Summa Cutter Tools

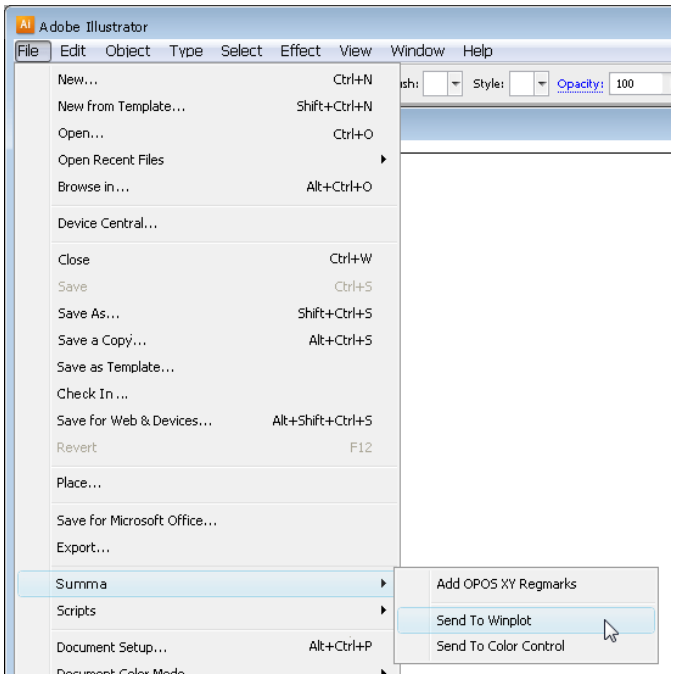
1 Cutter tools

Following useful tools can be installed with this program:

1. Plug-in for CorelDraw (from version 11 on) and Adobe Illustrator (from version CS on) for WinPlot. The plug-in for Corel installs an extra toolbar. Clicking on an icon in this toolbar automatically exports the current drawing into the program indicated in the toolbar. The plug-in for Illustrator creates an extra menu under the 'file menu' called summa.

Corel Toolbar

Script added in Illustrator file menu

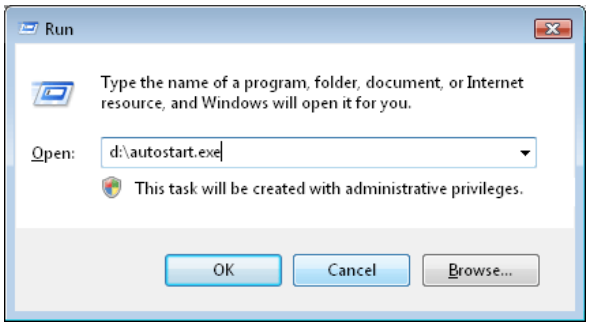


2. Summa Cutter Control. The Summa Cutter Control Program for Windows is a software utility to control the parameters of the cutter. It can also be used to diagnose, upgrade or calibrate the cutter.

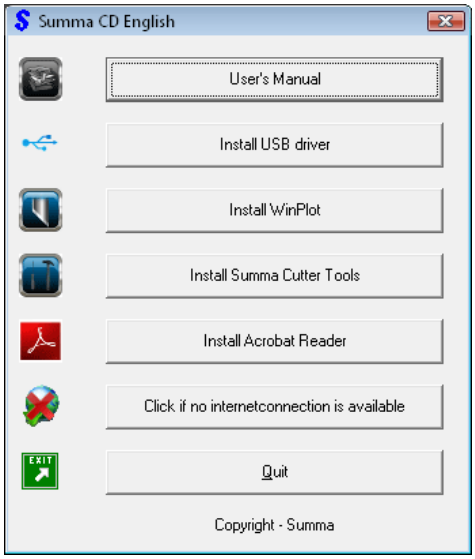
2 Installation of Cutter tools

2.1 Installation of cutter tools

When the installation (manual) CD is inserted in the computer, then it start normally automatically. If not, launch the routine manually from the "Run" command line in the Windows Start menu. Type "D:\autostart.exe" (where D is the CD-ROM drive).



After that the start-up screen appears with flags to choose the desired language. Choose a language. The following installation Window will appear:

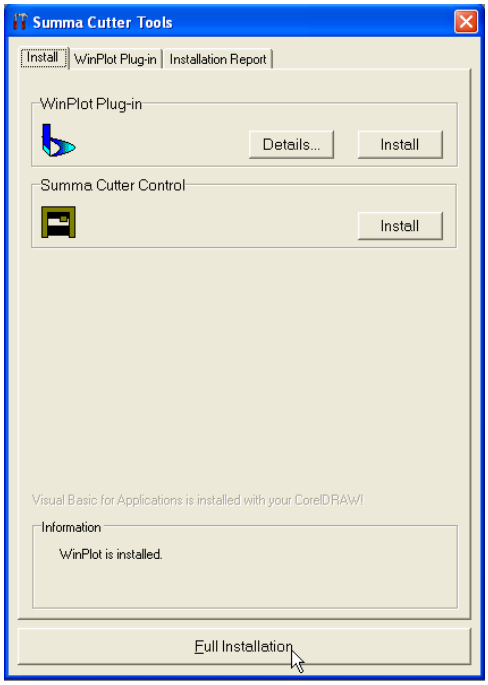


NOTE: When installing a cutter on Windows Vista or Windows 7, then make sure that the user has administrative rights and that UAC is deactivated.

