

## Autodesk University | Autodesk Fabrication Profiles: How Do You Manage Your Database Without Them?

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**WILLIAM TUCKER:** Morning, everybody. I'm William Tucker. I work for Comfort Systems. This is Josh Asche. And our job is to maintain the database for-- we've got 24 companies?

**JOSH ASCHE:** 24 companies, with about 180-plus users, all utilizing the same database throughout all the different operating companies all across the country.

**WILLIAM TUCKER:** And there's no way we could do what we do without using profiles. And this is a class-- I did this class Monday. Did anybody else go to that class? Because it is the exact same class. If you don't want to see it again, you're welcome to step out. If you want to see it again, that's fine too.

**JOSH ASCHE:** Just on a show of hands, who is using profiles at this point? OK, so a few of you. All right. Hopefully, by the end of this, when we go through all this, you'll see a pretty good reason to start using them yourselves, for what it can do for you. Just even if you're not using it like we are all across the country for different operating companies, but just for yourself at your company, hopefully, you'll see managing your database and keeping things up-to-date is quite a bit easier, using profiles, than not using them.

**WILLIAM TUCKER:** Yeah. Did anybody download the documentation yet that goes along with this? All right, they mention in there-- well, I'll get to that part here in just a second.

All right. Well, we're learning here, we're going to understand the benefits of using profiles. And we're going to see what parts of the profile are actually going to your-- or what parts of the database are going to your profile, versus which ones are global, that all the projects are going to read from. And we'll learn to create and manage all the Fabrication Products, as well as being able to use it in REVIT. And we'll learn to edit the profile for Project requirements for use in both products as well.

All right. First of all, what are profiles? They're just like little, mini databases that just working off of your main database. And it uses your global profile. Yeah, it uses the main one. And then you just copy it over to create these little-- you want to treat your global profile as your main, or as your template. And want to create project-specific profiles. We always start with your global to create a profile, because you certainly don't want to try to create a profile from an old one that might be six months old. And one thing we request here is you create a new

profile for every project.

**JOSH ASCHE:** So for those of you that are using profiles, you're probably familiar with this. But if you're not, when you login to the software, at the top of the software, you should notice, if you're not in a profile, it'll say Global at the top, which is meaning you're working with your live, or your global database. And then, when you set up a profile, you're basically taking a snapshot of that global database and now making that, for the most part, become job-specific.

There's some slides here later that show you which files are job-specific and which ones remain in global, as William said, but essentially, where we're going to take from global, create a profile, to then make it become project-specific. That way, we're only working with what that project requires and needs, and not constantly working in the global database, affecting all the other users, as we have to change things for that job-specific information that has to be set up.

**WILLIAM TUCKER:** All right. Now, one of the main benefits we like for this, for using the profiles, is that our main database, our global database, it always just stays real clean. In fact, you know, it may be some of our mistake. Every once in a while, we might have to purge something out of there, but very, very seldom do we ever have to purge out any garbage out of our database. It just stays clean all the time.

**JOSH ASCHE:** So what Willie means there, for you guys, again, that are familiar with the software, you get the little bracketed information around stuff inside of your database. You see connectors, and seams, and materials, and all that kind of thing inside of your database. Those are coming from foreign places, I guess I'll call them, that are not inside of your database to begin with. So it makes a bracket around it saying, I came from a specific source that was not originally in your database. So by using profiles, you can help cut down on that quite a bit.

**WILLIAM TUCKER:** All right? And then, also, in a global database, you won't have to have project-specific services, and project-specific service templates, or sections, sheet metal specs. You won't have any of this job-specific. And I've also got to admit that-- it's probably several years ago going around training with TSI-- that I've got to admit I'm probably one of the first ones that started all this mess anyway of creating job-specific information. But at the time, I guess we'd all have to agree that that was the only option we had, because profiles didn't really work at that time.

All right. Some other benefits is when you're working on a project, the user won't have to look through hundreds of services to figure out what service he's going to use for this project.

When you build your profile, you build your profile with only the services you need for that project.

**JOSH ASCHE:** So we start in global, right? And we've got 50, 100, however many services you have inside of there, but your project maybe only requires you to use six, eight, 10 of those services. You can pull those out of global and put them into the profile. So when the user goes to open up the job and open up the profile, they're only seeing or working with the job-specific services that are required for that project. They're not having to sort through the entire list of services that you may have inside of your database trying to go to their job-specific one and use those, and/or have the option or possibility, most likely a good chance, of using the wrong services for their project that were not set up in accordance to the way that job was supposed to be done.

**WILLIAM  
TUCKER:** And this same thing is maybe you're doing a plumbing service where maybe PVC's not allowed on the job, so you set everything up for cast iron. Well, somebody drawing on it, they might not really know that-- they never asked the question, what are we using? And they decide they want to just use PVC. Well, that's probably not their choice to make. But whoever set up the profile has already made that decision, and they don't want to see the PVC.

All right. And now, the third one right here, this is a benefit, plus it's also a con. When you create your profile, all your database settings for that profile are static, which can't be good in some ways, not good in others. For one, pricing information-- well, that could be good because maybe an estimator's setting up this profile. And he's going to bid, and he's got to use today's prices. Well, he want to lock that in, because six months from now, he doesn't want that cost to change on him. Because at that point, he won't have any idea of what he did and what price he actually priced something at.

But then, again, on the CAD side of it, you might want to run some cost analysis. And your costing may not be up-to-date. So it's got its pros and cons there. All right. And then, also, in-- did any of you go to the-- what was that? Or the Fabrication Parts in REVIT?

**JOSH ASCHE:** I covered it. Yep.

**WILLIAM  
TUCKER:** Yeah Well, you covered this in yours, then I'll cover it in mine.

**JOSH ASCHE:** Correct, yeah.

**WILLIAM TUCKER:** So here's another thing. Whenever you go to create in Button Mappings to get REVIT to work, well, if we were to go through the global database and put every REVIT mapping in there possible that we might need, we would end up with-- I could see where we could get several hundred line items of button mappings. Well, we only need the button mappings we need for this project, so we'll be able to just import those into the profile.

All right. So as I mentioned, the pricing thing was a good thing, or was a pro, but it's a con as well. All right? And then, sheet metal pricing, in this case, that's probably one of our biggest issues right here. But then, again, over-- I guess we're probably not doing a whole lot of pricing out of our profiles anyway, are we Josh?

