

## Accessories For ArchiCAD

This collection of tools provides a wide range of accessories to help enhance the detail of your ArchiCAD Model. The tools automatically attach real objects to your primary elements of walls, slabs and roofs. They appear in the 2D, 3D and section/elevation windows etc.

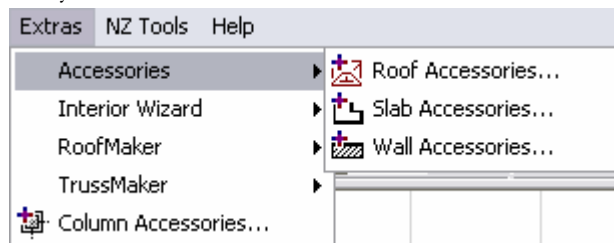
The collection of accessories contains the following tools:

- Roof Builder (inc. Down pipe Object)
- Wall Builder (Wall Accessory)
- Precast Slab Builder (Slab Accessory)
- Foundation Builder (Slab Accessory)
- Panel Cutter (for Boolean Operations)

### General Use of Accessory Tools

The accessory tools all use a similar concept of operation. They automate the process of adding detailed objects to primary building objects in ArchiCAD. For example, the Roof accessory tool adds detailed objects to roofs.

To use any of the accessory tools simply make a selection of either walls, slabs or roofs then, from the 'Extras' menu, choose the tool you wish to use.



The Accessory object can then be set-up to your requirements. You can edit the objects placed by the Accessory Tool to meet your requirements. There are specific instructions that outline how to use each of the accessories. In principle, the outline operation of the tools is broadly similar.

### Roof Builder

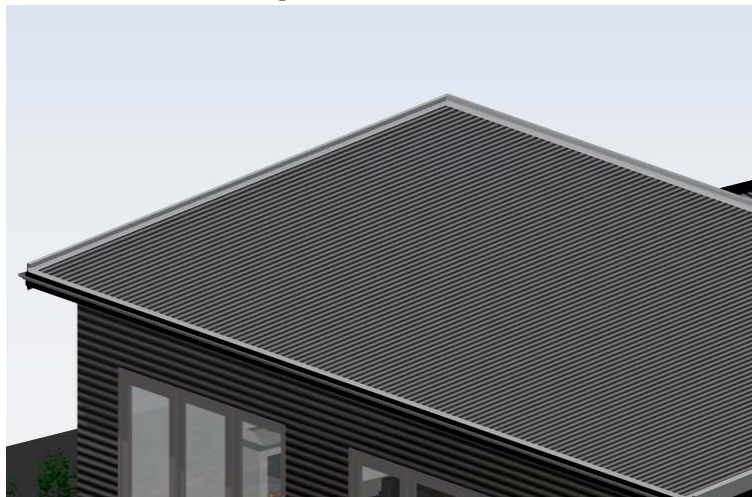
#### Description

This object collection uses Graphisoft's Roof Accessory Tool to literally attach hips, ridges, valleys, barges, gutters and soffits to your roof planes; change the roof, and the accessories change with it. Fully accessorize the whole roof with one operation.

It uses a bundle of smart 3D objects, which may also be placed separately, and through an intelligent object interface, gives you the ability to alter the setting of each edge; i.e.: change a ridge or hip into an apron flashing; a valley into an internal gutter.

You have the choice of Square or Round tiles, corrugated or longrun roofing ridging options, as well as 5 different gutter options.

The objects can also add roof cladding.

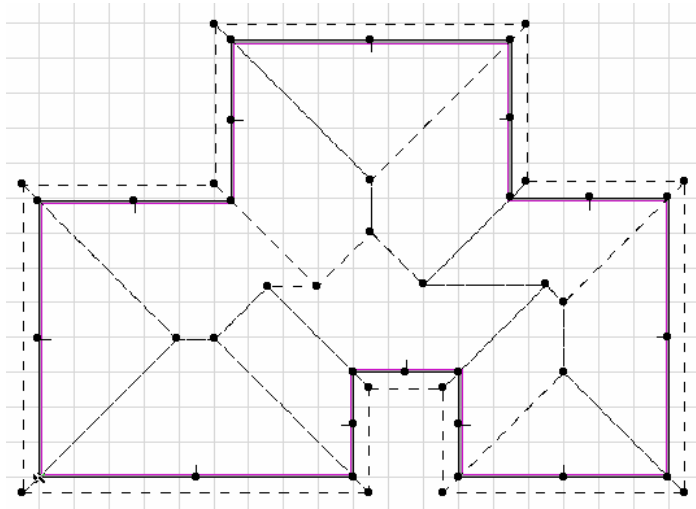


## Using the Tool

The process relies on the Graphisoft's Accessory Tools; i.e. you simply select the primary object, in this case a roof or multiple roof planes, then apply the accessory to it.

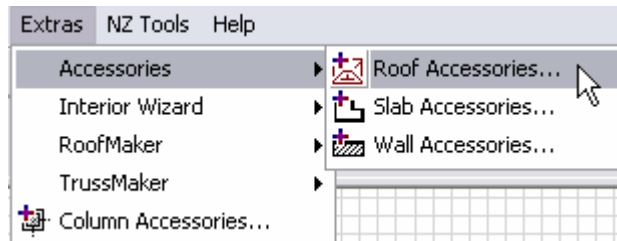
Step 1:

Select your roof plane or all roofs



Step 2:

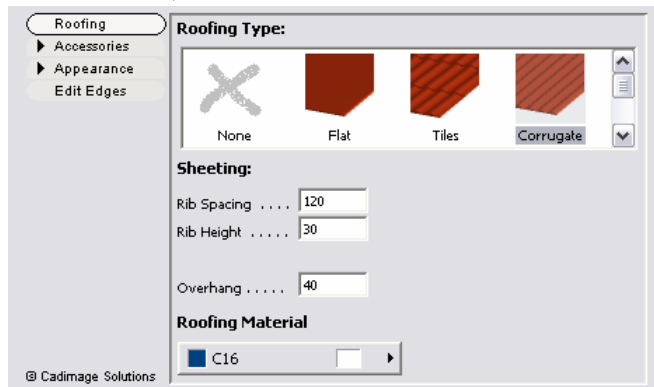
From the 'Extras' menu choose 'Roof Accessories'



If this is the first time you have carried out this process, you may need to browse to the library folder where the Roof Builder accessory object was installed (Tools Library v9\Accessories.)

