CAM Software Testing

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This is an archived page - for the latest verion please visit Vectric VCarve

This page details our experience with CAM software for use on the Multi-cam CNC. New platforms are trialed and documented here. The list of software used (or to be tested) is;

- Enroute
- Vectrics Aspire
- Vectrics Vcarve Pro (makerspace edition)
- Fusion360

For all CAM programs except Enroute we will need to find Post Processors and make a tool library.

Enroute

This is the supplied and recommended CAM platform. The version supplied was 5.1 - basic. It has extremely limited functionality;

- No drawing functions
- Limited import functions
- Buggy tool and path assignment

We have described most of the tools we use in the Enroute Library.

Vectrics Vcarve

Recommended by contractors who have worked for SLQ in the past.

Post Processor

Luckily the in-built AXYZ A2MC (MM) post is close - we compared it the the enroute version created our own modified

version

-refer to vectrics forum for a discussion.

Autodesk Fusion360

Post Processor

According to this forum thread here

this

post processor should work.

ILLUSTRATOR & 123DMAKE TO ENROUTE

Seeking to establish a workflow of design in Illustrator or 123D Make (exported as DXF) and layout/ and CAM settings via Enroute. here are my recollections a couple of hours later (figured i should get them down while it is fresh and we can edit/ improve later)

123D Make - Enroute

123d Make

1. import an STL model into 123D Make
2. adjust the dimension of the model to the size output you want.
3. set material settings - dimensions of the plate and thickness, size of the tool you will use
4. choose construction method adjust number of surfaces/ shapes you want to cut the orientation of shapes etc
5. export file as DXF

EnRoute

1. new file
2. set plate dimensions
3. import DXF
4. Ungroup & delete markings, part numbers, bounding box etc
5. Select each shape to cut and create path offset cut settings? (set tool- feed rates, spindle speed etc; whether its an external or internal cut)
6. tabs on these cut paths (forgot this)
7. add fabrication features like dogbone fillets (drillholes)
8. Prepare output - Set cut strategies, order)
9. Save
10. output to jobs folder
11. Connect to machine via file manager and push outputted job into the machine memory.

notes

I wouldn't recommend trying to do too much editing of the shapes in enroute. i'd import files into Illustrator or Corell and make edits to the shapes

Illustrator - Enroute

this needs testing but i image this wont be too different to exporting a DXF from 123D. one consideration is that you probably want to be careful which shapes/paths you are grouping as you are un likely to be able to separate these for different tool operations.

Enroute

Ungroup holes before applying paths.

When outputting with multiple strategies - untick 'Maintain Grouping' to ensure the rough passes are all cut first.