

MyCNC profiles

MyCNC software can be flexibly configured for a wide range of application. Complete machine configuration is stored in Profile - folder that contains all the screen configuration, machine settings, macros, PLC procedures etc.

The description of default myCNC profiles and their GUI is available here: [MyCNC Profile Screen Description](#):

- [Basic profile for 4 axes Mill \(X1366M4 / X1366M profiles\)](#)
- [Basic profile for Plasma Cutting \(X1366P\)](#)
- [Basic profile for Gas Cutting \(X1366G\)](#)
- [Basic profile for 5 axes Mill](#)
- [Basic profile for Tangential Knife \(X1366V\)](#)
- [Row and column nesting \(all profiles\)](#)

Profile folders are placed in “myCNC/profiles” folder in User configuration folder. “User configuration folder” is OS dependant folder which can be for example:

- Linux -

```
/home/user_name/.config/...
```

- MS Windows (Old) -

```
C:/My Documents/...
```

- MS Windows (Win 7) -

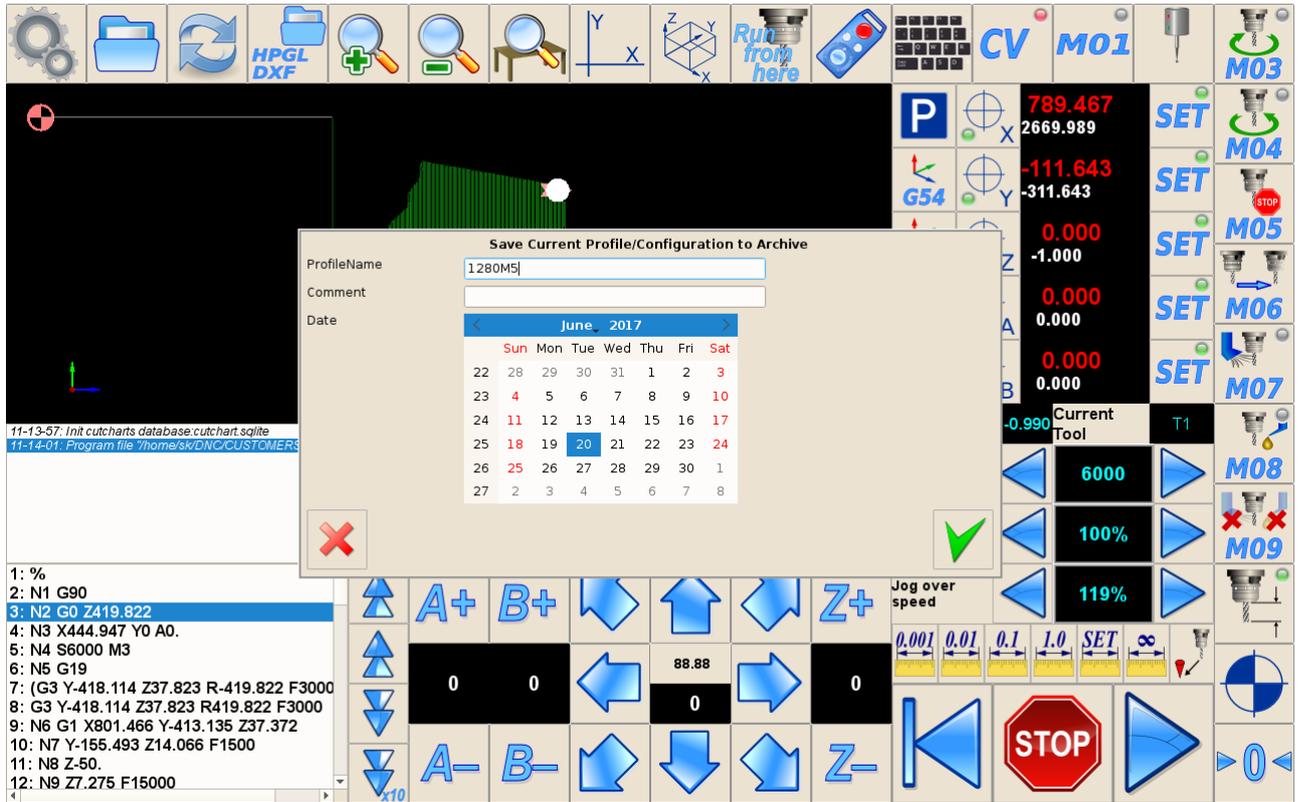
```
C:/Users/User_Name/...
```

For example for Odroid-C2 mini computer we offer profiles folder are placed in -

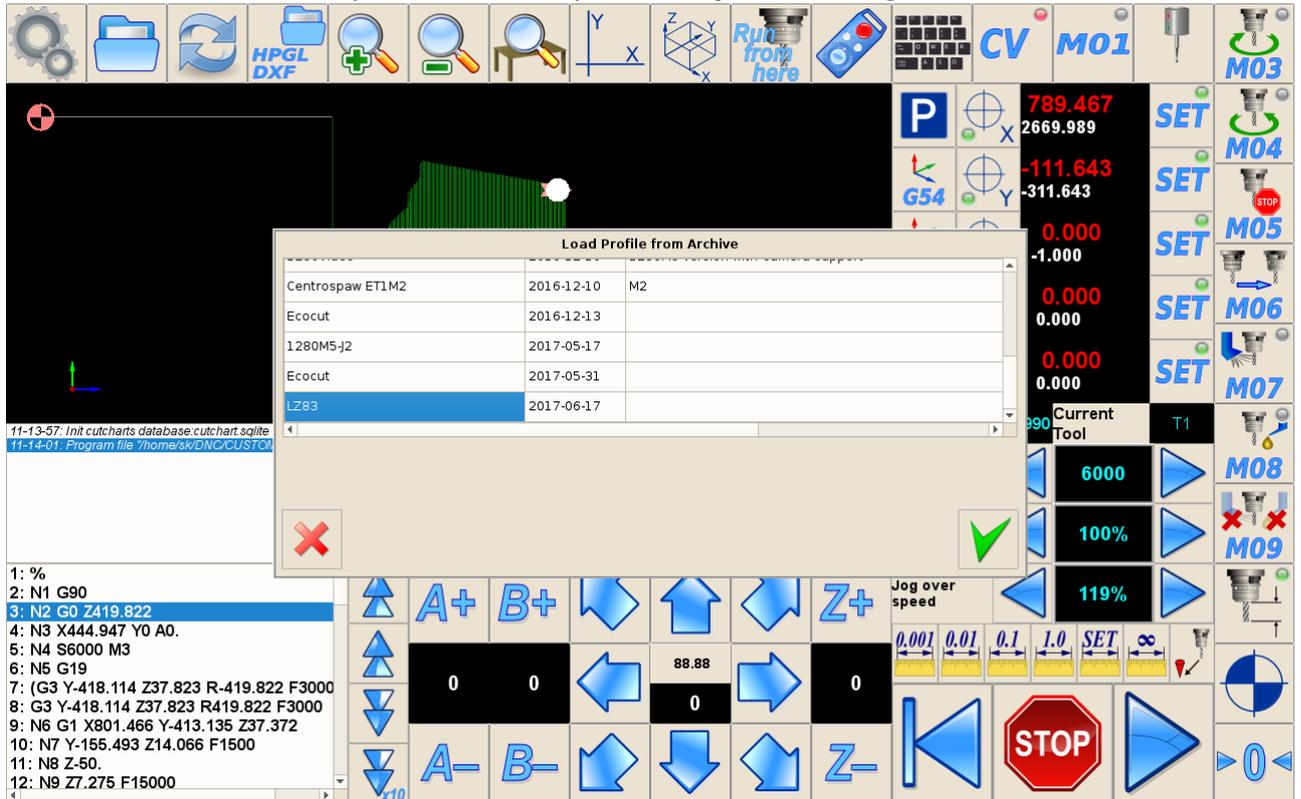
```
/home/operator/.config/myCNC/profiles
```

Save/Restore Profile Configuration

- Current Profile can be stored simply by archiving your current profile folder
- Current Profile can be stored in the local database file. Press **Ctrl+Z** to open **Save Profile dialog**, enter comments and press “Save”. A Complete set of Current profile files will be stored in the database file.



To restore Current Profile press **Ctrl-L** to open **Load profile** dialog,



select profile snapshot and press "ok".

Database file with Profiles Archive is placed in myCNC working folder in myCNC/db/profiles.sqlite file. A Full path for Odroid-C2 is

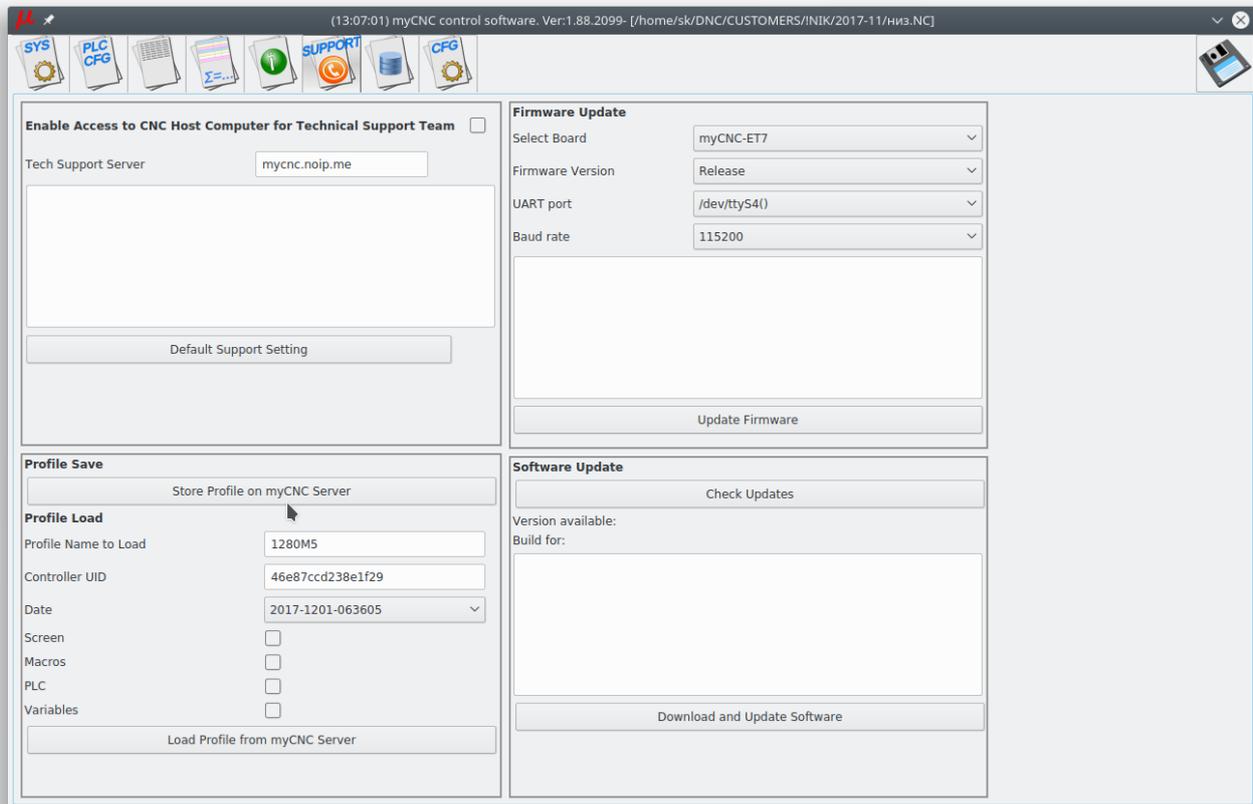
```
/home/operator/myCNC/db/profiles.sqlite
```

