BEST PRACTICES COURSE – WEEK 20 Managing Attributes, Project Preferences, Work Environment – Part 2 – Attribute Manager

Welcome everyone to the ArchiCAD Best Practices Course training lesson. Today we will be focusing on Attribute Manager. That is Options, Element Attributes, Attribute Manager. Attribute Manager is the tool that you use to manage all of these attributes that we are seeing here in relationship to the project that you are in as well as in relationship to another project, template, or resource file that you possibly want to copy between the two files. [0:00:32]

Let's take a look at attribute manager. We are in ArchiCAD 17. Attribute Manager has not changed much since version 10. I have ArchiCAD 12 open in the background, so we will take a quick look later to see the differences. But primarily, it's just that there are a few more things. Building materials were added into version 17, and I think the operation profiles here for energy analysis were added in ArchiCAD 16. The rest of it is pretty much the same. There may be a couple of little visual tweaks. [0:01:11]

What are we looking at right now? When I open up Attribute Manager, I am looking at fills in this case. You can see the highlighted or indented and darkened reference icon on the top. If I click on the one on the far left, it says "Layers". So as you click on each one of these, you will see it shows a list of the layer combinations that are in the current project. I am in the ArchiCAD 17 standard U.S. template, the residential template and these are the layer combinations that we have. [0:01:47]

Here is our pen sets, and here are the actual pen settings in whatever pen set you choose to look at. We can go on through line types, fills, composites, complex profiles, surfaces which were formerly called materials, and then recently added building materials, and the zone categories. Something that you don't see directly in any of the other menus - there is probably some command that opens this up - but these are referenced when you set the project location. You can choose what city you are near, and it will put in that particular latitude, longitude, and time zone. [0:02:39]

You can add to this list of cities if you are in an area that needs some specific or more exact reference. Then here, I can't remember why it doesn't allow you to click on this, but that seems to be some locations. There are some different colors here. And here are our operation profiles. And here is a summary of all the resources, starting with layers and going through layer combinations, etc. [0:03:14]

Alright, so now that we've just taken a very brief look, if I go to the layers, we will see that each item in the list has a checkmark space, with or without a checkmark. It has a number. In terms of layers, it has the current status of being locked or unlocked, visible or not visible, and the name. And most of these, if I click on it, I will be able to edit it. Just like in the layer and settings dialog, you can edit names and some other settings for that particular attribute. [0:03:55]

So here we can see all of the layers in the current project. Some of them have checkmarks. The checkmark means that this particular attribute - in this case, a layer - has something on it. So there are some elements set to use the "A-WALL-EXTR" or the exterior wall layer. Now this could be elements drawn in the project; that's the most common. But it can also be the fact that the Wall tool - as you can see in the background being active - is set to use that. [0:04:24]

So the checkmark indicates that it's in use. That means that you need to be cautious. If you were to delete it, you would probably be deleting some information. In ArchiCAD 17, there is an option in other dialog boxes, if you delete an attribute like a layer - you can say, "I want to move everything that was on that layer to a different layer." Or if you delete a building material, you can say, "I would like to make anything that refers to that building material use another substitute building material." [0:04:56]

That does not exist in the Attribute Manager. Maybe it will be added into the next version. But that was a very nice feature in ArchiCAD 17 for getting rid of something you don't need that may be redundant and substituting another one. In this dialog box we can delete it. Now the ones that are not in use, like "A-WALL-INTR" could be very useful later on. At this point, I have a blank template file, so I haven't drawn a building, but generally if I use this template, I would want to put the interior walls on this layer. So I certainly don't want to delete that. [0:05:26]

Sometimes you may in certain cases want to use the button here that says 'Purge Unused'. What that does is it goes through this list, and anything that did not have a checkmark, that it considered unused, would be deleted. It would essentially find and delete them. Another way that you can manage this if you wanted to do it a little more manually is you can sort. Instead of by name or number, you can sort by this first column. You can see all the ones with checkmarks show and all the ones below do not. This can be good if you are working with a file that was brought in from another source like a survey or a consultant file, because you may want to open the DWG file in ArchiCAD. [0:06:25]

