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## QUICKSTART COURSE - MODULE 6 – PART 2

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Hello, this is Eric Bobrow. In this lesson we'll look at printing, plotting and publishing from the ArchiCAD model and Layout Book. We'll start out by printing from the floor plan. This is one option you have to print individual drawings or views from the floor plan or an elevation section, etc. I'll go to the File menu, and we'll start out with Printing. So I'll look at the Page Setup first. Now the Page Setup can vary from Mac to Windows, and even between different versions of Mac and Windows operating system. But one thing that's in common will be picking a size of paper. [00:40]

So I've got U.S. letter, so this will be the standard size for a desktop printer for just a small printout you might want to markup. This would be roughly equivalent to the A-3 size in metric. And so its set up right now for vertical orientation, which we will probably want to change. But let's see what happens with it set that way. So I'll say OK. I haven't made any changes. And I'll go to Print. And when I say Print, it will bring up the Print Dialog, which again will look different depending upon what system you're in. But you will need to make sure that you're looking at the part that's related to ArchiCAD, as opposed to the things that may have to do with your printer itself; like are you printing it from the automatic paper source or things like that. [1:29]

If we look at the ArchiCAD part here, it says, "Do you want to print the entire drawing or possibly just what you've zoomed in on?" So when I say entire drawing, it says it's going to take a certain number of sheets here. If I say current zoom, then it says fewer sheets. Why? I'll just cancel out of this, because if I zoom out to fit everything in the window, you'll see there are some markers off to the side that if we were to print this including those markers, would require more space, or for the drawing to be shrunk to a smaller size. Now I can select these markers which, in this case, are the elevation markers that were originally placed. And I can move them around. So for example, I can drag this closer, and perhaps go to one end or another and stretch it using the pet palette stretch command. [2:19]

Basically these elevation markers really don't even need to be printed in many cases, but if you do have them visible, they will affect how ArchiCAD calculates the amount of space needed for this. So I'll just pull in a few of these and we'll take a look at what that does in the Print Dialog box. So basically, when you do have these elevation markers, you will want to make sure that they go out at least as far as the building itself, and are facing in the appropriate directions of course. Now if I say Fit in Window, you'll see it's much tighter. Now I could fine tune this more, but let's take a look at the Print command again.

So now when I say Print, and we look at Print Entire Drawing, its saying you only need two of these sheets to fit at the original scale, the 1/4 inch scale or 1:48. [3:14]

Now if I say Current Zoom, it's going to be similar, although it's actually including the side. In other words, the extents of the drawing only go out just beyond the markers, but the zoom goes out further. So in this case, there are things we might need more paper to print that. Now let's just change our Print Setup. Go to the File menu, and say under Page Setup, that we might want to print with it horizontal. So I'll just change there. And then when I go to the Print command, you'll see that now it says that we might need two pages going the other way, because we just barely missed out on seeing the whole drawing on one page. I could say just reduce it a little bit, and fit it on the page; that would be an option that we can use. Now, another option that we can do is what's called the Marquee Area. What you see is gray right now, because I did not draw a Marquee. If I cancel and go back and draw a Marquee, let's say just around the drawing, the actual act of drawing information, as opposed to those markers. Then when I go back to the Print command, we'll see that it allows me to fit the entire marquee area at the 1/4 inch scale neatly on this piece of paper. [4:42]

So these are your options of either Entire Drawing, Current Zoom, which includes whitespace perhaps, or the Marquee Area. So, depending upon what you want, you can get it to scale or you can just make it fit to page. This would actually make it larger than the scale, because it would fit comfortably on the page. And so there are various options you can explore. You can also look at whether you want to print in black and white, or have it in the colors that you're seeing on screen. And hairline would allow you to print just a draft output where all the lines are very thin. And without that, some of the lines will be thicker depending upon the pen settings. So I could go ahead and print this, and it would go to the current printer. [5:21]

