

MAINTAINING LIFE QUALITY: PLOTT [CES]

Founder David Xing Discusses Innovation, DIY & Practical Use Of New Designing Product At Consumer Electronics Show



Quality time is an essence of life. But with so many families, whether they are exploring the outdoors or trying to find a way to enhance just their house and their outdoor activity, time is always a factor. With his industrial background experience and an MBA from Cambridge, Plott founder David Xing understands the necessity of goals but also the practicalities of life. Xing sat down with The Buzz at the Consumer Electronics Show in Las Vegas to discuss dimensions, practical use, the highlights of their pairing product Cubit and quality of life.

The Buzz: We are here in this booth at CES and the entire structure was built using the Plott technology. Can you talk about practical application design going from the industrial sector, where you and your team initially worked, to bringing these ideas into the consumer area,

David Xing: One of the things that we talked about...before we worked more in the industrial space...but we were also avid DIYers ourselves. The booth that you're sitting on is a recyclable pallet...a bar that we made from our own warehouse. All the wood is from our own place. One of the things, from our experience, [and that] those from the industry experience, [is that] everybody had the same common pain point.

Dimensions are one of the most important elements of a project. Without it, the whole project falls apart. It's also the most time-consuming part of it. We talked to everybody and everybody actually said "We have two things that we need to do...that we care about. We care about how we want the place to look, and we want to actually get it to that place in the real world to make that change. Everything else is to make sure we get those two things done right." So that's why we took all of that and our experience in manufacturing and designing, and we brought that along to Cubit. And what Cubit really does [as a device] is take the real world into the virtual with actual dimensional context. So when you plan something you plan it how it looks in your phone and how it looks in the real world. We then help you bring what you have in the virtual world, your design, and bring that back out into the real world but we do it so it guides you to those points that you select from the app. You don't have to do any calculations...you don't do really any measurements. It's more just figuring out how you want it to be and then taking you to those points in the real world to make the change so we can actually get that change done.

The Buzz: Before you continue, the thing is that most older people have always thought in two-dimensional space but with Cubit and, by extension, Plott, it allows one to think in three-dimensional space without knowing the mathematics really of how that happens, in certain ways.

DX: In certain ways. We make it so it's a visual 3D, so you see how the things look. But when you do the guidance part...we break the guidance part into 2D. So if you're doing a wall, you're taking a picture and you have the floor. You see how everything looks but the dimensions you select are actually in the 2D format. So when you go to the wall, which in the 3D dimensions means along the wall and above the wall...that's the X and Y. And the Z is how far you're away from the wall. But when you're actually making the change, you're by the wall anyway to make that mark [with Cubit] so you eliminate that part of it. You visually you look at it. This way you see the Z [axis] before you actually make the change. The Plott app guides you in a 2D format. So you can actually go along the wall and make that change because we know that that point is going to be right next to the wall.

The Buzz: So using that as a guide how did you go about building this structure we are standing in right now?

DX: So the first thing that we marked out was our background. So we know, what is the background of this? Lay it all out. The background was 20 feet by 10 feet. Okay, so we know the background. Then we needed to know where exactly it needs to be. What are the elements that need to be within it? So in here in our group, we have a couple pieces of drywall. We have some of the railings on top. You add that object onto your base canvas. Once you have the dimensions of your base canvas, everything

is to scale off your base canvas. So with the wall, whatever drywall you add, you add that dimension to Cubit or once you get to the canvas. Now within the app you have a live scalable object that you can move relative to the base. So with the base wall, and the railings, you add each individual object onto your base. From there you get to the part that we want the user to spend the most time on and that's how you want things to look. There's two ways to look at this...one where it shows the dimensions so you can see how it is.



DX: In this format, you can also make the dimensions disappear so all you see are the pictures. You can see it visually how you would like to be. This really matters [from our point of view] because this is the part that the dimensions should come to the foreground and you can see how things look and how they fit once it's done. The next part though is how you want to take that design back out. So, for this example, how do I hang this wall? Where exactly do I put this wall in real life to get to the point where I had it in my design? [It is] from there [where] you select the edges. You select the points. You want to draw the nail. You would say, "Now, Cubit," from the reference corner that you select and the order matches what you select. You say "Take me to those points". And then you follow Cubit along. When Cubit reaches a certain point, an alarm goes off. That's your first point. When it goes to the second point, an alarm goes off the second point. You just follow Cubit along.

The Buzz: By just looking at your phone?

DX: You don't even have to. Once you select the coordinates, you don't even have to look at your phone. The alarm goes off actually on Cubit. The phone can vibrate in your back pocket. You just basically follow along until you hit the spot you want to make the change. Mark it out and make the change.

The Buzz: We were talking before about the outdoors thing. We go out to a lot of parks, dealers, campers, these kinds of people. They want to take their space, do it themselves, but make it so it's modular. Can you talk about Plott & Cubit's application within that scenario? Say you're building a cabin or adding elements within your own vehicle and you have a space that you want to build within.

DX: Well there's a few things that are universal. You need to have a starting point, you have an ending point.

The Buzz: You have to have a goal.

DX: You need to have a goal. You need to have a visual idea of how you want it to look. Because that's the best way to conceptualize how you want [something] to look, is through visuals. From there, you need to actually translate it into real life. So whether you're doing a DIY project or hanging pictures on a wall, or you want to take something on a much more grander scale, like building your own cabin, [the key is the] concept...you need to know where it starts...what are your constraints...what are the concepts and then what to place at each point. All of those are universal in terms of [the fact that] you need to plan it and know what the context is to know how they are relative to each other. Then it becomes how you take it from your design into the real world. We do it in a way where you don't have to do any of the calculations...well you don't have to do a lot of the measurements. That's really what takes up most of your time. [That way] you can really focus on, "Hey, I'm outdoors. I'm building something modular. Let me focus on the fun part. Why we took it on in the first place."

The Buzz: Now, where was the starting point for you from your point of view. You said you and your team was always DIY in your personal space even when you were working in a more industrial setting professionally. Where did that point start for you and how did it lead to this point?

DX: The first, when I was a little...my eyes was a lot bigger than my stomach. My first thing I did [DIY is that] I tried to renovate a really broken down basement into my kid's playroom at my first house. It was an absolute disaster. Me and my wife...we went on Instagram and we saw a lot of inspirational images. When we tried to do it, we actually had to measure everything out. We actually did everything. But it looked nothing like it. In a way, it was almost discouraging how it turned out from how it looked in the picture. In a lot of ways, that cut-out was the impetus for us to say, "Let's make something where people can see the design, focus on the design, but also have a context where it is already done for you. Then take me to where I need to be, so I can focus again on the two things I wanted to do: to make the design how I want it to be, make the change in real life, and then just use it with my kids."



The Buzz: It's about a quality of life.

DX: Exactly. And that's exactly the kind of impetus that got me started because I failed so bad (*laughing*) at my first DIY project. And I said, "Okay, you know what? This really ought to be easier."

The Buzz: Can you talk about trying to establish the connection through CES, a consumer trade show. We're talking about quality of life, what you were just talking about with your kids and your wife. Could you talk about the importance of coming here and your experience in seeing what it is?

DX: I think the main thing here [at CES] is that the more people you talk to the more you understand what are the actual needs are when a project needs to be improved that's been made for them. From a consumer show...from a quality of life perspective...the more and more people you talk to [the more you] understand their pain point. But [you want them to] understands so that they want to know what [Cubit & Plott] is. But at the same time, how do you actually make it so it's time-saving? It is actually about bring your design to life in a way that's not complicated... you're right, this is a consumer show...this is for users that might never have done this before. I was a consumer before doing a DIY project, and I was discouraged.

The Buzz: Plus you received Innovation Award at what is considered a shining point in the consumer marketplace. So you're not just here, but you are ahead of the game.

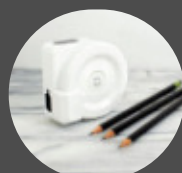
DX: We received the best innovation for Smart Home. I think a lot of that reflects a pain point that users understand...that there's a disconnect between the changes

they want to make in the real world and how difficult that is to realize. And by simplifying that [process], you actually enable them to change their surroundings, and improve them, but at the same time not take all the time away. Because with a DIY project, what is understood is that there's no allocated time in somebody's time for that. You're missing the gym. You're missing a weekend. You're missing time with your kids and your family. That time's important. You need to make it so it's simpler so people can focus on the real point of doing that.



Tim Wassberg

A graduate of New York University's Tisch School Of The Arts with degrees in Film/TV Production & Film Criticism, Tim has written for magazines such as *Moviemaker*, *Moving Pictures*, *Conde Nast Traveler UK* and *Casino Player*. He enjoys traveling and distinct craft beers among other things.



Make Sure To Check Out:

[Plott](#), which shows you the possibilities of your environment with dimensional context, taking your ideas into the virtual then bringing the virtual to reality. *Cubit*, by extension, is our first step in laser tools that are capable of thinking / problem solving. It enable us to visually plan with dimensional reference.