Then you can go and delete or purge layers that are not used. So instead of them being potentially added or referenced in your ArchiCAD project file and having no use, you can simplify it. You may want to do that in other cases if you were to take files from another colleague or consultant in ArchiCAD. And you want to merge them into your current project or template. If they had different layer names you may want to actually remove the layers that were not in use. [0:07:03]

But be careful about 'Purge Unused' because, as I mentioned for the interior wall layers and anything else like electrical or structural or ceilings or whatever, if you just haven't used it yet, that doesn't mean that this layer is used less. It just means that it hasn't already been put to use. So you will see the checkmark and of course we have the name. The other things is that it was sorted originally by index number. So what is the index number? [0:07:31]

Inside ArchiCAD, all attributes are referred to by this number. So when you draw a wall, and you put it on a particular layer, it doesn't record it in its own records as being on the "A-WALL-EXTR" layer. It records it as being on the layer with the index number "2". Now the advantage of doing that is that the 2 stays constant, even if we were to change this to a different spelling or just change the name entirely. So if I change this, then the dialog box updates to show the current name. If I were to say "OK", this dialog box and any other references would have the new information. [0:08:16]

So the index number is the identifier, and the name is just the current way of referring to it. So that is an important distinction. So I can make changes here. If I say OK, it will summarize what the changes are. And I can go ahead and say, "Yes, that looks like what I expected. Go ahead and modify it." And you can see now that actually that layer name has changed. So that is the real basics of some simple operations in Attribute Manager where you might look at what's in use and possibly change the name of something. And then after you do some work you say OK. [0:09:00]

There is an option also if you have made a change - for example, if I put this back to the original spelling here - then you can see the 'Apply' button becomes available. So that would confirm this while still leaving us in this dialog box. That can be useful when we are going back and forth between two different files. You will notice that there is a right side here. It allows me to open up another file. So we will look at that in just a minute. If we look through the other attributes, they are going to be very similar. Each one will have an index number and a name and possibly some additional information. [0:09:35]

So for layer combinations and pen sets, it's just a number and a name. But in any particular pen set that we may look at, we will see that there are some values here for the color and the name and the weight. So basically, all of the attributes that we use to describe the pens in the pen set dialog box could be looked at here and tweaked. You can quickly summarize and in fact, you can actually sort. I have never done this before. You can sort by pen thickness. You can't reverse or flip it, but you can now see which ones are the thick pens. [0:10:19]

That would be an interesting thing. Obviously it's sorting it by numbers. In this case, it's very useful because it goes in the order of the pen table there. I notice that we have RGB, which would be the computer terms for red, green and blue. So gray has a neutral tone. The "192" for all three means that it has an equal amount of red, green and blue. Whereas something like a blue here you can see is highly skewed. It has the highest value for blue at 255 and zeros for the other ones. [0:11:00]

So sometimes you may want to match a particular color, and you could use another tool like Photoshop or an online reference tool to correspond a pen tone/color or some other reference colors in your pen set. Pens are used most commonly for drawing construction elements or annotation; having different line weights and just colors onscreen for visual purposes. But you could create presentation documents that might have some specific logo colors or sample colors that you want to show. So if you were printing in color, you may want to match that more precisely. [0:11:46]

Now as I go through line types, you can see the same setup. Are these lines in use? What are their names? And we can't really edit, in terms of the definition, how close the dashes are or put in a new symbol line or adjust that here. That is done in the dedicated dialog for line types. But we can at least see all of them and manage them. The same thing with fills where we have, in addition to the other standard references, we have choices for whether a particular fill is applicable for a certain use. [0:12:28]

I am not paying close attention to these. Most of the fills are set up to be used in any of these contexts. But I believe this is for a drafting fill. So if you were to draw something manually, and you wanted to use that particular hatch or fill for it you can. This is for a surface I believe and this is for a cut fill. So these are three different references. And the "Wood Grain End" says you really wouldn't want to put wood grain around an entire surface like a floor or something like that. But you might want to show it as a cut pattern here. [0:13:15]

