

**MATT MURPHY:** And welcome to the productivity power of AutoCAD tool palettes, revealed. Thanks for attending my session. I hope you're enjoying Autodesk University so far. And I also want to welcome not only you, but our people who are watching virtually at home, in their office, anywhere around the world, because the session is being streamed live. So welcome, everyone.

Before we get started, I'd like to take a few minutes to find out a little bit about yourselves, especially for those of you at home. So we have an opening survey. For those of you who are at home or at the office, all you have to do is scan the QR code or go to the URL that's provided there and answer a few questions. And we'll put those questions up so everyone can see them.

So what I'd like to do before I find out a little bit about yourselves, let me tell you a few things about me. I've been 35 years in this business of teaching and training. I've pretty much worn all kinds of different hats. I'm a 23 year veteran of Autodesk University. I have won numerous speaker awards. And for some reason, they just keep inviting me back. I'm not quite sure why.

I know I've threatened to retire a number of times. This may be my last year for technical presentations. I do enjoy the interaction with all of you. And I believe that this is the best learning and training event worldwide, absolutely.

So let's find out about a little bit about yourselves, those of you that are here. How many of you are currently using tool palettes in a productive mode right now? Raise your hand. Wow, more than half of you are here. You can go to something else if you want.

How many of you are a veteran, two or more Autodesk Universities? Show of hands? Wow. Three or more, five or more? Excellent. And how many of you are here for the very first time? It's your first Autodesk-- wow, more than half of you. Oh my goodness. Keep your hands up. Keep your hands up, because I have something very special for those of you that are sitting right down front that are first timers. I have a very special pin I want you to wear. Over here. OK, great. Over here, a couple here. First timer pins, here's one for you and you. Very good. Over here, I saw a couple hands over here. Great, you guys can put these pins on, first timer pins.

I know that if you went to the freshman orientation, Lynn said no hazing, right? But I have a

very special ritual that I do for first timers at Autodesk University. We're having it tonight at the swimming pool at 10 o'clock. So--

[LAUGHTER]

The rest of you can just come and watch. No, no hazing. Sorry, we're not going to do that. But again, it's great to see so many new faces here. What release of AutoCAD are you on right now? How many are on 2006, 2016? Show of hands? 2015? Wow, majority looks like 2015. 2014, 2013, 2010. 2004? One of things about this particular class, it really doesn't matter what release of AutoCAD you're on, because the things that I'm going to cover are upwardly and downwardly compatible between 2004 and 2016.

So let's find out a little bit about our audience at home, shall we? I got my survey up here. And find out about our audience at home here. Oh, this is the-- oh, I put the wrong one up here. Sorry about that. I didn't set that. This is the opening. This seems like we've got Adam Armstrong as the one with the highest number of scores on the brain. Is he here, Adam? Obviously he must be remote then. Sorry, I forgot to advance my slides on this. So maybe we'll come back and get that opening survey back up here. And maybe we'll come back to that.

So let's talk about our learning objectives, the things that we're actually going to cover in this particular session. If you looked at the description, you've read the description, you read the learning objectives. These are the things that are published on the Autodesk website. Well I'm going to actually break this down into six major topics, what I call my course agenda. We're going to start by going over what tool palettes are and why you would use them. By show of hands here, how many people have not been using tool palettes at all? Show of hands. OK, we still get a few people here, but maybe 5% of you here. It's not uncommon. I have found that the first time people see the tool palette window, the first thing they do is they hit the X in the corner and they close it. It's in the way. They want it out of the way.

So let's talk about what and whys of tool palettes, and then to get a basic understanding of how tool palettes work. Then I'll show you how to make your own palatable tools. Get it? Palatable, like the food here. It was very palatable this year.

I'm also going to show you how you can find content. In fact, any kind of AutoCAD content you can find, you can put it on a tool palette, and you can manage it from there.

But the most important thing that I'm going to cover at the very end of the presentation is how to share these tool palettes you create. Because if you create these great tool palettes with all your company standards on them, how do you share them with other users? And what if they're on different releases of AutoCAD? I'm going to show you a trick on how to do that that's upwardly and downwardly compatible across all the products that support tool palettes.

Because we're live streaming here, I'll try to put some polling questions up as best I can. I always ask polling questions in my session. I'll ask for a show of hands how many people are doing a particular thing. Just raise your hand. We can get a reaction from the crowd that way.

Please be courteous with your mobile devices. I do not take questions during my session, but I will be available in the Learning Lounge on the show floor, booth 351, after the session. I'm going to answer any questions you want there. Or we could talk about whatever you'd like to talk about.

So let's start by the introduction of what tool palettes actually are. I believe that tool palettes are the greatest productivity tool ever added to AutoCAD. Whoa. That's a pretty bold statement. More powerful than the Undo command? Yes, I think so, absolutely. Because what you can do with tool palettes is, they're the easiest way to become productive using AutoCAD. Not only can you use them for inserting blocks and hatch patterns, but you can access all types of AutoCAD content. You can put them on a tool palette, and then access the content from there.

You can organize your palettes into dry folders or groups. I'm not going to show the group method. I'm going to show a dry folder method because that's the upward and downwardly compatible version. And it's going to make you more productive because you can share your tools with other people.

So why use tool palettes? It's the easiest way to customize-- easiest way to customize. All you have to do is find a properly utilized object, put your left mouse button down on the object, hold the left button down, and then drag it over to the tool palette, and then release button. It's drag and drop. That's how you customize. Little bit easier than, say, CUI.

Tool palettes-- they can also be floating. They can be docked. And you can hide them. And if you anchor them, they take up not more space than the old tool bars used to. They're going to make you more productive because you're going to get your real estate back on the drawing screen. You're going to be more organized because things are going to be grouped into these

tabs or palettes. And you're going to be able to maintain your company corporate standards.

And the main reason that I teach this-- in fact, over the years, for all the years that I've taught things at Autodesk University, there's only one reason you want to learn something new. It's because it reduces clicks and ticks. That's how you become more productive with AutoCAD. Working faster does not make you more productive. We tried that in the '90s. It didn't work.

I used to work as a consultant going to an organization. And the CAD manager would say, come over here and see Bob. He's my best guy. Look at him go. He only knew six commands, but he was really good at doing them over and over and over again.

So the main reason you want to use tool palettes, it's going to reduce your clicks and ticks. And if you reduce your steps and you reduce your clicks, you're going to get more done in less time. Make sense? Yes.

So to understand how tool palettes work, you need to understand where the hidden and the embedded features are. The hidden and the embedded features are found by right clicking. So where do you right click? You right click everywhere on a tool palette. And this is where you find the hidden and the embedded features. There's no manual that tells you what to do with a tool palette. But if you right click, you'll find the hidden and the embedded tools.

So for those of you that closed the tool palette window by hitting the X in the corner, the first thing you want to know is how do I open up the tool palette window. I'm also going to show you how to modify existing tools, because AutoCAD ships with a whole bunch of sample tools. Let's play with those first. I'll show you how to copy an existing tool, how to move a tool, how to change the look of a tool.

