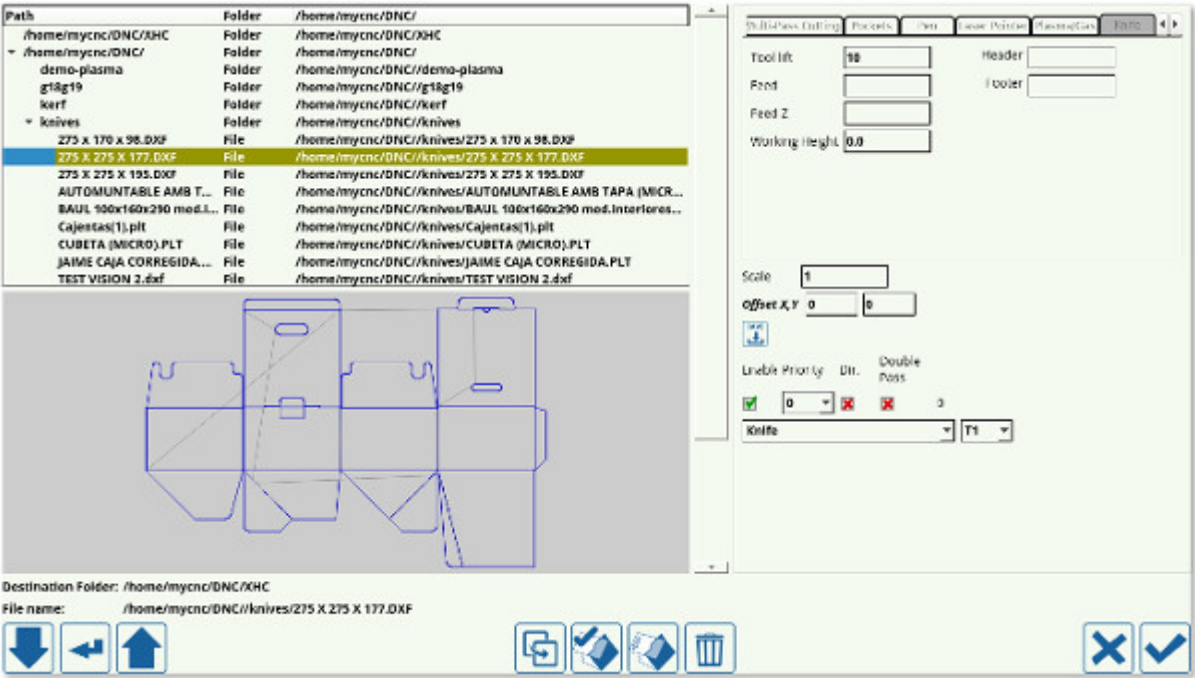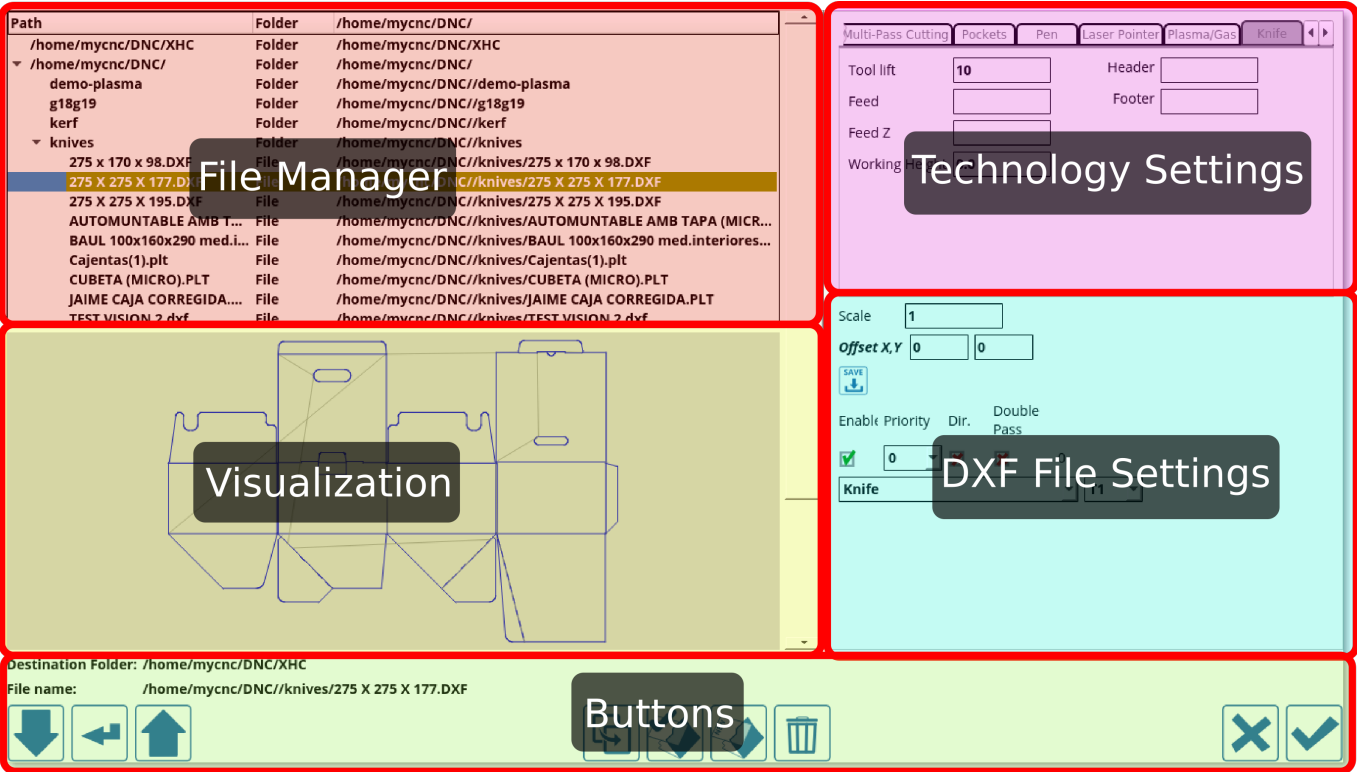# Importing DXF files into myCNC