Let's take a look at plotting here. And so I'll go to the File menu, and we'll go to Plot Setup. So with plot setup, you may have a plotter in house. I don't have one myself, but I'm going to imagine that I have a Hewlett Packard. And I'll go to one of the old style design jets that I used to work with a while ago, the 750C, because I know that it has a range of paper sizes I can work with. Now, the U.S. architectural sizes are listed here, and you can see that we can choose from D or E size, or 30x42, which is sometimes called F. So we can choose any of those. It tells us the size of the paper, 3x2', that we can work with. If you're working in metric, there are some standards: Metric A, and you can choose here. [6:10]

So basically you'll want to pick the size that matches what you've got in your plotter and say OK. Now having done that, when I go to the Plot command, we'll see that it's saying you could fit this at 1:1/4 inch and it would just be in the middle of the page, it wouldn't take up much space. We could also enlarge it if we wanted to put it to a really big printout. Usually you wouldn't want to do that. But, similarly, you can do the same thing with the plotter that we had for the printer, although you don't have the Marquee option here. And it will look at I believe the extents of the drawing. In other words it's not looking at the Marquee or the zoom, it's just however far the drawing extends. And then you have the option, same thing with color, black and white or gray scale, or hairline. So all of these options are available here. [7:10]

Now, if we wanted to create a PDF, one option is to do Save As, and in the later versions of ArchiCAD, there is an option to save directly as a PDF. I'll just select it. It's a little bit off the recording screen, but you can see here's PDF file. And then I would have a choice of Page Options, such as what size paper I'm working with. And also under Document Options here, we'd have some similar things to the Print command; whether we're working with the Marquee area or the entire drawing, etc. So these options should be fairly self explanatory when you pick them. Now if you don't have the option to save as PDF, and you do want to output it as a PDF, you can usually go and print to a PDF. On the Mac, we have a built in option that when you're doing the Print command, there's the PDF button down below. And we can say, Save as PDF. And we'll get some options to name it, and we may have some other options for the output. But generally, on the Mac, what you'll have is just whatever size paper you were working with, that's what will be chosen for the PDF. [8:29]

Now if you're on Windows, and you need to use the Print command, perhaps you have Adobe Acrobat. You can see I have Adobe PDF as an option here. Or you can get an inexpensive PDF utility program. One that I recommend that I have used a lot is called "pdf995". It costs \$9.95 in the U.S. for that; although you can use it for free, it just reminds you that you haven't paid for it. So you can use that as an option. And Graphisoft used to supply a PDF driver called "Amyuni". You can also use that if you have that available. So all of those are options for printing directly from a floor plan, or you could go to an elevation or a section, it would be much the same thing. [9:19]

Now let's switch over to the Layout Book. So I'll go to the Layout Book and I'll pick a drawing sheet here with all of these plans. And again I can go to the Print command. And when I go to the Print command here, if our printer is using small sheets of paper, of course to print the whole layout would require many sheets. We could also have a Marquee. And so I could go and say I'd like to just print. Let me just draw a Marquee over part of this, like that. So I've drawn a little marquee. And when I go and say Print, it would allow me to say print the marqueeed area at a certain scale. This would be the output scale based on each drawing on the sheet, whatever they are set to be. So you can use this option for a small size sheet. [10:16]

Now, let's just say that I was going to use either a different printer or different paper size for printing. So if we do have a printer with large sheets, then we would want to pick that. So let me go choose that size. So I'll pick, I have a D size. So I'll select "Manage Custom Sizes", and create a new Custom Sheet. I will go ahead and click the + button here, which on the Mac will allow me to create a new sheet. It says "Untitled", and I can double click and say, "D size", and change the size here to 36x24. And I could leave the margins alone or I can change that as I wish. Let me just say OK. And now I've got it set up to work with that size paper. Now since I told it to make it 36 inches wide, I would want to just say in its normal vertical orientation would work. So I just need to be careful to coordinate the way I put in my dimensions and say OK. [11:27]

