SPINOGY®
SPINDLE TECHNOLOGY

EDING CNC MACROS

for SPINOGY X22

Stand 04.02.2022
Macro Version >1.5.0

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01 Introduction

SPINOGY macros for Eding CNC add two functions to the software, specifically adapted to the X22 spindles. With the warm-up and grease distribution run routines, the spindles are prepared for use exactly according to the manufacturer's plans.

Depending on the downtime or storage time and the storage or mounting position, a corresponding warmup or grease distribution run must be performed with the spindle. This ensures uniform bearing lubrication, which results in the bearing temperature being low, thus increasing grease and bearing life.

For more information, please refer to the operating instructions of your X22 spindle.

02 Limitation of liability

SPINOGY doesn't assume liability for personal injuries, material damages, damages caused to the device and consequential damages caused by failure to follow this operating manual or improper use of this macro. Despite careful checking of the program code for correctness, unforeseen errors may occur. Therefore, the macro must be tested before use without the spindle connected.

03 Copying the files

In preparation for the installation, files must be copied to the Eding CNC program directory. These are graphics and icons, which are mandatory for the correct display.

The program directory of Eding CNC is located in a standard installation directly on the Windows drive "C:". The folder name normally starts with "CNC", followed by the version number. Example:

> C:\CNC4.0X

Copy the **dialogPictures**, **icons** and **icons_120dpi** folders and all files to the Eding CNC program directory.

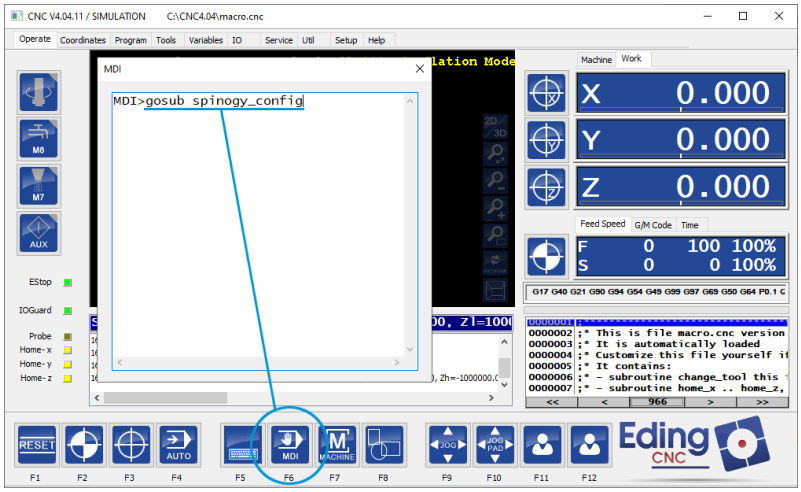
04 Install macros

For the installation, copy the content of the **spinogy_macro.cnc** file, either to the end of the **macro.cnc** or the **user_macro.cnc** file in the Eding CNC program directory. Open the files with any text editor (e.g. Notepad++).

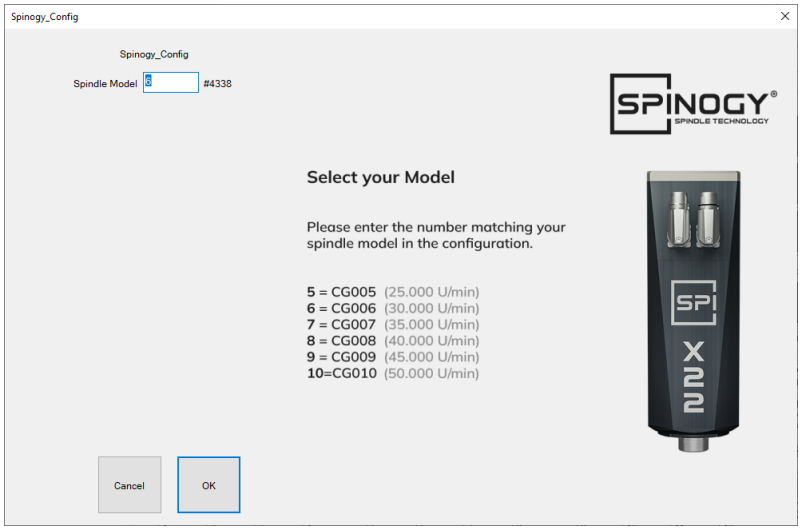
This completes the installation. If Eding CNC was already open, restart the application afterwards.

05 Configuration

After the installation has been completed, the routines must be configured. For this, the command „gosub spinogy_config“ is executed via the „MDI“ function („F6“ key). This opens the configuration dialog.



