

The Best Practices Course - Week #3 - Library Management

Hello. This is Eric Bobrow, and welcome to the section of "The Best Practices Course" focused on library management. Today we're going to look at the concept of library management from the top level. The general concept of what's best to do in general with managing libraries in your project. The traditional standard is to use three libraries in your library manager list. And that is the ArchiCAD library: the one that's updated periodically by Graphisoft; an office library of parts that you use on multiple projects, this will grow slowly over time; and a project library: parts used for a specific project.

Now, the ArchiCAD library is automatically installed with the program itself and lives in the ArchiCAD folder. It's revised periodically by Graphisoft, and it is important to check for updates. In the latest versions of ArchiCAD, it will automatically check for updates for the library, as well as for the program itself.

In earlier versions you may have to go to the help menu and look for a command that says, "Check for Updates" or "Check for Library Update, " which might be separate in some versions of ArchiCAD from checking for program updates.

Now, there's always a new library for every ArchiCAD version. In other words, there's a version for ArchiCAD Library 10, and for ArchiCAD Library 11 and 12. Each one of these, 13, 14, etc... is a different version.

Now there are some changes, and some things that stay the same as you move forward from one version to the next. So, we are going to be talking in another segment about migrating projects from one version of ArchiCAD to another, and what are some of the strategies for dealing with the libraries. But in this section we're simply going to talk how to manage your libraries; basically, running a project.

In addition to the standard ArchiCAD library, it's a good idea to set up an office library. This would include parts that are used in multiple projects, and it typically will grow slowly over time. You might start out by putting in certain components that you make in your own office. Perhaps, your company logo might be a library part, although it certainly can be brought in just as a graphic image on a layout sheet.

The North arrow, or other 2D or 3D elements that are set up the way that you prefer -- these could be things that you actually create. We're going to be looking during the course at how to create your own library parts, and so you may accumulate more components that you build yourself over time. So the office library is a folder, which when you load it in a library manager, ideally would have anything that you want to be able to use in multiple projects.

Parts or libraries that you purchase or download -- these could come from commercial sources like Objects Online or other websites. And you can download things, perhaps

from manufacturers or from the Graphisoft website. There is the GDL Depository. I'll have a link for that in the notes for this video.

You also may create, or download, or acquire in some way, texture files that are associated with materials. So, these are the graphic images that you might use for simulating certain physical building materials. You might also create texture files for things like signage. If there are signs or textures that are going to be used in multiple projects, or potentially used in multiple projects, then they would belong in the office library.

Of course, if you were working with elements that would be for a specific project, whether it's signage, or textures, or other objects, these would go into the project library. And it might include copies of parts from other projects. In other words, you might take something from another project and say, "I'd like to use it in this one, " but by putting it in the project library specifically, then you're isolating any changes between the projects.

So, in other words, if you bring in a staircase from one project into another and then decide to change it - if it's in this project library as opposed to in your office library, then when you change it, it won't affect the other project -- which of course, would be a good idea.

Now, before ArchiCAD 13, the project library was something that one would create by making a folder. We would recommend placing it into the same folder as the project PLN file itself. Before ArchiCAD 13, you can also load individual library elements when you create them, or you simply decide that you want to use them.

But in general we recommend that the project library be a folder, that way simply by dropping things into that folder, you know that everything is going to be loaded properly when you open that project, or start up ArchiCAD.

Now, in ArchiCAD 13 and later, we have new capabilities. And it's generally best to embed the project library. Basically, all the library parts that you're using specifically for the project, you can embed it in the project PLN file. And I'll show you how to do this in a later segment of this video.

Now, other libraries might turn up in your daily use, or periodically. They may be loaded for special purposes. For example, you may have a library of manufacturer components, or office furniture, or landscaping; and perhaps decide that this library or any of these libraries are not going to be used in all of your projects. So, then you can load them especially for the appropriate projects.