for MS Windows it can be

C:/MyCNC64/db/profiles.sqlite

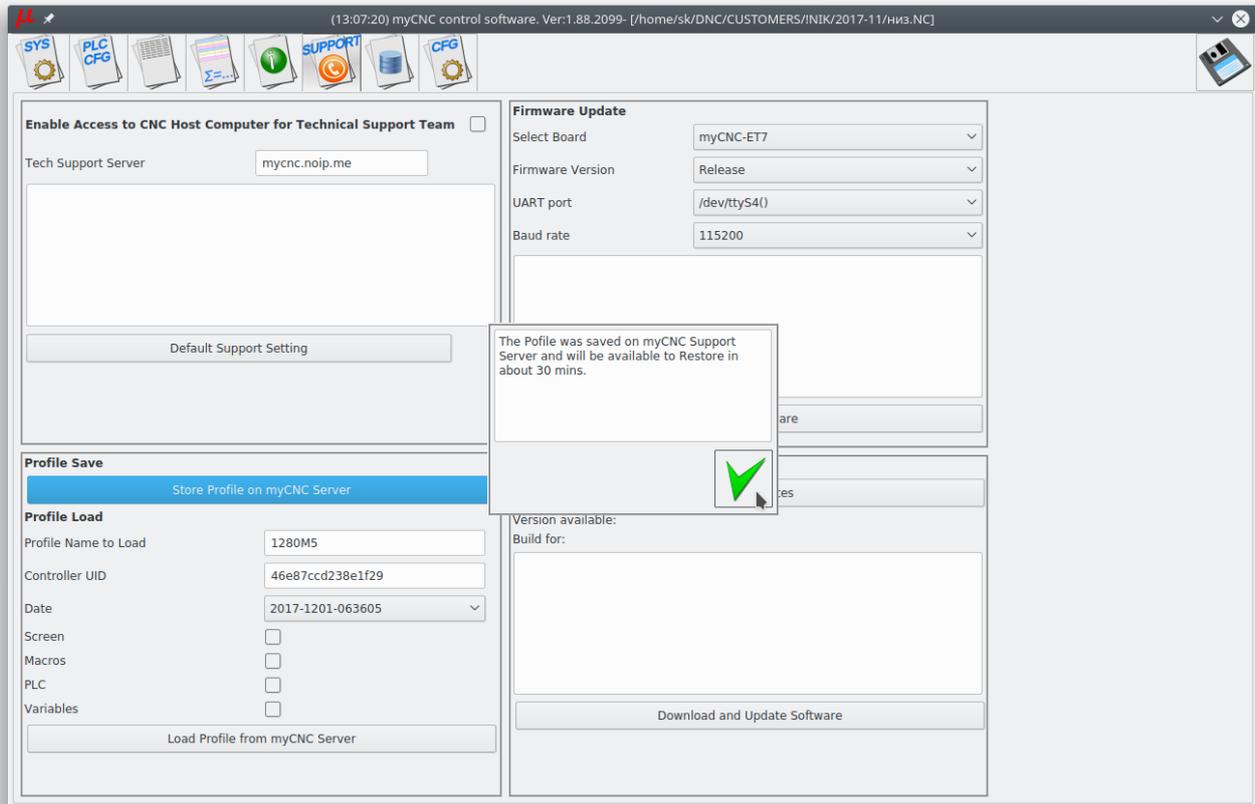
Store/Restore and Update Profile data to/from myCNC Server

Current Profile can be stored, restored or updated from myCNC Server. Store, restore and update profile can be made in the "Support" dialog.



To Store Current profile snapshot

To Store Current profile snapshot on myCNC Server press button **Store Profile on myCNC Server**. You will get a confirmation message after the profile stored.

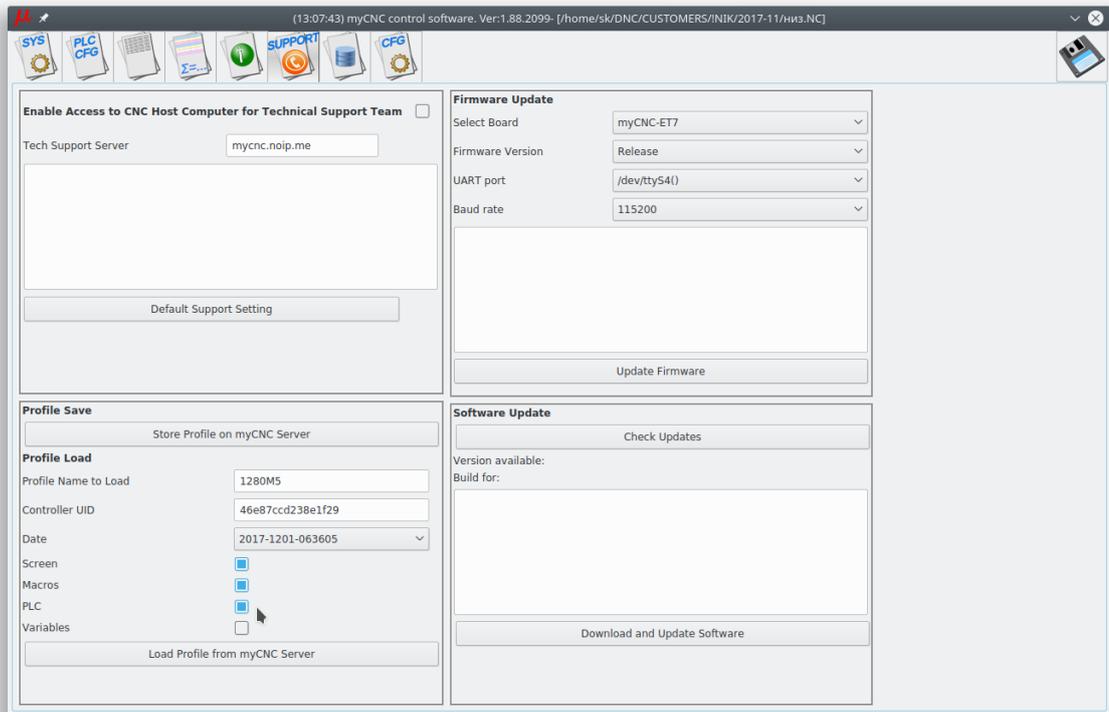


Your profile name, controller unique ID and current date and time are stored with all profile data. You will be able to restore data exactly for your machine (pair profile-controller ID) and selected date.

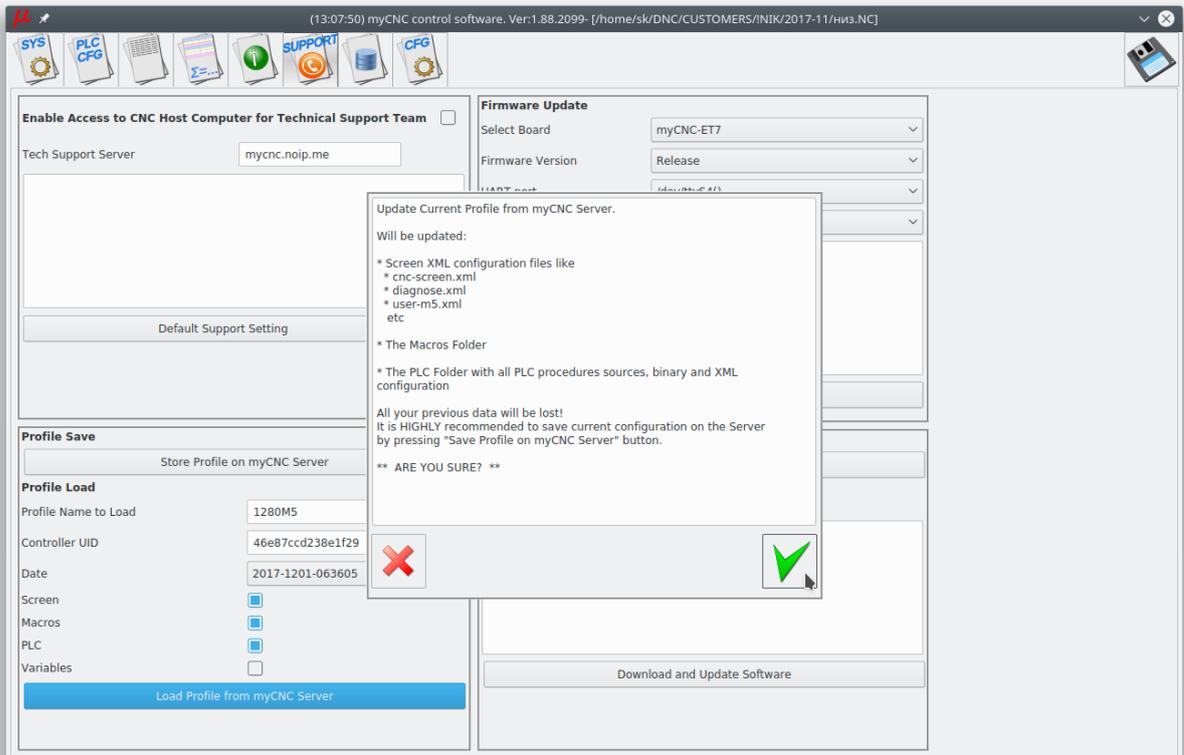
To Restore profile from myCNC Server

- **Profile Name to Load** - Current profile name is filled automatically.
- **Controller UID** - Your Controller unique ID is filled automatically.
- **Date** - Select date to load from ComboBox
- Select which components of the profile you like to restore from myCNC Server
 - **Screen** - screen configuration files like "cnc-screen.xml", "diagnose.xml", "editor.xml", "parking.xml" etc
 - **Macros** - macro files from "Macro" folder
 - **PLC** - plc folder with all Hardware and Software PLC files
 - **Variables** - All current settings from "cnc-variables.xml"

For example **Screen, macros and PLC** are selected to restore from myCNC Server



- Press “Load Profile from myCNC Server” to load selected profile data.
- Press OK in confirmation dialog

