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Helping ArchiCAD users  
get the most out of their software  
COURSE

**QuickStart**  
COURSE

## QUICKSTART COURSE - MODULE 1 – PART 1

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[LESSON CONTENT BEGINS AT 5:20]

[INTRODUCTION]

Hello, this is Eric Bobrow, and this is your QuickStart Course. In this introduction, I'll go over what you're going to learn in the QuickStart course. We'll focus on ArchiCAD's key concepts, and the basic tools and methods. All of this with a consciousness of the Best Practices for using the software. These ideas, approaches, and philosophies will help you to use the software more effectively over the long term.

[0:33]

In module one, I'll introduce you to the virtual building concept and the ArchiCAD environment. A virtual building is a 3D model with data and information. It allows you to create construction documents as well as schedules and other reports on the model. We'll take a look in the ArchiCAD environment at a sample project, and see how all the pieces fit together: the plans, sections, elevations, layout sheets, schedules, etc. We'll look at how to move around and zoom in and out and go from one part to another. Then we'll start to build a small building with walls, doors, and windows. And we'll see how to move around in the new building that we're creating. [1:16]

In module two, we'll look at precise placement and measurement. How to draw things the desired length and make sure they are the right spacing and distance from each other. We'll add more elements to the model, such as columns and beams and objects, and I'll introduce you to editing. So you can select things and change them, change their parameters, perhaps the size of an element overall, or the definition of one part, perhaps the width of the door frame. We'll look at changing styles as well, such as the door panel or the material that something is made from. [1:55]

In module three, we'll extend the virtual building adding stories, sections and elevations; which are viewpoints on the building model. They allow you to add more information in 3D, and also in 2D for construction documents. We'll start to look at how you construct roofs, and we'll examine how Virtual Trace, a powerful feature introduced in ArchiCAD 11 allows you to "ghost", or overlay, one drawing on top of another, or beside one another, to be able to compare and coordinate information. And we'll look at some additional editing options which allow you to move things around and reshape them in a variety of ways. [2:38]

In module four, we'll start looking at views. These are ways of controlling how you see the model. Part

of the definition of a view has to do with layers, turning things on and off. Turning off the furniture, or turning things on when you want to see them. We'll add annotations, such as text, dimensions, and labels. And we'll start placing the views of drawings onto layout sheets. And understand how to work with the layout book, setting up the organization of the sheet numbering, and the concept of a master which is your title block, some of which will be constant from one sheet to another, and other parts which will change, such as the sheet number or name. [3:28]

In module five, we'll look further at construction documentation, introducing detail drawings and worksheets, which are 2D drafting areas that can be used for variety of purposes. And we'll import some consultant's information via DWG. We'll look at the basics of how you print or plot your drawings, and how you publish them, which in this case might mean saving the drawings as PDF for other people to view or print; or as DWG for consultants to refer to. And we'll introduce one more component in the virtual building, stairs and railings. [4:11]

In module six, we'll look at interior elevations, schedules, and indexes, which all are different ways of looking at the information in your model, and allow you to prepare drawings and reports that you can place on your sheets. We'll take a look at terrain modeling with flat elements using the Slab tool, and more complex shapes using the Mesh tool. Finally, we'll take a look at the Marquee tool, which can be used for visualization and for editing and stretching, by defining areas that you want to look at or modify. [4:56]

The QuickStart course will give you a good introduction to the basic tools and methods, helping you to get started in the right way with the consciousness of Best Practices, so that as you move along in ArchiCAD, you'll be able to understand and approach things in the optimum way possible over the next few weeks, months, and years. [5:20]

[END OF INTRODUCTION]

In this first lesson of the QuickStart course, we'll take a look at a sample project and explore different parts of the ArchiCAD environment. So we have a small residential project, and we're looking at the floor plan. We can zoom in or out very easily at any time by clicking on this little plus, making a click in one corner, and another click that enlarged what we're looking at. We can also zoom in and out by rolling the mouse wheel. So if I roll the mouse wheel forward, it zooms further; if I roll it back, it will zoom back out. We can move around on screen by clicking the Pan, or Hand, tool. I click once to get the pan, click again to start dragging it, and now it moves around, and I can click the third time to reposition it. I can also press down the mouse wheel and get the hand and then let go, and it will act the same way, so it's a little bit quicker that way. [6:25]

So we're looking at the floor plan of the building. Over on the right side, we'll see that we're in the first floor of the story. So we're in the ground floor (as it would be called in other parts of the world) of a two story building with a roof and a foundation. And we have some sections cut through the building, drawings showing the building at different section lines. We have elevations, which would be our straight-on views from outside the project typically. The interior elevations, which would be straight on views of walls, fixtures and cabinets etc. on the inside. [7:08]

Worksheets are a group of views that are 2D work areas where you can have enlarged plans, wall sections, surveys, reports, other reference materials, demolition plans. These are all any type of 2D drawing that you might need to supplement the 3D model that we're working with. Details are where you're going to create and compile and develop the larger scale views of some parts of the project. 3D documents are a special type of view within ArchiCAD that we'll look at the project in 3D or perhaps a cutaway, and allows annotations such as dimensioning, labels, or text to be applied as well. 3D, these views are the ones that we will spend a lot of time in, which we can move around in and zoom in and out, and walk through the building; and allow us to select and modify elements right in that 3D view. [8:20]

Schedules are door schedules, window schedules, appliance schedules, or furniture. They are reports of the elements within the project. Project indexes refer to lists of the sheets that you're printing out, or the drawings on the sheets. The lists here refer to quantity takeoffs, so how much of certain materials are in the project. And then there's some miscellaneous information that is compiled here as well as an area to get help. [8:54]

Now I've been working in the project map of the navigator, I'm going to switch to the view map where we have a more complex set of views of the project. Right now, I'm on the first floor plan. You can see that it's got a color that was the last one that was selected. And I can go and switch, for example, by double clicking on this 3D axo view. And you'll see that we now are looking at the project from an angle. If I switch to 3D perspective, we'll see the same project with foreshortening. So all of these different views are of the same project. [9:35]

I'll go back to the floor plan, and we'll take a look at the different stories. So right now, I'm looking at the ground floor, or first floor in the U.S. And I'll go up one story, and then I'll go up to the roof and back down to the foundation. Now, I flip back to the project map, I can also go up and down by clicking here. So it's exactly the same sort of effect. However, when we're in the view map here, I can also have variations. So for example, the same story has different ways of viewing it. So when I open this up and double click on "First Floor Lighting and Ceiling Plan," we'll see, and I'll zoom in, that we're seeing some of the lighting information and the doors and windows are being shown closed. [10:25]

When I zoom in, or when I activate the "Room Finishes" plan, we're seeing that the plan information with codes indicating the finishes for all the surfaces. Or the MEP (mechanical, electrical and plumbing) plan, are going to be showing different types of information. Now, each of these is what's considered a view that has different information displayed in a different style. The Quick Options allow us to change, for example, from this construction document, mechanical electrical and plumbing systems; I can change the layers to show a furniture plan, or the layers to show a construction document floor plan. Now this is almost a construction document floor plan, except that there's also what is called the Model View options, where when I switch here to a plan representation, you'll see the markers for the doors and windows show up. [11:25]

So the doors and windows were showing, but they didn't have the markers. On the other hand, we can switch the Model View options to one consistent with a ceiling plan. And you'll see now the doors and

windows show rather differently in a simplified way appropriate for a ceiling plan. So when I double click on a particular view like this one, it switches in the properties different layers and different model views. And when I double click on the systems plan, it will switch that yet again. So each of these views will change what is seen by changing the layers here, and how it's seen by changing the model view options. [12:100]

Now, when I go down to the sections or elevations and open that up, you'll see that each of these not only switches to a different viewpoint of the project, but it also activates a layer combination specific to that particular view, as well as a model view option. So it will make sure that we're showing the right things. For example, it makes sure that the roof is showing that might not be shown on a floor plan. And it turns off the furniture and other things that are not appropriate. Here is now an elevation. [12:49]

Now the information that we're seeing here is the same as what we would see on the floor plan. So for example, this door is actually the same door that we were looking at a minute ago. And I'll just demonstrate, when I go to the floor plan, that if I were to select this door - and I'll just move the arrow on top of it, press down, and move it over until it snaps. And now it's at the corner. When I go back to that view, we'll see that door shifts, because this door, when I click on it, you'll see that it's the same element as we were looking at on the floor plan. So the grips, or handles, indicate that the element is selected. And you'll see information about it in this bar up at the top which is called the Info Palette. [13:41]

You can see that it's got an icon of a door, indicating that this is a door we've got selected. It has its particular type of door. It's a single door, D-1, and it has some sizing information. 2 foot 6 or 30 inches across, that would be about 750 mm by 6 foot 8. That would be about 2 meters, a little over 2 meters in height here. Now let's go back to the floor plan and just do a quick measurement. So if I go back to the floor plan, and that door is actually still selected, you can see it's the same one. Let me go and measure it. I'll use the Measure tool. [14:20]

So this bar across the top gives us shortcuts for different modifications and viewing and controlling mechanisms. So when I click on that, you'll notice that it's giving me feedback on where I am in space. And when I click here, it's telling me how far I'm going. And if I move around you'll see it update. And when I go over the other end you'll see that the distance is 2 foot 6. So the element information in the info box of course corresponds to the distance that we're seeing on the plan. [14:53]

