

Generative Design in Revit 2021



Generative Design In Revit 2021

Thanks for
the help!



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In this video

- What is it?
- Building a script
- Setting up a study
- Running a study
- My thoughts



Files are on
github

<https://github.com/aussieBIMguru>

Revit 2021



Note: Requires the **AEC Collection**

General Principle

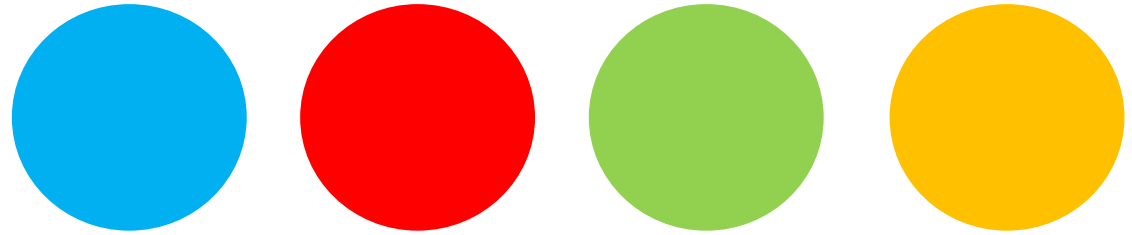
We randomise our inputs,
generating **studies**



We collect measurable **goals**,
usually what we call 'fitness'

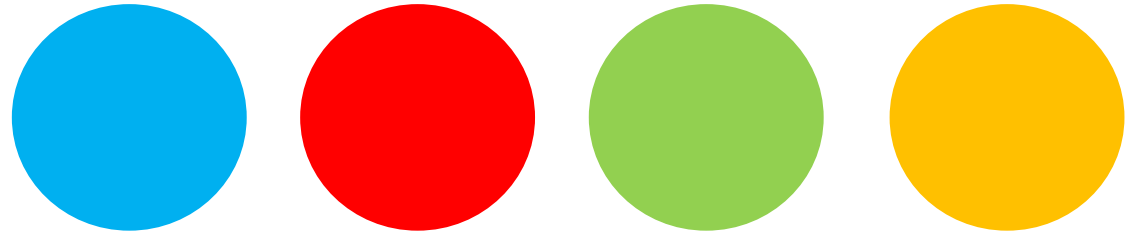
How does it
work?

Generating multiple studies, to
find the best outcome(s)



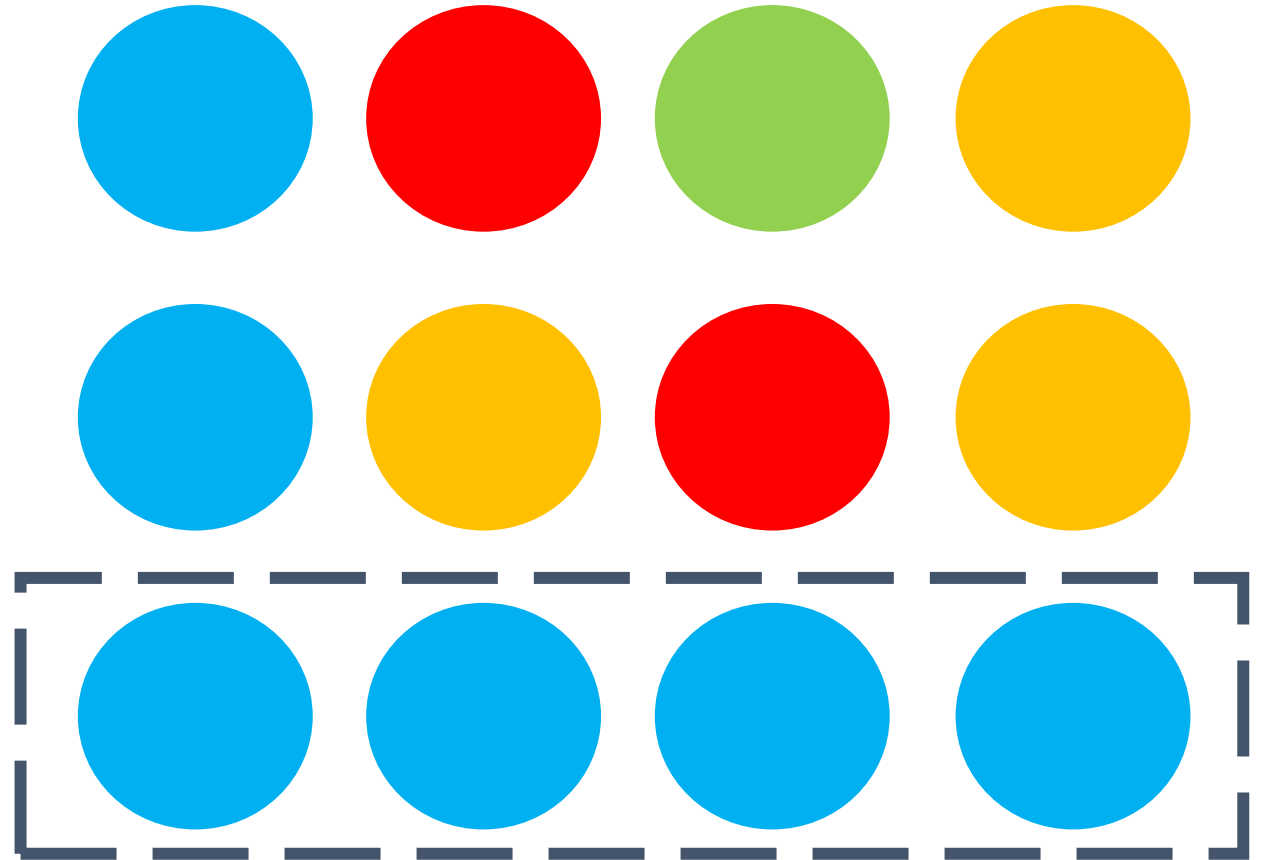
How does it
work?

