

HOW TO BUILD A HOUSE CONFIGURATOR



13 June 2016

Renee Puusepp, director of Slider Studio, takes a look at how house configurators can be used to showcase choice in custom build.

Product configurators are by no means a new marketing and sales method; nearly every web user knows that cars can be customised online before buying. Besides configuring your new Porsche or a new pair of Nikes, you can also configure to order jewellery, furniture or almost anything that are small enough to be 3D printed or CNC routed. A good product configurator combines exciting buyer's shopping experience with efficiency of automated manufacturing system into a highly productive 'vending machine'.



Slider has collaborated with HTA Design and Kingspan Potton to deliver an early version of the configurator suitable for custom and self build.

Nevertheless, unlike car and other product configurators, [house configurators](#) are hard to come by. Apparently one of the reasons is the sheer range of design choices that such a house configurator has to offer in order to satisfy potential home buyers' needs.

But wait, couldn't the home buyer be offered a way to pick a house type first and then the opportunity to configure the selected one later?

Just like one would need to decide for a particular car model first before choosing the colour of brake calipers or the type of seat upholstery. Yes, offering a number of different configurators would solve the problem of not having enough choice.

Thus, in order to have a scalable impact on the housing industry, a number of flexible house types is needed first. Creating such a collection of customisable house types would require a solid platform technology that allows rapid modelling of configurators. This platform can then offer the buyer a standardised way to navigate and compare choices, becoming an important decision making tool on the way towards commitment and ultimately to the decision to buy.

For suppliers – developers, manufacturers, and architects – the configurator technology would reduce early stage design consultation, take away the need of endlessly generating price quotes, and enable new ways of upselling.

The Digitising Custom Build project gave SliderStudio an excellent opportunity to investigate the topic in depth, building early desktop configurators in [SketchUp](#), then developing online prototype using [BIMServer](#) and finally contributing to the development of Creatomus platform.

