



BEST PRACTICES COURSE – WEEK 25 Schedules, Quantities and Data - Part 4 - Schedules with Room Locations; Label Elements Automatically

Welcome everyone to the Best Practices course ArchiCAD training lesson. Today we'll be focusing in week 25, Project Information and Data. We've covered interactive schedules, basic usage and additional options. There's one last piece that I wanted to include that we didn't cover, having to do with showing the location of doors and windows on the schedule. Such as what room a door is associated with. Then we'll move on to number four, Label Elements Automatically. There is already a video that I had done a while back that I posted. It's about setting door and window IDs quickly, so I don't need to go over that. So we'll be going onto labeling elements automatically. [0:00:53]

How do you put annotation down in a way that describes your elements that is automatic and coordinated with the information from the element? So we will be focusing on that today after we finish up a little more on the interactive schedules. So we will draw a very basic framework for discussion here. We'll create a couple of little areas. I'm not going to try to make it at all creative. Let's put in some simple doors here into these rooms. If we were to do a door schedule, what would we see and how would we indicate the location? So for example, we have the four doors that I just popped in. The preference was set in the work environment to increment the ID automatically. So in other words, each time I placed a door, the ID went up one, two, three, four. For this purpose, that is convenient, but later we might want to renumber them based on their location rather than the sequence that I placed them. [0:02:31]

There is information here. We've already gone over how you can add to this in general, but I'm going to add something specific. Let me get this to fit in. I'm going to go to the Scheme Settings and say that I would like to put in the location of the door. So we'll go under the "Fields" here. Let's look under Window and Door, because location would be certainly very specific in terms of the windows and doors. Other elements, like a beam or a wall, do have locations. But windows and doors not only are positioned in relationship to rooms but have an opening. They open into a room or outside away from a closet or the interior. [0:03:19]

Let's just see what we have here. It says "From zone" and "From zone number". So this is basically saying if we put this in here, it will display information about the zone. The zones typically are a good way of describing rooms. Zones can be a general thing like circulation or the site if you want to do tabulations of areas. But zones certainly are what we would use to formally designate rooms. Sometimes you have numbers; certainly commercial buildings typically have that. Now here is a "Two zone" and "Two zone number". So we could actually choose whether the zone it's opening from or the side it's opening to. [0:04:04]



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Let's just put in both these to see what they indicate. I'm going to go and say "Add that". It goes down to the bottom, which is fine. Then we'll go to the two zone and add it. Now it's there. Let's see if we have another one that relates to this, because I'm looking for something else that would be more flexible than that. I think maybe it's not in this part; it would be in the library part coding. We would have to do that separately. So I'm going to go ahead and say OK. Maybe I will hide the formatting. We don't need the formatting. One thing I would emphasize is that you can click on this little tiny triangle, and you can open or close the side formatting area. [0:04:57]

You can also go and press - I guess you can't actually in this case. In some cases, you can use that area to pull it wider or narrower, but this is a fixed size. It's obviously optimized to show certain information and it's either on or off. But I'll just turn it off. So now we can see "From zone" and "To zone". So I will leave these to be clear, but obviously later on we might be saying "Location" or "Room" there. And we might put it in earlier in the schedule, in terms of closer to the left side. Let's go back to the floor plan. In order to get information, we need to put in some zones. So we go to the Zone tool. The Zone tool, for those of you who are less familiar with it, you can either outline an area manually or you can ask ArchiCAD to go find the boundaries of the walls that surround it. [0:05:57]

If you have a room that is surrounded by walls on three sides but a fourth side is virtual because there's no wall but it changes usage from the kitchen to the dining room, let's say if you have an open thing, then you can use the Line tool to draw a line that adjusts as a dividing line for the zones. It will still use that for the boundary. So there's an option under the Line tool to say "Zone boundary". That's also available under "Arc and poly line" there. So if you draw that, you can manually create a boundary. But let's just say that I want to, in the Zone tool, go out to the boundaries. This would be the inner edge or the other option would be the reference line edge. So if you're doing calculations of zones for area for leasing, then you may want to say that the tenant pays for the area up to the center line of the adjoining wall that separates them from the next tenant. Or have a certain relationship to the hallway; how much of the space they are occupying is based on the reference line. [0:07:07]

But for simplicity, I'm going to use the one that says "Go out to the edge of the wall". When I click on this, and I click "Place", first click defined the boundary; the second one defined where the stamp is. If I select it, you can see that there are handles out in the corner here, so that found the boundary automatically. And the word "Zone" is not very descriptive. I'm just going to say "Tall room" just to be arbitrary. So here's our "Tall room" here. And we will go and pop in another one here. I'll just keep clicking each one of these. Of course, you could rename it before you put it in, but I will just do it here. I will call it "Room 1" here. And this is going to be "Room 2". [0:07:55]

