



BEST PRACTICES COURSE – WEEK 10 – PART 2

Work from the General to the Specific

Hello, this is Eric Bobrow. And in this lesson of the Best Practices course, we'll take a look at a guiding principle for best practices that I call working from the general to the specific. In the early stages of a design project, you're going to lay out some walls, doors and windows, but you don't really know exactly what they're going to look like. In other words, you don't know necessarily what the wall assemblies will be or what the exact window styles or sizes will be. So how can you work with ArchiCAD's tools in such a way that you aren't pinning down those choices earlier than it's appropriate? And you aren't misleading your client into thinking that you're further along in that design process than you actually are. [0:00:44]

So let's draw some walls. I'll draw a box of walls here and using the Exterior Wall layer here in the U.S. version, A-WALL EXTR. And I'll set them up to be a nominal thickness for exterior walls, 9 inches. So when I start to draw this box of walls, of course I may be very specific about the size, but for right now in this training, I'm just going to draw this by eye. And if I want to draw some interior walls, I'll switch to a different layer, A WALL INTR layer and switch to drawing sequence of walls rather than a box, and perhaps change the thickness to make them a little bit thinner. And I'll go ahead and draw some interior partitions. [0:01:33]

Now having done this, when we are sitting down with a client, the client is under no illusion that the design has progressed very far, because they can see the basic shape of the building and where the rooms are, but they aren't seeing all sorts of detail about the walls and composites as you are working. So what happens though when you're ready to start pinning down these wall types more? So I'll go ahead and select these exterior walls. And in this simple building of course it's not a problem to select all of them one at a time. But imagine we have a much more complex shape. It would be rather tedious or perhaps even impractical to go and do it that way. So if I want to make a change to these walls, what would be a faster, more systematic way to do it? [0:02:28]

We'll I'll go to the Edit menu and bring up Find and Select or simply type Command+F or CTRL+F. And usually if you haven't worked with it, it will say select all elements, and if I hit the plus, you'll see all of them get selected. But I really would like to select just the exterior walls. So what I'll do is use the eyedropper. I'll use the Option key on the Mac or Alt key on Windows and eyedrop say one of these exterior walls. And it says, "Okay, we're going to select walls, but this will still select all of the walls." So I'll be a little bit more specific. I'll add a criteria, and then switch that criteria in this case to layer so that I can select only the elements that are walls that are on this particular exterior wall layer. And I'll hit the plus sign. [0:03:16]

So now it selects all four of these walls and of course I can change their definition. I'll just open up the wall settings and go to the fill, and switch it to a composite here that just for example. And you can see how instantly they change. And of course I can go and change the interior walls. I'll just eyedrop this, it switches to the interior wall layer, hit the plus sign, now selects all three, but it could be dozens or hundreds of interior walls in this case. And then I can go and perhaps select the same sort of thing here from the Info box and just change the fill to a wall type that I like. So now if I zoom in on it, we actually are indicating particular wall construction that is going to be used. So that's one simple example drawing things with basic placeholder walls of sort of rough approximation of the thickness, putting them on different layers just make it easy to select, and then later going back and selecting all of them in a certain layer, a certain category, and changing the definition. [0:04:31]

Now another possibility that can be very useful is to work with composites right from the beginning. And I will show you how that works. If I go to the Options, Element Attributes, Composites, I can look at and define or redefine composite structures for walls, slabs, roofs, etc. Now let me go ahead and just duplicate this wall type that I've got, and I'll just call it "Wall Type A". So this is a new composite. And I'll just clear all of the skins out. I'll just keep clicking this clear skin. And then I'll take the final one I've got and make that, well let's make it that say 8 inches here, 8 inches in thickness. And perhaps make it just an air space or empty fill there. So that's wall type A. And now I'll go duplicate that and create wall type B. And wall type B, perhaps I'll make this a little bit thinner and I'll change this to have a poché so that we can just see it differently on plan. [0:05:38]

But these are very simple representations. I don't know what these walls will be like. I just know that they're going to be different and I have a feeling that wall type A is thicker. So I'll just say OK. Now I'll go ahead and select these exterior walls again and I'll change them in this case the wall type A. With the Wall tool active, I will go and say that I want to draw a new wall. And in this case, I will switch it to wall type B. So now as I draw this series of walls - and let's make sure I'm set for the exterior wall layer - and I'll go ahead and draw just a series of walls that are wall type B. So when I zoom in on this, you'll see that there is some differentiation between them visually to begin with, but I still haven't indicated anything very precise or extremely detailed. [0:06:51]

At some later point I can go into the Options, Element Attributes, Composites and say, "You know what? I'd like to define wall type A." And I'm going to go ahead and perhaps insert a couple of skins here and make the outer skin - let's say we're going to make this a brick or something like that. And I'll give it a thickness here of 4 inches or that would be about 10 cm. And I'll go and make the next one air space and make that a similar thickness. And then we'll put in some dry wall here and make that 1/2 inch thick, and we'll give it some type of gypsum board here. So now I've redefined wall type A. When I say OK as soon as I do that, you can see these walls have changed instantly. So I can now work let's say with these walls simply by designating these walls are one type, those walls are a different type, and at any particular time I can go and change the wall assembly and everything will redraw. [0:08:03]

