



THE Best Practices™ Helping ArchiCAD users get the most out of their software COURSE

The 7 Keys to Best Practices for ArchiCAD

Transcript of Video Training from the Best Practices Course
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Are you wasting time using ArchiCAD?

Oh, don't get me wrong. I love ArchiCAD. I've been using it for over 20 years. But so often I see our clients doing things the wrong way around, fighting ArchiCAD, because they don't understand how to best take advantage of its structure and its philosophy.

Have you ever felt, "There must be a better way to do this" or "God, I hate doing this over and over again" or "How are you supposed to do this?" Well, you've come to the right place. I'm Eric Bobrow, and I'm going to teach you the best practices for using ArchiCAD.

I believe there are seven key principles that will help you to use ArchiCAD to its best effect. These best practices are common ideas, like getting organized, doing things once instead of over and over again. But when they're applied in the right manner, in ArchiCAD, using an understanding of ArchiCAD's basic principles, then they're going to get you a lot further along the way in terms of being effective with ArchiCAD.

I'm going to go over them first, in a broad-brush, conceptual overview, to get you familiar with the ideas and how they relate to each other. Then I'll go back over them in more detail, with some depth, enough that when the video is finished, you'll be able to go back to your desk or to your office and actually apply many of these principles, because you'll understand what's important to focus on, the things that are going to make the difference in your work.

Now, if you want to go deeper than that, in terms of how to apply these principles, I suggest you consider getting some training from your local ArchiCAD reseller or ArchiCAD expert. Or you could sign up for our Best Practices course for ArchiCAD at www.acbestpractices.com, where we'll go over, in 20 hours of instruction, how to implement these best practices as well as a lot of other good approaches to making the most out of ArchiCAD.

OVERVIEW

So let's begin. The first principle is to **Get Organized**, to take the files on your hard drive and get them organized so that they're easily at hand, you know where things are, and you have a system. Part of that might be creating a project folder that you duplicate from one project to the next so that there's always a consistent place to file things. An office template that gives you a consistent starting point is another good idea. Also, your office library, standard details, and notes that you can reuse in that system would be an excellent place to start.

Point number two is **Do It Once**. And by that, I mean, if you put in the effort to create something in ArchiCAD, try to reuse it. For example, your project template can be derived from a completed project, preserving all of the attributes and structure that were in that project. By doing it this way, you'll be able to work through from the beginning through the end of the project, without having to continually add layers, views, or even layouts, because they'll be carried across from a successful project that is perfect for your office. You can also save room modules, custom library parts, and other things for reuse, including perhaps your schedule settings, for doing door and window schedules, and translators, for working with consultants.

The third principle is to **Save Your Settings**. It takes a certain amount of effort to set things up for any element in ArchiCAD, whether it's wall types or the detailed parameters that you need to set for doors and windows or other objects to make them look just the way you want. Take advantage of ArchiCAD's built-in Favorites palette to save those settings so that you can simply select them when you need them. Or, my favorite is to create an Interactive Legend of Visual Favorites that are laid out, and you can go and eye-drop whichever one you need to place it into your project. We do this very extensively in MasterTemplate, the office standard startup kit that we sell for ArchiCAD.

In addition to these things, you can actually take room configurations, whether it's a bathroom or an office, things that you're going to need from project to project, and have them set up so that you can bring them in and then adjust them for the project as needed. This is going to save you a lot of time.

Now, when you're working, the fourth principle is to **Work From The General To The Specific**. As you go through a design process, you'll start with general concepts and then gradually get more specific as you make decisions with your client on exactly what wall types, what the actual geometry is going to be, the distances, the clearances, the materials, all of these things.

Now, as you place your initial elements, whether you start with a massing model, a bubble diagram, or laying out a floor plan, these elements can be placed with consciousness of their reference line or their insertion point. These serve to anchor your design intent so that as you later change the wall type to the specific component structure that is appropriate, or the specific window or door that goes into each location, the anchor points will be recorded, keeping the reference line, the corner, or the center perhaps, locked in exactly where you felt it was appropriate. So your design intent carries through if you use these anchoring methods appropriately.

