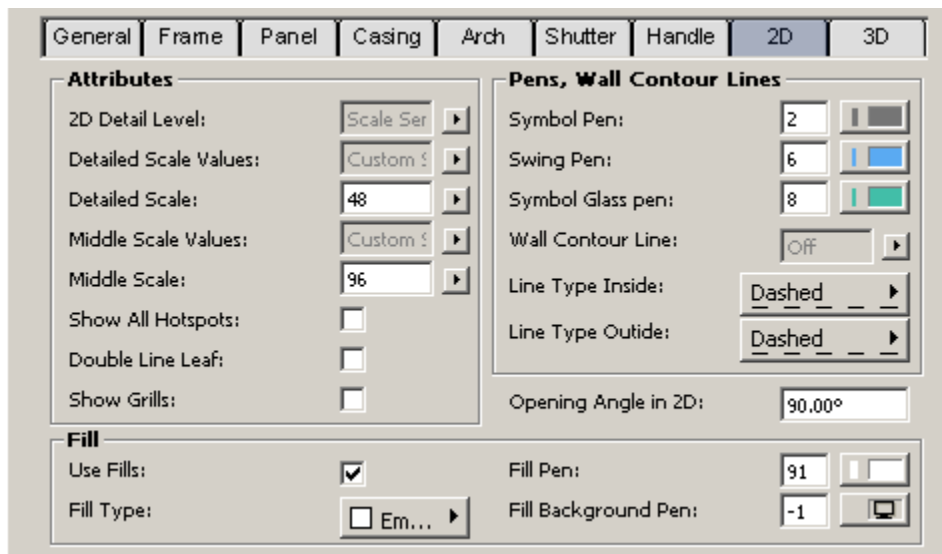
Here you can turn on and off the handles for both sides of the door leaf. On the left side of the dialog you can choose from different handle types including knobs and panic bars. On the right side you can position the handles on the door panel and also modify their materials.



Please note that door handles can significantly increase the size of your 3D model since they contain many curved surfaces. For this reasons the handles are turned off by default. In case of big buildings it is highly recommended to keep them turned off for those doors that can't be seen in the 3D representation (renderings, sections) of the building. You can also reduce the number of generated surfaces with the Curve Resolution parameter on the parameter list.

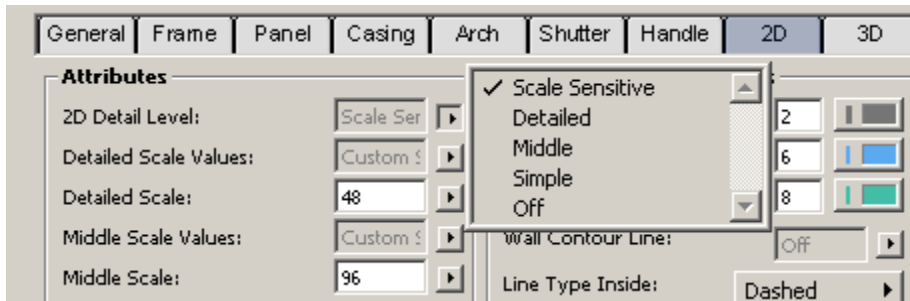
5.9 2D

This page collects parameters that change the appearance of the door on the floor plan. Under the *Attributes* section you can modify the details of the plan symbol.