Now let's take a look at how materials work. So if I go to 3D here, we'll see that all of the walls look sort of similar, because obviously I didn't change their materials. And in fact if I select any of the walls and we

look at the material settings here, we'll see that the material says Default Walls Exterior. So what does that mean? That means that they're using a material that is setup in this template, in the standard ArchiCAD template in the U.S. for exterior walls, and it doesn't really say what it's going to be made from. It just says it's the standard color. So if I go in and change that definition - I will go to the Options, Element Attributes, Materials and say, "You know what? Let's look at that Default Walls Exterior color and let's change the surface color to a little bit of a light blue." And say OK. [0:08:57]

And what happens? All of those walls change. Now of course these other walls here, perhaps I want them to be different. So it's not a problem. I simply go and select a different material. Now I could pick something like a brick or stone or something else that had a name like that, but I'm going to pick something let's say Paint 11, which is just a generic color. It could be anything that I want. And so now that means that I can go in and redefine at a later time or at any time the definition for Paint 11. So when I go to the Options, Element Attributes, Materials and I pick Paint 11, I could change its color here or I could go and do some other things. For example, changing the texture. I might pick a material let's say or a texture file, and I'll just go pick one sort of arbitrarily here. [0:09:54]

Let's say this medium siding and say OK. And so you can see how it changes here in the preview and when I say OK, all of those walls suddenly change. So by designating those walls as a particular material without being too specific, just calling them Paint 11 or you could call it Accent Color, then it makes it possible to make those decisions globally at a later time. Now for materials, I've actually created a video tutorial that is on creating material schemes. And I'll put a link below this video or on this video page to where you can find it. And I talk about how you can use this approach specifically with materials to try out different options. For example, this is blue and sort of beige siding, but we could have another version where the blue becomes green and the beige siding becomes a vertical orientation. [0:10:52]

So how can you have multiple versions of the material schemes so you can quickly swap them in and show the client, here's one option or here's a different scheme, a different set of materials that might work? So check out that video tutorial for an explanation of that idea. Now let's look finally at some other elements and really the concept is pretty simple. At the beginning, we may be putting in windows and say, okay, there's going to be a window in this area, and we'll put in a couple windows over here. And we may not really know what type of windows they are. Now I may know already that this window, it's a big space. And I want to make it quite wide, so let me make it 10 feet, about 3 meters in width here. And these ones maybe that's still a little bit too small, so let me make it 5 feet wide or something like that. [0:11:45]

So I've now made some decisions. And in our next video lesson, we'll be looking at where you place these. In other words, is this window halfway between this corner of the wall and that corner. What is important to you geometrically? There are ways to be specific about that without actually tying down other choices that you might make later, such as the exact size. But right now let's take a look in 3D and say, "Alright, well here's some windows." And we're now at the point where in the design process we want to start making some more decisions. Well this is a casement window, and really doesn't make sense for it to be a casement if it's going to be that big. So let's go in and change that. [0:12:32]

Now when I change it, I've got a placeholder, and I would like to switch it to another window type, but I want to keep the size. perhaps that size is actually something that I've worked out carefully. So when I go to, for example, fixed windows and I scroll down and say that I want to put in a ribbon window here, if I were to click on this just normally, then it would change the size to whatever it is the default in the library here. So to avoid that, to keep the size and in fact other parameters such as the material of the window or other things, whether it has a sill, I'm going to hold down the Command and Option keys and get the syringe. If you are on Windows it would be CTRL+Alt. But you can see the cursor now is showing the syringe. And when I click, it's going to switch to the other window type, in this case, the ribbon window with a certain number dividers, which of course we could change and make that a different number of dividers. [0:13:28]

But most important it kept the same parameters, the same 10 foot width. So I say OK. So I put in a placeholder without worrying too much about exactly what type of window it would be. But then later came back and just changed it. So I'll go and perhaps take these two windows, and I'll change them. Maybe I'll make them something rather different; I'll make them an arched top window. So I'll pick under special windows here, and I'll pick the eyebrow one. And again I'll hold down Command+Option or CTRL+Alt to get the syringe and click. You can see how it changes window styles, and it's still kept the same placement and the same size. [0:14:10]

So when you're putting in windows or doors, just put them in with whatever you're ready to decide. It's in this room, perhaps it's a certain location in space. Maybe you know the size or you want to make this one bigger, that one smaller. Put the information in, but don't worry about the details of what is its sill height, or what is the overall height. You can easily change that later and get specific when you're ready to. The same with doors. Put in some perhaps simple flat panel doors and then later come back and decide which ones are going to have glazing or have certain recessed panels in them. When you're putting in beams or columns, put them in properly, spacing them the way you need to, but if you don't know the exact dimensions because you need to wait for the engineer to give you some input on that, just make sure that you're putting them in as place holders and proceeding on, knowing that you can update them later when you're ready to make those decisions. [0:15:16]

So this concludes our lesson on working from the general to the specific. I think it's a very important principle in ArchiCAD to recognize that you can put in generic place holders and then later decide what exactly they are going to be, and that is a very efficient process and it avoids any misconceptions or misunderstandings with a client feeling that perhaps you've already worked all of those details. So this has been Eric Bobrow. I thank you for watching this tutorial lesson in the Best Practices course, and I look forward to reading your comments and questions on the page down below.

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