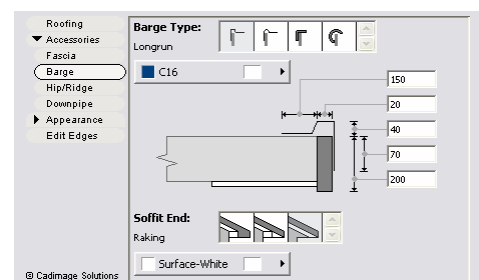
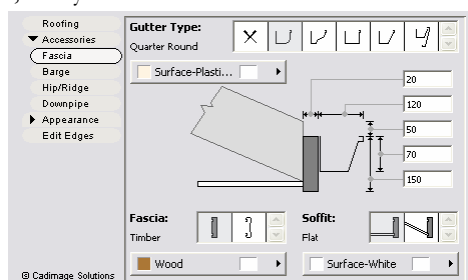
Step 3

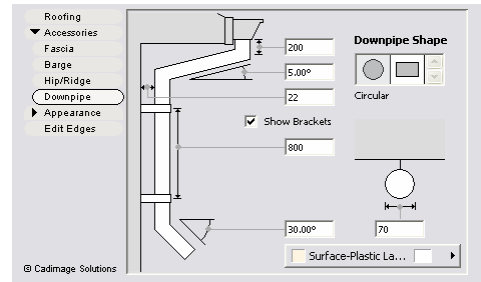
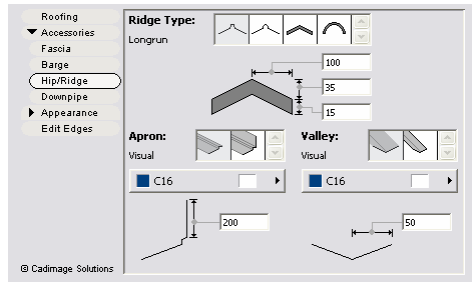
Select the Roof Builder Object



From this tabbed interface you can globally set the accessories for all the selected roof planes.

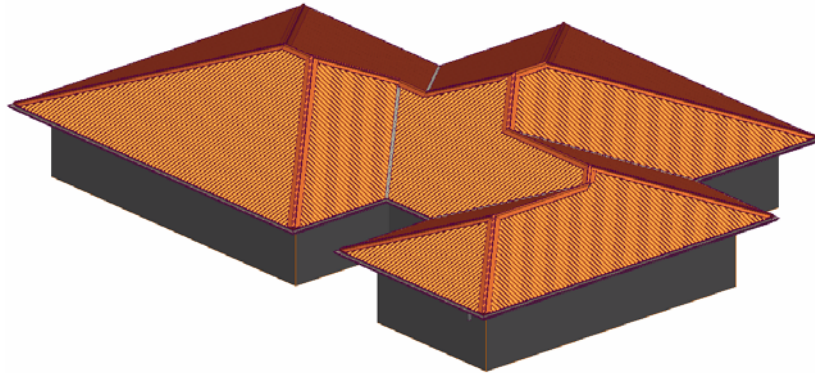
You can also select the type of fascia, gutter, soffit & profiles etc. There is full control over the profiles of ridges, hips, barges, valleys and the associated dimensions. Down pipes can also be added to roofs.





Step 4:

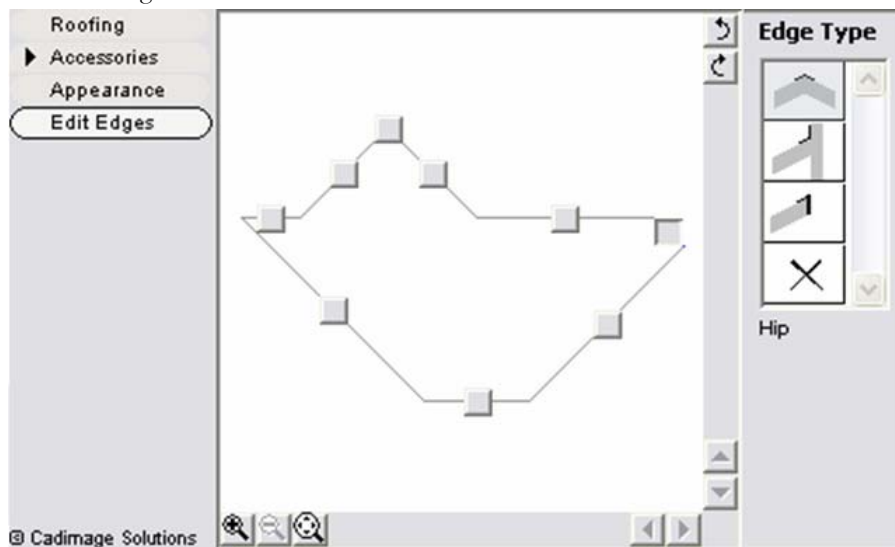
Once this operation is carried out, your selected roof planes will have the appropriate accessories applied. The roof accessories object automatically determines which accessories are applied to each roof edge.



### Editing Individual Roof Plane

If you need to override the default settings for any roof segment, select the roof accessory, the gutter line is a hot edge to make this selection easier.

Open the object tool (double click the object tool) to open the Roof Builder objects settings. You can override any of the properties for this individual roof segment. If you want to change the type of any particular edge, for example to change a default barge edge to no accessory as shown, click on the 'Edit Edges' button. You will then be presented with the dialog below:

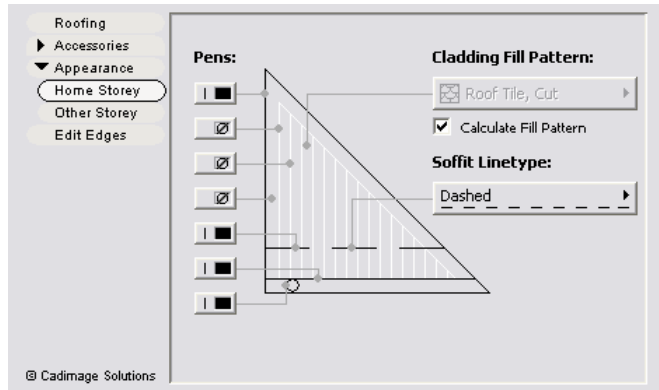


This shows the edges of the selected roof plane. Click the button for the edge to edit, then change the edge type on the right.