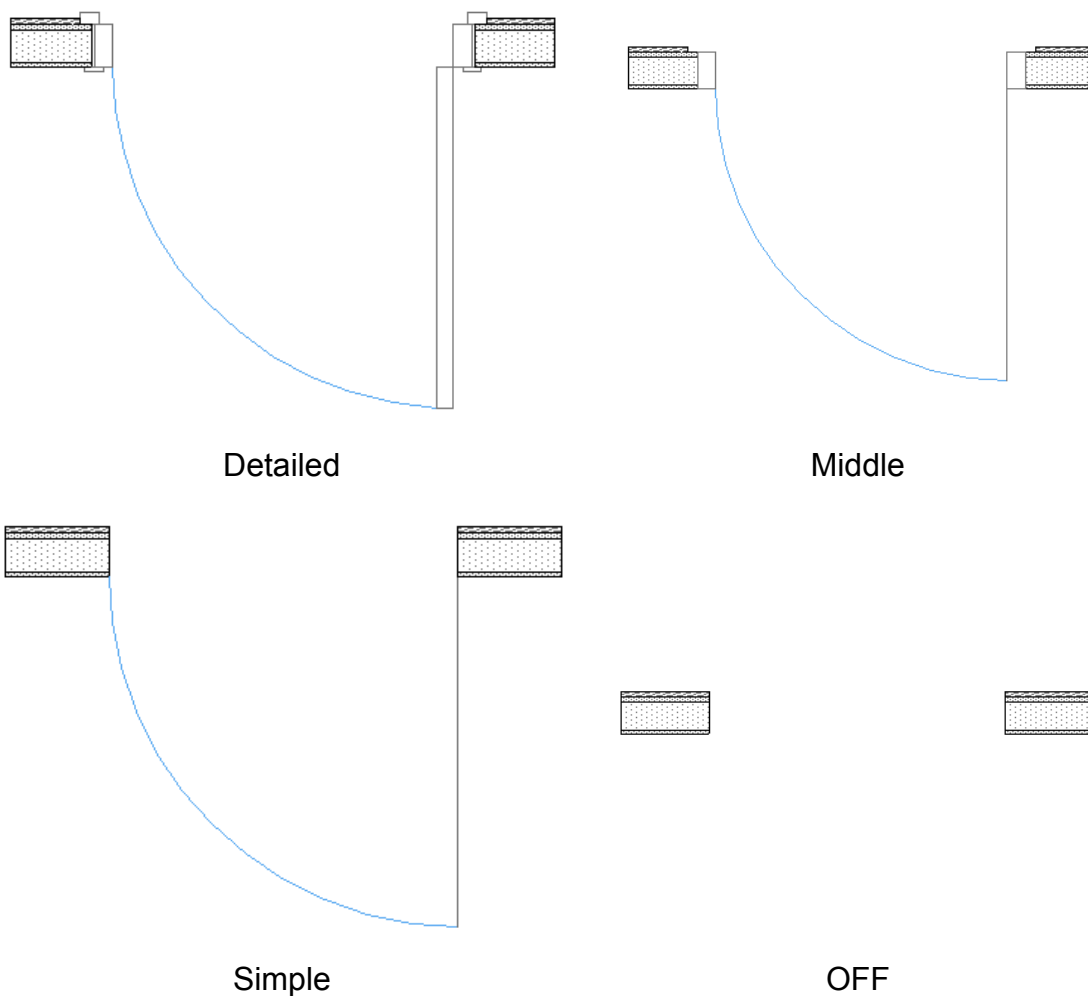


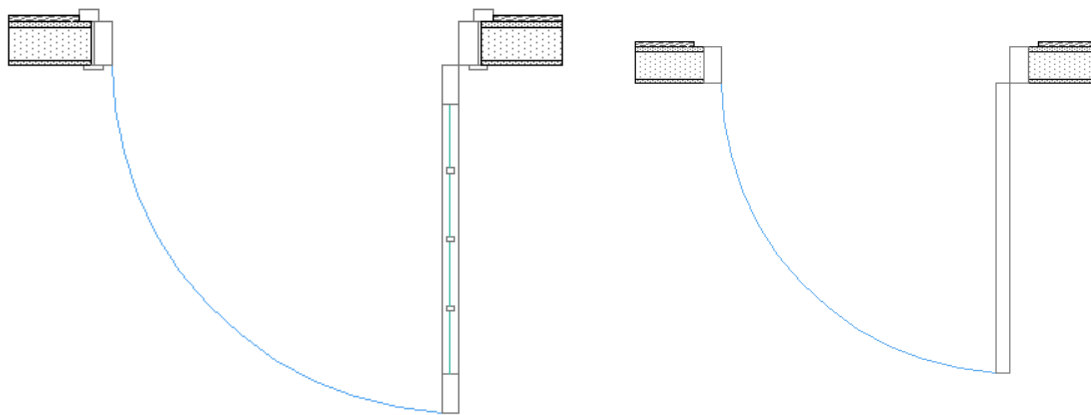
ArchiCAD's GDL objects can recognize the plan's scale. Many of them, like this door, change its shape depending on the scale. The higher the scale is the simpler is the presentation. This has a trivial technical reason; too many lines close to each other cannot be printed or displayed clearly. If you need this distinction, set *2D Detail Level* to *Scale Sensitive* (this is the default). You can

define the scales where AC should switch between the different 2D detail levels with the *Detailed Scale Values* and *Middle Scale Values* parameters.



You can also designate a high, medium or low detail level manually by choosing the option *Detailed*, *Middle* or *Simple*. When detail is turned off, nothing will be displayed in 2D. This option can be useful when you place doors and windows on top of each other.