Now, when I say that I'd like to Print here, we'll see a similar option that says if I want to do the entire layout, it will fit at 100% scale very nicely here. And I so could just do that layout directly with the printer. Assuming I have a printer that can handle that size sheet. Now, you notice that it allows me to

print the entire layout, and we do have the option for the zoom or the marquee. But there's also an option that says "Selected Layouts in Navigator". So right now, I have just the one layout selected. And I could instead go and Command or CTRL+click to select multiple layouts. So I've just selected three of them here. Perhaps I'll skip down and select the sections. And this one here doesn't have anything on it. So now I've got three sheets selected by Command clicking or CTRL clicking, and I can go to the Print command, and you'll see one of the options would be to Print Selected Layouts in Navigator. [12:36]

So that would do a series of outputs, and depending upon how your printer would handle it, this should work very nicely to print one, then print the next and then print the next one. So this is a great way to print several sheets without having to go back and forth and do them. Now, when we go to the Plot command, we're going to have some similar things. We've already looked at the plot setup, and we've set up a size paper here. Let me go to the Plot command, and when I do the Plot command, we have Destination of the Plotter; do we want just they active layout, or do we want selected layouts, which would be multiple ones. And depending upon your plotter, this may require you to put in individual sheets of paper and tell it go ahead. Or you may have a roll feed, and it will cut. [13:24]

But you notice here we have a little issue. It says that it's 97%. Why? Because it thinks that the plotter has a margin. All printing devices have, with rare exceptions, an edge that they can't print to because of the rollers. And maybe the leading and trailing edges as well, it may have a difficult time getting that printed. So there's a margin that it can print to. And if you're saying I want to print this entire image, this is 36x24", on a piece of paper that can't print out to the end, then it's going to think that it needs to reduce it. This is dangerous, because you will end up with something that looks pretty good, but if you were to scale from the sheet, it would be inaccurate. So we want to switch to "Use Layout Margin" here, and then "Fit to Page". So that now says 100%. Whatever we do, we want to make sure that it's at 100% of its natural scale. You never want to print just a little bit off, above or below. [14:31]

Now there is an option here that's very good to make the margins coordinate better, and that is when we go to the - so anyway, this will work just fine. But I'll show you that variation. So in order to make this coordinate properly, I'm going to go to the Master. And we'll need to do this once for each Master that's in use in the project. And I'll open up the settings. And so if we want to coordinate with the plotter's margins properly, then instead of picking a paper by its size, which of course is natural, we're going to go up to an option that shows up at the very top of the list. If you scroll, it says "Import Settings From..." either the printer that you're using or the plotter. Since I'm pretending that I have a plotter of this particular type, I'll import the settings from the plotter. Now as soon as I do that, what you'll notice is that the margins on the side here will switch, because they are going to match what the plotter says are it's non-printing areas. [15:36]

So I'll say Import Settings from Plotter. So you can see it's brought up the plot setup, it allows me to confirm what size paper I am using on the Plotter. And when I say OK, you can see that these margins actually changed a bit, because they matched now what the plotter says are its non-printing areas. So I say OK. And so I've changed the size of the layout just slightly. Now when I say OK, take a look at the blue lines that are the edge of the printing area for the layout. You can see that they indicate they're a

little bit inside the paper edge, and when I say OK, they're going to adjust a little bit. So you can see how they moved around. And so now we can see what's going to print. So that coordinates the layout size. And if I go to the Master Layout, and if I go to the other one that I was using for Detail drawings and double click on it, you'll see how the layout blue line doesn't coordinate. [16:40]

So I need to do that for each one these. I'll go to Settings, and again, instead of picking the "D Architectural", I'll say Import Settings from Plotter. It brings up the Plotter Dialog box and I say yes that's the right size, OK. It adjusts the margins. I say OK, and you can see how the blue area has now adjusted. Now, that may require us to adjust some other things. For example, the detail grid has now adjusted a little bit. So if I go to the settings for this, you can see that this has a grid set up. And for example, we may need to define the margins a little bit more. Let me just - I noticed that it was particularly a little bit too large on the top and bottom, or not quite matching. [17:31]

So we'd have to coordinate this. You can see off to the side this dashed line. That's where it's going to be creating that. I just need to coordinate that. I'll say OK. And you can see how it moves in a little bit. So we just need to measure this to make sure that the grid actually fits properly. So let's just return to one of the layouts that we were looking at here. And we've now got the margins working properly. And again, I'll just pick a couple of layouts and go to the File menu and say Plot. And we again have the option of doing Selected Layouts in Navigator, but all of the percentage things are 100%, because the plotter margin and the layout margin are identical. So we don't have any issue with the sizing. [18:20]

