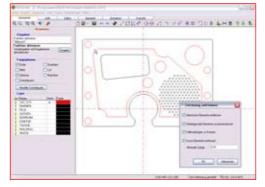


# NC-programming that's fun

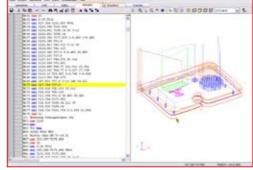
# 80-90% of all CNC-parts are 2D ...

2D Drafting



... experts say. So there is no need for expensive 3D-Modells. The cnc-code can easily be made of a simple 2D-Geometry.
But not only the geometry creation is faster, the CAM program is much easier to handle.
So why use sledge-hammer to crack a nut?

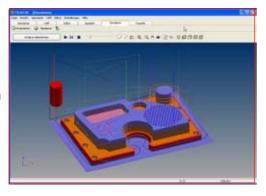
2½D Programing



Less effort means less time and costs. But the simulation of the cnc-program should be made in 3D. Because safety saves money too. FILOU-NC will fulfill your needs from creating Drawings in 2D to uploading data to the machine.

Get your free 30 day trial today at www.lewetz.de

3D Simulation



Even an already existing Drawings can be processed and already existing cnc-programs can be simulated in 3D, all with FILOU-NC





## 80-90% of all CNC-parts are 2D

## How does FILOU NC work?

Filou NC consists of several Modules that operate independently. So you can switch between the modules (Geometry, CAM, Backplot, Simulation and Transfer) at any time. When the cnc code is ready it can be send to the machine.

In the module geometry you can open a 2D DXF file, then you can edit, change, create new or add geometry to that file if required. You can even start a new drawing from scratch.

In the CAM-Modul FILOU NC works like a virtual Milling-machine that mills according to your DXF geometry and your inputs.

#### You decide

You decide how the toolpath should be made. You decide weather a tool offset correction shall be made or not. You decide which cutter will be used, how the cutter will approach and cut into the material.

Filou NC calculates necessary tool movements or optimizes toolpaths according to your specifications. For example when drilling, FILOU NC can optimize all travels so you have no unnecessary movements.

The toolpaths are immediately written, as CNC code and are visible in the backplot as a 3D wireframe.

At any time you can start the 3D simulation with material removal and check the CNC code. Or you can quickly search and edit toolpaths with the module Backplot that is associated with the editor.

Very good adjustable postprocessors and a macro-programming make the cnc-code creation fast and efficient.

#### 2D contra 3D

FILOU-NC works with 2D-geometry (Vectors) unlike 3D-CAM, which works with surfaces and volumes.

No complex 3D-Models are needed, It is just based on quick and easy created 2D-Geometrie

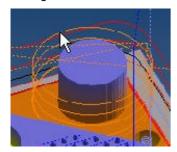


#### Geometry

Import your geometry ( AutoCAD DXF, HPGL, G-Code), special functions allow you to edit imported geometry or to create more/new contours with the CAD functions. During the import FILOU NC converts splines into bows. This is a great Feature, because most cnc controls don't like splines.

## CAM

Simply create your NC program with contour tracing, pockets, circular pockets, text milling, freehand milling, drilling with path optimizer, and if needed machine-specific cycles. There also is a tool library including cutting-data calculation.



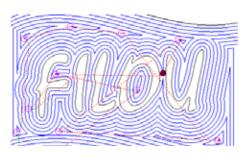
### Manager

Every processing step, even the geometry, are managed and stored in a project. Afterwards, the expiration or individual parameters can be changed with the help of the manager. Missing parts can just be added or edited without having to deal with the actual NC-Code - Now that's comfortable **CNC-Programing.** 

#### **Backplot**

The Backplot displays the tool paths in 3D. The finished nc-program is interpreted (G-Code, HeidenhainKlartext, ISEL, NCP HPGL, ... ).

Even programs not created in FILOU-NC can be processed with the Backplot. The Backplot is associatively connected with its editor.



## 3D-Simulation

Even CNC programs not created in FILOU NC can be simulated in 3D (max. 3 simultaneous axis). All you have to do is: analyze the NC code, define the unmachined part, assign the tool and start the simulation.



