

Will Online Solution The Cinema Designer (TCD) Revolutionise Cinema Design?

Alice Gustafson met with Guy Singleton from install company Imagine This to learn how his creation can deliver any custom home cinema design in five minutes.

Officially launching at this month's ISE, TCD has already been hailed as 'a stroke of genius' by Trinnov Audio, a 'game-changer' by Bowers & Wilkins and Datasat, with Classé declaring that it is 'a total no brainer'.

TCD is an online design tool that allows users to create cinema designs, support documents and renders, within minutes. *EI* Witnessed this first hand; in less than five minutes, TCD completed a full 9.1.4 Dolby Atmos custom cinema design, with downloadable support documents including 3D CAD placement drawings, cinema specification data, a bill of materials and 1920 x 1080 photo quality renders. TCD does in minutes what would typically take around three weeks to create, delivering nine drawings comprised of four isometrics, a top plan, four elevations and a PDF file. TCD can also create a 3D CAD drawing for any room in under 30 seconds and can be used anywhere in the world.

"I built it for me really," says Guy. "I built it because I knew it could help installers design jobs quickly. Imagine spending a lot of time designing cinemas, which is hours of tendering and producing documentation. For the installer to not win that project, it's a lot of work.

"I showed it to a few people and they said 'it's too good to keep this to yourself; this could benefit the whole market'. So I started to think, maybe this will be something the industry will need. I carried on working on it and I remember one Sunday morning I had a bit of a Doc Brown *Back To The Future* moment when it worked perfectly - from there I didn't look back."

Guy is quietly optimistic about the take up of the software, as it allows even the smallest of install companies to compete with the largest, confident that the results will be tailor made for any cinema (including commercial ones with a few tweaks to the system).

"Whether it's a one-man band or a team of 100 people, it makes no difference," Guy adds. "It saves all of your past projects so you can access them at any time. You could do three different designs for one cinema with different budgets and let the client choose."

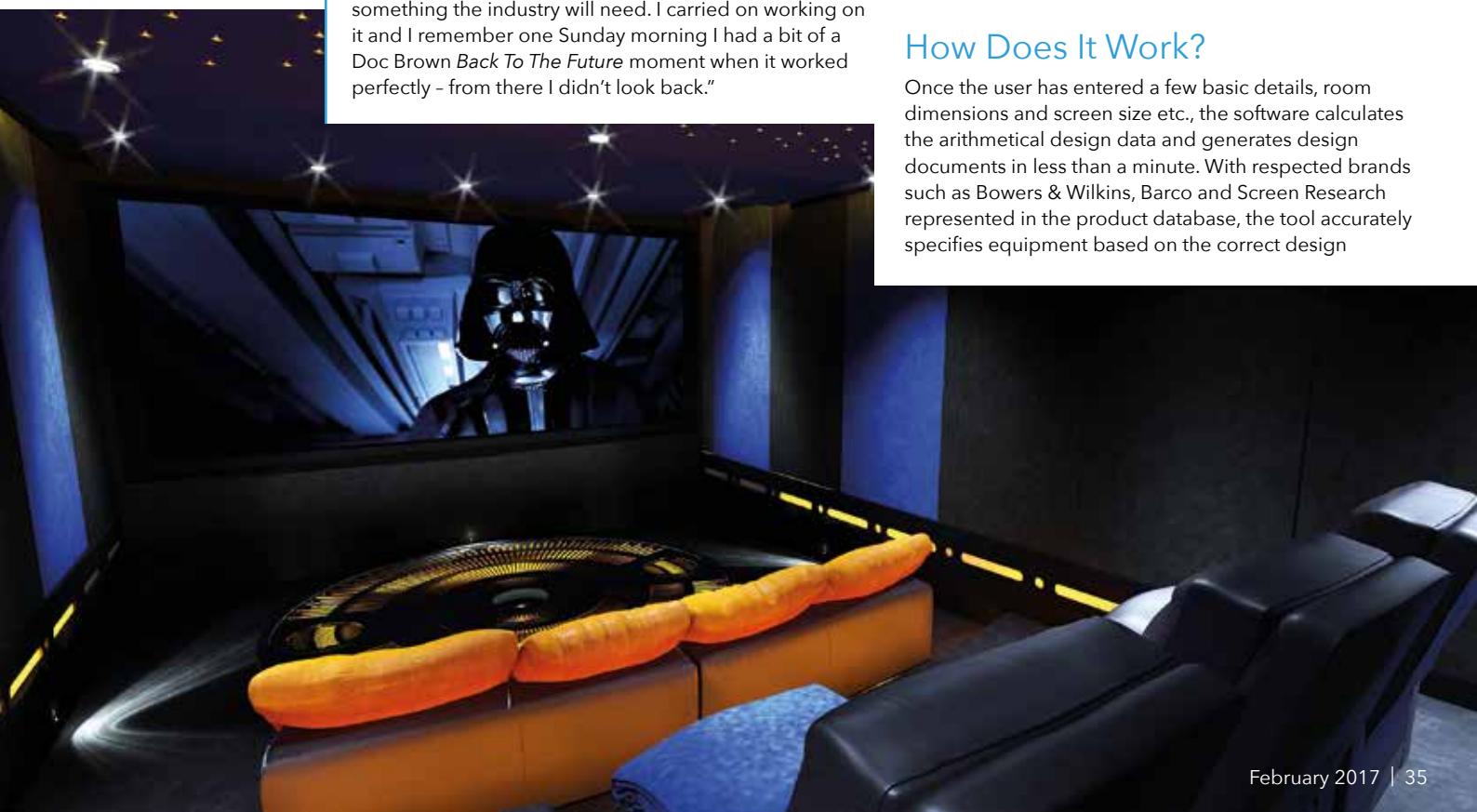
Installers and CAD designers needn't panic; TCD is not designed to replace them, they are still very much at the heart of the process. TCD is intended as an addition to a cinema designer's toolkit and, when you get down to it, profit margin, helping save time and money. It's a serious design tool. It isn't a gimmick, it's not an App, it outputs something valuable.