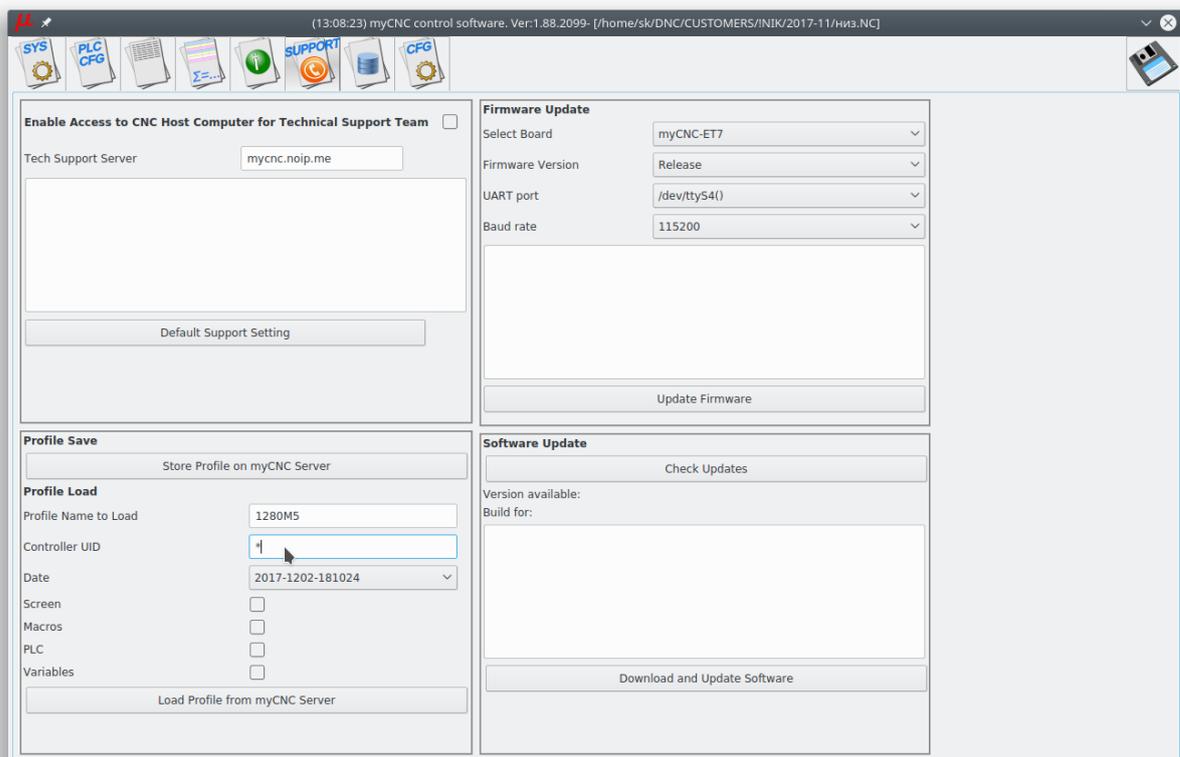


To Update profile from myCNC Server

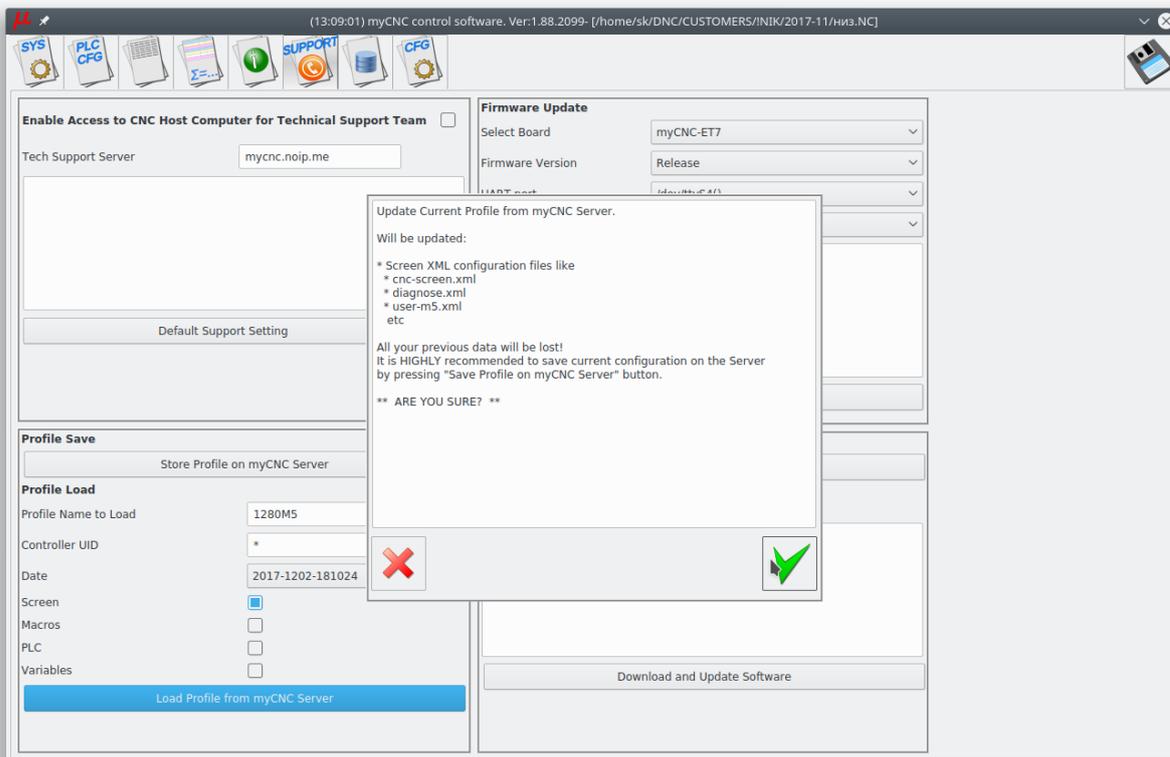
Note
You may wish to update your profile to the last version from your myCNC Server.

1. Updating Screen files make sense since you would get a new look of your profile
2. Updating Macros and PLC is completely up to you. You may update it if you didn't
make any changes in PLC or Macros
3. !!! Never !!! update cnc-variables because you will lose all your settings data
and will need to set up system again (like pulse per unit settings and other)

- **Profile Name to Load** - Current profile name is filled automatically.
- **Controller UID** - Put "*" symbol to get the last **Default** version of your profile.



- **Date** - Select the last date from the ComboBox
- Select which components of the profile you like to restore from myCNC Server
 - **Screen** - screen configuration files like "cnc-screen.xml", "diagnose.xml", "editor.xml", "parking.xml" etc
 - **Macros** - macro files from "Macro" folder
 - **PLC** - plc folder with all Hardware and Software PLC files
 - **Variables** - Do NOT select variables when update the profile from myCNC Server.
- Press "Load Profile from myCNC Server" to load selected profile data.
- Press OK in confirmation dialog



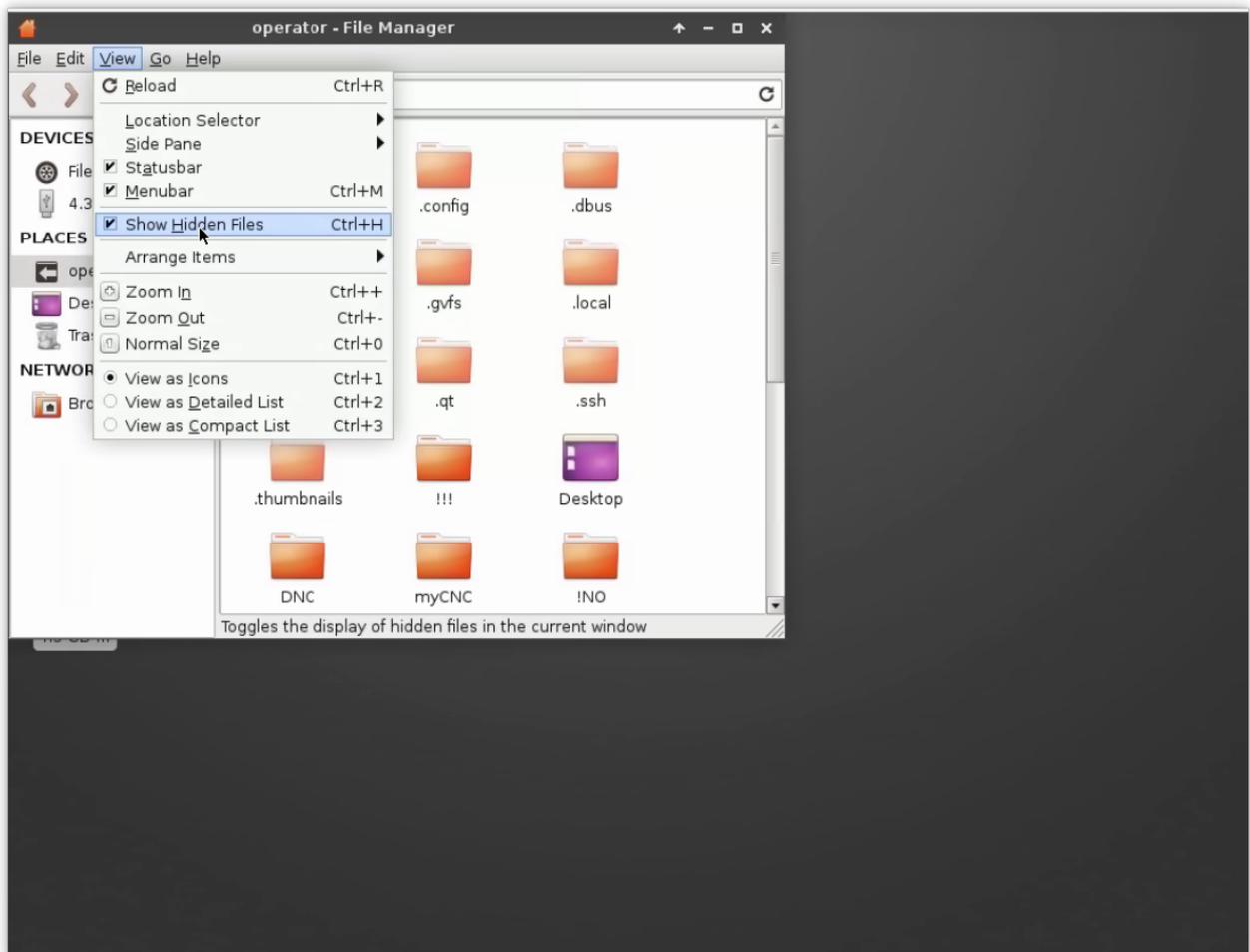
Manual restore Profile Configuration

A computer uses cache memory (RAM) while saving files to increase SD cards performance. The most frequently written file is **cnc-variables.xml**. In case of power failure profile configuration file "cnc-variables.xml" might be damaged. To restore profile configuration you can manually copy this file to profile folder from the archive. For example,

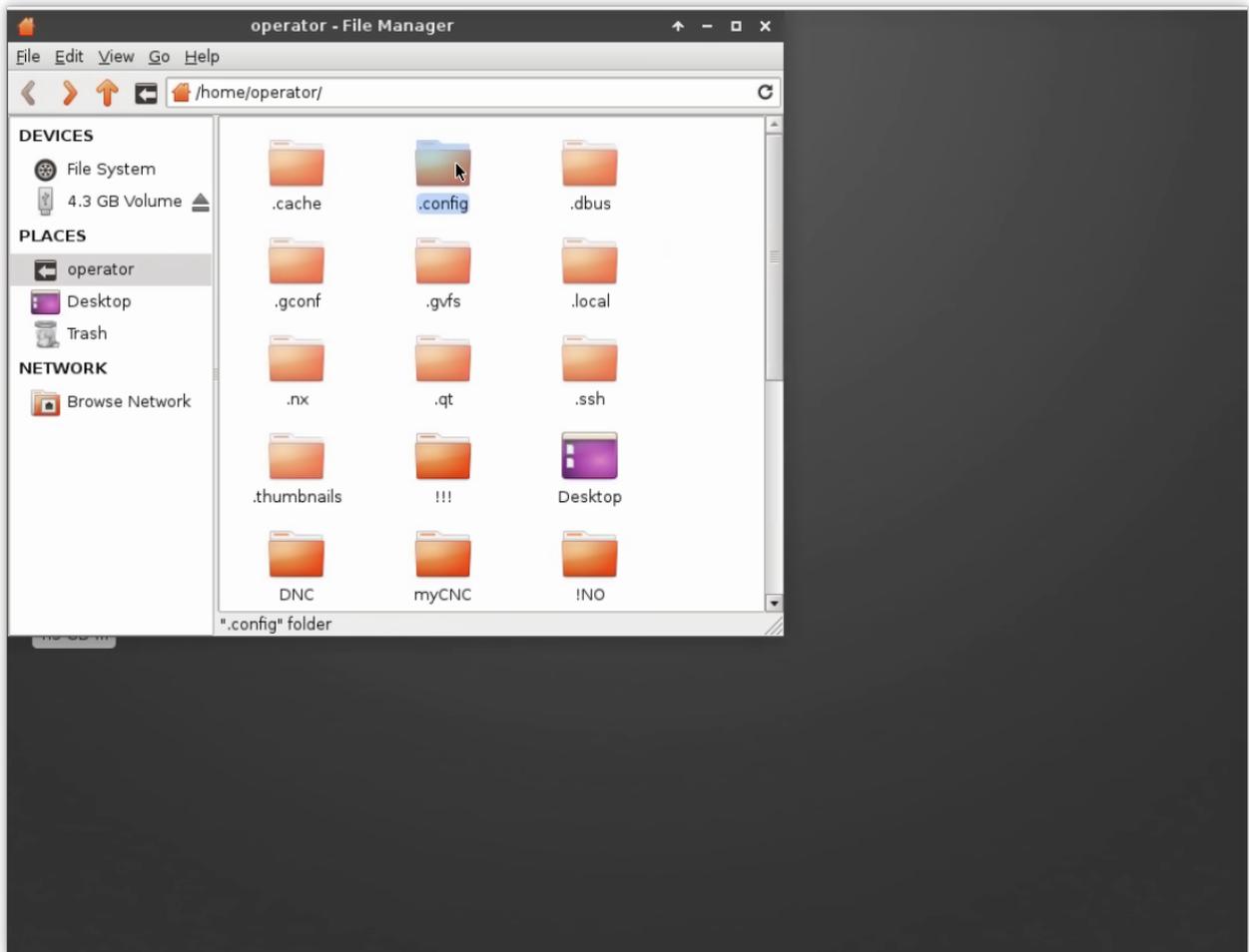
- put "cnc-variables.xml" file to USB disk and insert it into the SBC.
- Close myCNC software to see the desktop