But I can go down and say well how far is it to the end of the wall, etc.? So I'll just turn off the measure tool here, and I'll deselect the door by clicking outside it, or I will click away from that door in empty space. Now, there are many other ways that we could look at the information in a project. In addition to the sections and elevations, let's take a look at some worksheets. So worksheets are a primary drafting area where we might say, take a section that was an entire building section, and cut away part of it and draw the information just in linework. [15:37]

So it will copy the information. But now when I click on this, you'll notice it says that it's a fill. That this is something that if I move it away, this element is actually just fills and lines. And changing it will not actually change the model. So this becomes purely a drawing that I can work with. In the same way, we

have details. Let's go to this foundation detail. And here we are at a different scale. So in the bottom left here, in the navigation area, it says the scale 1 inch to a foot, which would be 1:12. So in metric, the closest standard size would be 1:10. So this is a certain type of drawing, and when I go back to, for example, the floor plan, we'll see that the floor plan was at 1/4 inch scale, which is about 1:50. [16:43]

Now right now, we're almost at natural size for printing. If I click on this, it will put it at 100%. And when I zoom in or out, it will tell me approximately the percentage. So this percentage allows me to see how big the text will be for printing, so I can determine whether something's going to be legible or not. Other controls that are in this area, if I click on this button, it will hide or show the navigator. So I'll click again and you can see that it pops up in that right side. There is a navigator preview, which allows us to see an overview of the project and perhaps zoom in or change and move this around. [17:27]

I'll turn that off. And there is the Quick Options, which we've been using a little bit to change the layers or the Model View options and other settings. We have our current scale, which determines how big the text on paper will be in relation to the building and what percentage we're at here. And other navigation tools that are available as well, including grids and different saved zoom or magnification positions. [17:58]

So let's take a look now, in addition to the project map and the view map, let's take a look at the layout book. So the layout book, when I click here, we're looking at a sheet of paper with some information being drawn. I'll switch to a different one, the floor plans, or the elevations. And for all of them you'll see that they have a consistent title block which is the background of the sheet. But the numbering is changing as we go along. Right now I'm on sheet seven. The title block is set in what are called the Master. And so when I double click here, you'll see what is the information that is on that title block. If I were to take this and move it off screen here, and then go back to one of the sheets, we'll see that has changed. So whatever we do on the Master will affect the sheets, and some of it will change, whether it's the sheet number or the print date; these will change automatically. But other things are going to be exact in the way that they're drawn on the Master is how they'll be seen. [19:15]

So we had a little tour of the basic environment, I'll just finish up with a tiny bit of the selection of elements and the changing of settings. So I'll go back to the floor plan here, and if I go and hover my mouse over an element, it gives me some information about it. When I click, I'll get handles, or grips, indicating that it is selected. I'll see some information up at the top of the screen; in this case it's on a layer for demolition purposes. So this wall is going to be removed. It has a certain height, etc. The info box, Info Palette, has a lot of information. And we can move it around this way, or we can actually position our mouse and roll the mouse wheel and it will automatically scroll. So that's a real nice time saver. [20:10]

Now if I click on this settings dialog, it will open up something that gives me more detailed information. So if I were to make this wall shorter, let's say that I made it a low height wall divider wall, let's say 3 feet or not even a meter high, or something like that, and I say OK, you'll see the same information shows up here. So whatever we do in this area here will be seen in the more detailed view there. I'll select a door by clicking on it, on one of its corners or its edges, and I'll open up its settings. And we'll see a rather

different dialog box that allows me to see a preview of it in plan or elevation or an angled view. It allows me to look at a variety of different parameters for how the door frame is set in, what type of panel it has, etc. [21:06]

So we can flip through these and all of these are editable. So in ArchiCAD, whenever you have an element drawn, it can be modified after the fact. You can always find out about it, you can measure it, you can change it. It's a very intuitive system for defining your elements in 3D and 2D. The elements, if we were to move them, we saw how they were coordinated in a plan and in 3D and in elevation view, so let's just take a dimension and see that as well. So here is a dimension, and I'll use a keystroke shortcut to tell it to dimension to the center of the door as well. And you can see that now this dimension references the door. If I move the door along, and say snap it to the center of the walkway, you can see how the dimension information updates. [22:04]

So ArchiCAD coordinates all of the 2D and 3D information, and the information in all the different views going onto the sheets and all of the sheet numbering. It does all of this for you, it will make your life easier in terms of design and in terms of communication with your clients. So this concludes our opening introduction of the ArchiCAD environment, and congratulations for getting started on the QuickStart course. The next section will be learning how to actually draw some elements, create some walls and doors and windows, and from there of course, we'll end up building a project together over the six modules that are the QuickStart course. So this is Eric Bobrow, and thanks for watching.

[END OF AUDIO]