Now I'm looking at these door numbers, and I'm just going to coordinate Room 2. So this Door 2 is going into Room 2, and this Door 1 is going into Room 1. And this one we will say is going into room 4, because the door is here. Now let's look at the schedule and see what we have. You can see that the "From zone" is indicating where the door is coming from and the two here is correct. So room one and



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two match the IDs of the doors. The Tall room is three and here is Room 4. So the "To zone" actually works fine. We don't have to call that a zone, we can just say location. Or we can just call it "Room". And we could leave this out. In other words, maybe this isn't that useful. [0:08:56]

Now what about if we have certain conditions? Let's say we have a closet in this room. So we're going to put in another wall. Let's make this a little thinner here, and we'll do this. And maybe this closet, if we go to the door, maybe this closet here is opening out. I'm not sure architecturally - let me just undo that and pop it in this way. I'm not quite sure about what we do in the closet, but certainly there are some cases where the door opens out from the space that you want to refer to it. And let's just take this room here and see if this can recognize the fact that now some space is taken up. [0:09:58]

If I go to the Design menu and Update Zones, it allows me to update the selected zone or all zones. When I select "Update" you can see that this zone now understands that since the stamp is here and it went out to find the boundaries, it shouldn't include this space. So there's our "Tall room". Let me put another zone in here with the Zone tool. We will call this "Closet". So now if I go back to that schedule, you can see the closet is coming from that room and its opening into the Tall room, but maybe we want to designate that the location is the closet. There might be more than one closet in the project, but let's say that we want it to refer to the room that it's opening away from in this space where it says "Location". We don't want it to say "Tall room"; we want it to say "Closet". So how would we do that? [0:11:08]

If I select the door here and open up the settings and we look at the Door Settings, Parameters for Listing here, here is an option that is available in ArchiCAD 18 and probably going back some number of versions that says that the door belongs to the zone in which it opens. Or in this case it might belong to the other zone which it comes from. So now I'm telling it that this door that is going to be showing up in the schedule really should associate with the closet that it opens away from rather than what it goes into. Say OK, and then we go to the door schedule, and we will see - maybe we need to rebuild here. No, okay. [0:12:13]

So that location there still does not show. Let me see what happens if I drag this. I'm just going to drag this over a little bit because sometimes you have to refresh and just force it to think again. It's still not showing that. I showed you where it should be, or where that control certainly seems to relate, but it did not change the zone thing. Let me open up a different schedule and go back in here and see if that works. No, it still didn't do it. So let's see - interesting. We have "05". We have these numbers here. This is an interesting thing about project data. [0:13:03]

If we select this door, the door has an ID of "06". You'll notice that it has the "05" here. What that refers to is the zone number I believe. Let's just see what that setting is. Actually let's look in this one. So this door is "Door 01" so that's the number that we see here. And now the zone is a number there. Let's just see what the parameters are for this label for the door marker. In the dimension marker here, the



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dimension marker is showing both of these numbers but yet the preview is showing this. That's a little bit odd. Let's look under the "Customize Marker Text", "Room and Door ID." [0:14:00]

Here you can see that there's a choice. What is it going to show in terms of the text? The door ID is what we were seeing, but as soon as I put a zone there, it added that. And even though it didn't preview it here, you can see it put both. Now I'm going to say "Door ID only" and put this. Now you can see we only have what we were seeing earlier. So it's basically only showing the door ID. So that's an easy way to say, "I have zones, but I don't need to show the zone ID here." [0:14:35]

Now if we look at the ones here, this door is set for an ID in terms of - let's see. No, it's not listing, it's under tags. The ID is number 06, so that's the number 06 here, and then it is showing - because we have the dimension markers showing the room and door ID - it's showing the 5. So what does the 5 refer to? Let's just select this zone, and this zone is "Zone 05" here. If we open up the zone settings, the name and positioning, this is Zone number 5. So if we were to change this to Zone number 12 just to be arbitrary, then we'll see that the zone information will change and this should update. You can see as soon as I zoom in how it changes. [0:15:42]

The door is associating with the closet, but the information that we had that is in the schedule saying "from and to" still is saying it comes from the closet. It opens up into that Tall room. So how would we get one listing that would show the location properly, regardless of whether the door is opening into the room that we want to associate it with or away from it? Let's see if we go into the Scheme Settings what options we have. We've already looked under Door and Window here, but let's look under the option to add additional object parameters. [0:16:23]