You can make adjustments in here. We will quickly go through the rest of them. As you would expect from composites, some composites are useful for just walls, and some are used for flooring and possibly for roofs. And some might be used for both. In fact, here we see none of the ones in the standard template are set up for both walls and floors which makes sense. An assembly is typically going to be used for a wall or a horizontal or sloped surface. And we have our complex profiles similarly. So all of these controls should be pretty easy to understand, because you can just select something and click to make that change, or not, in the same way. [0:13:57]

This gives you a quick way to look at all of these things. One thing that I have noticed with the use here. If we have some surfaces (previously materials) that referred to texture files that maybe are missing from your project or library then you might get some messages saying that something is missing. And it might be hard to find out which surface is using that texture file that says "Missing". You can actually then sort by texture file and go find it. This is one thing that I use this for here as a little tip. You have a message saying that some textures are missing and you don't know what surface is using it. Maybe it's a surface you no longer need and you can just delete it. Or you can go in and find out that it's being used by the leaves for example. [0:15:00]

Going through the building materials, again the usual controls here including priority. And you can sort by priority. You can see some numbers there. Going on to zone categories. All of these should be pretty easy to understand in terms of just what the names refer to and what information you can put in. now that we have gone through the basics of managing the attributes within the file, and just how you can edit and possibly delete or purge ones, the primary function of Attribute Manager is to bring attributes from one file to another. [0:15:49]

For example, let me go on the right side and say "Open" and open MasterTemplate. So MasterTemplate has layers that have a very different name. Now we started out MasterTemplate with the standard U.S.

template. And in the international version, we started with the international template. Then we modified names to suit let's say what we felt would be more usable. So we have longer names: "A-WALL-EXTERIOR" instead of "EXTR". Longer names like, "Floor + Stairs + Landings + Elevators". Now you will notice that #2 here is in the same position. #2 is "A-WALL-EXTR". [0:16:33]

Essentially, these two names are used for the same purpose, the layer is. If I wanted to, I could say "Overwrite" this and say I would like in this file to have the same name as it is there. Why would that be important? Well, if you were to take a project file that was done in the standard or another template, and you wanted to bring it into MasterTemplate, then it actually is good to synchronize the layers. If you copy and paste elements like "Building Model" from the file you have and you put it into the other file, which maybe is based on MasterTemplate, then if the layers like "A-WALL-INTR" is not listed, then it's going to add it to the list. [0:17:23]

So this is something that we haven't talked about today or in the section on attributes. But basically you can bring attributes from one file to another by simply copying and pasting elements that have those attributes. If you have elements on layers that are named differently than in the destination file, when you paste them in, those elements would show up as you would expect, and their layers will be added to the list. This sometimes can be a problem, because you could add a bunch of layers that didn't exist that maybe you don't need. Maybe you already have layers that perform the same function. [0:18:03]

Your layer combinations initially will not know what to turn on and off. So in general, you don't want to bring in redundant attributes. So that would mean that you will want to go in and change the name. You can go in through here and you can see #3 matches. Most of these ones are all the same. You can see #9 is "Floor + Stairs + Landings + Elevators". And here is "A-FLOOR-STRS". Obviously the same function here. But this one, #16, "A-WALL-CURTAIN SYSTEM 3D", that is for curtain walls and similar things. And then this #16 says, "A-NPLT-HTSP". This means, if I say it in a more understandable way, "No Plot Hotspot". [0:19:00]

So it basically is for things that will not be plotted out. It could be guidelines and things that you want to use for drafting purposes, but you don't want to include in the final drawings. And hotspots are one example of that. So if I were to take this and overwrite it, then this layer would potentially have different information than is expected. So you need to be careful when overwriting because you might change the use of something. If you were to overwrite a fill using the same approach here, then you might have something that looks one way, then when you bring it in after overwriting it, it will look different. [0:19:43]