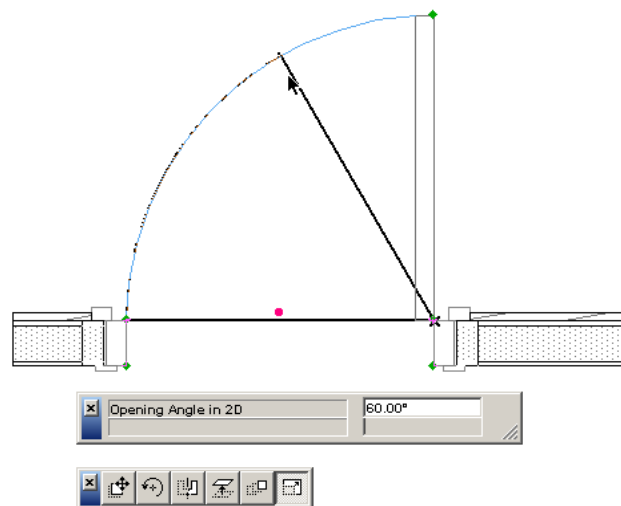
Detailed, Show Grills=ON

Detailed, Show Sash Frame=OFF

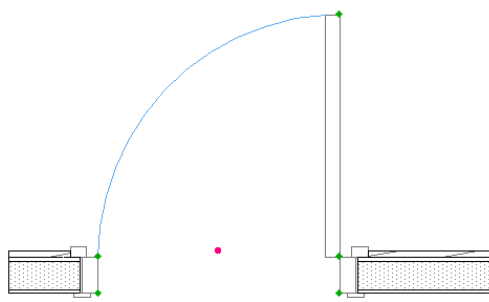
There is an additional checkbox to control the visibility of *Grills* on floor plan.

With the *Double Line Leaf* option you can represent the door panel with two lines in the plan view.

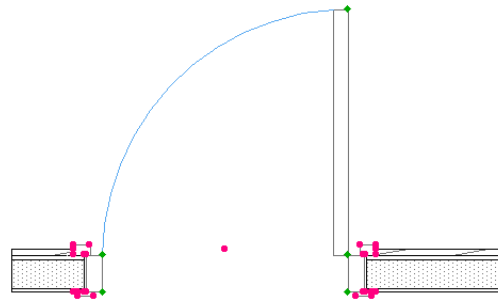
You can also define the *2D Opening Angle* of the door here. This parameter can also be edited with hotspots on the floor plan.



There are always hotspots on the corner points of the door unit and the door leaf. You can turn on additional hotspots with the *Show All Hotspots* option.



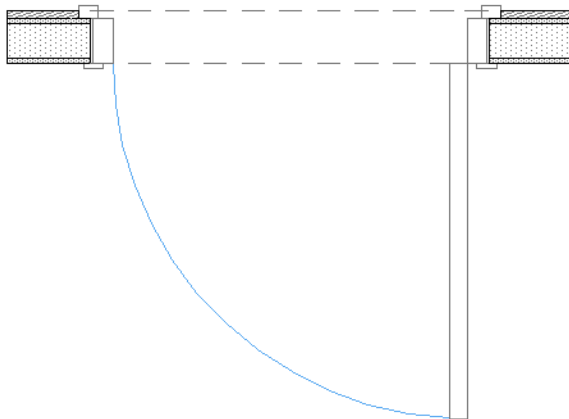
Show All Hotspots = OFF



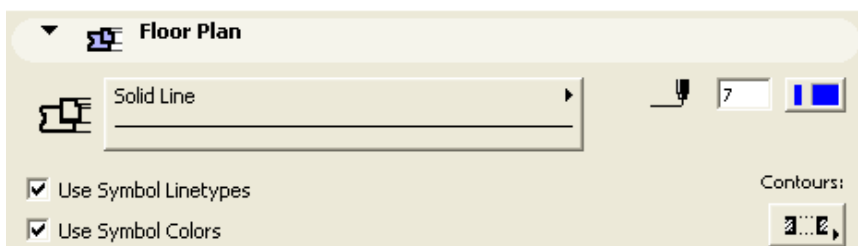
Show All Hotspots = ON

Different pen types can be assigned to the frame, glass and the door swing. *Symbol Pen* controls the color of the casing and the frame while *Symbol Glass Pen* is for the glazing in the door panel.