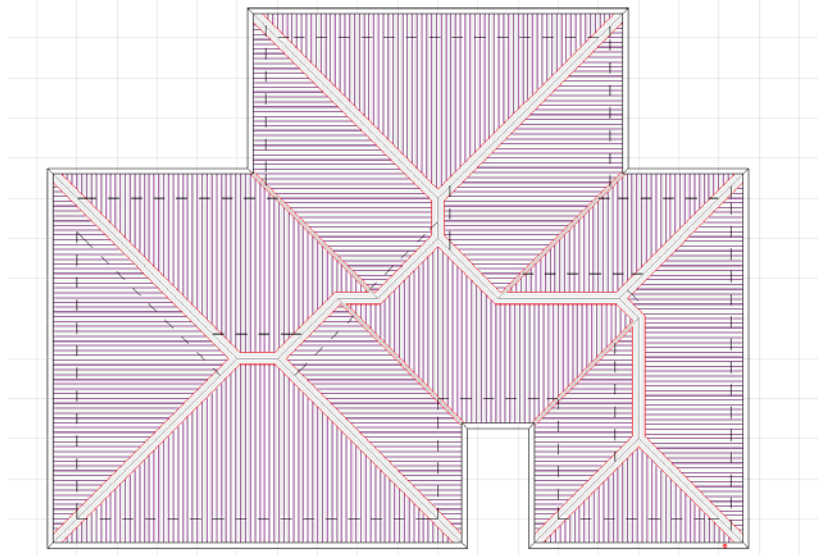
### Floor Plan Appearance

It is also possible to have the roof accessories shown in the 2D window.

You can adjust the pen and visibility of the floor plan lines for the home story (the story the roof accessory is placed on) and other stories (if the accessory is set to show above and/or below its home story.) To turn off a line just set the pen to pen 0. The fill pattern can either be a calculated fill pattern that uses the actual roof type and size or you can use a standard fill pattern.

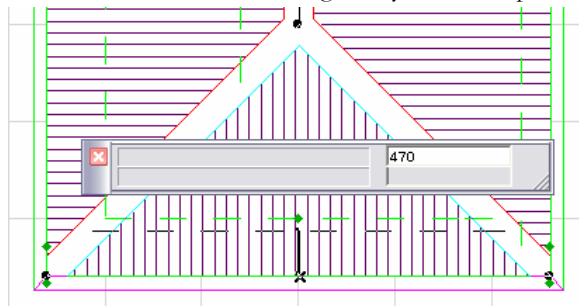


The dialog above provides full control of the line types for all parts of the 2d view.

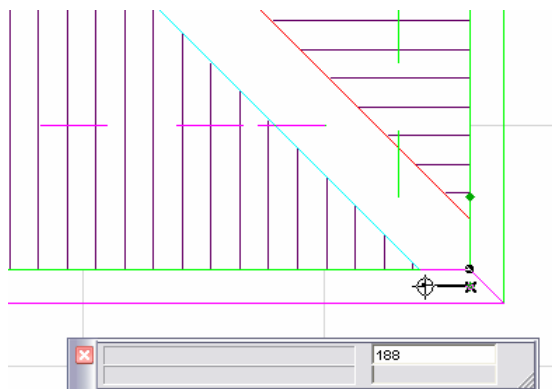


### Dynamic Editing

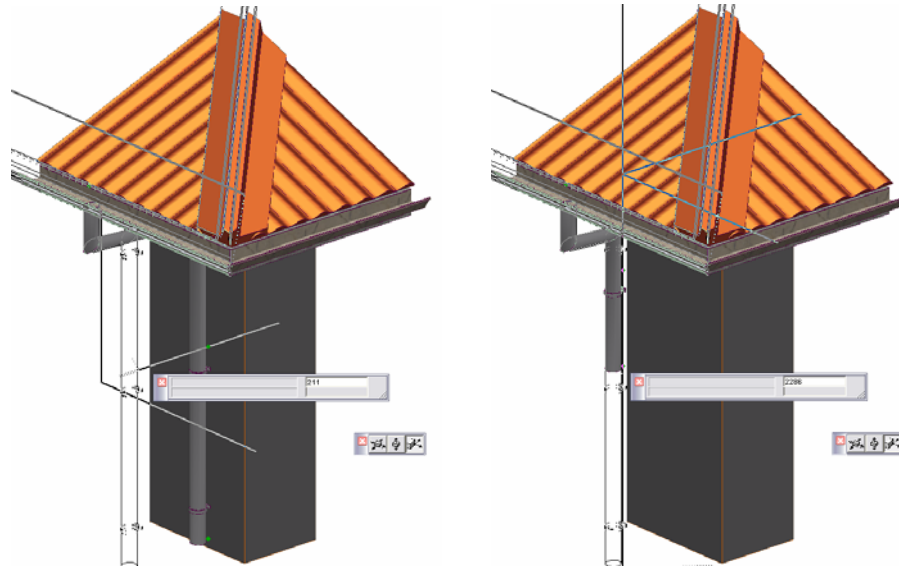
The Roof Builder object allows editing on the floor plan by way of dynamic hotspots. The depth of the soffit can be edited using the dynamic hotspot in the middle of the soffit.



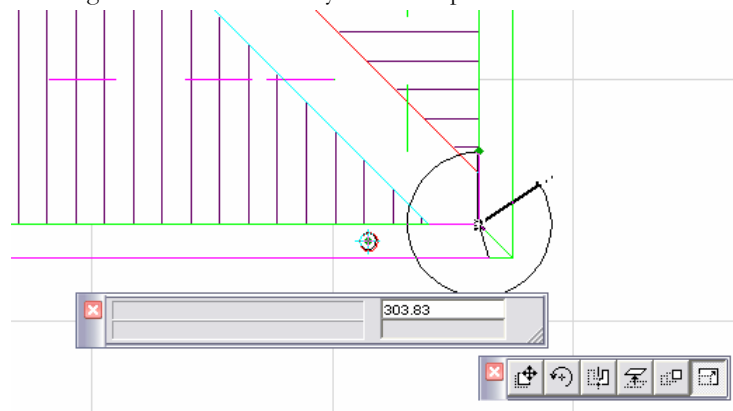
To add a down pipe there is a dynamic hotspot at each end of every gutter. Moving one of these hotspots away from the end of the gutter creates a down pipe. To remove the down pipe simply move the hotspot back to the end of the gutter.



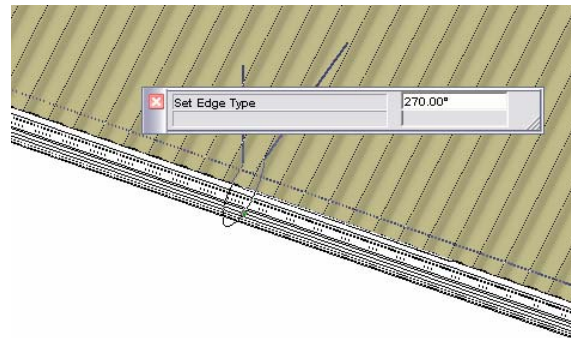
The lengths and location of the down pipes can be dynamically edited in the 3d window:



The end angles that control the angle of edge joins are preset, however in some instances these may need to be edited. The end angles can be edited via dynamic hotspots.



