Summa nv
Rochesterlaan 6
8470 Gistel
Belgium

How to install a driver for a SummaSign

Introduction

This document describes how to install the software necessary to drive the a SummaSign series roll-cutter.

A **design software** is needed to create a design. Popular design programs are CorelDRAW, Adobe Illustrator, Inkscape, … Design software is not supplied from Summa.

The contours in the job created with one of those design software's need to be sent to the cutter. Before the contours can be sent, the contours need to be converted in commands understood by the cutter (DM/PL commands). This is accomplished by the software **WinPlot**. WinPlot then needs to send the commands to the cutter using a communication port. Depending on the communication interfaces available, and/or the interface used to drive the cutter, different **driver software** needs to be installed.

Transferring the job from the design software to the cutting software can be done by means of a **plug-in**.

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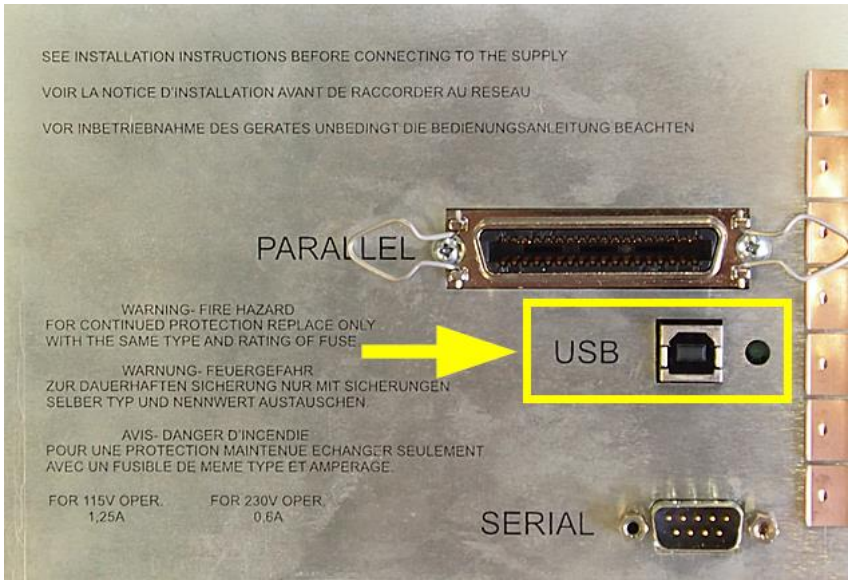
Driver software

USB Interface



To be able to use the USB interface, a USB driver needs to be installed. This driver is available from the support page of the Summa website:
https://www.summa.com/en/support/software-firmware/

Vinyl Cutters

USB Drivers	Description	Version	Date
USB Cutter driver	USB driver for Windows 7, 8, 8.1, 10, 11	10.0 & 7.0	18-06-2020
OPOS-CAM USB driver	USB Camera driver for Windows 7, 8, 8.1, 10, 11	1.0.136	08-05-2014

Download the USB driver. Double click on the downloaded driver to start the install process. Follow the install wizard to complete the install.

