



BEST PRACTICES COURSE – WEEK 25 Schedules, Quantities and Data - Part 1 - Interactive Schedules and Basic Usage

Welcome everyone to the Best Practices course ArchiCAD training lesson. Today we'll be looking at week 25, project data. We're going to be looking at interactive schedules and we'll be starting with some basic usage. Over the coming few lesson sessions, we're going to be looking at some additional options. And eventually as part of this we'll be looking at some basic quantity takeoffs. So right now we're focusing on schedules or lists of elements. and just so you know, interactive schedules list things in your project, like windows, doors, equipment etc. Whereas indexes list parts of your project documentation, such as the sheets. So they are similar in that they are lists, but schedules are for things and indexes are for sheets and drawings things like that. [0:01:07]

There's another part that is sort of similar in ArchiCAD which are called "lists" instead of schedules where you can do other types of listing of data. That typically gets into things that are more like components, like how much drywall you have or how many studs. So let's take a look in a standard project here. First of all, I will just draw a very basic shape. And we'll pop in a couple of windows here. There are two windows. As I put them in, we have this set up for the window tags, the window dimension markers, to show. And there's a preference that says to increase the numbering of the ID for each one of these. [0:02:08]

That, as a quick explanation, if I go under Options, Work Environment, it might be under More Options here. "Assign new element ID to each new element." So if that is checked off, then as you keep clicking it will just keep adding to it. Typically these are going to need to reorganize anyway, because most of the time you not going to put in your windows, let's say, going around the building in one direction. You're going to put them in at convenient points in your design process. So the numbers are going to be a little bit scrambled. So typically you'll go afterwards and renumber them. But it is sort of convenient to have them with different numbers to begin with; and that is why they do this. [0:02:56]

Anyway, that is something that you can turn on or off. If you have that unchecked then it will keep putting in things with the same number. And that is sometimes very good, because you can draw walls all with the same ID. If you wanted to have walls marked out of a certain wall type or even certain window types, then it would keep the ID number, it wouldn't increment it. So that's a nice little thing to know about. Alright, now we have two windows. They are obviously identical in size. Let's see what happens when we open up the schedule for windows. [0:03:31]

So in the project map, we have our stories, sections, and elevations, all the various drawing we are used to. And then we have a section called "Schedules". We're going to be looking today at the "Element Schedules". And here is the "Window Schedule". Now each project file will have some schedules defined based on the template that it started from. You can create new schedules at any time. And your



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project template or your office template can have a lot of different schedule types built in. for example, in MasterTemplate we have about fifteen different schedule types including appliances and room finish schedules and things like that. [0:04:12]

So this one, based on the U.S. template of ArchiCAD, just has four: doors, windows, door types, which would be pictures of doors - like whether they are solid panel or have glazing and things like that - and then F&E or furniture and equipment schedule. They have that is an option. When I double click on this in the project map, it will open up a separate window here. And this you can see exists in the same environment just as a separate window. We can resize it if need be. When we're looking at this schedule we can enlarge it. There's a little zoom control here, so we can actually make it bigger, easier to read, by pressing down here and choosing say 150%. Or this option "fit width", you can see how the current width of this schedule now fits this out. [0:05:09]

So it's an odd percentage, 188% here happens to fit this. If you have more columns then of course that would vary in terms of what percentage. Now this is a tabular schedule, so it's pretty much like a spreadsheet. In earlier versions of ArchiCAD, maybe before version 12 or 13, the ability to move around through it was a bit more limited. But at a certain point they allowed you to go click in something and then hit the Tab key or hit the right - you can see that as I am hitting the Tab key, it's highlighting different locations. I'm going to use the Shift+Tab and it will take me back. So I'm just hitting Shift+Tab on the keyboard, and you can see how it's highlighting going backwards or Tab goes forward. [0:06:08]

And if I hit Enter, it will go up to the next one or Shift+Enter I guess is going up. So much like in a spreadsheet, you can click into a cell and possibly edit it, and then you can go into another cell. In more recent versions of ArchiCAD, maybe not in version 10 or 11 or 12, but at some point they made that a little nicer so you don't have to keep clicking. You can use the Tab or Enter key to do that. Now what you'll see is here are the two windows that are listed. Right now it's listing width and height. And there is a text field called "Type". So you might say that's casement or awning or double glazed or something like that. It's up to you what you want to put in there. [0:06:56]

There's also the word "Material" up here and it's referring to the metal aluminium - not aluminum but aluminium. Notice there's a little popup next to it and I can press down. And this is actually choosing, in this case, from the surfaces. Now before ArchiCAD 17, these were called materials. Since ArchiCAD 17, and now we're in 18, these are surfaces. They actually are the appearance of it, not necessarily what it's made of. So in other words, if it's painted white, that's what we're talking about, whether it's made of vinyl or aluminum or wood, this is what it looks like. So it's not really the material. It's really the finish in this case. [0:07:42]