So under Additional Object Parameters here, we go to Folder View, Used Objects Only. So now it's basically allowing me to select just objects that are in use. And here is the one door that we've got. We can now pick from the parameters here that we could add into the schedule. This list of items here corresponds exactly to the sequence of items of columns in the schedule. So let's scroll down here. We will search by name or sort it by type so that I can scroll down only through the ones that are text listed here. I have to jump all the way down. Let's just grab this and move it down. [0:17:19]

Alright, here's the text ones. And we have "Door orientation". So I guess that would probably be left to right. And we have "Location". Here is location, that's interesting one. That sounds like what we want. Let's try doing that. Let's add this. So I just added that parameter to the list. We don't have to worry about the sequence here because that's determined back in the earlier dialog. But we'll just put that in. And I don't think there's anything else. I think "Location" is what they call it. They don't call it "Room". I'll just say OK, and you can see now this new location is going to be right next to it. [0:18:08]

I will just say OK, and let's scroll over here. So location is something that is text, and I could type in "Room 1". I could manually go in here and type this in. So this could be something that could have a



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column that indicated the location of the door, but we would have to manually put that in. So while that would give us the right information on the schedule, it's not as automatic as I would like to see. So what I was hoping for was that we have an option - because I know I've done this in the past, I just haven't looked at it for a while - but we have an option that would just choose which is the zone that the door is associated with. Is it associated with the area it's going into or the area it's coming from? And it would fill in that information into a parameter that would show up in the schedule. [0:19:14]

So I'm just going to do one more quick check here to see. We have this exterior here; we have the dimension marker; 2D representation-no. Let's go into the Door Settings, Parameter for Listing. So we have that. Here is a location; this is something you can type in. I'll just put in a closet here. And now if I go back to the door schedule, we can see the closet is filled in. So as I mentioned, you can manually put it in either just by looking at the doors in reference to their numbers that we have, or you can go one by one to each door and just type that in. So that would be a workable solution, but I thought that there was a way that we can get that filled in automatically and that this option here would affect it. But it's quite possible that I was mistaken and that this affects the door tag, the door dimension marker, but not the items in the schedule. [0:20:37]

I don't think there's anything else that is going to affect schedule stuff that is in here. I'm not seeing anything else that would relate to that. I'm going to finish up this section by saying that this will get you some useful information in the schedule. It's not the ideal, and frankly I will have to do a little more research to see if there is the ideal situation where you can simply say, most of the time the door is associated with the room that it's going into. And that location works. And then in the rare cases where you want to do it the other way, you simply check a box, but it picks up the name of the zone automatically in the schedule. Right now, I don't see that control there. [0:21:28]

Now Roger asks, "What would happen if you took "From Zone" out of the schedule?" So if I go back to the schedule here, if I go to the Scheme Settings and we take this "From Zone" and we remove it, it just disappears. It doesn't actually change the location. Remember, this location here, I just typed that text there, but it's actually the field called "2 Zone". So literally whatever the door is opening into is what it counts. I am going to try one last thing, which is the flip option, because that just could possibly do that. [0:22:17]

Now with doors, if we want them to orient or change their direction of course we can go to the Edit menu, Rotate command. Rotate flips it 180°. And there's the Mirror command where you click either on an end side and it mirrors it across, which in this case would be silly, or we go to Mirror, and mirror it across the center point and then it can flip. Now there is this other thing. Right now it's opening into the closet room. Let's just see if it now shows - yes, it says closet. So it's now thinking of itself as opening into the closet, therefore that's the location. But maybe that doesn't work in terms of the mechanics of having the door opening into this space and you want it to open out or it's appropriate for it to open out, but you still want it to be called "Closet". [0:23:12]



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There might be one other option, and that is the "Flip" here. You'll notice this flips the orientation of the door from the inside to the outside or from one side of the wall to the other. And now you can see the door is flipped, and let's see - no. It still says "Tall room" there. So that didn't do it. So flip is a convenient way to do a mirror and rotate in one go, but it did not affect how the zone - essentially it knows which way the zone stamp is. There's one other little thing here. This is the marker. We can move the marker around. There's another marker here, no, that's "Marker Offset". That just moves it from side to side; that's not it. [0:24:05]

Years ago, there was another little marker like this or little tab, and if you moved it from one side of the door to the other, it would change the zone that it was associated with. And it was a subtle control and it appears that there is no longer a control like that available. I'm going to finish up this section and we'll move on to some other parts that have to do with labeling elements automatically. [0:24:40]