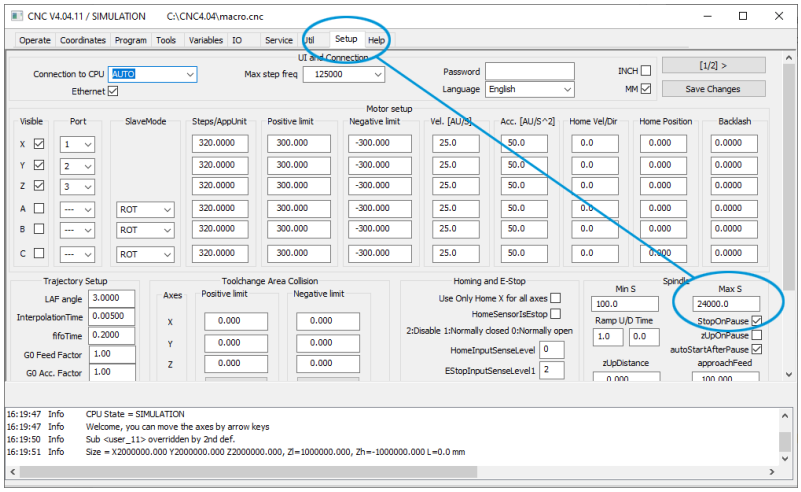
Now enter the number corresponding to the option number of your spindle in the input field of the configuration. For example, if you have the CG006 model with up to 30.000 rpm, enter the number „6“ in the field.



After confirming with „OK“, the configuration is complete.

Note: If you configure the spindle as described, but your settings in Eding CNC itself do not match, you will get a message in the console after the configuration.

In this case, check your "Max S" (M90) setting in Eding CNC or run the macro configuration again. You can find the value in the settings under the item "Spindle". This should coincide with the selection of your spindle model.



06 Routines

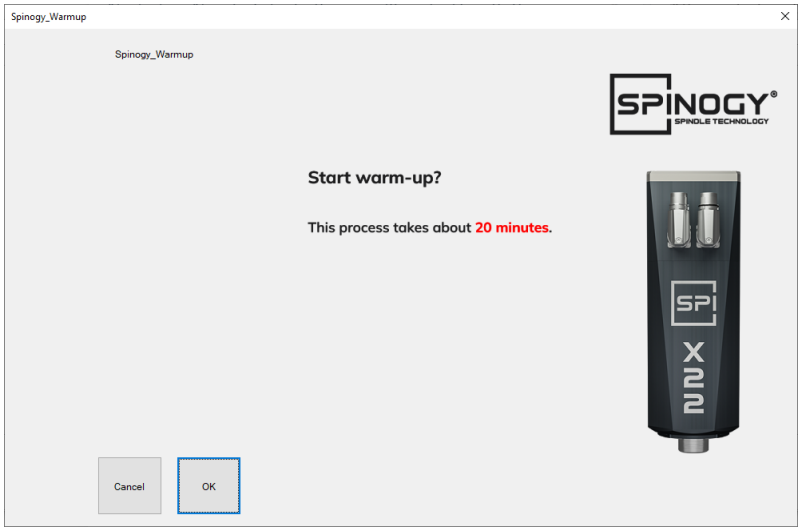
After installation and configuration, the two routines „spinogy_warmup“ and „spinogy_greaserun“ are available in Eding CNC, which can be called arbitrarily. More information about the individual routines can be found below in this document.

More detailed information on the frequency of execution and technical details can be found in the operating manual of your X22 spindle.

07 Warm-up

The warm-up prepares the spindle before starting work and should be carried out again after every longer break before the spindle is loaded. The warm-up is carried out in partial steps of five minutes, increasing the speed up to 24.000 rpm in 25% steps. The Z-axis is also moved up as far as possible before execution.

To execute the routine, open the „MDI“ function („F6“ key) in Eding CNC and enter the command „gosub spinogy_warmup“. Subsequently, a dialog opens in which the start of the routine must be confirmed.



08 Grease distribution run

Depending on the downtime or storage time and storage or mounting position, a corresponding grease distribution run must be carried out with the spindle. This ensures uniform bearing lubrication, which results in the bearing temperature being low and thus increases the grease and bearing service life.