The Generative Design tool has
three primary methods



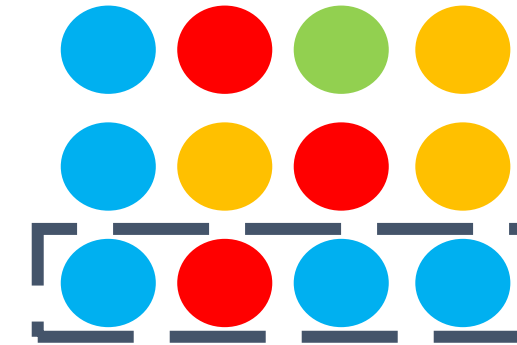
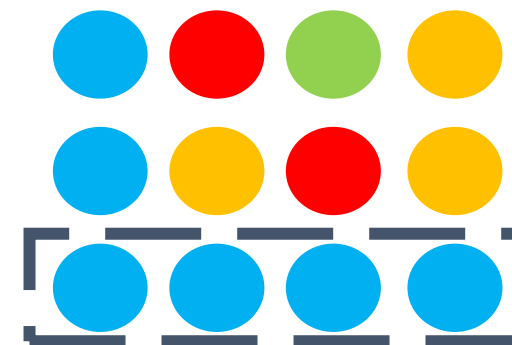
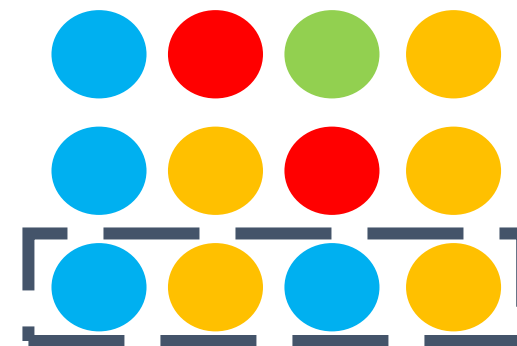
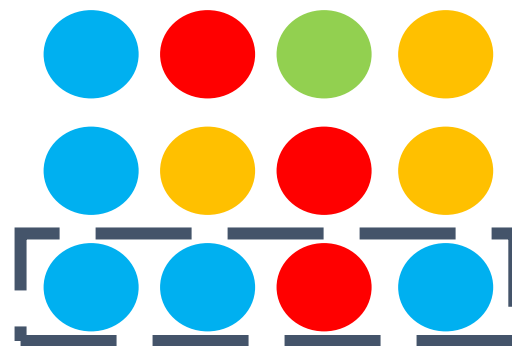
Randomise