And notice I'm using the word tool. Because it's not just because it's on a tool palette. It might look like a block. It might look like a hatch pattern. But it's not. It's a block tool or a hatch tool, because it retains very specific properties that make it more productive for you to use.

So let's try it. I'm going to go into AutoCAD right now. And in fact, the majority of you said you were on 2015. So let's go to AutoCAD 2015. And here's the tool palette window. This is the sample one that ships with AutoCAD. If you closed it, oops will not get it back. Neither will Undo.

So how do get the tool palette window back? Control-3. You can toggle with your Control-3.

That's why I'm doing this on the Control key now. I'm tapping the number 3. It gets and opens and closes the tool palette window. I can also do it here from the View tab. And I can open and close the tool palette from there.

So let's talk about the basic components that we see here. So what we see right here, this is known as the tool palette window. Each one of these tabs is known as a tool palette. And everything that appears on here is known as a palette tool. Three things, right-- tool palette window, tool palettes, and tools.

If I come over here and I right click on the tool palette itself, I can move, size, and close it. You guys know how to do this, right? This is really basic stuff. But I can also anchor it, and I can also hide it. If I anchor it to the left of to the right, it takes up no more space than a toolbar used to. And I can roll my cursor on and off to get the tool palette to be visible. So I get my real estate back.

As soon as I double click on it to get it back, it automatically hides. Right click, turn the auto hide feature off. And now I can see the whole palette window again. So I can resize it, right click.

Here's one-- transparency. This was new in a few releases ago where I could change the transparency, and I can actually have two levels of transparency. One when it's just sitting there on the screen, and the other one is when I roll the cursor over it. So if I click on OK and roll my cursor on and off, what this allows me to do is I can see the geometry behind the palette. Whoa. Is that cool?

I see some of you don't know the routine. When I do my presentations, I will always ask, is this feature cool or is this function cool. I'm looking for audience participation. I'm looking for reinforcement, engagement to make sure you're on the same page with me. But since I'm from Boston.

[BOOS]

[LAUGHTER]

What did I do? Because I'm from Boston, we have a saying in Boston. When we find that things are cool, we say they are wicked cool. I'm not sure exactly why. Maybe it goes back to the Salem witch trials of the 1700s. That was when people then were wicked. But we have wicked beer. And we have all kinds of things that we call that are wicked. So here's what we're

going to do. And wicked is a good thing by the way. Wicked is not a bad thing.

So when I ask you if you find that this feature is cool, all you do is respond by saying it is wicked cool. So let me ask you one more time. I can move that tool palette over the geometry, and I can see the geometry behind it with the transparency turned on. Is that cool?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** Excellent. All right. So being close to the programming team, I actually asked the question. I said, I realize this is wicked cool, but what purpose does it serve? And you know what the answer was? Nothing. You can't click the geometry behind it. You can't pick through it. So it's like, what's the point? it's just a cool thing they could do. They could make it transparent. All right, so let's create that transparency back up so it's solid again. So now I can see the whole thing again.

All right, so what else can I do? I can right click here. I can create brand new tool palettes. I can rename them. I can create custom ones. I can go to the mini-CUI and I can drag commands from there onto the tool palette. Or I can create my new-- let's create a new palette here right now. We'll call it AU2015. Brand new palette, nothing on it.

So now where can I click? Let me right click over here on one of the palettes itself. So if I right click on the palette, I can move a palette up, or I can move the palette down. So I can reorder them, or I can put them in a different sequence.

I can also change the View Options. I can increase or decrease the size of the icons. So for those of us that are the hard of seeing-- is it just me, or the higher resolution that we go, don't the buttons in the ribbon gets smaller? You've noticed that too, isn't it. It makes it harder to see. I mean, I'm not in my 20s, 30s, or even 40s anymore. So I usually have to wear glasses to see what's going on. Show of hands, how many people find this also very annoying? Yeah, most of you here. Of course you are.

So what we can we do with a tool palette? We can right click on the palette itself, and we can change the View Options. I can just show the icons if I don't want to see the names. I can right click and change the View Options and say, show me the icons with the text. Or I can show it as a list. And if I adjust it and I like it the way that I've resized it, if I want these other palettes to automatically adjust to that size, all I have to do is say, apply to all the palettes. And now all the palettes have the same size. Is that cool?

**AUDIENCE:** It's wicked cool.

**MATT MURPHY:** Excellent It's wicked cool, easy to do. All right, what's next? Let's go over here and right click on the tool. If I right click on the tool itself, I can Cut, Copy, Rename the Tool, or Update the Tool Image-- Cut, Copy. Let me do this. I'm going to hold my Control key down, and I'm going to select Doors, Studs. Scroll down here, I'm going to grab Toilets, Trees, and Vehicles too.

So I'm going to pick the ones that I want. I right click. I say Copy. I come over here to my AU palette, and I right click, I say Paste. Sounds like Microsoft, right? Right click, Cut, Copy, Paste. Right click, Cut, Copy, Delete.

So I could move the tools around as well. Maybe I don't like this tool where it is. I hold my left button down, I move it. Let's move the doors closer to windows, toilets next to trees. So I can rearrange the tools and put them in a more logical order. Put them in a more logical order.

Let's right click on the tool again. Let's go over here to Doors. I'm going to click on Doors, and I'm going to say Rename. I'm going to change this to AU Special Door. Did I just rename the block? No I did not. I just renamed the block tool, remember? Everything on a tool palette is known as a tool. I renamed the block tool.

So why would you want to rename a block and give the block tool a very unique name, a different name? Why would you want to do that? Let me ask this question. How many of you have blocks that have names that sound something like this-- CP\_97T. Show of hands. More than half the people in the room have names like that.

Why do we have names like that? Because the block libraries that we're working with were made back in the '90s. Show of hands, how many people have block libraries built back in the '90s? Most of you do.

So what did you do in those days when Bob, who probably was the person who made these blocks-- he was limited to eight characters for a file name, wasn't he? So he had to come up with these cryptic names. So how do you know what the block is actually used for? What did Bob create?

**AUDIENCE:** Manual.

**MATT MURPHY:** He created a book. I might even have one over here. Do I even have one here? Yeah, right

here. It's the one that Bob made. He put it in a three ring binder, didn't he? And what's inside the three ring binder? A picture of every block, shows where the insertion point of the block is, and then the name and description that tells you what the block is. You know what I call this thing? The Rosetta Stone. It's called the Rosetta Stone because if you don't have this thing, you've got the cryptic names. You have no idea what the block is used for.

So here what should you do is you take the block, and you put it on the tool palette. You right click and you give it a name. You give it a name that makes sense. You give it a name of what it's used for. Right click. Right click on the block. Whoops, sorry. Click on the block, right click, Cut, Copy, Rename. I can also update the tool image. And I can even specify images.

