



BEST PRACTICES COURSE WEEK 20 – Managing Attributes, Project Preferences, Work Environment - Part 3 - Use Attribute Manager to Create Material Schemes

Hello, this is Eric Bobrow with another ArchiCAD tutorial video. In this lesson, we'll take a look at the concept of material schemes and what are the most efficient ways that you can experiment and try out different materials in your project design, either while working alone or directly sitting down with a client. This question came up recently in one of the coaching calls that we have for the Best Practices course, and I thought it was really interesting and would be very useful for the general ArchiCAD community, so I decided to create this lesson. [0:00:37]

When you want to play around and change the materials of elements, one very obvious thing is to select the elements directly. So for example, if I select all of these walls and go to their materials, we'll see that they are using a material called "default walls exterior". Now I will go ahead and try out a different color, here is paint 14, and you can see - well I like that. Let me see what I can do here. Well one of the issues is if I want to change it back, I have to go and either undo that right away or select these walls again. And certainly it will take a little while to select all of the walls and make sure that they all change together. [0:01:23]

So that's a little bit cumbersome. Let me go ahead and show you one way that we can select elements selectively here using Edit, Find and Select. For example, if I use the eyedropper, so hold down the Option key on the Mac or Alt on Windows. And say I'm looking for walls that have a material of a certain style. And I hit the plus sign. You can see it has picked just those walls. So let me put them back to the material that I had before, which was the default walls exterior color. And I will use the eyedropper to pick up the settings here and then do a plus. And that selected all of these walls that you can see. [0:02:15]

So let me go ahead and change them to a new color. Let's try this blue color to make it very obvious. Now you may notice that in addition to the walls that were one color, it also picked up the walls on this upper area that were a cedar shingle. And it didn't pick up the walls that had a similar color here that actually are a complex profile. So each one of these walls is made up of many pieces that have different materials. This is a somewhat limited way to do it. You can do it in certain simple cases, but it's not going to do all the things that you would like. So I'll undo this change here and we will see that for some reason it ended up selecting these walls in correctly, and of course didn't affect those other ones there. [0:03:07]

Let's look at the idea of changing the definition of the material. So if I go to Options, Element Attributes, Materials, here is the default walls exterior. And I'll go to the surface color. I will just drag this down here and save this material this color so I can get it back later if I want. But I will change the color to perhaps a little bit of a taupe color and say OK. We'll see that changed everything that used that material designation of the default walls exterior. So all the walls that were purely that color and the



parts of the walls that were referring to the same material. And it didn't affect the cedar shingles here. [0:03:57]

Now one of the limitations of that approach is that if I want to get back or play around back and forth between different materials, I have to again return to the same place and manually recreate that material. So in this case, it's not too hard. I can double click on the surface color and click on the color that I had saved carefully and say OK. And it will all be restored. But if I had done anything with textures or hatching or any other settings, it would take a little while. And definitely it would be a nuisance to have to change that back. [0:04:32]

So let's take a look at an option that could affect more than one material at once and record everything about the materials before you make a change. So I will go under Options, Element Attributes, Attribute Manager. And in this case, once it brings up the attribute manager I will be able to look at the materials which are just one example of attributes. So here's materials. We could be looking at layers here or we could look at materials or any other attribute. And they are sorted by index number, which doesn't mean a lot to me personally, but it does mean a lot of the computer, because it records the attributes by number, which allows you to change the name at any time and it can keep track of it. [0:05:22]

But to find the material that I am interested in, it's easier to sort by name, and here is default walls exterior. What I'm going to do is take this line item and overwrite, which moves a copy of it to the right side. Where did it go? It went into what is called the current file, which is "untitled.aat". So this is actually a file with a different ending then you may be used to; ".aat" stands for attribute manager file. This file records attributes such as materials or layers and other things like that. [0:05:57]

If I scroll down, I think it was in 07, we have the one that is the cedar shake. And I will overwrite that as well. I'm using the overwrite command because it will keep the index number. If I did append, it would probably put these as number one and two or something like that. Having done that, I can go ahead and save this. And I've done this before, so I'm going to name it as "material scheme one" on my desktop. And I will overwrite the previous file that I had. But this is saving a copy for later use. Now I haven't made any change to the materials, but now I can go ahead and freely change them and bring them back. [0:06:8]

So let's go back to the attribute, definition for materials, change the color, and let's make it this color here. And perhaps go and make different change to the one that was for the cedar shake. And we are going to simplify this. We are going to take a texture, and instead of having this board pattern, I will search and perhaps take something that is a sandstone. So you can see this is the material that it's going to use. And here is the preview up above. And I want to change its name, because it's not cedar shake, so I will change the name to "wall accent color". [0:07:29]

