Pre-release Guide

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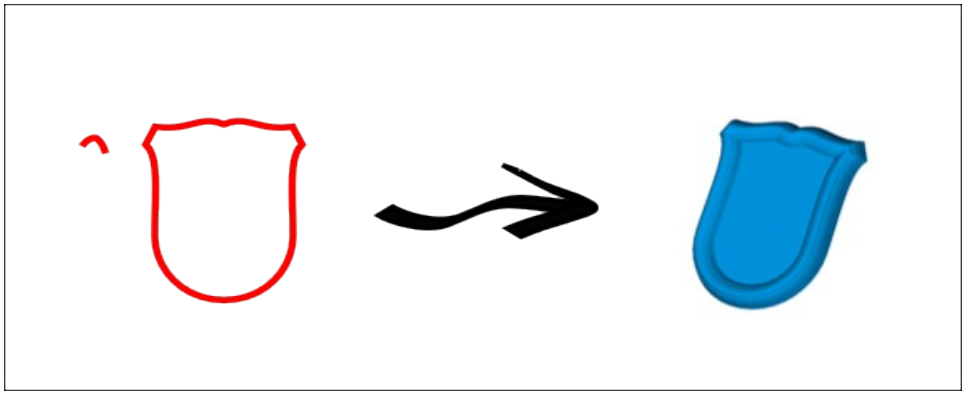
1. Overview

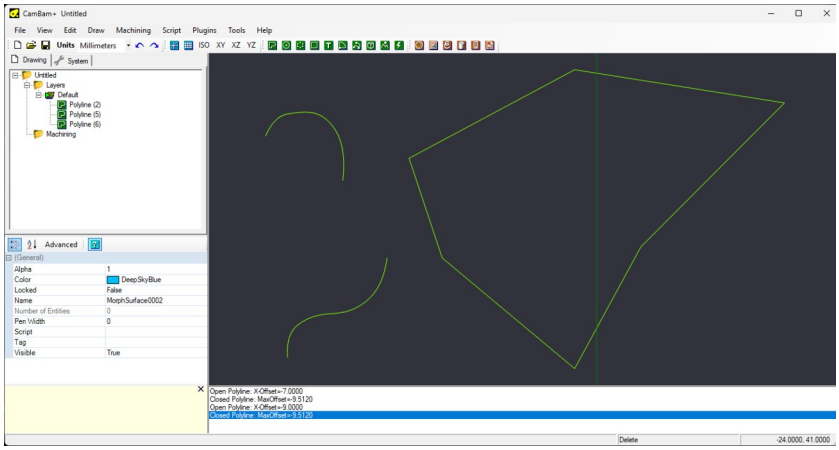
MorphMuse lets you build surface geometries in CamBam by combining one open curve with one closed outline. It automatically generates a smooth surfaces:



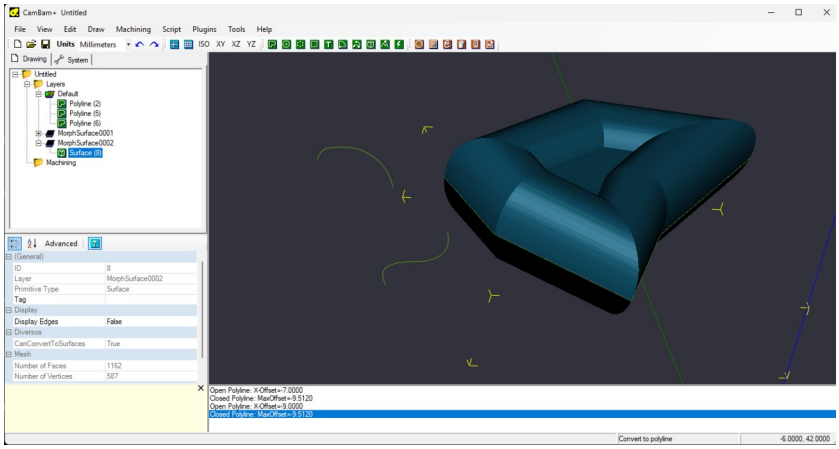
The open polyline acts as the surface generatrix, with its initial point sliding along the closed polyline to generate the surface. To switch the starting point of the open polyline, go to [Edit] → [Polyline] → [Reverse].