Click on the button to start installation of the cutter tools, the latest version will be downloaded from the internet before the installation can be started. If the program is downloaded direct from the internet, then just double click it in explorer to start it.
This installation first puts all the tools on your hard disk, ready for installation. Then it starts the program so the tools can be installed. It is recommended to install the individual tools directly afterwards.

The individual cutter tools can be installed at a later date. However it could be that parts of the installation are blocked by Windows security settings.
To install later, just click on start -> All Programs -> Summa -> Summa Cutter Tools.

The Cutter tools program starts up. Click on the 'Full Installation' button to install both the plug-in and Summa Cutter Control. Click on the individual install buttons to install either the plug in or Summa Cutter Control separately.



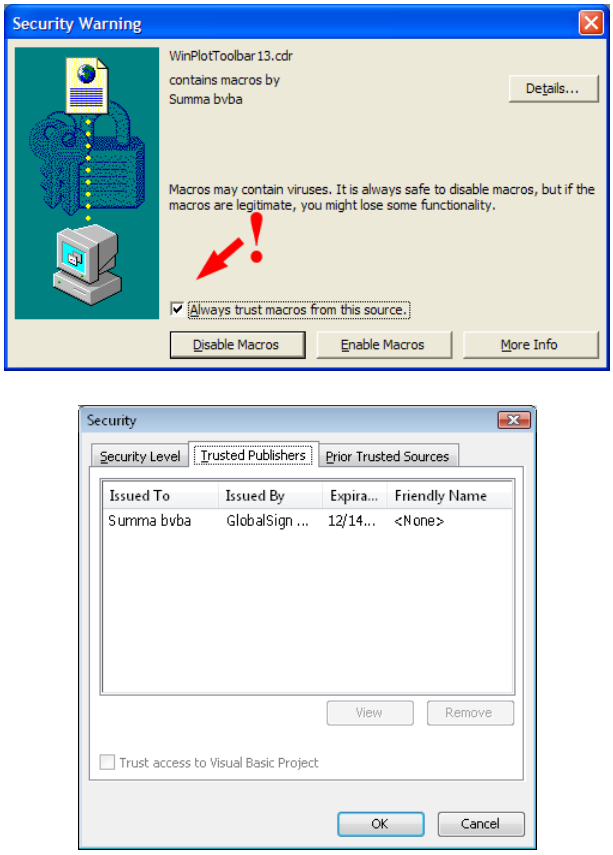
INSTALLATION OF SOFTWARE

If more then one version of CorelDRAW or Illustrator is installed, then it is recommended to install the plug-in version per version. For this click on details and choose only one version, then click on the Install tab and click on install to install.

3 Plug-in

3.1 Security in Corel

When installing the WinPlot Toolbar a cdr-file with macros is opened. Visual basic must be installed in Corel and the macros must be enabled. If not, then change this first before installing the plug-in.
If Corel is installed, then the default security setting for VBA scripts is medium.
So the program will give a warning that the toolbar contains macros, accept.
If security level is set low, then no message will appear on screen and the toolbar will work without any problems unless the security setting is changed.
In other cases change security settings in Corel (set security so that macros by Summa are trusted – check Corel manual on how to do so, it differs from version to version how to do it.)



SECURITY SETTINGS IN DIFFERENT VERSIONS OF COREL

Select “Always trust macros from this source” and click “Enable Macros”.
The next time the toolbar is run, the above message will not appear any more.

3.2 Options in Corel

The Toolbar in Corel contains two icons.

The first icon is used to set OPOS markers around objects. If the icon is clicked, then following things happen:

- A new layer called 'Regmark' is created
- All objects in all unlocked layers are selected.
- OPOS markers of 3mm are put around them and an OPOS XY line is added at the bottom.
- The Regmark layer is locked.

If the second icon is clicked, then following things happen:

- The Regmak layer is temporarily unlocked (just for exporting).
- All objects in unlocked layers and in layers where the printing/exporting is not disabled are selected.
- All selected objects are exported to a temporarily file.
- WinPlot is started.
- Temporarily file is imported in WinPlot.

3.3 Options in Illustrator

The extra menu under file has two sub menu's.

The first sub menu is used to set OPOS markers around objects. Following things happen:

- A new layer called 'Regmark' is created
- All objects in all unlocked layers are selected.
- OPOS markers of 3mm are put around them and an OPOS XY line is added at the bottom.
- The Regmark layer is locked.