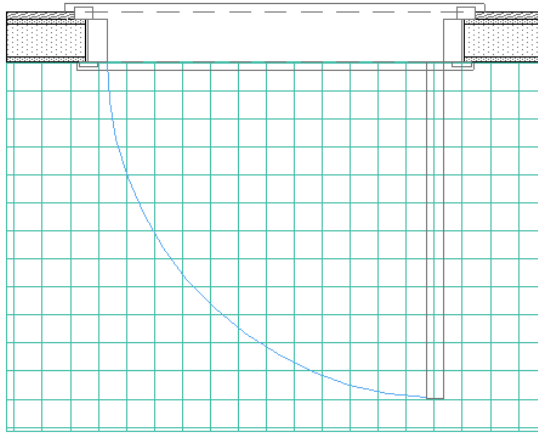
Wall Contour Lines can be displayed optionally on both sides of the wall. On large scale plans, these lines are usually not shown. At a small scale, they are sometimes drawn for accuracy. Since the threshold covers the lower edges of the wall opening, the line type is typically dashed.



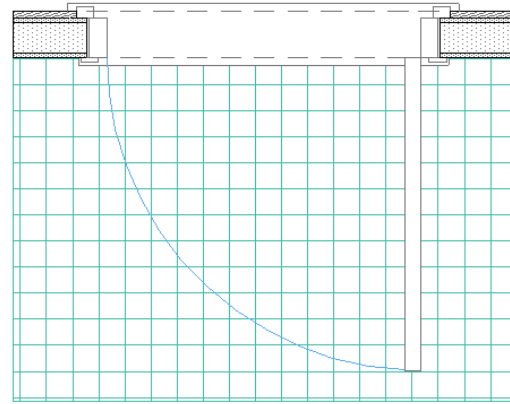
Please note that all these settings take effect only when Use Symbol Linetypes and Use Symbol Colors are turned on in the panel Floor Plan. Otherwise, the values specified below will be applied for the whole object.



The *Fill* parameters allow you to set a background fill behind a door. This can be handy when you want to hide any elements under the threshold and the leaf (e.g. floor fills).



