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QUICKSTART COURSE - MODULE 3 – PART 2

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Hello, this is Eric Bobrow. And in this lesson of the QuickStart course, we'll add some interior wall partitions to the building. We'll look at methods to set the lengths of these walls as well as their placement to set up the right room dimensions, the clear space that you need to maintain for the actual room design. And we'll take a look at basic wall intersection clean up. [00:33]

So when we are doing the interior walls, it is usually a good idea to switch the layers. So I'm going to use the layer popup here, and you'll see that it indicates that I'm on the "A Wall EXTR" layer. It has a checkmark and it's highlighted. Now I'll scroll down just a little bit further and choose the "A Wall INTR" or interior. That would be the setting for the U.S., and I want to change the thickness of the walls to 4 inches. [01:07]

Now, we can be very precise and have our framing and our drywall, and have walls that are complicated with multiple skins or component assemblies. But in the QuickStart course, we're just going to work with very simple walls of nominal measurements. Just a little bit easier to get started with, and have a simple wall with just parallel lines rather than multiple skins. So I've got it set on the new layer, and the thickness at 4 inches. In the international version, we're going to switch the Wall tool from the "Structural Bearing" layer to the "Interior Partition" layer, and were going to switch the thickness from 150 mm to 100 mm. [01:54]

Now I'll go back to the U.S. version and start to draw some interior walls. So in this case, the interior walls, it's a little simpler just to do them one at a time. So I'm going to switch to the single wall method. And I'll click on this interior corner on the left side. I'll click to start drawing a wall. Now I would like the face this wall to match from left to right, and you'll notice that the wall is going to be facing the wrong way. In other words, it's going to go up from that line instead of down. So I will switch the construction method in this case from left to right. And I'll do that on the fly. In other words, I'm in the middle of this operation. I could've done it before hand, but you notice that as I move back into the area, that the preview has changed. [02:51]

So now I can go along this guideline, and these walls should be perfectly aligned. You can see the distance in the tracker says 21 feet, so everything is nice and clean measurements. And I'll just click. Now you can see that the wall was drawn cleanly. It does have some extra lines separating it; it's not cleaning up at the corners. We'll deal with that a little later. And in this course, the QuickStart, we're

going to accept some sort of simplification in the name of learning quickly, and later on of course, you'll need to learn how to get the precise results that you want. [03:29]

I'll continue in the U.S. version here, drawing a wall down. In this case, I want to draw it in line with the interior corner here in this part of the building, in the upper right. And I'll click to draw it. And again I'll switch the construction method on the fly, and take it over. Now here, I'm not meeting a corner, I'm going to go to where it indicates an intersection. So I'm on the intersection of the guideline, which is the horizontal axis, and the outside face of the wall. And ArchiCAD in general will clean up, regardless of which side you go to, but this is going to be connecting the reference line of the interior wall to the reference line of the exterior wall. [04:28]

So I'm going to click on that, and you can see actually how it cleaned up very nicely here. We'll worry about this other corner in a minute. So the upper left area of the building is going to be a kitchen, and it should have a certain amount of clear space. The clear space in the U.S. version is 11 feet 8 inches, and in the metric version is 3,600 mm. Now, in order to place something at the right location, there are a variety of ways of doing it. We are first going to use a guideline segment here. So if I press down on the little popup menu next to the guideline icon in the toolbar, I can say "Create Guideline Segment". [05:20]

And what I'd like to do is click in this lower left interior corner of what will be the kitchen, and move along this edge. And you notice that it's giving me the feedback in terms of the distance, how far I've gone. I'm going to type in the distance. So it would be 11-8 or 3,600. And you'll notice that there's now an orange dashed line indicated. And my cursor has an actual checkmark. That means that I'm at the end of the guideline. Now I could move the mouse around and come back and snap to this, but I really want to draw my wall exactly at that point. So I will use the Return or Enter key on the keyboard. I won't touch the mouse, I've just been typing in a distance, and I hit Enter to confirm it. Now hit Enter or Return one more time to start the actual wall. [06:15]

So you notice that now the tracker again says activated. It says a distance of zero. But this time as I move my mouse around, I have a wall attached to it. And so it is going to allow me to draw the wall. But again, as I go vertically, remember I wanted clear space of a certain distance, so I will need to switch the wall construction here. And we can do this before if we think ahead, or we can just look at the preview and say, "Oops, I need to change that". And here again, I'll go vertically up. And I'll just show you if I go to the inside face of this, this should clean up as well. See you can see how these cleaned up beautifully. The clean up that happens in this case from the inside or the outside, is controlled by the Options menu, Auto Intersection. [07:08]