Now we can have schedules with text that indicates what it's made of, whether it's wood or aluminum or vinyl. So that would be the actual material. Right now, this is maybe misleading because it should be the finish. Now this is a popup, this one says "Type". if I type in "Awning" - I don't know what type of



window it is, but I can type that in. You can see that's text. And notes can be here, so I will just do "special order" or any text that I want to put in there. And when I click outside of this, outside of the cell, then it shows normal like the other things. And you can't see which is a popup and which is just plain text. But when you click inside of it, you can see things that are popups. [0:08:29]

So it listed the two windows that were originally totally identical. Now I've put in some text information that makes them somewhat different. at least I don't have the same information in both of those. Now if I wanted to change what a column has on it, I can click in here and the heading can be changed. So let me change this to "Finish" and then click outside it. And you can see that it changes that instantly. So it's very easy to change that. We could even change this from window schedule to window listing or some other thing. now obviously this is bolder and bigger text than the other stuff. If I click in this top part, you'll see that it highlights the header here, and it has some options for the size of the row and the size of the text. [0:09:30]

If I click in one of the lines related to an item, you can see that it says "Apply format options to value". So you can see that there are these different things. The entire header, schedule, value, total, grand total or preview. So these are different component parts of it. Right now we pretty much have just the header and the values. In some cases we may have totals, like how many windows of a certain type or grand totals where it's totaling up maybe three windows of this type and five of the other type. And a grand total of eight. The preview would be something related to an image of the window or door or other elements, and we'll be exploring those shortly. [0:10:15]

But right now, if I were to change say the color here, let me just make this red and then click outside, what's going to happen is all of the value items became red here. So the formatting is, just in terms of a basic introduction, somewhat intuitive. You just click, and then you can adjust the formatting for those things. If I click in the header here and say I want this to be a little bigger, let me make it 10 pt instead of 9, you'll see it gets bigger. But you may notice that the header actually applied to both the overall header and the individual parts, which is a little bit frustrating because I might want to make the title header bigger and not these. That's not something that they allow you to control separately. [0:11:06]

Now if I did make it this big, you'll notice that the word "height" here is now getting cut off. I can change the width of the column by just grabbing it. I can move my cursor to the top here and move it over a little bit and you can see how it's widened that column to suit my needs. Now you'll notice that width and height are underneath a merged header called "Size". Let's just look at how you can, if you wanted to, reformat this. So let's type in "Finish" would be something that maybe it should be a header, or have a combined top above it. I click in "Type", and hold down the Shift key and click in "Finish", and you'll see "Type" becomes highlighted with a background, and "Finish", now I could edit the text. But having selected these two, I can go up to the text up above that says header "Header Options" and say "Insert header cell above". [0:12:09]



And you can see now it has the word "Merged", which is a funny thing. But it basically is saying that this cell here is merged between the two columns. And if I click in it, guess what? I can say whatever text I want, information here perhaps, just whatever you would prefer. Now if I wanted to combine these two headers here and add another one, we can even go ahead and add another one. And you can see how it will stack this up. "Super header" I will just call it, just to show that. If we decide we don't want that header, we can click in it and then there's an option to delete the selected cell. And in this case it will just bring everything up and remove that row here. [0:13:02]

So now it's back here, and maybe I'll take this one out and again delete the selected cell there. So there are some options here under "Header Options". You'll notice it says "Hide main header" or "hide column headers". If I choose "Hide main header", then this is what it will look like. And I could put it down on a drawing sheet and put in just separate text to make the header or even have the title underneath it, just like a common drawing where it will have a name underneath possibly with a number indicating what number drawing it is on the sheet. So we can hide the overall one. [0:13:45]

We can and also hide the column headers. What this allows you to do is potentially put this and maybe make even the headers vertical. In other words, maybe we can narrow this down now to something narrower and have width and height spelled out going vertically if we put that in manually. So we can hide those. Some of these options may have been added in more recent versions of ArchiCAD, so it's possible you might not have it if you're in an older version there. So I will just say "Show column headers" so we can see this better. You can see now these have little dots here. Let me make them wider. I can double click. If I double click, it will go out as wide as it needs to show the content. So that's similar to Excel or other spreadsheet programs. [0:14:37]

Now the ID here, again anything that you wanted to change in terms of the labeling, we could say "mark" or something like that, whatever we wanted to call that. This is the basics of some formatting that we have. There are some options for controlling whether there are lines in between or what types of lines. If I click on this one, you can see I'm in the header, and it's actually removed the lines. That's probably not so good. Here we just have horizontal dividers. Here we have the whole group. So that is probably good there. Let me just click in here, and what if we turned these off? So now you can see that by clicking in one of the cells and then turning it off, we can have a different look. [0:15:28]

So this may be something that you find useful or if you do have the lines, you can choose what pen it's going to be. And obviously, in this case, a thin pen would be appropriate to just provide a grid without distracting with heavy lines separating. And you could even make things dashed instead of solid if you wanted. Now "Footer settings, when you put this onto a sheet, and this will be typically placed onto a layout sheet, you can put in some information. For example, you could have the date. and you can see how it filled in some stuff here. Let me just make this a little bigger so we can read it. You can see the text is starting to show up there. We can have the time. So these things could be put in. And notice that there's right, center or left alignment. So you can choose this. [0:16:24]