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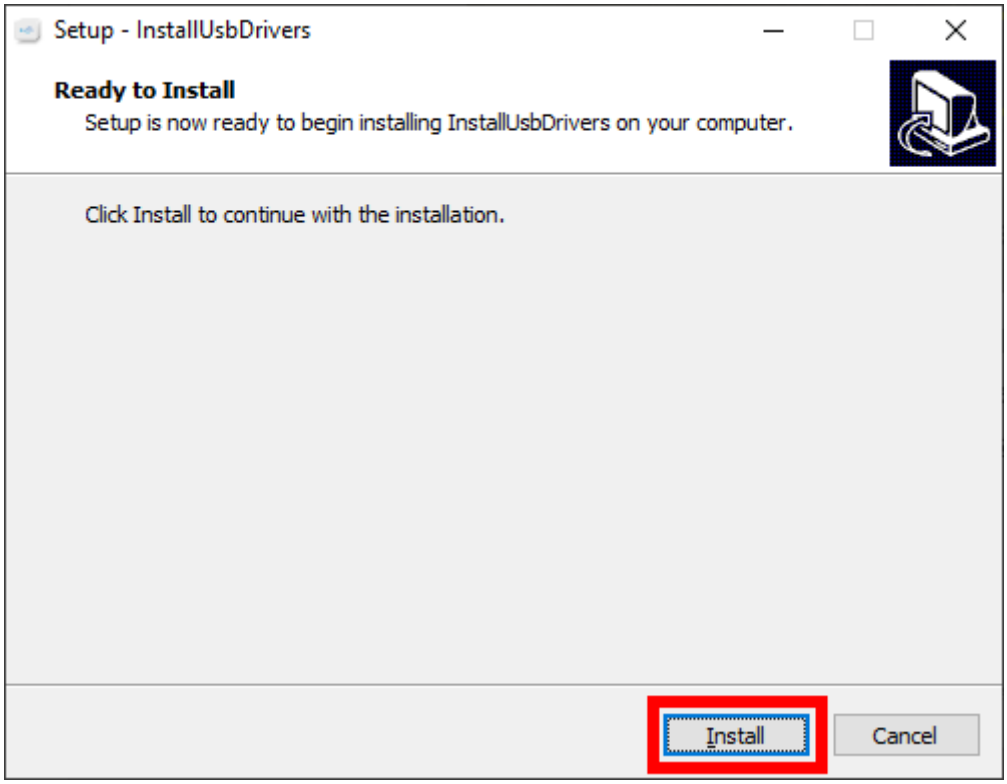
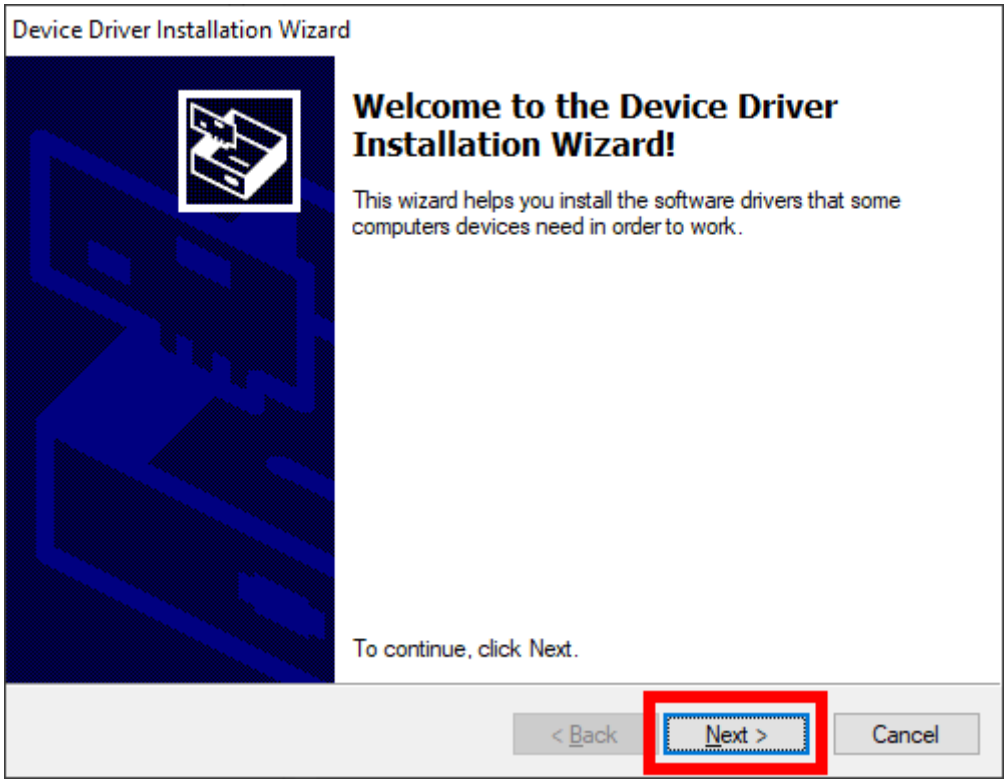
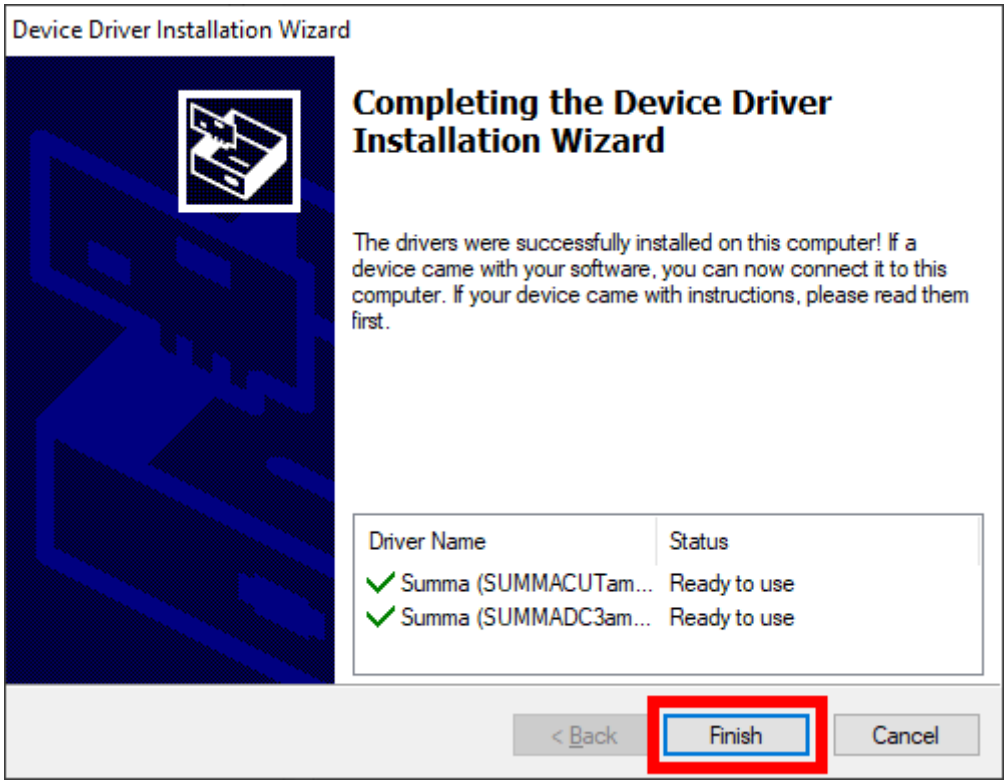
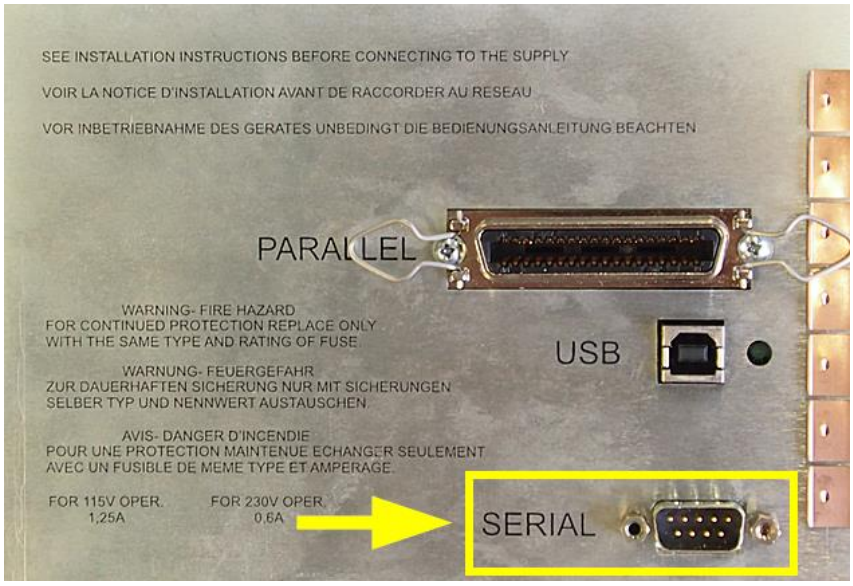






In the software driving the machine, the communication port used to send the data to the cutter needs to be set to the USB port.

Serial Interface



When the cutter is connected using the serial interface, you do not need a driver, you have to set the correct settings in the cutting software.

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Using a serial to USB adapter

In case the cutter is connected to the computer using a USB-RS232 adapter, the USB driver for this adapter needs to be installed (and not the one from Summa), and in the software driving the cutter, the serial port this adapter is emulating should be selected. You will also need to use the serial cable delivered with the machine (reference 423-183) to connect the adapter to the cutter.