The roof edge type can also be adjusted dynamically in 3d. The standard position of the hotspot is in towards the roof (0°). If this is rotated down (90°) the edge turns into a barge (for hip or ridge) or a valley gutter (for valleys.) Rotating it out (180°) turns the edge off and rotating it up (270°) turns the edge into an apron flashing.



## Wall Builder

### Description

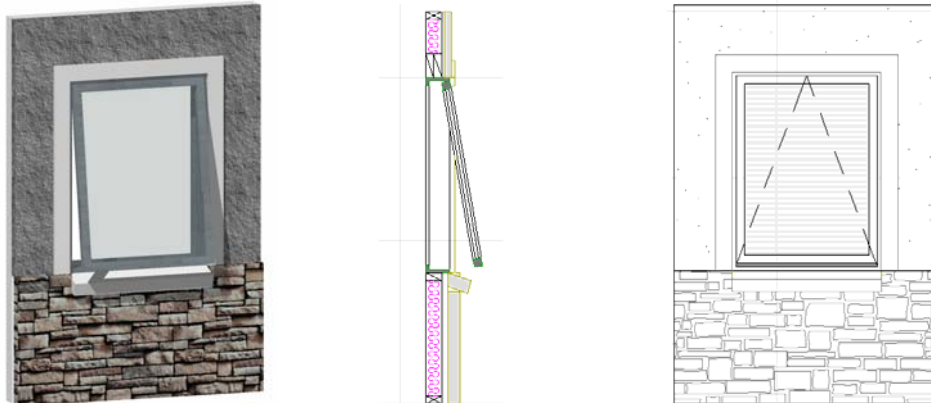
This wall accessory tool allows you to apply a cladding type accessory object to the face of selected walls.

The accessory allows you to select from: Bevel Back and Scalloped Weatherboards, Board & Batten Cladding, Brick Veneer, Plaster/Substrate claddings, Panels and Corrugated iron. The accessories can also be mixed to make combinations of the claddings.

Sills and window trims can be applied around openings and also between changes in cladding types.



This tool creates a realistic Three Dimensional cladding for your building. These claddings will display in Floor Plan, Elevation, Section and 3D. The following steps will guide you through using the tool.



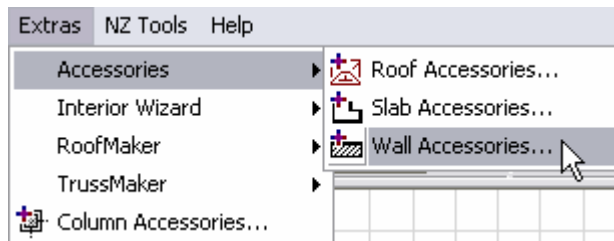
### Using the Tool

Step 1:

Select your wall/s

Step 2:

Select the Wall Accessories from the Extras menu



If this is the first time you have carried out this process, you may need to browse to the library folder where the Wall Builder accessory object was installed (Tools Library v9\Accessories.)

Step 3

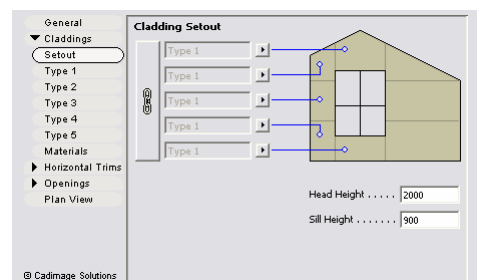
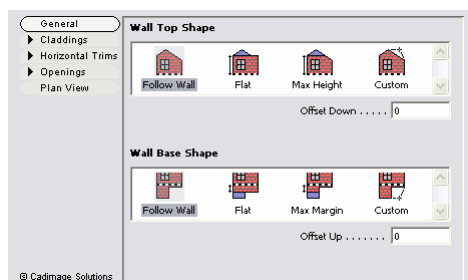
Select the Wall Builder object

Step 4:

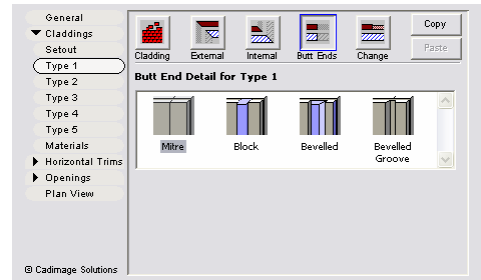
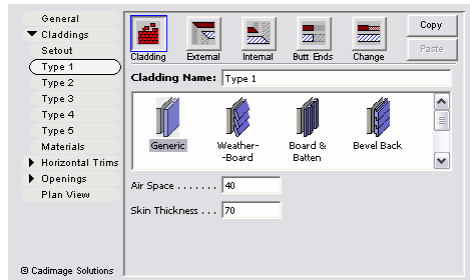
From this tabbed interface you can globally set the accessories for all the selected walls.

Options that can be set include:

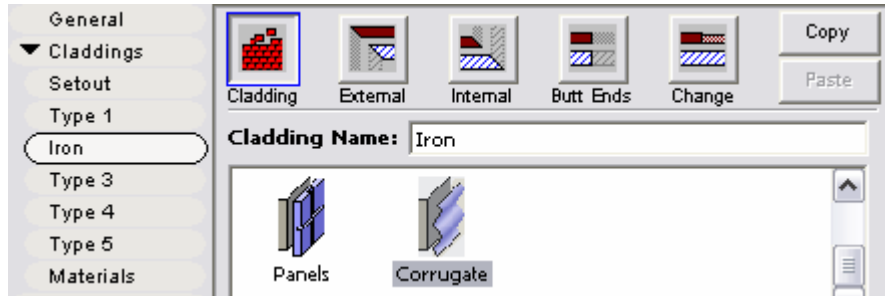
How the cladding is applied at the top and bottom of the wall. What claddings are applied to the different parts of the walls.



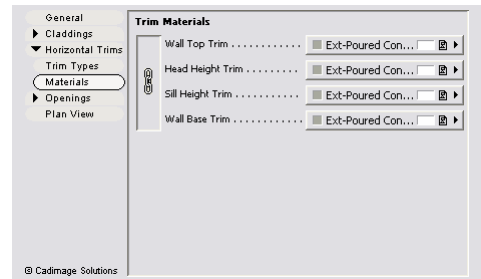
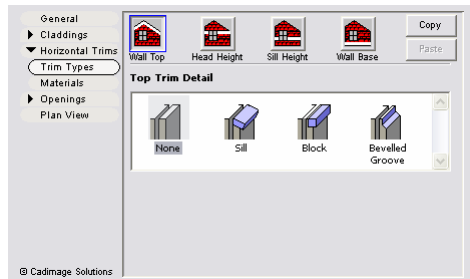
The individual claddings can be configured with full control over internal/external junctions and changes in claddings.