So I am now changing it to its functional use or design reference as opposed to what material it's really made of. When I say OK, I made two changes. You can see that the walls that were the exterior default change to the slight green and the walls that were the cedar shingle changed to the new designation. And when I select the wall, you can see that it says wall accent color. So it kept the same index number,



but that index number now has a new name. Now, I don't really like that. So let me bring back the old one. And you could have multiple versions by going to attribute manager. And having saved one material scheme, perhaps there was something about this that I would like to look at later. So I will go and sort by number here. I will take the default walls exterior and scroll all the way down to the bottom wall accent color. [0:08:29]

I will use the Command key or what would be the Ctrl key on Windows to select these two separately without doing all the ones in between, which would happen if you hit the Shift key. And I will say overwrite. And I will go ahead and save this. In this case, I will do it as "material scheme two" rather than one and I will replace the earlier version that I had. Now I'm going to go and close this file on the right side and load in by opening - by clicking in the same place the open button - and I will get "materials scheme one". [0:09:01]

So we can open up attribute manager files, which are the .aat files, as well as we can open up ".pln". You'll notice that I can highlight and select this one from a project or a training file. Let me just pick the "materials scheme one" and open it. And I will select both of these and overwrite. And you'll notice that the "default walls exterior" has changed and the cedar shake as well. And it warns me that I'm modifying the materials. And you can see instantly I'm back to where I was. So we can develop as many different schemes as we'd like and take this as far as we need. [0:09:46]

I will go ahead and look at another option here. So if I zoom in on this and we select one of the typical windows in the project and open up its settings, we will see that for the casing on the outside material, it's called "paint 02 whitewash". If I were to change the definition of "paint 02 whitewash" to make it gray or blue, then everything that uses that material reference would update. That might not be such a good idea, because after all, I might have other things like the walls inside might use that same material. [0:10:25]

So instead of changing the definition there, what I'm going to do is select all of the windows. So I'll go to the window tool, select all windows. And this may have some limitations if you have windows from different libraries, but in general you should be able to take windows of the same style, same library. Let's say here, casing, and I'm going to go to the materials of it and change this to a material that I know I haven't used in this project, "paint 09 red", and say OK. And we'll see instantly that the window casing has changed. And maybe I will even do that to the doors. [0:11:07]

So I'll go to the Edit menu, Select All Doors, put the casing on both sides to be red. Having done that, I can now go to the Element Attributes, Materials, "paint 09 red", and I can rename it and call this "casings". So now I'm naming it by its function. And perhaps I'll go and change its color to something like that, and say OK. And you can see instantly all of the casings for the doors and windows have changed to the new look. [0:11:49]

So I can combine that approach with the previous one in terms of material schemes and save out different versions of the casings material and reuse or bring them back in as I wish. So we've just looked at several different options for changing materials and bringing them in and saving them that touch upon



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a number of the Keys to Best Practices for ArchiCAD that I've identified. There are Seven Keys to Best Practices in my system; and one of them has to do with saving your settings. It's always a good idea to find ways to save the work that you've done. In this case it's defining the materials so that you can reuse those settings. [0:12:37]

Another thing is understanding and taking advantage of ArchiCAD's structure. So understanding that the material definition can be changed and all elements that have that material will update. It's actually more efficient in many cases than selecting elements and putting them into a different material like I did at first, because that only affected certain walls and not parts of walls that were similar. So that's using the structure. [0:13:07]

And another concept that is one of the seven keys has to do with working from the general to the specific. So if we think about the wall color, so if I select this wall, and we look at the material name, it was named "default walls exterior". So it was named by a general functionality, meaning that the walls on the outside in general were this one material. Of course some of them were this other material, the cedar shake or shingle. [0:13:39]

The concept here is that if you name it by its function, or by a general term, then later you can go in and get specific. You can make decisions and say, "Well, I'd like this to be this particular material or paint color." So by choosing a general designation rather than trying to get it right or perfect or make a decision prematurely, you're going to save time and effort and stress because you don't have to get it perfect at first. You to simply have to designate things generally with some proper category information so that later when you modify that category definition of what is the default wall color, everything will update very nicely. [0:14:29]

So this has been Eric Bobrow. I hope you enjoyed this ArchiCAD tutorial video. I look forward to getting your comments and feedback. You can e-mail me or post comments down below this video. Thanks for watching.

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