Hello, this is Eric Bobrow, and in this lesson will be taking a look at how you can create reusable Room Modules. These are configurations or groups of elements that you have created once, and that you want to have access to for other projects. So here's a simple situation. I've got the bare shell of the building for demonstration purposes, just four walls. And I'd like to put in a bathroom. So let me go and switch to a project I've got open, a sample project that I use so frequently. And I want to select elements in this bathroom. [:40]

Now, I can go and select this bathtub by clicking on the corner of it, but if I have the Quick Select option here with the Arrow tool, then I can click anywhere inside and select it. And then Shift+click anywhere inside the toilet and the sink, and select all three of those. And I'll go and copy them, and in a moment paste them into my sample project that I'm just getting started on. Now I'll go and paste. And say click on the corner of the bathtub, click here to line this up, and then click outside. Now, you may be surprised to see that there are some labels that are attached to these elements. We had that layer turned off in the other project. [1:33]

In this case, I actually don't even want those labels to be on. So I'll select those three elements, and I'll turn those labels off. So I'll go into the Object settings, and under Listing and Labeling, there's an option to Label Objects, and this is one style of labeling. And when I turn it off, they just disappear. So these elements now are in, obviously quicker than going and finding a bathtub, toilet and sink manually and getting them arranged just the way I want. But they are still editable. So for example, I can go grab this and put into a new position, perhaps tell it to rotate along to there, and then drag it into the appropriate location. [2:20]

So the room was able to be started very quickly, because I copied that from another room where these were already placed. Now, let's look at a more complex situation. For example, perhaps I want to put in a kitchen over here. And kitchens have many more components. So let me switch over to the other project, and I'll go and zoom in on this kitchen. Now when I'm zooming in on the kitchen, I want to select things. Of course, I could select one object after another, like that. But there are a whole bunch of them, and I might miss something. So it might be good to select everything in this room. Now it if I use the Quick Select turned on, it's hard to select this room grouping, because as soon as I click to start drawing a marquee, it starts to drag the elements. So I'm going to undo that or deselect that, and turn off Quick Select, which you can do when the Arrow tool is active. [3:14]

You can see it in the info box, and you can turn it off by clicking or using the space bar. So if I move the mouse away and press the space bar down and then up, down and up, you'll see that it activates that, or toggles it on or off. Now I can go ahead and select these elements here. Let me just show you the most common way that ArchiCAD is setup to select anything that's partially included. If I press down, and go here, is selects all of those elements, but it also selected this section marker. This is the end of a staircase, and other things. So perhaps I want to be more discriminating or selective, and say I'd like to select things that are only entirely available, or entirely outlined. [4:05]

In this case, I'll go and move, zoom in a little bit more, and click in the middle of the wall, but not on one of the hotspots of the wall, and draw this box around it. Now, it did not select the staircase here. It did not select the section. Of course, it did select the label for the kitchen. And it did, for some reason, it selected this particular section that I guess has a center point in there. So that was eligible. But I'm going to go now, and instead of

copying here, I'll use another alternative. All go to the File menu, External Content, Save Selection As Module. [4:47]

So this is a command that we can use in different ways. The way I'm going to do it is I'll just going to go ahead and navigate to my desktop, where I've got a folder, where I'm accumulating different versions of kitchens. And I'll call this "Kitchen 3". It will save it as a module file, in fact because of the command that I'm saving it as a hotlinked module, that's the only format available. I don't want to replace the selection with this hotlinked module file, because that, if this were checked, it would make the elements that I've just selected an instance of the external file, and they would no longer be editable in this file. [5:26]

So we'll be talking about hotlinked module files in another lesson in the course, but just know that we don't want this turned on for this particular purpose. I'll say Save, and within a few seconds, those elements will be available on the hard drive. Now, one reason why this is very good is because I can accumulate multiple similar modules, or different types of modules for kitchens and baths and playground equipment, or bedrooms or offices. Anything that you like. You can also get access to this without having to open the project. So at any time, I can go and bring it into another project. [6:08]