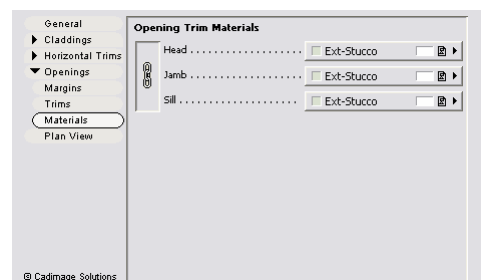
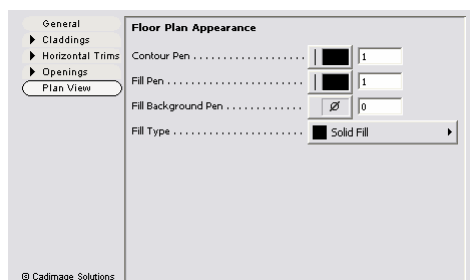
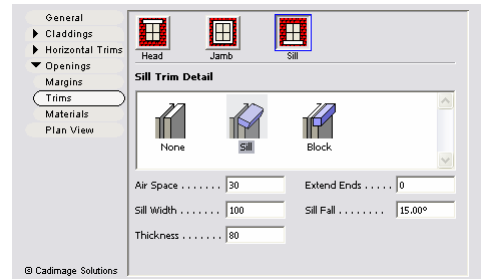
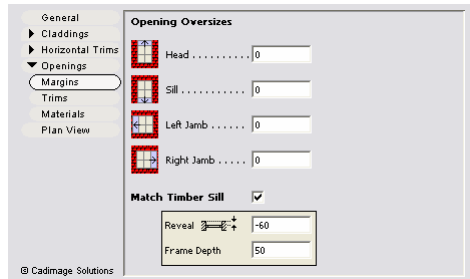
The name of the different cladding types can be set allowing easier identification throughout the remainder of the interface.



Horizontal trims can be applied to the top and bottom of walls and also at cladding breaks. The materials of trims can be set together or individually.

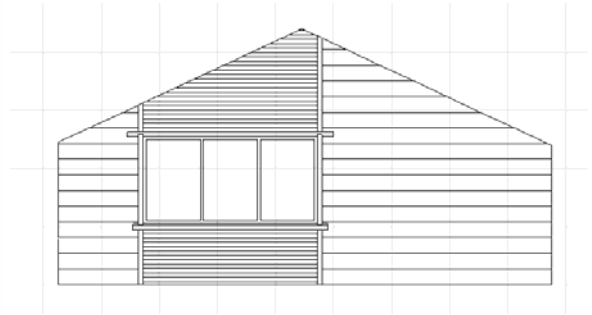
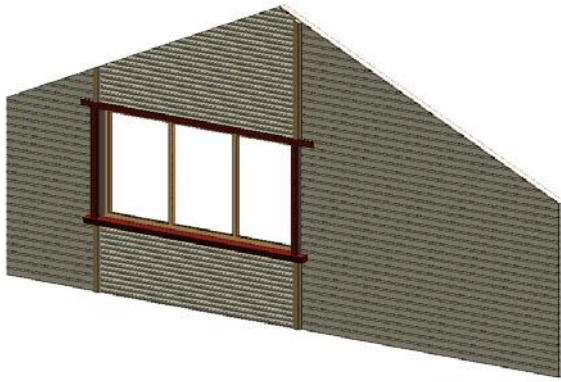


The openings can be oversized and complete window trims can be defined.



Once all configured, click OK, and then click to indicate which face of the wall is to have the cladding applied.

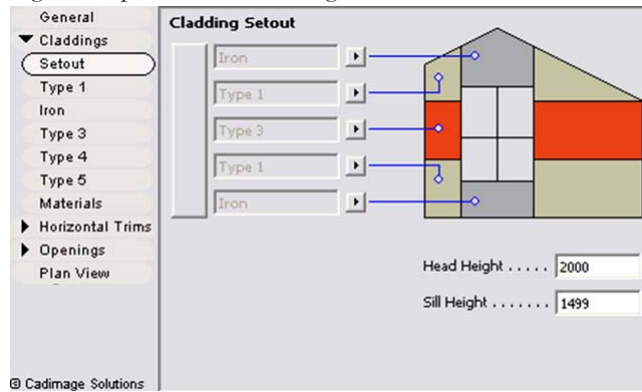




Once all the Wall Cladding has been added, objects can be edited either collectively or individually.

### Dynamic Editing

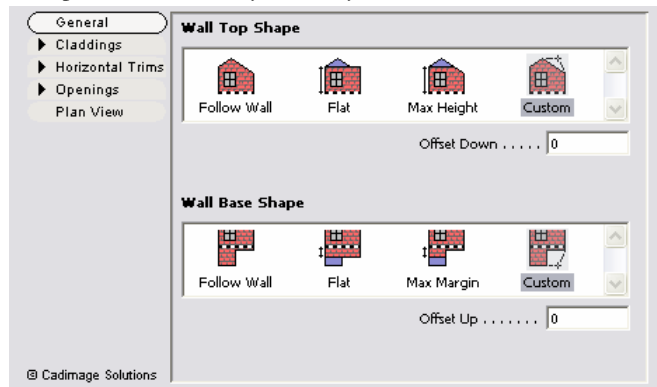
If the cladding is set up with a band through the middle as below:



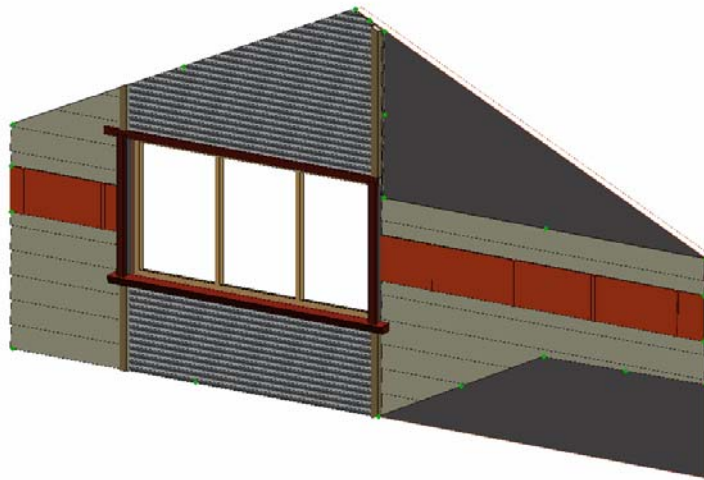
The heights of the start and end of this band (sill and head) can be edited dynamically.



