



BEST PRACTICES COURSE – WEEK 19 – Renovation Projects PART 1 - Renovation Using Two Different PLN Files

Welcome everyone to the ArchiCAD Best Practices Training lesson on renovation and remodel projects. This is the first in our series for week 19. This is part 1, and we'll be looking at a simple approach for doing remodel projects that can be used in any version of ArchiCAD. We've got a major change in ArchiCAD 15. I'll be dealing with the renovation palette and tags and ways that you work with that in a lesson later on in this series. [0:00:37]

Today, we will start with something simple. So what is the idea? The idea is basically is that we can grade an as-built drawing. So I will just do a little building here. We will put a roof on it, just to give it some context. There we go. We have a roof. Let's go back to the walls and put in some interior walls to start out. We'll make them 2x4 here. So we have a very basic building shape. We'll put in a door, there should be a door somewhere here to get in. [0:01:40]

Alright, so we now have a building. Let's say that this is the existing building. We will go to the File menu and save. Let's put this into my Best Practices Course, and we need a new folder for week 19 here. I will call this '19-1 Existing Building'. So I now have a version of the project there. Now let's say that we were going to make some changes to the interior of the building. One way that we could do this is, after delineating the existing conditions, I can do Save As. We can call this 'New Design'. [0:02:45]

Now I have a separate file that I can work on. Let's say that I am going to push this wall over. I will drag it over here and take these two walls and extend them. Maybe we're going to do some more interior walls here. So obviously, very simple changes, some new elements. One changed element and one moved, and one removed here. Let's save this 'New Design'. In our layout book, we will go to the first floor plan and we are going to see the new version. How would we do the existing drawings? I would need to open up the other file. [0:03:38]

Let's go back to the floor plan and open up the other file and talk about how we can coordinate existing and new ones. I am going to open up the existing one in a new instance of ArchiCAD. So now I will have two copies of ArchiCAD running. The existing building will be in one file and the new in the other. The simple thing about this approach is that I can make the existing drawings look exactly the way I want, and I can make the new drawings look exactly the way I want. They are not interfering, there are no issues. I can make each building the way it should be. [0:04:22]

Where we start to get into some logistical questions is, how do we have a set that has existing and new on the same sheet or different sheets within the same set? So we will look at that first. Then we will look at how you can create the demo drawing, saying what is being demoed, and some of the other complications that arise from this simple approach. So here we have this existing building. Let's see, this



is our existing plan. If I jump over to the other one, you can see the new one. There is a slight difference there. [0:05:04]

Now on the new one I can go to the Layout Book on this sheet, and for now we will crop this in. I will drag it over here. Let's say I wanted to have the existing drawing down below there. What we can do is go into the Navigator, and press on the button on the upper left called 'Project Chooser'. And we can say 'Show Organizer'. Organizer will bring up a version of the Navigator that has two panels, left and right. And there is Project Chooser here on the same button that we just had. And I can pick another instance of ArchiCAD that is running, or I can browse for a project, even if it's not currently open. [0:05:54]

When I do that, you can see that here is the existing building and here is the new design. You can see the titles there. Let me drag this view onto the sheet. So here is first floor plan and here's first floor. Let's take a look. We now have two - and I will collapse this down a little bit and move it over to the side. I now have the two drawings, and this one I can crop as well. I will crop it and drag it into a convenient place. We can see the existing and the new. [0:06:43]

Now the name of it can be changed as you know. By the way, I can move this around if I want, or I can just close up the organizer. Anytime I want, I can bring up the organizer, but it will start over. We would have to go and say we'd like to bring up the buildings you want. In any event, you can see that if I double click on this one, this is the new. If I double click on this one, you can see this is the existing. So I am going to highlight this and change this to 'Existing Ground Floor'. [0:07:24]

I have just changed the name of the drawing. That makes it easy to identify that. The simple case is where we want to show old and new and label them appropriately. Now some changes may be more subtle. Things may be moved over just a little bit. As you have a drawing that has a lot more complications, it's important to be able to delineate what demoed and all of those things. So how would we create a demo drawing in this context? [0:08:06]