Randomise outcomes and
review all the results



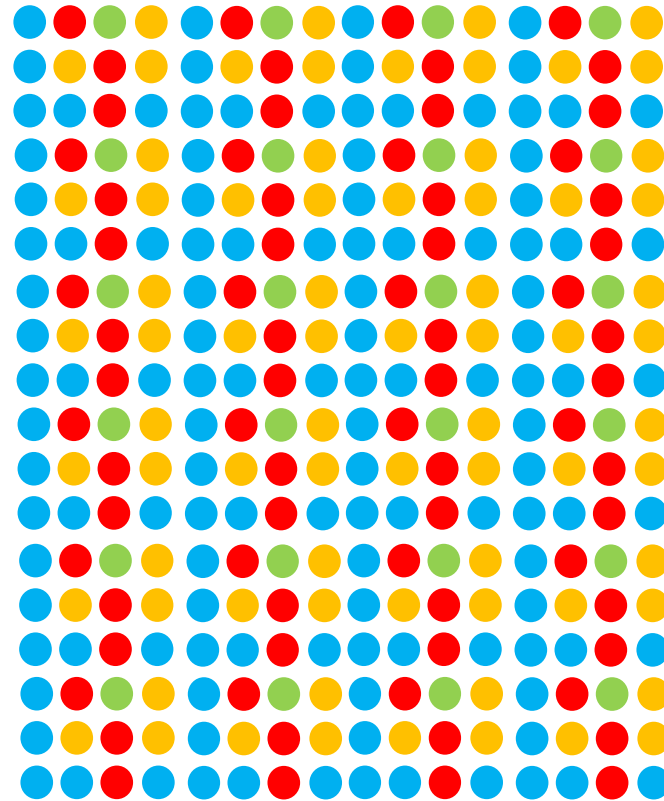
Optimise

Generate multiple studies, and
take the best from each

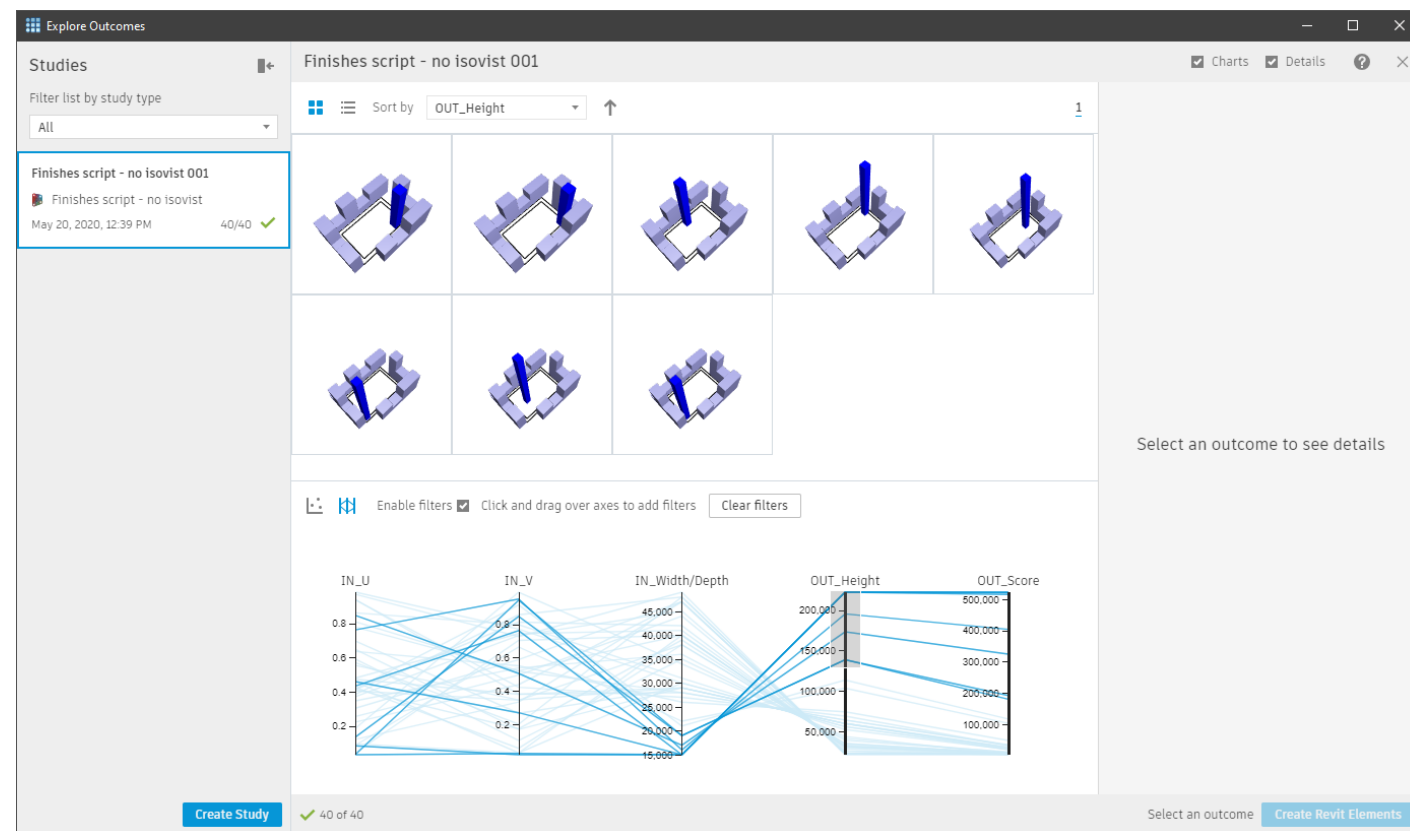


Cross Product

Generate every possible
outcome for the inputs



Demonstration



My thoughts