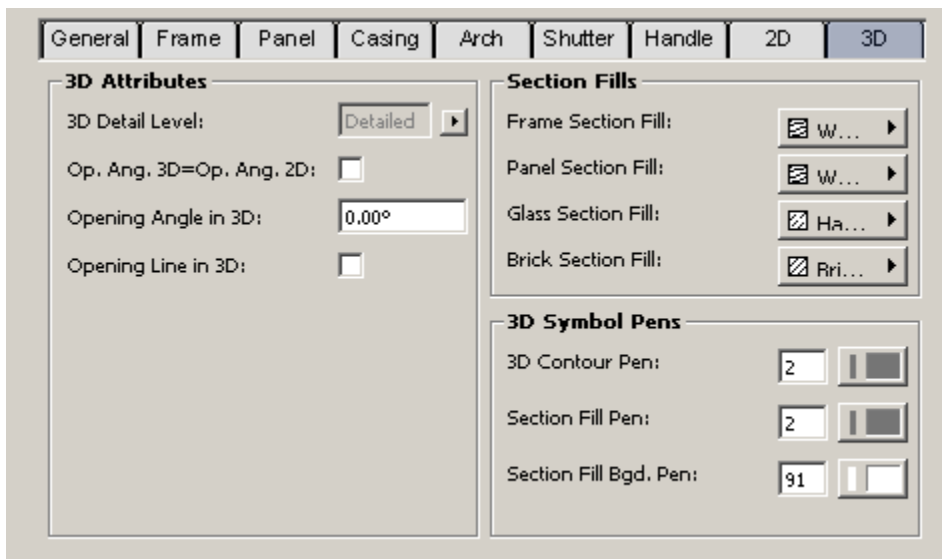
Use Fills = OFF



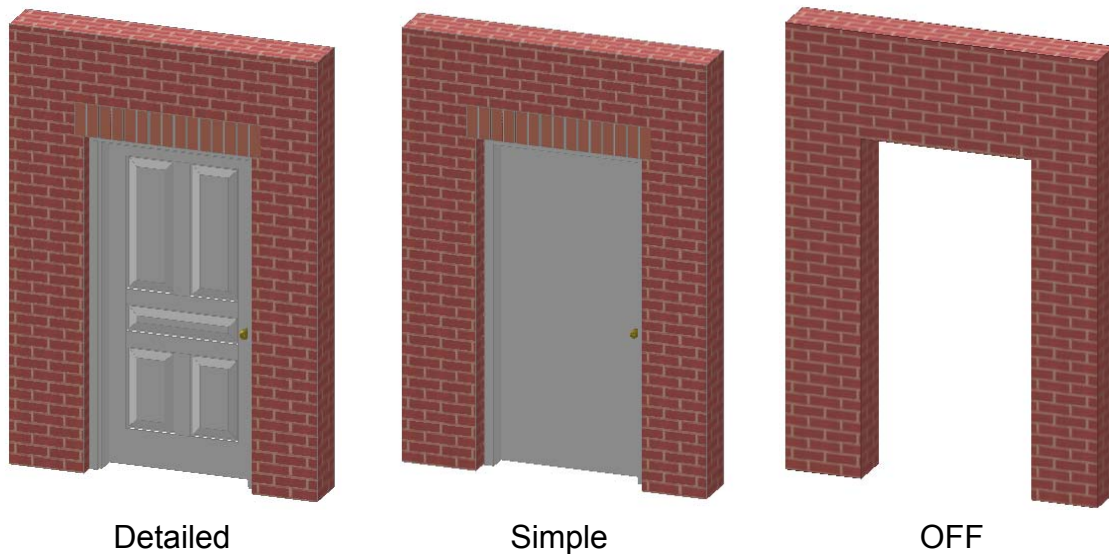
Use Fills = ON

5.10 3D

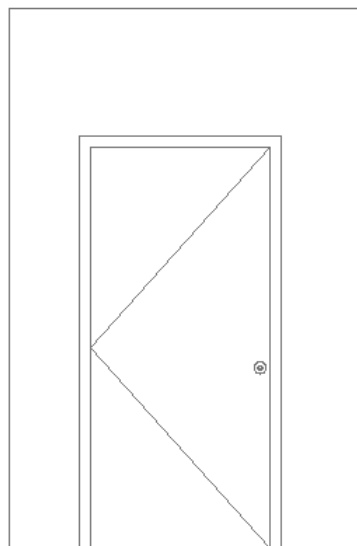
The parameters on this page control the appearance of the door in the 3D, section and elevation views.



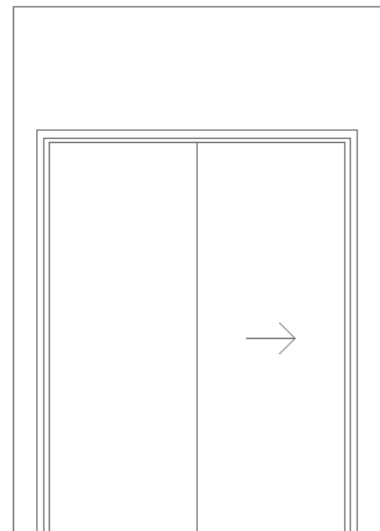
The *3D Detail Level* parameter has 3 values: *Detailed*, *Simple* and *OFF*. The *Simple* 3D representation requires less time to regenerate however it contains less detail. It also looks simpler in section views.



Opening Lines show the opening direction of the door in 3D views. That has an importance on elevations. The lines look like they are drawn on the door panel. If you open the leaf the lines move with it. Turn it on by *Opening Line* in 3D. Further, you can change its line type to solid or dashed.



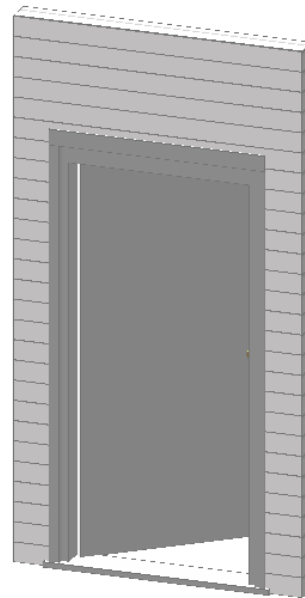
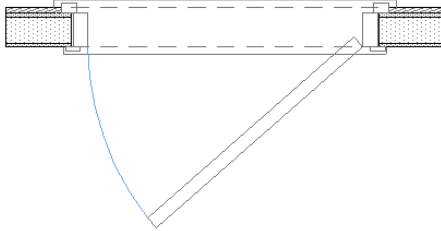
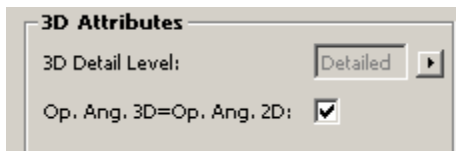
Single Door



Sliding Door

You have options to set the *Opening Angle* of the door leaf in 3D. You can also open them using the editable hotspots in the 3D window. *Opening Angle* shows its effect in 3D only. On the floor plan the door is always closed.