Now, **Using ArchiCAD's Structure** is point number five. Become familiar enough with the structure that you can go with the flow. In fact, work downhill, so to speak, taking advantage of natural relationships and dependencies between different parts of ArchiCAD's project structure.

For example, suppose that you have a detail drawing, and you decide that you want to change the title for it. Go to the Project Map. Change the name of the detail in the Project Map. This will flow into the View Map and into the drawing title naturally. If you go the other way around and change the drawing title directly, then the View Map and the Project Map will be out of sync, and you'll have a hard time seeing which is the detail that's on that sheet because it'll have a different name, and you'll have to manually change all three of them if you go the other direction. So, using ArchiCAD's structure going downhill, so to speak, will give you the most effect with the least effort.

The sixth point is to **Model Well**, that's in 3D, so that you can **Draw Less**. If you learn basic modeling techniques, really cleanly, so that you do snapping and alignment properly, and then supplement these basic techniques with more sophisticated ones as appropriate, such as complex profiles and solid element operations, you'll be able to create elegant and beautiful sections and elevations that are virtually complete from the model and require almost no cleanup or additional line work.

Our seventh and final point is to **Keep It Safe**. You need to develop some good habits for saving and backing up your work as you go along, as well as migrating projects from older versions of ArchiCAD periodically to the current one. This will help you to avoid any data loss or any loss of work, from day to day or over the long term.

KEY 1 – GET ORGANIZED

So let's dig in. The first principle here is to get organized. And I mentioned a project folder. So let's say that you have a folder with, inside it, a sub-folder for contract documents, say, agreements, another one for correspondence, another one for your consultant drawings, another one for your actual ArchiCAD model and maybe archives or different record copies along the way. So you'll have several folders and, within them, perhaps sub-folders for the consultants, drawings coming in, drawings going out, things like that.

Now, if you take that project folder that you've developed, perhaps for any of your projects, take something that's reasonably representative for a project in your office, and then make a copy of it, and empty out all the actual documents, just leave the empty spaces, the folders, the directories, then you'll have all these cubbyholes that you can use. And then when you start a project, you simply duplicate that. And then, where do you put this letter from the owner? Oh, it goes into that folder. Where do you put this survey? Oh, it goes in that one. It'll help you stay organized.

Now, the project template, we're going to talk about that in more detail later, but basically, you want to have something set up for your office that you consistently use that, of course, you can develop over time to make it better and better, as your needs change, perhaps, or as you get more sophisticated with ArchiCAD. But that will give you

consistency for your office standard, instead of sometimes starting, say, with using current settings and sometimes starting by using the standard ArchiCAD template and sometimes taking a project and just saying, "All right, I'll make a copy of it and throw the building out." All of these potentially, are ways to get started, but an office template file is really the best way to go.

An office library is an important thing to develop, whether it contains your logo or your favorite way of doing the north arrow or other graphics, perhaps components that you buy from Objects Online or other sources, or things that you've made. Putting those into your office library and having them accessible from one project to the next will give you consistency and quick access to these parts, instead of having to search for them.

You can also have your standard details, things that you put into certain projects and you say, "Well, this is one that I could reuse." There are ways that you can develop, and I will certainly be teaching in the Best Practices course to compile detail libraries, so that they're really easy to grab them when you need them. Of course, sometimes you create details directly from the context, and other times you just call out a detail and then say this is a foundation or a waterproofing or eave detail that's pretty standard. So having a standard library of details in ArchiCAD format is very straightforward to do and will save you a lot of time and effort.

In the same way, notes, general notes. You can maintain these in a word processor, like Microsoft Word. You can then save them or print them to PDF, and those can then be placed onto sheets. As you start a new project, you can create a copy of your boilerplate notes, and then, in that project, just work inward to create the appropriate verbiage and then recreate the PDF and, in your template, that can be linked. And so it'll actually just update. So you're working in Word, where you have all of the conveniences, but on the project sheets, you've got multiple columns and the large-format construction documents, all linked together.