So let's talk about what labels are about and what sort of data would be useful. Here is Label tool. I'm going to put a label arbitrarily in space. I will say, "Check with client." So here I'm just putting in an annotation that may or may not be printed on the construction drawings. On the other hand, the annotation may specifically refer to an element here, and we may want to have some information on it. So of course, this is a wall; but we might want to say that this is a wall with "Paint this red." I'm doing it very colloquially; you might have a paint color or some type of special construction or any other sort of note that refers to the element. [0:25:50]

Right now this text here is just sort of floating, pointing at it, but it's not really associated with the wall. The same way, I will put in an object here. Let's say I put this in, that's a cabinet. Let's just put in a piece of furniture here. I can label this piece of furniture and put a piece of text pointing at it. But we might want to in some cases have an inventory of furniture and indicate a certain code number for each piece. We might want to have a reference that you could look up that would be the ID. It would refer to a particular component that you're ordering. It could be all sorts of data that you might want to use for labeling it. [0:26:56]

If you wanted to label this automatically, you could select it and use this button that says "Label Elements". Now you'll notice that all of the sudden this funny looking arrow shows up, and it's not really doing any good, it's just sort of pointing there. If I select the arrow, you'll see that it's labeled with blank text. And I could go, if I go to the Arrow tool and double click this - how do we edit this text? If we go to the Label tool and click inside it, this allows us to call this "Chair" here. And you'll see this is the label. I could move this around, point at it, and of course I could move this over. [0:27:55]

So again, this is text pointing at this. But now this is associated. Remember, I didn't create it by clicking the label tool. I created it by selecting of the object and telling it that I want it to label it. In fact, if I uncheck it, the label goes away. If I check it again, it starts over there. It's a little bit different. Let me undo back, and now we have this label that is associated that at least has some useful information and is



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pointing in a reasonable way. What happens if I drag this element over? You can see the element moves and the label moves. [0:28:39]

If I delete the element they both go away. So they are now tied at the hip. This label is associated with the element. But I still have to manually type in some information, which of course in general where possible, we want to have it show information automatically. For example, what if we wanted it to show the ID of the chair? Maybe there is equipment or elements that we want to have an ID just like doors or windows have that. How do you put in an ID for a chair? Well it turns out it's the same as doors and windows. There's an ID here, and we can just call this "CH1" or something like that. Now by changing the ID, we didn't see the label change. [0:29:29]

But if I go into the object settings and we go down to the tags here, we will see here's the CH1. So I can put it in here or I could put it into the info box. The information is linked; it's the same field. But what if I wanted to show the ID in the label? This says "Label Object" and "Label Settings" is gray. So it's not really giving me much of a choice there for it. Let's look at the label settings now. Now I'm selecting the label - and by the way, when I hover over this to select it, you can see it's a preselecting or highlighting the label and the element it's pointing to. When I move away, you can see how the chair loses its highlight. [0:30:18]

When I hover over it and select it, you can see how it selects the label. The chair is not actually selected. But I can go into the label settings, and here you can see it says that it's labeling an object and then instead of being text I might actually put something like an object indicator. So that is showing - it's a little bit funny because it's upside down - but it is showing that CH1 that I typed in. Let's see if we go to this symbol label, here's the 180. Let's just turn it to zero, and you'll see that this now shows it upright. So I say OK. What you'll notice is that when I switched it, it changed it from a leader line pointing at it and plain text to symbolic framed information. So in other words, it's putting it with this lozenge shape on that. [0:31:17]

We go back in here. This object indicated there are some options here. In this case, this particular object indicator only has a standard shape. I think if you have more characters it would get wider, but you can't choose a circle or things like that. This can be moved around. So course, I could move it to a convenient position. You'll notice the pet palette indicates it's moving the node as opposed to moving the whole thing. So when I say "Move the node" that's one thing. If I say "Move the whole thing," you can see this other dot moved. So we don't really want to do that, because the dot, it's convenient for it to be in the middle of the object. [0:32:10]

Both of them will move the visual part, but moving this node would allow me to position the label and still leave the attachment point in a reasonable location. So right now, I experimented with manually placing a label. I experimented with placing a label associated with an element that was just text and I



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had to manually fill it in. And now I've looked at having a label that is associated with the object but it pulling some information from the object for a schedule perhaps. [0:32:48]

And I have changed the formatting. I chose what style of label it is. And you can see that there are some other styles. So for example, if I say dimension label here, it's going to give me the size of the element. So the chair has a certain size in length and width and height, and that's what it's reading off. Sometimes it's useful. Obviously it's not too useful in this case. Let's just go here and look at "Identifying Device Indicator". Here is another one. Remember that CH1 that I put in, here's a little triangle there. So that could be useful in some cases to do that. And there are probably some controls here for making this symbol label height 3/8". Let's just make this 1/8" there. [0:33:44]