If you were to have a schedule for a very large project that went onto multiple sheets, you can even have it show the page number and the total pages and the project name, things like that. So these things can go in there, and I guess you can move them around. So if you wanted let's say the time before the date, you could grab this. And see how it repositioned. So you grab it with the little double arrows, and that will move these things around. Obviously, you have choices of fonts and sizes. This is the size of the row, and the second one is the size of the text. In the U.S. it would be specified in points, and in international usage it would be millimeters. [0:17:08]

The font pen, just like all fonts in ArchiCAD, you can make it in color if you wish. It will not affect the thickness of the text. So unlike lines, which are going to have different thicknesses based on which pen you use, it will use the font itself to determine the thickness. And that will just give you a color, whether it's a light gray or solid black or some color there. So that now is set up for the footer there. Let's just take a look at how this schedule gets placed onto a sheet, because I've just played around a little bit with the basic formatting. I'm going to go to a sheet here and let's go to the first floor plan. Of course there's only just the little drawing that I put there. [0:17:59]

How would I place the schedule on a sheet? Well I need to drag onto the sheet a view of that schedule. You'll notice that here is the view map. There is the window schedule, and there was already a predefined view. So this points to the element schedule called "Window Schedule". These are individual views, so in the template, just like when you create a view of an elevation or a plan of a certain type, this is a view with certain settings. And if I drag this onto the sheet here, here's our window schedule. And it has this extra text here, which is probably not necessary to do that. When I select the title, you can see it selects the drawing as well; the drawing being the schedule. [0:18:58]

And I can go in and say for this purpose I don't really need it to have a drawing title. So I can say "No title". And now it will look like this. If I did want to have the title that was integrated into it then I could go and open the source view. This will take me back to where I was editing it just a minute ago. And I can go to the header options and say "Show main header". So if I like that, here is the window schedule. And now when I go back to the sheet, as soon as it updates, you can see how it shows. Now it's green right now, because I selected it. If I click outside it or hit the Escape key, then this is what it might print like. [0:19:37]

So it works very similarly to any other view. It does have a scale. So when I place this onto the sheet, you can see right now it is set at 100% scale of 1 to 1. So 1 foot equals 1 foot. Literally the paper size that we were specifying is what you're going to get on the sheet. So here I am looking at the big sheet, and the certain text size I told it to be, and that is what we would get. So this is 1 to 1, and of course the building is at quarter inch scale or 1 to 50 or whatever is appropriate. So that is the basics. Let's see what happens if we go and add another window to the project and change the size of one of the windows. [0:20:26]



So I will go and maybe open up the floor plan; open the source view here. I will go and eyedrop this window and put in a window 3. And in this case, when I eyedropped it picked up the number. That is an option you can choose when you eyedrop whether it will pick that up or not. Let me just stretch this and give it a nice even number 5 feet wide here. And now if I go back to that sheet here, as soon as it updates, now we see there is the new one. Which is interesting, I made it 5 feet wide, but I guess it had some tolerance or shim space making the width showing the unit size being that. Also the ID number right now is duplicating it there. [0:21:19]

So the most important thing to realize is that this is automatic it will show everything that you place into the model. And that, of course, is a nice convenience and reduces errors. Now let's look at some of the basic ways that we would number things in order to get them in sequence. We can select this and go, with it selected, and change the window ID. Let's just change it to number 11 just to be arbitrary here. And you can see as soon as I change it here, a second later it changes on the plan. We can't click and type in here; that might be nice but it goes to the info box. If I go to this one, of course I can change that to window 12 or something. So we can manually number them one by one. [0:22:13]

Now there is a shortcut for numbering these things in a sequence. So if I go ahead and with the Window tool just pop in some more windows, you see now they're all in an odd numbering. One thing that you may do after you are done or after your project is well developed and you want to start getting out a window schedule is you may want to renumber them in some sensible way. So let's just say I wanted to number them going clockwise from number 4 or whatever number. Maybe I will start this with number 1. So I will select this, and it selects each one of them in turn. So what I'm doing is selecting a bunch of these windows and I'm doing them one at a time in the order that I'd like ArchiCAD to number them. [0:23:08]

When I do that, I can go and use under the Document menu, an option under Schedules and Lists, to work with the element IDs using the element ID manager. When I select that, you'll see that it says we are working with the current things. It doesn't allow me to change those settings here, but the element type is window. I guess you can do some presets that determine how certain things are numbered. But with windows, it says do we want to set the same ID by criteria? In other words, if several windows are the same size and type, should they all be called window A and window B? Or possibly window 3 or 4? Or do we want a unique one for each element? [0:23:59]

Let's start out with the simple case where we want to number them uniquely. And let's look at the ID format and say how do we want this to be done? Well here it says the W-03. Let's just follow that. We will say that we want to have a text of just one character, W, and then the counter. Let's say we don't need three digits, we only need two. You can see it will update here. And let's say that we're going to be starting with number 1 here. So I have now set up a format - and let's see "not used". So I will make these "not used". I just set up an ID format for windows. It says that there are five windows that are editable. It has a format. And when I say "Change IDs" it says we now have a 1, 2, 3, 4, 5. [0:24:50]