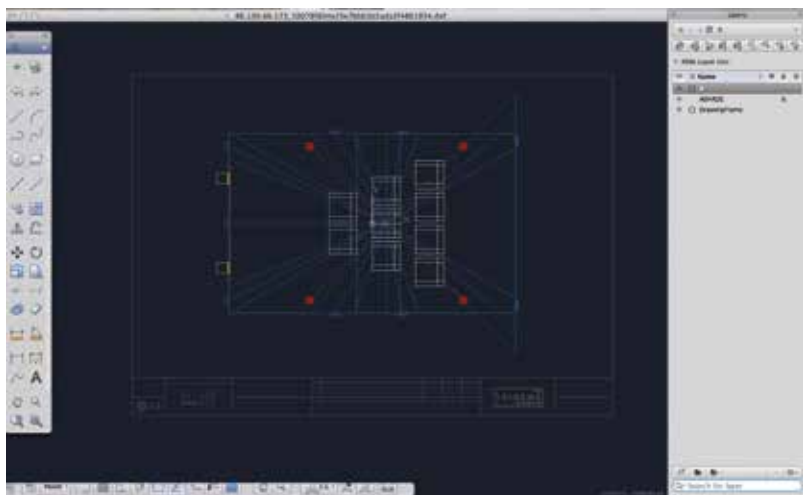
"The room design is only the start," Guy nods. "CAD guys will still need to layer lighting, power and other features. What it does is takes away the fundamental room set up. In short, it will speed up and simplify their workflow whilst designing rooms to a set standard. The average person can't just design cinemas with this; this is going to require you having some experience and an understanding of how to make some sense of the numbers."

How Does It Work?

Once the user has entered a few basic details, room dimensions and screen size etc., the software calculates the arithmetical design data and generates design documents in less than a minute. With respected brands such as Bowers & Wilkins, Barco and Screen Research represented in the product database, the tool accurately specifies equipment based on the correct design

The new system can create full cinema designs and renders in five minutes!





TCD provides all relevant documentation for theatre design, allowing any company to enter the CEDIA awards, no matter their size

principles and performance data. Other key features include a seating configuration design tool and a Sabine equation / RT60 calculation tool. Amplification and required SPL can then be specified. "What we're looking for with an RT60 value is about a .32 to .39, so if we were to find a room that would be around .35, that would be fine," says Guy.