An interesting ability is the possibility to generate two surfaces from two separate open polylines, both referencing the same closed polyline. This allows the creation of a fully enclosed geometry that can be exported as a .stl file for 3D applications or machining workflows.

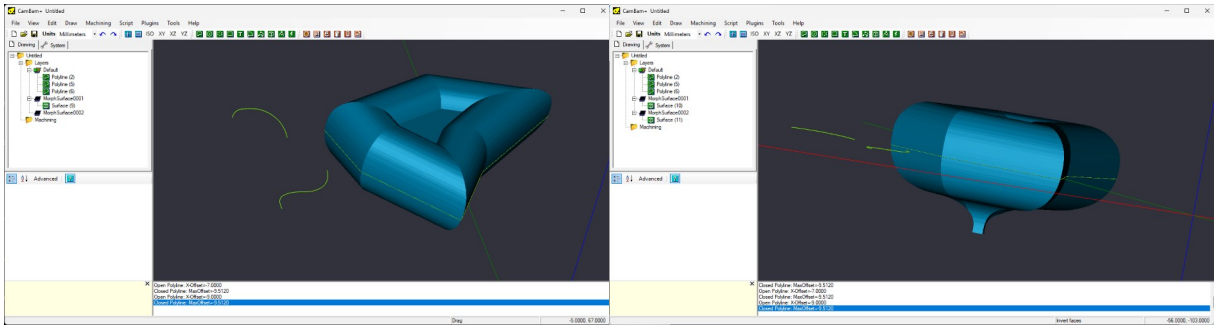
Two open polylines and one closed polyline:



Aplying MorphMuse twice:



Inverting the botton surface and joining both:



Surface invertion: [Edit] → [Surface] → [Invert Faces]
Joining surfaces: [Edit] → [Join]

2. System Requirements

- CamBam version required CamBam 1.0, x86 or x64.
- NET Framework 4.8.

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3. Installation Instructions

- Where to download the plugin xxxxxxxxxxx
- How to install:
    - ➔ Copy ‘morphmuse`.dll’` file to CamBam’s plugin directory.
    - ➔ Restart CamBam.
    - ➔ Confirm plugin appears in the plugins menu.

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4. How to Use the Plugin

- Step-by-step usage:
    - ➔ Select one open polyline and one closed polyline.
    - ➔ Run the plugin via menu.
    - ➔ View generated surface in a new layer.
    - ➔ The plugin is sensitive to the orientation of the polylines. The direction of the closed polyline (clockwise or counterclockwise) and the starting point of the open polyline both influence the result. If the generated surface does not behave as expected, try reversing the open polyline to correct the thing.

- Limitations:
    - ➔ Only works with 2D polylines on XY plane.
    - ➔ Requires at least one closed and one open polylines.
    - ➔ Supported input: polylines only. Other entity types are not compatible.
    - ➔ Surface generation may fail if geometry is too complex.

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5. Feedback Instructions

- This is a pre-release version of the plugin, and your feedback is highly appreciated. If you encounter any issues or unexpected behavior, please share your observations on the CamBam forum. Whenever possible, include screenshots or sample files to assist with troubleshooting. Please note that I maintain this project in my spare time, so responses may take a little while — thanks for your understanding!

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6. Disclaimer

- Remember: this is a pre-release version.
- Use at your own risk.
- Not intended for production-critical workflows yet;

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7. Development Note

- This plugin was developed with the assistance of Microsoft Copilot, an AI companion that supported code generation, logic refinement, and documentation drafting throughout the process. While Copilot played a valuable role in accelerating development, all final decisions, testing, integration and many bugs fixes were carried out manually. Please note that this project is independently maintained and not affiliated with or endorsed by Microsoft.