Remember I did have a 4, 3, 1, 12 and 11 or something. I will say OK. And now you can see here is the 1, 2, 3, 4, 5, so it numbered them in sequence. Now let's just say what if for some reason I was wanting to number these three in a different order or start them. We're on the second floor or the upper floor. And I want to start them with window 12. What I would do is select them and the order that I want. In this case I went from left to right. Go to the Document, Schedules and Lists, Element ID Manager. And go ahead and say the ID format is still remembered, but I am going to say that I want to start it at 15 here. [0:25:36]

So I have that. I'm going to say "Change the IDs". And now we have 15, 16, 17. Say OK, and you can see here is 15, 16, 17. So the formatting is flexible if you wanted to have it W -, you could do that. If you didn't want to have the W and just wanted to number them 1, 2, 3, you can do that. I think you can do it also alphabetically, so A, B, C and it will follow your lead with that. And as you saw, I can start it with any number that I wish. Now if we go back to the window schedule, I'm sure there's no big surprise, there's now these numbers. And remember, I did have them organized 1 through 5 but now I've renumbered three of them with 15, 16, 17. So there they are showing up. [0:26:25]

Now some of these are identical. So I just left the settings the same, and aside from the fact that this one has some text, it's the same. Let's just see if we could combine them if we want to list them together. There are two different questions here. Are we going to list them in the schedule together and are we going to number them with the same number? So actually, let's go back to the floor plan. I will select all the windows for now to do a different variation. I will select all the windows by going to the Window tool and do Command+A or Ctrl+A. We'll go to the Schedules and Lists, Element ID Manager. [0:27:10]

And I'm going to say let's set the same ID by criteria, meaning that they are the same window type, we are just going to number them the same. In order to do that, we have to define the criteria. That means how similar do they have to be? Well certainly in most cases, I would say that the width and height would be important. So where are those? Here is width, add that, and height. Then maybe the library part name, that means that if it's a casement window it will group with other casement windows. If it's an awning it will group with those. So if they use the same part in ArchiCAD, that would be a good criteria for them being identical. [0:27:53]

Now there are other options here including I think there may be some things about the number of glazing. Here is the transom height, the height of the division, number of sashes. So there are some things you could experiment with, but the most basic is, are they the same size and type of window? So set same ID by criteria. The formatting here, let's just start with number 01. And let's just change the IDs. It says there are four that are identical and one that is different. We'll say OK. So you can see now that the four that were the smaller window are now grouped or have the same number and this one is different. [0:28:39]



Let's go now to our schedule here. And you can see that it is actually showing the number 1 here, two of them. It's showing the windows that have no notes and the windows that do have notes where I added a note separately, and then of course window 2. Let's see how we can control that. I'm going to open up the source view here which takes me quickly to that schedule. And you'll notice that there is this "Merge uniform items". I hadn't highlighted that before, but if I uncheck this we can see here are all of our separate little things here in terms of the windows with the same marker. [0:29:25]

Now if we do merge them, then one of the things we might want to do is instead of having just one item listed, we might want to have a quantity listed and say how many. So let's go to the scheme settings. Scheme settings allows you to control which columns or fields of information are included in the schedule. So if I go to scheme settings, we're in the window schedule. there is criteria and fields. We'll look at them separately. The first thing is, "Which elements meet the criteria?" So if we open this up a little wider, it's going to list anything that is considered a window type as long as it is not an empty window. So this is a very basic setting in the standard U.S. template. [0:30:17]

"All window types" means that it would probably include corner windows. I'm not sure, but it might include things in a curtain wall that are called a window as opposed to just a panel; things like that. We can press down here, and you'll see there is "All window types" and then separately there's just "Window". So if you didn't want to have it more general then you could be more specific there. The library part name is not, and you can type in something here. There are other criteria that we can use which we'll explore in a later session such as, I only want to list windows if they're new, I don't want to list the existing windows because this is a remodel project and we don't need a listing of the existing ones that are remaining. [0:31:06]

Alright, so this is the criteria. Now if I happen to click on door schedule, you'll notice that it says it's going to list doors. And if I look at F&E schedule, it's going to be object types. And interestingly, even though this is the standard template that Graphisoft supplies, it says it's only going to list the objects on a certain layer. And that layer that the schedule was defined on is missing. So they actually have a schedule in the standard template that is broken, because it won't list any objects here because the layer that it's looking for is missing. So that's one of these things that happens with templates is certain changes are made and not everything gets reconciled. [0:31:51]

But let's go back to the window schedule that we were looking at and go down to fields. So what are fields? Fields refer to the column. If I move this over to the side here, you can see here is the ID which I have renamed as "Mark". Width and height obviously are in place. "User defined 1", what is that? That is a text field. So you can see the little A, B, C. I can type in anything I want, like awning or whatever I want here, "Fixed". Frame material is the material. It that has a little symbol of the popup of the surfaces. And that is next. And "Note remarks" is also a text field. So that's what these columns are. You can see how they work. [0:32:38]