The good

- The tool has potential
- The UI is great!

The bad

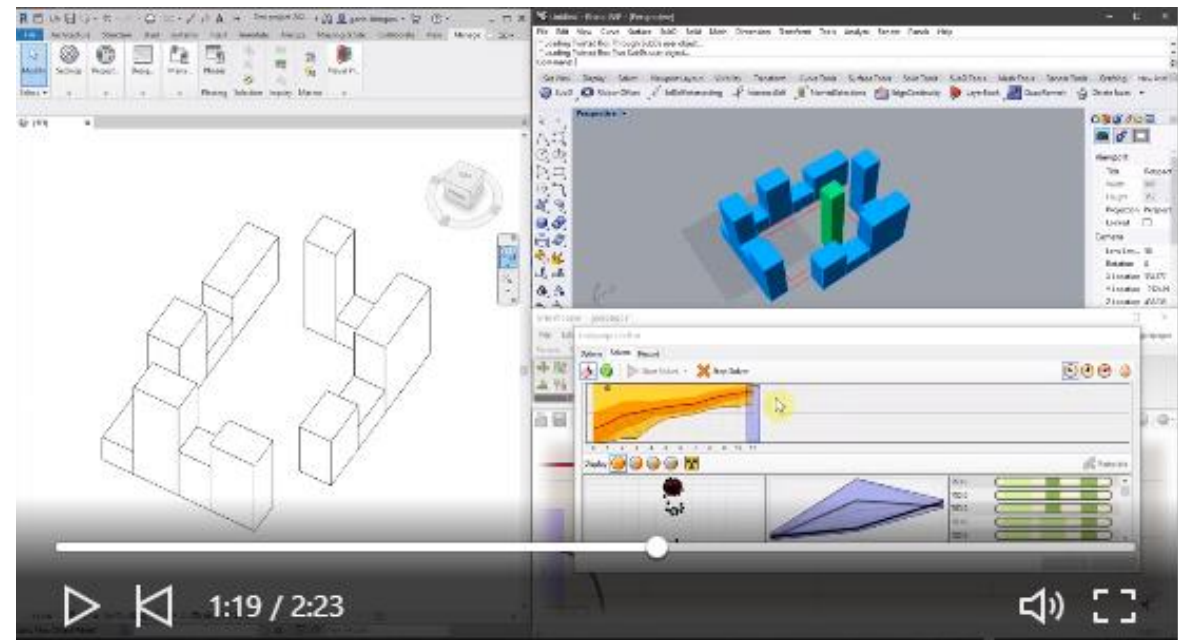
- More examples are needed
- Is it better than other solvers?
- Marketing honesty

The ugly

- Geometry processing is an issue
- Rhino Inside? Collaborate!
- AEC collection limit is an issue