KEY 2 – DO IT ONCE

Let's move on to step number two. So, do it once. I talked about the office standard template. And there are different ways that you can build this up, but one of my favorites is to take a completed project, or let's say a well-developed project, doesn't have to be 100-percent completed. But simply delete the building from it, leaving all of the markers that are relevant for reuse. By that, I mean leaving section markers. You'll, of course, in each new project, have to move them into a different position. But if you leave a section marker in that project template when you start up and draw the new building and you move it into place, that section will automatically appear on the sheet.

So, if you have a similar number of pages, it'll be almost laid out before you even get started. And if it's a little bigger or smaller or different, of course, you can adjust it. But the more you can keep the attributes, such as the layers, line types, wall types, materials that you've had, as well as the structure, which include the markers for sections and elevations, and other things that are defined in your View Map and your Layout Book, the more you can keep that, the less work you'll have to do.

In MasterTemplate, we've taken this approach very, very far, because we've basically tried to put as much into that structure as most users will need, knowing that it's easier to always pull that out than it is to create it fresh, having to think about exactly what settings or what's going to make sense. It's easier to just adapt things and maybe get rid of the stuff you don't need. So you can approach that for your own template as well.

So, in terms of doing it once, you can also have room configurations, modules, custom library parts. These things are good to just reuse from one project to the next.

KEY 3 – SAVE YOUR SETTINGS

My third section is on saving your settings. Now, the favorites palette is one of those gems in ArchiCAD that I think a lot of people don't take advantage of. It's available under your window menu, palettes, and then you'll find favorites there. This also can be a shortcut on one of the button tool bars. It's basically a text list in a palette that you can go add to or click on to set, say, the window tool to a particular setting or the wall tool to a setting, things like that.

Now, the power of accumulating a good set of favorites is that everyone in your office, if you are a multi-person office, will use the same standards, so that you pick a certain type of wall type, you just double-click on the favorite and it activates that, and it's going to be consistent from one project to the next. There are ways to set up the favorites palette so you can save it out and bring it into another project, so if you do develop more favorites over time, you can take advantage of them.

Now, one of the disadvantages of the favorites palette is that it's a very lengthy palette, or at least it's a text palette that can become a long list. It's a little unwieldy. So my favorite is to adapt this approach of having favorites to creating a visual array of favorites that I call an Interactive Legend. The Interactive Legend concept is, if you have an electrical legend, you might see a list of electrical symbols and a description next to each one that is an explanation that goes onto your construction document sheet. However, if you actually put the symbol, the same tool created that symbol as will be used in the project, you can simply eye-drop to pick up the settings for a receptacle or a ceiling light or a switch or anything else. So interacting with that legend.

So, by creating a whole kit of parts, you can easily go and say, "Well, I need one of those." Very, very quick to access. Now, you can't possibly have all the parts in the world there, but you can certainly have a good sampling, the ones that you use most frequently. It's going to save you a lot of time.

In MasterTemplate, we've really developed this extensively, and we've created a whole system where they can be accessed from a separate window so you can go back and forth between the main project area and the Interactive Legend. But anyone can create just something that they bring in as a module and put next to their project, when they're working on a kitchen or working on landscaping, and then eye-drop things, or even potentially just drag them into the model, and then get rid of the stuff you don't need later. So that's a way that you can save your settings.

You can actually take entire room configurations. So, if you've created standard office, and you want to say, "This is something that I'll probably use similar versions in other projects" copy that information and put it in a form that you can reuse. You can save that as a module that is a separate file, and then you can merge that module into another project later on. You can also have a file with multiple modules or pieces that you can use. That's how we do it in MasterTemplate. We have all of the kit of parts, the Interactive Legend, in a separate file that's referenced into the main one.

So your schedules, door and window schedules, you've spent a lot of time creating them just the way you need them or want them. Make sure that you save those settings. And they do live inside a project, but you can export them to an XML file. There's a command in the scheme settings that allows you to export the schedules. And then, when you have another project, you can import them in. Or, since they live inside a project, when you do this in your template then it'll just be there, of course, when you start up the next project.

The translators are things that you can systematize so that as you work with a particular consultant you can actually name the translator. Instead of manually just changing it as you go. Give it a name and then record that. This is for working the ABC engineer company. And that's the settings that you're going to use whenever you need to send them some files or, perhaps, receive files from them. So saving your settings so you don't have to redo that is going to save you a lot of time and give you more consistency.