So if you don't want that image of the block-- because sometimes our blocks are really complicated looking, right? Looks like a spider web, and you really can't tell what it is. You can change the image, and you can make the image anything you want.

Let's come over here and let's use-- hey, I made the block. Why not make myself the image of the block? And in AutoCAD, don't we have light and dark themes too? We have the dark side and we have lights side. So you can actually choose a different image for your dark side. So you've got the light side and you've got the dark side image. So you can change the image for the tool as well. Make it something that's more appealing. Make it something that makes sense.

And if I right click on the tool again, and come down to the Physical Properties, you can see I can also give it a description as well as changing the name. Here is where the name of the block is, the block name. The block hasn't been changed. And this is also the folder of where the block or the drawing file is located.

All right, where else can I right click?

**AUDIENCE:** Empty space.

**MATT MURPHY:** Yeah, I can right click in the empty space. So if I come over here and right click in the empty space, I still have the features that I have such as View Options, Transparency, Auto highlight. I can also sort the tools by name and type. I can also add text and separators. A separator is just a line segment, just a line. But I can also right click here, and I can add some text. This note's for you, or a description of what those particular tools are used for.

What if I don't like where the separator is located? Yeah, hold my left button down, drag it to a

different place. What if I don't like where the note is? Drag and drop, just like I drag and dropped the tools. What if I don't want it there? What do I do? I can just right click and delete it. What if I don't want a tool? Right click and delete.

So all the things that you need to know about setting up your tool palettes is found in a right click. And that's where you find the hidden and the embedded features.

Let's come back to PowerPoint and talk about making your own palette tools. So if you want to make palatable tools, what types of tools can you put on a tool palette? Well, we know we can put blocks. We can put hatch patterns. We can plot flyout tools. Flyout tools could be commands, any type of AutoCAD content, even table tools, tables, any kind of-- list routines. As long as you can find it, you can drag it and drop it and put it on a tool palette from there.

So let's come back in and try something here. All right, back to AutoCAD.

So over here on my AU palette, I have-- let me talk about this drawing first of all. In this particular drawing, I have some blocks. Here's a filing cabinet. I want to take that filing cabinet, and I want to put it on my tool palette. So I simply click and pick on the object that I want to use. Don't pick on the grip. And then hold your left mouse button down, and drag it and drop it and put it on the tool palette.

Also it's got the cryptic name that Bob gave it back in the '90s, because that's what it's called, right? If I want to rename it, what do I do? Yeah, just right click and rename it-- Special AU Cabinet. And if I want to put it in the drawing, I can either drag it and drop it, or I can pick and place just like I normally do if I was going to place content in here.

A lot of times though you might want this block at a different orientation. Even though Bob created it horizontally, maybe the way they use it most frequently is vertically. So what's common for your is this. You insert the block, and then you rotate it. Show of hands, how many people have ever done that? All the hands go up in the room. OK, makes sense, right?

But watch what I'm going to do. I'm going to take this block, and I'm going to drag it and drop it and put it on my tool palette. Whoa-- whoa. What just happened? I didn't ask the question yet. Is that cool?

**AUDIENCE:** It's wicked cool.

**MATT MURPHY:** Yeah, that's wicked cool. What happened? It remembers not how the block was created, it

remembers how the block is used. It remember how the object is utilized. Isn't that more important than how it was created? Yes, of course it is. That's far more important.

Because now I can right click on this one, and I could rename this tool. Let's rename this, and we'll call this the vertical version of the filing cabinet. So as you use your blocks, you drag and drop them and you put them on the palette. And it remembers how they are used. Far more useful. And will this save you clicks and ticks? Oh yeah. Will it make you more productive? Absolutely.

So now let's talk about some things that are not well documented. They're not well documented. And by going to the physical properties of this particular block, we know that this is the actual name of the block here. And this path right here shows me where the file is located.

So let me ask you a question. Let's say that for some reason, this block, the physical location of where it exists on your network or hard drive, no longer exists. The block no longer exist there. If I go to drag and drop this block into the drawing, will it insert It? Yes or no? Well, people aren't quite sure here. People aren't quite sure.

All right, so let's do this. I don't want to do that. What I'd like people to do, for those of you that are playing along at home-- make sire I got my question set up here right now. Yep. For those of you at home, I want you to answer the question, will it insert yes or no, while I poll my audience here. Again, show of hands here. How many people think the block will still insert? Raise your hand for yes.

**AUDIENCE:** [INAUDIBLE]

**MATT MURPHY:** Wait. No questions. No contingencies. Will it insert, yes or no? Yes? Raise your hand for now. Raise your hand if you have no idea what it's going to do. Hey, it's all right if you raise your hand for no idea, because I haven't taught you it yet, right? We're almost 50-50 on here with some people think it's going to insert and some people say it's not going to insert. Let's see what the audience at home has to say about this. Whoops, going to refresh this. Sorry about that. Refresh this. Let's try this now.

Why is it not showing me the right results here? Sorry about this. Opening survey. This is a new piece of technology that I was just playing with and tried to incorporate in the class. Let's see if this actually works here. Go back into my sessions. [INAUDIBLE] Insert blocks. So let's

display that. Let's see what we get for results here. [YELLS]

I see the audience at home is just as sharp as the audience here. Eh, 50/50. 50-50 chance. Maybe it'll insert, maybe it won't. And the answer to the question is will it insert. And the correct answer is it may still insert, all right? In this particular case, the answer is yes, it will still insert, because AutoCAD is looking in a very particular place to see if the block already exists as a current definition of a block in this drawing file. So it looks here to see if the block definition already exists in the file.

And in this particular case, since it does, the block will still insert. It always looks for the current block definition in the file first. If it doesn't see it, then it goes to look in that external file source or folders to see if the block is there.

So question number two-- question number two. Let's say that the block does not exist here in the current file-- does not exist here, and the block does not exist here, over here in this network drive or local folder. When I go to drag and drop the block into the file, will the block insert? Yes or no? Raise your hand for yes. Raise your hand for no. Wow, almost everybody says-- how many people have no idea what it's going to do? All right, I'm with you. You may not know because I haven't taught you yet, right?

Should we see what our audience at home thinks? Sure, let's go see what our audience at home thinks. All right. So if the block definition doesn't exist in the current file and it doesn't exist on the palette, most people seem to think that it won't insert-- that it won't insert at all. Nobody even picked-- did anybody pick the maybe? Nobody even picked the maybe. Because you know what the actual answer is? It may still insert. It may still insert.

And I know some are you are sitting there saying, if it doesn't exist in the current file, and it doesn't exist on the network local driver it's mapped to, how could it possibly still insert? And that's because AutoCAD is going to look in one other place to see if the block definition exists. And that's over here under Options, under Support and Working File Locations. There are mapped locations for resources for AutoCAD. So AutoCAD will go look to see if it's in a support or one of these working file folder locations.

Why is this important to know? Let me ask you this question. Have you ever had somebody in your company-- usually from the IT department-- come in on like a Saturday and decide that they're going to remap and reorg all the drive folders? Show of hands if that's true. Wow, more than 50%-- way more than 50% of you raised your hand for this. That's incredible.