And you can see now that triangle is going to be a smaller size on paper. So whatever you need there. So there are some options for that. Now I'm going to go back to the setting that I think might be generally useful here. Let's say we were to put in another element. Let's say put in an object, such as a bench, here. Now if I select this bench and I go and check the box to label it, you'll notice we get that pretty useless little arrow pointing at, in this case, the bottom left corner of the bounding box. So this bench goes from left to right a certain size and top to bottom. And this is pointing at the virtual corner that. So that's not very useful there. [0:34:39]

Well it turns out that under the Label tool, if you double click on it to open it up; you can set up the default settings for how it's going to label things. The most common thing is that you draw an independent label. You click on three points to determine where it's pointing at, where the elbow is, and where the text starts or where the line ends and the text is about to start and then you type in some text. So this is the text. If you're automatically labeling elements, for example, objects, you might want to use the object indicator. [0:35:18]

This one here. By doing that, now if I select this and say I'd like to label it, it's going to let me use the default settings for how we want to label objects. And here you can see this one that had the ID arbitrarily set as "Cab 03" is now showing up in this format. So that's actually very useful, and of course we can move it around and set the ID of this manually or using the element ID manager to organize our objects. This is now starting to become a useful tool for annotation for certain things. Now we're going to apply it in a variety of contexts. I'm wanted to show it in the simplest context where we are putting it on the plan, sort of like a door or window marker as well. [0:36:06]

I'm going to undo this here, and let's go back to the label settings and say we'll switch this to text again. Just to verify, if I change the default here and we go to the "Label Elements", we will get that thing again that's useless. What if I eyedrop this one? If you eyedrop something, you can pop in an element like that. Now when I eyedrop this, it switches to the Label tool. It switches to the Object Indicator. That means that even when I try to put in an independent label, it's going to try to put in the ID. Let's just see what happens when I do that. Let's say I was going to label this bottom wall here. [0:36:57]



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So I click a couple of points. What happened is I clicked to say it pointed at this thing. I created an elbow and it ignored the position here and just put the ID there. In fact, for free floating labels this is not as useful. If I go to the Label tool we will see that is the selected one here. If I go to the Label tool we will see that independent labels are now set to use this setting. It's probably not too useful for independent labels. So we're going to just put text, because for one thing the ID is not something that is going to be related to the element because it's independent. it's not attached to the wall or the object. So we'll put it back to text. We can't use the eyedropper for that purpose of setting up a favorite setting for how we're going to label these elements. [0:38:01]

So although there is a possibility that I'm missing some feature here, I believe that in order to set things up properly for this type of labeling, you would need to go and manually choose to label objects, label columns or something else, and you choose what the setting is going to be. I'm noticing that this is set to here. So let's just put it back. If I put this back to text here and we go in and say "Label it," we have the useless thing there. Now if I eyedrop this label here, and then we select this and say we want to label it, guess what? It did work. So I want to thank Tim Ball, who may be on the call. I was talking to him earlier today. He pointed out that you could eyedrop an associated label, and it would set up, in the Label tool, the default for this here. [0:39:13]

Now it did also change default for the independent label as well, so that's a little awkward. I would potentially need to go back to this or use a favorite to reset that. But this is a way that you could potentially have different favorites for different types of object labeling. There may be different styles for different types of elements that you're going to be using. So Tim, if you have any other comments from what I just did, feel free to type them into the box, but I will move on to showing some more applications of this labeling idea. [0:39:53]

Would I ever want to use this for windows and doors? Let's pop in a couple of windows here. You can see that the windows have this labeling element, but what is that? That is in fact the marker. So a marker and a label could be confused, because they both put annotation on a drawing with some text and maybe a diamond, circle or something like that. So they are similar, but the window and door markers are controlled in terms of visibility by the Model View Options. So if we go to the Document menu, Set Model View, Model View Options, in construction documents, the model view options standard is to show the markers whereas when we are doing a reflected ceiling plan we don't show the markers. In fact, we're not even showing the door or window. In a presentation plan, we might show the doors and windows but not have the markers. [0:40:58]

So each of these model view options can be somewhat different and control the visibility of the markers. So for example, on the fly, if I switch the model view option to "Presentation", you will see how it now is just doing is simple version of the walls and doors and windows and the markers disappear. But the labels of course didn't disappear there. So I will put it back to "Construction Documents". How do we



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hide these labels? It turns out, each of these labels is on a layer; furniture or whatever you choose to put it on. So in fact, in order to hide that - well of course the chair is on the furniture layer here.