KEY 4 – WORK FROM THE GENERAL TO THE SPECIFIC

Point number four is to work from the general to the specific. As I mentioned earlier, when you lay in elements... whether it's walls, doors, windows, columns, these elements have some insertion mechanism. Geometry. In terms of the wall we have a reference line. Which could be the face of framing. It could be the center line. It could be the surface of the wall. When you put that in... If you put it in thinking about what is important... In other words, the outside surface of the building, outside geometry. If you're doing a new building it is often the most important one.

It deals with setbacks from property lines. On the other hand, when you're working on as-built and you're doing measurements inside, then really you may not be quite so clear on the thickness of the wall or the wall type. But you've measured the inside carefully so that should be your reference point, your reference line. Now when you're putting in doors or windows you should think about... do I care whether this door is, perhaps, centered in the corridor? Or is it a few inches or a certain distance from the corner where it meets the next wall for framing considerations? That insertion point becomes your anchor. So if the door changes its width later on, it's going to be anchored on that point or the center point. Same thing with windows.

While there's many ways to just place in the right location, if you use the anchoring it will help you later on. Because then when you make a decision to change its type or size, the anchor will stay locked in. Same thing with columns. Some columns are going to be lined up on their centers. Some may be lined up with the outside... One side of them, the left side or the right side, for example, lined up with the edge of the wall framing. Or things like that. So inserting it with that anchor point will allow you to then freely go and

modify, perhaps, the size of the column later, knowing that the alignment will be maintained. You can start out with some very general ideas and then be more specific but maintain that design intent.

Another thing that you can do, in terms of going from general to specific, is instead of making the walls have a color... Let's say that we call it stucco or we call it aluminum or we call it blue paint or something like that. When you say blue paint and then later the client says, "Well, I'd really prefer gray or green or taupe." Or something like that. Well then you probably have to select those walls and tell them, "You're not blue, you're gray." Whereas what you can do is you can say, "These walls are all colored in a certain common fashion." You're just going to call it the default color, the standard color. Now if that color, initially you just have it as white, and then you're doing a foam core model...

...And your client is focusing, with you, on the geometry of the building and not so much on the materials yet. Then later you say, "Well, I'm thinking that maybe these walls should be painted a light blue." You show the client and you work with that. All you have to do is change the definition in the materials for the default or standard wall color. In the same way you can do with wall types. You may not know exactly what wall types but you know that these walls over here are going to be some type of concrete block and these walls over here are going to be framed. And these walls in here are interior types. So you can pick out, perhaps, two or three or five or more wall types and actually call them by A, B, C, D. Something like that, as composites.

So if you name a composite, even if you make it just six inches, lines with no definition, but you call it wall type A. And then later you decide that wall type A has got plywood and stucco. Two by six and whatever it is, the construction. You redefine wall type A, all the walls that have been designated wall type A will reconfigure. Makes it very simple. By using the structure here, you can take advantage of working from the general to the specific without missing a beat.

KEY 5 – USE ARCHICAD'S STRUCTURE

Point number five, in terms of ArchiCAD structure is really take advantage of those relationships and dependencies. I referred to working downhill, basically going with the flow of information. I mentioned how the project map has information which you determine such as the name of a detail.

The name of an elevation, the name of these various viewpoints in the project map. Then, by default, when you save a view from them for working on it and then for placing in a layout, it's going to inherit the name of the viewpoint. And then, later, when you place that on a sheet, that name will carry along. You can always make things custom. You can change it and in fact, sometimes you have to. Particularly for floor plan views because there are many variations of the same view point. But for things, particularly that are going to have just one main view related to that view point and one drawing placed on a sheet... Then it's really natural just to pick the name or set the name at some point in the project map. It'll flow downhill.

In the same way, in terms of understanding structure, layer combinations are really critical. If you define a view... just say, "Save view and place on layout" is a real nice, quick convenience for saying, "I've got something. I want to put it on a sheet." But maybe you've turned layers on or off. So now you've got a particular set of layers, in effect, that's now going to say "custom." You put it on the sheet. Later on, maybe you add some layers. Perhaps you have to bring in something from another file and it has some different layering there and you're working with those layers differently. That view will not understand whether those layers should be turned on or off. So it'll be a little bit harder to manage if you have views that say "custom layers."