With the second sub menu following things happen:

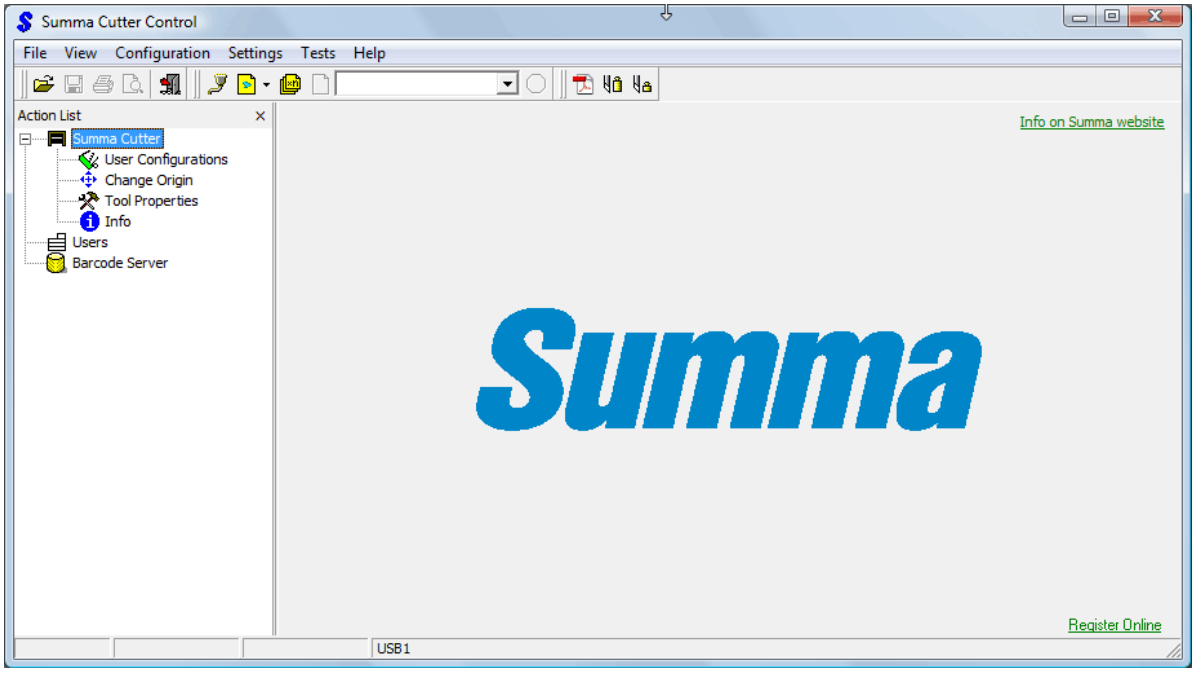
- There is first a check if all changes in the drawing up to the moment where the script is started, are saved. If not, then the file is first saved automatically. If the file has never been saved, then Illustrator will prompt the user for a file name.
- The Regmak layer is temporarily unlocked (just for saving).
- All objects in the design are selected.
- All selected objects are saved to a temporarily file.
- WinPlot is started.
- Temporarily file is imported in WinPlot.

Note: The revert and undo commands in Illustrator do not work anymore just after that the design has been imported in WinPlot. Therefore it is recommended to save the design under another name if not all objects need to be imported in WinPlot.

4 Summa Cutter Control

4.1 Introduction

The Summa Cutter Control program basically has the same functions as the control panel. It is up to the user to decide which way he will work most efficiently. The users who will work with the Summa Cutter Control program will notice that it is a very powerful and practical tool.

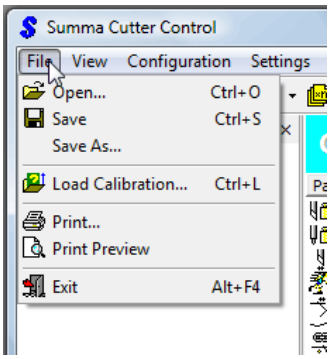


SUMMA CUTTER CONTROL START SCREEN

4.2 Menu's in Summa Cutter Control

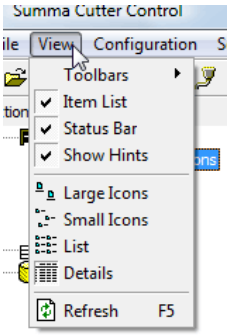
There are 5 main menu's in Summa Cutter Control. The help menu is only used for links to the site of Summa and for a revision check of the program.

4.2.1 File menu



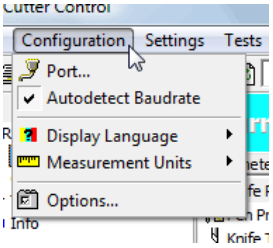
With the file menu, configuration settings can be saved on the computer and loaded from its hard disk. The options are only highlighted if a connection between the cutter and the computer has been established. This can be useful as back-up or extra users.
The print commands prints out the current settings for the cutter parameters and also a complete print out of the NVRAM of the cutter.
The last item in this menu will exit the program.

4.2.2 View menu



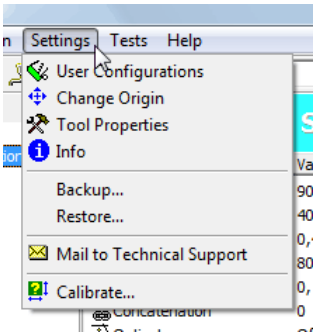
With the view menu, the appearance of the program can be changed. Some options are only highlighted if a connection between the cutter and the computer has been established.