Let's select the two labels here. I'm going to change them to "Annotation Notes" or something like that. So now, if I go to the layer settings and I turn off the "Annotation Notes", of course those labels go away, but the elements themselves stay there. One difference is that labels, while they are associated with the element and you could literally put in a label for a door or window that was very similar using the Label tool, they would be controlled by layers. So you could technically do that on the floor plan. You could say that for any particular drawing, you could have a layer combination that would turn off the dimension marker when you don't want to see it and turn it on just by using layers; that would work just fine. [0:42:42]

But we do have to separate control called the Model View Options that gives us that control. Note here that Window 1 and Window 2 - and let's take a south elevation that will look on that side here. What if we wanted to label these windows and doors in the elevation? It turns out the dimension marker is not usable here, but the labels are. So if I go to the Window tool and I say that I would like to label it, we are going to see there's that funny arrow not doing much. Let's just undo that change there. Let's go into the label settings and say when we are labeling windows, which we might very well want to do in an elevation, we are going to change it from "text" to "window marker". [0:43:37]

There's a couple here in the U.S. library and I'm sure it's similar in the international. Do we want a circle, do we want this one? Let's do this one that has the number there. Let's look under "Symbol label" and "Options". There's a polygon shape. If we want to have it look similar to what was shown on the floor plan we could make it a rectangle. And it actually is rotated nicely here, that's good. Alright, let's just say that that's how we want windows to be done when the label them. So now I select the window, and go in here and say "Label it." It's showing a number. We go back to the floor plan, yes that is Window 1. [0:44:20]

Okay, let's go back to this elevation here. Well, what about this, what if we label this one? Let's say Window 2, drum roll please. No, it says "Label Elements 1". No, it did not. Why is that? Well, it turns out that this - actually let's just select it here. These label settings for the symbol label are set up to "Show ID: Off". What does that mean? It's not going to show the ID of the window, it's going to put in a number one. Well, that's not really what we want in this case. I want to say "Show the ID". And here is "W02". Oh, that's what we want. And of course I would want it for this one as well. Now let's see if we can eyedrop this. I'm going to eyedrop this and then inject it with the syringe. [0:45:13]

It took the settings, but of course this is associated with the window, so the window has a different ID. So now the settings are loaded in there. Let's go to the Label tool, and you'll notice that when I eyedropped it, it changed the independent label to "Label Window Marker", that's a very funny thing. I don't really want that. But for the Window tool itself, the setting has been updated to say - no. it has



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not been updated. So there we have an issue where it did not pull that information in. So when I eyedropped it, it didn't pick that up. So something is not quite working the way I want. I want to say show ID here. So the next time I put in a window or door, it will show the ID. [0:46:01]

Now also this is rather large, so let me try taking it - let me lock this so it stays proportioned. I'll take it down to half that size and perhaps the text here needs to be changed. Now let's go into the text settings and say the font size, this information here is technically the detail information within. So you can see where it says "Detail Identification". This is where we set this. I'm going to make it 4pts. In international usage, it would be millimeters for the size of the text. But this is where we would set that to make it fit. So we're making the symbol smaller and the text smaller. [0:46:45]

And what if I were to select these and unlabel them? So I will uncheck then check them again. And now that's much more reasonable. Of course, we might want those to be setup on top of the window or beside the window, so we can manually do that. Now let's see if there is a setting for the offset, because after all, this is a certain distance away. Maybe we can say don't have it that far off. Let's go to the Window tool here to the symbol label. And here's marker distance. It's 5 feet. That means it's going to put the marker 5 feet below the bottom left corner. In this particular case, that's not very useful. Let's just say zero, and that will put the top of it right at the corner and that makes it a little easier to find. [0:47:40]

Now there is an option for an extension line link. That would point from the element towards the window. We could do that, but I think in general this is going to be as simplest. There may be some other options you may want to do here, but let's just try that. I will say OK. So now what happens if I select these two and unlabel them here? So unlabel and label. And now you can see there, it put these markers right in the ballpark of where we wanted them to be. I will select this marker and move it in, select this marker and move it in. So that now starts to become a very usable thing. [0:48:30]

If I go back to the floor plan and we change the ID of this here, we will change the ID to "Window 15". Then we go back to the elevation, we are going to see it has that automatically. So this is the way that you would label windows and doors in an elevation. And then while going through your project, you can literally go to each elevation, select all windows and check the box to label them, and they will have labels that you can then quickly move into position. Select all doors, label them, etc. That is the basics of automatically labeling elements. You are essentially going to be defining in the label tool for each type of element that you want to label, whether it's an object, window or door would be the ones that we have covered today, or possibly some other things here. [0:49:37]