What we recommend as the best practice is to generally make sure that when you save a view by name, to place as a drawing that you set up a layer combination. Or that you use a layer combination. Or, perhaps, that you revise a layer combination that maybe wasn't quite working. Just make sure, after you've tweaked it a bit, that you update it. That way any view that refers to that layer combination will also update at the same time. You might have several views that all use the same layer combination for sections. And you've updated it that you want the sections to include certain information. All of those views will update to have that same set of information. The clone folder is a concept in ArchiCAD that I've written an article about.

It is a great convenience, in terms of the structural intelligence of ArchiCAD. It basically defines a set of views in your view map that relate to a particular set of view points in your project map. So the categories in the project map, of course, include stories, sections, elevations. Of course, before version 11 or 12, sections and elevations were together. I think around version 11 they become separate elements and interior elevations were added in around ArchiCAD 11 or 12. We now have 3D documents as of version 12, etc. But basically they're a set of standard groups of views and detailed drawings. The ones like sections and elevations and details most frequently are placed... You have a single version of that section that's going to go onto a sheet.

You have a single version of that detail that you're working on that's going to go on to a sheet. The sections generally have a similar style. By that I mean they have the same scale and they have the same layers of information that are turned. A clone folder will define that style. It'll say all sections are quarter inch scale or one to 50 or whatever they should be. They use a certain set of layers that show the walls and floors but they don't show the furniture or the trees, the landscaping.

So they all have a similar style. The clone folder will create views automatically. You can simply, as you create new sections, they'll just show up in the clone folder. Using that structure in ArchiCAD will help speed up your work and make sure that all of the sections have the same style. So you don't have to manually create views and perhaps, sometimes, make it with one layer combination, sometimes make it with another. Or make it with the wrong scale, things like that. Same thing with detail drawings. You're going to actually create a detail drawing from something that called out in the project. The clone folder does have the option of changing the settings for one of the views or any of the views. For example, details are likely to be of different scale. Some are at one inch to a foot.

Some are at one and a half inches to a foot. Some are at three inches to a foot. Or their metric equivalents. Just having a clone folder doesn't restrict you but it does actually create views automatically. So understanding how to work with them will be important to taking best advantage to that structural intelligence that ArchiCAD has.

KEY 6 – MODEL WELL, DRAW LESS

The sixth key principle for best practices, I believe, is to model in 3D as well as you can. And with as much detail as makes sense for your particular context. If you do this correctly you're going to get really nice looking elevations and section. As well as 3D views to study for your design and to present to your client. So modeling well will enable you to do less drawing.

What are some of the things that will help you to model well? If you stack elements on top of each other so they have the same surface material and they have the same plane, then ArchiCAD generally will remove the line in between them. This is certainly true for generic elements like walls, slabs and roofs that will just combine nicely. If something's a little bit off, it's actually in front of the other element or it's slightly gapping... Or actually somehow embedded because their heights aren't co-ordinated... Then you will see a line. So understanding exactly how to line things up cleanly using the virtual trace to reference things and other tools to make sure that you're snapping properly. That'll give you very clean surfaces. Even if you have to break it up into multiple pieces.

This is sort of basic modeling techniques but I see users often trip up over those and say, "I can't get my elevations looking clean. I just have to turn them into drawings and delete lines that shouldn't be there." Well, there are times when you have to do that but frequently, with a little bit of discipline, you can get a much cleaner result. You can also take advantage of ArchiCAD's ability to automatically put fills or hatches on surfaces. So whether it's brick work or boards or tiles on the roof, or even just a dot pattern for a stipple representing stucco and irregular surface... these are things that you can set up in your materials so that as you model very simply, it shows up in the elevation. The more you can take advantage of that, the more you can keep these things alive.