The following manual is designed to give the reader a quick introduction on importing DXF files into myCNC software to convert to G-Code.

Upon pressing the **Open DXF** file and navigating to the particular file you would like to open, the following window is shown:


This window can be split into the following areas:

File Manager

The file manager allows the user to pick the particular DXF file they would like to open. Note that the folders available to the user through myCNC software's DXF import feature are listed in **Settings > Config > Preferences > Common**. Only the folders listed there can be accessed during the importing process.
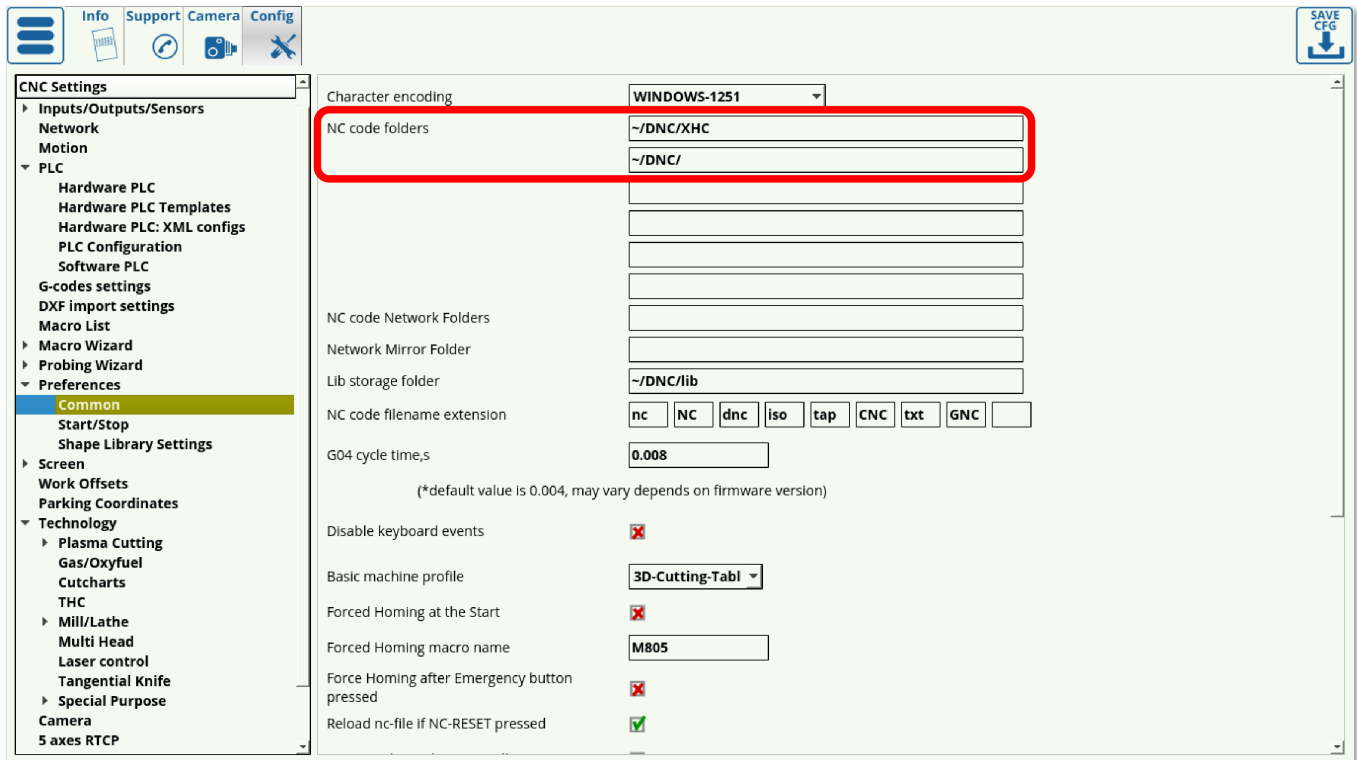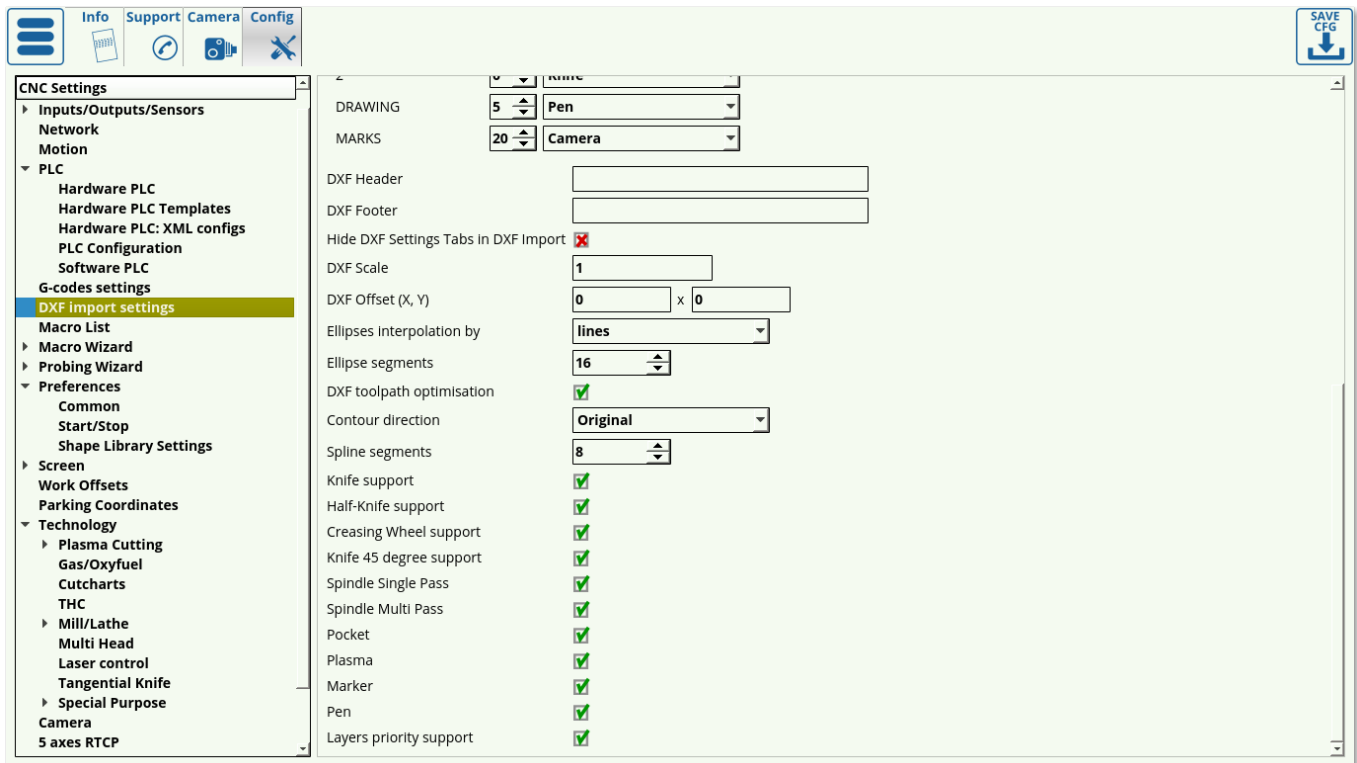