One thing we can do is go back to this new drawing here. I will open the source view. So now I am just looking at the actual model. And I can go and create a worksheet. If you haven't worked with worksheets, they are in the Project Map here. They are a separate 2D work area. I can create either a new independent worksheet, which would be a blank drawing, or I can create a new worksheet from the contents of what I am already looking at. In order to create a new worksheet that is based on this and is easy to reference, I will go to the Worksheet tool and either outline the area with a box or some shape, or just place a marker that is going to pull everything from this. [0:09:02]

So when I do the marker one or any of these, it says, 'Create a New Worksheet Viewpoint' as one of the options. That means that it's going to copy either the entire view or the bounded area of the view and create a new worksheet. And there will be a reference to the drawing that is placed from that worksheet if I want. I don't have to have this marker showing. Right now it's on the 'A-Marker-Section'. I can put it



onto any layer, so this marker could disappear. But let's drop it in. I will go and call this "Demo Plan".
[0:09:40]

Now really, this is not what we are looking at. It won't be the demo plan. This is the new, but we are going to use this as the basis for creating the demo plan. This is just one way to do it. I will just click anywhere, and over here you can see that we have this marker that we might hide later. But if I right click on this and say Open Worksheet, we will see that there is a new worksheet in this window. It looks just like what we were looking at, however, if I select this, it's just a line. And this is just a line. So this is just 2D information. [0:10:13]

If I wanted to get rid of all of the roofs, I could have either turned off that layer before I created the worksheet, or I could select by doing the find and select or Command+F or Ctrl+F. I can say I would like to use the eyedropper to pick this up. This is poly lines. But really what I care about is things that are on a certain layer. When I say + (plus), that selects all the lines on the roof layer, so maybe we don't need the roof stuff. Now if I eyedrop this, it's saying that these are the elevation markers on a certain layer.
[0:10:49]

Now these markers - and you may not be aware of this - are actually live. So this marker is linked to the original marker. If I right click on this, it will open up that elevation. There's not much to see right now of course. But I was in a worksheet, and this marker is live. Now if I don't need those markers because they are not relevant to the drawing I am creating, I can just select all of them here, and delete them. They aren't deleting the source markers; those are on the floor plan. You can see that on the floor plan here, they still exist, but on the worksheet I have just cleaned up the drawing. [0:11:32]

Now this isn't really a demo plan, in fact, this is the new drawing. But I can do whatever I want. Maybe I want to say that I want this information here to be a different color. Maybe make it blue or something like that. I will make it red so it will stand out a little more on our screen here. Red I know would often be the demo elements, but let's say that we wanted to do it in red. Now how would we know where the original wall was and how to work with it? Well, if I go to the worksheet, remember that we have this view of the existing floor plan available. [0:12:21]

That means that we can actually reference it within the worksheet. So this is something that not many people realize that you can do. When you are in this worksheet, I can go and say 'Select the Layout' and say 'Show as Trace Reference'. I don't think we can select just that drawing, but it would be interesting to try. What if I right clicked on this? No, I can't use it as a trace reference. So now you can see that this layout is behind this. If I want to move this around so that it sits in the right place, I can go to the Trace and Reference palette here and move this trace reference using this option for dragging the reference.
[0:13:12]



I can go in and click on this and get it lined up. So now we can see the information. You can see the gray trace. I can make this a different color, green or something like that, or red. And maybe make it a little fainter. So now we can see this in a distinct color. Of course I have made that red so they look the same, so let's pick a different color. Maybe blue. Remember, this is a worksheet, so I could go and maybe since I know these lines are similar, I am going to drag a copy of them over to here and make these dashed. Maybe a wider dash or whatever we would find the most useful for that. [0:14:12]