What I mean alive... it means that you are using the automatically generated sections and elevations as the basis for what you put on the sheets. You can get more sophisticated with this. This is something we'll be going into in the best practices course. For example, when you have just a wall and a floor and another wall stacked. And you cut a section through it. Simple volumes are not going to represent the true construction, where you actually have the framing members sticking into the wall volume and resting on top of each other. But the sheathing, the outer surface of the wall maybe continuous plywood or stucco or whatever it is. So how do you get that so your section actually looks the way it should? It turns out that if you use solid element operations is one approach.

You can actually jam that slab into the wall and tell it to cut a hole for itself out of the wall. So the solid element of one will have to operate on the other and create the cavity that it needs, so when you cut a section it actually sticks in there the way it'll be built. You can actually get very sophisticated with these things. In addition, you can use complex profiles. So instead of a wall being just a simple vertical extrusion that has a

uniform surface of so much of this sheathing and so much framing, space, et cetera. Perhaps it actually sticks down below the floor level so that the sheathing actually extends there. Perhaps you actually put the waterproofing something at the top of the wall that's going to be protecting it. So the wall doesn't just stop dead. It actually has a cap on that.

You can do that with complex profiles. You can actually create your stem wall and footing foundation out of a complex profile. When you place this in the model you can subtract it from the mesh that creates the terrain and get a very clean result. So all of these things, if you learn how to model better, will give you beautiful elevations and sections. Where you really have much less 2D work. Of course you're always going to need to put labels to describe things and dimensions to pin them down, in terms of their geometry. But in terms of extra line work or taking out line work, you can really reduce that to a minimum. With the solid element operations, I've written an article about that as well. Because I mentioned how the slab can go into the wall...

...Well, also the roof, of course, will often cut off the top of a wall. Now using solid element operations, it's a relationship. If you use that instead of trim to roof then, if the roof plate height changes, the wall will just fill in the gap. Or if the tilt of the roof changes then the gable of the wall will actually match it automatically. By using these tools effectively it keeps the relationship live and everything will stay in good order with a minimum of work.

KEY 7 – KEEP IT SAFE

Our final point for the seventh principle of best practices for using ArchiCAD is to make sure you keep things safe. You put in a lot of work to make your project do what it needs to do, satisfy the clients requirements, satisfy your creative needs to make this beautiful building.

I've seen people call me up, sometimes in tears, because they said, "I worked all day and my computer crashed..." or something happened, "and I went to start up ArchiCAD. And there was no auto-save file" or "it said there was an auto-save file but it couldn't open it." My question to them was when was the last time you manually saved? They, in some cases, say, "Well, not since this morning." So they lost all the work since then because the auto-save didn't happen. So the auto-save will definitely work most of the time. There have been many times when I've been very glad that I've had a problem and I've just started back up and I've lost two minutes of work. It's great. But actually save as often... my guidance is save as frequently as you need to so that you lose only as much time as you can afford to lose. What does that mean? When I'm working and there's not much pressure, I might save after 15 minutes or half an hour or an hour because it's pretty rare that anything would happen.

And I could afford to lose half an hour or an hour in that rare case. But if I'm on a deadline I may be saving every five minutes. Because if something happens, I don't want to lose more than just a few minutes time, in terms of meeting that deadline. My rule of thumb is, whenever I stop to think, to go figure out what I'm doing, I hit command "S" or control "S" and save the project. Of course, if the project is a large one and it's not just

saving in five or 10 or 15 seconds but it takes a minute or more... I've seen that happen. Then of course you can't just do that just casually because you know you're going to be waiting for a while. But do save often. Another thing is that if you have a problem with your file ... and this happens infrequently, but it gets corrupted, you should have a backup that you can go to.

There's an automatic backup within ArchiCAD's work environment preferences under "data safety" that I always leave turned on. So there's always a BPN file. That's the default so, most likely, you have that as well. But of course if the file has actually got a problem and it's been that way for hours or a day or two or a while, then that backup file is going to also have that same problem. So how could you go back to yesterday's version if today things got messed up? Or, perhaps, how could you go back to last week's version or last month's version if the client says, "I'd like to see it again with the roof the way we had it at our last meeting"? If you continually just save over the top of the old file, you won't have access to that. Unless, maybe, you have some tape backup that automatically backs things up.