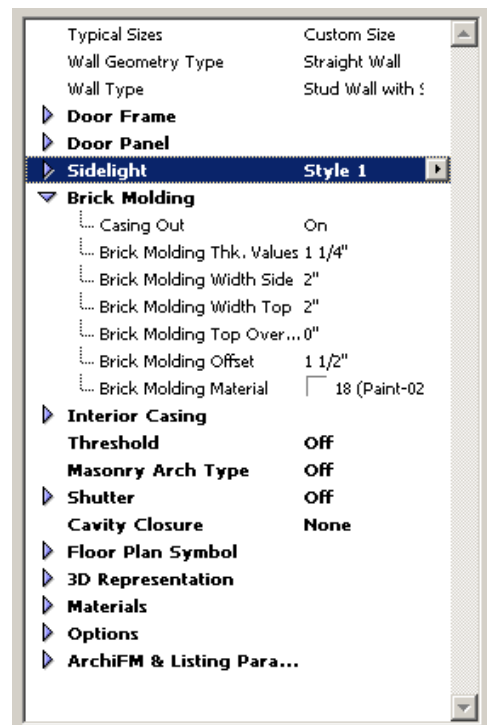
If the *Opening Angle in 3D=Opening Angle in 2D* option is turned on the 3D opening angle will follow what you set on the floor plan.



Both the pen and section fill can be set separately for the frame, panel, glass and brick arch.

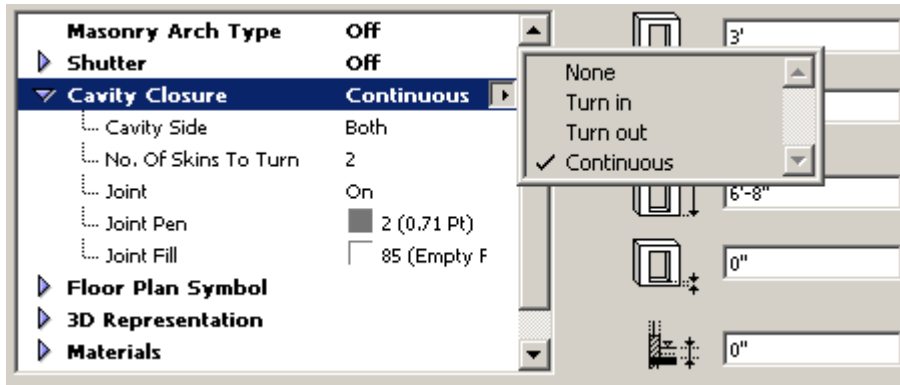
6. The Parameter List

The parameter list contains all the editable parameter of the object in a scrollable form without any graphical interface. It also includes those parameters that you can find on the graphical interface however in a slightly different organization. For example the brick molding and interior casing parameters are organized under different title parameters here. Below we'll give you the description of only those elements that can not be found on the graphical interface.

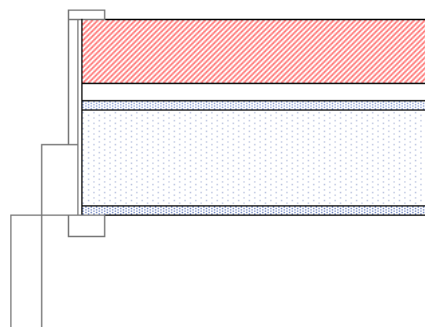


6.1 Cavity Closure

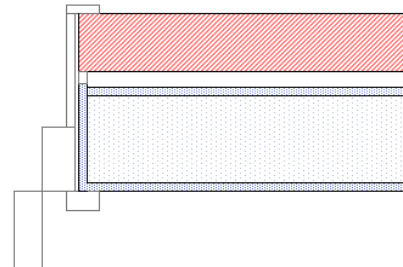
This parameter is relevant only if the door is placed into a cavity wall. In such cases, the cavity has to close at the openings and some of the skins have to be turned in or out.



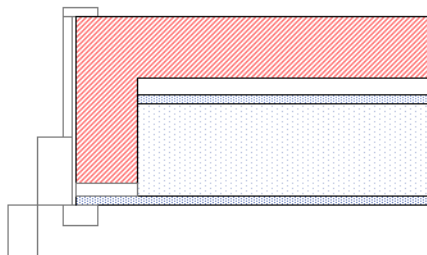
The following example demonstrates the effect of the different options.