And you would choose what type of label you want and what settings you want. Now there is a new label that was just created in ArchiCAD 18 by Graphisoft that's very powerful because it can label more information in general. It is called the Generic label. Now in order to use it, we may want to use it for something like a structural element like a slab. But let's just see. I'm going to say that the slab, we're



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going to use the Generic label. You'll notice that the preview indicates that it's going to show the ID, the dimension, the volume and the surface. So it's going to do some calculations here. But it turns out this generic label has a lot of different options for what is going to be in here. [0:50:28]

You'll notice it says "ID and Geometry Data" and "Empty Row". When I press down here we can go and pick from a bunch of things here including tagging there. Now I haven't really played around with this much, so I just want to open your eyes to this possibility that it could be used. Let's see how we would apply it. I will say for slabs, if we label it automatically what we would want. Let's go create a slab because I don't have one. So we will create a slab. And let's just put in maybe something more complex in terms of composite. [0:51:04]

Here is "Floor 2x12". That's fine for now. I will go and draw a box underneath this. I will select it and then use the "Label Elements," and you can see now there's some information. The ID is "S01" is the first slab I put in. its thickness is 1'1" thick, so roughly 300 mm. It has a certain volume and certain surface. This is now reporting on it. If I were to take this slab and maybe we had a little bit of an extension or something like that, you can see how that updated instantly. I will undo it, and keep your eye on this; you can see how it's giving me that information. [0:51:51]

So that would be a simple calculation that you could be displaying. The actual label, remember, is an element that is on a layer that you can turn on or off. It is associated with the slab as you saw. And I can move it around. So I can go and say I want to move it to a convenient location, even potentially off screen or off to the side. Or you could tabulate a number of things together. So this opens up a whole area where you can get a lot of information about your model automatically. I know Tim Ball has been talking to me about some of the ways that this can display information and how you can put in information that will actually relate to specifications. It can be transmitted downstream if you were to share your project with a consultant so that they have all the data that you have put into the project. [0:52:55]

I think one of the things we didn't cover would be how would we do a wall label? If I think about what people have asked me about in terms of labeling walls, there are two generic types of things. One would be a wall ID. In other words, this is wall type 1, 2, 3 or A, B, C or whatever code. And the other is a listing or some information about what each component is made of. Let's select this, and if I say that I want to label it, notice that the wall label is showing some rather odd things here. If I select that label, let's see what it's set up as. [0:53:53]

So it's set up as a Structure label here. I didn't pay much attention, but I guess the Wall tool was already set up to use that. So what is the Structure label going to give us? It's going to give us information about the skin list. So right now the skin is generic exterior material, because it's not a composite. It's going to be a basic label as opposed to separated, so that will be a style. It's going to organize it by building material name and orient it a certain way. And the custom head content, the D1, was just



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arbitrarily put in here. I would want this to ideally have something to do with the ID of the wall, and I'm not seeing the option there. [0:54:44]

Let's see what happens if I change the wall from a simple generic exterior material to a composite here. As soon as I select composite, it has a particular composite as the default. All of the sudden that label starts to indicate each composite skin and each thickness there. Now I know that we can change the formatting, we can move this around. So I think if I use the option here, I can drag it over. There are some hot spots that you can drag the positions of these things. It looks like we may be - this is "Line Extension Length" here. I'm trying to see how we would get this to flip to the other side. This is "Lists Test Bottom Distance Model". It doesn't let me do that. If I go into the settings, we may be able to flip it or choose the dimensions here. That "Text Bottom Distance" has to be zero. Interesting, I wonder how we would flip it to the other side. That is not something I've had experience with, but I'm sure there's a way to do that. [0:56:13]

So this would be another set of information. There are going to be some controls. For example, we can choose whether we're going to have a marker head or not. So now this would disappear. We can choose whether this is a skin list or just the name of the composite. So now this is just going to show the name and the ID here. So let's just say OK. This is another option here that could be used. I'm not going to examine every option or try to make a decision as to what would make sense for me as a designer, because I'm not actually producing drawings, but hopefully this gives you enough to go on for knowing how you can label elements automatically, get information displayed from their settings whether it's the type of wall or the ID number of the door or window or object. [0:57:24]

Or the measurements. For example of a slab, all of these things are options for labeling. They can automatically provide additional information on your drawings. Colin says, "Try a negative number." I think it had a thing saying positive numbers only. I will go in here to the dimensions. "Text Bottom Distance", this guide says "zero, less than, or equal to". I will try putting a negative in front of it. And we'll see it then just flip it to zero. This one also, there are some things here. So I don't see a line extension length. This again also says minimum zero. So unfortunately we can't do it. In general with dimensions, there are often going to be some limits that the programmer had put in saying it doesn't make sense to allow something to be too small or too large or negative. [0:58:33]

