

## WORKING WITH MULTIPLE VIEWS

### WHY MULTIPLE VIEWS

There are times when you might want to show the plan, an elevation or two, an isometric, and a section all on the same sheet and all at the same time. You would naturally want to take advantage of the computer and not have to redraw each view or even have to cut and paste copies of the different views. This would be done similarly to creating a linked layer but taking it one step further.

The tools, commands, constraints, and palettes we will be exploring are;

- CONSTRAINED LINEAR DIMENSION* Tool
- ROUND WALL* Tool
- ADD SURFACE* Command
- CREATE LAYER LINK* Command
- LOCK* Command
- REFERENCE MARKER* Command
- UNLOCK* Command
- WIDE PERSPECTIVE* Command
- SNAP TO EDGE* Constraint
- OBJECT INFO* Palette

### SETTING UP THE MULTI-VIEW SHEET

We will need to open the previous file we were working with and save it under another name. Double-click the *chapt 7 [chapt 7.mcd]* file. Then create a new document by selecting the *SAVE AS* command and name it *chapt 8 [chapt 8.mcd]*. The *chapt 7 [chapt 7.mcd]* file will automatically close and be replaced with the new file.



### Creating Multiple Views

Basically we will be creating several linked layers, same as in the previous file, and linking them back to the original layers. The difference is, we will create a linked layer for each view we wish to see.

#### Step 1 - creating the layers

Change the *LAYER OPTIONS* to *GRAY OTHERS* and the *RENDERING* to *WIREFRAME*. Open the *LAYERS SETUP* dialog box and create 5 new layers all in  $1/16"$  (1:200) scale and with *z* and  $\Delta z$  [ $\pm z$ ] heights equaling 0 naming them; *ll plan*, *ll front*, *ll left*, *ll isometric*, and *ll perspective*. *ll* is short for linked layer.



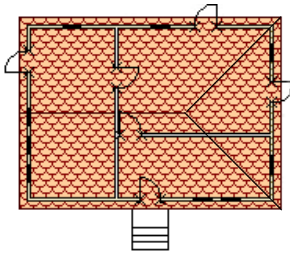
Notice that if you create the first new layer and change the *LAYER SCALE*, then each of the following layers will use the same scale. Make sure that the *SCALE TEXT* box is not checked in this dialog box. The *z* and sometimes the  $\Delta z$  [ $\pm z$ ] values are automatically calculated and need to be changed. By using the word *linked*, or the letters *ll*, or something else to clue you into the fact that these are linked model layers helps avoid linking a linked model layer to another linked layer. This is not as big an issue as earlier versions of the program, but do note, if a linked layer is linked to another linked layer, it will not render unless you are using *WIREFRAME* or *QD3D*. Make the layer *linked model*, *floor*, *roof*, and *walls* layers *INVISIBLE* before you select *OK*.



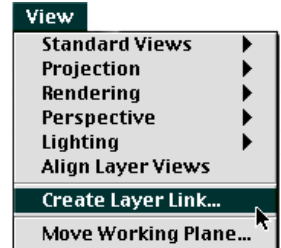
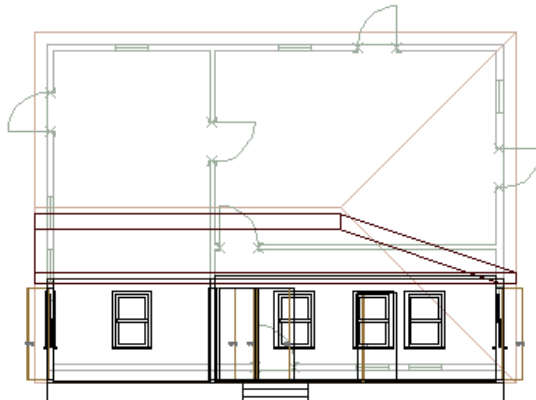
## Step 2 - linking the multiple layers

With *11 plan* the active layer, select *VIEW>CREATE LAYER LINK* and *Command-select* [*Control-select*] the *floor, walls, and roof* layers. You will need to scroll through the list to find the other layers. Also select the *PROJECT 2D OBJECTS* box and then the *LINK* button.