Is there anybody here from the IT department? Really? Hold on. Hold on, keep you hand up.  
From the IT department, over here. What's you name, Mike?

**AUDIENCE:** Yep.

**MATT MURPHY:** Mike, let me ask you a real simple question. Would you ever come in on a Saturday and remap all the drives without telling anybody?

**AUDIENCE:** No.

**MATT MURPHY:** I don't know where you guys are having a problem.

**AUDIENCE:** I'm also the CAD manager.

**MATT MURPHY:** Oh, he's the CAD manager too. Well, I kind of do this kind of jokingly because it happens, right? It happens in reality. Sometimes the file moves. The file changes folders and locations. Why? Why does it do that? Because data migrates naturally. Doesn't data start in a project folder? And then as the project is complete, it moves to an archive folder? Raise your hand if that's true. Of course it is. That's how you guys work.

So it's important to know this because someday the blocks that you put on the palette are going to become broken. And they're not going to work. So how do you fix it? Well, you can add that archive folder to your support and working file folder location. Or if you've got multiple files, just hold your Shift or Control key down, click on all the tools that are on the palette that are broken, right click and go to Properties. And then I can come over here and right there, I can click on that button and go find the files where the new location is. And the palettes are fixed without my broken blocks. Is that cool?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** That's wicked cool. And guess what? It's not documented in my notes either. So I'm glad you're taking good notes.

All right, what's next? Hey, does anybody here still use hatch patterns? Show of hands. Oh wow, a lot of people still use hatch patterns. So let's do this. I'm going to come over here and-- this is Control-3, get my tool palette back. And here is a correctly utilized hatch. What do we know about hatch when we use it in a drawing?

Well Matt, what we do is this. Hatch has to be on a certain layer with a certain color and a certain line type. It also has to be at a certain rotation angle, a certain scale. Is that true?

**AUDIENCE:** Yes.

**MATT MURPHY:** Yes, of course it is. You can't just hatch any which way. You have standards. Well, most people do. So what I do is I click on the hatch pattern. Don't click on the grip. Just drag and drop that hatch pattern, and put it over here on to your palette. Is it ANSI31? What should I do with that? Yeah, rename it, obviously. Let's change the name. Special AU Hatch.

Now obviously you wouldn't call it Special AU Hatch. You're going to give it a name, a very specific name of what that hatch is actually utilized for. And then if you ever need to use that particular hatch again, all I have to do is drag and drop it, and place it where I want it. Whoa.

Look. What layer was current? Zero. What layer did the hatch go on? It went on the hatch layer, even though the hatch layer wasn't even current. It automatically put it on the correct layer. Whoa. You're not impressed.

Let's do this. Let me go over and start a brand new drawing from scratch. What do you get for layers in this? Nothing, just layer zero. So what am I going to do? I'm going to draw a rectangle, drag and drop the hatch in, automatically put the hatch on the correct layer, even though the layer didn't even exist. Whoa. Is that cool?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** That's wicked cool. That's wicked cool. Let me ask you this question. By show of hands, how many people have ever created an object on the wrong layer? Show of hands-- show of hands. Keep your hands up. Keep you hands up. Look around the room. See the people with their hands down? They're lying.

Come on people. Of course you do. So if you put a correctly utilized object on the palette, and it automatically puts it on the correct layer, you don't have to do what? Change properties, right? Match properties. You don't have to do any of that anymore. How many steps does that save you? A lot-- it saves you a lot.

Let me ask you another question. How many people here do dimensions? Does anybody dimension anymore?

**AUDIENCE:** Yes.

**MATT MURPHY:** Really, a number of you. OK. How many people have ever used the QDIM command-- QDIM? Show of hands. Four people, five people. Watch what I'm going to do. I type the QDIM command. I select all this geometry. I right click, and I place my dimensions. Oops, what happened to my dimensions there? Oh, wrong layer. Sorry about that. How did that happen? Does that ever happen to you?

Let's go to-- am I in the right drawing here? No, I'm in the wrong drawing. That's why. This drawing-- this drawing is a good example of why you use palette, right? Let's go back to QDIM. I just happened to open up the wrong file. QDIM, select the geometry, right click, place the dimensions. Placed all the dimensions all at once. These are still associative dimensions. I can click and pick on them, and they exist as associative dimensions.

Click on a dimension. Drag it and drop it. Put on the tool palette. Notice you automatically get a little arrow next to it. That's a flyout.

Think of all the different ways the dimensions are created. So when you drag a dimension, put it on a tool palette, automatically creates the flyout for all the different ways you could possibly dimension. What if you don't use them all? Right click, go to Properties. I can actually shut the flyout off if I don't want to use the flyout. I can obviously give it a name, right, as to what this dimension is used for.

Do I want to use the flyout options? Once I say yes or no, I can choose the options that I want. I don't use tolerances. I don't use baseline. I don't use ordinate. I'm definitely going to use quick dimensions. I'm going to leave that on when I click on OK. And now I go to the flyout. It only shows me the tools that I want to say. Is that cool?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** Wicked cool. And isn't it just as easy to do this in the CUI on a ribbon? No, it's not. It's not this easy. It's just right click in order to do it-- right click in order to do it. And now I can actually go back to that other drawing file. This is where my standards come in, right?

So if I come back over here to this particular drawing that I actually picked as the wrong drawing file, now if I come over here and use my flyout and say, quick dimensions here, select this geometry. Right click and place the dimensions. It automatically brings it in, puts it on the correct layer. And more importantly, as you saw when I messed up the first time-- and it wasn't

intentional-- is this over here, under-- where is it here? Where is dimensions-- dimensions? Oh yes, yes, yes, under Annotate. It's over here. It automatically brings in the architectural dimension style.

That style didn't even exist before. You saw what I just did. I tried to put the dimensions. I couldn't even see them because it was wrong style.

So what are you going to do when you go back to work? What are you going to do? You're going to create a palette for all the different ways you use hatch patterns. Drag and drop will put the hatch pattern on a palette. Right click, rename them, give them logical names.

How many different ways do you use dimensions? Four, five, six? How many people use dimension overrides? So if you drag and drop a dimension on here with an override, does it remember the override is in play? Yeah it does. It automatically remember that.

Let's go back to PowerPoint. We did the block survey already. Power of content-- the power of content. So let's talk about the different ways that-- [INAUDIBLE] survey here.

Oh, it's story time. It's story time. If you've been in my session before, you know I love to tell stories. So here's a common tale, a story that we can all relate to. And here's the story.

You need to go insert a block. So what do you do? First thing you do is you go look and see if the block exists in the current file. So you go say under Insert, you go click on Block. You take a look in the list. You see if the blocks there. And you say damn, the block's not here.

