ABOUT THE ALPHACAM IN WOODWORK ENGINEERING

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Abstract

ALPHACAM system is a powerful tool for increasing productivity in the manufacture of sculpted furniture.

Key words: ALPHACAM, antique style furniture, CNC

INTRODUCTION

ALPHACAM is a modern manufacturing IT process that reduces labor and improves the quality of wood products. By applying ALPHACAM furniture manufacturing are obtained:

- eliminate physical prototype;
- reducing the cost of execution;
- high quality of the product;

MATERIAL AND METHOD

The method consists in furniture design in AutoCAD in the first stage (Imag.1.si2.), then development programs CNC tool path setting. It uses AlphaCor modules, using basic functions: line, circle, arc, polyline. Depending on the processing capacity are obtained parts manufacturing work orders. It uses material libraries and tools and editing functions.

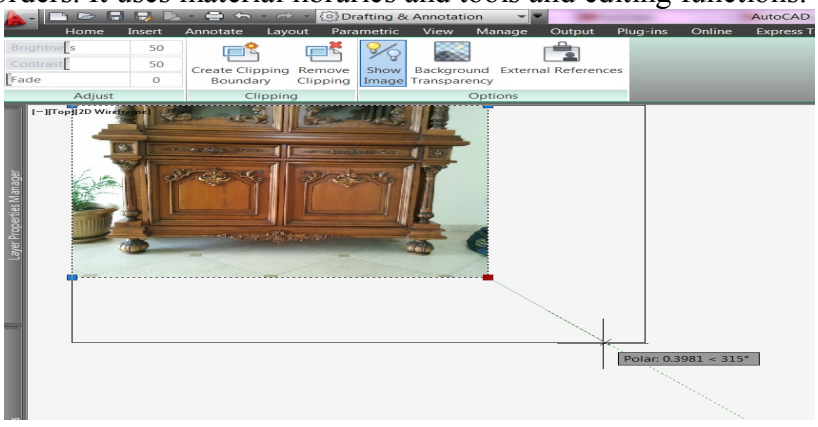

Image 1. Design in AutoCAD

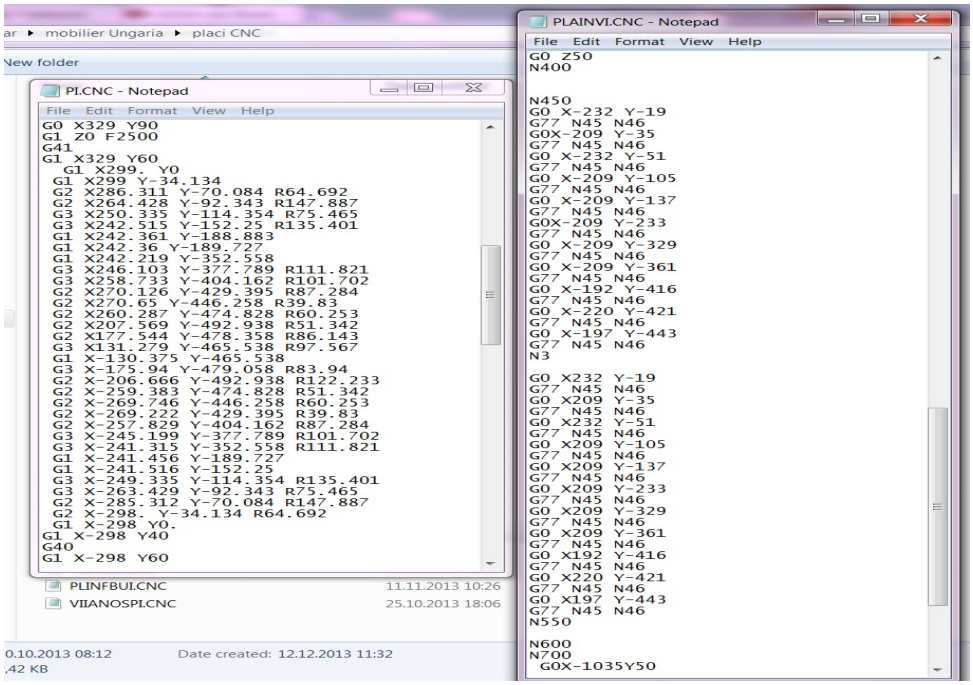

Image 3. Num 750 CNC program structure

