3D POTM   October 2019

OpenSCAD course at Elderslie

As mentioned in last months 3D Print of the Month, a West of Scotland Area Group meeting was held this summer to learn about OpenScad, which is one of the many 3D design packages available and applicable to the type and level of 3d Modelling that we do for railway modelling.

Two of the other popular 3D modelling packages, Autodesk Fusion 360 and Sketchup, have recently undergone significant changes to their licensing arrangements, basically moving towards a model where the software is cloud based and paid for by annual subscription. In some cases your models need to stay on the cloud too, your work is never available to you on your local computer, and even worse worse you do not have control over who else can see it.

The state of flux in this area of the software market is among the reasons that we have not offered courses in these packages. Apart from anything else, having to connect via the internet means that we can't simply get a dozen people together at a central venue and expect them to be able to work without an online connection.

The package that we *do* use, OpenSCAD, installs from a small executable on to any hardware (Windows, Mac or Linux) and needs no internet connection to be useful. It is fairly simple to use, by the time you know a dozen commands you can do almost anything with it, and it imports and exports all the major file types, so it will play nicely with any printer or any other software. It, too, has recently had an upgrade, but in this case there was no silly licensing changes. For the first time since 2015 there was a new release of OpenSCAD in May 2019, so our course in June was fortuitously timed. The new version has some small improvements and a number of bug-fixes Everyone installed the latest version of the software on their laptop and the notes and teaching materials were 'bang up to date' an event that happens very rarely in learning software!

Joining instructions sent to all the participants suggested what to bring and what not to bring, and the folks at Renfrewshire MRC not only provided a great venue in the newly refurbished library area of their club house in Elderslie, they also provided lunch and refreshments. On behalf of all the participants I thank them again for their exemplary hospitality.

The course itself covered areas such as design philosophy, software philosophy and paradigm (how to think like a software package), and covered about a dozen basic commands whilst explaining the way the commands worked to make it easy to pick up other commands.

Participants were supplied with a document which not only contained hard-copy versions of all of the commands used, along with syntax and usage, but also allowed them to record and document their learning as they went. This seemed to go down well.

A number of worked examples were used, some of which are standard WoSAG 3Dprints, and participants were encouraged to take on their own projects too. Indeed since the event a number of participants have come forward with ideas and potential developments.
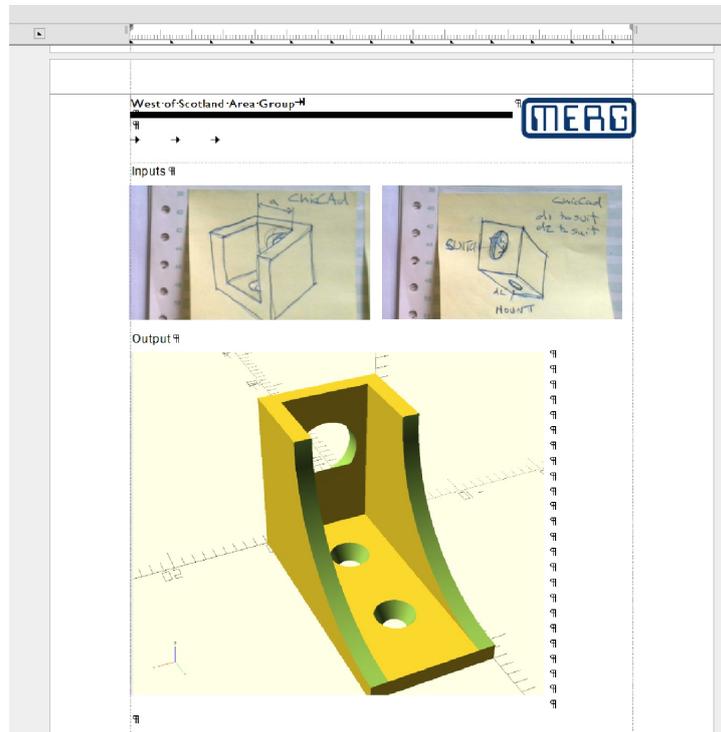

Figure 1 Redesigning a switch bracket

After the course there were two schools of thought as to what to do next. Some people thought that they would like a repeat of the same course after they had had time to assimilate and practice what they had learned, others wanted to move on to a slightly more advanced course to build on the learning from the course. No-one who participated wanted to just 'leave it there', all were interested in further learning in the area, which is a great indicator of the success of the event.

As both the organiser and presenter of the event, it ill behoves me to review the success or otherwise of it, I will leave that to the other participants.

If you would like to attend one of these meetings, or you have any ideas for other areas where a small group session might be useful, please do not hesitate to contact myself or one of the Area Group Team.

Chic