So now what do you do? Raise you hand if you go and click on the Browse button. Show of hands. 70% of you go to the Browse button. Then you got to go start looking at folders, right? So you got to go folder, folder, go to the network drive. Find the user blocks. Find the approved blocks. Find the project blocks. Eventually you get the folder with the-- and there's the ancestral blocks, the ones that Bob made back in the '90s. Look, there's some really old ones here. We even have blocks by Lucy here. I mean, there's really old stuff.

So we click on the Lucy folder. And then we eventually find the block that we need to insert. We click and pick on the block. Click on Open. Then it brings us back to the Insert dialog box. We click on OK. And now we can finally place it in the file.

Well, my question for you is this. By a show of hands, back here, how many people use the Insert command on a daily basis? Show of hands-- show of hands. 80% of you or more in the

studio audience, and I'm sure most of you at home watching along as well, are still using the Insert command. So what I'm going to tell you is this. If you are, in a production mode, still using Insert, don't. Don't do it. It's a waste of time. There's too many clicks and too many picks.

Instead, what you're going to do is you're going to navigate to those folders where your ancestral blocks are located, and you're going to put those blocks on a tool palette. Now there's a couple of different ways you can do this. You can drag and drop the way I just showed you. You can go to Design Center and do this.

How many people have ever used Design Center? Show of hands. Most people have. In fact, that's probably what you're using to manage your blocks now, right, is Design Center.

But what is Design Center really intended to do? What does it do? What is Design Center? It's a cannibalistic tool. Isn't it? It's like a cannibal tool, right? It will steal things out of other places where you forgot to put them, right? You go find them in Design Center.

But you can use Design Center to go navigate to your ancestral block folder or legacy block folders, and you can access your blocks, and then put them on a tool palette from there. You can also do this with Windows Explorer or Internet Explorer.

So let me show you what I mean. So what I'm going to do right now is-- let me just restore AutoCAD down here a bit, get my survey out of the way. And I just want to show you something here. Look at this. The tool palette window exists outside of AutoCAD. Whoa.

Doesn't this violate some fundamental law of the Matrix? How could it exist outside of AutoCAD? How can Neo be in the Matrix and not in the Matrix at the same time? I see most of you haven't seen the movie. But that's OK. That's OK. That's OK. The tool palette exists outside of the window.

So what's the whole purpose of this? Well, what if I did this? What if I navigated to where my block library is, find the master blocks, find the user blocks, find the approved project blocks, and go find here my ancestral blocks, and find the folder where the Lucy blocks are, right? What I can do from here is I can drag and drop right from that folder onto my tool palette. Whoa.

What if I want a whole bunch of these?

**AUDIENCE:** Control [INAUDIBLE].

**MATT MURPHY:** I can hold my Control key down and go click and pick the ones that I want. I'm going to go get the dining room set, the entertainment center. I'm going to get the copy machine. I should be using the exercise bike. Yep. And then I drag and drop those over. Because I can almost guarantee, you can validate this or not. In that legacy folder, ancestral folder, there's blocks you have no idea what they are. Show of hands. I mean, you haven't used them in years, right? There's a series that you just really use fundamentally all the time.

So just go grab those, and put those onto the tool palette. Is that cool?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** That's wicked cool. But what if you want them all? What if you want all the blocks in the Lucy folder? What do you do? You go over here, and you go to Design Center. And from Design Center, you're going to go in and navigate to your block library folder. And you could do the same thing here that you did on the network drive. It's just drag and drop them from Design Center and put them on the palette from there.

But in this particular case, what if you want them all? What if you want all the blocks in the Lucy folder? I right click on the folder in Design Center in the folder list, and then I say, create a tool palette of blocks. I don't actually say it. I actually come over here and click it.

So I click on that. And as soon as I click on that, AutoCAD automatically creates a tool palette using the name of the folder. Notice it doesn't remember the image sizes, but that's OK. We can easily fix that. And it takes all the blocks that are in the folder, and creates a brand new pallet. Is that cool?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** Will that save you clicks and picks?

**AUDIENCE:** Yes.

**MATT MURPHY:** Yes, of course it will. How many of you are using dynamic blocks? Show of hands. Dynamic blocks-- a number of you. What do we know about creating dynamic blocks? Do we use the WBLOCK command for this? No. The way our ancestors made blocks is they made a separate drawing file for every single block.

But if you use dynamic blocks, you create them in one single drawing file-- one file. And then what you do is this. Notice I have a folder here called the New World Blocks here. And I go over here and I click on Bathroom. And I can see all the blocks that are in this one particular file-- not the folder, but in the file. Some of these are dynamic, some of them are not.

I can drag and drop them over onto the palette if I want, or I can right click on the file. And when I right click on the file, it says create a tool palette of all the blocks that are in that file. And using the name of the file, it creates a brand new palette, takes all the blocks, and puts on the tool palette. Is that cool?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** Yeah, that's wicked cool. This is going to save you time. It's going to save you clicks and pick. And you're going to manage, and access your blocks them there.

So I see that some of you are kind of fading a little bit here. We're about halfway through the class and we're fading a little bit. So before I get to the most important part about using blocks-- about using tool palettes and putting your tools on palettes and sharing them with other users, what we're going to do is this. Everyone is going to stand up. Everybody is going to stand up. And those of you at home, I want you to stand up as well. And we're going to do our midclass stretch. Here we go. And a one, two. Yes, we do. We do this stress. Doesn't every instructor at AU make a stretch in the middle of the class? No? Should they? Yes. They should be listening to me, because there's a reason-- stay up. Don't sit down yet. Keep doing the stretch.

You know what's really odd about this is watching you guys actually do it. So I do the stretch. And I do the stretch for two reasons. One, the mind can only absorb what the seat can endure. It gets the blood flowing, and it also gives us an opportunity to kind of shift gears mentally a little bit here.

We're going to play a game. We're going to play everybody's favorite AutoCAD game. This game is called BoxShots. This is where we test your knowledge, not on the features and the functions on the software, but on the more memorable packaging that it came in. Yes, the more memorable packaging that it came in.

So what I'm going to do is this. I'm going to put up on the screen the pictures of two releases of AutoCAD, the boxes that the software came in. If you think you know the names of these

two releases of AutoCAD, just remain standing. And I'll pick two contestants to come up here on the stage to play for some wicked cool prizes. All right. And for those of you home, you can play along as well.

So here are the two pictures-- box number one, and box number two. And again, for those of you at home, you can play along with BoxShots. Remain standing if you think you know the names of those two releases of AutoCAD. All right, we're OK here. We're OK here.

And the way I normally do this is I will usually pick the two contestants that are closest to me right here. So I'm going to pick George here and you are Jason. Do you have a pen and a piece of paper on hand? If you do, bring that up to the stage here and come up to the stage with me. If you don't, I actually have a pad of paper and a pen here. Up here. And this is a pad of paper. And you've got a pad. You've got a piece-- and actually I'll give you a little pad here, and you can use your own pen there. Great.

First of all, can I have a round of applause for my contestants today?

[APPLAUSE]

Let's find out about our contestants here today. Hi George. Where are you from?