Let's see if we can add a new one from the available parameters. So we're going to work with some of the basic options here and then later we'll go into some more advanced ones. So in general, we have a number of things we can add to a schedule when we are listing things. If I scroll down, we will see one of them that says "Quantity". So I just grab and drag this over to the side; you see it shows up here. I dragged it to the lower section of this area and it dropped in below everything else. I can also just go to the little up and down arrows on the left and it will move it up. You can see as I do that, it's now up in the first position. So I could do it that way or maybe I could put in the second position. So we'll see the ID and the quantity. [0:33:29]

Now I have now defined a new field. And I could get other things in here, but let's just do a very simple thing. I will say OK, and you can see the schedule now has an extra column. And it has the word "Quantity". Maybe I don't really want quantity. Maybe I want to abbreviate it as "NO." and maybe I want this to be a little narrower. Now we can see that there are three of this type. One of that, etc. You will notice that this text is lined on the left side. If I click in here, so I'm actually highlighting this, I could go and change the formatting, just like we were changing size or other things like that. I could say this particular column, I am going to align center. [0:34:19]

I've noticed that in some cases when you're editing, it will put it to the left while you're working and then when you click outside of it, it will get centered or move around. So be aware that you may not see the alignment while you are working in it until after you click outside. So now you can see I have a schedule with a different style. It's numbering things and giving identical elements the same number. And then it is telling us how many there are. Now when we use the automatic numbering for the Element ID Manager, I said we can classify these windows. 01 is the same if they are the same width, height, and same library part name, whatever that window type was. [0:35:13]

But obviously in the schedule it says these are different because some of the fields are different. There is something entered into the notes here. Now if we were to put in the same information, like "Awning" here and exactly the same information here and click, and we were to refresh this - because I think that's all the stuff that's in there. If you go to View, Refresh, Rebuild, now it's updated. So normally when we bring up the schedule, it will rebuild it to show the current state of the model. Because I was in this view, I had to use the View menu, Refresh, Rebuild to get it to clean up. [0:36:00]

So now all of these indicate this information. Now the information that we put in here, like "Awning" or "Special order" is something that we can see if we select the element on the floor plan. First of all, let's highlight this, and you'll see that there's a button up at the top that says "Select on floor plan". So when I click on that, you can see that it zoomed the view a little bit. It highlighted the four elements that were referenced there. Of course if it was only one element it would have highlighted just the one element. If I go into the window settings, we're going to see here's our window. Here is what it looks like in 3D. And if we go down to parameters for listing, we will see some information. [0:36:58]



Here is the word "Awning" that I put in. so that's something that I had put in the schedule, but it's available here. If I change something here then it will show up in the schedule. But not all of these fields are in the schedule. we only have a couple of text fields. This happens to be one of them. And remember it didn't say type, it just said "User defined 1". So this is a general purpose field that we can use for whatever we want. In this schedule, this position in the window settings is going to show up in the schedule as the type of window. It's actually not an awning; it's a double-hung. Let's change that. I'm correcting the error here, where I can see what type of window it is. I will say OK. And if I go back to the schedule, we will see now it says "Double-hung". [0:37:53]

And I can make this a little wider. So this is obviously going two way. Whatever I put in here will show up in the library part, and whatever I change in the library part will show up here. Now this special order, we didn't see that text there. So let's go and click here to highlight it, click on "Select on the plan". We're going to have the same option here. I'm not sure why it zoomed out and didn't show me that, but we did select these. And let's go into the window. Now the parameters for listing here is under the custom settings tab. You'll see that here is the graphic settings that we have for the size and the sash and things like that. [0:38:44]

These are things that before ArchiCAD 18 it would say something like the "Window Double-Hung USA Settings". And then separately, there would be a text area that would be just all those parameters that you would see listed in lines with no graphics. In ArchiCAD 18, that setting is available by clicking here on custom settings and choosing "All Parameters". So instead of it being two stacked areas, we can select to switch between them. When I go to "All Parameters" or I open up the parameters section before ArchiCAD 18, it would look very similar. It would just be above this "Window Double-Hung USA Settings". [0:39:31]

So if I go here and look at this, we will see as I scroll down parameters for listing, but there's going to be more parameters than were shown in the graphic one. So you can see this goes on and on and on; there are a lot of parameters. And here is the "Note Remarks Special Order". So these are all text. Most of them are text things that we can fill in whatever we want. So for example, if we wanted to have this glazing, let's call it "Tinted" or something like that as the glazing. I just put that information into this, just like special order could be put in. Right now this is not showing up in the schedule because there wasn't a glazing column. Let's just say OK. [0:40:22]

I have defined it for these windows, but let's now go to the schedule and see if we can add a glazing column. So remember we go to "Scheme Settings" where we can choose the criteria. In other words, what types of windows or what limits we have for listing the windows? Then in the "Fields" area we can choose parameters. Now under "Window and Door", there are some various things that we can choose that are standard with every window and door, but those text fields for the listing don't show up there, so there's nothing we can choose here. In order to add it to the schedule, we need to use this add button. And clicking that does nothing. We have to use the little popup next to the "Add". [0:41:13]