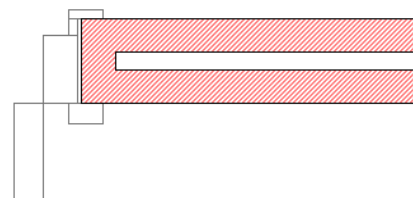
None



Turn In



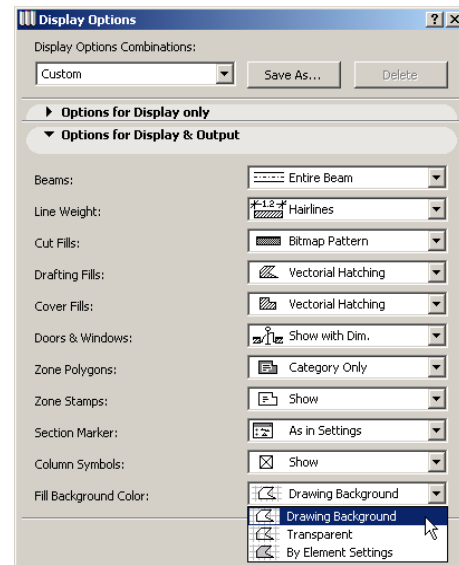
Turn Out



Continuous

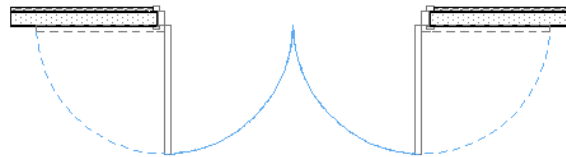
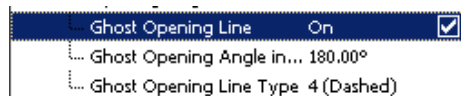
Once you have chosen a cavity closure, you can also specify how many skins have to be turned in or out. For a proper result you should set this value in accordance with the actual wall skin structure. Furthermore, a joint can be inserted to connect the two outside skins. *Note that the cavity closure doesn't work with the Brick Veneer Wall Type option. If you choose Continuous make sure that the interior and exterior layers of the wall are identical.*

Note that the *Fill Background Color* has to be set to *Drawing Background* on the *Display Options* dialog in order to get a correct cavity closure representation on the floor plan.

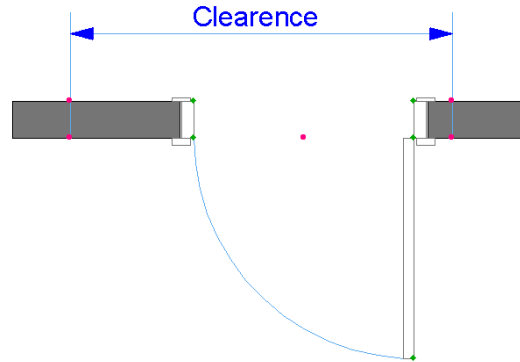


6.2 Floor Plan Symbol

The *Ghost Opening Line* option allows you to visualize the maximum opening angle of the door leaf on the floor plan. If this option is turned on two more parameters will be displayed with which you can define the *Ghost Opening Angle* and the *Ghost Swing Line Type*.



With the *Clearance Hotspots* option turned on you get hotspots that help you to keep the required clearance on the four sides of the door. You can set the distance of these hotspots with four parameters.



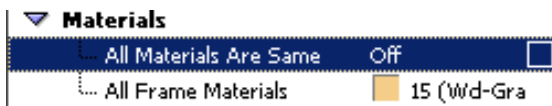
6.3 3D Representation

Curve Resolution determines the drawing accuracy of circles and cylindrical surfaces. The higher this value is, the more accurate the curve will be. However, it will be slower to be drawn on the screen.

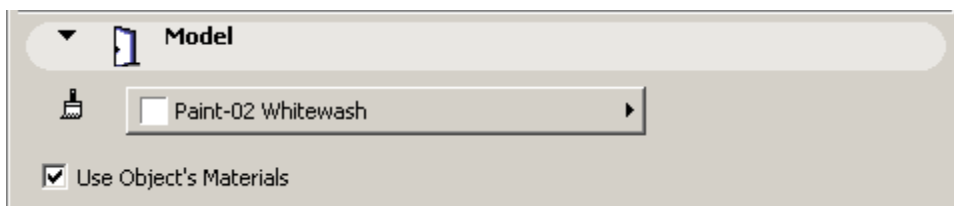


6.4 Materials

Turn *All Frame Materials* on if you wish to use the same material for all parts of the door, except the glass. When turned on, an additional parameter for specifying that material appears.