This potentially, it could be of library of textures. There's a very wonderful, extensive library of texture files that Graphisoft has in the GDL depository. And I'll have a link for that on the page with this video. That library, you wouldn't want to load as a whole. You wouldn't want to put it into your office library and load all of those textures. What you'd want to do is load, perhaps, a folder of brick textures or a folder of landscaping textures. Or some other individual elements that would be useful.

Because if you loaded all of them every time in your office library, it might burden the project. So if you are going to use a certain library most of the time... Some people have gotten things like SmartParts, doors and windows or other things from Cadimage. If you're using these routinely than it's good to put them into the office library so that every project has similar access to it.

But if it's something that you're only using in specific projects than you might want to load them just when it's appropriate. If you're a single person working in ArchiCAD, these all are going to live somewhere on your hard drive.

They would likely go into an office standards folder. The ArchiCAD library, of course, lives in the ArchiCAD folder. The office standards folder could be something in your documents folder or your jobs folder. That it would be resource location for things you use in general.

A question that's certainly more challenging and interesting to think about is, when you have a multi-user office, where should these libraries live? The ArchiCAD library is updated infrequently. Graphisoft has updates, perhaps, two or three, maybe four, times during the course of an ArchiCAD version.

In other words, in ArchiCAD 13 there were probably about three updates. So every few months you would update it.

It's good to just have the ArchiCAD library - which is fairly sizable, certainly many 10s of megabytes, perhaps 100 megabytes, give or take - it's good to have that on the local machine so that it's loaded quickly. Every so often, when an update happens, you can go around to the various machines in the office and update it but it's infrequent.

The office library and the project library, it makes sense to have these on the server. They're typically much smaller and they do change much more frequently.

Now the project library, in ArchiCAD 13 and later, is often managed through embedding in the project itself. So then you don't even have to think about that. But the office library as a folder, it's good to have that on the server. That way, all users in the office will have a consistent reference.

Just be aware that if you update any library part in that office library it will affect all projects that use it and this is especially important if you're moving projects along from one version of ArchiCAD to another. Like 11 to 12 to 13 to 14, etc. If you do overwrite or update a library part it will only be usable in that version of ArchiCAD or later.

So, you don't want to do this if it will affect other projects unnecessarily. In other words, if this is an improvement or a change that you only want to use going forward than you probably want to copy that library part and update it. The copy, rather than change the base one. In the simple case where you're just developing and modifying something because it's a better version then, of course, you can overwrite it and people will all get the same version.

You can, in some cases, copy the office library to a local machine and then synchronize changes. Just copy the latest version of that folder or elements within it, to the local machine every so often. And there are utility programs that will synchronize these things. I may put on some links for synchronization programs that are available on this page.

In teamwork though, the management of libraries is handled by the BIM server. So, what does that mean? When you share a project, generally the Teamwork project is going to refer to a Teamwork library. Meaning that it's going to then load a library from the server. That pretty much guarantees that everybody who's logged in to that project will have similar or identical library access.

The question comes when you do go out of the office, how do you deal with that? There are ways for telling the library manager that you'd like to use a different folder or a different library than was specified earlier. However, in the Teamwork process it does generally make a local copy of the library. This is sometimes a cause for some concern. Because it takes some time to copy, say, 100 megabytes from the server, for the ArchiCAD library.

So, when you share a project, the ArchiCAD library, and other office libraries or project library folders, are copied to the BIM server and then when you open the project and sign in it will copy it to your own local machine. It may be identical to the ArchiCAD library that you already have but it's being maintained then by the BIM server, for use with projects that it's handling.

Ultimately the Teamwork process we'll talk about in some detail, in a later section of the course. So I'm not going to go into this any further right now.

But just know that you can and should have a local copy of the office library and project library. So that you can go out of the office if you need to.

A question comes up: there is this new concept of an embedded library - how does it relate to the traditional PLA or project archive file? When you have a project open and you say, "Save as..." you have an option to save it as a project archive.