**JOSH ASCHE:** To an extent, there are. But the pricing that's brought over usually suffices for what they're trying to do with it.

**WILLIAM TUCKER:** Yeah. Yeah. But we had a project this year that was a year long. If we needed to go back and start pulling some pricing out of that sheet metal, then yeah, we're probably going to have a little bit of an issue.

All right. For those that know the software, they know what all these map files do, the ones in green are what's common between the profile and the global. And what's in red is what stays in global.

**JOSH ASCHE:** So all these .map files, the software uses and relies on for everything that you're doing inside of there. So when you create your profile, it takes a snapshot, as William was saying here a few minutes ago, of these .map files, the ones that are in green, and brings those over and makes those basically profile or job-specific. So those become disconnected or static from the global database and specific to the profile. So that allows you to go in and modify this stuff, without having to, again, go through and modify all the stuff inside of global and modify it specifically for that profile, or that job setup that you're using right there.

The ones that are in red are ones that still, even though you've created a profile, do not become specific to that profile. They remain utilizing from the global database. So many of these files that are in green that becomes specific for the profile, again, are disconnected. So say you do need to update something in your profile, such as maybe some connector stuff has changed, or in ancillaries or something like that, you do have the option to go into global, export that information out through database exports, and then import that into your profile to update your profile, in order to bring that thing up to speed.

If it's something a little more broader, such as like, say, pricing, fabrication times, or installation times that may have changed, what you can do is, again, go into global. And you can see, like over here on the left-hand side, you've got ETimes.map, FTimes.map. Those both store all your fabrication times and your installation times. So if something changes inside of global that we want to update the profile with, we can simply copy these .map files from global, overwrite the ones that are in our profile. And now, our profile's up to date.

Same thing holds true for the costing.map and the supplier.map. Those two files store your discount codes for all of your pricing, along with your pricing tables. So again, you create the profile. Your pricing is now static from what's going on inside of the global database. So if there are any pricing updates, or multiplier changes, or whatever it may be, your profile's not receiving those. But you can, again, simply copy these .map files, overwrite the ones that are in your profile. And now, as soon as you open the software back up, your profile will now read with that latest and greatest information that you had inside of global.

So you have that-- you're not completely on an island and have no options of updating your profile. You can always go from global and, depending on what you're trying to do, either export the information out of global and bring it into your profile, or copy over the .map files from global into your profile.

**WILLIAM** Yeah. If you want to copy over your .map files, just kind of know what goes with what. It can be  
**TUCKER:** very easy, but it could also be a little bit dangerous, sometimes, if you don't know exactly what it is you're copying.

**AUDIENCE:** [INAUDIBLE]?

**JOSH ASCHE:** It's in the handout.

**WILLIAM** In the handout, yeah.

**TUCKER:**

**JOSH ASCHE:** In the presentation. Yep.

**WILLIAM** Yep. Yep. Plus, I mean, you can just compare the two folders, side by side, if you wanted to.

**TUCKER:**

All right. So back to the same thing. What parts of the database are global, versus profile?

Now this is information that we will typically change, once one of our users create a profile, or the database administrator for that company sets up a profile. Well, first thing he's probably going to go through is we basically have some templates set up. We've got all Nibco valves. Well, maybe they're using Mueller valves on theirs. Well, first thing they do is they go to the service template, right-click on the button, edit the button, take out the Nibco valve, put in the Mueller valves for all those. And then, they're pretty much done with the services. And then, the service button mappings for the REVIT, if you're using your REVIT, then you can get those in there as well.

All right, hanger specifications-- our hanger specifications apply to our service templates. And we've got the values set up that we need for the project. Well, we don't want to have to go back and recreate, create a copy of the hanger spec. We're in a profile, it doesn't matter. It's for that project. So for that hanger spec, all we need to do is go through and modify the values, if we need to make some changes on the size and space. And like I said, we don't want to change the name, because we already have that linked in several places, and we don't want to break the link.

And the same thing with insulation specifications. We have a chilled water, applied to our chilled water services, and there's the values we have set up as default. And if they need to change something, all they need to do is just change the values. They don't need to create a copy of the specification.

And in sheet metal specifications, we probably don't change these very often. We have quite a few sheet metal specs set up. But you will sometimes maybe get that one oddball job that you've got to change something.

And then sections-- of course, every job's going to have different floor, different floor elevations. We've got people in here running sheet metal shops as well? Yep. Here's one key thing that took us a little while to figure out, that when the shop-- well, for most of you, this probably isn't an issue. Right now, in our database, we have 10, 12, maybe 14 plasma cutters in there. And we have some 20-foot tables.

Well, as the shop's going through, and they're nesting, well, the database is looking at the default machine for oversize fittings. And for the longest time, we had our default machine set up as a 20-foot table. And we like to never figured out why these people are not getting warnings for their oversize. It wouldn't give them a warning. It wouldn't nest it, but it wouldn't

give them a warning either. So we did learn that in that profile set a default machine. And now, we haven't had any more problem with oversized options.

**JOSH ASCHE:**

Nope. So the whole-- let me back up just one second there. The whole idea here, just to reiterate this, or go through a little bit further, is to set up standards inside of your global database, OK? And you're not going to cover every nook and cranny, but you're going to try to cover your standards, as far as the majority of time, here's what we're going to do, or here's what we see. You're going to set your services up that way.

You know, if it's a sheet metal supply or return, or exhaust air, here's the types of fittings we like to use. And your services are going to build that way. For your piping and plumbing, you're going to set your standards up there. Like we typically run copper up to 2-inch, and then, we'll go to some ERW from 2-inch and above. Same thing on the plumbing side. And same thing with your valves that would go along with those services. You're going to set your services up in a fashion where it's going to cover you for the way you would typically run into jobs or things that you usually see.

Hanger specifications, exactly the same way. And the idea behind this then is, as you pull these bits of the database out into the profile, and then you can modify the profile to match whatever job-specific items are being called for. So like William said, if you've got a piping service, and you've got all Milwaukee, let's say, valves on your service, but the job is requiring you to use Nibco, well, we can just simply then-- we're not going to build a whole other service just to have Milwaukee valves and Nibco valves on there, so we can just use, again, our standard or our default that we typically use, and then just use our Nibco valves, or replace the Milwaukee valves for the Nibco valves on here.