Serial interface cable wiring

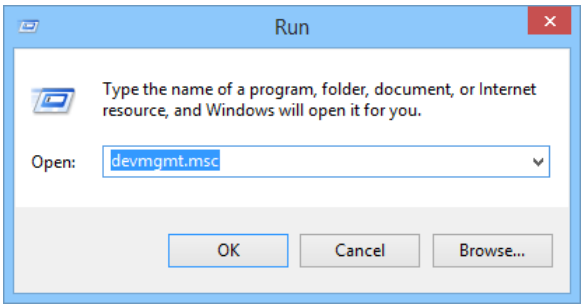
The serial interface cable reference 423-183 is wired as in below table:

Connector A DB9F		Color		Connector B DB9F
3	_____	Black	_____	2
2	_____	Brown	_____	3
5	_____	Red	_____	5
8	_____	Orange	_____	4
7	_____	Yellow	_____	6
4	_____	Green	_____	8
6	_____	Bleu	_____	7
Shell	_____	Drain	_____	Shell

Procedure to determine serial port emulation of the adapter

Press and hold , press .

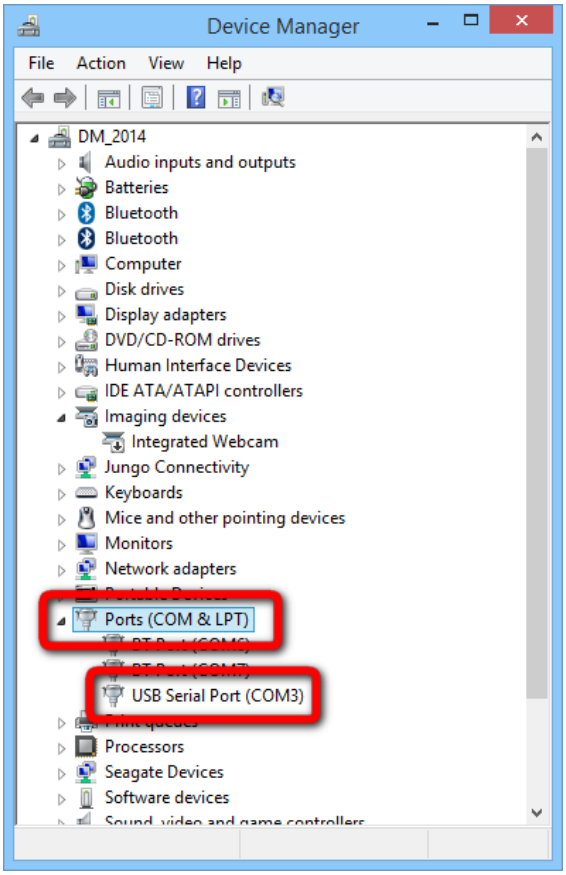
Enter the text “devmgmt.msc” in the dialog box:



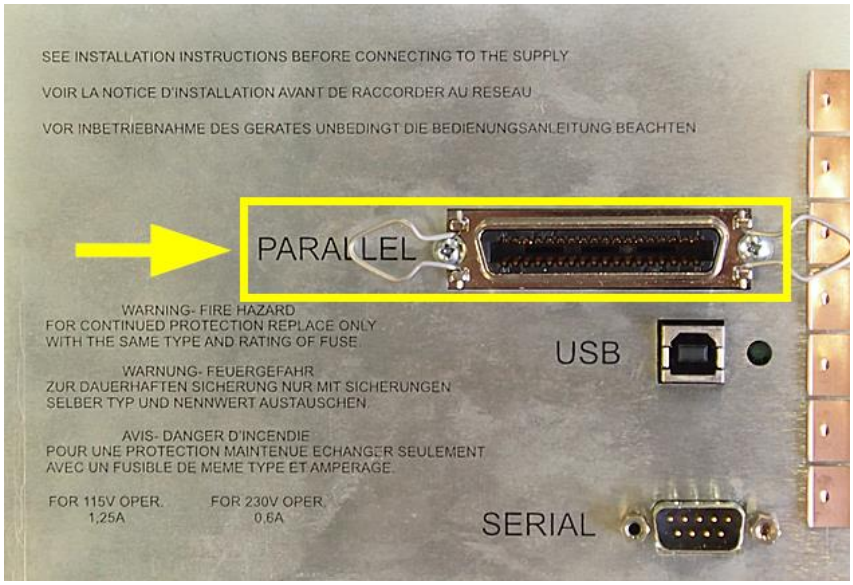
This opens the Device Manager.

Open the branch “Ports (COM & LPT)”.

Check for the entry representing the USB to RS232 adapter. This entry displays the communication port this adapter is emulating. This communication port needs to be used in the application driving the machine.