Or Time Machine, on the Mac, is good because it will save different versions of the file as you go along. One approach that I recommend is periodically, and it could be every day, you might save a copy of your project with a different name. Perhaps with a date stamp. So "Smith House, October 14" "Smith House, October 15, " etc. I don't actually rename the project. I just rename the copy. So that way I never have a question about which file is current. It's always "Smith House." So no one has a question. "Smith House" is the project, the current version. But I do have archival copies from perhaps the last few days. Perhaps I have them at submission or milestone dates, whenever there's a certain point to record that we'll save that.

And, of course, periodically you may pare that down and throw away some of those so that you don't have 100 of them. But maybe you have a handful or five or 10, some number that makes sense. But keeping the project file with the same name can be a very sensible approach, making it very clear. I can't tell you how many times I've come into offices where there's been a folder saying "final version" and another one saying "latest version." And another one saying "for submittal" or "for printing" and perhaps others, even with dates. The question is, which one is the right file. Of course, working with my clients, we'll try to figure that out, but it can easily be confusing. People can sometimes open up or work on the wrong file because it's not clear.

So I recommend that you keep the file name the same but just save archival copies, record copies, periodically with the date included or something else like "submission to the city." You can lose your work in a disaster if your hard drive goes down. If you have multiple copies and you're doing it on the same device, like the hard drive... If your hard drive really has big problem and just fails totally you're going to really have a big challenge there because you may not be able to get that work back. It's pretty rare but it's good to think about that. Copying it to another device, at least sometimes, at least some of those backups, is good. No single point of failure can then do you in. So putting it on an external hard drive or a server really is a part of keeping it safe.

Now suppose that there was some real big disaster, like a burglary or a fire or things like that. Well then, if your external hard drive is right next to your computer or in the same

building then, of course, in that very rare case you might lose both of them. That could be the end of your business, in the sense that you might have all of your files, all of your projects, lost. So a further security, not everybody does this but certainly it's worth considering, is to have an off-site backup. To write, periodically, files to a DVD disc or an external hard drive that you keep in another location. Or, of course, the Internet is certainly a possibility. You can now get inexpensive storage space through Amazon S3 or just a web FTP.

Although it takes a while to upload things, it is something that you know there's much less chance... If you have a problem where you are, that remote location is likely going to be OK. The final point, in terms of keeping things safe, is as you work with ArchiCAD over a longer period of time and new versions of the software come out... You're going to have projects that you haven't worked with for a while. Maybe they're from last year or five years ago or, some of my clients, from 10 or 15 years ago. Maybe you need to access that some time. A client comes back and says, "I'd like to do a remodel" or, "I'd like to do something similar to that original building in a new location."

So how do you keep access to it? Graphisoft has put a set of utility programs translators on the website so you can... ArchiCAD 14, for example, right now can read back to 8.1. And there are utilities that allow you to install a version, ArchiCAD nine or 10 that will read back to version 6. Or you can install version seven of ArchiCAD and read back to version 5. So these are all possible. But the best thing... Just in terms of taking matters into your own hands and not waiting until you really are in a crunch and have to open that file is, periodically, take your files... let's say you've had ArchiCAD for five years, so you have some projects in version nine or 10. Open those and re-save them in version 14.

Maybe you do that after two years or three years so you don't have such a big gap. But basically, taking them forward will do two things. One is it will make it easier. Because later on they won't be as ancient, in terms of the file structure. Secondly, any type of digital information is subject to the potential corruption of the file. In other words, magnetic media, hard drives, do fail over time. They don't have an infinite lifespan. By simply copying it, opening it and creating a new copy, perhaps, on another media DVD, disk or things like that, you are giving yourself one more bit of security.

Ultimately it's important to keep things safe so that all of your work is retained for the long term. For as long as you need it, as long as you're working with ArchiCAD. This completes my presentation on the seven key principles, the seven keys to best practices for ArchiCAD. I hope you've enjoyed it. If you'd like to go deeper, as I said, please consider getting some training locally or signing up for our best practices course. Which will be available at www.acbestpractices.com. Thanks for watching and I look forward to getting feedback. So do send me a note or post a comment and we'll stay in touch.