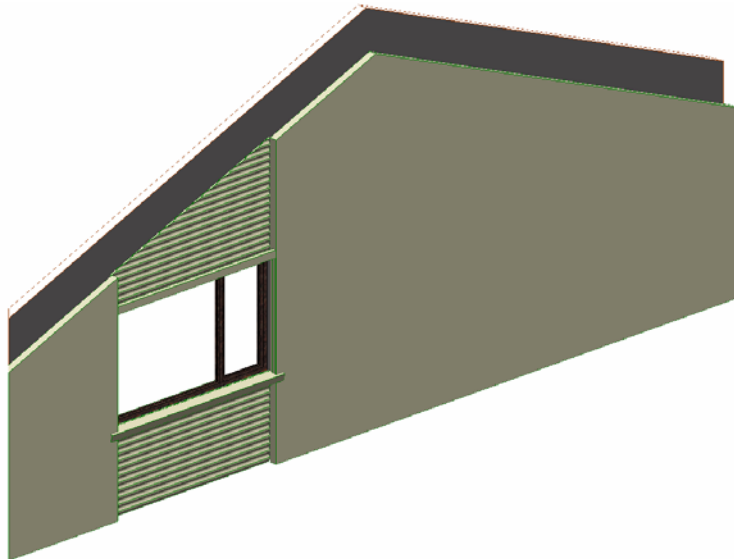
If the custom setting is used for the top and bottom shapes, dynamic hotspots are added to the midpoints of edges so the actual shape can be edited dynamically.

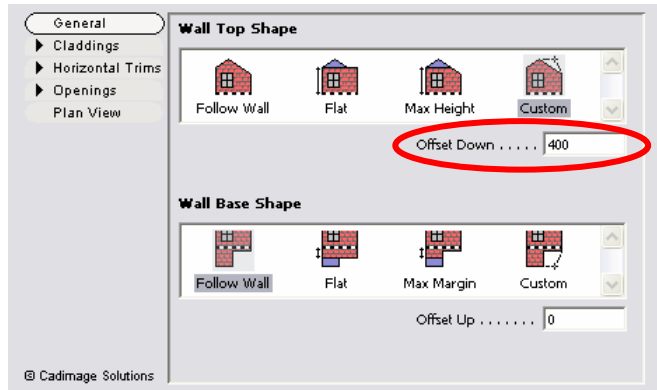




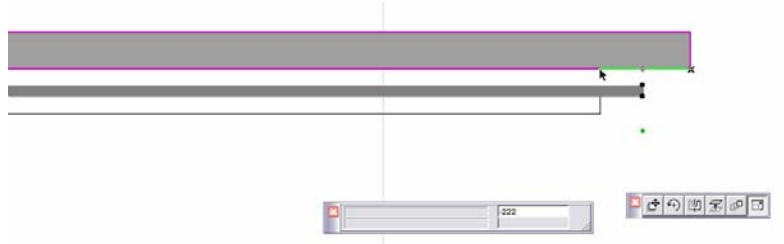


All other top and bottom shapes (excluding Follow Wall) can also be edited dynamically.  
The object interface also provides an 'offset' parameter to allow the top and bottom shape to be easily offset.





The extents of the wall in floor plan can be edited dynamically along with the angle of the end cut.



## Precast Slab Builder

### Description

This accessory is used to apply different pre-cast slab profiles to a selected slab.

### Using the Tool

Step 1:

Select the slab

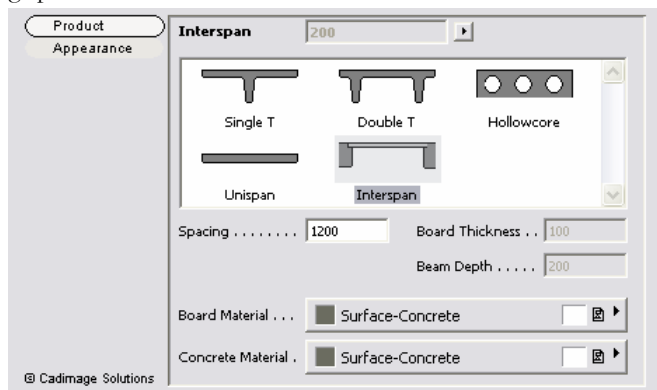
Step 2:

Select the 'Slab Accessories' from the 'Extras' menu

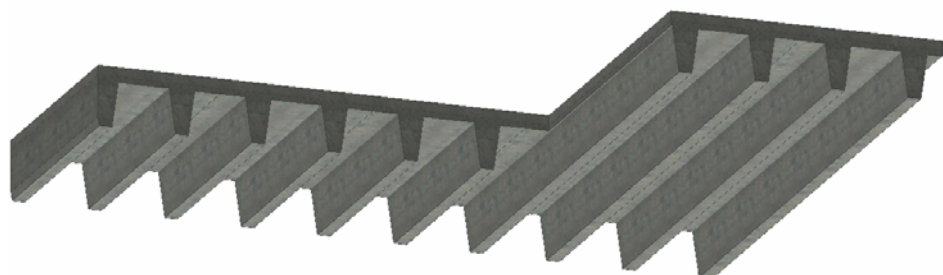
Step 3:

Select the Precast Slab Builder object and select the profile you want to use.

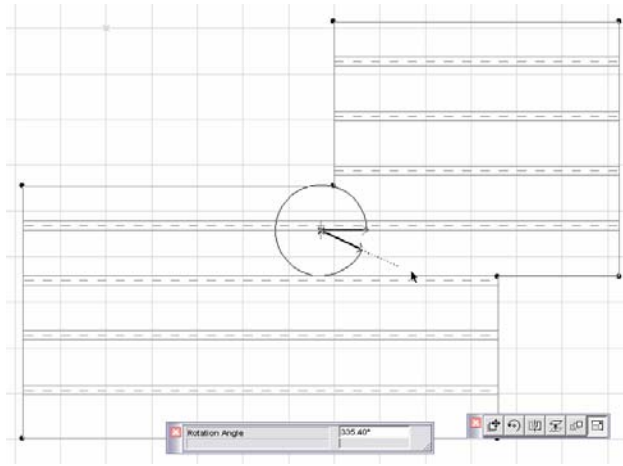
The dimensions of the profile can be set by way of standard sizes in the drop down menu, or by selecting custom and entering specific dimensions.