That might be a big problem. So overwrite is something that you would use sparingly. I can take a bunch of these things and overwrite them all, and you can see how they all change. But we would want to be careful about doing that. Now say here is a layer that I wanted to have in here and I didn't want to overwrite this, I could say 'Append'. So 'Append' would drop this in at the bottom of the list. Now you

may wonder, "Well, how important are these index numbers anyway?" well the index numbers are mainly important if elements are already using that layer or fill or building material. Because as I mentioned, the elements will refer to those attributes by number. So you don't want to change ones that already exist, or let's say you want to selectively change them because they will take on the new appearance and the new name. [0:20:52]

But if you want to have the same layers or building materials available by name, it's certainly okay to append them to the end. We don't want to do that arbitrarily because you could end up with duplicates or redundant things. Now if we already have a layer in here - let's say remember this one, "A-WALL-EXTR", I've already brought it in. but if I were to say 'Append', it will go to the end and it will add an extra to the name. It will add a parenthesis 2 to say that this is the second one with this name. So it has a unique name, it has a few extra characters on there. But it started with the same information. [0:21:38]

Sometimes this can be useful if you want to bring in a building materials that has the same name but has a different appearance, or you want to swap the index numbers of things. And I will explain that in a little bit. Sometimes you may want to bring in the same reference to the list and then later go and clean it up. You can say I'd like to use elements that are using one layer or one building material; I'd like to swap them to use this other one. And there can be a variety of reasons you might want to use the append or overwrite. [0:22:17]

Now you will notice that these here are gray, because although I can highlight these things and I could in theory append or overwrite, right now this is another TPL file. So TPL file is a template, and it's like a PLN file. In the Attribute Manager, we can't modify another file like that. however, if I close this and then highlight something here, I can either overwrite this or append, and these names and definitions if they had to do with building materials or composites will be added to a file that you can see up here says "Untitled.aat". [0:23:06]

So what is that? That is an Attribute Manager file with ".aat" as the ending for Attribute Manager. I don't know why they don't call it ".att" but anyway, "aat" is what they use. We can then save this, and give it a name. Then we would have a reference. Why would you want to do that? Sometimes you might want to get some stuff from a file, and you want to copy it and have it as a reference by bringing it into another file, but you want to get only selected things. Maybe a few building materials that you find in another file. Or some composites or complex profiles. So instead of - in the file you are working on - going into this other bigger file, you might want to have previously opened the other file and copied out some of them to this reference file. [0:24:03]

Now I do have a tutorial on this function, and how you can apply it to material schemes or what would now be called surface schemes. The idea being that we might take the one with the paintbrush, which is surfaces (formerly called materials), and we might say - let's see. Where is the exterior wall default? Here is "Default Walls Interior". We might want to say that right now the default walls for the inside of

the building are this very light color. I am going to overwrite this here and save it. Later I am going to go in and change it and make the walls a light blue or something like that. So you can be showing a client or studying how the design looks with the walls in one color, and then later we can go back and open this file that we saved and bring in the earlier definition of it. [0:25:05]

Then we can look at it again the way we have it now. So we could actually do that with several materials or surfaces. Exterior walls, interior walls, roofs, or you can call them "color 1", "color 2", "color 3". You could have one set, save it out and modify it, then later swap in the other version. You can have as many of these as you like. So you could show your project in earth tones, and then in pastels. You could show your project with shades of gray. Or you could have something with a foam core white look, and later bring in more of a material palette with colors and textures. [0:25:49]

I have a tutorial that goes through the mechanics of doing that, but I think it should be relatively clear from what I explained just now. Okay, so I am looking at some questions here.