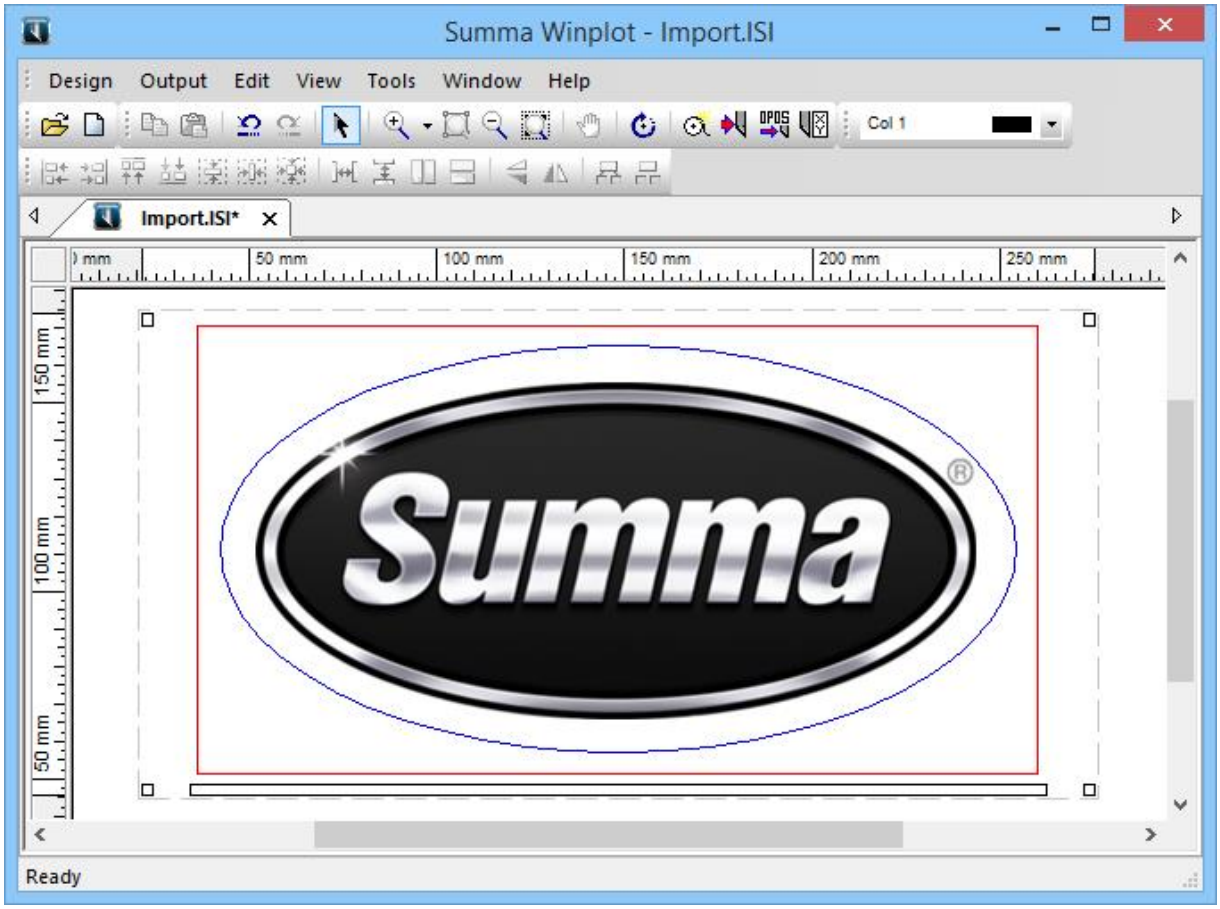
Parallel Interface



When the cutter is connected using the parallel interface, you do not need a driver, you have to select the correct parallel port in the cutting software.

As the parallel port is unidirectional, it is not possible to send information from the cutter to the computer. The software driving the machine will be unable to gather information from the cutter, e.g. to read the media size.

WinPlot



From Windows Vista on, we work with a program called *WinPlot*.

This program can import EPS, AI and PDF files and then send data to the cutter. Most design programs are able to generate files in one of those formats.

We do not work with a 'Windows based printer driver'.

The program *WinPlot* can be downloaded from the Summa support website:
https://www.summa.com/en/support/software-firmware/

WinPlot	Cutting program that imports EPS, AI and PDF files: positioning, rotating and scaling possibilities. Supports Vista/7/8/10 32-bit & 64-bit, and is compatible with all Summa brand cutters.	11.8.0.0	08-05-2019

This program works as a 'cutter driver', and converts the design created and exported in APS, AI or PDF format in commands understood by the cutter.

The manual with the detailed instruction how to use WinPlot can be downloaded from the manuals section of the support page on the Summa website.

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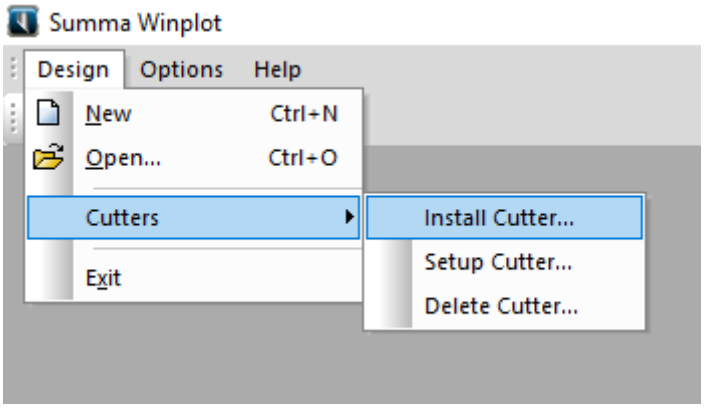
WinPlot	Version	Date
English	07	31-03-2016
Français	07	31-03-2016
Deutsch	07	31-03-2016
Nederlands	07	31-03-2016

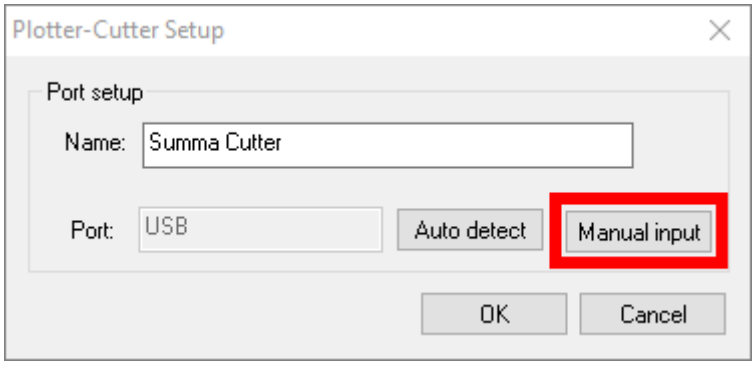
Configuration

To configure *WinPlot* for use of a serial port with a Summa Cutter do the following:

- Start *WinPlot* with no document, or close any open document.
- Click [Design] – [Cutters] – [Install Cutter].
  This option will not be available when there is a document open in WinPlot.



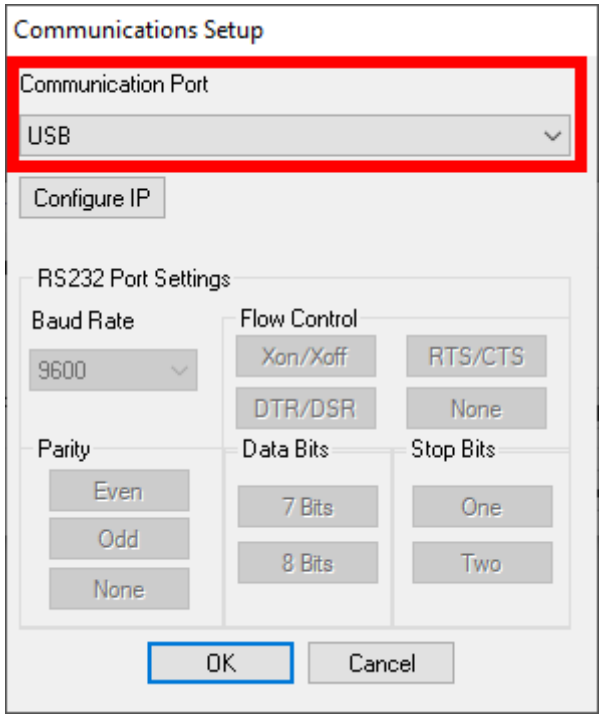
- In the *Plotter-Cutter Setup* dialog click [Manual input].



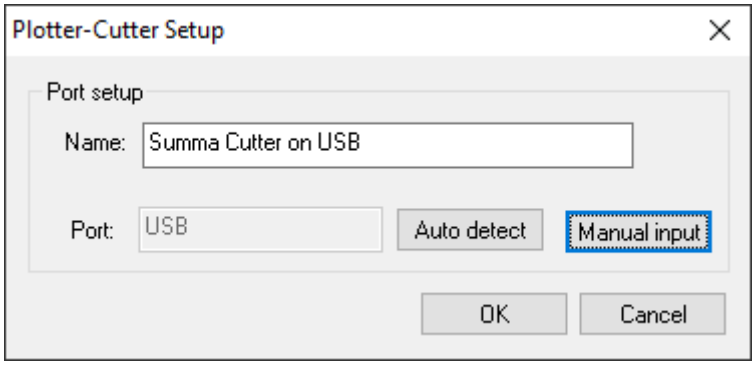
USB Port

To configure *WinPlot* for use of the USB interface with a Summa Cutter do the following:

- In the *Communication Setup* dialog set the options as in the picture below: in the Communication Port drop down box, select USB.



- Clicking the [OK] button returns you to the *Plotter-Cutter Setup* dialog. There you can optionally change the name of the installed cutter.

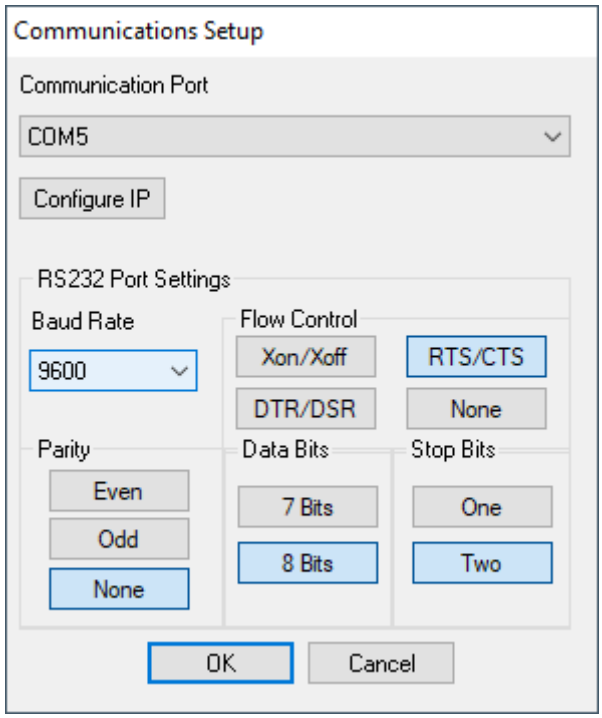


- Click [OK] again to finalize the configuration.

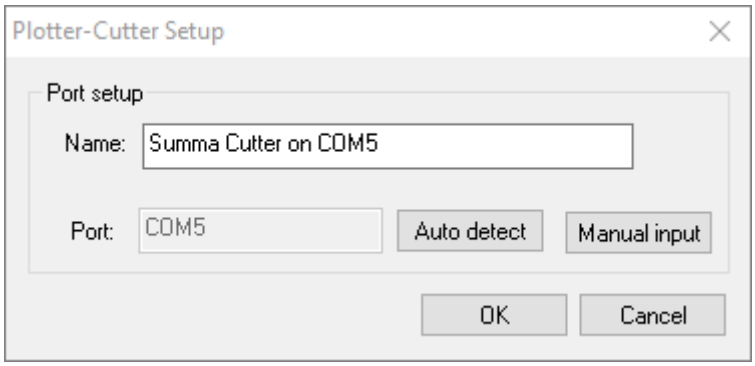
Serial Port

To configure *WinPlot* for use of a serial port with a Summa Cutter do the following:

- In the *Communication Setup* dialog set the options as in the picture below.
  Select the serial port to which the cutter is connected to, e.g. COM5, from the Communication Port drop down box.
  By default, Summa Cutters are configured as follows:
  Baudrate : 9600
  Parity : None
  Data Bits : 8
  Stop Bits : Two
  Flow Control : RTS/CTS
  The serial port parameters (RS232 Port Settings) should match the configuration of the cutter.



- Clicking the [OK] button returns you to the *Plotter-Cutter Setup* dialog. There you can optionally change the name of the installed cutter.

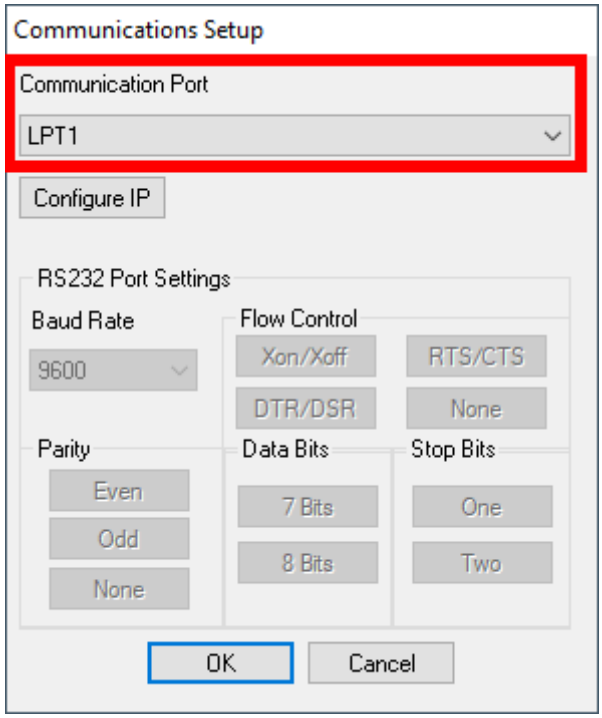


- Click [OK] again to finalize the configuration.

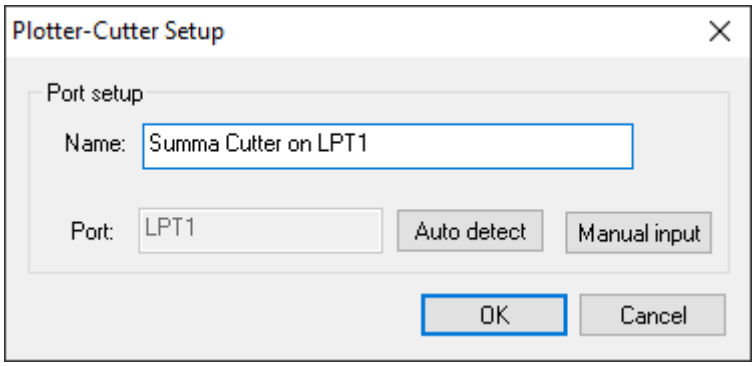
Parallel Port

To configure *WinPlot* for use of the USB interface with a Summa Cutter do the following:

- In the *Communication Setup* dialog set the options as in the picture below: in the Communication Port drop down box, select LPT1, LPT2 or LPT3, depending on the physical port the cutter is connected to on the computer.



- Clicking the [OK] button returns you to the *Plotter-Cutter Setup* dialog. There you can optionally change the name of the installed cutter.



- Click [OK] again to finalize the configuration.

Serial Port Configuration of the Cutter

It is not necessary to load media in the cutter to change the parameters.

Use the below steps to change the serial port configuration of the cutter:

- Power on the cutter.
- Press until *"USER CONFIG x"* appears on the screen.
- Press or until *"SYSTEM SETUP"* appears on the screen.
- Press .
  *"CONCATENATION", "<- *0 ->" will appear on the screen.*
- Press or to scroll through the menu until the serial parameters appear:
  - *"BAUD RATE", default is 9600.*
  - *"PARITY", default is None.*
  - *"RTS/DTS", handshake, default is Toggle*
- Press or to change the value of the selected parameter. The active value/option is preceded by an asterisk (*).
- Press to set the changed value/option as the active value/option.
- Press to exit the menu.

Available serial communication parameters:

- BAUD RATE: 2400, 4800, 9600, 19200, 38400

- PARITY: NONE, MARK, EVEN, ODD
- RTS/DTS: TOGGLE, HIGH

Emulation Configuration of the Cutter

WinPlot uses DM/PL commands to instruct the cutter to cut contours. The cutter needs to be configured to be able to understand those commands.

Use below steps to set the "Emulation" parameter defining the command language:

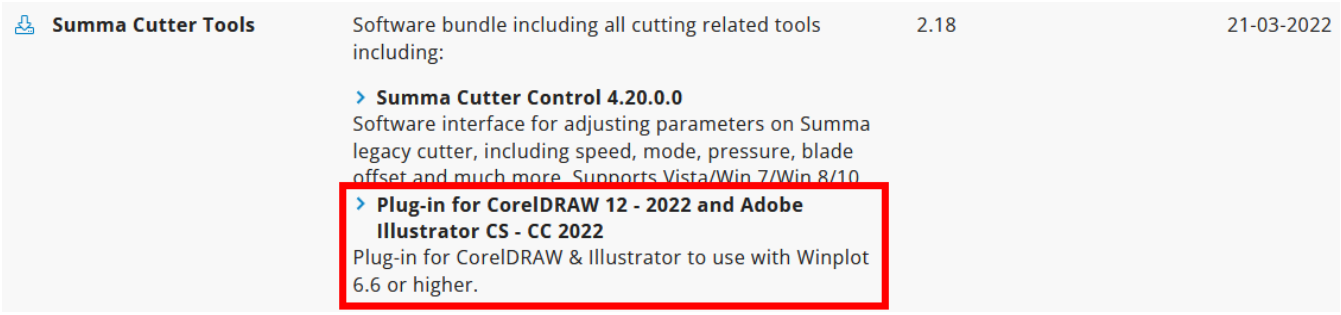
- Power on the cutter (it is not necessary to load media).
- Press on until *« USER CONFIG x »* appears on the screen.
- Press .
  *«<KNIFE PRESSURE », «<*110g 1=TEST> » will appear on the screen. Note: the value 110 may differ depending on the current knife pressure.*
- Press or to scroll through the menu until « *SYSTEM SETUP* » is reached.
- Press to select.
  *«<CONCATENATION », «< *0 > » will appear on the screen.*
- Press or to scroll through the menu until « *EMULATE* » is reached.
  *«<EMULATE », «< *HP-GL > » may appear on the LCD, depending on the currently configured emulation language.*
- Press or to select the desired emulation language.
  «<EMULATE », «< DM/PL > » may appear on the LCD, depending on the currently configured emulation language.
- Press to confirm.
  *«<EMULATE », «< * DM/PL > » will appear on the LCD.*

Note: the asterisk (*) proceeding the value/option indicates the active value/option.

Plug-ins

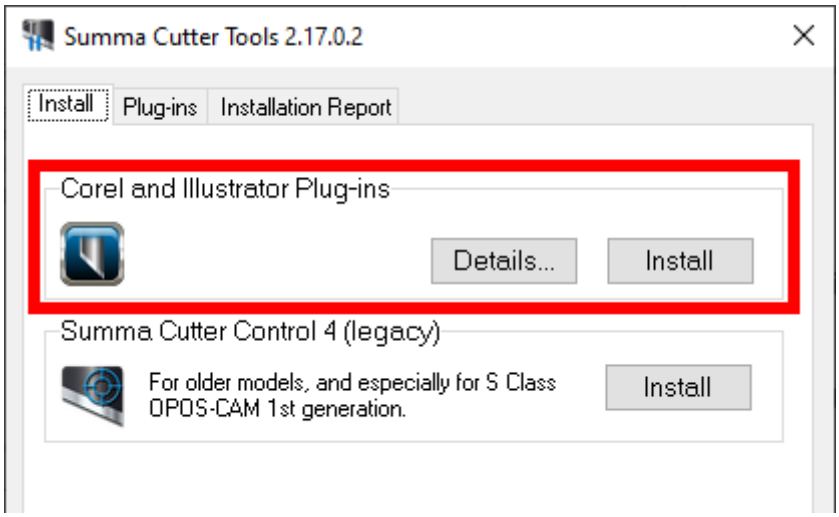
There exists also a *plug-in* for Corel 12->2020 and Illustrator CS1->CC->2021

The *plug-in* can be installed from the software tool Summa Cutter Tools, which is available from the support page on the Summa website.

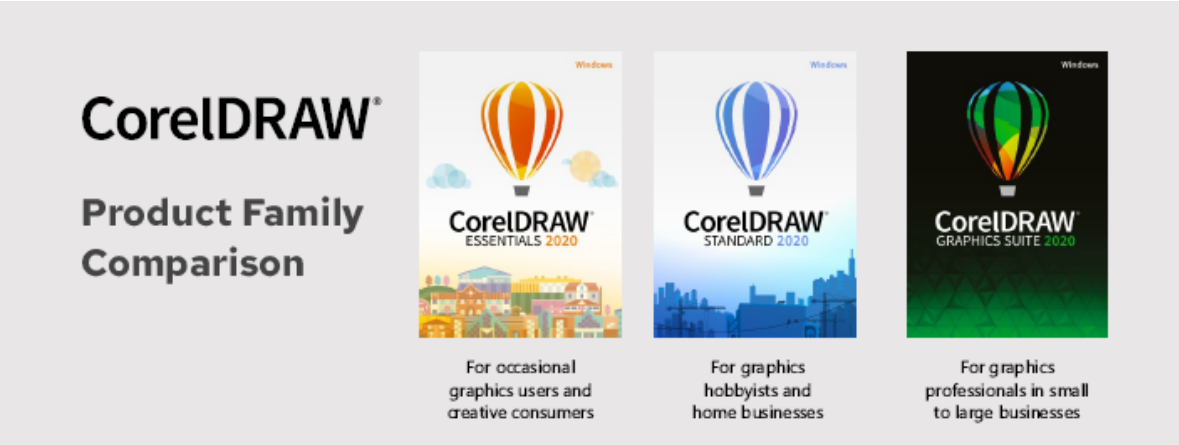


These gets rid of the hassle to export a job from the designing software, and importing the job in WinPlot.