4.2.3 Configuration menu



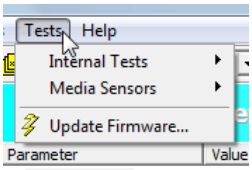
The configuration menu exists out of three parts. First part sets the parameters of the connection. The parameters for the serial can be set independently from the general Window settings. If 'Auto detect baudrate is checked, then the program tries out all the possible speeds available. With the configuration menu, the language and units of measurement, which Summa Cutter control uses, can be changed. The option menu opens another window with extra options.

4.2.4 Settings menu



The settings menu can be used to display certain cutter parameters on the computer. These parameters can be changed and saved on the computer hard disk, and also in the cutter's memory.
This menu can also be used to make a backup of all the parameters or restore a backup (from the hard disk of the computer).
The settings can also be mailed to Summa.

4.2.5 Tests menu



The test menu is used for starting internal tests or updating the firmware of the cutter. To update the firmware do following:

1. Switch on cutter and check the ROM revision (see 4.4.4.).
2. Download the file from the internet with the corresponding name (first 4 numbers).
3. Click on Update firmware, browse to the just downloaded file and confirm.
4. Wait until the cutter confirms the upgrade was successful, then reboot the cutter.

NOTE: Switching off the cutter too early may destroy the main board.

4.3 Tool bars

Summa Cutter Control has three toolbars.
The first toolbar has shortcuts to the most used commands under the File menu. All the icons in this toolbar are active if the settings have been read from the cutter.


This is used to open a previous saved menu file.


With this the current settings of the cutter can be saved to the hard disk.


This prints out the all current parameter settings.


With this a preview is of all the parameter settings can be viewed on screen.


Click on exit to close the program.

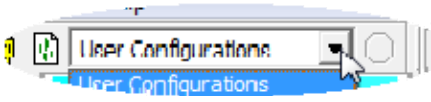
The second tool bar is a mix of much used commands.


This buttons opens a window for setting the connection parameters.


With this button, plot- and test files can be sent to the cutter.


This is the recut button. Any file that is currently in the memory of the cutter can be repeated a number of times with this command.


The refresh button re-establishes communication with the cutter and refreshes the parameter currently shown on screen.



This is a copy of the action list which can be seen at the left side (sees section below.


This icon is only highlighted while Summa Cutter Control is communicating with the cutter. Clicking on it interrupts the connection.

The third tool bar is for testing OPOS.

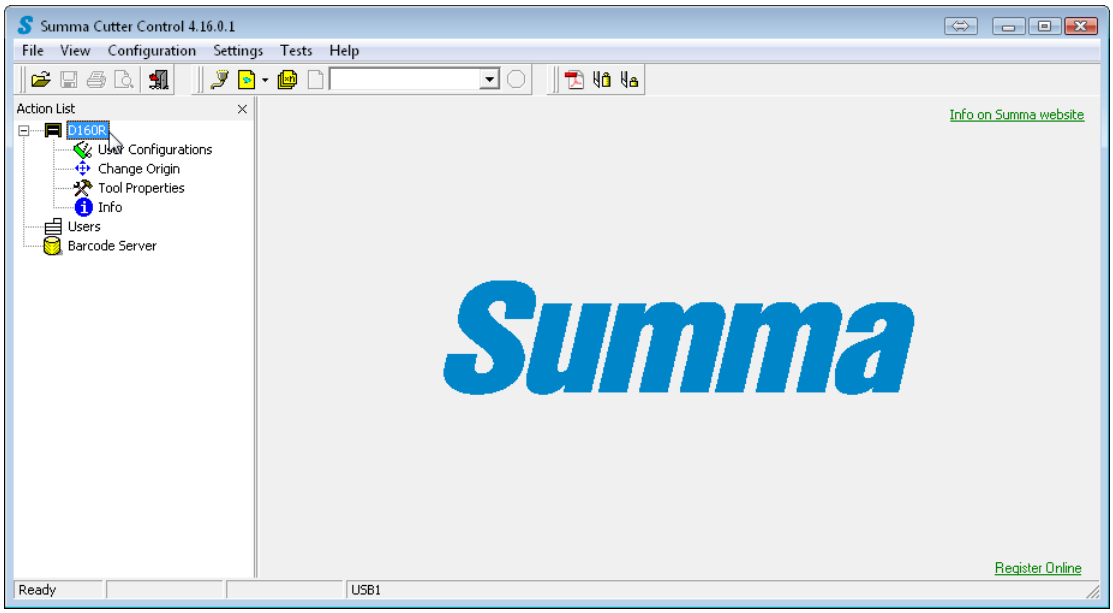

Click on this icon to print out an OPOS test file (works only if Adobe reader is installed on computer).


Click on this to send the cut data for the OPOS test file to the cutter.