Technology Settings

As can be seen in the Technology Settings section, the list of available technologies is as follows:

- Engraving
- Multipass cutting
- Pockets
- Pen
- Laser Pointer
- Plasma/Gas
- Knife
- Half-knife
- Creasing wheel
- Knife-45
- Marking

The settings for these technologies can also be accessed through **Settings > Config > DXF import settings**. Depending on the user's needs, unnecessary technologies can be disabled to reduce screen clutter.

Below are the descriptions of the available settings for each of the technologies listed in the Technology Settings:

Engraving

- **Tool lift**: Specifies the height to which the tool is lifted as it travels between the parts
- **Z**: Working height (usually a small negative value for engraving)
- **Feed**: Specifies the speed with which the machine is moving in the XY plane
- **Feed Z**: Specifies the speed with which the machine is moving in the Z axis

Multipass cutting

- **Tool lift**: Specifies the height to which the tool is lifted as it travels between the parts
- **Material thickness**: Specifies the thickness of the material in mm
- **Cut depth**: Specifies each consecutive cut depth
- **Feed**: Specifies the speed with which the machine is moving in the Z axis

Pockets

- **Tool lift**: Specifies the height to which the tool is lifted as it travels between the parts
- **Pocket bottom**: Specifies the total depth of the pocket
- **Cut depth**: Specifies the depth of each consecutive cut
- **Tool diameter**: Specifies the diameter of the tool
- **Finishing**: Specifies the depth of the last cut layer (allows to add a small finishing cut for higher precision)
- **Feed**: Specifies the speed with which the machine is moving in the XY plane

Pen

- **Pen lift**: Specifies the height to which the pen is lifted as it travels between the parts
- **Z**: Specifies the working height
- **Feed**: Specifies the speed with which the machine is moving in the XY plane

Laser Pointer

- **Laser pointer lift**: Specifies the height to which the laser pointer is lifted as it travels between the parts
- **Feed**: Specifies the speed with which the machine is moving in the XY plane

Plasma/Gas

- **Mode**: Select between Line, Arc, and Tangent
- **Line length**: Specifies the line length
- **Line angle**: Specifies the angle of the line
- **Arc Radius**: Specifies the radius of the arc
- **Lead In from the middle**: Specifies whether you want to lead into the cut from the middle of the cutting area
- **Feed**: Specifies the speed with which the machine is moving in the XY plane

Knife

- **Tool lift**: Specifies the height by which the knife will be lifted as it travels between parts.
- **Feed**: Specifies the speed with which the knife moves in the XY plane
- **Feed Z**: Specifies the speed with which the knife moves in the Z plane (during lift)
- **Working height**: Sets the working height (usually left at 0)
- **Header**: Inserts macros into the beginning of the generated G-code
- **Footer**: Inserts macros at the end of the generated G-code

Half-knife

- **Tool lift**: Specifies the height by which the half-knife will be lifted as it travels between parts.
- **Feed**: Specifies the speed with which the knife moves in the XY plane
- **Feed Z**: Specifies the speed with which the knife moves in the Z plane (during lift)
- **Working height**: Sets the working height (usually left at 0)
- **Header**: Inserts macros into the beginning of the generated G-code
- **Footer**: Inserts macros at the end of the generated G-code

Creasing wheel

- **Tool lift**: Specifies the height by which the creasing wheel will be lifted as it travels between parts.
- **Feed**: Specifies the speed with which the knife moves in the XY plane

- **Feed Z**: Specifies the speed with which the knife moves in the Z plane (lift/descend)
- **Working height**: Sets the working height (usually left at 0)
- **Header**: Inserts macros into the beginning of the generated G-code
- **Footer**: Inserts macros at the end of the generated G-code