Bob George asked, "What is the 2-digit number in the fourth column for?" Okay. I am not sure which one of these he is referring to. Here, maybe this is it. Building materials, and there is a 1, 2, or 3 digit number here. This is the priority. So this is in the fourth column. In this case, this is what it is is how hard the building material is and how much strength it has to pass through other ones. So obviously earth is mounded around the building, whereas things that are harder like structural concrete typically would have priority and not be cut into by other elements. [0:26:58]

Okay, and he says, "No, I was referring to fills." Okay, so what is this number in the fourth column of fills? In the U.S. as I am sure you know Bob, there is the Construction Specification Institute, CSI, and these are the CSI category numbers for these particular ones. So if you did sort by name in the U.S. you would see that a bunch of them are on 01, which is general graphic appearances. 04 would be blocks and bricks and stone, 05 would be metals and 06 would be - I guess I am not quite sure. It includes plywood and sheathing and cladding. And 07 is insulation. So that is what those numbers are referring to. They are arbitrary. They don't affect what ArchiCAD does, but it's intended in the U.S. to make it easier to find and organize those. [0:28:00]

Bob says, "I understand." Okay.

Scott Newland asked, "Can you explain the "Revert" command next to the "Purge Unused" command. Is it like "Undo"?" Yes. Basically, if you made some changes - so let's say that I delete these and then revert, they will come back. I believe if you are going through things and you're like, *mmm, god, I made a mistake here*. You can revert. I haven't experimented with Apply and Revert and how they work. My guess is that if you are doing some complex manipulations, you might potentially apply them from time to time before saying OK and finishing the dialog. That Revert might go back to the last thing that you applied. Or if you haven't applied, just how things were when you first opened the dialog box. [0:28:56]

So at whatever point you opened this and started making some changes, 'Revert' would take it back. Okay. We've looked at the idea of what all of these attributes are for. We've looked at how we can create an attribute file by overwriting or appending attributes into a blank one or how we can reference - let me close this. I don't want to save the attribute file I was working on. But I can open any Attribute Manager file you see. And what is an Attribute Manager file? It will either be a PLN, a TPL, or an AAT. So a Project file, Template file, or an Attribute Manager 'little' file. [0:29:45]

An Attribute Manager file does not have any geometry. It's not a building; it's not a layout book. All it has is definitions of layers or line types or building materials, etc. here I can open up any one of these and we will see what they look like here.

So let's see. What else do we need to talk about here? I think if you have something selected on one side, "Select All" will affect that. But on the other hand, if I have something selected on this side, "Select All" will do this. And obviously, if you have things selected on one side, "Append" or "Overwrite" will point to the right. If you have them on the other side, it will point to the left. It's pretty intuitive. There is the option for duplicating something. So say you have a composite and you want to duplicate it. You can do it here, and you can see it will create another one with the ending and "2". If you hit Duplicate again, it would create "3". [0:30:46]

Why would you want to do that? Maybe you want to say, "Well, this is really going to be a 2x6. And I have to modify it, but I have just started by duplicating it. And I guess there is a 2x6 already in there. So somewhere up there is a 2x6. Let's just say 2x10. I don't think there is already one there. Is there? No, there is no 2x10 there. Okay. So you can duplicate these things and they will go to the end. [0:31:24]

Now "Print a File", what does that do? If I print a file, it will create a text file. Let me put this on the desktop here. We will say "Attribute Manager Text File". And I will go find that here. I will go to the desktop. Here it is. This is the Attribute Manager Text File. And you will notice that it's showing, in this case I was looking at composites. It has just a list of them. So it could be useful. And we can copy this or do whatever we want as a text file. [0:32:08]

So we can do that there, or we can do it with layers if I print a file. We'll open 'Layers.txt', and go in here. It's a little crude looking. This is actually tabs. So you could open it in a spreadsheet, and it would sort out nicely if you open this up in Excel there. Let's look at the one if we had layer combinations. This one could be very interesting. If I say 'Print to File' here and 'Layer Combinations'. Then 'Layer Combinations' here, okay. This actually just has the names of the layer combinations. It's not particularly useful. It's a bit useful for copying or just seeing what you have. [0:33:10]