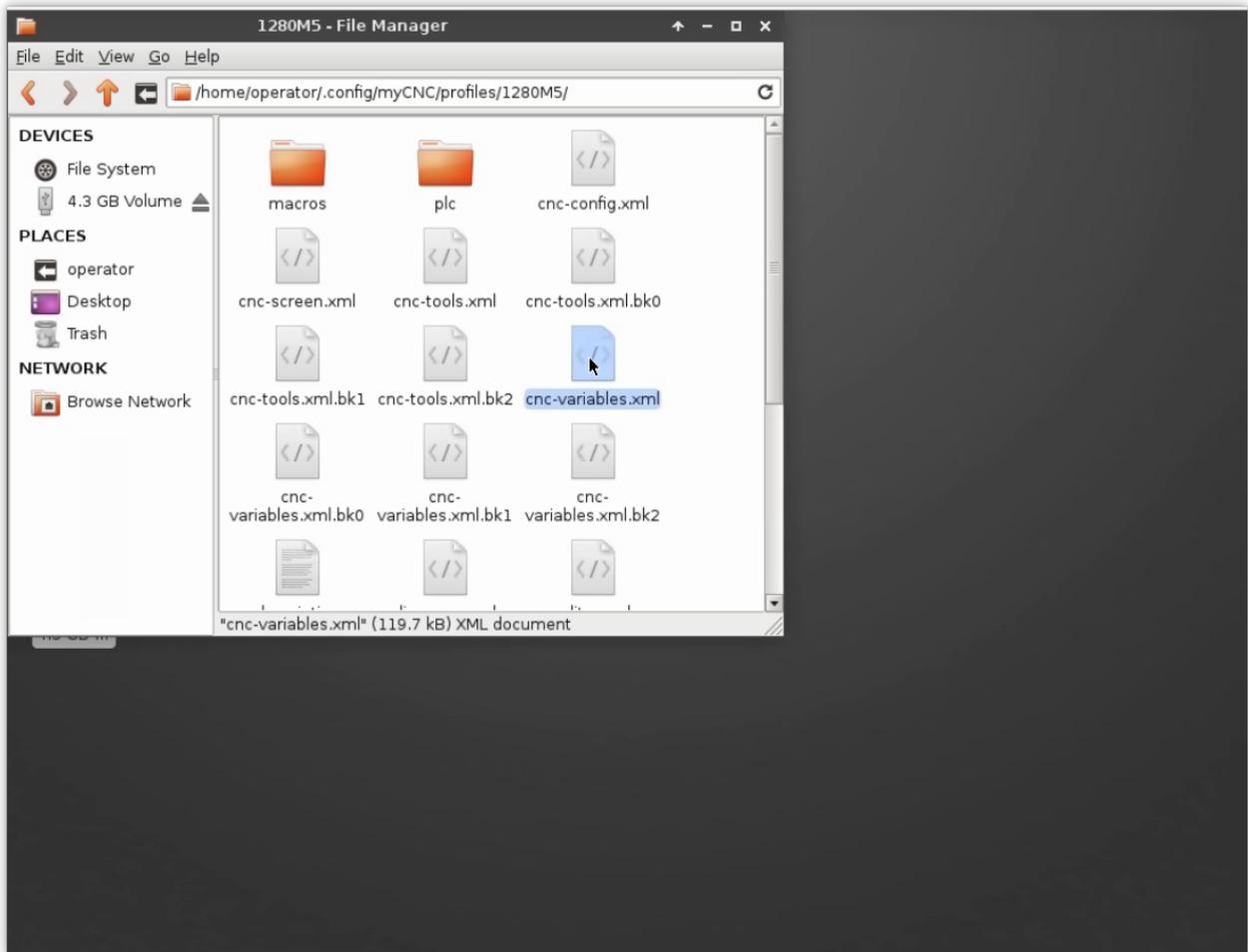
- Click on **Home** icon to open **User Home Folder** (usually it's `"/home/operator"`) in a File Manager.
- Click "Show Hidden Files" checkbox in "View" menu to see Hidden files (files and folders in Linux systems started with dot symbol `."` considered as "hidden", user configuration folder in Linux is `".config"`)



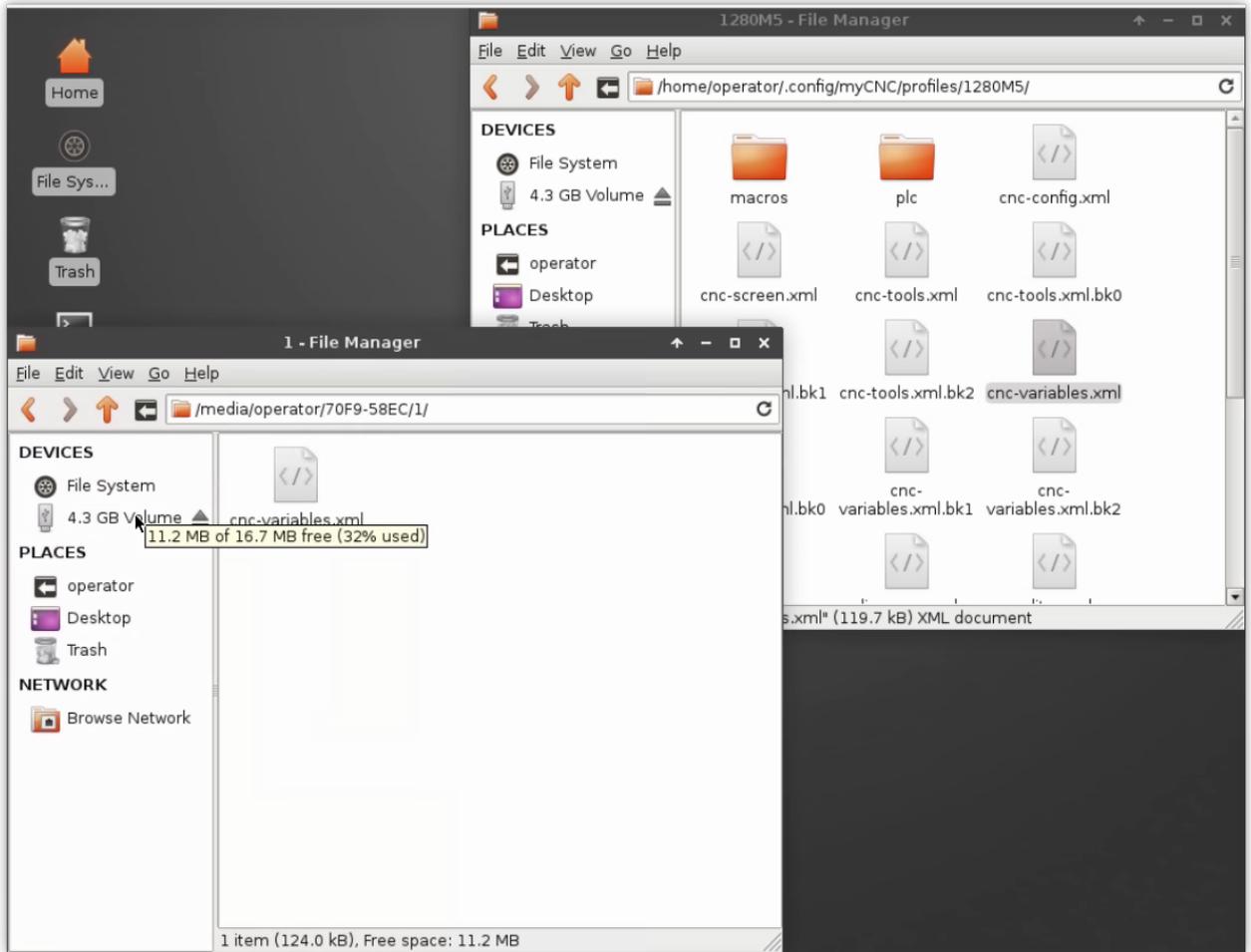
- Goto `"/home/operator/.config/myCNC/profiles_YOUR_PROFILE"` folder



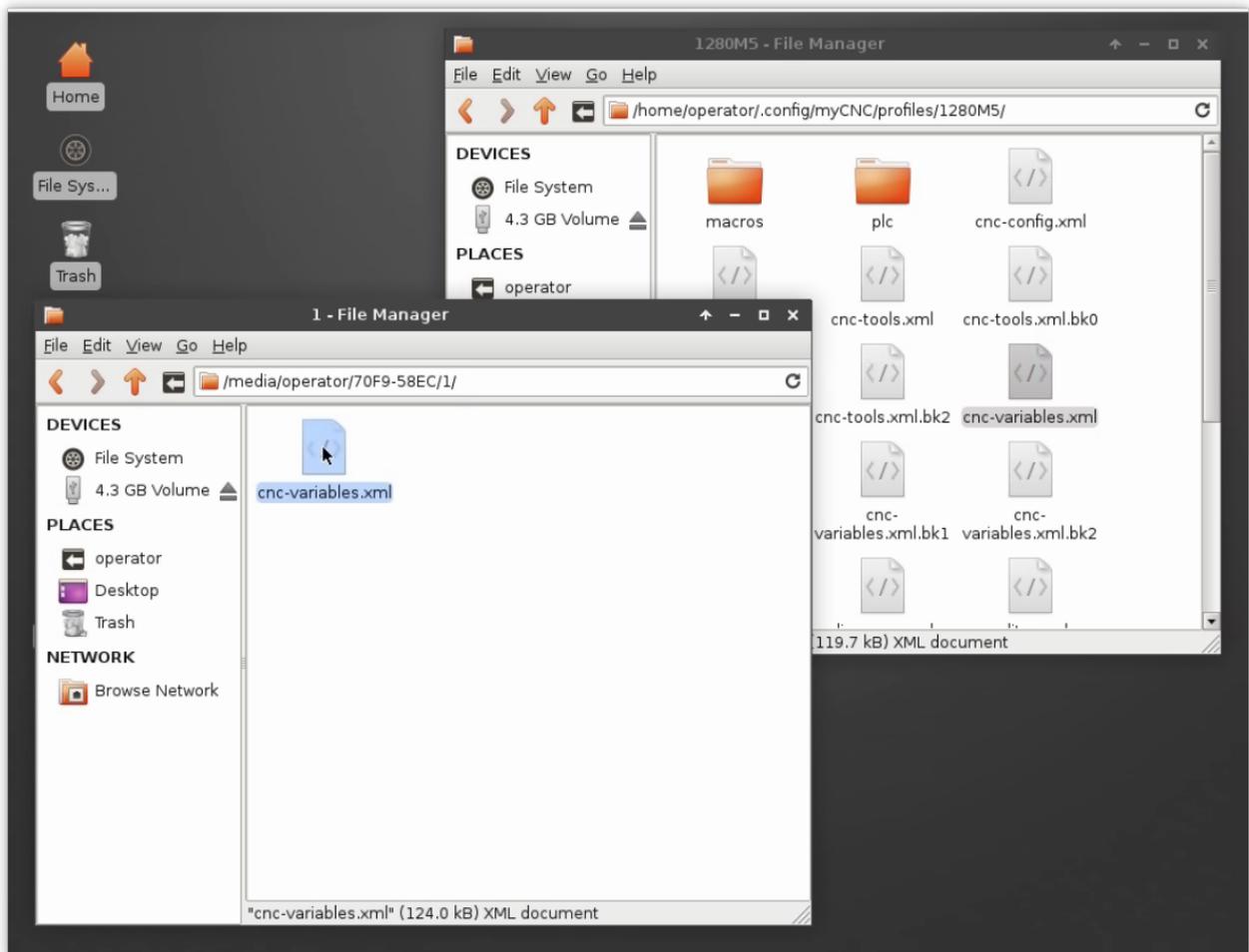
- Fnd cnc-variables.xml file



- Open another File Manager (press “Home” icon again), goto USB disk (you can find it in left lanel under “DEVICES” section