#### Macro-Programming

You can create your own CAM macros as well as adjust the post processor individually for most controllers and equip it with its own functions. The integrated macro programming makes this possible.

#### Transfer

With the built-in V24 / RS232 interface you are able to transfer CNC programs to and from a machine with the appropriate interface. You can create any number of machines that can then be activated when needed.

## **Postprocessors**

For most common machines, standard postprocessors are included. If none of the supplied post processors fit to your control, we can make a custom postprocessor for you (Only in FILOU-NC/OPEN). Even machine specific cycles are possible.

## System-Requirements:

- Windows XP/SP3\*
- 32/64 bit
- Windows Vista
- 32/64 bit - 32/64 bit
- Windows 7/8/10 with OPEN-GL2 support
- \*Please use the Trial version to verify that FILOU NC will work



## The main functions

Part 1

Continued on next page

NC16	basic	expert	open (home*)	winPCNC basic	winPCNC expert	winPCNC open
Geometry	<b>√</b>	<b>V</b>	V	√	$\sqrt{}$	V
Create geometry from TT-font	<b>V</b>	$\sqrt{}$	V	V	$\sqrt{}$	V
Manage geometry layers	<b>√</b>	$\sqrt{}$	V	V	V	V
Manager	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Editor	<b>√</b>	$\sqrt{}$	$\checkmark$	$\checkmark$	$\sqrt{}$	$\sqrt{}$
Backplot + Editor	$\checkmark$	$\sqrt{}$	V	V	$\sqrt{}$	V
Transfer	×	×	V	×	×	×
3D Simulation	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	V
Detailed Analysis	×	$\sqrt{}$	V	×	×	V
Time calculation	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	V	$\sqrt{}$	V
Macros	×	<b>V</b>	$\checkmark$	×	$\sqrt{}$	$\sqrt{}$
Custom Macros	×	×	$\sqrt{}$	×	×	$\sqrt{}$
Zycles	×	$\sqrt{}$	$\sqrt{}$	×	$\sqrt{}$	V
Custom Zycles	×	×	$\sqrt{}$	×	×	V
Postprozessor- adaption	×	×	V	×	×	V
Custom Postprocessors	×	×	V	×	×	V

 $<sup>^{\</sup>star}$  = Only for home, private use (schools & Hobby), no-commercial use. Will not be sold to companies.



NC16	basic	expert	open (home*)	winPCNC basic	winPCNC expert	winPCNC open
CAM						
Contourtrace	$\sqrt{}$	$\sqrt{}$	V	$\sqrt{}$	$\sqrt{}$	V
All Contourpockets	<b>√</b> *	$\sqrt{}$	$\sqrt{}$	<b>\</b> *	$\sqrt{}$	V
Contour milling	√ <b>*</b>	$\sqrt{}$	V	√ <b>*</b>	$\sqrt{}$	V
Rectangular pocket	×	$\sqrt{}$	$\sqrt{}$	×	$\sqrt{}$	V
Circularpockets	×	$\sqrt{}$	V	×	$\sqrt{}$	V
Pattern milling	×	$\sqrt{}$	$\sqrt{}$	×	$\sqrt{}$	V
Commute	×	$\sqrt{}$	V	×	$\sqrt{}$	V
Text milling	×	$\sqrt{}$	$\sqrt{}$	×	$\sqrt{}$	V
Drilling, all Strategies	<b>√</b> *	$\sqrt{}$	V	<b>\psi_*</b>	$\sqrt{}$	V
Freehandmilling	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	V	$\sqrt{}$	V
Batch	×	$\sqrt{}$	$\sqrt{}$	×	$\sqrt{}$	V
Free Block_	×	$\sqrt{}$	$\sqrt{}$	×	$\sqrt{}$	V
Pattern milling	×	$\sqrt{}$	$\sqrt{}$	×	$\sqrt{}$	V
Tool - Library	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	V
Sending to winPCNC	×	×	×	$\sqrt{}$	$\sqrt{}$	V
Sending to other software	$\sqrt{}$	V	V	×	×	×
<u>Postprocessors</u>						
All	$\sqrt{}$	$\sqrt{}$	V	×	×	×
PCNC	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	V
HPGL	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	V

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