Now I can do it by using the External Content, Place Hotlinked Module, but then the elements will not be editable. I can move them around, but I won't be able to delete or change individual components, because they'll be hotlinked to the external file. So in this case, I don't want to use that. I want to go File, File Special, Merge. And when I do that, I'll pick that kitchen module here. And depending upon what you've got, it may have some issues with library stuff. In this case, I'm going to ignore that. And I'll move this into the corner. I'll click on that corner and line this up. I can also move it after I've pasted it. But I'll click outside the marquee, and it's now dropped into position. [6:59]

Now these elements here, I'd like to turn off their labels, because I don't want them in this project. Instead of having to select them the way that I did, I'll show you a shortcut. I'm going to undo the paste by clicking here or typing Command+Z or CTRL+Z, and then I will redo the paste by clicking here, or Command +Shift+C or CTRL+Shift+C. You'll notice the elements have reappeared, but now they have handles. So that means it's easy for me to go into the object settings and turn off the labels. So this is a trick that you can use whenever you paste, if you want to be able to modify something about those elements, perhaps change their layer or anything else. You can undo, and then redo, and those elements that you've just pasted will be selected and then allow you to change their individual settings or parameter settings. [7:56]

And now again, I can grab this refrigerator and move it, I can go and say mirror it, so that it's facing the other way, so that the door faces the other place and move it into position. So these are fully editable as well. Now, this group here, if I wanted to make that a little bit easier, I could turn off the labels in the original file before I save it as a module. So let me just go back to it, and with these elements selected, I'll go to the Object tool. And even though the layer for the labels are turned off, it still records that they are labeled. [8:35]

I'll turn them off here, and then having done that, I'll go File, External Content, Save Selection As Module, and perhaps I'll save it in the same location. Let's see, this is on my desktop, and in this folder. And I'll just save it

over the same name, or you could of course create another version of it, "Kitchen 3B" or "Kitchen 4". In this case, I'll say I'd like to replace the file that was there, and now the next time I bring it into any file or project, whether it's today or a year from now, we won't have those labels coming up. So that may be a preferable way to save that as a module. [9:22]

So we've now looked at two different ways to do this, copying and pasting, and using a module approach. Let's look at a third way. And that is that if we have elements that we are going to use in a lot of projects, we may want to put them actually into the template. Now, I'm going to go and activate the legend. This is a part of MasterTemplate that we supply as a kit of parts, and I've already introduced some of the concepts in other lessons about the legends. But I do want to show you that right now, the legends are sitting off to the side of the building, and the area that we were working on is in a separate area with the tiny little rectangle of four walls and the little kitchen and bath. [10:14]

Now I'm going to zoom in on this area here, and we'll take a look and see that in this legend, in the template, there are some room configurations. I'll zoom in enough that you can see what's going on. So we've got some residential rooms with kitchens and bedrooms and baths and things like that. And off to the side here, since this is a general purpose module, we've got some office ones, and I'll go down here and we'll see some restrooms. So all of these can be used from this template, you can create your own variations easily. [10:54]

So I'll just back up to the previous zoom by clicking this little button here, the previous magnifying. Now, I'd like to copy this kitchen and put it in let's say. But I don't want to get all of these labels. Now in this case, these are not actually labels, they've been exploded. Whoops, if I select this you can see that it selected the entire group, because these are hotlinked to an external file. I'm going to suspend groups by clicking here, and if I click on this, you'll see that this is just a line in some layer called Explanatory Notes. Now I could manually turn that layer off, or I could use a different view. For example this one, which has the rooms available without the notes. And then I can go here and easily select these elements. [11:40]

So I'll turn off the Quick Select, so that I can draw a marquee or selection Arrow, Grouping, round here. And I'll copy. So when I copy these elements, even though they came from this particular hotlinked module, the copy that I'm going to paste in, and I'll go back now and Fit in Window, I'm going to paste it in up in this area. And I'll say paste it into the current view, and just go into this corner perhaps, and I can get rid of the walls. The extraneous walls that are unnecessary. And we've now got a much more complex kitchen, and perhaps it all needs to be moved up, because of the counter. In fact, let's just drag this up here. And let's take a look at what I've got. Show just what's selected in 3D. [13:08]

So you can see the earlier bath, without the dividing wall, and here's the kitchen. Now, the final thing I'll show you in terms of the flexability of this is that obviously, I can grab and move elements around, but I can also change the settings of these elements. For example, I can select cabinets here, and change their door style. I'll just go in, select a few of them, select the door, and say that I'd like to change it to have some glass, like this. And you can see how those elements instantly changed. Now, I'm going to show you a shortcut. I'll just undo the change that I just made, and I'll use Find and Select. In Find and Select, we have a lot of different options. Let me just go back to the standard ones that we start with. [14:01]

I could say select everything, and that selects everything that I could delete or whatever, but that's not what I want. I'll deselect that by hitting the Escape key. I'm going to use the option with the eyedropper. And by using the eyedropper here, it then says, "Oh, OK, you want to look for elements that are objects." When I hit a plus sign, it will select all of the objects. It won't select the slabs or the walls, but it will select the objects. Now I'd really like to select all of a cabinet objects. So what I'll do is I'll add a criteria. [14:35]

And select, instead of Pen Color that came up, I'll select a name. Now it says Cabinet Wall 3D-14, and I hit plus, and it selects all of the objects that have that name. And which is interesting, but not quite what I want. I want to get all cabinets. So I can go here and say I'd like to have the name containing the word cabinet. And I can actually delete this text and say plus, and now it's selecting all of the ones that have the word cabinet as part of the name. And then perhaps I can say all 14 of them, I'd like to go to the door style, and let's just pick a different door style like this one. Say OK. And you'll notice that all of them changed at once. We can obviously change some individual ones later, but this is a very quick way to select all elements with part of their name matching. For example, cabinet elements. [15:33]

So, if I return back to the floor plan, we'll see that I've got then three different methods that I've used. I've copied and pasted. In this case, I've used a module file as a way of bringing in the kitchen in the second case. And I had in the actual project file some sample room configurations off to the side that were in the original template, and I copied and pasted this into position. Now for those of you who use MasterTemplate, I want to point out that if you need to or want to copy these things, you will use the setup for Legends Plan for Copying here, or similar name. Because this turns on the legend off to the side, because these elements are controlled by the master layer for the module. [16:28]

So, in another lesson, I'll explain how all of that is set up, but I did want to make sure that you knew that you copy it from here, not from the Interactive Legend worksheet. In the Interactive Legend worksheet, which is another similar view, it's actually a separate window. And the nice thing is that I can zoom in and out, and I can for example, be zoomed into this area here. But then be, go back to preliminary design, and I'm actually looking at the project, the area that I'm focusing on. So I can go back and forth between these two. So I'm just double clicking on the legend worksheet, and the preliminary design, because these are two different windows. [17:12]

The limitation of a legend worksheet though, is that although I can use the eyedropper, say I can use the eyedropper to pick up this refrigerator. And you'll notice that now is says "Refrigerator Side by Side". So it does work, and I can go back to my preliminary design and actually just drop in a refrigerator. I can't, when I'm in this Interactive Legend worksheet, I can't select anything. If I use the Arrow tool and try to click on it, it says that this element is inactive in this view. And if I try to drag a box around it, you can see the little marquee, or the selection that I'm trying to draw, it's not selecting anything. Why? Because this is, if I bring up the Trace and Reference Palette, this is a trace. I'm going to turn it off, and then turn it back on. [18:01]

So these elements, instead of actually living in this worksheet, are actually just seen through a Trace Reference of the worksheet. So again, to emphasize, this is how in MasterTemplate we have it setup for quick access to go back and forth between our working area and the kit of parts. But, if we want to copy and paste, we want

to go down to the legends that are the 3D elements, where they actually are on the floor plan. And again, you see the word first floor. So we're now looking on the first floor rather than in the worksheet, which still exists behind. [18:42]

So hopefully that last bit of explanation will help save some of you from just getting frustrated when you try to copy and paste in MasterTemplate, and will give you an idea, if you're not using MasteTemplate for some of the way that this is setup that I explain more fully in the lesson on setting up Interactive Legends. So this concludes our lesson on creating room modules, reconfigurable groups of elements that you can reuse from one design context, one project to another. Either by copying and pasting like we did with the bathroom here, or using MOD, module files, like we did with the kitchens in this area, or having the elements already in the project off to the side as we did in the third case. So this has been Eric Bobrow, and I hope you enjoyed the lesson, and I look forward to reading your comments on the page below the video. Thanks for watching.