**AUDIENCE:** Tulsa, Oklahoma.

**MATT MURPHY:** Are you enjoying AU so far?

**AUDIENCE:** Absolutely.

**MATT MURPHY:** What's your favorite class so far?

**AUDIENCE:** This one.

[LAUGHTER]

**MATT MURPHY:** Correct answer. It was a slight delay there-- slight, slight delay. What was the first release of AutoCAD you ever used?

**AUDIENCE:** R14.

**MATT MURPHY:** Wow, 14. Very good. Thanks for joining us here George. Jason, where are you from?

**AUDIENCE:** Boise, Idaho.

**MATT MURPHY:** Boise, Idaho. What do you design up there in Boise?

**AUDIENCE:** Power structures mostly.

**MATT MURPHY:** Power structures. Are we stealing energy from the Canadians or anything like that?

**AUDIENCE:** Wow, we should be.

**MATT MURPHY:** I tend to agree with you. Tell me this. What's your favorite AutoCAD command of all time-- favorite command. So many to choose from.

**AUDIENCE:** Overkill. It just sounds so cool.

**MATT MURPHY:** Yeah. By show of hands, how many people's favorite command is overkill? You have three people that actually enjoy that.

**AUDIENCE:** They do civil work I bet.

**MATT MURPHY:** Definitely for that. You know what mine is? It's actually Undo. It's Undo. It's the only time in your life you've been able to undo. It's like the Marty McFly command. I can go back and fix things. Nobody knows who Marty McFly is. That's OK.

All right, so this is what I'd like you to do. George, Jason. Sorry about that. What I want you to do is, on your piece of paper, write the number one and the number two down onto each piece of paper. And then write the name of the release of AutoCAD next to each number. This way, there's no cheating here. Do you remember what the picture looked like, number one and number two? Do I have to go back there? You guys got it? All right, so here we go.

Let's find out what box number one is. First of all, should we poll the audience at home, just to see what they think the box is? Let me see if I can do that. Can I do that here without messing things up too fast here? Let's go back here to here. I think I can do this, right? BoxShots. Hopefully it was active. It should have been active. And let's go back here to view that.

So our audience at home is dialing in right now. When should I cut it off? Now? There's still looking it up. I said this was some new technology I was playing with. I said I'd try it, right? Why not? If you were sitting at home, wouldn't you like to play along? So let's see what we got here.

We have 2008 is the number one pick, and 2006 is what our audience at home is saying for

the first box. Hmm, interesting. All right. So let's go over here to George. What did you think it was?

**AUDIENCE:** 2010.

**MATT MURPHY:** 2010.

**AUDIENCE:** I thought it was 2006.

**MATT MURPHY:** 2006. 2010, 2006. Box number one is actually AutoCAD 2008. Oh, wow. So you know what we have right now? We have a tie. We have a tie.

All right, box number two. Let's go back to our audience at home and see what they think box number two is-- box number two. Notice I give them every possible choice, right? 2016, or 2004, or 2006. We got a 2013 in there too. All right, that's OK. That's what our audience at home thinks. What do you got, George?

**AUDIENCE:** 2012.

**MATT MURPHY:** 2012. What do you have?

**AUDIENCE:** I said 2002.

**MATT MURPHY:** 2012 and 2002. Do either one of you want a phone a friend?

[LAUGHTER]

Wrong show. Box number two is actually 2004. Oh.

**AUDIENCE:** We were way off. Eight and four equals 12.

**MATT MURPHY:** Eight and four equals 12.

[LAUGHTER]

He really wants the prize. He doesn't know what it is, but he really wants the prize. You know what, we've got a tie here. And I'm going to give the prize to both of you. And this is the prize. How would you like it if I came to your office or your company and gave you up to 80 hours of AutoCAD training for free?

**AUDIENCE:** Great.

**AUDIENCE:** I'd love it.

**MATT MURPHY:** Would you like that? Would you think that's a cool prize?

[APPLAUSE]

Here's my DVD box set.

[LAUGHTER]

Thank you. Thank you so much for playing. And of course, whenever we play BoxShots, we have to run the credits. And of course prizes are provided for promotional consideration. All right.

So thanks for playing BoxShots. I hope you guys had fun doing that. I always do this in the middle my class, gets your brain shifting gears a little bit, gets the blood flowing a little bit differently. Because now what we're going to do is we're going to talk about how to share your palettes and tools with others.

So we've gone over some basic ways of how to create your palettes. But now you create these great tool palettes, and you want to share them with other users. How do you do it? How do you do it?

So what I'm going to do first is I'm actually show you the trick, and then reveal how it's done. Get it? What's the name of the class, right? Tool pallets--

**AUDIENCE:** Revealed.

**MATT MURPHY:** --revealed, right. So how I'm going to do this is I'm going to show you how to create tool palettes in very specific folders. So you create a folder based on how you want to create these tools, and then you're going to build your palettes from there. Then we're going to use a hidden system environment variable called `_TOOLPALETTEPATH`. So we can demand load these palettes as we need them.

Once you demand load them as you need them and you can see that it works, you can take that folder, move it to a secure network location-- secure meaning what?

**AUDIENCE:** Read only.

**MATT MURPHY:** Yeah, read only, right? We want to make it read only. And once it's read only, people won't be able to change the tools on the palette. That will help maintain your company corporate standards.

And we're going to be able to switch from one palette to another, or a group of palettes, by using the TOOLPALETTEPATH statement and building what I call the action macro in order to do this. So let me show you how this works. I'll show you the trick, and then I'll reveal how it's done. Let's go back here to AutoCAD.

And what I'm going to do is-- let's go over to-- it really doesn't matter what drawing it is. I'm going to type in HP and press Enter. And what it does is automatically loads a hardware palette of fasteners, bolts, and nuts. BP for bathroom pallet, and it just brings up my bathroom fixtures. But if I just want my hatch patterns, I'll type HAP, and it just loads my palette for hatch patterns.

So what I'm doing is I'm right now, I'm just demand loading a small series of palettes because, if you create more than 10 or 12 of these palettes, can you even see them? No you can't. It expands, and then you have this accordion thing. You've got to click on it. It expands like an accordion. And it doesn't make any sense to make that many. So you want to make small groups of palettes, and then demand load them as you need them. Is that a cool little trick?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** Yes, that's wicked cool. And now you need to know how the trick works. So what we're going to do is this. If I right click in the middle of my screen and I go to Options, you're going to see over here, under Tool Pallet File Locations, the path here under Options has been set. So I created some kind of little AutoCAD command automatically to set this path statement.

So what you're going to do first, before you start building palettes in the existing pallet window, you're going to come over here. And let's go over to where I keep my palette definitions. And I'm going to create a brand new folder called-- we'll call it AU Palettes.

Now if I create that folder, what's inside that folder right now? Nothing, just created it. It's blank. It's empty. So what I'm going to do is I'm going to come up here and I'm going to copy that folder location, that path. And I'm going to come back over here under Options. And under Options, I'm going to come over Tool Pallet File Location, and I'm going to paste that path with

a Control-V and just paste it.