If I turn off the trace and reference, you can see what we are getting here. Maybe they really should be a normal dash like that. Then perhaps I can go and take these lines and split them by this line here. That means that these are separate. I will take those and these ones and color them like I had; a red or something like that. Now we can see what is going on. I am not going to go into all the work you might do, but I want to point out that this worksheet is now a 2D drawing. It came from the design model, and in fact, if I hadn't made the changes already in the new design, if I hadn't created that worksheet right away, then I would have all the original information there. [0:15:08]

In fact, my workflow probably would have been better by saving a copy of the existing building into the new and immediately creating the demo plan worksheet. Then afterward, for example, let's get rid of this information here. So if I look at the first floor as a trace reference, we can see what still exists and what is new. If I had done this initially as part of my process, I would have had less work because I could have simply said, "This information has been deleted, so let me put it in a dashed form." And I can see what's new. Maybe I don't even need to draw that in the demo plan, because the demo plan is only indicating what is being demolished. [0:16:07]

At this point, what we have is two separate files. If I go over, we have the existing building in this file. And if we wanted to, we have our layout book here. We could print things from this. But we also have our new design, and the new design has its model with the slight changes that we have. If I go to 3D, we are going to see what we would expect, the new design here. We don't have any changes on the outside of the building, so it would just be the plan that has changed. And we do have on the sheet the two versions of this drawing. [0:16:53]

Let's just say that we wanted to put this worksheet on here. So the worksheet needs to be dragged from the view map, but right now, there's no view of the worksheet. So I will go back to the worksheet here and create a view in the view map. I will say I want to save this view. And we can call it "Demo Plan". Now that view exists. It has certain layers and scale. Now I can go back to the floor plan and drag that particular view in, and then crop it. I cropped it a bit too much. [0:17:54]

So you get the idea that basically, I can have, with the simple thing, the idea is that you do the building, get it as clean as you can in its existing conditions. And in the new file, create a copy of worksheets of each story to use eventually as your demo plan. Then start redesigning and adding to the building,



deleting, demoing things, etc. it's pretty simple. You are working with two separate files. And the worksheet idea is an easy way to get whatever graphics you want for the demo plan. [0:18:42]

One question that comes up is, suppose you either made a mistake or you just have some more information that you want to add that needs to be in both drawings. Let's say that this was the kitchen. I could go back to the existing plan here, and in this kitchen, we have some cabinets. I am going to the Object tool here. I will put in this cabinet on the back wall here, and this corner cabinet on the back wall. I will rotate this around here and put it in by this corner. These two, I will drag them into position. [0:19:44]

Obviously, this could be developed further, but it gives you an idea. Now this is something that should have been put into the existing building, and it just wasn't done at the time that the building copy was made. So how would you deal with this? It's pretty easy as long as this information is discrete, it's on a separate layer, or it's easily selectable. All you have to do is open that find and select, eyedrop one of these elements and say that you want to pick everything that is on - in this case - the equipment layer. [0:20:25]

If you put in a bunch of stuff that was similar, you could easily copy this and go to the other file and go back to the floor plan, and zoom in and paste. It says that the layers are on locked or hidden layers. So we want to show those layers. The layers that I picked are not on the CD floor plan, so maybe they are on the schematic or the drafting floor plans. I will say 'Continue', and you can see it came in directly here. If I go to the first floor plan, it's showing these ones. If I go to the CD floor plan that disappears, so I guess the equipment layer is not on the Graphisoft template on the Construction Document floor plan. [0:21:17]

Maybe we wouldn't use the equipment layer since the cabinets should be shown. But the main point here is that if you have forgotten some information, or forgot to add something, you can easily add it to one file and then select it in one way or another, and then copy and paste it into the other one. And they will keep their proper relationship. So you have to be careful. You have to make sure you are able to select these things easily, but that would be something that you can manage. It's a little different if you forgot to put in a window or something like that. [0:21:58]