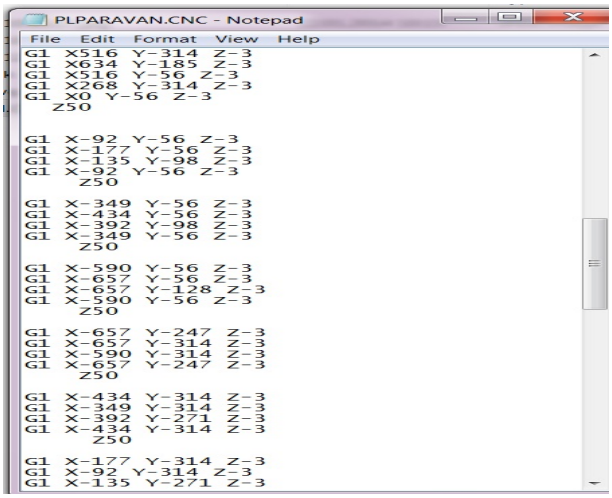

Image 4. A part of the CNC partition

We present an example of use in the manufacture of shell carved ALPHACAM in image 5 a. and image 6 where is the path tool in AutoCAD,

and in image 4 we have a program fragment CNC milling a final product in Figure 5 b .

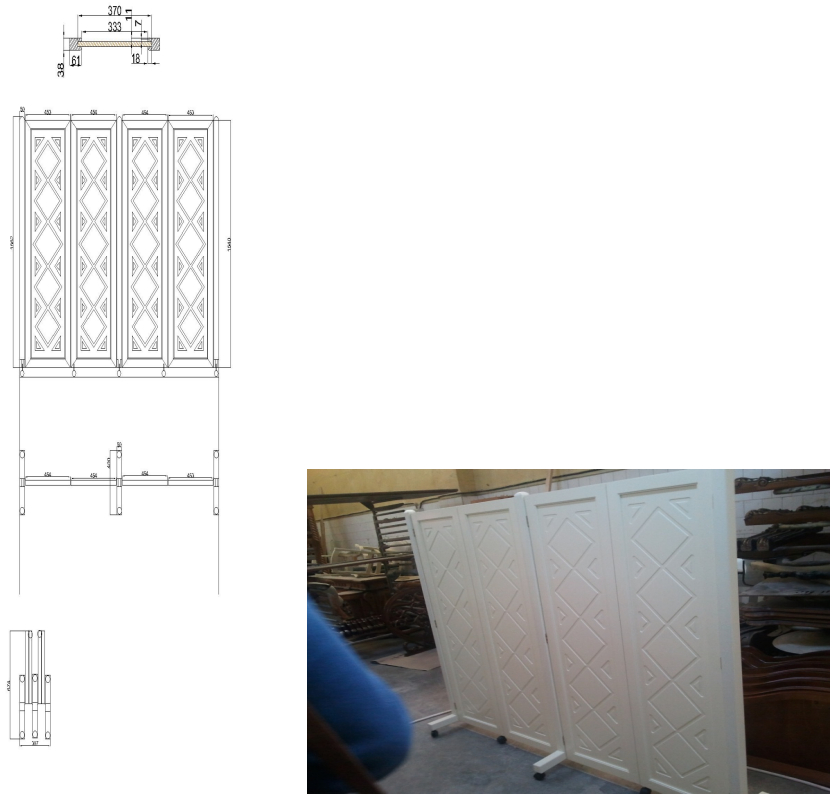

Image 5. a. Orthogonal view in section of the firewall; b. View finished product

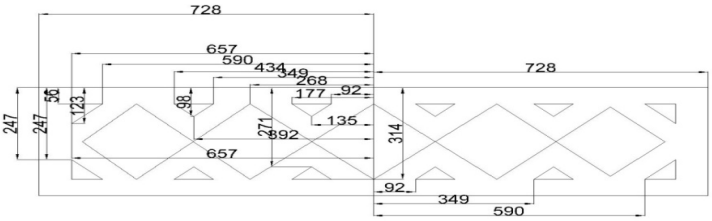

Image 6. Route mapped for milling

RESULTS AND DISCUSIONS

By using software AutoCAD drawings can easily design and modify. CNC Programming inserting AutoCAD drawings into machine code language is instantaneous.

You can use libraries of tools, materials, drawings repere.Pentru first integration of design and manufacturing is done in CAD-CAM product. This allows the use of CNC.

CONCLUSIONS

ALPHACAM system allows the integration of design and manufacturing furniture a whole. We obtain high quality furniture and increase productivity.

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