TCD isn't subjective; it's not Guy's opinion on cinema design - the software follows rules governed by mathematics. The theatre designs are based on CEA/CEDIA CEB-22 and CEB-23 home theatre standards for design, as well as several ITU documents on audio and video criteria.

Guy adds: "Basically, it's all of the things that unite to produce a predictable outcome. You type in project name, put in the dimensions, then you type in the size of the room. Instantly I can tell you the volume of the room and what kind of subs I'm going to need."

Aspect ratios for the screen can then be selected. "If I took you to the movies and said 'where do you like sitting?' you might say 'I sit absolutely in the middle,' or 'I sit two thirds of the way back,' - some people might want to sit right at the back, or the front; that's quite a personal thing."

Using TCD, this choice of seat preference guides the user as to which screen would be the best fit. From here, the installer can choose from a range of screen manufacturers that are available from a dropdown list (with more being added to the database every month).

TCD cares about the gain, colour and the off-axis viewing when it comes to screens - the manufacturer doesn't factor into this decision. TCD takes into account if a screen is acoustically transparent or not, which then affects loudspeaker placements, then factors in if there is ambient light in the room that can't be controlled and creates a list of suitable projectors that can excel in that environment based on lumen factor.

Guy says the system is easy to use and can be continually updated



"One of the most difficult things is: which lens do I specify when I buy a projector?" Guy admits. "Because they come with different lenses." TCD has that covered: the drop down menu allows the user to click on a lens, which will then prompt the software to highlight where that projector should be located within the room. Then it inspects the lens, guiding the installer step by step through the seating plan. It considers sightlines, allowing the user to reduce the distance, change the arm width, seat depth, riser height and reduce the gap between the seats.

Codecs are taken into account, allowing the installer to specify Dolby Atmos and DTS:X (although Auro-3D currently works at a beta level and is coming soon).

Next, suitable loudspeaker brands can be selected. TCD already boasts Artcoustic, Crestron, JBL, Meridian Audio, Procella, Sonance, Triad, Wisdom, with more being added all the time. It used to be that Guy approached the manufacturers asking them to join TCD, now they are approaching him.

The software knows what the sensitivity of each speaker is, the relationship between the sensitivity of the loudspeaker, the seating distance and the required amplification needed in order to hit the required SPL. If the user's preferred loudspeakers aren't yet in the database, they have the option of manually adding in loudspeaker sensitivity figures, or lumens for a projector.

Next, it's on to sub placement and bass management; TCD has four preferred sub placements, the same that appear in CEB-22. The user can select a button that shows them the models available that will get the job done; it won't let the installer select an eight-channel model if they need 16.

TCD takes into account the carpets, chairs, plasterboard, or if there's fibreglass present, altering the reverb time whilst telling the installer exactly how much m² of plasterboard to order. Then the user can experiment with different renders by choosing different ceilings, décor, carpets and panels.

How Do Installers Get It, And What Does It Cost?

TCD is priced at £150 GBP for a single use of the tool, while a subscription provides 30 uses each month for £60 GBP per month. Those that prefer to pay in one go can purchase 365 uses over one year for a one-off payment of £710 GBP. There is no trial version.

"If I made it cost 50p in the App store, you'd have every electrical contractor or aerial guy getting it," Guy reasons. "I didn't want to devalue it to the point that an installer is not needed. I don't want people to think 'well I can do this myself'. I wanted to make the barrier enough so that it's for professionals to use. I want people to be able to sell their own designs.

"Plus, if you give something away, it's worthless. This isn't worthless; it's something that is valuable. I could have sold thousands of these by making it cheaper, but I would be happier if 100 people used it rather than 1,000 if they were professionals."

As TCD is a web based design tool, all updates are part of the subscription process, there will be no 'new versions'. "This is all web-based, it's all live," Guy nods. "The minute I make a change, everybody gets it."

In regards to training, Guy anticipates that some installers may require some in order to finesse their use of TCD and will look into hosting a series of webinars in future.

More information: [The Cinema Designer http://thecinemadesigner.com/](http://thecinemadesigner.com/)