So that will get you a long way in terms of printing and plotting, because you can print or plot individual views or layout sheets. But if you want to really automate the process further, there is something called the Publisher. So I'll look at this button here. The Publisher is in the Navigator. You can see I'm switching from Layout Book to View Map to Project Map. We've looked at all of these. And this is the first time we've looked at the Publisher. Now the Publisher allows us to create sets of drawings or sheets that we're going to output from ArchiCAD in a variety of different formats. For example, we can output them as PDF, or we can output things as DWG, or we can set them up for printing or plotting. So let's take a look at this. [19:09]

This will vary depending upon whether you're in ArchiCAD 10 or 11 or 12. And then later in 13, 14 and 15, it's a little bit different, but the basic principles are the same. So in ArchiCAD 13, 14 and 15, I can click on this up arrow to go up and see the publisher sets. In ArchiCAD 10, 11 and 12, we would just see them listed when we press down on the little popup that would be at the head of any set. You'd see it in that popup. So I'll just go up here and I'm going to create a new publisher set. So basically, I can go and duplicate a publisher set, or I can just create a new publisher set. So let me create a new one, and we'll call this "For Plotting". So when we create a new one, it has a name, and it also has some properties. So if I go to the publishing properties this button here, or the one down below that has it written out, you'll see that the publishing method is either printing, saving, or plotting. And in earlier versions of ArchiCAD, they had something for FTP upload, but apparently they removed that in recent versions. [20:22]

So when I say Save Files, it's going to ask me where I want to save it. And so I'll have to browse and create a path. But let's start out with the one where we're plotting. When we do that, it just says, alright, we'll go to the current plotter, whatever you've set up as your plot setup. OK. Now when I double click on this publisher set, you can see the word "Plotting" comes up, but there's nothing inside it. In order to add sheets or possibly individual drawings for plotting, we need to use this button here called the "Project Chooser". And we're going to bring up the Organizer. So this is the first time we've looked at the Organizer. [20:59]

The Organizer is basically just like the Navigator, except that it has two panels. So I can widen this up, and you can see, let me just pick Plotting here on the right side, that this looks exactly like what we have over here. In fact, anything we do here will instantly show up in the other view, because they are really the same information. Now, on the left side, I can switch between the Publisher and the Layout Book or the Views or the Project Map. But let me just go to the Layout Book here. And again, switch back to the Publisher on the right side. And I'll just drag in a sheet. So this basically says that it's going to plot this sheet. I'll add another one, and I'll scroll down and add a third. So this basically is now a list of plots to be output. And I can basically just click the button that says "Publish this Set". [21:57]

So far, that's not much different than just sort of selecting them and saying plot all of the ones that I've got selected. But this is remembered. In other words, this set is remembered by name and we can have more than one plot set. Perhaps one that goes for submission to the city, and another one that goes for a bid set, and another one that maybe goes for meetings or sending to consultants. So you can have as many of these Publisher sets as you like. You can also say well, we need to just to update the floor plan. Elevation and sections haven't changed. Or perhaps the floor plan and this section has changed, we might have a list of 10 or 20 or 50 of the sheets in here, and only some of them need plotting. [22:42]

So instead of publishing this set, we can also say "Publish the Selected Items". That would output just the ones that we've got selected there. So that's how plotting is done. You'll see that as we highlight any one of these that it has a name, and tells us what size paper it is, etc. And if we click on the Format button, we have some options to perhaps adjust the plot setup, or to adjust the plot settings such as whether we're working in color, black and white, or hairline, things like that. So the format and the properties are things that you'll want to just double check and make sure they're looking the way you want them. [23:22]