And what Auto Intersection does, when its active, which is its standard or most common setting, is if you draw one wall and it touches another wall, it will make sure that they intersect in most cases. So now let's focus on putting in an interior wall to define this area on the right side of the building that's going to become a bathroom. And this needs a space for a bathtub in this upper right area. It's going to be 5 feet in length, because that's the standard size for a tub in the U.S. And I'm going to make it 1,500 mm in length for the metric version, which is roughly the same distance. So again, I'll use the Create

Guideline Segment here, and click on this interior corner, and go along. And I'll type in the 5, Enter, or I would do 1,500, Enter; and then just hit the Enter or Return key again. And now I can start to draw this wall down. [08:14]

And in this case, the clear space is correctly allowed, in other words the wall is going off to the left as I draw down. So I can just leave that there. And I'll take this down until it gets to the corner here. You can see that the distance is 9 feet, and the angle is 90°. It may or may not hit that corner depending upon the settings here. But let's just click on this point to place it. So now, we've got most of our interior partitions. I have just a closet in the upper right of this room, which is going to become a bedroom. And we're going to create that closet. So I'll go and click, in this case, I want to make it in line with the exterior wall corner, and click to go down. But I do want it to face the other direction, so I'll switch the construction method. [09:20]

Now the dimension that I drew on the PDF is the clear space for this closet. In other words, the distance inside the room, that's 5 feet 10 or 1,750 mm. But I need to add the thickness of the wall to compensate. So right now, we have a 6 inch wall. So 5 feet 10 plus 6 inches is 6 feet 4, so I'll type in 6 - 4. If we were in metric, that would be 1,750 plus 150 mm or 1,900 mm would be the distance we would go. So I'll hit the Enter after typing in the distance. That creates that wall. And I can do the final wall that returns the closet off to the right by just simply hitting the Return key. [10:12]

In other words, I don't have to click the mouse, just click to start a new wall there just by hitting the Return or Enter key. And again, take this over again to the right. When we see the nice intersection cursor, which would mean we're on the intersection of the horizontal guideline and the vertical wall, that will work. Or you may see a perpendicular snap, depending upon some different things in your program, which version of ArchiCAD you've got. But I'll just click, and you can see how that's been cleanly placed. [10:43]

So we're almost done with placing our partitions. We're going to do just a little tiny bit of clean up here, so I'll go to the Arrow tool to select elements. I'll switch from drawing elements to selecting them. And I'll select for example this horizontal wall. And I'd like to select at the same time this vertical wall that's in the bottom left area. And so I'll hold down the Shift key and click on it. So now you can see that there are two handles indicated. And in the info box in the upper left it says there are two elements selected. Having selected those two walls, I'm going to use the Intersect option which is in the toolbar, sort of a little over half way to the right. Or a little to the right of the halfway point, and I'll click on it. [11:33]

And you can see how it's made those two walls cleanly intersect, and the other wall it also cleaned up with. Now, depending on what version of ArchiCAD, it may not clean up quite the same in some earlier versions, but just follow along with me and we'll accept the basic cleanup that we get. And in the QuickStart course, of course there are going to be some compromises as we work through things. So right now, it does look good there. Let's do the same thing here. I'm going to click on this vertical wall on the right side here, and the long horizontal wall that we had previously selected. And again, I'll do the Intersect command, and that almost worked. Let's take this wall here, and this wall here, and intersect, let's see how those go. [12:29]

And so we have, as I said, a little bit of a compromise. I'm not sure what going to be the best result. So in this case, I'll actually undo that last step. And actually now ArchiCAD has redrawn it cleanly. So just the simple step of selecting the long horizontal wall and this one vertical wall here and intersecting them did work after we redrew. And we'll clean up this one other intersection here. I'll select the horizontal wall that defines the end of the bathroom, and this is going to be a utility area up here. And I'll select this vertical wall here, and let's intersect those. And that's almost clean. [13:18]

So again, we'll live with that as a pretty decent representation, and deal with further cleanup at a later date. So let me just zoom out a little bit, so we can see the results and take a look in 3D. So we'll go and activate the 3D window, and you can see there is the shape that we've drawn. We can switch this in the little popup to an axonometric view. So now we're looking without perspective for shortening. And we can activate the Orbit tool by clicking on this little icon here in the navigation area and move around and see what this looks like. [14:07]

So we've completed the exterior and interior partitions of the building. I'll go back over one more time in the international version, creating the interior partitions as a quick review. So I'll zoom in with the magnifying glass plus, click on the two corners that I want to use as a guide and it will fill the screen better. In the Wall tool I've already switched to the interior partition layer, and I've already switched the thickness to the 100 mm. And now I'll quickly repeat the same exercise. I'll go with the Wall tool and click on this corner, switch the construction method to the proper side, and in this case, just click on the other corner since it's perfectly in line. And we can see the angle is zero and the distance is a nice even number. And I'll click again, because right now it's still in the Poly wall method. So in other words, it's going to be trying an extra wall. If I just bring it back to that original point and clicked, it will complete it. [15:13]