I will say I would like to add Object Parameters. Now in ArchiCAD 18, and I am not sure, maybe 17, you can also do things that are part of the IFC Properties. These are an extended set of data or information that you can put into elements and then make sure that they are visible when the model goes out to an engineer or mechanical contractor or an energy analysis. Right now we're not going to use that. We're going to look at the Object Parameters. Now this is a little bit awkward, because when we do that, it doesn't do it in the same dialog, it brings up a separate dialog. You will see this very confusing dialog. It says "Additional Object Parameters", and it says "Select object by folder view" and there's a bunch of choices here. [0:42:10]

We don't see any parameters that we can add. If you look carefully, "Frame material", "User Defined 1" and "Note remarks" are already selected. Here are our notes. The "User Defined 1" was what we had for the type, and the frame material was what we are now calling "Finish". So these are the ones that already exist, but how do we get more available parameters? Well we could go and open up the ArchiCAD library 18 and go find in here the openings and then windows. And then wood windows, then let's say casement windows. Once I find an object here, I get a whole list of choices, but I find this very cumbersome to do. Maybe not very, but it is cumbersome. [0:43:03]

Another option here that may be faster is to go and say I want a folder view, used objects only. And now you can see it's only this one here. It sort of makes it a little bit easier to find this; in this case, the double hung window. Now the parameters that we see here are going to be constant for most of the library parts that Graphisoft provides. In other words, when they write or create a library part, they have certain parameters for listing. And they are common for all the windows, which means you can list all the windows in one schedule and be able to choose those parameters. [0:43:46]

Now let's just open up this a little bit so we can read it better, and if we sort it by type, you can see how when I click on this - let me just make this wider here. Let me see if I can make this narrower or wider. It's not letting me make that wider. So this is the type here. And you can see these little dots. You don't have to learn all of this, but this is one type of thing - I think it's an integer value. So it's one, two or three, it's not one and a half. And it's not text. Here you can see a little symbol that indicates sort of like a dimension, it's a distance. So these are sizes. And if I scroll down further, we will see some that have the little picture of materials or surfaces. And if I scroll down even further, we will see ones that say A, B, C. these are text ones. [0:44:48]

So what I want to find is the one that says glazing. And by the way, I can sort by name if I know the name of it. I can sort this in here and find it. So this is a good thing, if you know the name of what you want to get as a parameter, you can sort it by name and find it. But ultimately, you can either drag it across or just use the add command to bring it over. So I've now added one more field that will show up in the schedule. It's called "Glazing", and it is a text field. And remember I put in information for glazing in that particular window. We don't have it in the other one, but we can fill it in. I will just say OK. And by the way, the order here is not consequential. The order is set in this schedule field. [0:45:37]



So if I don't want the glazing to be at the end I can go grab it here and maybe put it next to the finish or something like that. And by the way, we can't rename this here, but we can rename the column from "Frame Material" to "Finish" or whatever it is. Initially it comes in with whatever this name but then we can change the name. I'll just say OK, and you can see now here's the word "Glazing". In fact, I might leave it as "Glazing" but just put it in capitals just to make it consistent. And you can see how the stuff that I put in that says "Tinted" now shows up in the schedule. [0:46:15]

So what we've done in the last 45 to 50 minutes is show the basics of how the schedule can be selected from the schedules that already exist, how it will display information about the elements in the project, how you can drag and drop a view of the schedule onto the sheet, how you can adjust the formatting; the widths of the columns, etc. How you can highlight an element by clicking in here and then use the option to select it on the plan; so we can actually see *which one is that? That is the one in this corner. That is the one in the bathroom, that's the one in a certain location.* So that way you can verify is the schedule information correct? Or you can even go and say *I need to put in the glazing type, let me go and open this up.* [0:47:11]

And right here I can go and find "Glazing", and we'll call it "Standard". I'm just making things up here as I go along. But now if I go back to the schedule, we'll see that here is the "Standard" that I just put in. So we've gone through most of the basic settings for schedules. And I think this will actually give you a lot of controls, looking at this. What I want to show you is one more thing before we finish up for today in terms of the basic introduction and that is how would we create our own new schedule, maybe for objects. So let's go to Scheme Settings here. When I go to Scheme Settings you see a list of the current available schedules. There are some other ones down below which have to do with totaling up components such as drywall or concrete and things like that. [0:48:10]

We're not going to look at that today. Let's say that I want to create a variation of the window schedule. I can duplicate it, give it a name. The ID is something that would sort these in that column, so if you have a lot of them you might want to sort them in some sequence and group them with certain codes there. But I will just do this Window Schedule, copy, that's fine here. So now this one, if I wanted to - let's just actually make this a variation. I'm going to make this a window type, and you'll see now I have two different ones. For the window types I don't really want all of these things here, I just want the ID, quantity, width and height. [0:49:01]