Now if we go to the Layer dialog box, there is something that hadn't looked at before. There is a print dialog here, and print from the layer settings dialog. It's not going to print to a file. It's going to print to a printer or you can go and possibly save as a PDF file. So I will go to the desktop and say

"LayerSettings.pdf". So this is a PDF, and now if I go in here, you will see this has a lot more information. The layer combination called "Drafting" has these layers turned on. Here is a layer combination all visible and unlocked and has these layers turned on. And here is enlarged plan that has a certain number of ones. So this is a list of the layer combinations with what layers are visible here. I think it just goes on and on. [0:34:10]

The structural plan has different ones, etc. so I will go back to this. In terms of the Attribute Manager here, I think we have gone through all of the basics. There is a merge option here, which would allow you to bring in attributes from another file. It probably is less selective than opening it and selecting certain things and appending or overwriting. I am not quite sure what it does. I'm guessing it will append things to the end. It will just add them. Let's just see what happens. I have the standard template here. Let's open MasterTemplate. So we will go to MasterTemplate here, and it's now opened. [0:35:15]

Now the "Merge" does not allow me to do that there. So let's close this. And there is no "Merge" option here. So I have an Attribute Manager file that - actually, let me just create an Attribute Manager file. So we'll take a composite here. I will create this here. So now the merge becomes available. So we are in an Attribute Manager file and I could merge in the MasterTemplate file here. Ah, okay. So it just brought all of that in on the right side. So you could merge more than one of these together once you have that. Let's close this. So once you have some stuff in here you can merge other things. [0:36:03]

Now I want to shift gears a little bit. Let me make sure I still have everything here. I see one comment from Scott Newland, "I just lost sound." Is sound back? Okay. Did anyone else lose sound, or is it just Scott? [Pause]

So no one else has commented, so I guess that Scott, it might have been a problem on your end. Okay. Tom Downer says, "Sound is okay." [0:36:45]

I want to shift gears a little bit. We've been looking at Attribute Manager and talking about bringing in attributes from one file to another or managing attributes. Let's look at the rules for copying attributes from one file to another without using Attribute Manager, because sometimes it's easier to do it that way. Before we do that, I want to take a quick look at Attribute Manager in version 12. So if you are in an ArchiCAD before version 17 and you go to Attribute Manager, you will see that it looks very much the same. The dialog box looks much the same. We have materials rather than surfaces, and we don't have building materials of course. But pretty much all of these controls here have not changed. [0:37:40]

I think that is probably the only thing that I have noticed about that. Here we have our zone categories, our cities. We don't have the operations profiles for energy use, because that is from Eco Designer. There are a few things missing, but otherwise it works just the same. So everything I have gone over makes sense there. I am going to quit ArchiCAD 12 here. So now we are back in 17. I'm going to open up

a MasterTemplate based file. So I will open a new file based on MasterTemplate here, and launch a new instance of ArchiCAD. [0:38:34]

So the rule here is that if you copy from one file and paste into another, if the attribute has the same name, it will use the definition in the receiving file. Whereas if the attribute does not exist, it will add it in. let's take a look at what that means. First of all, in MasterTemplate - I will get this fully open here - I am going to go to our collection of components called Interactive Legends, which is available for a variety of purposes including quick reference for copying this in. so if I look in this area, we will see that I have a number of different wall types defined. [0:39:40]

We will select a few wall types here, four of them. These four all are all on the layer "A-WALL-EXTERIOR-3D" so remember that, because that layer does not exist in the standard U.S. template. It has a slightly different name. The actual wall types have a name "AMT" for ArchiCAD MasterTemplate. They do not exist in the standard U.S. version, because they are ones that were created or modified for MasterTemplate purposes. They use probably some building materials and other things where there may be some slight differences between them. [0:40:35]

So what happens if I copy this? If I copy this and go to the standard file and paste. And in the center of the current view is fine. They should come in much the same way as they did. At first glance, they are similar. Let's go back to this and see, yes, they look the same as far as I can tell there. Now if I select this - and they came in as a group for some reason, so we will suspend groups here. So this has a definition. It now is on a different layer. You can see the layer name is different than let's say the A-WALL EXTR. So that could be an issue when you copy from one file to another. [0:41:25]