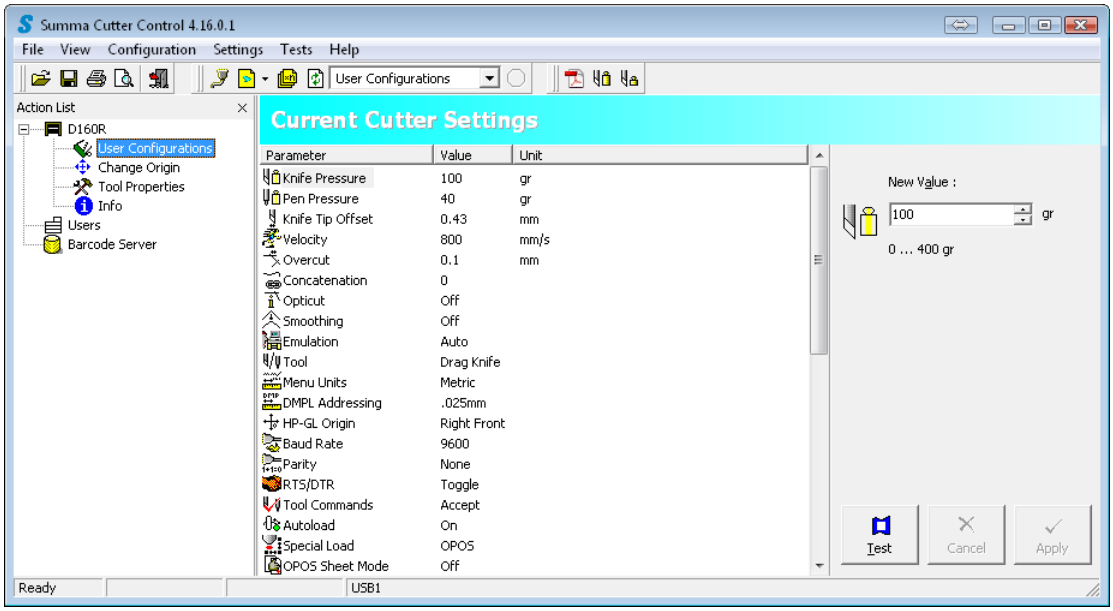

This icon will send the OPOS test file to the cutter and reduce also the pressure to 20grs. This can be used if the test pattern is printed out on normal paper. The OPOS test pattern is media independent.

4.4 Action list

The left part of the Window gives an overview of the action list.