If *Use Object's Materials* in the panel *Model* is switched off, not only the frame and panel, but also the glass material will be changed to the given one.

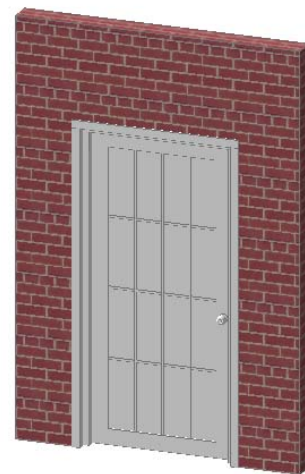




All Frame Materials=OFF



All Frame Materials=ON



Use Object's
Materials=OFF

6.5 Options

If you do not need to fine tune all the details of the door object and would like to see a simpler parameter list, it is possible to reduce the number of available parameters.

Options	
Parametric Level	High
Fully Editable	On
Left Alignment	Off
Right Alignment	Off
Top Alignment	Off
Spacing Width	1"
Left Casing at Ganging	Off
Right Casing at Ganging	Off
Top Casing at Ganging	Off
Opening Direction	Inside

Switching the option *Parametric Level* to *Low* causes a total of 14 marginal parameters to be hidden in the list. Of course, the substantial ones remain visible.

Fully Editable enables hotspot editing. If turned on, you can change the door sash opening angle graphically as described in the section Visual Editing. If switched off, a plain black hotspot will appear on the handle instead of the editable green diamond-shaped hotspot. After clicking on this hotspot the pet palette springing up won't contain the *Stretch* button.

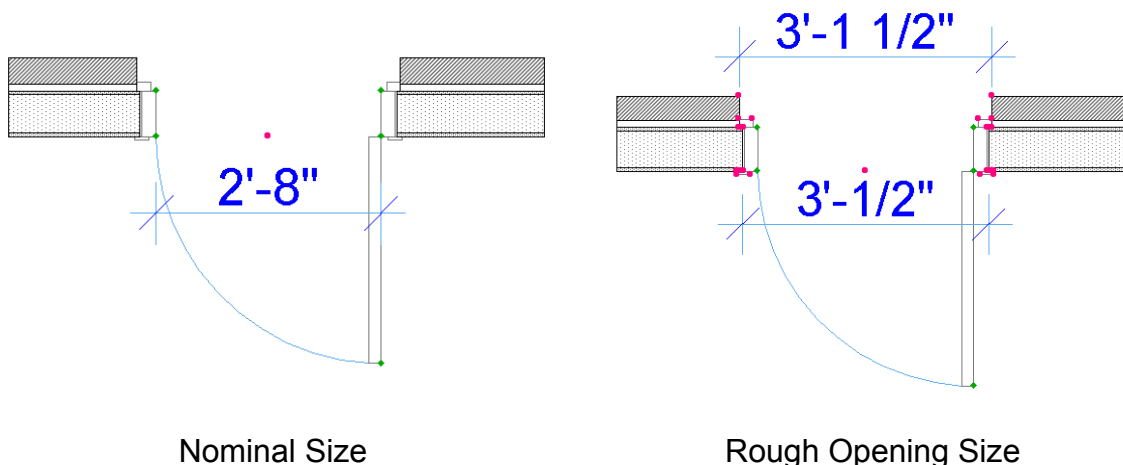
6.6 ArchiFM & Listing Parameters

These parameters are intended for storing various product specific data that do not affect the geometric presentation of the door. They have been added to the object to provide ArchiFM compatibility. However, you can also use them successfully without ArchiFM. The listing functionality of ArchiCAD enables you to generate a list of objects placed into your plan, showing the value of specified parameters. With this, you can even manage inventories. This is also the basic idea of ArchiFM, which is a complete solution for facility management. The standard Interactive Schedule door template was made to actively use these parameters.



7. Dimensioning

You can place dimensions on a door by clicking at its hotspots using the dimension tool. If you resize the door the dimensions will be automatically updated. The default hotspots are always at the nominal opening size however you can turn on additional hotspots with the *Show More Hotspots* option on the 2D tab page. This way you can dimension the rough opening size too.



8. Door Markers

Door markers are used for displaying information, such as type or identification number, about the door on the floor plan. Some markers are prepared for marking the centerline of an opening or showing its dimensions. The *Basic Window-Door Marker*, the *Window-Door Marker -70* and the *Door Marker* objects can display the unit size of the door on the floor plan