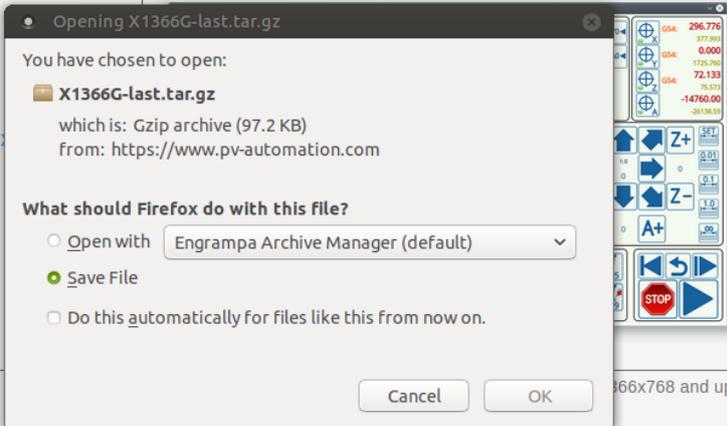
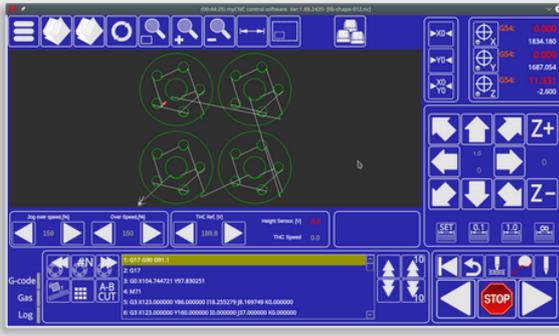
- Copy the file from USB to YOUR_PROFILE folder



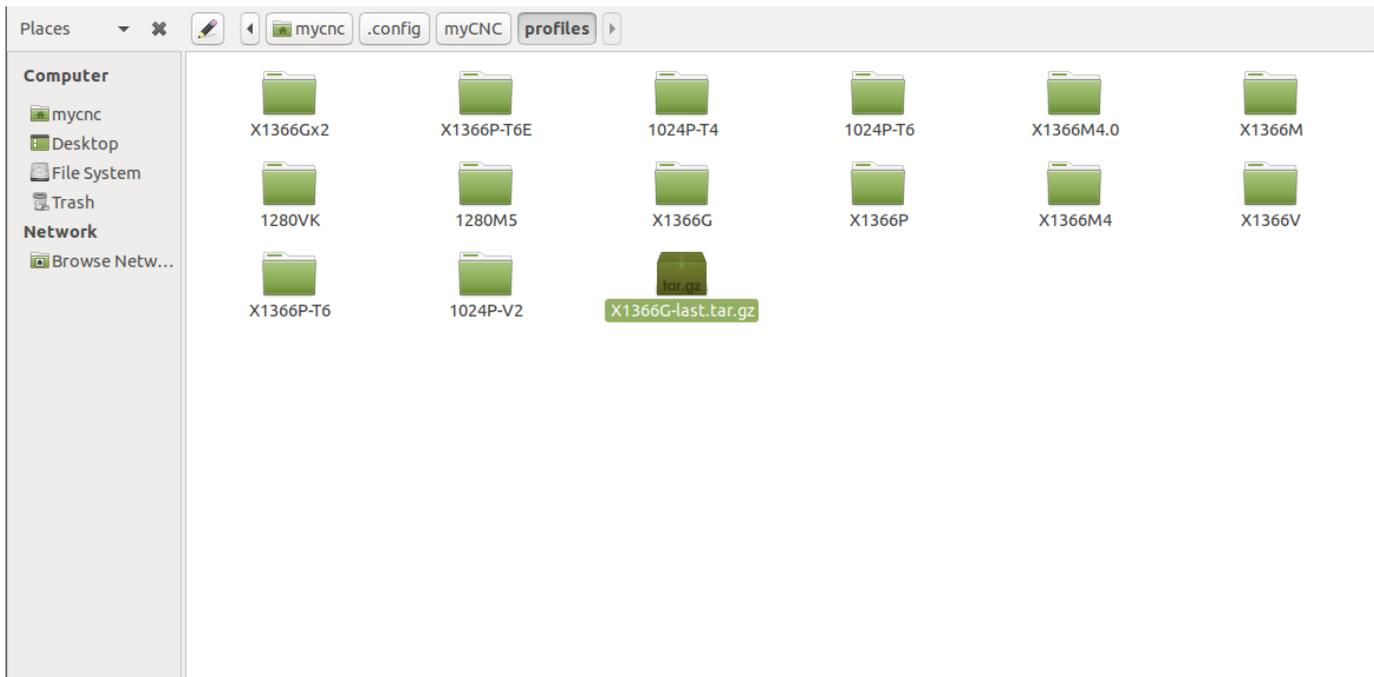
Manual profile update

In case there is no recently updated version of the profile you are looking for on the server, you can manually download it from the [main site](#). Please follow the instructions below to manually update your profile to the latest available version:

1. Go to the [main site's Download page](#) and scroll down to the **Profiles** section, then click on the profile you would like to update and select **Save**

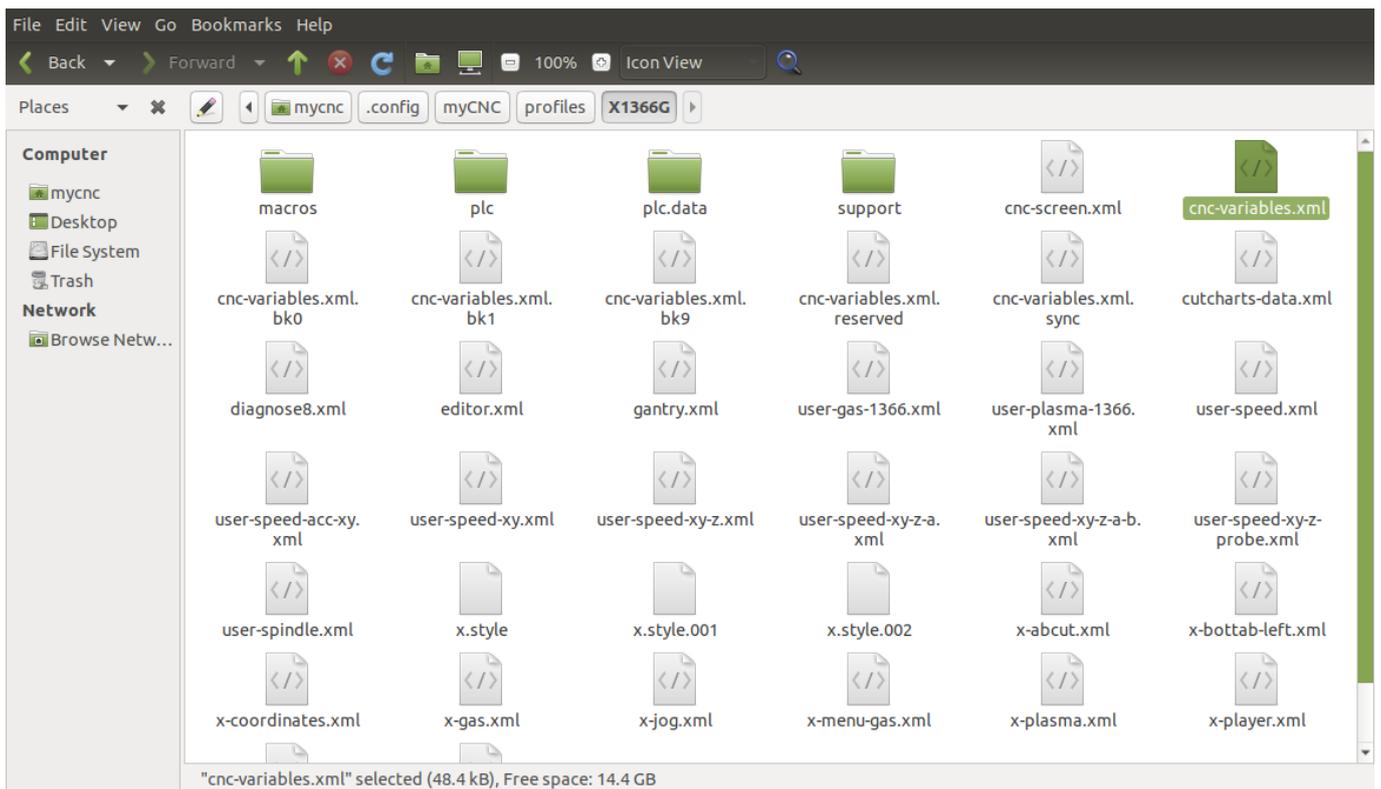
			
2019-0122		(Experimental) Basic Mill 4axes, optimized for resolution 1366x768 and up (16:9 screen ratio)	
2019-0122	X1366G		
2019-0122	X1366G		
		Basic Plasma cutting profile (3 axes). optimized for resolution 1366x768 and up (16:9 screen ratio)	