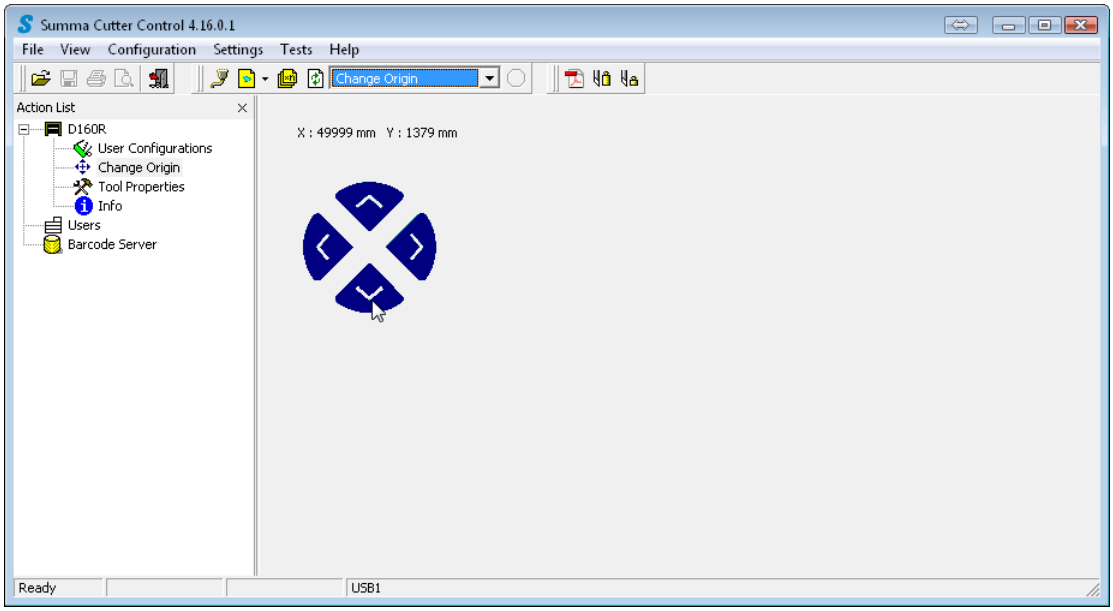


4.4.1 User Configurations



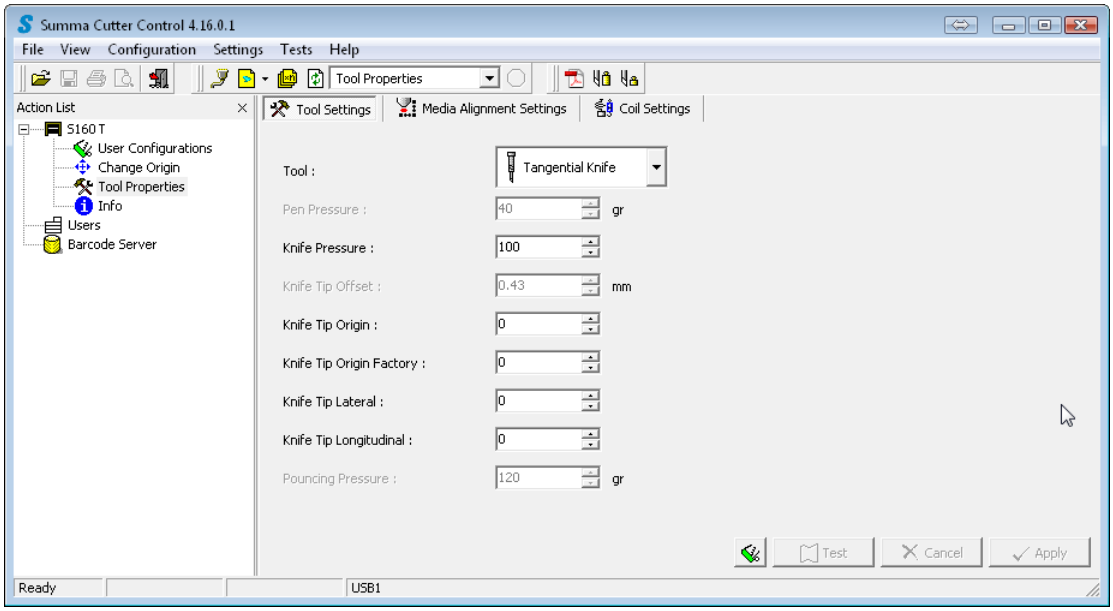
Click on User configuration to have a complete overview of the cutter's parameters.
Select a parameter parameter to change it. Change the value at the right side of the window. Click apply to confirm and send the new parameter to the cutter. Some settings can be tested with a small internal cutter test.

4.4.2 Change origin



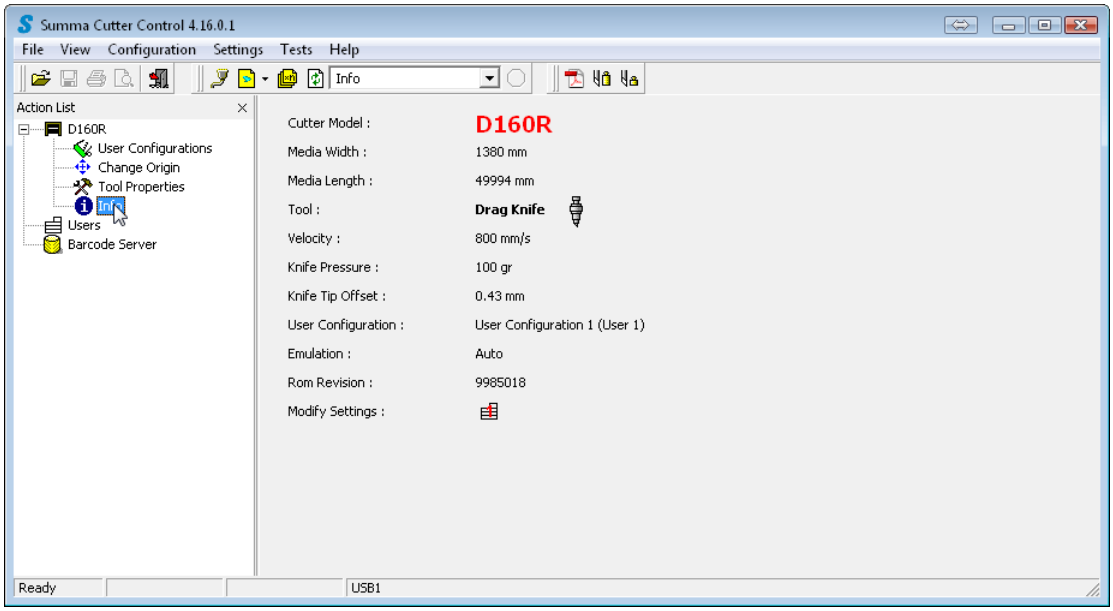
This is used for older cutter types which have no screen on the cutter itself to facilitate the changing of the origin. Click on the arrows to change the origin.

4.4.3 Tool properties



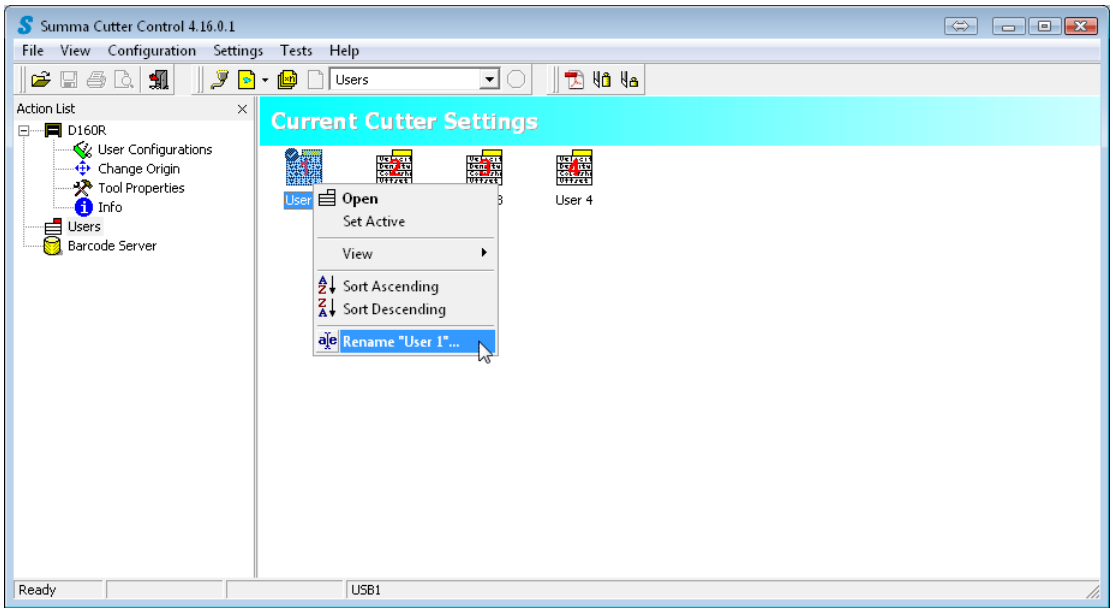
The tool parameters give a quick overview of the most important tool parameter. Again some of those parameters can be tested out with an internal test to check if the chosen value is correct. The parameters grouped here have a great impact on the cutting quality. Be careful while changing them.