Maybe you decide later that the window was the wrong size or you made an error in something. Maybe I went back to the existing and I realized that I forgot to put in a window over the sink. So I will put in the window here, but how would I get it into the other file? I can't copy a window and paste it. One possibility would be this wall. If I select this wall here, I can copy this. This wall is existing, so it would remain - it's not changing. I could copy this and go to the other file. [0:22:39]

By the way, if you are not used to what I am doing here, I am holding down Command+Tab or Alt+Tab on windows, which allows you to cycle between different programs quickly. In this case, I don't want to



paste this wall in duplicate. So I will select this wall and delete it and paste in the wall that I just copied. You can see the marquee around it. Click outside, and that drops it in. [0:23:09]

Again, you have to be careful to make sure that you are selecting and copying the right things and deleting to avoid duplicates and other errors. In a sense, this is simple, but in another, it's complicated. It would be simple if you did a very nice, complete, accurate, existing building and you really didn't have to do any changes to it later. Then you would make a copy of it and redesign and add things to it. That would be a good thing. If you have already done the project and this is a follow-up, perhaps you designed the building and now there is a phase two or addition down the line, and you add on something or make some changes to it, then we can assume in that case that your original design project is accurate and complete. And when you go to the new one, you are just going to be making changes; you are not going to have to coordinate both versions. [0:24:53]

Now if you did have a complete set of working drawings on the original project, you wouldn't want to save a copy of that necessarily. That could get complicated, because you are going to have all of the old stuff. If you did copy it, you could then just go through it and remove the things that are not relevant and add the stuff that is new. So in one sense it makes it easier and in another sense you may have more management to do. It's not a big issue, it's generally pretty straightforward. If you know how to create your building and document it in ArchiCAD, creating a project and then making the new version of it should be straightforward. [0:25:10]

So this is the method that I wanted to outline in 19-1. Let me see if there are any questions about it. I see there was a question from a little while ago from Peng L. saying, "Can the elevation marker be turned off in the layout book?" Yes, the answer is that in the layout book, if I go to this sheet here, first of all, I cropped this, so we are not seeing that elevation marker. Let's just extend this out, and here is that elevation marker showing up. It's on a layer. So what is the layer that this is on? If I open the source view, we will see that the element is on a layer called "A-MARK-ELEV", representing elevation markers. [0:26:16]

If we go to the floor plan layer combination, right now that's visible. If I go to the Layer Settings, here is the floor plan, and that is what we are using for the floor plan in the layout book. But A-Marker-Elevation is turned on. Now if you want to, you can say that you don't want to show that. Maybe it is very simple, you may say, "This is the front elevation, this is the east elevation." And you don't really need to delineate in certain projects the marker there, saying that it's on a certain sheet. So we could hide this and update. And now on the floor plan, you will see it disappears. When I go to the sheet it updates and now that marker has disappeared from this version. [0:27:06]

If I were to extend this up we are going to see that there is no marker visible. So that would be a way you could do it is to simply have that layer turned off in the layer combination as part of the view that you are placing on the sheet. So Dave N. says, "When moving a view, such as an as-built, from one file



into another, new design, does the as-built file remain linked?" The answer is yes. If we look at this existing floor plan here, you may notice a little blink of something updating. When I update this it's actually going and looking at that file. You can see it was referencing something external to it. If we look at the drawing settings, it's referring to a source file. Here is the existing building. It's looking for that, it's an external file. [0:28:05]

Much like if you placed an external reference in AutoCAD or Xref, if you placed a PDF, it will be linked to it. And the update type is 'Auto'. In this case, that means that every time the sheet is refreshed, or is opened up, it will go look at it. This can be a little bit of a nuisance, because that means that whenever you flip to that sheet, it's going to try to go open that file if it's not already opened and double check and in fact, regenerate that view just in case it has changed. Or it will at least double check to see if the file has changed, because after all it does have the date. And if it can find that file, and it hasn't changed since the last time you looked then it won't take that time. [0:28:48]