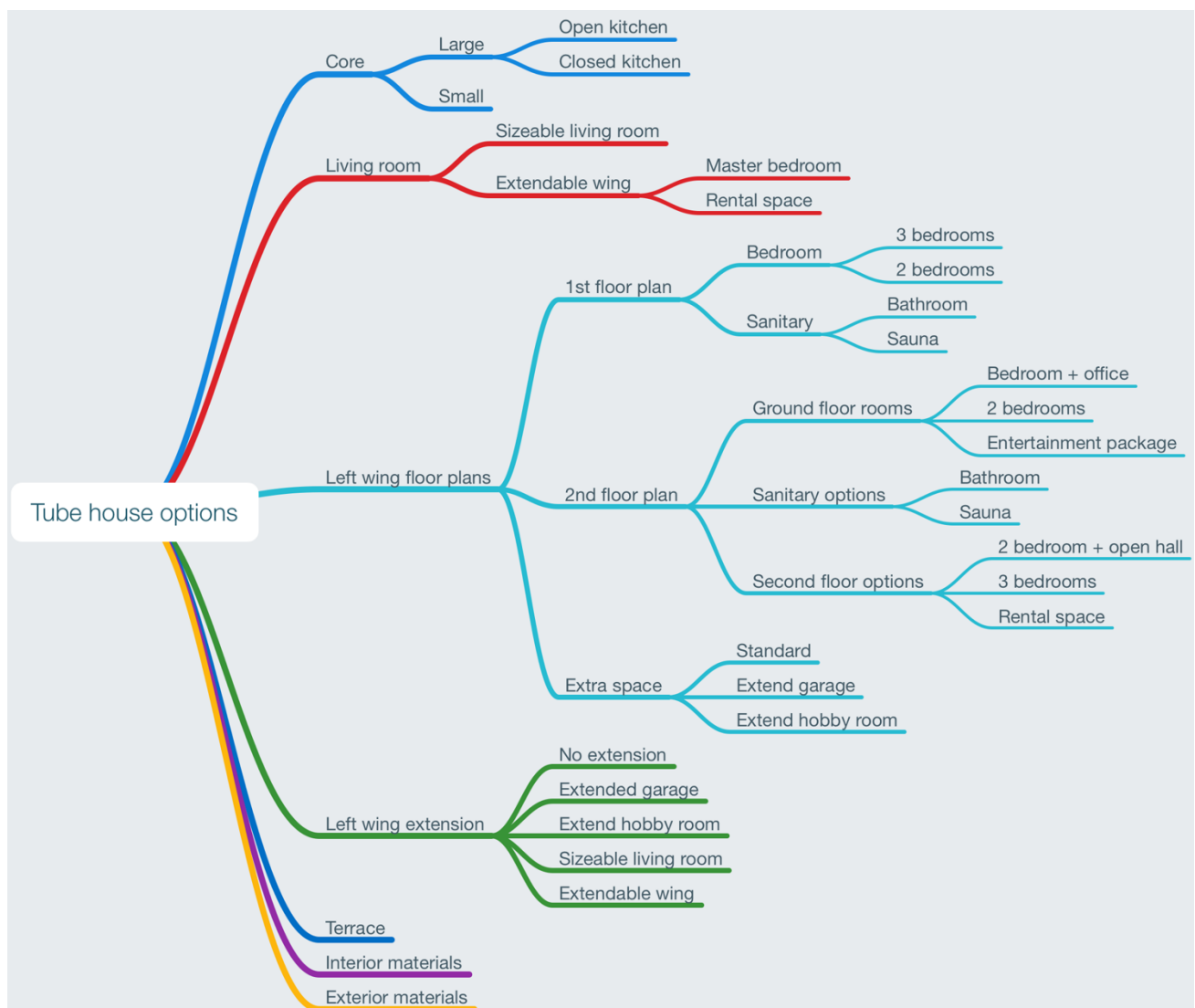


HTA Potton house on Creatomus

Creatomus is a web-based solution that enables future home buyers to choose and customise their future home. It is an easy and fun-to-use browser application that allows future owners to explore and configure the house in 3D while keeping an eye on the construction costs and monthly energy usage. Home buyers are given the flexibility to customise general size and geometrical parameters (e.g. the size of windows, pitch of the roof etc.) and layout options within the chosen house type.

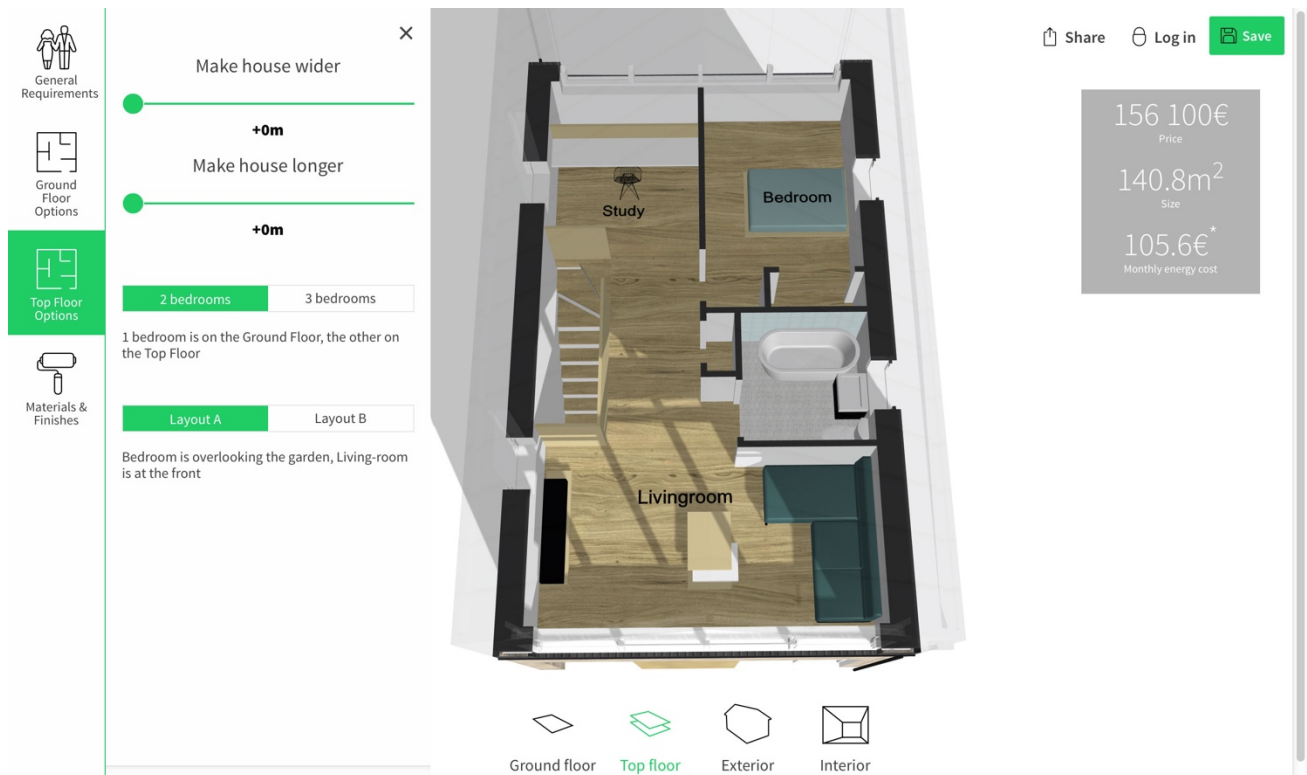
All design options within configurators are organised into decision trees. A simple decision tree would have a few floor plan layout options at each level and perhaps a couple of exterior finishes options leading to basic yet clearly presented choice.

More complex decision trees can lead to thousands of different house configurations that is virtually impossible to reproduce using conventional CAD applications. Online technology allows anonymous tracking of potential buyers' activities and analysing the popularity of each option.



A sample of a more complex design decision tree

At the background, the application is connected to the service that assembles 3D models by combining elements and modules as supplied by architects or the manufacturer’s design team. 3D geometry is manipulated in real time; the price and energy performance of the house is calculated also on the fly, based on pre-calculated value matrices. The cost and energy use information is displayed back to home buyers in order to help them choose more sustainable homes.



Are you interested in building a house configurator by yourself? You can use dynamic components in SketchUp or Autodesk Revit’s design options – there are plenty of tutorials on the web to guide you. But if you want to get your configurator online, get in touch with us and we will show you how.

Online house configurators are delivered in collaboration with the software provider Creatomus Solutions. Creatomus configurators work online and no software installation from the home buyer is required.