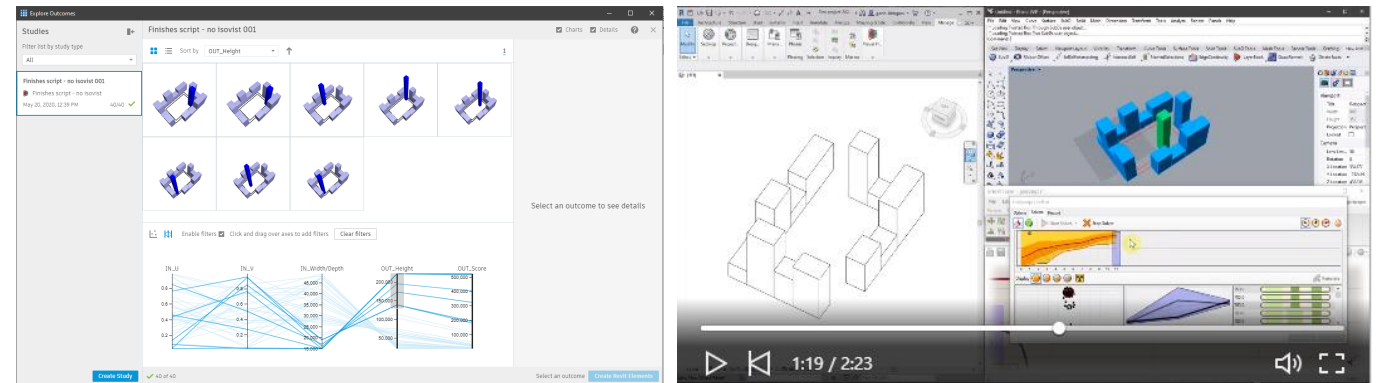
Future Videos

Generative Design in Grasshopper
using **Galapagos** and **Rhino Inside**



Future Videos

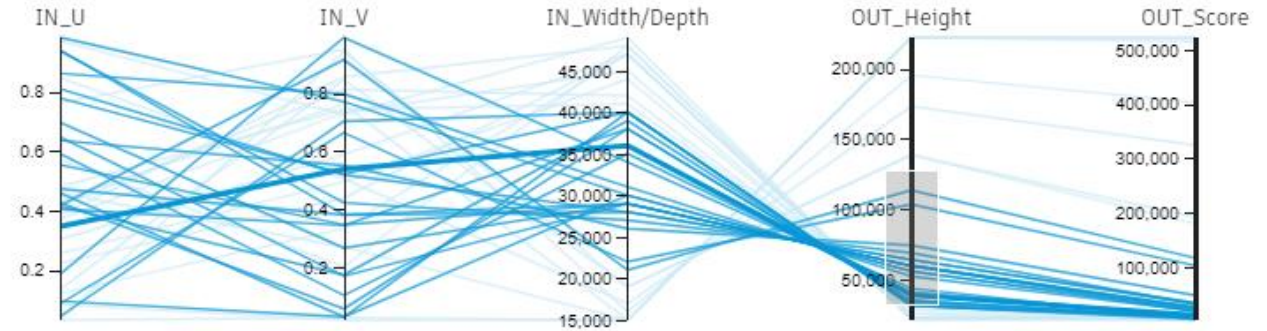
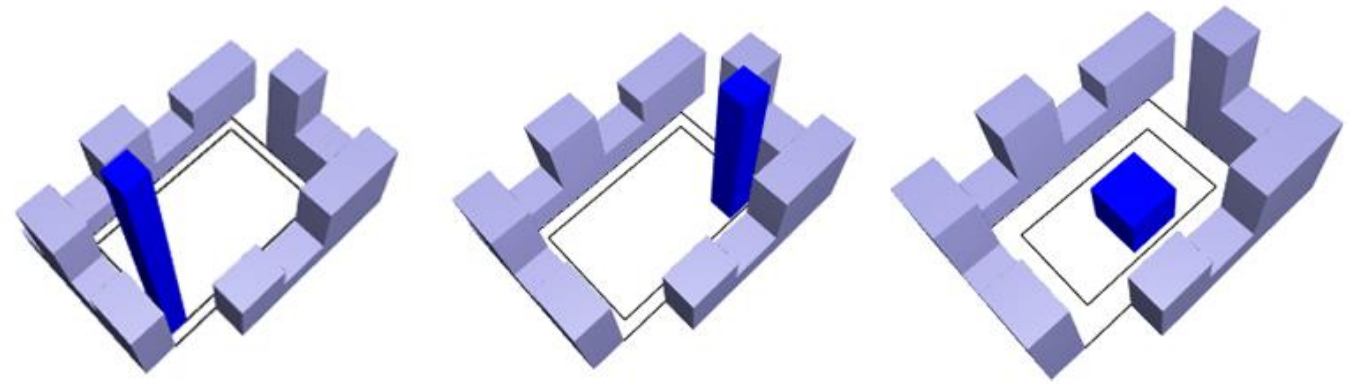
A quick side by side comparison.





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