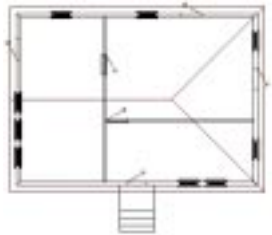
Change the view to *Top/PLAN*. Notice that there is a text object for the scale designation floating around somewhere to the right that was originally included in the template. Go back to the *floor* layer, locate the text object, and delete it. It is automatically deleted from the model layer.



With *11 front* the active layer, use the *CREATE LAYER LINK* command and again link the *floor, walls, and roof* layers. The *PROJECT 2D OBJECTS* box should not be checked on this layer nor on any of the following linked model layers. Change the view to *FRONT*.



## 8. Working With Multiple Views

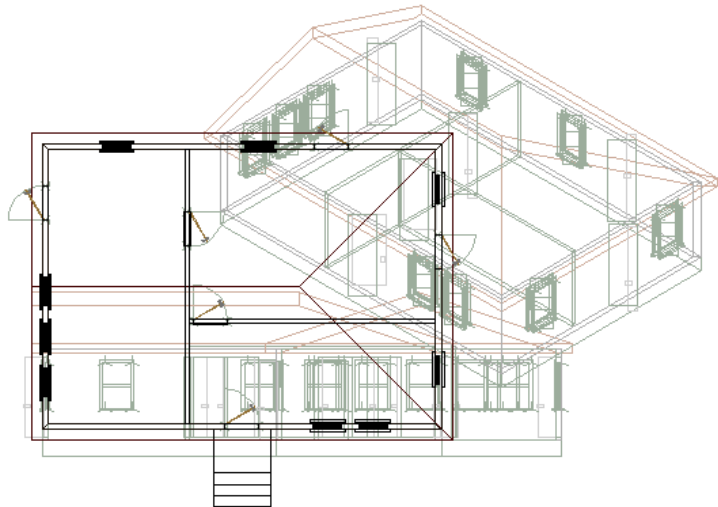


Notice that each of these linked layers are placed one on top of another. For right now do not worry about this, although you can change the *LAYER OPTIONS* to *ACTIVE ONLY* if it really does bother you.

With *ll left* the active layer, change the view to *LEFT* then link the same *floor*, *walls*, and *roof* layers.

With *ll isometric* active, link the same three layers and change the view to *RIGHT ISOMETRIC*.

And finally, with *ll perspective*, link the *floor*, *walls*, and *roof* layers again, changing the view to *TOP*.



All of the linked model layers appear in *WIREFRAME* except for the *ll plan* layer which seems as if it is rendered *SOLID*. Since the walls, roof, floor and the particular symbols we had used are hybrid objects, the 2D aspect does show with fill colors and *PATTERNS* in *TOP/PLAN* even though it is not rendered. The stairs and floor pattern, though, do not appear with a fill in *TOP/PLAN*, because they are 3D objects only, without any 2D counterpart. Change *LAYER OPTIONS* to *ACTIVE ONLY*. Notice the difference in how the hybrid door symbols appear in *TOP* versus *TOP/PLAN*.

When we linked these layers on the linked model layers with the *CREATE LAYER LINK* command, we selected only the original or master layers and did not link any that had the word linked or // in the name in the scrolling list. That is why we use the word linked or //, or something else, because you should be aware of the limitations of a linked layer being linked to another linked layer.

### Step 3 - unlinking a layer

There are times you may want to change which of the original layers were actually linked. For instance, in the case of the // plan layer you might want to see a floor plan rather than a roof plan.

With // plan the active layer, *Option [Control]* press/drag through the building to select all of the objects, and then choose *EDIT>UNLOCK*. Use the *Option [Control]* key while press/dragging since some of the handles may be beyond the object itself so you might miss something.

Notice that the selection handles change from gray to black once the *UNLOCK* command was used. Click on the drawing to deselect and then select just the roof, which gets selected as one object rather than the 3 planes, and *Delete*. This deletes the link to the *roof* layer. Then choose *SELECT ALL* and *EDIT>LOCK*. This will only get rid of the link to that particular layer and does not delete or interfere in any way with the original or master layer. You could also *SELECT ALL* and use the command *UNLOCK*, then *Delete [Backspace]* to get rid of all of the linking on the model layer. This way you can start the linking process over. You may need to double-click the *PAN* tool to force a screen redraw.