Once placed the profile can be easily changed via the object settings.



The direction and origin of the precast members can be updated via the dynamic hotspots on the floor plan.



## Foundation Builder

### Description

This new version of the concrete footing accessory allows you to place a different concrete footing/foundation profile along each edge of your slab.

### Using the Tool

Step 1:

Select your slab

Step 2:

Select the Slab Accessories from the Extras menu

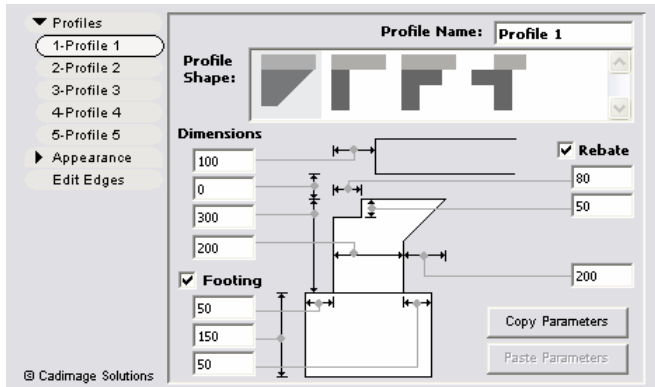
If this is the first time you have carried out this process, you may need to browse to the library folder where the Foundation Builder accessory object was installed (Tools Library v9\Accessories.)

Step 3

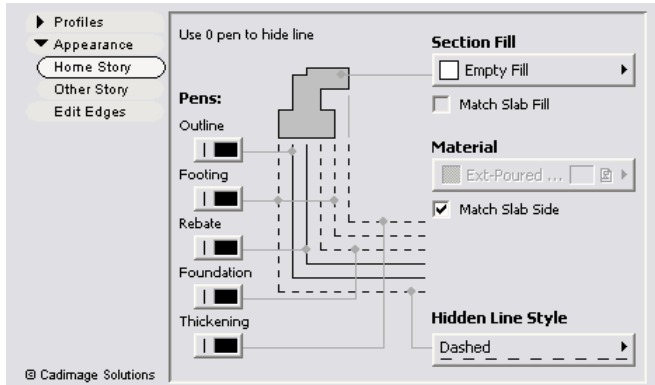
Select the Foundation Builder object

Step 4:

From this tabbed interface you can globally set the parameters for the selected slab.

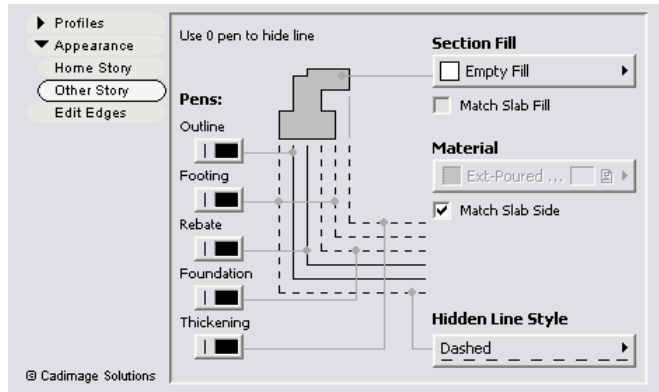


You can preset the appearance settings for the object at this stage.



Settings can be configured both for the home story and the 'other' story (this is defined in the 'Show On' drop down in the Object settings dialog.)

Remember to ensure that the 'Use Symbol Colors' and 'Use Symbol Linetypes' are both checked.



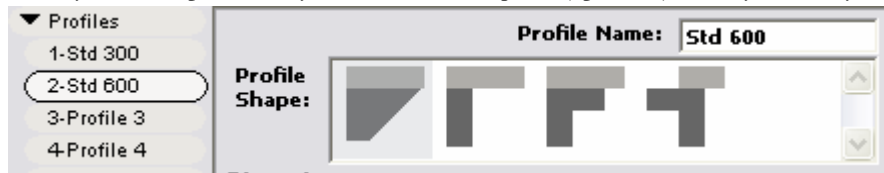
Up to 5 different foundation profiles can be defined for a single slab, however, before setting these you must click OK.

The Foundation Builder object will now be placed and the outline of the slab is stored in the object. From here the individual edges can now be edited.

### Editing Edges

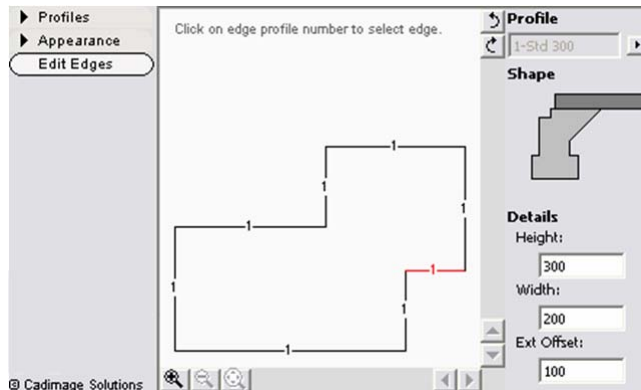
To edit the Foundation Builder select the object and open the Object Settings dialog.

Configure as many different profiles as your foundation requires (upto five) and if you want you can name them.

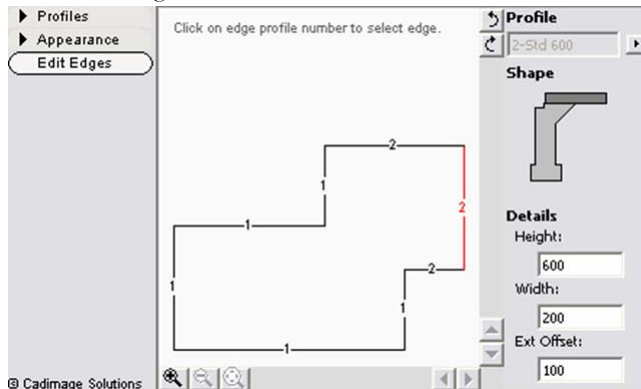


You can copy and paste parameter settings so you can easily make new profiles (eg a profile is identical to a previous except the height is greater).

Having set up the required number of profiles now select the Edit Edges tab:



By clicking on the different edges or stepping through them with the arrow buttons you can make changes to the profile applied to each edge.



While working at this level key dimensions of the profile can also be edited on-the-fly.

If you need to change the foundation profile along an edge simply edit the slab and add another node point in the edge and position the change is required (useful when an edge steps down a sloping site.)