Now you should in general when you have external references, I would say a good habit is to store the drawing in the project file. That means that if you move this around, or the other file around, and somehow it gets deleted, you still have a copy of the 2D information in this project file. If it's not checked, then that means that it's always going to have to find that file. If it can't find the file, it will be blank; there will be a gap in your documentation. So this is something that I would always do. I really can't think of any good reason not to store the drawing in the project file. [0:29:28]

Having the file be a little bit bigger hardly costs anything, but the chance that you might not have access to it when you need it, at least there is some possibility that the file may have moved and you can't find it. So I would always have this turned on. Now it will actually store that information so the next time I save that project it will have it. But it will update. So let's take a look. If I go back to the existing and let's say that I want to put in a stair. This is crazy, but let's say I drop it in over here. Now I have a stair and if I go back to the other file and do a refresh here, actually, look at that. It came in already. [0:30:21]

Now that is something that I wasn't expecting, because I hadn't actually saved the other file. But I guess because the file is open, it's able to pull that. In general, what I would have expected and certainly the safest thing is if we are in the existing file here is that at some point after you make some changes, you save, and that will make sure that A. it's stored on your hard drive properly, and B. so the other file is able to reference that. But I guess because this was running it was able to get it. But they are hotlinked. [0:31:00]

Okay, so I think this is probably as much as we need to cover here. There are some things you can do in terms of the organizer that are really not specific to remodel projects and that is that in addition to dragging views from another project file like this, you can actually drag layouts. You can bring in an entire layout sheet if you wanted. So let's say that you had all the existing elevations. You could bring them in and what would happen is you would have a new layout sheet in this file. Each of the drawings



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would be like what we are seeing here, they would be referencing the existing file. So there would be a new layout that is independent, meaning that you could add things to it. It's not linked to the original layout. But any references that come in, that maybe came from that source file, will be linked to that source file, just like this existing ground floor is. [0:32:02]

In general, with ArchiCAD 15 or later, I don't recommend this approach that I have just outlined. But it certainly is something that you could work with and in the case of a project that has already been done and already is a previously created building that you worked on and you have the original file, then sometimes this can be the simplest method. Just copy the original file and make a new .pln file and work on it as a new project. And of course in ArchiCAD 15 or later we have some new tools for designating elements as existing to remain, existing to be demoed, and new. And we are going to be talking about that in 19-4. [0:32:54]

So let's see. I see one other question from Colin H., "How do you open two different ArchiCAD files at the same time on a Mac? I can open several on a PC but have trouble on a Mac." Well, I am on a Mac here, in case you hadn't noticed. Here is the apple up here. The way that you do this is, instead of going to the ArchiCAD icon like here, and clicking on it, which will open up whatever ArchiCAD you have running - in other words, it won't start a new instance - and there happens to be another one down elsewhere on my dock. This is another session running. So these are two sessions. Remember, I have been going back and forth. [0:33:31]

What you do is go to the File menu and say "Open" or "New" - it works the same way - and launch a new instance of ArchiCAD. So this is something that was added in several versions back. It didn't exist before maybe ArchiCAD 10 or 12. They added this to make it simpler for you to have as many as four or five instances of ArchiCAD running if I am working on many different things. I am sure there are some times when you need to talk to one client about something but you are working on the design of another project. Or maybe you want to reference some detail drawings or some other things from other projects. [0:34:18]

You may have several ArchiCAD files open at the same time. So it's definitely something you should know about. And it works the same way on Windows. If you say "Open" or "New" there is an option to launch a new instance of ArchiCAD. I believe in Windows if you just click on the ArchiCAD icon or taskbar, where you can start programs in the start menu, it will start a new session of ArchiCAD rather than switching to ArchiCAD. In the Mac, it works differently. If I go and find it in my dock here, and I click on this, this will bring up that instance or in this case here it will bring up the other one. So these won't start a new instance, but you can do it through the file menu. Okay, so I think this concludes lesson 19-1. Please add your comments and questions to the page down below. This has been Eric Bobrow, thanks for watching.

[END OF AUDIO 0:35:26]