You may be adding stuff that is redundant. Of course, I could go to the layer dialog in ArchiCAD 17 and say that I don't want this layer here. I am going to delete it and make sure that everything that is using that layer is placed onto the layer I do want. So that would be a way to clean that up in ArchiCAD 17. In ArchiCAD 16 or earlier, you would have to select all of the elements that use that layer and switch them to the new layer manually. But this is a nice thing; it cleans up the dialog. So now if I select this, you can see it's using the layer that it should. [0:42:07]

Now the composite does have the name selected. For a minute, it said "Missing". I am unclear why that would be. So if I go to the Wall tool, you can see that these have been added into the list. So these did not exist, they are MasterTemplate ones. This is a way that you can bring in composite assemblies from one project to another simply by copying a little piece of a wall or roof or slab or several and pasting them from one file to another. These attributes got added to the list. Now I don't know why when I select this - here, it shows it. [0:42:59]

Probably this little popup just hadn't refreshed. By just going with the Wall tool with nothing open and having it pull this up, it now has that. So it just needed a little refresh there. These elements are now

added. If we look at the surfaces, this one has some override of the surfaces. If you are using ArchiCAD 17, you can say you want it to be just using the surfaces based on the building materials. So if the building material says "brick" it will have a certain appearance. If it says "drywall" or "gypsum" it will have some other appearance. [0:43:39]

Or you can override it. Now if these surfaces were not in this current file, they would have been added in. since in MasterTemplate we generally use the standard surfaces or materials from the Graphisoft templates, and then added a few, added a small number, in general these ones are not going to add surfaces or materials. However for you, in terms of your use, you may very well have created a few materials or surfaces in your project that look different that were specific to that project. A particular type of finish coat or flooring or carpeting or landscape. So if you created those in a project and you want to use them in another project, you can either use Attribute Manager to select them and append them to your current environment, or you can select some elements that use those, copy them and paste them into the other project. [0:44:45]

Be aware that it will add not only those surfaces or those composites that you are interested in, but could bring in additional layers or other things that maybe aren't so useful. If you are doing it in your own projects it probably isn't a problem at all because you are probably starting from the same type of template most of the time. And therefore the layers are all going to be the same. If you didn't have a layer that exists, maybe you added some type of landscape layer for special purposes that didn't exist in your standard template, you set it up to work nicely in your template. So it will work fine. [0:45:26]

But if we were copying between MasterTemplate and another standard Graphisoft file, or someone else's office template and your template, just be aware that copying and pasting will add in things to that. Now the other variation of this to think about is if we have elements defined in one project and another project differently. So let's say we go into the Element Attributes, Surfaces, and we say that default wall color for the exterior, I am going to change this from tan color to this sort of pale green color. So that is going to be the default color. A lot of the surfaces on the outside now will be green. [0:46:18]

So if I draw things in this project with that particular default color, it will look green. If I copy elements from this project that are using the default wall color of green and I paste them into another project, it says the name 'Default Wall Exterior' for the surface is there; it will not bring in the green. It will not force the green in. it will see that the surface is already defined and it will use that by looking for the name. In fact, it won't pay attention to the index number, it will look to see if the alphabetic name of the composite or surface or fill or line type match. If they match, it will just drop it in and use the appearance in the receiving project. [0:47:17]

Here is where you might apply that. If you had multiple buildings in a project, you might have a building defined in one context or in one file with a certain look. Then you paste or hotlink that building in. now

that you have that information in the receiving project, you could change the definition of the materials or composites, any of those things in the receiving project, and it will use those colors. So even if the source was showing gray, and you pasted it into this or hotlinked it into the receiving project and made it blue, it will show as blue. Or if you have changed the definition of the wall composite, then it will update. [0:48:09]

If you have wall assemblies or surfaces that have the same or similar names and you want to make sure that when you paste it in that it's going to keep its original settings or attributes, then if it's a question, you may want to just change the name in the source file and change it to be unique, and when you paste it in, it will be added to the list. So that is something that is generally very powerful and convenient, but occasionally might cause you confusion, so it's good to know those rules. [0:48:52]

So let's see if there are any questions. I think I've covered the basics of moving attribute definitions from one file to another using Attribute Manager as well as the copy and paste "rules of the road".