Once I click on Apply and OK, what do I see for a tool palette? Absolutely nothing, because there was nothing in the folder. Create a folder. Set the path to that folder. Now what do you do? Start making tools. Start making tools the way that we've already talked about making tools.

I can come over here and I can grab this block, drag and drop it and put it on the palette. Let me come over here where I have my hatch pattern. Click on the hatch pattern. Drag and drop and put it on there. What if I came over to Design Center? I could come over to Design Center. I could right click, create a tool palette of all the dynamic blocks that are in that drawing file. Notice it automatically creates a new palette, right? It's a brand new palette. So I don't have to build a new palette, because it builds the palette based on the name of the drawing file. And I can even come over here to where my ancestral blocks are, and I can right click and create a tool palette of all the blocks in a particular folder.

Now you're going to build groups based on usage. Maybe you have a particular project or different projects that you work on, and you want to maintain your standards by project name. You'd create a folder based on a project name, and then build the palettes for all the different tools that you need-- for dimension, for hatch patterns, for blocks, and all the other things that you might need. Make sense?

So you start building. And then the question then is, what's going on in the folder? What's going on in the folder? So if I come over here and I go back to the folder, that AU Palettes folder, look, what happened? AutoCAD automatically created a catalog file, and it automatically created a palettes folder. This catalog file is an ATC extension. It's actually a live XML database file. And this contains the definition of this entire palette window. Guess what's in the palettes folder? Not the blocks. All of the ATC files-- and there are three of them, because there are three separate palettes. And these are live XML database files that contain the definitions of the tools.

Some of you actually shouted out in the group here that the blocks exist in here. They don't, do they? Where do the blocks exist? Back on the other network drive folder. How do we know the blocks exist in those folders? I already went over that. I already covered that.

So what's in here then? What's inside those files? Think of it Xref. It's a pointer. The definition

is in there that tells, when you click on the tool, where to go to get it. That's what it's doing.

Does it contain information about the hatch patterns and dimensions, such as dimension styles and the layers that they're on and the rotation angle of hatch? Is that in there? Yes, that information is in there. So no physical geometry is in those files. Just the definitions of the geometry exist in those files.

With me so far? What's in the image folder? The pictures of the images of the tools that exist on the palettes. So there's three levels here-- the catalog file, the palettes folder, and the image folder.

So as I start to populate my palettes, AutoCAD automatically-- automatically creates these ATC files. There's no reason to go in and edit these files manually. So don't do it.

Now as soon as I say that, I know there's somebody in the room here that's going to go in and try to edit and modify those files. It's usually the guy from the IT department. He's going to go and try to edit, modify these files. Don't do it. It's like crossing the streams in *Ghostbusters*.

I see some people have actually seen the movie. What happens, or what is going to happen if you cross the streams in *Ghostbusters*? Who knows the line from the movie.

**AUDIENCE:** It will be bad.

**MATT MURPHY:** No, that's not--

**AUDIENCE:** Total protonic reversal.

**MATT MURPHY:** Somebody said it back there-- total protonic reversal. Every molecule in your body will explode at the speed of light. That would be bad, right? That would be wicked bad. Now what's Bill Murray's comeback line for that? Good safety tip. Don't cross the streams.

So I'm giving you a good safety tip here. Do not edit those files. They're live XML database files. Because as soon as you start to populate the palettes, AutoCAD is writing to these files constantly. If I come over to the palette and I delete a tool, what happens to the data in the XML file? It gets deleted. It gets removed. So these files are automatically updating, automatically updating all the time. So don't edit them.

Now some people say, well I'm an expert at XML. If you're an expert at XML, you could probably go in and start hacking some of the data in these files. But trust me, you're going to

start breaking stuff. And don't send me your broken files. I can't fix them-- can't fix them.

So what you're going to do is this. You populate your palette, and then once you've finished everything that's in this folder, you get everything in the folder that you need, then what you're going to do is you're going to shut AutoCAD down. You shut it down completely. Close it. Because once you close AutoCAD, can AutoCAD write back to those files anymore? No, it can't. It only does it when AutoCAD's open.

And then once you close AutoCAD down, then what you can do is you can take the root level of this folder here, and then move that entire folder and all of its subfolders to a secure network location. And then you just have to map that path. You just have to map that path, and everybody will see those palettes. Make sense? OK. Most people are nodding their heads and they're not falling asleep. And that's a good thing.

So the next thing you need to know is this. If I move that stuff and I put it in a secure network location, how do I manually set the TOOLPALETTEPATH Well, if I come down and just type at the command line, TOOLPALETTEPATH and press the Enter key, it's going to come back and say, unknown command. That's because the TOOLPALETTEPATH that actually sets it in the Options dialog box, that system variable is a hidden variable. It's hidden. The programming team at Autodesk hides that variable because they don't want you to touch it manually.

But if you know what these variables are, you can actually make them visible by putting a star and an underscore in front of the name. So I'm going to do this. Star underscore TOOLPALETTEPATH. Now when I press my answer key, it comes back and says, what do you want for the new path? Tells you what the current path is, and I could cut and paste a new path right here at the command line. Is that cool?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** Now I know some of you are thinking right off the bat, tell me what all the hidden variables are? All right, because we have some devious minds in here that want to go in and find what they are and do other things with them, [INAUDIBLE] mess up other people's computers. I don't know what they are. I only know what this one is because I've worked with the programming team when they were developing this so I know what this one is. I don't know what the others are.

So now I could set that path. So if I came over here to palette definitions here for-- look, I even

have one for doors and windows. I'm from Boston, that's what we call them. They're called doors and "win-das."

So if I right click her and I copy that, and came back to AutoCAD and then paste-- let's right click and paste, and set the dimension palette there. I get to see all the dimensions. I get to see all the tools, all the dimension tools for all the different standards for creating dimensions.

Now that's kind of a laborious way to do it, right? You got to go find the path, and then paste it in there, and type the variable all the time. What I'm going to do is the next secret to make this work efficiently for you is to use an action macro to set this. By a show of hands here, how many people have ever used the action recorder? Show of hands. How many? Not too many. I would say probably about 20% here in the audience here has used an action recorder, or used the action recorder. So let's just talk a little bit about the action recorder then.

So if I come over here to manage, there's a little button here for the recorder. And what this does is it simply records the things that you do at the command line. It's a macro. How many people have used macros in Windows, Word for example? So you run the macro for something that's a repetitive type of task. And it just repeats that task over and over again.

How many people feel that when they use AutoCAD on a daily basis, you're in *Groundhog Day*? I'm doing the same thing over and over again. How many people feel like you're doing that? Show of hands. Of course you are. It's like man, this is a repetitive task. I wish there was another way to do this. So what you can do is you can actually use the action recorder to record those steps, and then play it back. So you'd never have to repeat those steps again.

So what I'm going to do is if I turn on the recorder, it starts the macro. It starts running. Notice next to the cursor or the crosshair there's a little red dot showing you that the recorder is actually running.

When this feature first came out in AutoCAD, I was just watching the AUGI forums to see what people were posting for questions. And somebody actually posted a question, said, how do I get rid of the little red dot next to my cursor? What was the person doing? They were recording everything they were doing, everything. You don't want to record everything. You just want to record a repetitive series of steps. That's what it does.

So for example, if, with the recorder running right now, if I said let's draw a circle, and then go draw a line. Press my Enter key. What's going on back here in the recorder? Yeah, it's

recording those steps. It's just recording everything that I'm doing. So if I say Stop, and then I save this. And I'll just call it drawing. What's going to happen if I come over here and choose that action recording and I simply hit the Play button? It's going to create that geometry for me. It automatically creates it. I don't have to create that geometry again. I can use this recorder for repetitive types of tasks. How many people find this cool?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** Yeah, that's wicked cool. How many people are going to go back and start playing with the action recorder? Yeah, you can go do that. And by the way, if you go to AU Online, there's actually a recorded session where I've done a class on just the action recorder. So you may go want to watch that and pull my hand down so you can learn how to use the recorder better.

It's the *Groundhog Day* command, right? It takes repetitive things that we do over and over again. I can save them. And it actually saves it as a command. It saves it as a command. So whatever you call these things-- there's one, dimwit one. That's for the people who don't know how to dimension.

So what it does is it just saves saves them as actual AutoCAD commands. Which means, could you actually create a recording and call it L? What do you think, just call it L? Raise your hand if you think yes. Raise your hand no. Raise your hand if you have no idea. The actual answer is, L is a command alias. It's a shortcut. It's not an actual command. So yes, you could create an action macro with the letter L, and it would supersede whatever your PGP file is for your command aliases. So you have to be careful of that. Or, you could be devious like that. Either way-- I see the devious minds actually win.

All right, so where was I going with this? Oh, so now what I want to do is what's the quickest and easiest way to create an action recording or macro for all the different folders where I have all my different tool palettes? The easiest way to do that is to simply write it out in Notepad. So what I've done in Notepad is something really simple. I've just written it out as plain text, star underscore TOOLPALETTEPATH. Leave a space. Put in quotes the entire path. And the only reason you have to put it in quotes is if you use spaces in the names of your path statements. Because if you cut and paste something at the command line that has a space in it, what does it do? Yeah, it acts as Enter. It acts as a return. So you've got to be careful of that. So put it in quotes if it has spaces in the name. So then all you have to do is, if you write it out, all you have to do is to cut and paste that in the command line, and save it as

an action recording.

So here's the path statement that I have here for AU2015. Oh, what did I actually call it? I didn't call it 2015. It was called AU Palettes, right? So go back here to palette definitions, right? AU Palettes is what it's called. So AU Palettes, that's the name of that folder.

So if I take that and I copy that, and I come over here and I just simply paste that inside these brackets, if I cut and paste that whole thing and put it at the command line, won't that automatically demand load the original palettes that I started working with? Will it? It should, right?

So here's what I'm going to do. I'm going to highlight this. I'll going to right click, Copy. And then I'm going to come over here and click on the Record button. I click on Record. Action recorder's looking for something to happen at the command line. I come down to the command line, I do a Control-V to paste the entire string. TOOLPALETTEPATH began with a space, inside quotes. Press the Enter key. It loaded that palette. So there's my bathroom fixtures. There's my Lucy one. And the recorder's still running, right?

Notice what happened over here is it set the path statement for me, using TOOLPALETTEPATH. I'm all done at this point. I should shut the recorder off, right? So I shut the recorder off by saying Stop. Give the action macro a name. And we'll just call it AUP. Select OK.

And now, if I want to demand load this particular palette, remember, BP simply sets and loads the bathroom pallet using the TOOLPALETTEPATH statement. HP loads the hardware palette. AUP loads the palettes that I was just working on and I just created. Is that cool?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** Yeah, that's wicked cool. Everybody with me? Does this make sense? So the steps are, you create a folder based on a process, or based on standards that you're trying to create. Empty folder, nothing in it, set the path. And then what do you do? Build the palettes. Put your tools on there. Start building it.

Once you built all the palettes and you want to share them with other people, what's the next step you need to do? Shut down AutoCAD. You must shut AutoCAD down. Once AutoCAD is shut down, you can take that entire folder and move it to a secure network location. Then use the TOOLPALETTEPATH environment variable, set the path. Use the action macro to make

the path for everybody.

And by the way, these little action macros are also saved in a separate folder, and you can share them with other people as well. And then you can just simply demand load the palettes as you need them-- demand load the palettes as you need them.

Just to show you-- I stopped that, right? Let me go to BP for bathroom palette. Notice what happens here in the lower corner. See the little padlock? What I did on the local drive is I just right clicked on the bathroom palette folder. I right clicked on it, and I set permissions to read only. I just did it locally. So as soon as I load the palette, the padlock appears there, which means that palette is locked.

And that's why I'm telling you, when you moved them to a secure network location, make them read only. The padlock automatically appears as soon as you set the path statement. Which means somebody can come over here and they can't delete it. I can right click on the tool, but I can't delete it. I can't rename it. Part of our standards. I can't change it.

Do you want people to go in and change this stuff? No. So this is how you lock it down. Is that cool?

**AUDIENCE:** Wicked cool.

**MATT MURPHY:** Yeah, that's wicked cool. Hopefully you guys enjoyed that so far. All right, so what's left here?

Have you learned something new today that you didn't know? Show of hands. Wow, almost everybody in the room. Show of hands, have you learned something new today that you can go back and use immediately when you go back to work next week? Excellent, almost everybody raised their hand. In that particular case, I've actually done my job. Thank you.

[APPLAUSE]

For those of you here in the audience and for those you at home, I have my own closing survey here. Use the QR code. And this feedback comes directly to me. So if you've got questions or comments or other things that you want to share, this survey comes directly to me. It doesn't go through the AU portal, because I don't see that stuff for like a month until after AU is over.

The other couple things as part of our close and wrap up here is this. Make sure that you

provide feedback through the surveys. And I'm sure you've seen this slide in all the other classes that you've been to. Because positive surveys ensure future repeat performances. You know what that means, right? Those of us that get good marks get invited back, and those that have lousy classes don't get invited back.

And I know for those of you that have seen me before, I've threatened to retire for many years now, probably about four years. Because I said, this my 23rd year. And depending on what you put for the survey, maybe I'll come back and maybe do this again. I'm not sure.

Anyway, stop at the answer bar, the Autodesk answer bar. And if you want to chat with me after lunch, come down to the show floor, booth 351. We have a little learning lounge there, a nice couch. And you can hang out with me for a while. We can chat about anything, anything you want to talk about. And that's how to contact me as well.

So thank you so much for attending my session and thanks for participating.

[APPLAUSE]