2. Copy the archive file that you have downloaded to home > .config > myCNC > profiles

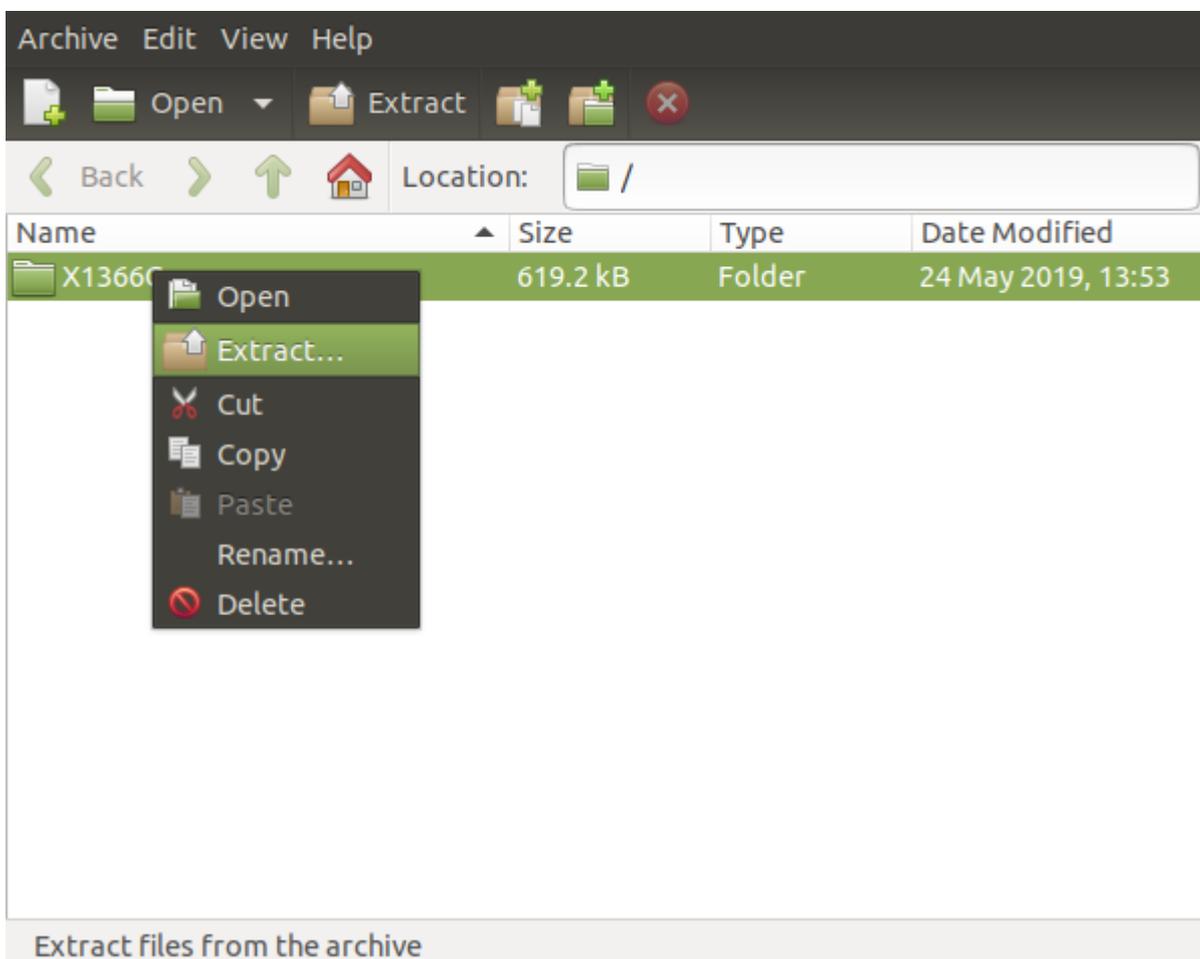


3. If you would like to keep your preferences from your previous profile, go to that profile's folder and

copy the **cnc-variables.xml** file over to your Desktop.



4. Extract the folder from the copied archive into the Profiles folder. If you want to add your previous settings from Step 3, replace the **cnc-variables.xml** file in your new profile folder with the one that you have copied to your desktop.

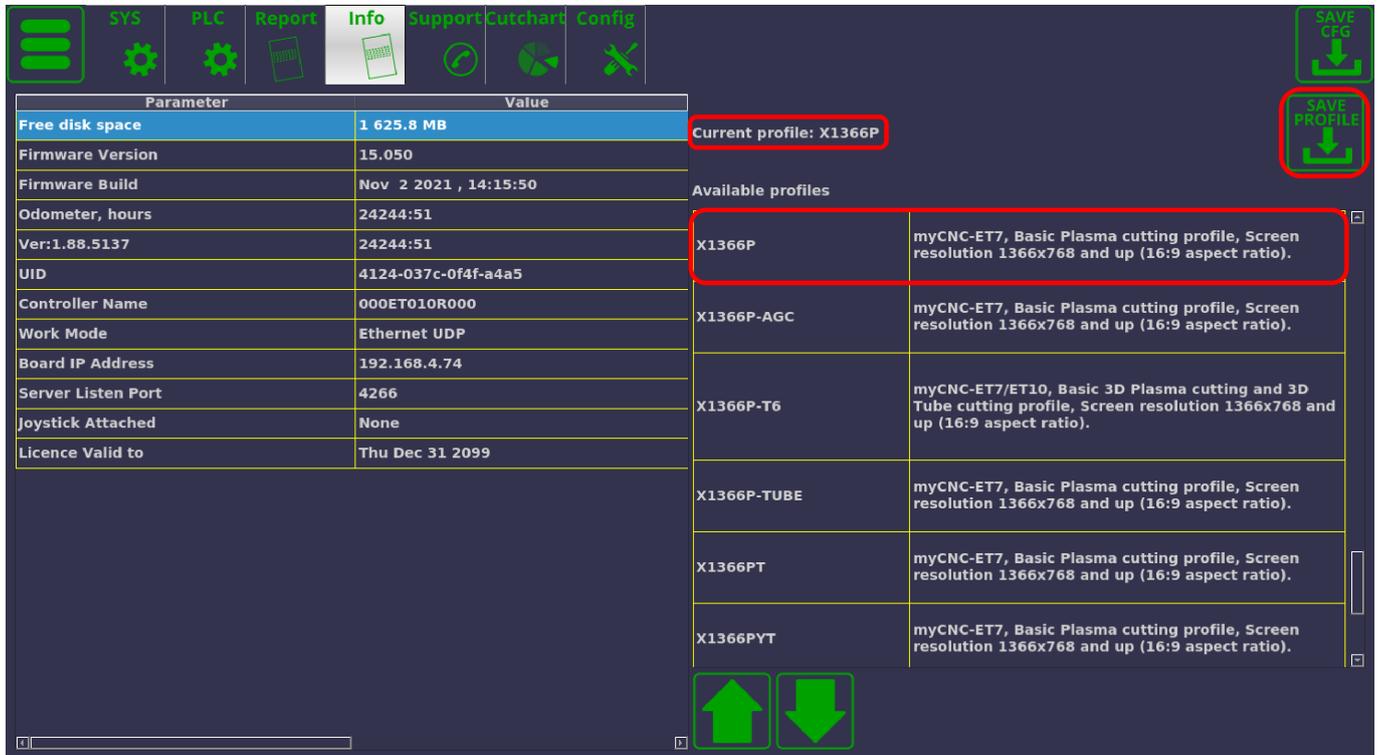


5. Relaunch myCNC software.

The manual profile update should now be complete.

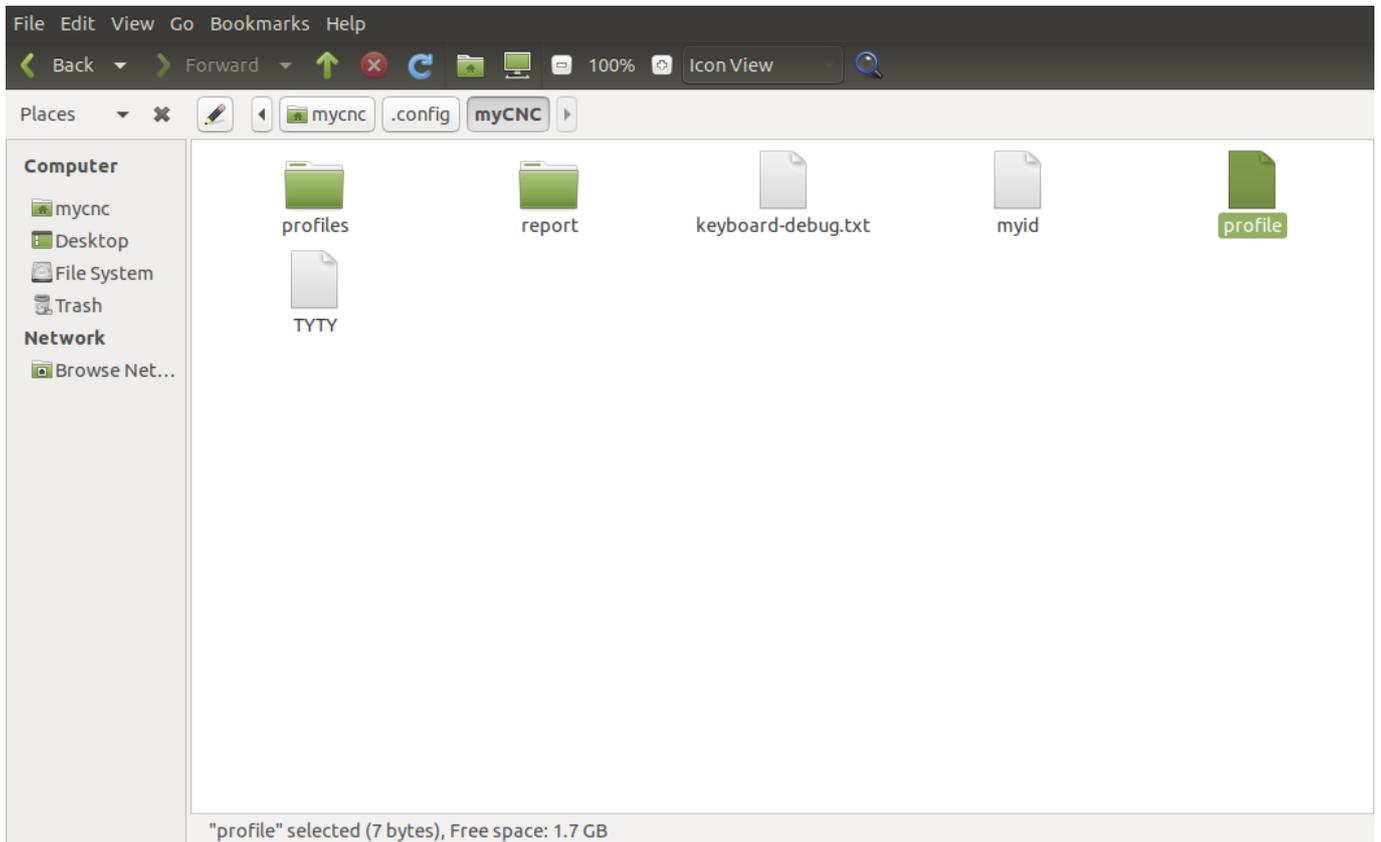
Default profile selection and override

The default profile for myCNC can be selected in Settings > Info:

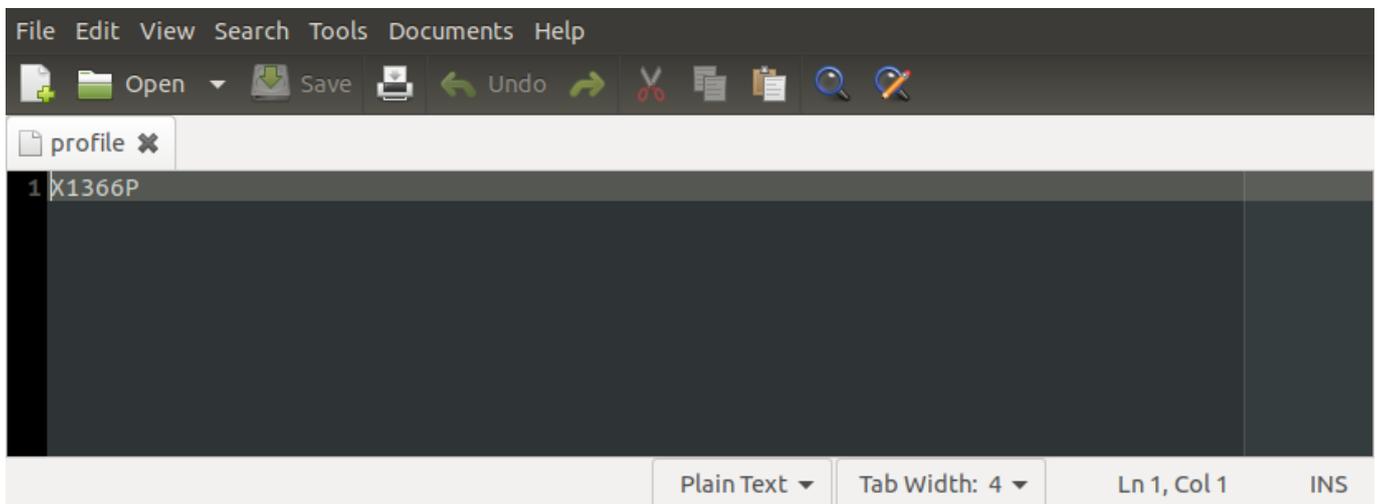


1. Select the necessary profile from the Available Profiles list
2. Press the Save Profile button
3. The selected default profile should now be updated at the top of the page

The default profile is stored in the profile file (in /USERNAME/.config/myCNC):



Upon opening the file in the text editor of your choice, you can see the current default profile without having to open the myCNC software:



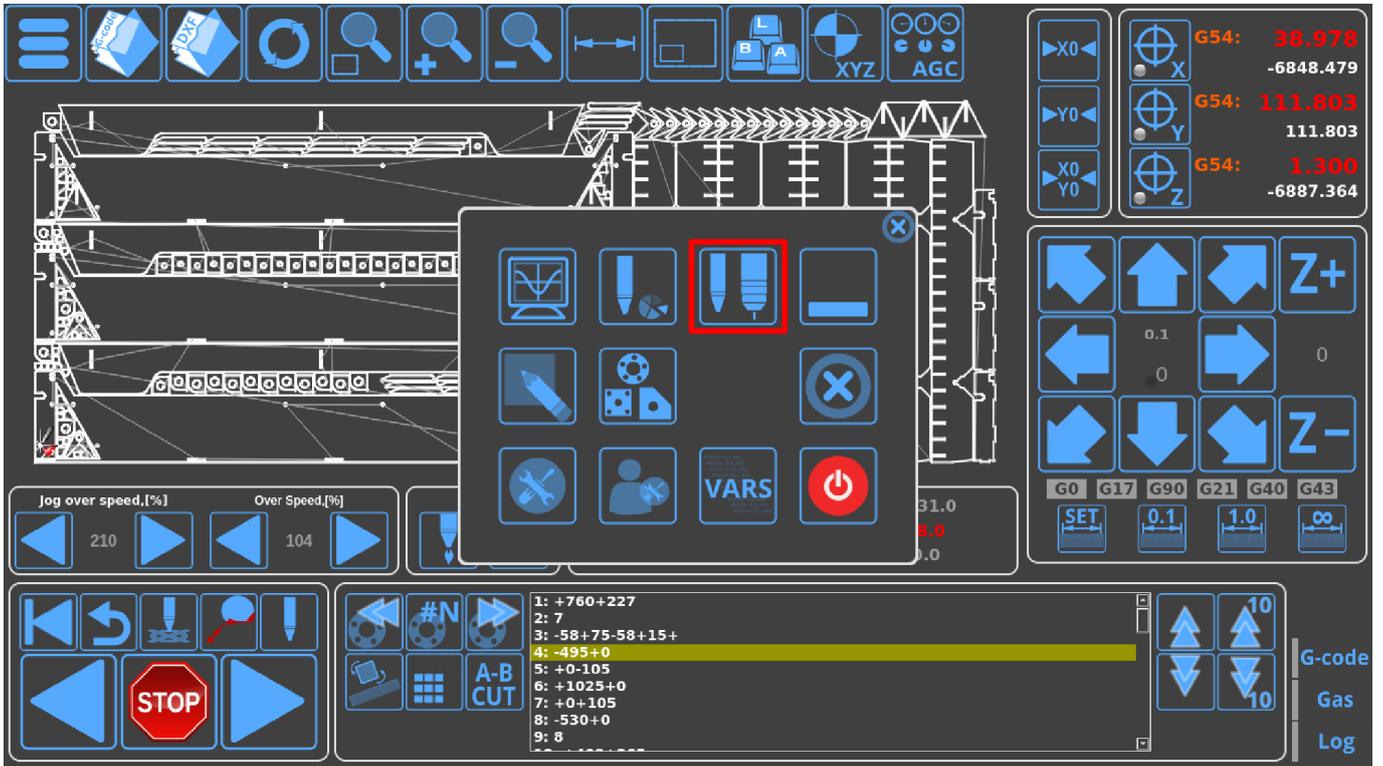
It is also possible to override the default profile when starting the myCNC program from the command line, using the -p command line switch. In the image below, the system will launch the X1366V tangential cutting profile when loading myCNC instead of the default profile, using the `' /opt/myCNC/ubuntu18_64/myCNC ' -pX1366V` command:

```
File Edit View Search Terminal Help
mycnc@mycnc-machine:~$ '/opt/myCNC/ubuntu18_64/myCNC' -pX1366V
```

Read more about launching myCNC with command line switches (flags) here: [Launching myCNC](#)

Switching between plasma/gas profiles

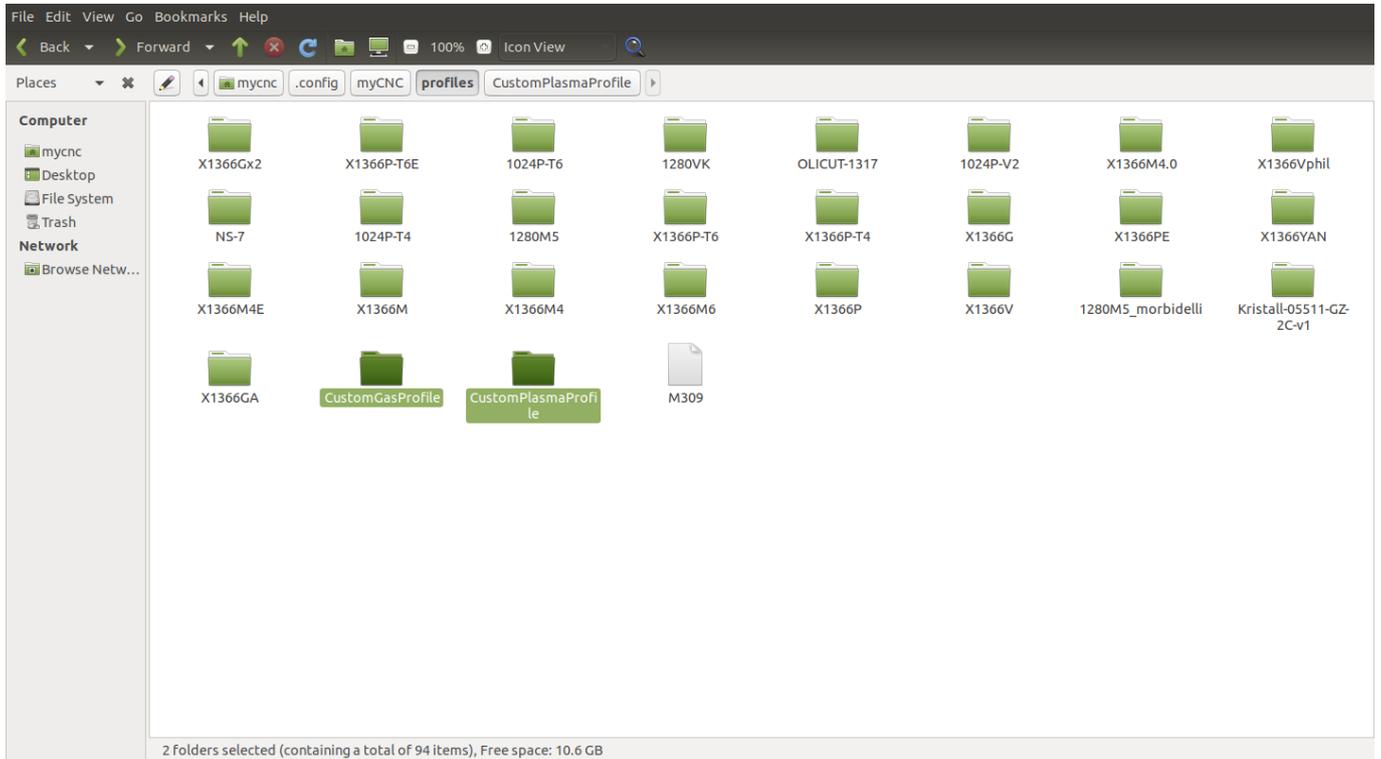
To switch between profiles via the on-screen button (for example, such as the Switch Technology button present on the X1366P plasma and X1366G gas profiles), the user can simply click from the main software screen to confirm the profile switch without having to go into the program settings.



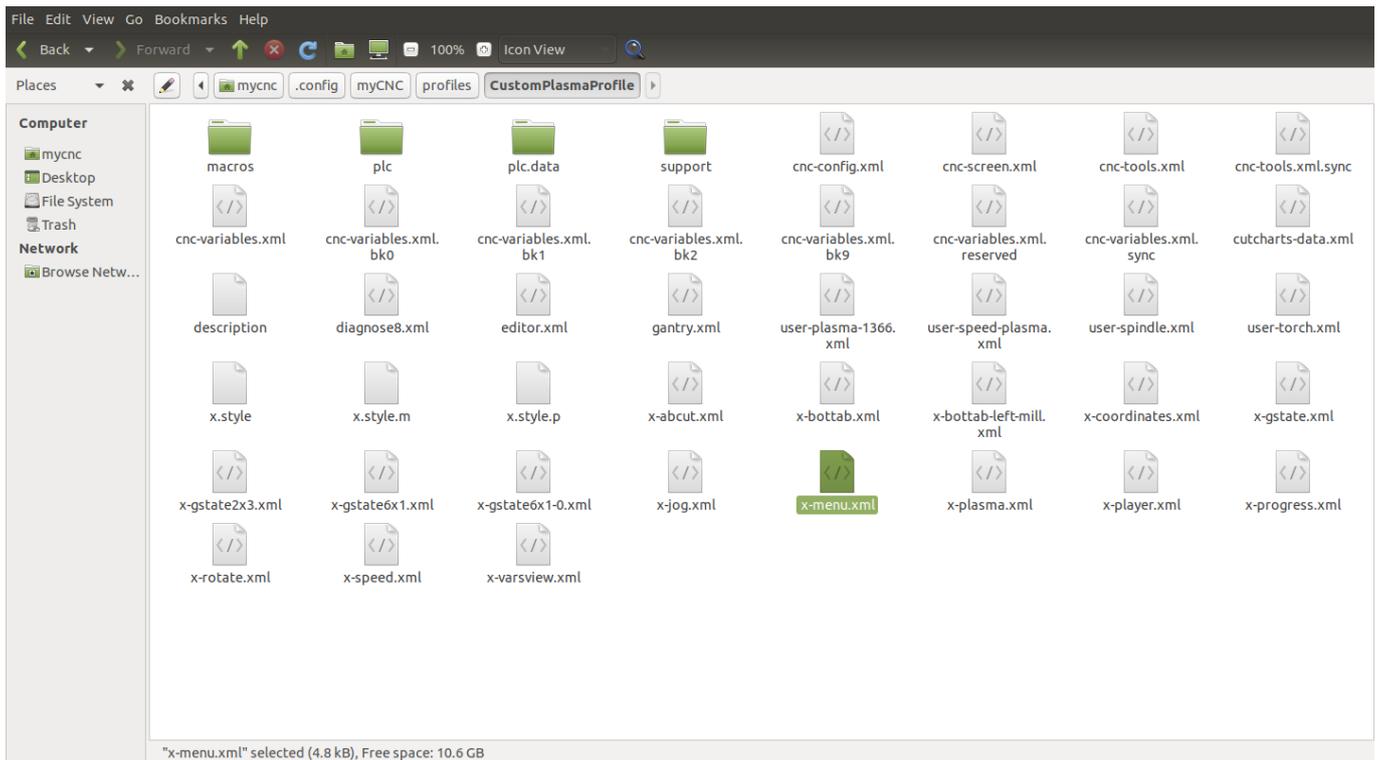
However, the Switch Technology button only allows to switch between select profiles that must be specified by name - it is therefore necessary to properly define the profile if its name has been changed from the default (for example, when using a profile called CustomPlasmaProfile versus the default X1366P).

In order to do this, it is necessary to do a quick edit of the .xml files that contain the code for the menus for both respective profiles (in this case, our custom plasma and custom gas profiles).

- Head into the folder containing the myCNC profiles. On Ubuntu, it will be *home/.config/myCNC/profiles*.
- Head into the custom folder that you are using (in this example, it will be CustomPlasmaProfile and CustomGasProfile)



- Head into the plasma profile (CustomPlasmaProfile), locate and open the x-menu.xml file in a text editor of your choice (Pluma is used in this example).