Tom Downer asks, "Is it best to change the name when changing a default attribute?" Okay. So let's say you were in the ArchiCAD standard template, and you wanted to change the name. Now what might we want to change? Of course, there was the name of the default material. So if I go to surfaces - this is an appearance - and we have "Default Walls Exterior". Well, if I want to change it from the tan color to the green, if I don't change the name, it still says, "Default Walls Ext" and it just has a particular setting in this file. [0:50:00]

Now remember, anything that you change in this file that relates to an attribute does not affect any other files directly, only if you turn this file into a template or start up a new project using the current settings would you carry over those settings. Now if we were to change this or rename it, we certainly can, and it will still keep the same index number. So that means that all of the elements or walls that refer to it will still know that they are supposed to be this surface. And all the building materials that use this as the appearance will refer to that. So it's optional. I think it would depend on your workflow. Does it reduce confusion by giving it a new name? [0:50:49]

I think there is the overall question of, do you want to call things, like surfaces, by a name that refers to their material? In other words, this is a type of stone here. Do we want to call it - this is brass. This is a material that is made of a certain type of metal. These of course are very relevant when you want to be specific and you know what you are choosing. But in some cases, you may just want to have a generic name. Like it's going to be "Paint 1" or "Paint 3". It could be whatever different numbers of paints. So what this does is in fact, there are ones with numbers but no names - they don't say "Green" or "Yellow" or "Blue". [0:51:42]

They just say "Paint 15". Right now, they are a certain color. One advantage of using these for certain purposes is to have a palette with about five or six colors. I am going to make the first choice of the color

palette with red, orange, tan, so I have picked those colors. I am going to call them "color 1, 2, 3, 4" instead of calling them by their color name. Then later, if say you modify the colors slightly, and your name is specific to the color name, it may be confusing if you changed the way it looks. And you may need to change the name. On the other hand, if you just call it "Color 1" or "Main Color" or "Accent Color", then it can still perform the same function and just have a different style, a different look. [0:52:51]

In the same way, if you think about wall assemblies, say you are creating a building. Most of the walls are going to use a thick masonry block construction with super insulation; some of the walls will be curtain walls and some are going to have other things. So you decide you have three wall types for the exterior and two for the interior. You are not exactly sure, they may change, so you don't necessarily name them "CMU 8 inch such and such". You just call it "Wall Type 1" and "Wall Type 2". Then you define what wall type 1 is, draw with it, and later you could redefine wall type 1 and it will redraw on the plan and in sections, etc. [0:53:41]

If you name it very specifically to what it is, a stone, then if you changed your mind and made it smooth concrete, then it might be misleading. So I think this is a strategy to think about how firm you are with what you are creating, and how likely is it that you are going to change the definition of it, and what would be the best way to keep track of these things. To some extent, it's really up to you what's going to be the most natural for you as you manage the project moving forward. And what is your preferred standard for the office? If you want to say everybody should follow this. When we are working with a hospital, we have defined very early on twelve different wall types, because there are a lot of different fire and containment issues and things like that. [0:54:39]

And yes, we are going to have a legend that shows what each one of them is, and our design team knows which walls are used in which areas, but there may be some changes. We may decide in some cases that "Wall Type 3" which has a such-and-such fire rating, we may use a different structure for that.

This finishes up our lesson on Attribute Manager and transferring attributes from one project to another using copy and paste. This has been Eric Bobrow. Please add your comments and questions to the page down below this video. Thanks for watching.

[END OF AUDIO 0:55:19]