4.4.4 Info



Click on info to have an overview of the cutter model firmware revision and most common parameters. This is very useful for identifying the machine when calling support. If the shift key is held down while clicking on info, then the serial number of the machine is also shown.

4.4.5 Users

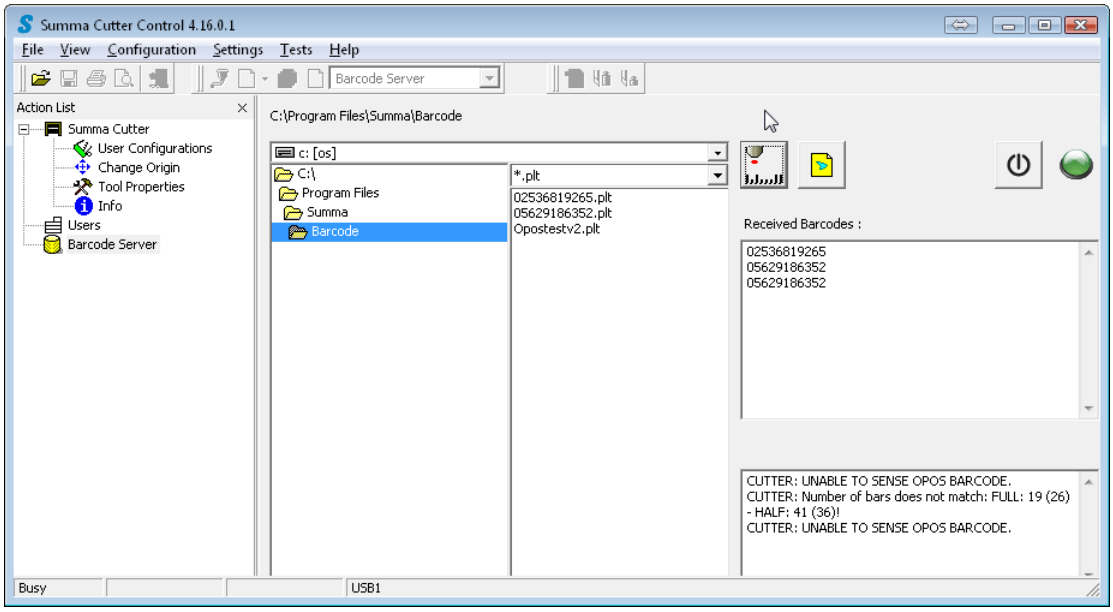


This is used to switch between different user configurations and to change the name of the users on S class cutters. Double click for changing user. Right click and choose rename for changing the name for the user. The SummaCut series have 4 different users. The S Class series have 8 different users.

4.4.6 Barcode Server

The OPOS sensor of the SummaCut and S Class cutters can read a special bar code. This is very useful in a print and cut workflow. The jobs may be on separate sheets or there may be multiple jobs on a roll.
Each job has to be printed out with a special barcode (that is readable by the OPOS sensor). This barcode indicates a jobnumber. This jobnumber is linked to a file with the cut data that the rip and print software made at the moment that the job was ripped. On the computer a kind of **'Barcode server'** should be running, polling the communication port that connects the cutter to the computer for incoming jobnumbers. On receipt of the jobnumber, the software should select the correct file with the cut data and sent the data as a standard OPOS job. OPOS will start scanning the job (with the OPOS information it received in the file) and cut the contours. After that the cutter will scan for about 50cm after the job to check if another barcode can be found. In case another barcode is found, it is read and whole procedure repeats itself. Like that the whole roll can then be cut without intervention of the operator. The successive jobs on the roll may be the same or totally different.
Some print and cut software support this barcode code feature and its workflow completely. Other print and cut software only print out the barcode and make the file with the cut data (with the correct file name). They do not support the reading of the barcode and the handling of the different cut data files. In this case the barcode server of Summa Cutter Control can be used.

Click on Barcode server. The right side of the window shows all the options of the barcode server. First the directory has to be set where the files with the cut data are set by the print and cut software. This can be a local driver or a network drive. The figure below shows the default directory that Summa Cutter control uses. Use this directory if the barcode option of the cutter has to be tested with This can be used for testing the barcode server (see later). The extension of the files with the cut data can also be set (click on dropdownbox and select). This directory and the file extension have to set the same as in the print and cut software.