Close the design software, then click on the [Install] button to have the plug-ins installed for the supported versions of CorelDRAW and/or Adobe Illustrator.



Keep in mind not all versions of CorelDRAW support plug-ins: only the Graphics Suite supports plug-ins:



Main Applications			Most Popular
CorelDRAW® 2020	✓* CorelDRAW Essentials 2020	✓* CorelDRAW Standard 2020	✓
Corel PHOTO-PAINT™ 2020		✓* Corel PHOTO-PAINT Standard 2020	✓
Corel Font Manager™ 2020			✓
CAPTURE™			✓
CorelDRAW.app™			✓
Corel AfterShot™ 3 HDR			✓
Key Features & Tools (Highlights)			
Bitmap-to-vector tracing	(✓) Quick Trace (one-click tracing)	✓ PowerTRACE™	✓ PowerTRACE™ (Advanced with AI technology)
Bevel tool, Shadow tool, Spiral, Smooth and Smear tool		✓	✓
Clone Tool, Artistic Media		✓	✓
Alignment guides, Guidelines docker		✓	✓
Symmetry drawing mode, Block Shadow tool, Impact tool, Pointillizer, PhotoCocktail			✓
Object styles, Color styles, Color harmonies			✓
Professional Print options (CMYK features, Composite, Color separations, Postscript, Prepress tabs, large print preview)			✓
Advanced page layout: left & right master pages, custom placeholder text			✓
Enhanced Color management, Color proofing option, spot color support on output			✓
Collaboration tools**			✓
Automation support (VSTA, VBA), Macro Manager			✓

Once the plug-in is installed, the design can be sent to WinPlot from the toolbar (CorelDRAW) or from the File submenu (Adobe Illustrator):

CorelDRAW

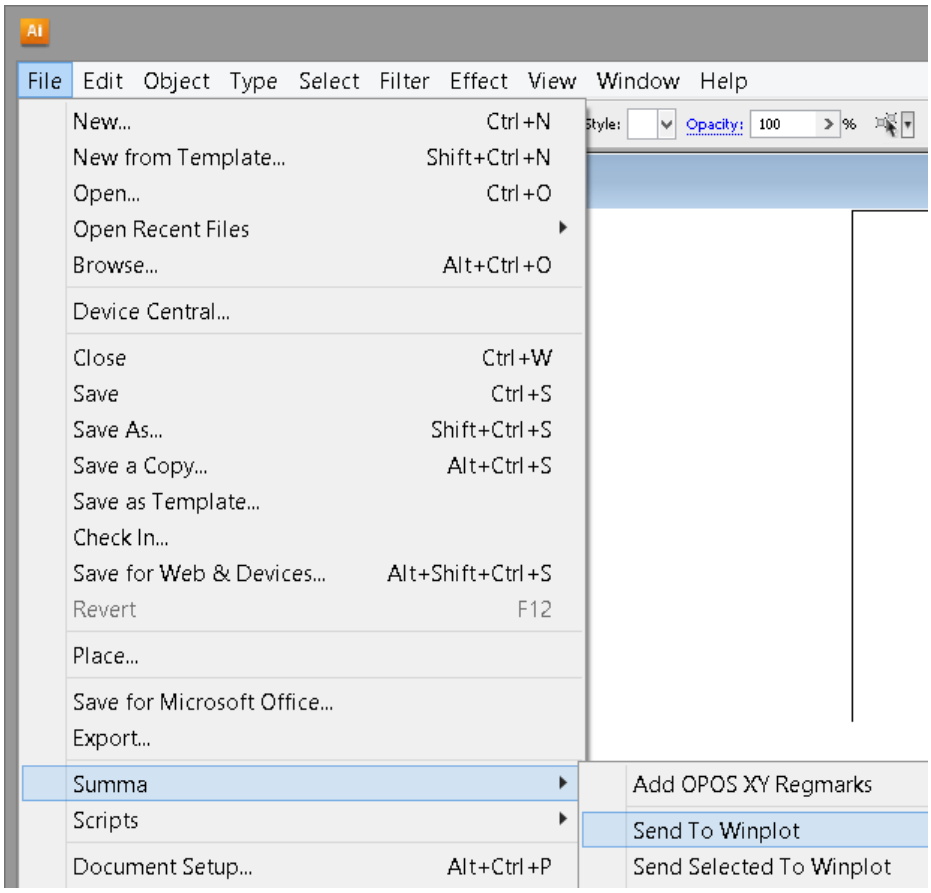
Four options are available:

- Add OPOS registration marks around the design
- Send the complete design to WinPlot
- Send only the selected objects to WinPlot
- Export the design to the AI format
  This option can be used when WinPlot is not installed on the computer used to create the design.

Adobe Illustrator

Three options are available:

- Add OPOS registration marks around the design
- Send the complete design to WinPlot
- Send only the selected objects to WinPlot