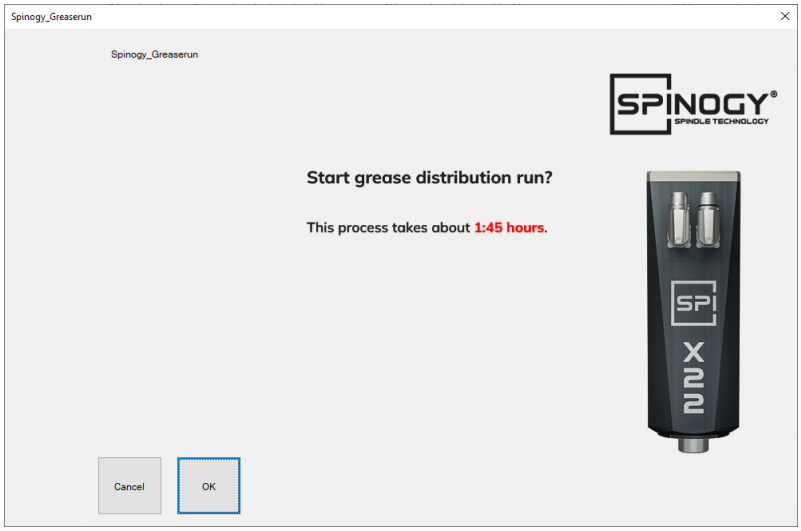
The grease distribution run consists of two phases. The first phase comprises short intervals at reduced speed, the second phase long intervals at nominal and maximum speed.

In phase 1, the speed is increased in 33% increments up to nominal speed. Each interval consists of four runs at one minute, with a two-minute break in between.

Phase 2 follows on directly from phase 1. The spindle is accelerated to the nominal speed of 24.000 rpm and operated at this speed for 30 minutes. This is followed by a five-minute break. After this, the maximum spindle speed is approached and held for 30 minutes.

Before execution, the Z axis is also moved up as far as possible.

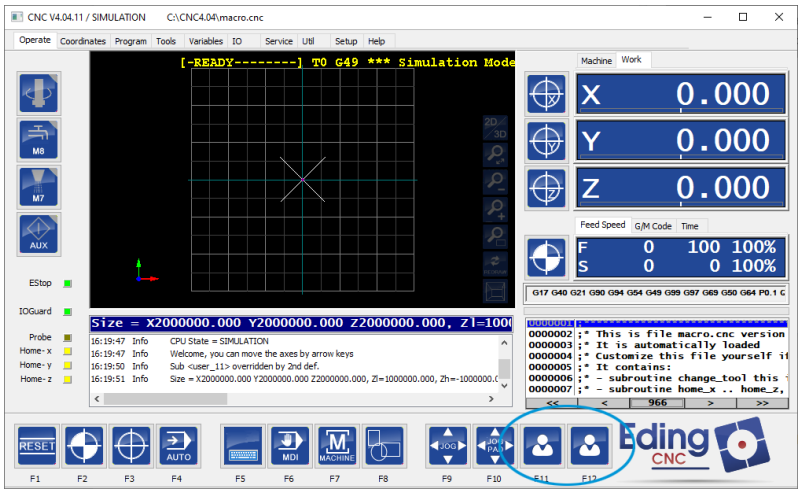
To run the routine, open the „MDI“ function („F6“ key) in Eding CNC and enter the command gosub „gosub spinogy_greaserun“. Subsequently, a dialog opens in which the start must be confirmed.



09 Eding CNC User Buttons

In Eding CNC it is possible to place routines on the so-called User Buttons to be able to call them more easily instead of manually via the MDI. This has to be configured once.

The user buttons are located in Eding CNC under the functions F11 and F12.



In the following example, the two routines „spinogy_warmup“ and „spinogy_greaserun“ are assigned to buttons „11“ and „12“. You can also assign the routines to any other button between 1 and 20.

010 User buttons configuration

Open the user_macro.cnc file in the Eding CNC program directory with a text editor (e.g. Notepad++). Add the following lines to the end of the file to assign the respective functions to buttons 11 and 12.

```
Sub user_11
    GoSub spinogy_warmup
EndSub

Sub user_12
    GoSub spinogy_greaserun
EndSub
```

Then save and close the file. After restarting Eding CNC, the functions are already available on the buttons. In order to be able to identify the buttons more easily, suitable graphics are already supplied for them. Proceed as follows:

1. Open directory

To display them in Eding CNC, go to the C:\CNC4.04\icons\op_f_key\user folder in the program directory. If you use high resolution icons, go to the icons_120dpi folder instead of icons.

2. Rename original graphics

There you first rename the existing graphics U11.bmp and U12.bmp, e.g. to U11_original.bmp and U12_original.bmp.

3. Rename new graphics

In the same folder you will find the supplied graphics Spinogy_Warmup.bmp and Spinogy_Greaserun.bmp. Now rename these graphics to U11.bmp and U12.bmp.

4. Restart Eding CNC

After restarting the software, the user buttons should now be displayed with the new graphics and are therefore easy to recognize in the future.