Sometimes of course it may allow something to be negative or allow something to be flat or mirrored. So "Symbol Label" here, we may have something that - general settings, show units, label orientation dimensions here. These are other ways of putting in the same information. Flip label. Alright, there we go. To so there's the flip label. You can't put in a negative number but you can look carefully for that. Now why didn't they put the flip label in the same place as the dimensions where I was looking? It would be natural to say, hey, if you want to change the offset, maybe you might want to think about putting it to the other side. Let's put the flip button there. But they didn't put it there, I had to look further. [0:59:24]



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Colin says, "That can work with door dimension label info as well." So in terms of flipping. Roger asked, "Can you get area and volume of the wall components?" Let's see. If I select this wall here and we go in, let me just label this here. And now we select this label and say instead of using the structure label, let's use the generic label. And let's see what it pulls up. Alright, here is the volume and the surface. So there may be some other things that we can do in terms of geometry data, show dimensions, show length is on. So I'm not seeing show length. Dimensions. Okay, that was the dimension length. 30' 7 1/4" long. That is how long it is, 8 inches thick and 10 feet high. So yes, it is showing that and of course it has volume and surface. Surface I am assuming is probably both sides, as opposed to one side.

[1:00:40]

So there are some options that you can do. It's certainly possible that there may be more information that you can pull out. The labeling area is something that Graphisoft continues to add more features to. The data derived from the ArchiCAD model continues to be developed as the tools for that. Tim has been helping me to understand some of the potential of why that's going to be so important down the line as we work more in conjunction with consultants and use the data more actively. And in fact, at least in principle, we can now start getting the specifications of the project. The text that you would put into a specifications report can actually be tied in directly to the components that you are building with. Ultimately, that may simplify and speed it up and certainly reduce issues with coordination and communication of the information. [1:01:53]

Okay, let's see if there any other questions or comments on this topic of labeling elements automatically. Tim, anything else that I missed here that you think would be appropriate for this basic and slightly intermediate level, let me know.

Tim, you did have a question from just five minutes ago. "Sometimes I get a label with no arrow. What determines that?" Good question and an important one to recognize. Here is a label. Notice that the handle or the other dot here is in the bottom left corner. That is in the bounding box corner, the virtual corner of it. But of course there's no arrow around here, and if I do move this around, there is no arrow. Now do we want an arrow? Sometimes you do. In this case I don't think we need it, but sometimes we do. If I go in here to the Label tool, there's an option, if we are using one of these symbolic labels here, symbols essentially, there's an option to use the symbol arrow. [1:03:22]

This symbol label, called Object Indicator, does not include an arrow. It is set up to avoid that. But if I say don't use the symbol arrow, it's a little counter intuitive, it's going to use the native arrow. So what is the native arrow? There it is. I actually had two of these selected, so if affected that one there. You can see now it's showing this arrow. So of course I can move this, I can use the option to move it around. And now this arrow can be repositioned just like you would expect a normal text label to be. So you can do that. Basically, in order to get that to happen, you would say you're using a symbolic label like these ones down here. You're saying, "Don't use the arrow that is associated with the symbol, use the standard symbol arrow." [1:04:27]



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So that turns it on and off. And there's something for the color, that's the pen that would control that. By the way, I didn't look at this. There is "Text ID" and "Unique ID". Text, remember, is just going to be arbitrary. In other words, I have to type that in. Let me undo that. There's a simple one that just says "Show ID". And remember this is "Cab 03". Let me just change this to "EQ-01". So I am just changing this here. Now I'm changing the ID of this element, and the label was set to show the ID here. Another thing is the unique ID. The unique ID is not too useful for most people, but it would be some code, you can see some rather long code that is internal to the object. And there probably is some case where some people would need that information to be displayed. But I can't think of any architectural use for that. [1:05:29]

So the ID certainly is a quick way. You have no formatting like putting in a lozenge shape there, but if you do choose the ID, you actually do have the style. You could say I want a frame around it there. You can make it opaque. So that way it now has a frame. Let me just drag this over there. If it was over on the top of things you could do that. So that would be a simple way just to say instead of arbitrary text or a real symbol, you could just say "Give me the ID" and then choose the general formatting. So Tim, does that answer your question? I'm not sure if you're still on the line. Did that answer your question about the label with no arrow? [1:06:21]

He says, "Yes, that's great." Okay, good. So I think this is a good point to finish up. I don't see any other questions typed in. So please add your comments and questions to the page down below the recorded video. This is been Eric Bobrow, thanks for watching.

[END OF AUDIO 1:06:45]