# Panel Cutter

## Description

This simple ArchiCAD object is designed to be used with the ArchiCAD Solid Element Operations, to apply profiles to vertical surfaces of a wall. It can apply effects such as a pre-cast concrete panel to a standard ArchiCAD wall.

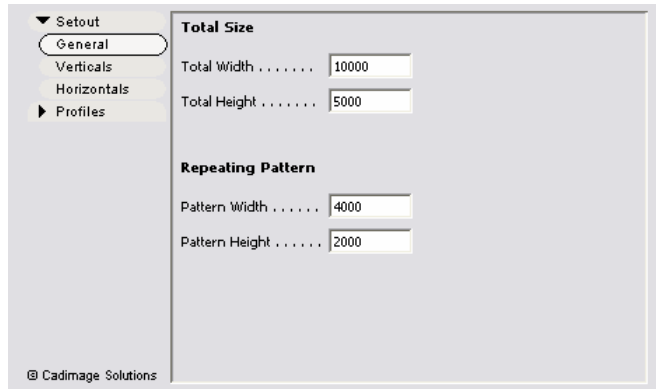
Please refer to the ArchiCAD help file for more information on how to carry out Boolean or Solid Element Operations in ArchiCAD.

## Using the Tool

Select the object tool & browse to the Accessories folder (in Tools Library v9)

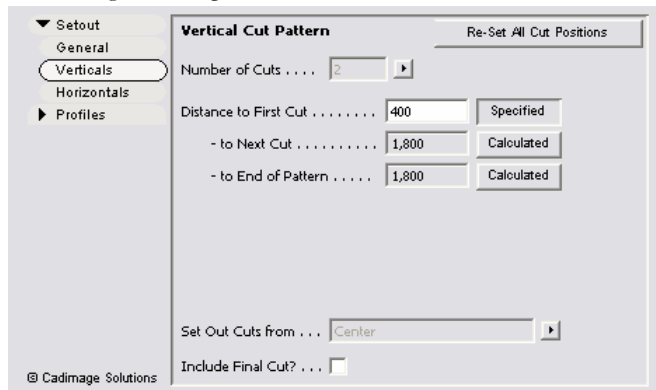
Set up the parameters for the object, including the overall height and width.

The object can also be configured with a repeating pattern in either or both directions.

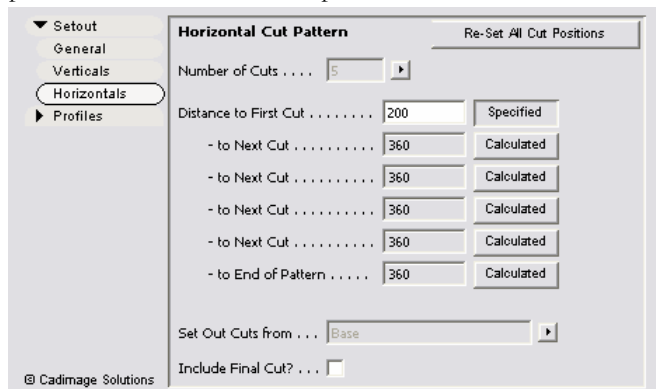


Now set up the spacing of the pattern, by selecting the number of cutters, the spacing (either specified or calculated) and where to position them from.

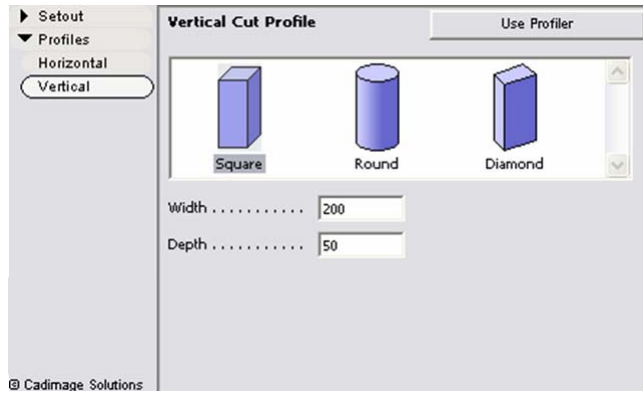
Once you have configured the parameters click the 'Re-set All Cut Positions' button to configure the object.



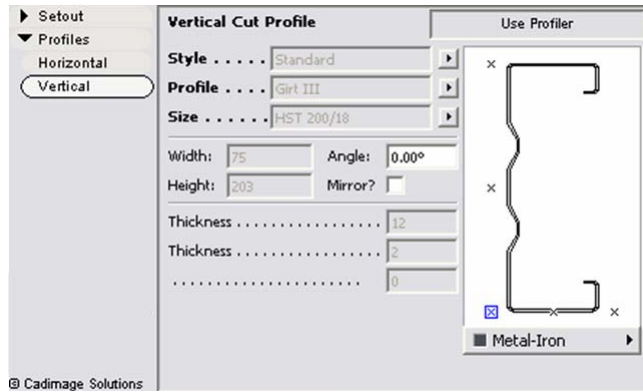
Repeat the process for the horizontal cut pattern.



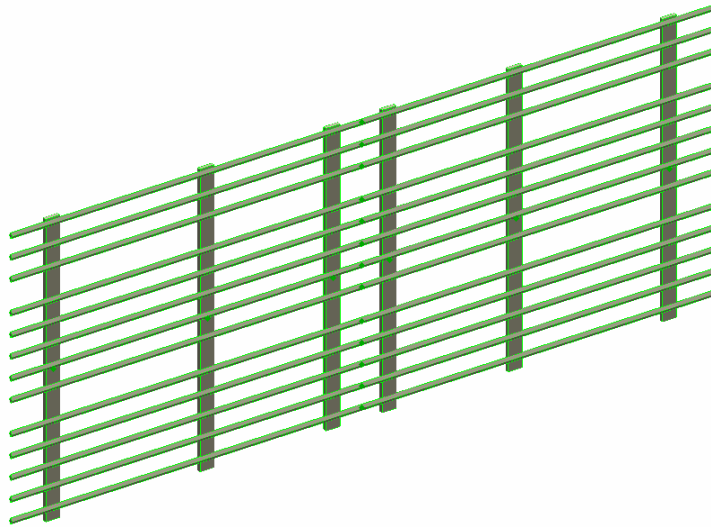
Define the Cut profiles for each of the cutters. The object contains three simple profiles.



If you have the 3d Profiler you can also choose to 'Use Profiler' in which case the interface allows selection from the profile library.



Place the object:



Having placed the object you can now position it and use it as an 'operator' in a Solid Element Operation. Once the object has been placed all the cutters can be individually and dynamically adjusted in the 3d Window.

