

# Alibre to G-Code Procedure, Version 1.1

---

By **R. G. Sparber**

Copyright protects this document.<sup>1</sup>

These steps take a 2 ½ D figure and produce g-code that will run on Mach3.

## Involved Software

1. Alibre PE 2011
2. CamBam 0.9.8
3. Mach3

## Overview

The object is created in Alibre as a 2 ½ D object. One or more views are generated as shop drawings. Each shop drawing is converted to a .dxf. The .dxf files are opened by CamBam which provides access to each line, arc, circle, and/or polygon. The user then converts each element into a machining operation. When done, CamBam generates g-code.

## File Naming

(g) project part view version

Example: g123p04v02v03

Where

- (g) precedes the file name if it will be used to generate g-code. For example, Alibre can output drawings for use in the shop or drawings that will be exported in .dxf format to be used to generate g-code.
- Project - project number
- Part - the part number for this project
- View - the plane that will be perpendicular to all machining operations
- Version - the version of the *part*. Note that it should not be the version of the view because views can then get out of sync.

---

<sup>1</sup> You are free to distribute this article but not to change it.

# The Procedure

1. Alibre
  - a. Create 2 ½ D object.
  - b. Suppress all features not to be machined by the resulting g-code.
  - c. With object open in Alibre, create a new drawing with File:New:Drawing
  - d. name file
  - e. Set Default View Scale to 1:1
  - f. Select Blank Sheet.
  - g. Click OK.
  - h. Set Scale to 1:1 on next window.
  - i. Select only view to be expanded to 2 ½ D.
  - j. Click OK.
  - k. Place resulting object in center of page.
  - l. Save file. Note: changes in the 2 ½ D object will propagate to this file but once Exported, the linkage is cut off.
  - m. File:Export:Save as Type .dxf
  - n. Save file.
2. CamBam
  - a. File:Open: the .dxf file generated by Alibre
  - b. Click on VISIBLE.
  - c. Edit: Select All (Cntrl+A).
  - d. Edit: Transform:Align (short cut exists by moving cursor to right half of screen and right clicking)
  - e. Select where to move all of the features as a unit. Default is to origin.
  - f. Apply and Close.
  - g. View: Zoom to fit.
  - h. Select features for each Machine Operation (MOP)
  - i. As needed, use Edit: Join to group features into polygons for easier handling.
  - j. When done, generate g-code and save with same name as .dxf
  - k. Open file with Notepad and do spot check of file (range of X, Y, Z).
  - l. Use Save As to put on thumb drive for transport to shop
3. Mach3: Load g-code from thumb drive.