And I want one more thing which would be under Windows and Doors. I want a view of the window. Here is not a preview picture but a view from the opening side. I will add that. So I've now added a parameter that is going to give me, in the window types here, a view of it. And let's say OK. This is going to be a little bit funny, because you can see that it's showing a preview but it's rather small. Now if I pull this down, I can make this taller. So I can actually make this column tall enough to fit in. You'll notice that when I click on this, there is a new option that says I'm applying the formatting options to the preview. And there's an option to scale to fit or not. [0:49:55]



If I say don't scale to fit, then you can see how these are at some scale, which probably relates to the floor plan scale, quarter inch, one to fifty, something like that. Having done that, I might change the width here to accommodate the widest one. And maybe I need to just pull this down here. So now it's wide enough. and I can go and make these big enough here. Now this is one way that you can have this, and we'll change the title here to "Window Types". So this is one way. We can also say we want to orient this, instead of with the records by rows; we could switch it to records by columns. Click in here, and now of course we want to have this view here. [0:50:52]

And we want to make this tall enough to carry that. And each one of these windows would have a certain width that we would need here. And I guess with a double click on this, yes so we can double click on it. it will fit it to the size that it needs to. So this is a quick way of creating a new schedule, deleting some of the fields that we didn't want. We know how to add fields. Let's take a look at the schedule that is the door types, and we'll see how Graphisoft has it setup. You can see here is the "Door Types". Well, we don't have any doors, so let's go put some doors into the project. Let's go to the Door tool and pop in a door here, and just another couple of doors there. [0:51:49]

And then let's go and flip to a different door. I will flip using the flick. I'm not going to worry about having too many doors in a wall. You see here is a different door type. And now I'll go back to the schedule for the door types. Now this is interesting. It is listing all of them together, because they have the same type of flush panel even though one has a sidelight and one doesn't. If I say "Don't merge the uniform items", then we're going to see these separate out. Now these two on the left are identical. this one is quite different. Let's go into the Scheme Settings and say that we want to show the library part name - let's see. Window, door, maybe it's under general, and library part name. [0:52:56]

So I'm going to drag this in. By doing this now we will see that, for example, this is "D-118" and this is "D-1 Sidelight Transom 18". So these are different. Now if I say "Merge uniform items" we'll see obviously the proper ones grouped. Now if we do put this onto a sheet, then one of the options that we may want to do is to show the part that we want but not show the part that is a Graphisoft thing. In other words, probably architecturally, "D-1 Sidelight Transom 18" doesn't make much sense, even though visually it is a nice picture of a particular type of door. So if I were to go and create a view - we are in door types - I could say "Save view and place on layout". This is a quick way of creating that view or I could go and see, in the view map, here is door types actually. [0:54:03]

It already has a view. So let's go back to that sheet and we'll put that on here. So this is getting to be a little tiny bit advanced, it's not really much. I'll just put in the door types here. And this particular schedule, we have two issues right now. I don't want a title here because it's redundant. So I will go in and say that I want to remove the title from this drawing. And then secondly, maybe I don't want it to have this library part thing that is not relevant. Well I can go to the edge of it, and just like any polygon, I have options to change the cropping. So let me pull it up and you'll see that this is cropping the whole thing, but of course I would crop it to the appropriate location. And I'm not sure - whoops. [0:54:55]



So I crop this up maybe to this point here. and now it looks good without that extra stuff. And of course if we didn't want the dimensions to show or other things, or if we wanted to group doors of different sizes that had the same flush panel or certain type of glazing pattern, then we could take out the dimensions. So actually let me show that one last thing before we finish up here. So if I open the source view and we say "Don't merge uniform items," if I select this - and let's go and select it on the plan. What if I were to make this a different size? So I will make this 2 '6". It's going to be a little narrower like it was a closet door, bedroom door or something like that. [0:55:49]

So now if I go back to the schedule here, you can see the two different sizes. When I say "Merge uniform items," they no longer merge because they're not the same. But let me turn this off and go to the scheme settings, and let's take off the leaf dimensions, let's remove that. So now you can see that this is narrower than that one, but we're not listing it. So these, as far as the listing is concerned, have identical information. So if I say "Merge uniform items," you can see how the two flush panel doors that the same library part number will now be merged. So that would be a way to have all window types that are casement with a certain glazing pattern show up listed the same, even though some are bigger and some are smaller. [0:56:42]

You can indicate that they are the same type or general style. If I go back to the sheet here we'll see how this is updated. So you can see how it no longer has the dimension information and what it's doing here. We could also take out the word "Flush" if you didn't want that. Alright, we've gone for a little over an hour, and I think this is probably a good point to finish up. Let's see if there any questions or comments before we do. I don't see any comments right now, so I imagine that means there aren't any burning questions. Do you have any feedback? Was this understandable, did you already know all of this? Did I share anything that was educational? I certainly hope it was educational. [0:57:51]

So Tom downer says, "Good refresher." Lou says, "Really great refresher and update." Marek says, "Please change the size and schedule to reflect on plan." Okay, let me see what you mean by that .Dave Norman says, "Good overview of the subject."