- In the x-menu.xml file, search for the profile-change line

```

37 <gitem where="x-menu" position="110;110" width="80" height="80" image="tabs/library" tooltip="Parts Library" tooltip_ru="Библиотека деталей" action="show-widget-lib" type="button" />
38 <gitem where="x-menu" position="110;210" width="80" height="80" image="tabs/user" tooltip="User Settings" tooltip_ru="Настройки пользователя" action="show-widget-user" type="button" />
39
40
41 <gitem where="x-menu" position="210;10" width="80" height="80" image="tabs/button-plasma-gas" tooltip="Switch technology (plasma/gas)" tooltip_ru="Смена технологии (плазма/газ)"
42 hotkey="F10" action="radio-confirm:profile-change" text="X1366G;X1366P"
43 labelFontSize="14" fontSize="14" orientation="horizontal"
44 type="button" >
45 <confirm-message>Change Technology Profile</confirm-message>
46 <confirm-message_ru>Сменить технологию резки</confirm-message_ru>
47 </gitem>
48
49
50
51
52 <gitem where="x-menu" position="310;10" width="80" height="80" image="minimize"
53
54 <gitem where="x-menu" position="310;110" width="80" height="80" image="close" ac
55 <confirm-message>Close CNC control application. Are you sure?</confirm-messa
56 <confirm-message_ru>Закреть систему управления ЧПУ. Вы уверены?</confirm-messa
57 </gitem>
58
59 <gitem where="x-menu" position="310;210" width="80" height="80" image="power-off"
60 type="button" >
61 <confirm-message>Turn off the machine Power. Are you sure?</confirm-message>
62 <confirm-message_ru>Выключить питание машины. Вы уверены?</confirm-message_ru>
63
64
65
66 <gitem where="xp" position="0;0" image="menu" height="80" width="80" action="nywidget-toggle:x-menu" tooltip="Show main menu" tooltip_ru="Основное меню" type="button" />

```

- In the text field, enter the correct names of your edited profiles (for example, CustomPlasmaProfile and CustomGasProfile) instead of X1366P and X1366G. The code would then look similar to the following:

```

<gitem where="x-menu" position="210;10" width="80" height="80"
image="tabs/button-plasma-gas"
tooltip="Switch technology (plasma/gas)" tooltip_ru="Смена технологии
(плазма/газ)"
hotkey="F10" action="radio-confirm:profile-change"
text="CustomGasProfile;CustomPlasmaProfile"
labelFontSize="14" fontSize="14" orientation="horizontal"
type="button" >
<confirm-message>Change Technology Profile</confirm-message>
<confirm-message_ru>Сменить технологию резки</confirm-message_ru>
</gitem>

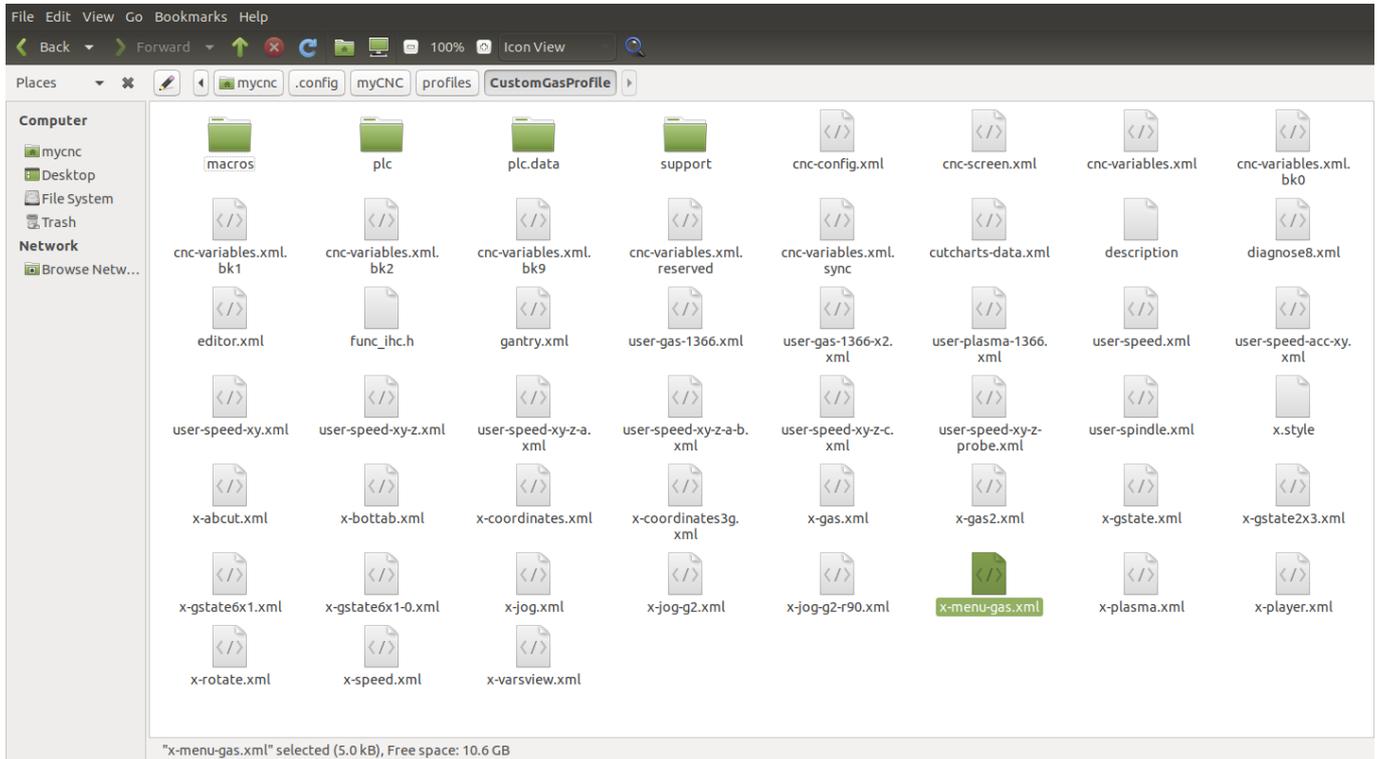
```

```

40
41 <gitem where="x-menu" position="210;10" width="80" height="80" image="tabs/button-plasma-gas" tooltip="Switch technology (plasma/gas)" tooltip_ru="Смена технологии (плазма/газ)"
42 hotkey="F10" action="radio-confirm:profile-change" text="CustomGasProfile;CustomPlasmaProfile"
43 labelFontSize="14" fontSize="14" orientation="horizontal"
44 type="button" >
45 <confirm-message>Change Technology Profile</confirm-message>
46 <confirm-message_ru>Сменить технологию резки</confirm-message_ru>
47 </gitem>

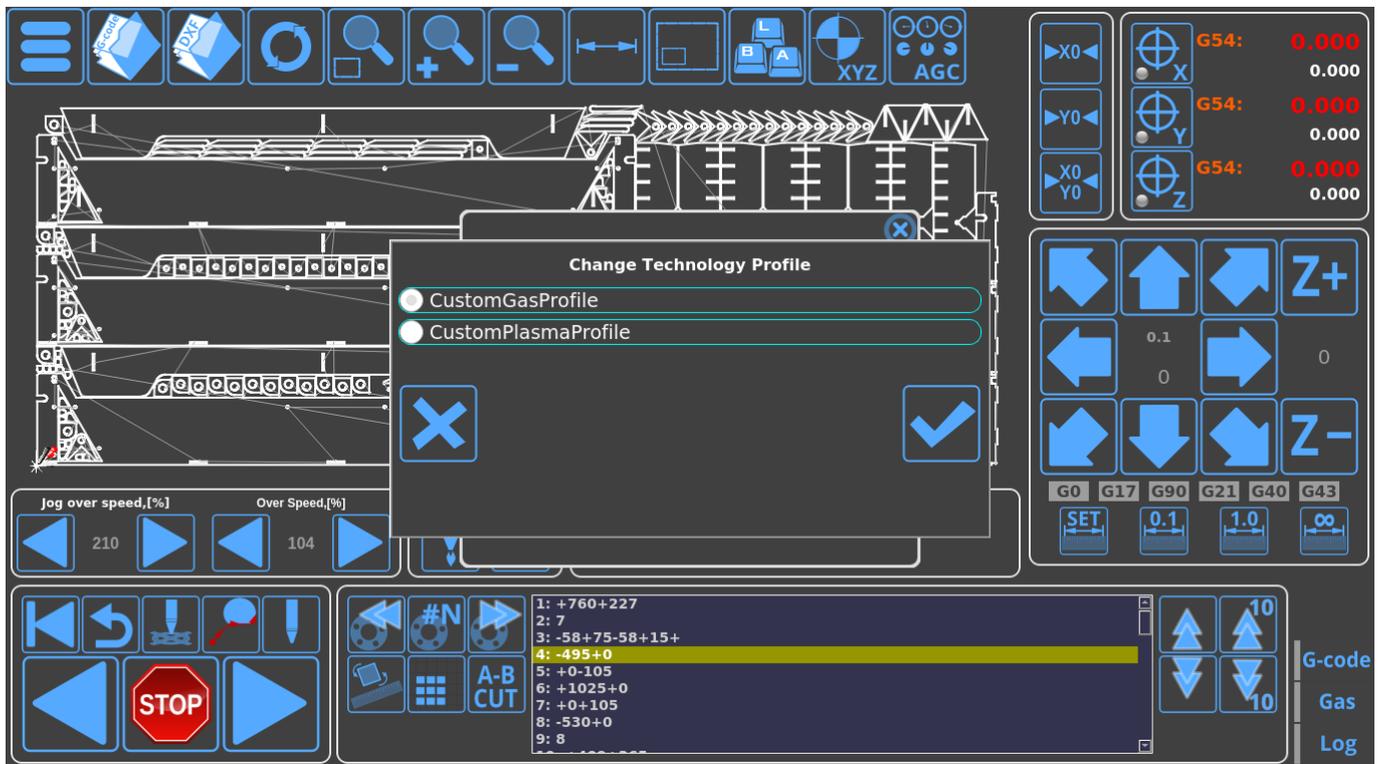
```

- Save the x-menu.xml file.
- Head into the gas profile (CustomGasProfile in case of this example) and navigate to the x-menu-gas.xml file.



- Once again, locate the profile- change line and change the text field to contain the correct names of the new profiles.
- Save the x-menu-gas.xml file
- Reload the myCNC application

At this point, the Switch Technology button will allow for an easy switch between the profiles you have chosen:



PLC Includes

The PLC Includes files allow to systematize and share values and functions among the Hardware and Software PLC procedures within your profile. The below list includes information for some of the the default myCNC profiles. The information may differ between profiles, as well as different versions of profiles, and should be used as a general reference only.

The screenshot shows the myCNC software interface. On the left, the 'CNC Settings' menu is open, and 'Hardware PLC' is selected. Below it, the 'PLC Sources' list contains various files, and the 'PLC Includes' list contains the following files:

- func.h
- func_1hc.h
- func_m7.h
- func_plasma.h
- pins.h
- vars.h
- wait.h

The main window displays the code for the 'wait.h' file, which includes a function 'test_lift_after_cut()' with the following logic:

```

Name: wait.h      Aliases: M03;M20;C07

test_lift_after_cut()
{
    if (proc==plc_proc_moveup) //if already moving-up - stop & exit
    {
        message=PLCCMD_LINE_STOP; //PLCCMD_LINE_SOFT_STOP;
        do
        {
            timer++;
            ready=0;
            code=gvarget(6060);
            if (code==0x57) { ready=1; }; //W' WAI
            if (code==0x4d) { ready=1; }; //M' M-c
        }while(ready==0);
        proc=plc_proc_idle;
        start_trigger2();
        exit(99);
    };
};

```

PLC Includes for X1366P

PLC Includes for X1366M/M4/M6

From:

<http://docs.pv-automation.com/> - myCNC Online Documentation

Permanent link:

http://docs.pv-automation.com/mycnc/mycnc_profiles

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