Now to finish up the publisher, let's just say that we want to create a new Publisher set. I'll go up one level here, and say that I'd like to create a new set. So this is an option here, new publisher set. And this time we'll say that we want to save to PDF, and I'll say Create. And so when we create that, the publishing properties are - right now it says that is going to be saving files. Here you can see the Save or Print or Plot. But we need to look at the publishing properties to say where it's going to save it. If we haven't set this, then it will give us an error and tell us we can't save this until we decide where. So I'll just say Browse for this. And just like any other dialog box, you can go and navigate to a folder, or create a new folder and save it on the desktop. [24:22]

So I'll just create one called "PDF set" and choose this. So now it records that path. We can output these in a folder structure. So if you actually have some subsets where you say we have plan drawings, the elevation drawings, etc. You can have folders within the PDF set folder. Or we can just have them loose, a bunch of individual files here. And we won't deal with the Project Review or Web Environment now, but that is an option actually to put the drawings or sheets into a web browser for review and possible markup. So let me just say OK, that that's where we're going to save it. And when I double click on the PDF here, you'll see that it has nothing chosen. Again, I'll just pick a couple of these and you notice that its setup for the PDF icon. [25:15]

When I highlight any one of these, you can see how that it says what it's going to be outputting. And when I go to the format, here's where I can choose whether it's PDF or possibly DWG or some other format that we might want to output in. I'll leave it as PDF for now. Now this will create a series of two different PDF files within that folder. If we do want to have two or three or 10 or more sheets put into a single file, then we can create a folder. If we create this folder, I'll just call this PDF here; the folder, I can put one or more drawings into it. So you I just dragged the drawing on top of the folder. And it's now contained within it. And I can rearrange the order by dragging them around. Now if I highlight the folder, there's now an option that says "Merge to one PDF file". And you notice the icon changes as I click to turn this off or turn this on up above here. Now what this will do is it will create a single PDF file in the location specified with one or more sheets. [26:45]

So if I go ahead and say Publish this Set, we'll see a little progress bar that flips through each of these sheets, I and it then outputs those sheets to, in this case, PDF format. I'll click close, and let's take a look. I'll just open up the PDF Set here in Finder, and you can see that it was named PDF because that's what I called that folder. And then of course it has the ending here. So that's a little bit of a funny name, but let me just open it up. And we'll see this come up onscreen. I'll just resize it so that it fits our recorded area better. So you can see that this a PDF file, I'm looking at it in Acrobat. And when I flip to the next page, you can see what it's got. So basically, we can publish, if we like, a PDF file with many different drawings, and this can then be printed or simply viewed onscreen. [27:21]

And as with any PDF, if I zoom in on it, it's going to look very nice and crisp. And this is often a good way to see how you're output will look with the line weights, without having to do a printout. You can actually make sure that everything is going to look the way you want. So let's just return to ArchiCAD for one more thing, and that is just to talk about outputting to AutoCAD format. So if I go and perhaps create a new publisher set here. Let's go and say that I'd like to perhaps even just take the PDF one and duplicate it. Here's a button that says "Duplicate the Publisher Set". And you can see how it has a name here. And so if I open it by double clicking on it, we'll see that I could perhaps select one or more of these drawings and change the format from PDF to DWG. And now you see that the look of this changes. [28:31]

When you're saving out something as DWG, there are options. Right now I'll just point out that you can control this using what's called a translator. So the translators, there are several built in ones, and each one will have a description saying what is going to happen when you use these. So this will give you a

little bit of a clue here. And then we can also look at the settings in this translator. And let's just scroll this up here so we can see it better. So probably the only thing you need to pay attention to in the basic usage is selecting the right translator for the output type you want, and looking at the save options for that translator; which allows you to change, for example, what version of AutoCAD file format, DWG format you are saving as, depending upon what version your consultant or partner requires. [29:31]

So you can change that, and then you can say Save Settings and close if you need to make a change. Now, this will output a single DWG with these contents, another one here; and if I highlight this one, which of course I really want to change the name, let me just go change that to "DWG Set" here. So this is now the name of the folder. I can also, in later versions of ArchiCAD, click to merge them into one DWG file. And similar to the PDF option, it will create a single file with multiple views, each one of a different layout. [30:11]

So this concludes our exploration of Printing, Plotting and Publishing. This has been Eric Bobrow. I look forward to getting your comments and questions on the page down below. Thanks for watching.