Click on the start icon to start the barcode server. The status light will change from red to green.

Click this icon to command the cutter to start reading the barcodes (can also be started from the keypad of the cutter. For the S Class: action – load – load barcode. For the SummaCut: first set alignment mode on OPOS barcode, then start media alignment)

This can be used to send an OPOS file to the cutter.

The most right window at the bottom shows the error messages that the cutter has sent to Summa Cutter Control. The window above that shows the correct read barcodes that have been read and sent to Summa Cutter control and afterwards cut out by the cutter.

- *Definition of type of barcode:*

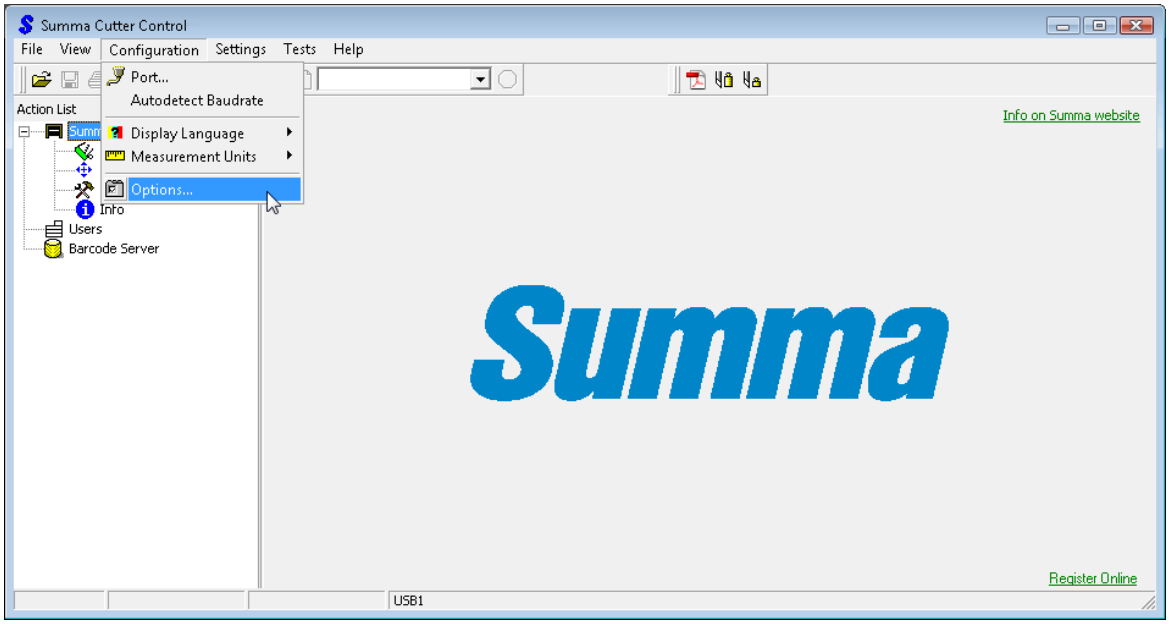
The barcode is based upon 'Postnet' used by the US post. The exact description of this type of barcode is described on http://en.wikipedia.org/wiki/POSTNET. It is three times the normal size. The barcode is is started and stopped with a full bar. Each digit (numeric value) is represented by five bars. Value consists out of 11 numbers. The digit in the barcode is the correction character. When adding all 11 numbers together, the result must be a multiple of 10.

- *Procedure to test barcode server.*

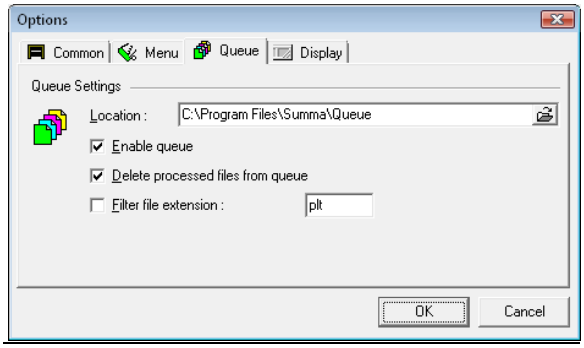
Go with windows explorer to C:\Program Files\Summa\Barcode. Open the files barcode1.pdf and barcode2.pdf and print then out. This can be done on a normal A4 desk printer, make sure the printout is not scaled. Load a sheet in the cutter. Start the barcode server. Start reading the barcode (from Summa Cutter Control, or from the keypad of the cutter).

4.5 Using Summa Cutter Control as a spooler for sending files to the cutter

Open Summa Cutter Control



Click the Configuration menu, and then click Options.



Click on the queue tab. Fill in the location the directory Summa Cutter control has to monitor. The figure shows the default directory, this can be changed in any directory (local or on network).
Make sure boxes before 'Enable queue' and 'Delete processed files from queue' are checked.
A filter extension can be set if needed. Click OK

When Summa Cutter control is running, it will monitor the directory and if a file appears there it will pick it up and send it to the cutter.
Summa Cutter Control may be minimized if wished.