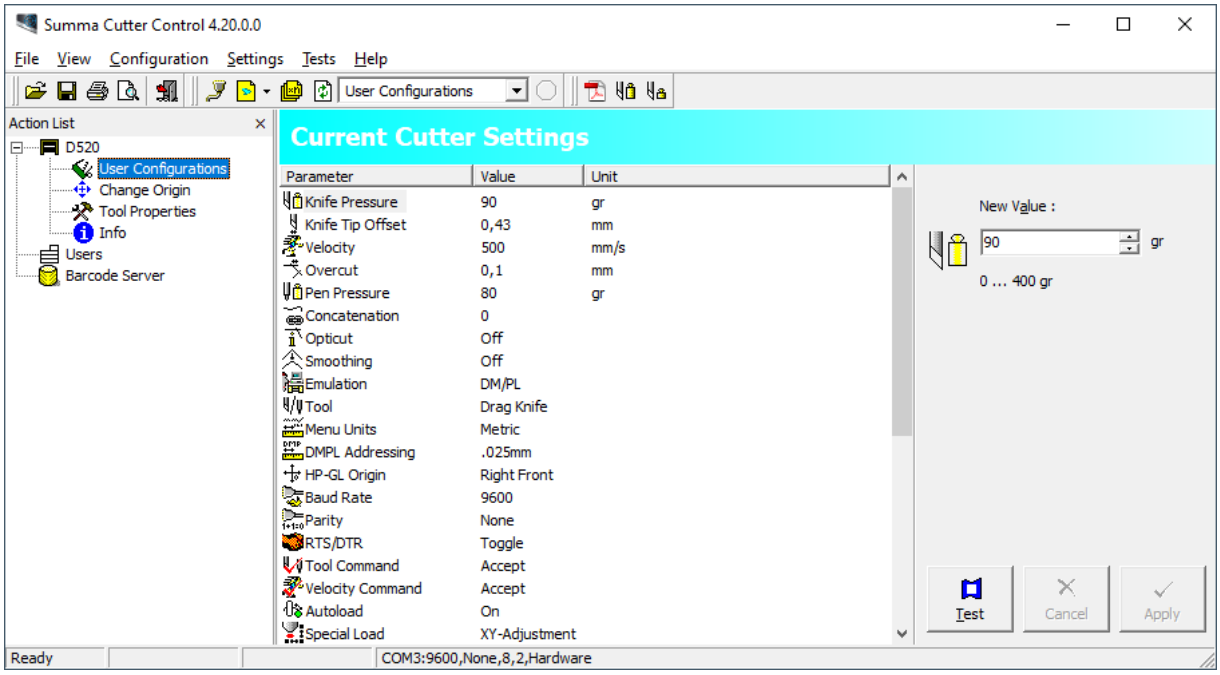


Summa Cutter Control 4

The Summa Cutter Control program basically has the same functions as the control panel.

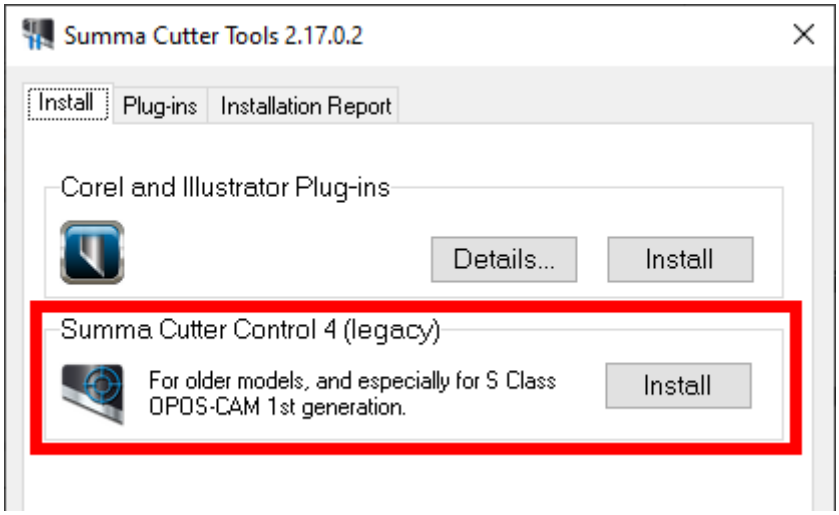
The program Summa Cutter Control 4 (Legacy) can used to:

- Control all parameters of the cutter
- Perform tests
- Send files to the cutter
- Upgrade the firmware of the cutter
- Work as a barcode server



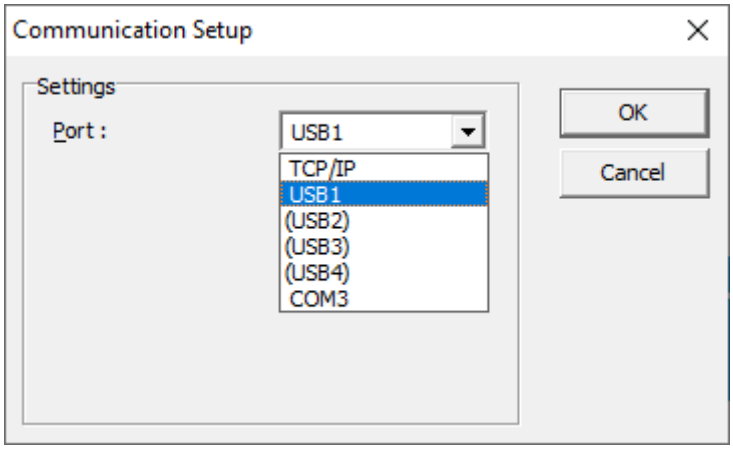
Summa Cutter Control can be installed from the software tool *Summa Cutter Tools*, which is available from the support page on the Summa website.

Summa Cutter Tools	Software bundle including all cutting related tools including: › **Summa Cutter Control 4.20.0.0** Software interface for adjusting parameters on Summa legacy cutter, including speed, mode, pressure, blade offset and much more. Supports Vista/Win 7/Win 8/10. › **Plug-in for CorelDRAW 12 - 2022 and Adobe Illustrator CS - CC 2022** Plug-in for CorelDRAW & Illustrator to use with Winplot 6.6 or higher.	2.18	21-03-2022

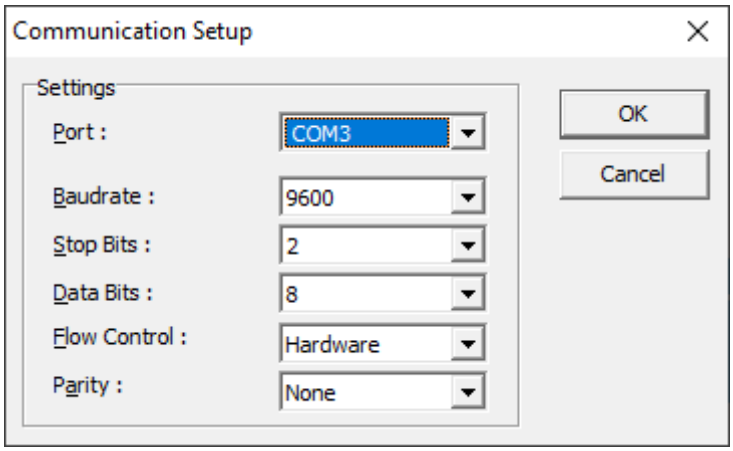


Before the program can be used, the communication interface needs to be selected and configured to match the connection type (USB or RS232) and communication parameters.

Click [Configuration] – [Port], and select the port the cutter is connected to:



When using the serial port, set the communication parameters to match the setting in the cutter:



Revised June 15, 2022