Instead of building service, after service, after service, to try to cover every instance that we may ever possibly see or run into, the idea is to develop these standards. And it's not easy. It was a huge headache for us, especially here at Comfort Systems, with all the different operating companies. But we got everybody to finally agree, or at least meet us in the middle, as far as what we want to do for the different piping services, plumbing services, and the sheet metal.

And then, again, they create the profile, and they're able to modify this stuff to match whatever that job is calling for. So it really makes it a whole lot easier, trying to manage this stuff, instead of trying to cover every nook and cranny. And then, if there's any sort of maintenance with an

ITM, or product line that may have been discontinued, or something like that, having to go into all the services, because you've got every different option in there, going through and having to modify all that, we just have to keep up with our standards, and then allow the person who's setting up the profile just to modify their particular instance of that situation right there. So it really simplifies things and makes it a whole lot easier to manage. Again, even if you're just a two-person show, or a 100-person show, this really cuts down on having to go through and manage and take care of all this stuff. I'm going to bump a couple down under your sections.

So like your sections-- sure, a lot of people in here have seen this, same thing with the insulation specifications. You know, if you're not using profiles, if you go to your sections, like we've got down here in the bottom, we've just got a default set of sections in here that we just set that up. Again, it's just to give the user a starting point. But that gets copied over into the profile, and then, they can set those sections up, according to what that job is.

Instead of going into sections, if you're not using profiles now, and seeing job A sections, job B sections, job C sections, and you've got a 10-mile long list of all these sections that are in there for all your different projects, we simply just set up one standard. And we called it Fab Default, and put in what we typically see or use, and then, again, allowed the user, in the Profile section, to modify that to match whatever it is they need, instead of having this big, long list of sections, trying to manage that and go through that.

Same thing on the insulation specs. By no means-- well, if you're not using profiles, you've probably-- and if you're using insulation specs, you've probably got piles and piles of insulation specs in there. You know, job A says we can use 2-inch insulation up to 4-inch, and then 2 and 1/2 inch and above. And job B says we have to use 3-inch insulation across the board, you know? And this just keeps going, and going, and going. And next thing you know, your insulation specs are just eight miles long, again, with all these different specs in there for all these different projects.

We just set up some standards, and we just, chilled water, heating water, et cetera, and put in some default values in there with the default insulation. We have all the other options available for different types of insulation in the database. But again, when we set the profile up, this gets copied over. And then, the user can go in and modify their break point list inside of here for dimensions, and then also change their type of installation, if they need to.

But the spec that's linked to the chilled water service remains the same, because there's no

need to create another chilled water. We can leave that as is, just change the values that it's calling for. And then, the service is already set up and ready to go, because it's pointing to that insulation spec right there. So again, the whole idea is to develop these standards. And then, when you build the profile, to have it set up in a fashion where the user then can go in and easily modify this stuff to make it match their project.

**WILLIAM** Yeah. If one of our users has the information he needs, we figure what? Just an hour maybe?

**TUCKER:** Do you think? Maybe go through and get this--

**JOSH ASCHE:** Yeah. Depending on how elaborate the--

**WILLIAM** If they have their information they need, yeah, and how elaborate it is.

**TUCKER:**

**JOSH ASCHE:** And for that--

**WILLIAM** But in this case--

**TUCKER:**

**JOSH ASCHE:** That too. We have a-- it's been really handy-- we should have some time at the end to show some of this-- but a job setup sheet that we have our users fill out. And if you guys are doing this, then you know exactly what I'm talking about. But basically, it breaks down your duct services, your piping services, and your plumbing services. And we try to get the project manager, the superintendent, or the foreman, to sit down and fill this information out. Usually, [INAUDIBLE].

**WILLIAM** They like that word, "try."

**TUCKER:**

**JOSH ASCHE:** Yeah.

[LAUGHTER]

It usually falls in the CAD person's lap. And he says, oh, I don't know. You fill it out. And then, after you get it drawn, and well, why do you use this? Well, you didn't tell me anything differently.

But we have them fill out this job-specific sheet. So basically, whoever the database administrator is, or whoever's going to build that profile, they have basically a roadmap to

follow as to how to set up all these services. Here's my chilled water. Here's the materials we're going to use up to this size, the materials we're going to use up to this size. Here's the insulation thicknesses. If there's any special valves I have to use, hanger spacing, you know, it's all laid right out there on a sheet. So somebody could sit down and follow this roadmap to set the profile up to match whatever that job is calling for.

So to create your profile, you can create a profile from CAMduct. You can create a profile from ESTmep. And you can create a profile from CADmep. The screens that pop up are, for the most part, pretty much the same. You access the place and the software to build the profile a little bit differently, depending on which module you're running. But at the end of the day, the profiles all get built the exact same way and end up in the same place inside of your database.

If you're familiar with your database or your folder structure, you'll notice there's a Profiles folder in there. And that's where all the profiles get built with the .map files getting copied over from the global database into the profile database inside of that Profile folder in your folder structure. We again, hopefully, have time at the end here to just show you quickly how to build a profile and how that process works.

But you're going to start in the global profile. You're going to give the profile a name for whatever this is for, whatever project this is for. And then there's some options in here. And again, hopefully, we can get time to show you this. But you're going to copy the basic database only, which is copying those .map files we were just talking about.

A key thing here is share the same item files, OK? So you've got all your different ITMs listed out through all the software, OK? The profile gives you the ability-- and I can't think of a good reason to do this off the top of my head-- but it gives you the ability to be able to copy all those ITMs all of your content over into that profile, OK? Most likely, again, maybe some rare instance. Again, I can't think of a good reason to give you. But most of the time, you are not going to do that. You want to use the same ITM files that are being used all throughout the software. That way, again, if something needs to be changed on one of your sheet metal fittings, or one of your piping or plumbing fittings, it doesn't matter, when that update is made, you'll receive that update inside of the profile. And you don't have a whole section, or your own set of ITMs that you're working with inside of the profile. So you always want to share the same item files.

This is where the sections come into play. So you're going to pick your default set of sections

that you want to use. That section's .map then gets pulled over into the profile and allows you to make it job-specific. And then, you're going to pick the services. Out of your global list of services, you're going to pick the services that you need for that project. So again, we can take our list of 50, 100 services, whatever it may be, tick the services that we need, and then those get pulled into the profile. And now, the user has exactly whatever they need for that particular project sitting there.

**AUDIENCE:** Have you guys noticed any issues with archiving of the profiles? Like maybe when you close out CAD, you might have [INAUDIBLE]?