So Marek says, "Please change the size and schedule to reflect on plan." So you're saying if I change the information in the schedule, will it affect the plan? I think that's that you mean. So let's go back to the schedule door types here. He says "Yes". Let me switch to the one that is the normal schedule door schedule here. so this is the one that shows up here. By the way, as I click in the scheme settings and I look at these and I click on one of them, in versions of ArchiCAD up until fairly recently, I could edit the settings for different schemes for different schedules, but even after I said OK it would leave the previous schedule showing. [0:59:02]

In other words, whatever I happen to be selected in the view map or the project map. So in order to switch, you would have to double click on a new schedule in the project map or the view map. Now maybe in the last couple of versions of ArchiCAD, if you do go and select a different one here in the



scheme settings, it will show up as soon as you say OK here. Which makes a lot of sense. If you chose it in the scheme settings this is something that you probably want to see. [0:59:31]

So here I have this to 2'6" one. Let me just make this 2', and let's see what happens. So I just typed in a two and guess what? This is a little bit dangerous here, let me make it bigger. I typed in a two. Now in the U.S. - I'm sure all of you American users of ArchiCAD know that in general when you type in a whole number like two, it's interpreted as 2 feet. In the schedule for some reason it's interpreted as inches. So if I want this to be 2 feet zero then I have to do two and the foot sign and then it will accept that. So now I've made this a very narrow door. Of course 2 inches would've caused an error; it would've been too narrow for the door script to work. But I just changed that so let me highlight this and select it here. [1:00:22]

And you can see now this is actually much smaller. You can see it's 2 feet wide. So we'll go back to the schedule and let's take this the one that is the number three I guess. This is the one that has the extra sidelight; let's see if that is indicated. Let's just change this one to 4 feet and change it to 8 feet high. Remember 4 inches; I have to do 4 feet. Be careful about that, because you can get an error when you go back to the plan or in 3D. So let's just go back now to the plan. I just hit F2, and you can see how the door here now is 4 feet wide. Be aware that sometimes, like if we were looking at - I think it was the door types here. No, let's see, window schedule, window types. Okay, these are all working here. [1:01:35]

The original door types had a field in here I believe. I believe it was not the door schedule. In the door types there was a field in the original one that said give me the nominal width and height size. and I'll just drag this over. So if I select that, here you can see the 2x6'8", the 3x6'8" and the 4x6'8". Interesting - so I made it 8 inches high. That's a problem, because remember I typed in 8 and I meant to type in 8 feet there. But this, I can't edit it. Let me make it big enough that you can see it. If I click in here I can't edit this text. You can see the blinking cursor here, but here it's not editable. Why? Because it's creating this standard readout of 2 feet x 6 feet 8 inches. [1:02:38]

In metric it would be some other format for millimeters or meters with decimal points. But it has the x in it. So I can't actually type in a new value, but if I'm in one of the ones like the door schedule here where the dimensions are - and here's that 8 inches one. Let me just change this to 8 feet zero, and that should work. If I go back to the one that was the preview, one of the door types here, now you can see this is showing up nicely. there's a taller door. So you can change any settings that are editable here, but some things - I can't change the library part name. I can't actually change what part it is here, but I can put in some notes. I can change dimensions or use the popups. Remember we had the original window schedule. It had to "Finish". [1:03:40]

This is a popup, so I can choose that here. And you may have said, well this number, the size of the window, has a little popup next to it. Why is that? Because in this case there is a little guide that says the



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minimum you can do is nine and $\frac{3}{4}$ inches, that is about $\frac{1}{4}$ m or 25 cm. So it's basically saying it will complain if you try to get below a certain size. In any event, I think we've now gone through some more of the basic options for getting types or legends showing windows or doors. And also some of the options for changing the sizing or changing any parameter here directly. So we'll be looking at the additional options in the next session. That will be next Monday, which will include some of the things that we did not cover today in the scheme settings here. [1:04:55]

So there are some things for tabulating elements, getting quantities and sub quantities of things. There are a variety of things that we'll be adding in here for the schedule. But this I think will cover a large majority of standard schedules there. I see a question or comment from Scott saying, "Do you know if ArchiCAD 18 changed anything having to do with the schedules from previous versions?" That's a good question. Offhand I cannot remember anything that is different. I did mention that if you select one here it now updates when you go back. That may have happened in 17 or 16. [1:05:47]

I know one of the things we are going to be getting into next time is when you do have pictures or previews or views of windows or doors, you have an option that was introduced several versions back, maybe ArchiCAD 13 or 14, to annotate it. So you can actually put dimension information on the picture. And you can also put other text literally right on the picture of the element. So that is something that we will look at next time as well as some additional options that I am sure you'll find helpful. We will also going to things like finish schedules. So how do you define how rooms, the finishes used in different rooms are areas of your project. Because we are actually not going to be listing what is on each wall, we are going to be listing it based on the zone. So the zone that defines an area will have some information that you can tabulate and compile to show a list of what each area or room; how it's going to be finished. So thank you all for joining me today. please add any follow-up comments or questions to the page down below this recorded video. This has been Eric Bobrow, thanks for watching.

[END OF AUDIO 1:07:15]