This creates a file with a different ending. Instead of PLN it ends in PLA. It creates a new project file that is combined and includes the library parts that are in use - the ones that you see on your screen, such as doors or fixtures, cabinets, etc., as well as the supporting files that are used by those library parts.

These [supporting files] are often called macro files. If you think about, doors... There may be many different types of doors but they all share, for example, a macro file that creates a framing for the door. And therefore Graphisoft is able to make it more efficient. By having multiple objects refer to these macros for similar sub-components.

In any event, the PLA file is automatically created with all of the necessary parts, with only some slight exceptions. Typically in some third party libraries, there are times when this may not automatically grab all the parts or macros that it needs.

But most of the time it will do that just fine. The other, newer possibility is the embedded library. This, basically, is a way of saving individual library parts. Or even large collections from, for example, a standard ArchiCAD library 13 or something like that can be embedded.

Let's take a look at some of the differences between these two approaches, because they both bring in library parts into the project file itself.

A PLA file is ideal for putting a project in storage. So if the project is finishing up - it's done, it's under construction - then it's good to save a PLA file. That way, if you need to open it up at some later point, you know you have all the library parts included.

It also can be a good idea for archival purposes. For safety, before you transfer a project into a new ArchiCAD version is to save a copy of the project as a PLA. Now the project can be opened and edited while it's in the PLA using no other library. However, the library parts cannot be updated or added to. In other words, you can't add new library parts into the PLA.

You can, of course, reference in the library manager, other library folders in conjunction with it. But you can't add any into the PLA itself without, for example, saving it as a new PLA. And you can't update those parts. So if you had a part that was a staircase or something else that you wanted to revise, in the PLA form you can't do that. You'd have to create a copy of that part that you would save separately from the PLA and then revise it.

One option, in terms of working with things from a PLA, is to extract from the PLA into a new folder, and then selectively combine with a full, new library. This can be a good way to transition projects from one version of ArchiCAD to another.

So there is an option when you open a file, if it is a PLA, of whether you want to use the library as it is inside the PLA, or if you'd like to extract to a separate folder. Then it'll basically copy all the library parts that are in the PLA into that folder.

Then there's another option which says, "Hey, I don't need the folder or library parts that are inside the PLA. Because I have another folder or file with those library components." So you can, say, ignore the PLA objects and use another file or folders instead.

The embedded library was introduced in ArchiCAD 13. It was improved in 14 in some very useful ways. It is ideal for keeping track of individual custom parts for the project. Previously, if you created a new custom part, maybe a staircase, and then used it in the project ArchiCAD might remember where you stored it. You stored it on your desktop or in your documents folder. Or the project folder. Somewhere. It would keep track of those individual parts. You also could, instead say, "I'll put it into my project library folder." And then, perhaps, load just that folder.

If you had the individual parts, one of the issues is that if you moved things around on your hard drive or went to a different computer those parts might be forgotten about. You

might lose track of them and ArchiCAD would say they're missing. So by embedding those parts into the project it avoids that risk.

The embedded library also can help in migration. There's a new feature, particularly in ArchiCAD 14, Graphisoft did some very interesting things that allow you to take things from, perhaps, an ArchiCAD library - one of the larger, standard ArchiCAD libraries - and embed just the placed parts of that library into the project.

Because maybe you had only gotten up to a certain point. You'd started a project in 13 and you had just done a schematic design. And then you wanted to switch it to 14. You can then load the ArchiCAD 13 migration library and the 14 full library and have access to all that you need.

But you might not actually need that ArchiCAD 13 migration library because maybe you're only using a small number of parts. So there is an option, which I'll be demonstrating, for how you can embed the placed parts of that library into the project.

You can create folders within the embedded library to reorganize, add or delete files. Much like a standard external folder. In the next video I'll be demonstrating how the library manager works. So you can see the menu commands and the dialogue box. And go over these concepts that I've just explained as an overview. With a little bit more specific reference to the actual commands. So thanks for watching and I'll see you on the next video.

Transcription by CastingWords