**JOSH ASCHE:** So for like maintenance, and housekeeping, and that kind of thing, because you can get a good list of profiles going, you do have the ability to export out profiles. And basically, it just dumps out a .pez file. And that's the profile file. And you can basically store that somewhere else then as a backup.

So yeah, as a job's done, it's over, and you shouldn't have to touch it again-- we all know how that goes-- but you can get rid of those and archive those somewhere. And then, if you ever would need to again, you can simply import that back into your database. And all that, whatever was set up inside of that profile, comes back in, the name of the profile, everything. And you're able to do whatever you need to do for that project.

**WILLIAM TUCKER:** You can actually export every one of your profiles at one time. And you can open it up, just like the other exports. I mean, you go through, and you can take one. When you go to import back in, you can just take one of them and bring the one back in.

**AUDIENCE:** Have you encountered any issues, like maybe with some old ITMs that need to be added, or deleted, or changed?

**JOSH ASCHE:** No, because the items are--

**AUDIENCE:** [INAUDIBLE].

**JOSH ASCHE:** Right. Well, the item files, the .itm files, are live. We're not making a copy of those for the profile. So if there's any changes along the way, the ITMs that are in your profile are going to be the same ones that everybody else is using. The only thing you may run into is like if there's some discontinued items along the way. So yeah, you know, something like that. That's where you go to your piping service, and you go to your valves, and you see maybe a cross on there, or something discontinued. Well, that's something that transpired along the way. So

then you need to, basically, either use that item again, or do what you need to do with it, or go get the replacement for that and put it into your service.

**WILLIAM TUCKER:** Yeah. And far as items being modified-- we don't have to worry about users modifying those items, because we have all ours locked down where we have three people that can modify that folder.

All right. Now, there are some rules here. [CHUCKLES] Don't try to work on multiple drawings with multiple profiles in the same session of AutoCAD. If you have to work on a project, or two different projects, and they're holding two different profiles, run two sessions of AutoCAD. Don't be trying to swap back and forth between drawings, the same session of AutoCAD. You will corrupt your profile.

**JOSH ASCHE:** So let's say that again, because this is a thing we ran into. We were trying to figure out what was causing this issue. We were getting calls from our users saying their profile was corrupted. What's going on? And we were trying to walk through the steps to see how they got to this point to corrupt the profile. And what was happening is, in the same session of AutoCAD-- so you basically double-click on your AutoCAD icon and fire that up. So you've got one instance of AutoCAD running. They were trying to work with multiple jobs and multiple profiles in the same session of AutoCAD, and it was corrupting the profiles.

So that took us a while to figure out that was the cause of what was happening. But as the next line says here, if you need two profiles, use a separate session of AutoCAD. So again, just to reiterate this, double-click on the icon again, fire up another session of AutoCAD, and open up profile A in session one, and then profile B in session two. Do not try to do them both in the same session of AutoCAD, or you will run into some problems with your profile becoming corrupted.

**WILLIAM TUCKER:** All right. Another rule here is never work out of your global profile. Always work out of a project profile. The global, I mean, that's basically your template. And that's used just for setting up services or setting up your database. I'm not saying you can't draw and test in there. You're going to have to, but never work on a project out of the global profile.

**JOSH ASCHE:** So we only use global for, basically, just testing, setting stuff up, making additions to the database, changes, modifications, and all that. We do not do any sort of drawing, or take-off, or anything else, other than some testing to make sure what we're doing is working. But we

don't take a project A and draw it inside of the global profile. We always start with global, create our profile to, again, to set all this up specific for the project, and do all of our work inside of the profile. We don't ever do anything inside of global, as far as trying to do a take-off or a drawing in global right there.

**WILLIAM**  
**TUCKER:** And then, never work on a drawing logged-in as full or admin. And that goes, whether you're using profiles or you're not. It doesn't really matter. You never want to work, logged in as admin.

**JOSH ASCHE:** So if you're logged in as admin, and you're working on a drawing, and it came from a different company, a different user, or somebody else, it's nothing in your database--

**WILLIAM**  
**TUCKER:** Or a year ago.

**JOSH ASCHE:** Or a year ago, or whatever, you're going to have all those-- basically, what's going to happen is, if you're logged in as admin, and you get one of those drawings, chances are there's going to be a bunch of stuff that has the source information behind it with the brackets. And if you're logged-in as admin, you have the parameters to basically write that information to the database. You're logged in as admin. You can make modifications. So that drawing gets opened up, that stuff is automatically getting dumped into your database, OK?

So if we're logged in as a standard user that doesn't have the options to modify the database, all the brackets will still be there, but when we close the software down, they all go away, because that user is not able to write to the database and make that stuff stuck inside of your database, making somebody else have to come and purge and clean all that stuff out after the fact. So regardless if you walk out of here and say, I'm never using profiles, that's something you want to take with you to eliminate or cut down on that bracketed source information items in your database.

**WILLIAM**  
**TUCKER:** All right. Then also, I kind of left something out here. But in AutoCAD, always open AutoCAD first, load the fabrication software, and then load the profile that you should be working with, before you ever open up the drawing. Never, do you want to double-click on the drawing in Windows Explorer to open it, because you have no idea what's going to load on you.

All right. So here's if you-- it you have the wrong profile loaded when you open up a drawing, you're going to get a warning. Says, this drawing uses XYZ profile. Switch profiles now? In this

case, if you are in the wrong profile, you need to switch, go ahead and click Yes right here and switch that. And we recommend don't ever tick that box right there.

**JOSH ASCHE:** So when you're in a profile and you're working-- we don't know where this information is stored at, or we would pass it along-- but the software retains whatever profile you were in the last time you had the software open. So if you were in profile A, you close the software down and you open it back up, you're going to be in profile A. It doesn't automatically default to global, or the first profile you created, or anything like that. It always defaults to the last profile that you were in.

So if you were in profile A, and then you try to open up a project that's using, let's say, profile B, you do get a warning. As long as you haven't ticked this box right here, that says, hey, this job, this MAJ file, this DWG, was created with this profile, not the one that you're in. Do you want to switch profiles now? So as long as this box is not ticked, which you can toggle this on and off in your information inside of the database, but it will automatically open that job up with the profile that it's associated with. So the software does remember the projects, the profiles they were created with, and will prompt you, if you are not in the correct profile.

Now, there is instances where you do want to switch profs. Somebody accidentally started doing work in global, or in a different profile. And that job is now associated, perhaps, with the wrong profile, instead of the one that it's supposed to be going with. So here are the steps to walk through this to get that job re-associated with, if you will, the profile that it's supposed to be with.

**WILLIAM TUCKER:** Yeah. If you need to change profiles, what you want to do is you want to make sure your close out of AutoCAD completely, then start AutoCAD back up. Load the application, and load the profile that you want to use. And then turn around and open up the drawing, and in this case click No. , Now that drawing will always be associated with that profile, or the profile will be associated with that drawing. What's that?

**AUDIENCE:** It will automatically?

**JOSH ASCHE:** Yep.

**WILLIAM TUCKER:** Yeah. The next time you open up, it'll be good. It knows where it needs to be.

**AUDIENCE:**

**AUDIENCE:** Do you have a [INAUDIBLE] when you create a profile and do the [INAUDIBLE].

**WILLIAM**

Yes. Yeah. Yeah. If you happen to draw it in global-- you know, and I've actually done that a few times myself. You know, I'll be just trying to test something that's wrong in global. So I'm OK, I think I just want to use this part in the project. And then, you just close out of it, load everything back up, load up that profile, and then have it switch from global to that profile.

**TUCKER:**

And then, actually, we'll have it happen a lot that somebody just accidentally doesn't realize they're in global, and they draw something. That's probably one of our biggest things. But then, we want them to get out there as quick as they can. [INAUDIBLE] profile. OK, this is-- this is the [INAUDIBLE] for what you want, if you want to bring in your REVIT button mappings for if you're going to use this in REVIT.

And I have some other documentation on this that you may want to-- if you all want to download. I should put that class and here. Well, if you get this documentation, if you download the handout, there's a link on it, or a class number. And you might want to go download the other information to figure out how to do this right here. Yeah. Where we at?

**JOSH ASCHE:**

Right there. So we do have about 20 minutes left here. So we can take some questions, and then we can hop into the software quick and kind of just walk through building a profile, for those of you that are not familiar with it, and show you the process, and kind of dig in a little bit deeper than we did in the slides here. But at this point, are there any questions on what we just went through and showed right there?

**AUDIENCE:**

One quick one. You said, if somebody opens it up and they don't use the profile, or they use the wrong profile-- and say like [INAUDIBLE] stuff in PVC, why wouldn't you pull it back out, put the right profile? You've still just got some random stuff [INAUDIBLE]. It won't realize [INAUDIBLE] cast iron. [INAUDIBLE].

**JOSH ASCHE:**

So if that service does not exist, if it was drawn in global with a service that does not exist in that profile, then yes, you're going to have to basically modify those items to go to the service that they're supposed to have been drawn with. But if the exact same service resides in global that does in your profile, then you're not going to have as big of an issue there trying to straighten that up. Any other questions?

**WILLIAM**

You can also export.

**TUCKER:**

**JOSH ASCHE:** Yep?

**AUDIENCE:** So if you change the [INAUDIBLE] to your profile [INAUDIBLE].

**JOSH ASCHE:** No. That information is static to the profile. So soon as you create the profile, it takes a copy of all those .map files that store that information, and those become specific to the profile. So it's disconnected from global. But again, you can do some things to make this process easier. But by just going into the global profile, copying out the specific .map files that store that information, you can just drop those in your profile in Windows Explorer and overwrite the files that are there, with the software closed. And then, when you open up the software, your pricing information will now be up-to-date from global.

So again, it's not perfect. And no matter which way you go, there's things you're going to have to work with and adjust. This is one of those things that, depending on the situation, that may be a great functionality of the software for you, that all that information is static. And in other cases, that may be something that you find is a pain in the butt for you. But there are ways-- and again, you can do a lot of things to simplify this, to copy files over, export information out of global, and put them into your profile.

**WILLIAM** Oh, yes. That's from estimating? Or for estimate out of CAD? Or for--

**TUCKER:**

**AUDIENCE:** I was thinking something-- yeah, [INAUDIBLE]. I was thinking that [INAUDIBLE] I guess it's not.

**WILLIAM** No, just the code. The link code is in the items. Yeah.

**TUCKER:**

**JOSH ASCHE:** Do you want to see your machine?

**WILLIAM** You can start CAD there, if you want to.

**TUCKER:**

**JOSH ASCHE:** Here, you're more--

**WILLIAM** [INAUDIBLE] .

**TUCKER:**

**JOSH ASCHE:** Yeah. I'll let you drive.

**WILLIAM** OK.

**TUCKER:**

**JOSH ASCHE:** It's your machine. I don't know where everything is at.

**AUDIENCE:** [INAUDIBLE]. What have you done to try to rectify the people that just [INAUDIBLE] Windows Explorer, double-click on that?

**JOSH ASCHE:** Get out our ruler and slap them right on the hand.

[INTERPOSING VOICES]

**WILLIAM** Like we said, we have 24 companies. We've got about 180 users. All right, they have a  
**TUCKER:** problem, they need to call us. We might be able get to them right quick, and we might not be able to get to them right quick. So when it takes several hours to get back to them, and they have nothing to do because they're stuck, then they learn, right?

[LAUGHTER]

**JOSH ASCHE:** For the most part, we've drilled that home, over, and over, and over, again. We have a yearly conference that we hold. And we reiterate a lot of these things, support things we run into throughout the year. But it still happens, no matter how much we preach and go through it and stuff. It happens.

**WILLIAM** Yeah. I mean, most of our users, I mean, they appreciate when we get on and help them. And  
**TUCKER:** they always want to know, well, what did I do wrong? And I've actually had pretty good luck with them.

**AUDIENCE:** On the annotation settings, is that something that you can copy a MAP file to your profile so that you can import the elevation [INAUDIBLE]?

**WILLIAM** The elevations, that should be in your Configuration folder, which is user-specific anyway.  
**TUCKER:**

**AUDIENCE:** User-specific?

**WILLIAM** That's user-specific, yes. Yeah, that wouldn't be profile- or database-specific.  
**TUCKER:**

**AUDIENCE:** OK. Thanks.

**WILLIAM** It should be, depending on how your database is set up. I'm trying to find the--

**TUCKER:**

**JOSH ASCHE:** Well, here, before you do that, can we show at the top where it says "Global"?

**WILLIAM** OK.

**TUCKER:**

**JOSH ASCHE:** Can you get that to display, or no?

**WILLIAM** After I figure out if I'm there, or not. That's what I'm wanting to figure out. [INAUDIBLE] if I'm

**TUCKER:** actually in Global.

**JOSH ASCHE:** All right.

**WILLIAM** Make sure I'm in Global. I don't know why that's not showing up there, Josh, but it's certainly

**TUCKER:** not, though.

**JOSH ASCHE:** All right. Well, at the top of the screen, what I wanted to show you or point out is he has flipped over to the global profile, which is your live database with all your services and stuff inside of here. At the top, it's going to say Global, so it's just a little indication to you as to where you're at inside of the database, as far as if you're in a profile, or you're in the global profile.

William, do the pull up of just the list of services there.

**WILLIAM** The list of services?

**TUCKER:**

**JOSH ASCHE:** Just our services, just a screenshot.

So this is the way we have ours set up. Again, yours may be completely different. But at the end of the day, I'm sure everybody's got all kinds of different services inside of here, OK? You can see none of ours are specific for job A, job B, job C, job D. They're just set up for duct work, for piping, for plumbing. And they're organized inside of here.

So rather than, again, even if we didn't have all these, and we only had, say, 20 or 30 of them, we don't want to have to have the users sorting through all these services every time they're just trying to go to this Copper L Sweat Service, or whatever, any one of these services that

are inside of here. So by building the profile-- and we'll do this here in just a second-- but I can extract out the specific services that I want to use that are specific to that job, and only those ones. And now, those are the only ones I have to worry about and deal with instead of that profile. And again, beating this home, but I don't have to worry about the user drawing it with Press Fit, when it all should have been a soldered system. So using the wrong service to draw with, that goes away, because we pull out the services that we need into the profile.

I'm going to try to create a-- just go through the steps to creating a profile.

**WILLIAM** Yeah. And then-- like the insulation specs. We have that insulation spec assigned to chilled water. I talked about that one earlier, so [INAUDIBLE].

**JOSH ASCHE:** Yeah. So up here, here's all of our different insulation specs. Again, you know, we've got ours set up this way. You may have yours set up for job-specific stuff. But at the end of the day, what we're doing is we've got one chilled water, one heating water, which we're going to run into over and over again. So rather than having chilled water job A, chilled water job B, et cetera, et cetera, we just have chilled water. And then, this gets copied over to the profile as well, with the service. And so we just modify the chilled water spec itself to change out the materials, the break points. And then, we don't have to create a whole other chilled water insulation spec. We just modify the spec itself. It's already assigned to the service, and it's ready to go.

So inside of CAD, where William's at now, you see he's going to CADmep.

**WILLIAM** Right-click, CADmep.

**TUCKER:**

**JOSH ASCHE:** Yep. And you've got a Profiles option right down here. You've got Import, Export. This is what we were talking about earlier for the profiles. And then, you've got Setup here at the top. And then, down here, is your list of profiles that you currently have going. We've set up a sample configuration for doing our Autodesk University presentations here. But here's where you get this list of profiles that are inside of here.

At this point in time, they basically get inserted in here, in the order that they were created. So depending on the naming-- yeah, so it does not go by the naming convention, or alphabetical order inside of here. It's going to go by the order that you create them in, at least for now. So the last profile we created was this sample profile. And so, therefore, that's the profile at the

bottom.

But basically what a user does is-- say they're in global working on a different project. They come in CADmep. They fired it up. And then they come in here, and then they select the profile that they want to go to, if the profile's already set up. And then all their specific stuff for that profile's sitting there ready to go.

If you're going to set one up from scratch, which we can just walk through the steps here real quick, you go to Set inside of here. And it tells you right here that you are in global, and that the current profile is global. I can't stress this enough. This is always, always, always where you want to build your profile from. We don't want to be in profile A and build a profile from profile A. We always want to go back to global and start with whatever we have inside of the global database, and then go ahead and set that profile up from there. So we always want to be in global when we go to set up or build a profile.

You've got the little, green button, which everybody is familiar with, that's used all throughout the software. And you basically come in and give your profile and name. And this is going to be the name-- you know, your naming convention, maybe with a job number in there, perhaps, or however you do it, but the name that this profile is for. You

Don't have to touch this next item down here, because this is going to go off of the Edit Configuration screen that you have inside the software when you're setting it up. So in your Edit Config, you may or may not be aware of this, but there's a path for where the profile is supposed to go. And that's where this defaults to. So what I guess I'm trying to say here is that you don't have to touch this path. It automatically goes to a profile folder with the rest of those profiles you just saw William had pulled up there a second ago. They always go to the same place.

Right here, these are your options. This is all there is to it. It's really pretty straightforward. You've got Copy From Active Profile. And again, it's showing you you're in global. You're going to take a copy of the basic database only. So again, that's copying those specific .map files that we were talking about earlier over to this profile. So those files are getting copied from global, and they're now going to become specific to this profile that we're setting up and creating here.

Another key tick box right here, Share the Same Item Files. This is what we're talking about. So all this right here, OK? This right here, we don't want to make a whole copy of all these

.items. It's not just selected ITMs for our service, it's the entire content library would get copied over, if we do not tick that box right there. So we want to say, there's no reason to copy all this stuff, and modify it, and do all this for job-specific stuff. We just want to utilize these same ones that we already have and setup inside of global and bring those over and use those inside of this profile that we're setting up right here.

**WILLIAM** Actually, You have two options right here. You can either share the same files and you select  
**TUCKER:** your services, or you can copy everything. That's actually the choices that we have. And we don't want to Copy All, for sure.

**JOSH ASCHE:** Yeah.

**WILLIAM** Copy All would be copying the items.

**TUCKER:**

**JOSH ASCHE:** Your Next option, then, is to tick the selected sections. You can see it pops up your sections. And we've got two different default ones set up in here. It doesn't matter. The idea is that you're in a copy over, basically, the sections.map file from global over to the profile. And now, I can modify these sections just for my job. Again, rather than having that big, long list of sections, this gets pulled over and set up inside of the profile for that project right there.

If you do not select this-- we've discovered this as well-- if a user forgets to select sections, it defaults back to the sections.map file instead of the global database, OK? Which we do we don't want to do, because then, we're kind of defeating this whole purpose.

So even if you don't have anything to do with sections, or you think, oh, I just need to quick do this, or whatever, you still want to click the selected sections and grab it. Because then, at least, it brings over a profile-specific sections.map file that can be modified, if need be. And you don't got to worry about modifying the one back in global.

And then, the last tick box here is this Selected Services. We've asked for this box to get bigger and give us a little bit more user interface here, but all those services William pulled up down here inside of global a minute ago, here's that list of those services right here. So basically, what you go through and do then, whether you know it, or you've got a job setup sheet, or whatever it may be, but you're going to go through and pick out the services that you need for that specific project.

And it's basically you can tick a whole group, like Duct Galvanized. He ticks that there, all these services get lit up, and all those get brought over.

**WILLIAM**

Yeah. I can pick all of them, or I can [INAUDIBLE].

**TUCKER:**

**JOSH ASCHE:**

He can just pick individual one. I just need 2-inch return air, 2-inch supply air, whatever the situation may be. And you can just pull those specific services out of there. And then, these would be the services that show up inside of the profile. I'm going to grab a couple, and we'll just create one quick.

**WILLIAM**

Yeah. [INAUDIBLE].

**TUCKER:**

**AUDIENCE:**

[INAUDIBLE]

**JOSH ASCHE:**

So good question. That's a real good question. So what happens is you're basically copying over the service.map file from global with those specific services that you're selecting here. So when you go into your profile-- William will do this here in just a second-- when you go into the profile, you're only going to see the services that you selected.

However, if you go into edit the service and go to look at the templates, all of your templates from global get copied over into the profile, which can be a good thing, if you know you need to make some changes, or whatever. You know, you've got your chilled water, but it's not set up the way it needs to be for that project. You can maybe use some stop off of a different template and make your job easier trying to set that service up.

The other thing I want to talk about that is-- so you have those templates that are there. One thing that we found is that the drawing size file can get reduced dramatically, if you get rid of all the templates once the profile's set up and you're using it, if you get rid of all the templates that you're not using inside of the profile. And there's actually a button for managing this now, to basically delete in one click all the templates that you're not using. But if you go ahead and you do that, after it's all set up, I would say, you can, again, keep your file size down quite a bit from what it would be with having all of those templates there that you're not using.

So give it a name. Path is done. Copy the database over. Share the same files. Pick your sections. Pick your services. You can see right now, it's building that profile, based off those services that William just selected right here.

**WILLIAM** [INAUDIBLE].

**TUCKER:**

**JOSH ASCHE:** And you can see I have the option right here to basically switch. So I can go from global to that profile that I just built right there. So he just clicked Switch. You see, when he does the pull down here, now, he's just got those specific services sitting there ready to go. Even if, like I said, you're a one-man operation or a 1,000-person operation, having just those ones there makes things so much easier for the user at the end of the day, just having to worry about this stuff right here, than having that big long list of services and having to sort through that every time they're trying to do something right here.

So now, this would basically be set up. I could go in, I could modify whatever I needed to modify. And I would now have, basically, all this stuff set up and ready to go, specific for that profile right there. And you can now see at the bottom, there's that profile that William just created right there.

**WILLIAM** I'm going to point out something right now. As long as I'm in a blank drawing, I can switch to  
**TUCKER:** any one of these profiles that I want to switch to. But as soon as I drop an item in, it should be gray.

**JOSH ASCHE:** Yeah. I don't know why it did that.

**WILLIAM** Should we gray. You shouldn't be able to switch between--

**TUCKER:**

**JOSH ASCHE:** So if you have items on the screen--

**WILLIAM** It would be that way.

**TUCKER:**

**JOSH ASCHE:** --it's not going to let you switch profiles, because it's not going to let you take those items from profile A and open them up with profile B on purpose. So I'm not sure what happened there, to be perfectly--

**AUDIENCE:** [INAUDIBLE].

**JOSH ASCHE:** No, it shouldn't matter. But basically, what you have to do is you have to have a clean, empty drawing. And then, it will allow you to switch from one profile to the other. Again, not sure why

those are lit up right there.

**WILLIAM** Yeah. Should be gray. I don't know if we've got to save the file, or what's happening.

**TUCKER:**

**JOSH ASCHE:** Do you want to show that Manage button quick? And then we're about--

**WILLIAM** Which Manage?

**TUCKER:**

**JOSH ASCHE:** We're about done.

**WILLIAM** OK.

**TUCKER:**

**JOSH ASCHE:** The Template button inside the services. Go into your services.

**WILLIAM** Oh.

**TUCKER:**

**JOSH ASCHE:** Do you know what I'm talking-- for the templates? Yep.

**WILLIAM** [INAUDIBLE]?

**TUCKER:**

**JOSH ASCHE:** So right here is that button I was talking about. Well first, do the pull down, show all the templates there, William, just to kind of show how they all get copied over.

So these are all the templates that are being used. And the ones that don't have tick boxes by them-- scroll back up to the top there, real quick, William, the duct ones-- you see how these ones don't have tick boxes by them? I can't delete those templates right there, because those ones are currently in the profile and being used.

But when I was done, like William just did there, I could Select All. I could get rid of all the other templates that automatically are there by default when I create my profile, and cut down on that file size quite a bit by doing that. And then, you can use that Manage button to do that. Before, this wasn't here, and you had to go one, by one, by one. And some goofy things could happen, if you started deleting multiple ones.

But that's a good way to, again, once this is all set up and doing what you want it to do, you can use that button to cut that file size down. And worst case scenario, you can always go back into global, export services out of there, and import them in here, if you need to, to save yourself some steps, from having to build those from scratch after those templates have been deleted right there.

**WILLIAM TUCKER:** Yeah. If you're going to delete all the templates, though, just make sure that you're satisfied, that somebody's not going to change their mind on you, which is probably going to happen anyway.

[LAUGHTER]

**AUDIENCE:** So [INAUDIBLE] a user. Because invariably, you'll think you've got everything covered, but you'll need the--

**JOSH ASCHE:** Always happens.

**AUDIENCE:** [INAUDIBLE].

**JOSH ASCHE:** So we have one-- at each of our operating companies, we have one database administrator that has the user rights to go in, set the profile up, make modifications, do whatever they need to do. The only time that database administrator is in the global profile is to build the profile. Otherwise, that database administrator is logged in as the admin, but they're working on the profile.

The rest of the users, as much as they scream, and kick, and yell, and think they know better than everybody else, including the president of the company, as far as how this stuff should be done, they do not have the rights to get in and edit any of this stuff. It all has to funnel through the one person, to make sure that the person that's in charge there agrees that these changes need to be made. Otherwise, this would be a complete mess, if all the users had these rights.

**AUDIENCE:** [INAUDIBLE].

**JOSH ASCHE:** What's that?

**AUDIENCE:** You've got [INAUDIBLE].

**JOSH ASCHE:** Absolutely. [LAUGHS]

**WILLIAM** Yep.

**TUCKER:**

**JOSH ASCHE:** Yep?

**AUDIENCE:** So let's say you set up a profile for a job [INAUDIBLE]. So do I need to go back into the global settings and re-add that to the profile? Or do I have to go on every machine and re-add that?

**JOSH ASCHE:** So if it's something that's-- depending on what that is, if you have to go into global, you can export-- say you had to get some new connectors, or something, that were built, let's say, maybe some specific sheet metal connectors, or something, that are required. You could go into global, in this case, export the connectors out through the Database Export that's now available. And then, you could go into the profile from your machine, or an admin's machine, import those into the profile. And then, all the users that are pointing to that profile all now would have those updated connectors, in this example.

**WILLIAM** And I think Josh has-- do you have a database set up on everybody's machine, and you're  
**TUCKER:** replicating it, right?

**AUDIENCE:** No. I have a database set up on the network [INAUDIBLE]. So I can just go into the master and create a profile and then have everybody [INAUDIBLE].

**WILLIAM** Right.

**TUCKER:**

**AUDIENCE:** But what I'm referring to is, I bid a job, and we set up the profiles, and it might be-- I don't know. It might be weld. And then, they want to switch it to [INAUDIBLE], because they can't welders out in the field after we're done. Set it up so that now you go back and set up a group [INAUDIBLE].

**WILLIAM** Sure.

**TUCKER:**

**AUDIENCE:** [INAUDIBLE].

**WILLIAM** Yeah, it--

**TUCKER:**

**AUDIENCE:** [INAUDIBLE] service is the profile I want to delete--

**WILLIAM** I would suggest, if you know that it's-- a lot of time, you know-- it might be possible it might be

**TUCKER:** changing from weld to [? VIC. ?] You know, if that's the case, then I wouldn't purge the [? VIC ?] out of it, I'd just leave it there. I'm going to purge everything else, but I'm might leave that [? VIC ?] service template in.

**AUDIENCE:** [INAUDIBLE].

**WILLIAM** And that way, all I need to do is just re-assign my template.

**TUCKER:**

**AUDIENCE:** [INAUDIBLE].

**WILLIAM** Yep.

**TUCKER:**

**JOSH ASCHE:** I mean, I know like, when I set these up for the home company I work out of, when I'm not traveling, I know there's certain project managers, without a doubt, that I leave at least a half a dozen other services in there and ready to go, because it seems like it's a no-brainer, it's always going to happen-- they, oh, we're not doing it that way anymore. We're going to do it this way. Oh, we're not doing it that way anymore. Now, we're going to do it this way. Oh, we're not running copper to 2-inch anymore. We're going to break at an inch and a half. Then we're going to go to socket weld. And then, we're going to go to weld-- and it just goes on, and on, and on. So you try to leave yourself some outs in the profile, to help eliminate a lot of that type of stuff.

**WILLIAM** But the size of that profile is like, 6.62 meg right now.

**TUCKER:**

**JOSH ASCHE:** Yep?

**AUDIENCE:** What was the maximum number of profiles [INAUDIBLE]?

**JOSH ASCHE:** Yep.

**AUDIENCE:** [INAUDIBLE].

**JOSH ASCHE:** I don't know that we've hit-- I mean, again, we've got all our companies that are doing this-- some smaller, some \$200 million a year companies, good sized companies. And we haven't

ran into an issue yet with the profile.map getting too full or overloaded. So I don't have that answer, but it hasn't been an issue to this point.

**WILLIAM** I can say, the way it operates, I don't see where it--

**TUCKER:**

[INTERPOSING VOICES]

**WILLIAM** I don't think it could ever be an issue. Do you see any reason, Scott? I don't. Just a folder.

**TUCKER:**

**AUDIENCE:** Effectively purge out both profiles [INAUDIBLE].

**WILLIAM** You can go through the--

**TUCKER:**

**AUDIENCE:** [INAUDIBLE].

**WILLIAM** Go to the Setup Profiles-- well actually, it's Import Export.

**TUCKER:**

**JOSH ASCHE:** Yep. So you can export them out, and then store them somewhere. And then, when you come back in there, you could delete them out of there, if you're trying to clean that list up. But again, you still have that .pze file that it dumps out to bring back in, if you need to do something with that down the road. And that can help manage that list right there. Because at this time, again, it is in the order that they're created, so that can be a little bit of a pain, picking the right one, instead of the alphabetical or numerical list, like you'd have in Windows Explorer.

**WILLIAM** Yeah. [INAUDIBLE] just had a mess in profiles. They had a profile, then they had a copy of a profile, and they had a copy of the copy. And they're saying, use this one. And this is the correct one. And it was just a mess. And [INAUDIBLE] this right here. I exported every one of them out. And then went through, the best I could figure out, which profile was actually the accurate one. Trashed all the other stuff, and said, OK, here's this file. If I screwed something up, you can import them right back in.

**JOSH ASCHE:** Yep? Yep?

**AUDIENCE:** What do you do when you have multiple [INAUDIBLE] projects, sometimes we only have like plumbing or mechanical. Sometimes we have sheet metal, plumbing, and mechanical.

**WILLIAM** Same project.

**TUCKER:**

**AUDIENCE:** [INAUDIBLE] profiles for all three?

**JOSH ASCHE:** No.

**WILLIAM** No.

**TUCKER:**

**JOSH ASCHE:** Same profile.

[INTERPOSING VOICES]

**JOSH ASCHE:** You include all three services. Let's say you've got sprinkler-- you've got some sprinkler, you've got some duct, you've got some piping, some plumbing, and maybe some electrical, let's say. It doesn't matter. You build the profile. All the services that are required for the three different trades, or the five different trades, are in that profile. And all the users work out of that same profile.

**WILLIAM** Same project. Yeah.

**TUCKER:**

**JOSH ASCHE:** Yeah.

**WILLIAM** Yep.

**TUCKER:**

**JOSH ASCHE:** All right. I think we ran a couple of minutes over here. Got any other questions, we'll be available. But thank you, for coming.

[APPLAUSE]