Now again, since we're doing interior walls that are sort of one of the time, most of them, I will switch the method to the Individual wall method. And I'll take a wall going across in this area, switch the geometry method, find the intersection or perpendicular snap and click. And then we'll go and draw some of the other faces that need distances. I will go to the popup for the Guideline Segments and say Create Guideline Segment going along here, and this would be 3,600 in metric, or 11 feet 8. And then I can just hit the Enter key again to start the wall. But I do need to switch the construction method so that this line will be the clear space or the end of the kitchen, and click again when I get the nice straight intersection snap. [16:16]

Now I'll go and use the Create Guideline Segment here, and we'll go from the inside corner along, and it's going to be either 5 feet or 1,500 mm, hit Enter, and hit Enter or Return key to start the next wall, and just draw this straight down to where it meets at this corner here. And we have one more set to create the little closet, and that's going to be say in line with this exterior corner here. And I'll just click to start it, switch the construction method to the correct side, and take the distance, which is going to be 1,750 plus 150 is 1,900; or in the U.S. version, 5 foot 10 plus the 6 inches is the thickness of the wall is 6 feet 4. Hit Enter, and then just hit Enter again to start another wall there, and then take it over to the right until it snaps with the intersection or perpendicular snap. [17:22]

So we now have very, very quickly created the shapes. If we want to clean this up, we'll go to the Arrow tool, select this horizontal wall and vertical wall here. Now here we have a little complication. And we had discussed this in a previous lesson. When I selected the left hand wall, it selected all of the first group of walls that I had drawn, because the Autogroup command was active when I drew that. That is under the Edit menu, Grouping, Autogroup. You'll notice that it is turned on. I generally prefer to have it turned off, but apparently in the international version that is a standard setting to be turned on. You may find it on or off depending upon your template that you're starting with, or what you've last changed. I'm going to turn it off. [18:21]

Now turning it off right now means that future walls will not be grouped, or future sets of elements that are drawn at the same time will not be automatically grouped. You'll have to manually group them if you want. In this case, I can't do the operation that I want immediately, because I've selected a lot of walls. And it's going to not know what to do in terms of intersecting. So to deselect, I'm going to click outside, and then again, I'll select this horizontal wall. But before I select the vertical wall, I will make groups suspended. So there's this icon here about 3/4 of the way over in the toolbar that says "Suspend Groups". It has two rectangles, one with handles and one without, indicating that maybe these two rectangles were grouped, but we're able to select just one at a time. [19:15]

When I click on it, it highlights to indicate that Suspend Groups is active. We can also do the same thing by going to the Edit menu, Grouping, and choosing Suspend Groups. You can see the checkmark indicates that it's now the current state. Now I'll just move away from the menu to say that I don't really want to make a choice, and then I click to have the menu go away. I'll press down the Shift key to say I'd like to select another element, and I'll select this vertical wall. And in this case, it selects the two walls individually rather than the whole group of walls. And I can do the Intersect command. [19:55]

And I'll then click outside or away from everything to deselect them, or hit the Esc key would work. I'll now make the horizontal line and this vertical line on the right side and intersect. And you notice that it's sort of intersected but not completely. Let's just see if I zoom in on it, whether it redraws. So you can see actually when I zoomed in, it did more cleanup. This is a common thing in ArchiCAD where sometimes the cleanup, when you first draw or make a modification to something, is not complete. But the next time it zooms around, you zoom in on something or change the view, it will update. [20:39]

Now I'm going to use the previous zoom out icon in the bottom area to go back. And now I'll just complete the cleanup here in the upper left utility area horizontal wall with the left side wall of the utility area. And I'll again do the intersect, and we now have a pretty clean result at this point. So the wall or the building is now complete. Again, that was a much quicker operation as I just did it the second time. Let me go to 3D. So I'll click on this icon to go to 3D. We're seeing it in perspective. I'll switch it to axonometry with the little popup, and we'll go ahead and use the Orbit to move around. [21:35]

So you can see these walls actually have brick, and perhaps we want to change that material. Let's take a look right now. I'll turn off the Orbit mode by clicking again on it. And let me go to all the walls. So I'm going to go to the Wall tool, and we'll Select All Walls. And for now, with all the walls selected, I'm going

to open up the settings of the walls by clicking on the little icon for the wall in the info box, and I'll switch the setting from brick to something very simple. So we'll just give it - I'll scroll down here to "Paint 01". So this is going to be a simple paint color as opposed to brick, and say OK. And then click outside them to see the result. [22:29]

So in ArchiCAD, you needn't worry about getting everything perfect the first time. You can always go in and make changes afterward to the elements. So this concludes the lesson on adding interior wall partitions to the building. Please add your comments and questions in the comments area down below on this page. I look forward to reading them, and look forward to talking to you on the next lesson which will be focused on adding windows and doors to this building. Thanks for watching. [23:06]