Knife-45

- **Tool lift**: Specifies the height by which the 45-degree knife will be lifted as it travels between parts
- **Material thickness**: Specifies the material thickness in mm
- **Knife 45 degree width compensation**: Specifies the necessary width compensation
- **Knife XX angle**: The angle of the inclined knife can be set to other than 45 (such as 22.5 degrees)
- **Feed**: Specifies the speed with which the 45-degree knife moves in the XY plane
- **Feed Z**: Specifies the speed with which the 45-degree knife moves in the Z plane (lift/descend)
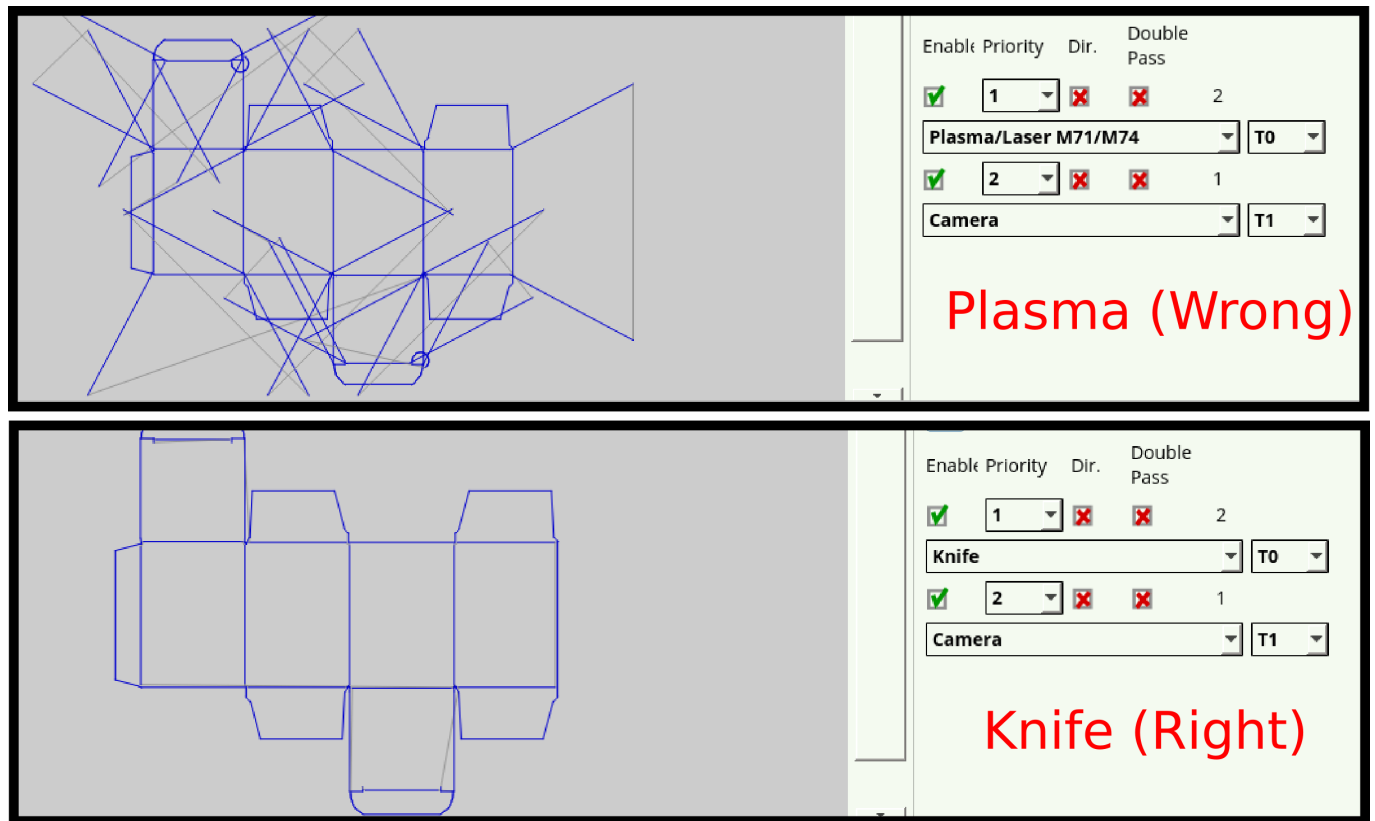- **Working height**: Usually left at 0.

DXF File settings

The DXF file settings allow the user to specify the particular tools and tool numbers used for each layer of the DXF file, as well as their priority, direction, and the need for a double-pass. Here the user can also edit the offset and the scale of the DXF file.

Visualization

The visualization window serves as a visual indication for the user as to how the DXF file that is being imported will look. It also allows to catch some simple mistakes in file settings such as the wrong technology or the wrong priority being selected for each layer of the DXF file.

As an example, below is a visualization of a DXF file designed with a tangential knife in mind. If the tool has been incorrectly selected to be a plasma cutter, the visualization can serve as a useful reminder to the user: