

DFS

User Manual





Release Note

Version	Release Date	Change
1.0	Nov, 2017	First version
2.0	Dec, 2017	Add 5.2.2 convert file from AutoCAD
3.0	Feb. 2021	Add 5.5 vector engraving function operating & AI/CoreIDRAW Plug in Update Machine Photos Add Stack Light



TABLE OF CONTENTS

Chapter 1	Unpacking	3
1.1	Unloading and Unpacking	4
Chapter 2	Mechanical Overview	8
2.1	Front View	9
2.2	Right View	10
2.3	Left View	10
2.4	Rear View	11
Chapter 3	Software Setup	12
3.1	Recommended Computer Configuration	13
3.2	SmartCONTROL™ DFS Installation	13
3.3	SmartCONTROL™ DFS Uninstallation	15
Chapter 4	Connection Setup	18
4.1	Connect to GCC LaserPro DFS via Ethernet	19
4.2	Connect to GCC LaserPro DFS via Wireless	28
Chapter 5	Operating the GCC LaserPro DFS	33
5.1	Stack Light Installation	34
5.2	Running the SmartCONTROL™ DFS	35
5.3	Convert and Import File	37
5.2.1	Convert file from CorelDRAW	37
5.2.2	Convert file from AutoCAD	44
5.4	GCC LaserPro DFS Registration Marks Generator	50
5.5	SmartCONTROL DFS Operating - Single Mode	57
5.6	SmartCONTROL DFS Operating - Production Mode	69
5.7	Vector Engraving Function Operating	82
5.5.1	Engraving by Frame operating	82
5.5.2	Engraving by Fill operating	86
Chapter 6	Appendix	90
6.1	GCC LaserPro DFS Specification Sheet	91

Chapter **1**

Unpacking

Unloading & Unpacking

1.1 Unloading and Unpacking

The GCC LaserPro DFS is shipped in one crate that contains machine, software, and all of the necessary accessories. The following section shows detailed step-by-step instructions for unpacking and assembly the accessory to workstation.

WARNING

More than one person may be needed when loading and unloading the shipping crate in order to avoid body injury or damage to the machine.

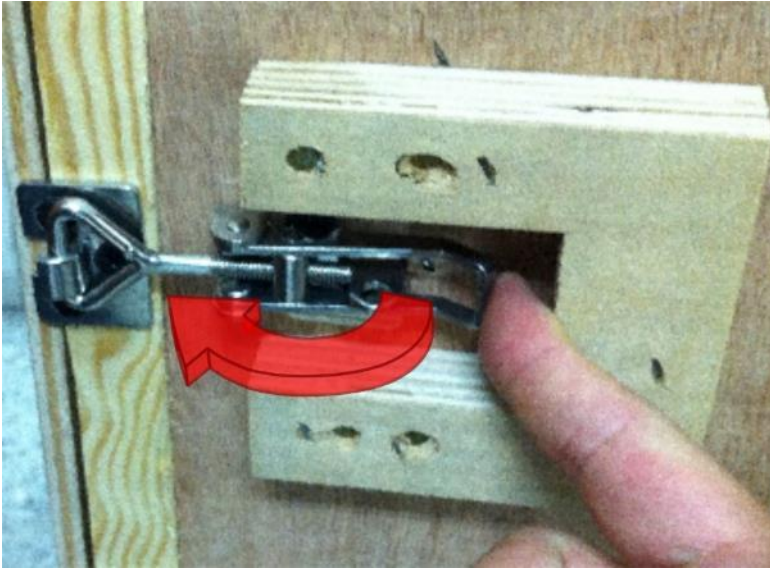
NOTE

Please keep and store the original shipping crate in case it is needed for future transportation or product servicing.

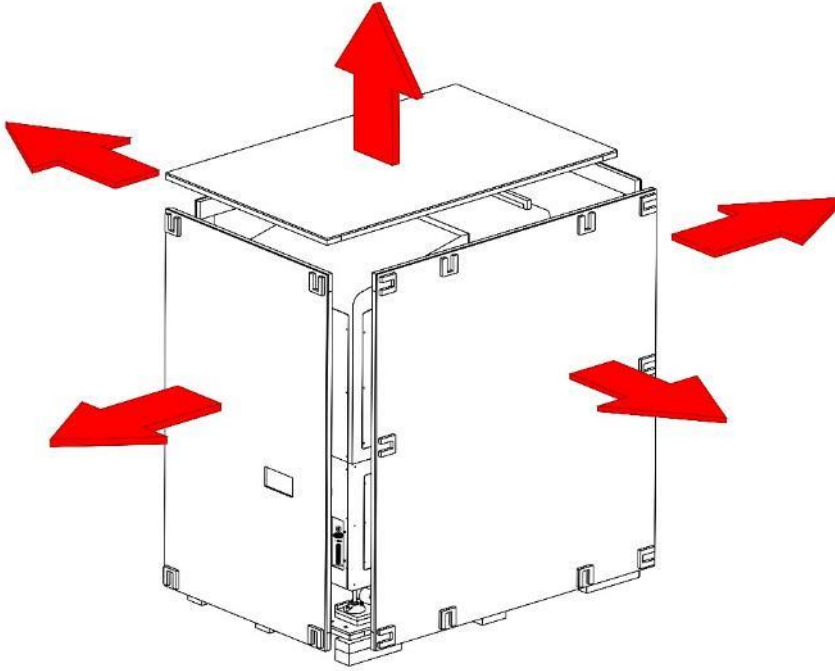
- 1) Move the shipping crate to the proximity of the designated work area.
- 2) Remove the bolt.



3) Loosen the door lock



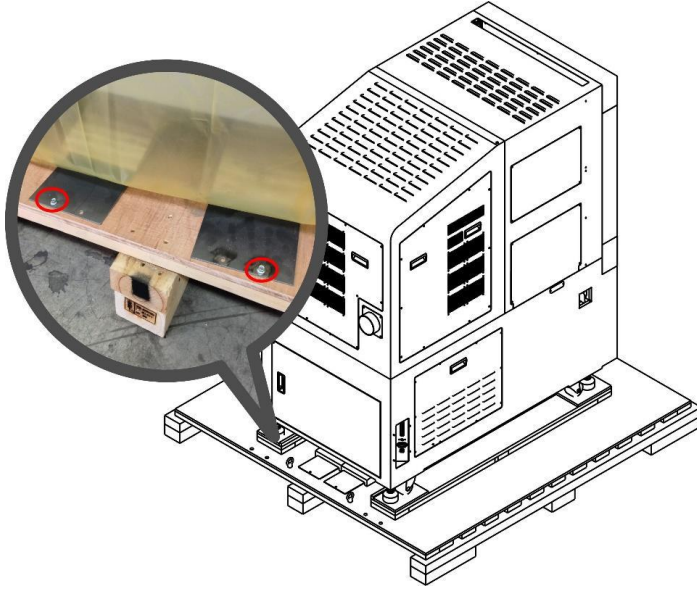
- 4) Loosen the screws fixed crate top and side panels, and remove all the panels.



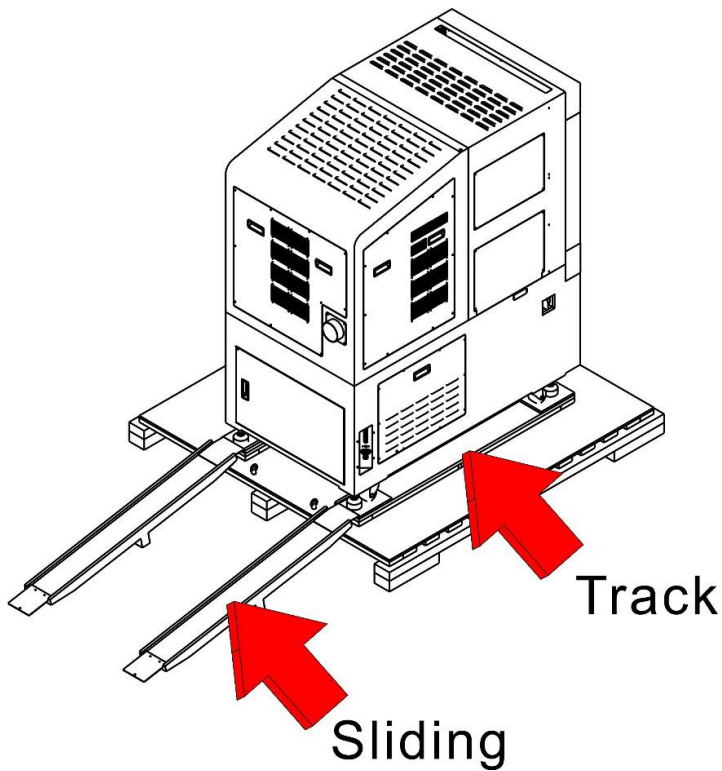
- 5) Unbuckle and remove the two safety harnesses that hold the machine in place.



- 6) Take out the sliding board, and the fixing screws with red circle marked below located in the rear side of the shipping crate.



- 7) Fix the sliding board to the crate with the fixing screws shown in step 6 to create a ramp for machine to slide down.



Chapter 2

Mechanical Overview

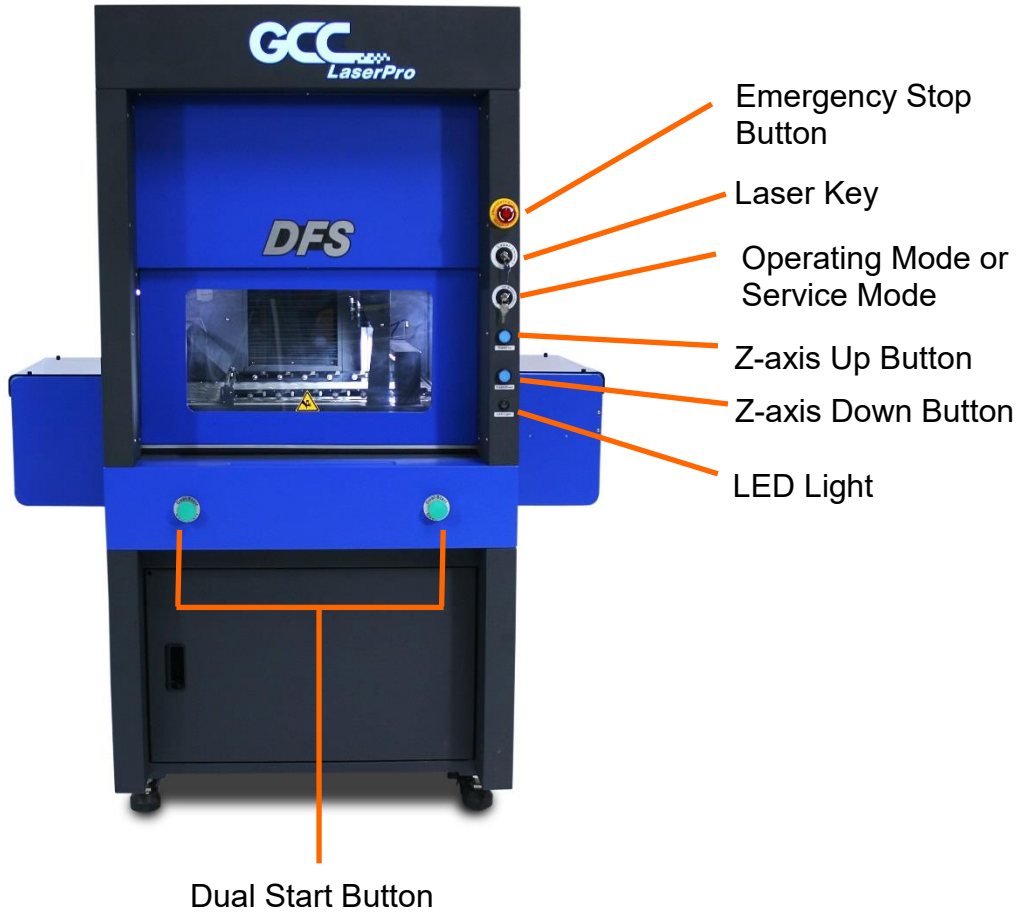
Front View

Right View

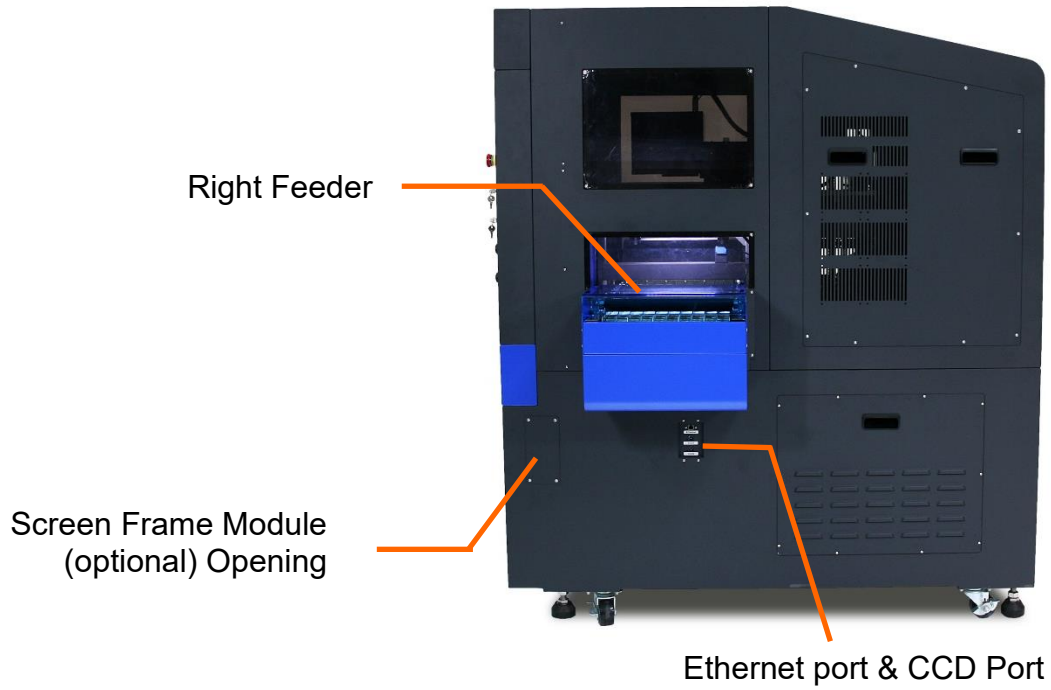
Left View

Rear View

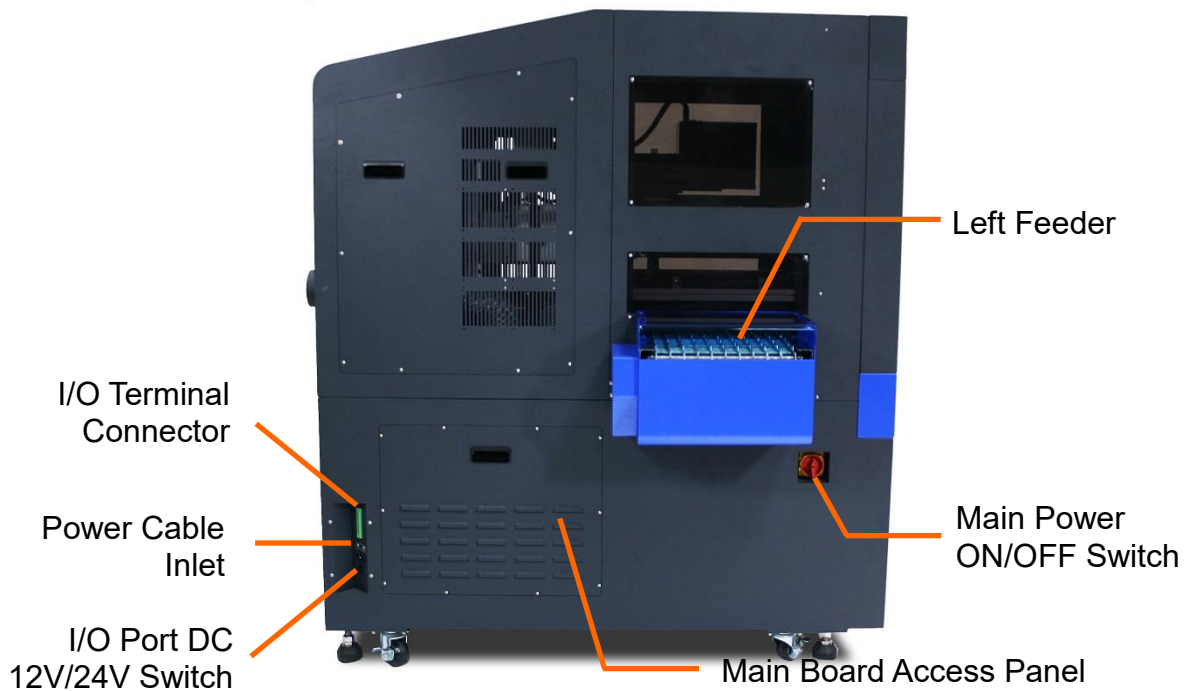
2.1 Front View



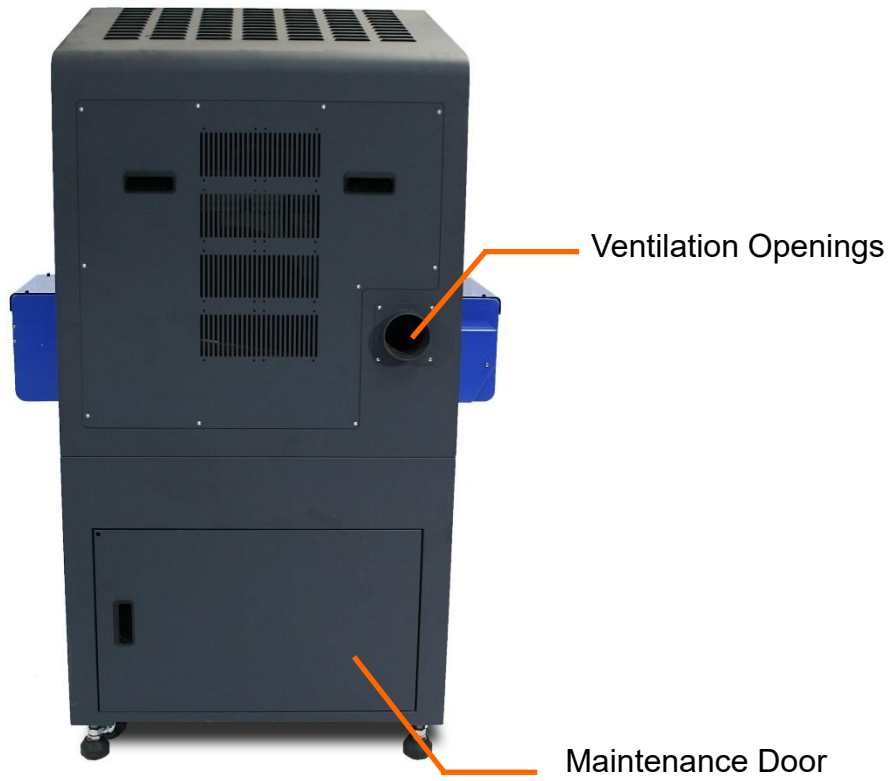
2.2 Right View



2.3 Left View



2.4 Rear View



Chapter **3**

Software Setup

Recommended Computer Configuration

SmartCONTROL™ DFS Installation

SmartCONTROL™ DFS Uninstallation

3.1 Recommended Computer Configuration

SmartCONTROL™ DFS software was designed to work best using a Windows based system with the following minimum requirements.

Computer Configuration

CPU	Intel Pentium, 1GHz or above
DRAM	1GB RAM or above
CDROM	One CD-ROM disk drive
HDD	1 GB of free hard drive space
SVGA	Super VGA display (1204 x 768 min. resolution)
Interface	PC or Laptop, USB 3.0 x 2
Operating System	Windows Vista /Win 7 /Win 8 /Win 10

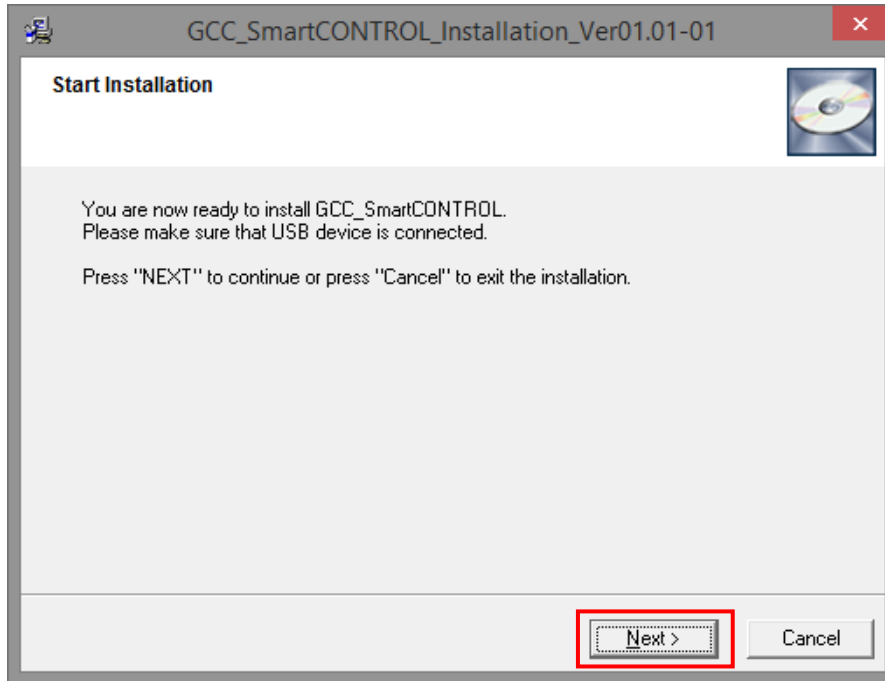
3.2 SmartCONTROL™ DFS Installation

Please perform the following steps:

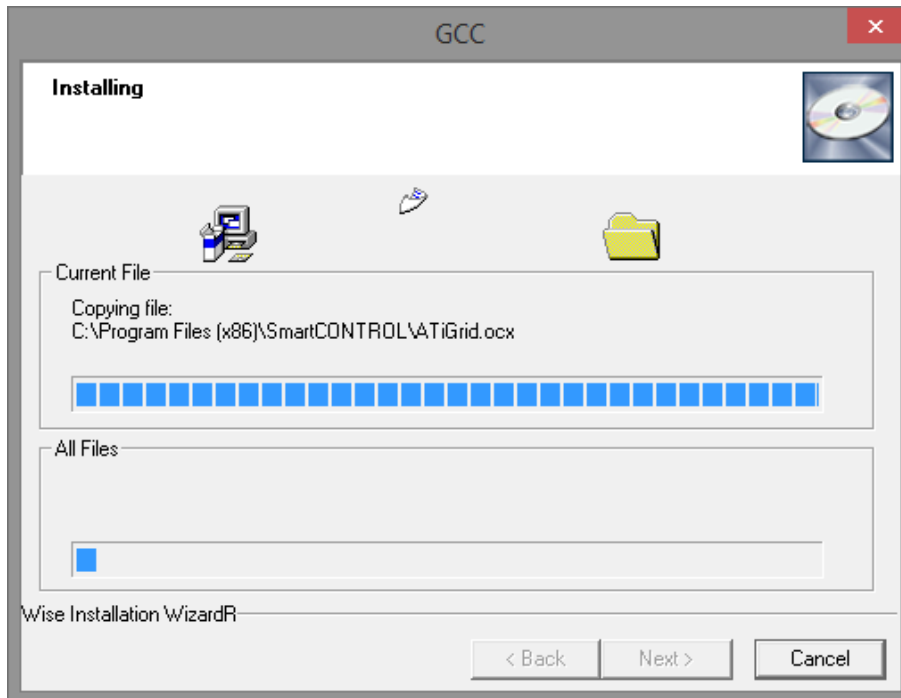
- 1) Take out the installation disk and insert to the CD-ROM drive of computer. Wait few seconds for the CD Manager to begin the Setup automatically.
- 2) Click on “Install SmartCONTROL™ DFS from the menu of the installation disk.



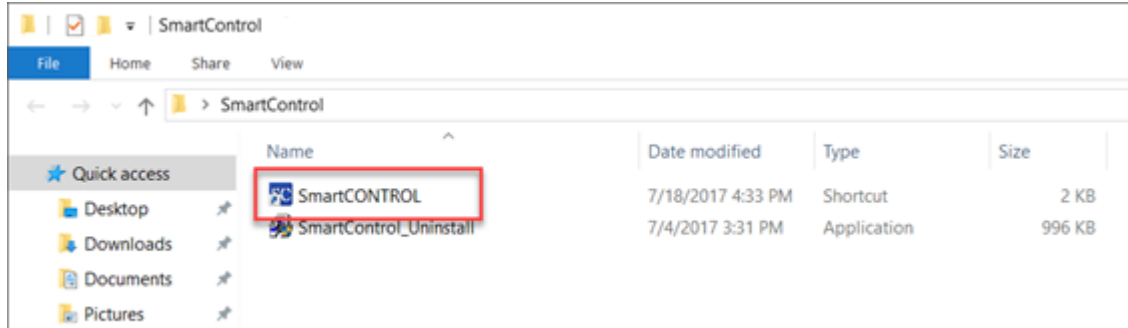
3) Click "Next"



4) The installation would be finished in few seconds

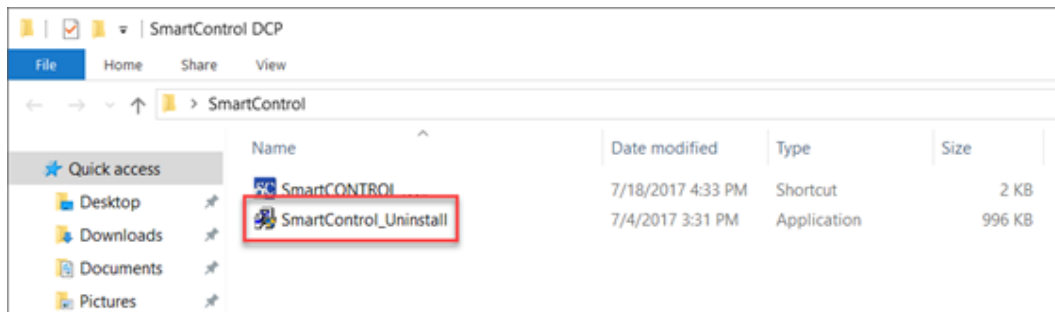


- 5) When installation is complete, SmartCONTROL™ DFS will create a “SmartCONTROL DFS” folder on windows desktop, open the folder and double click SmartCONTRL DFS.exe to run the program.

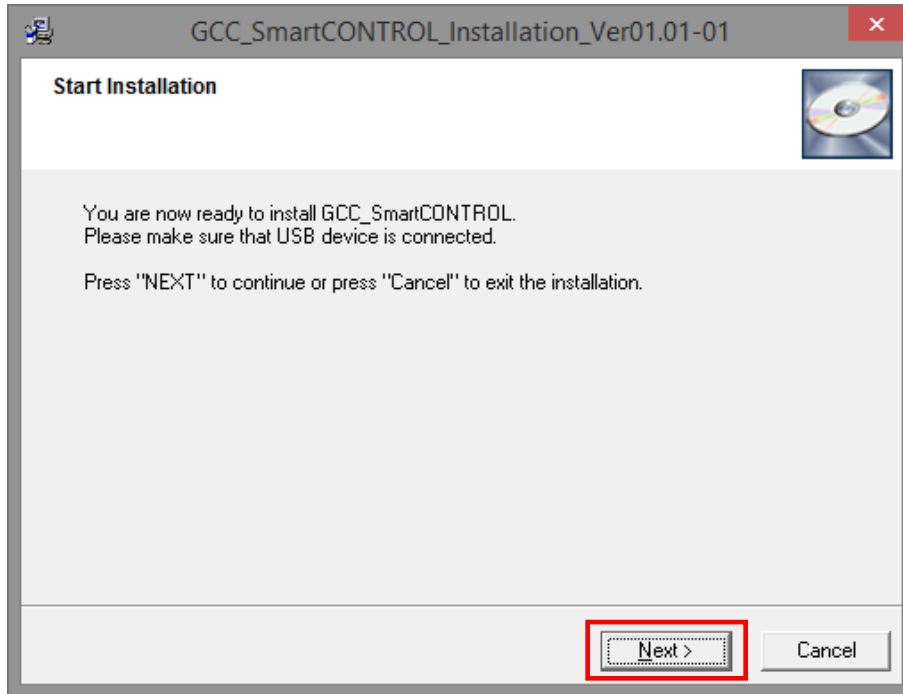


3.3 SmartCONTROL™ DFS Uninstallation

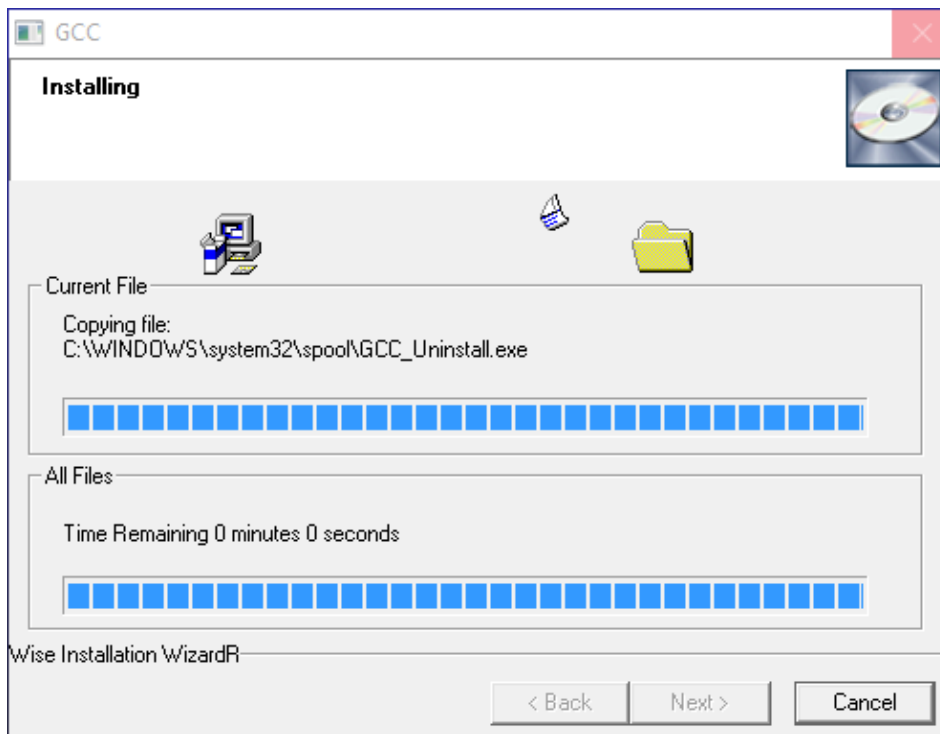
- 1) Open the SmartCONTROL DFS folder from windows desktop and double click “SmartCONTROL_Uninstall.exe”



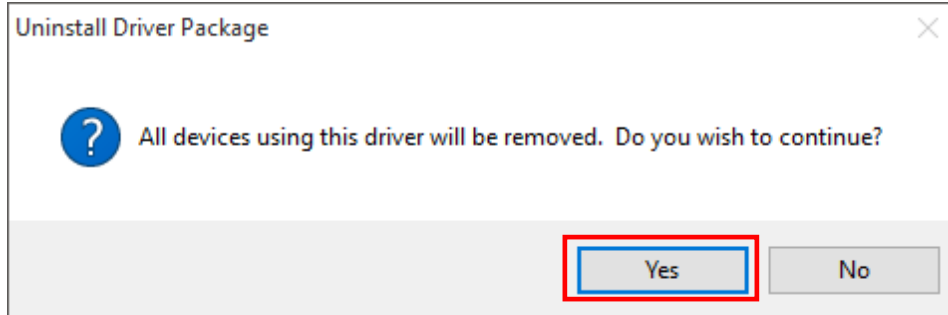
- 2) SmartCONTROL™ DFS uninstallation window will pop up. Click “Next” to continue.



- 3) The uninstallation would be finished in few seconds.



- 4) Uninstall Driver Package window will pop up and ask you “All devices using this driver will be removed. Do you wish to continue?” Click “Yes” to complete uninstallation.



Chapter **4**

Connection Setup

[Connect to GCC LaserPro DFS via Ethernet](#)

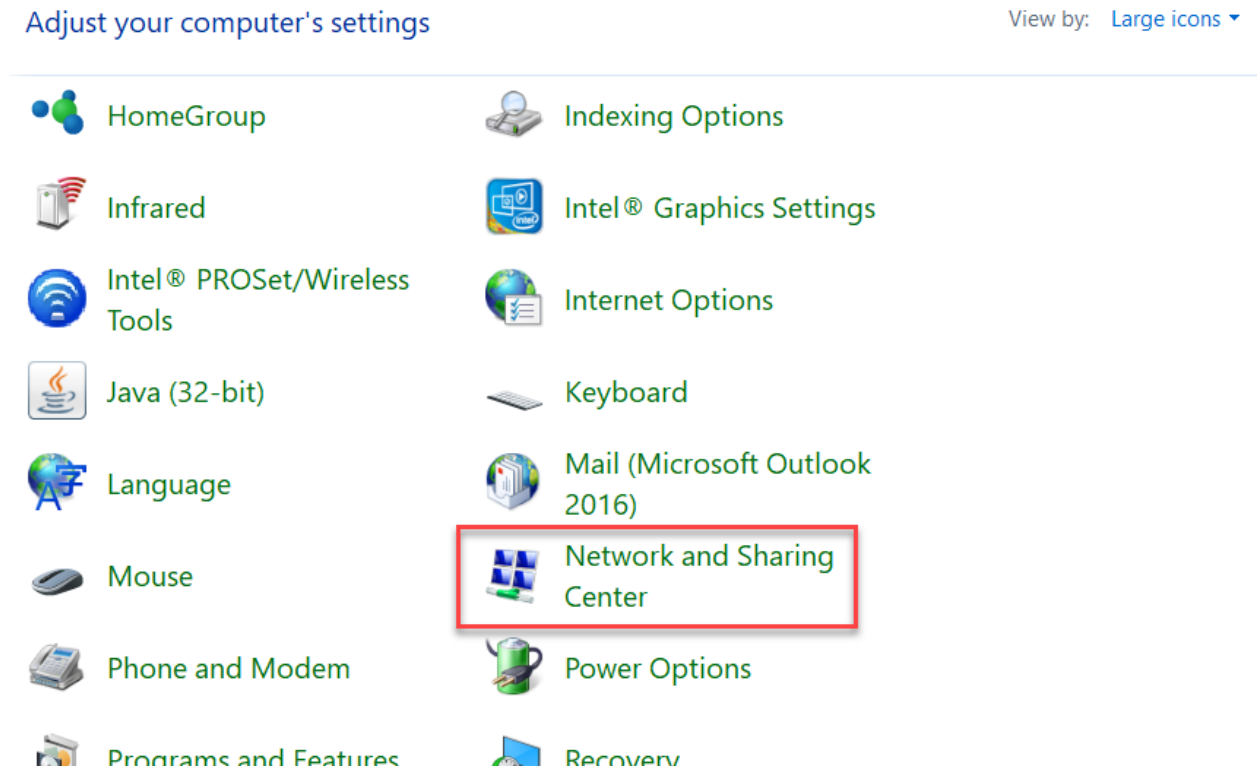
[Connect to GCC LaserPro DFS via Wireless](#)

4.1 Connect to GCC LaserPro DFS via Ethernet

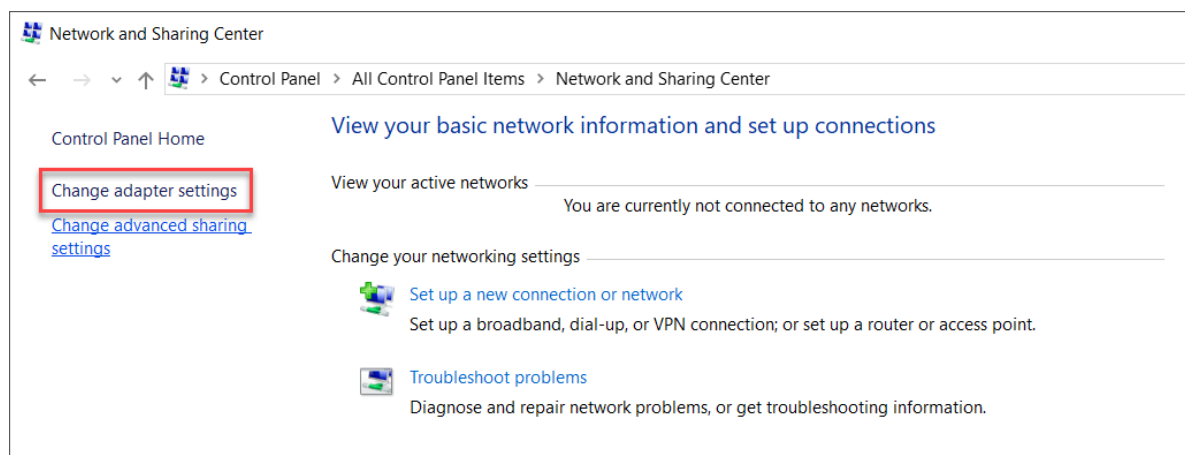
Follow procedures to connect Laptop / PC and GCC LaserPro DFS.

Connect to GCC LaserPro DFS via Ethernet

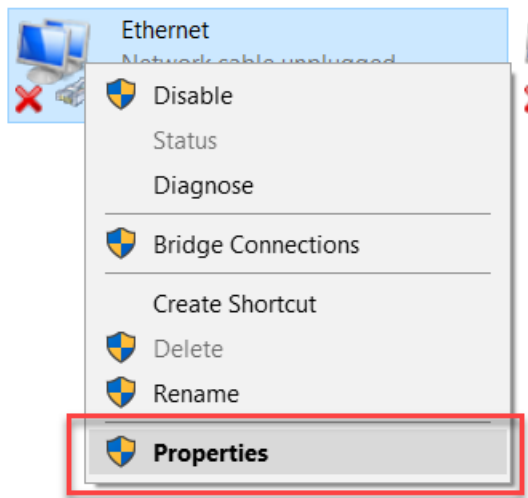
1. Launch “Control Panel” and select “Network and Sharing Center”



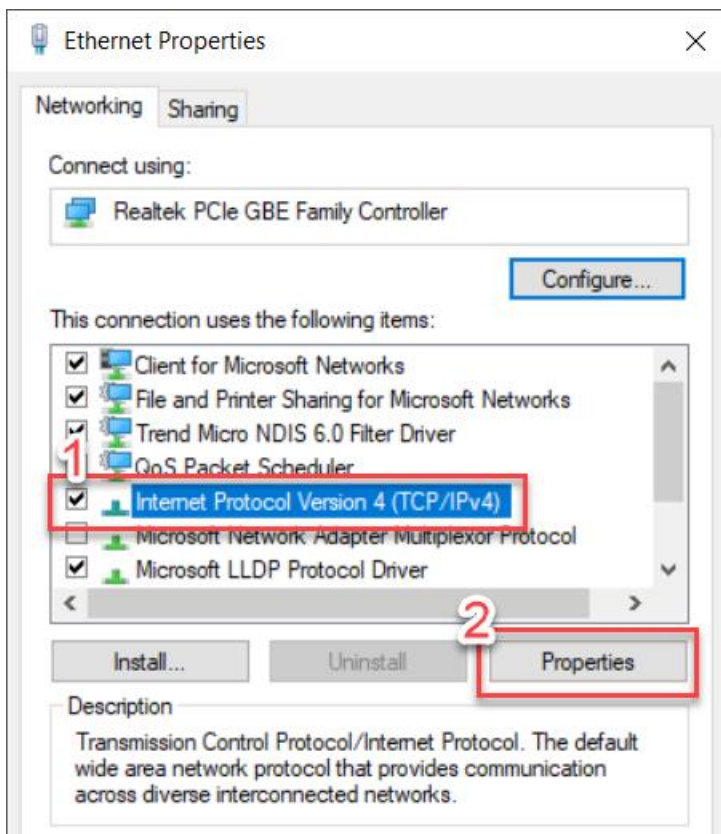
2. Click “Change adapter Setting” to launch “Network Connections” window



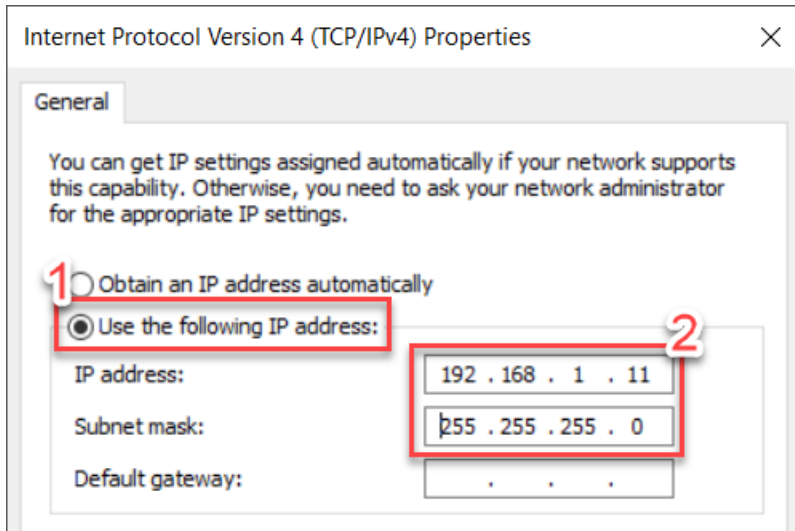
3. Right click the “Ethernet”, and then select “Properties” to launch “Ethernet Properties” window



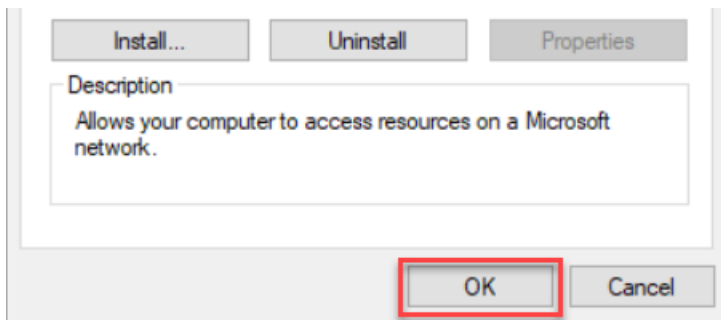
4. Click “Internet Protocol Version 4 (TCP/IPv4)”, and then click “Properties” to launch “Internet Protocol Version (TCP/IPv4) Properties” window



5. Select “Use the following IP address”, and then, input the IP address “192.168.1.11” and Subnet mask “255.255.255.0”

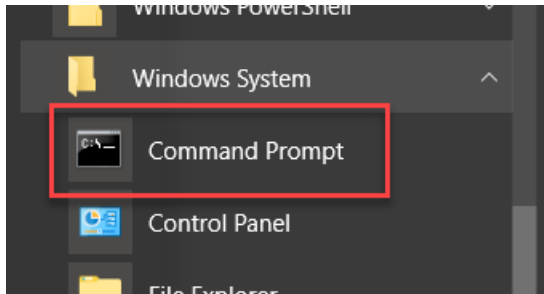


6. Click “OK” to close “Internet Protocol Version (TCP/IPv4) Properties” and “Ethernet Properties” window



7. Turn on the master power of the GCC LaserPro DFS

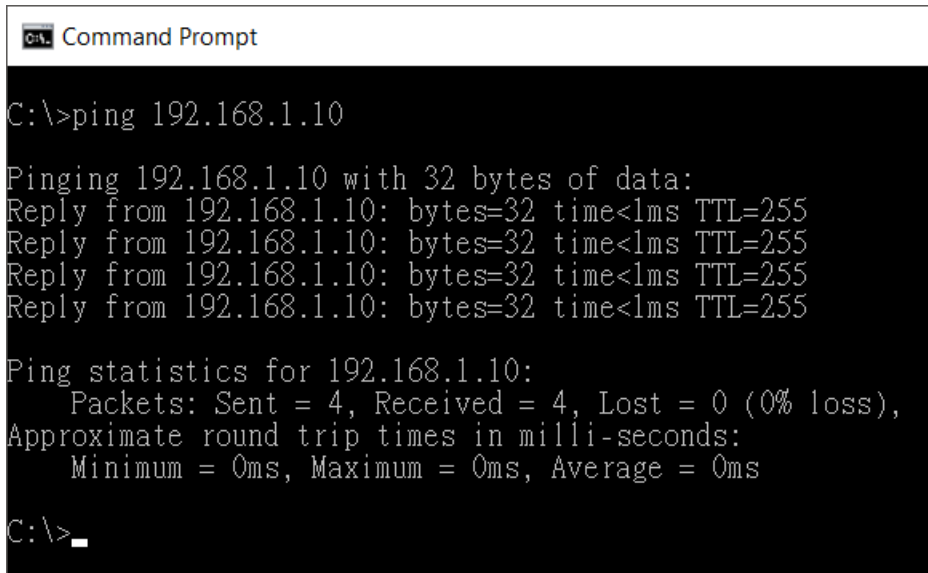
8. Click the “Start” button and find the “Windows System” folder from the list of apps and click it, and then click “Command Prompt” to launch the “Command Prompt” window



9. Typing “Ping 192.168.1.10” and hit the “Enter” key on your keyboard.



10. If the ping command has worked the command prompt should begin responding and you should see the reply in the command prompt window.

A screenshot of a Windows Command Prompt window titled 'Command Prompt'. The text shows a successful ping command: 'C:\>ping 192.168.1.10'. The output indicates that four packets were sent and received with 0% loss, and all round trip times were less than 1ms.

```
C:\>ping 192.168.1.10

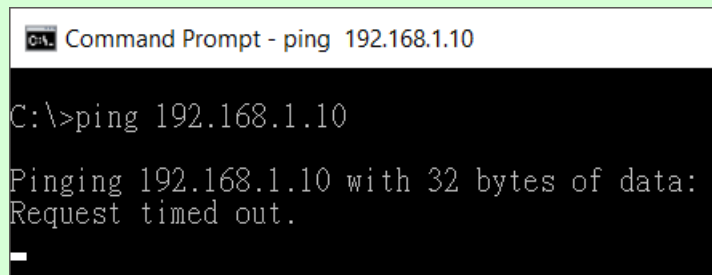
Pinging 192.168.1.10 with 32 bytes of data:
Reply from 192.168.1.10: bytes=32 time<1ms TTL=255
Reply from 192.168.1.10: bytes=32 time<1ms TTL=255
Reply from 192.168.1.10: bytes=32 time<1ms TTL=255
Reply from 192.168.1.10: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.1.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>_
```

NOTE

If the ping command has failed you will be advise that the “Request has timed out”.

A screenshot of a Windows Command Prompt window titled 'Command Prompt - ping 192.168.1.10'. The text shows a failed ping command: 'C:\>ping 192.168.1.10'. The output indicates that the request timed out.

```
C:\>ping 192.168.1.10

Pinging 192.168.1.10 with 32 bytes of data:
Request timed out.

_
```

Please repeat step 1 ~ Step 6 to make sure all the internet setting is correct.

11. Take out the Ethernet cable and two USB cable from accessory box, and then connect to the GCC LaserPro DFS and laptop / PC

NOTE

Please make sure both the USB port are 3.0, connect to USB 2.0 will cause the CCD fail to work.

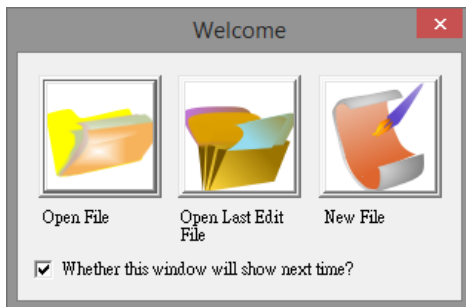


USB 2.0

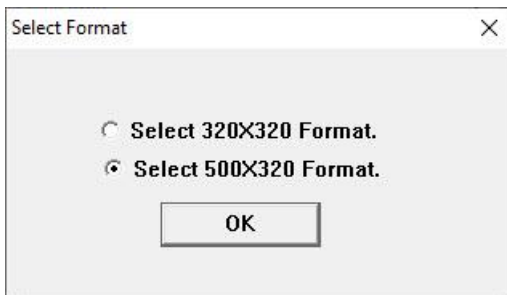


USB 3.0

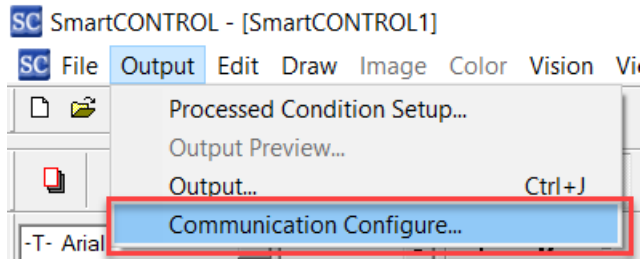
12. Launch SmartCONTROL™ DFS software program and click “New File” or “Open File” to open history file.



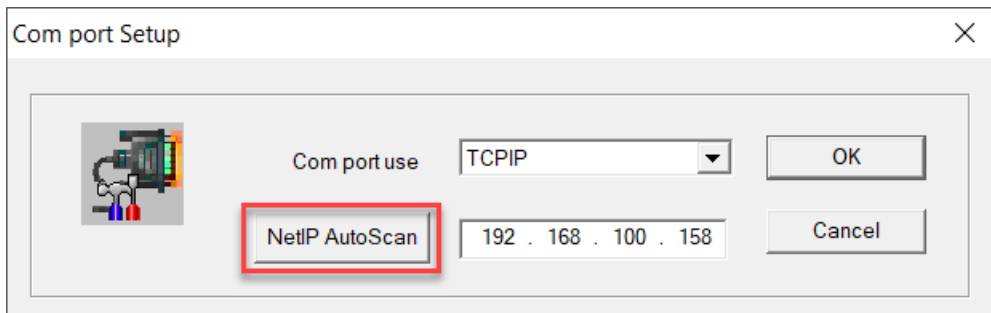
13. If you click “New File”, please select format for your file



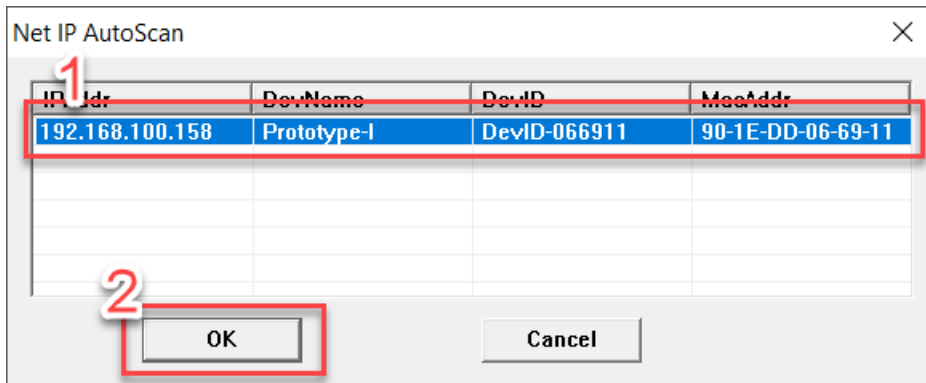
14. Go to “Output” in the Menu Bar and select “Communication Configure...” to launch “Com port Setup” window



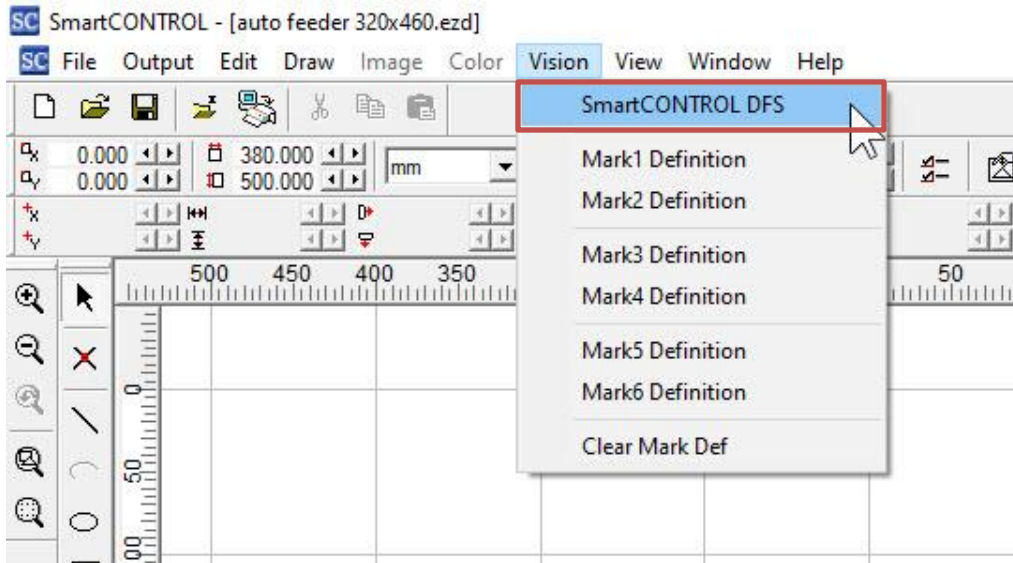
15. Click “NetIP AutoScan” to launch “Net IP AutoScan” window



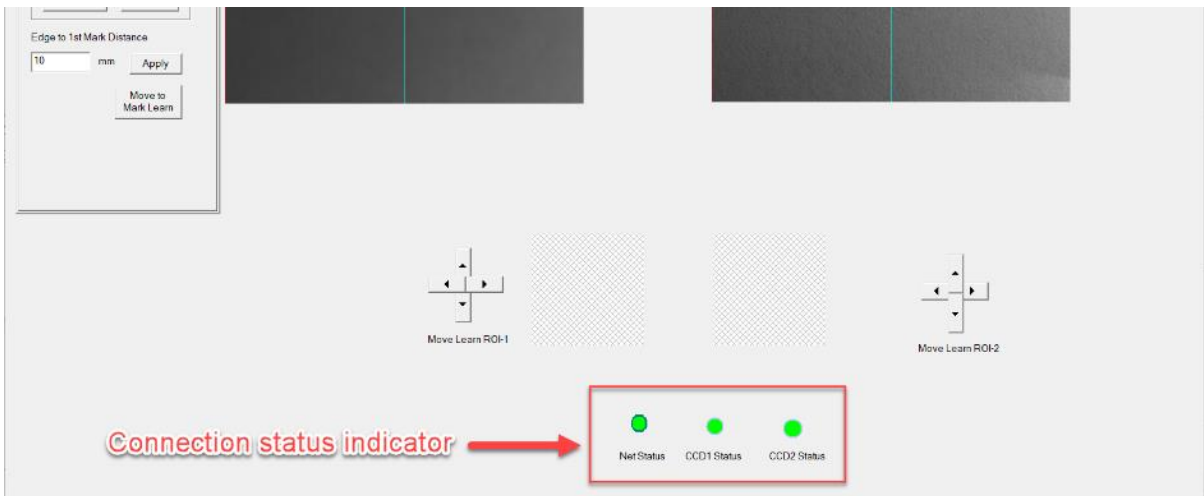
16. Select machine from the list and click OK button



17. Go to “Version” in the Menu Bar and select “SmartCONTROL DFS” to launch “SmartCONTROL DFS” window

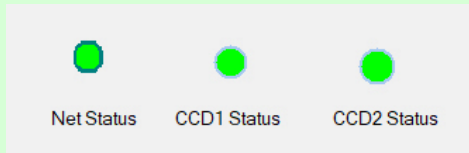


18. Make sure connection status indicator shows **green** for “Net Status”, “CCD 1 Status” and “CCD 2 Status”.

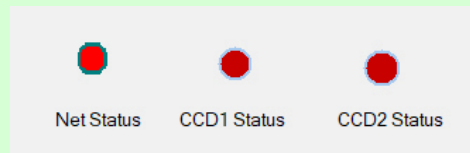


NOTE

If the connection status indicator shows red, please reconnect the two USB cable or check network setting and make sure “Net Status” green light is on and the “CCD 1 status” and “CCD 2 status” green light is blinking.



▲ Successful Connection



▲ Incorrect Connection

Incorrect connection may cause the GCC LaserPro DCP fail to work.

4.2 Connect to GCC LaserPro DFS via Wireless

1. Connect GCC LaserPro DFS to a router or gateway.
2. Connect laptop / PC to the same wi-fi or router

NOTE

For the correct connection, please make sure GCC LaserPro DCP and laptop / PC are connected to the same local network.

3. Take out the two USB cable from accessory box, and then connect to the GCC LaserPro DFS and laptop / PC.

NOTE

Please make sure both the USB port are 3.0, connect to USB 2.0 will cause the CCD fail to work.

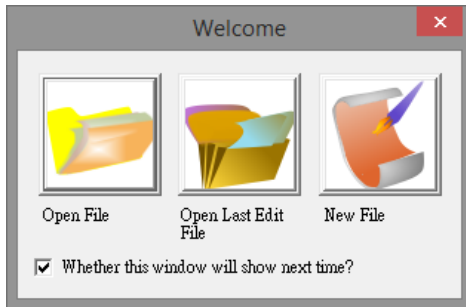


USB 2.0

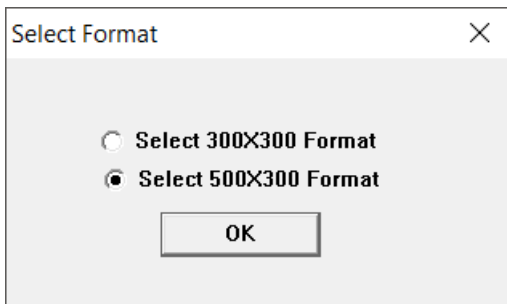


USB 3.0

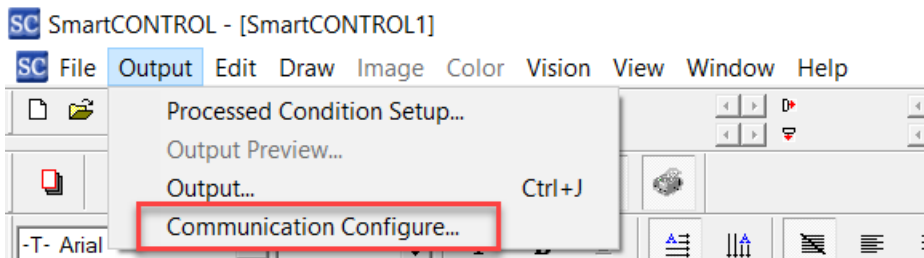
4. Launch SmartCONTROL™ DFS software program and click “New File” or “Open File” to open history file.



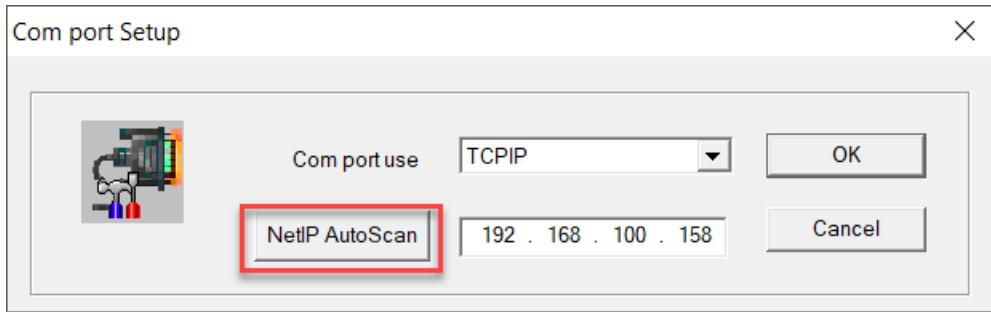
5. If you click “Open File”, please select format for your file



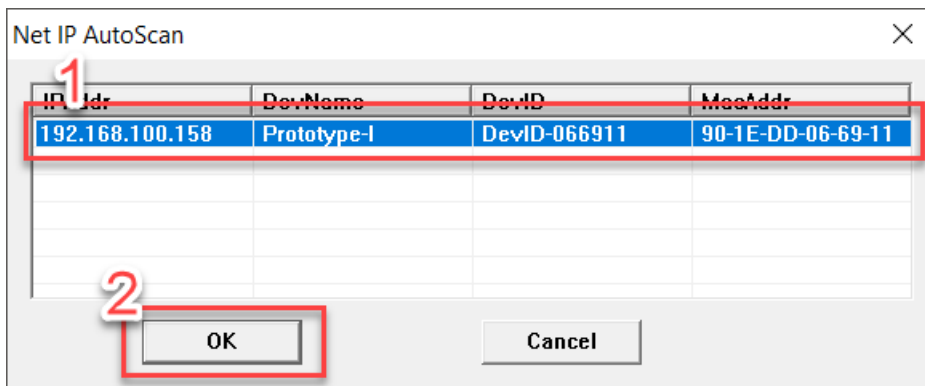
6. Go to “Output” in the Menu Bar and select “Communication Configure...” to launch “Com port Setup” window



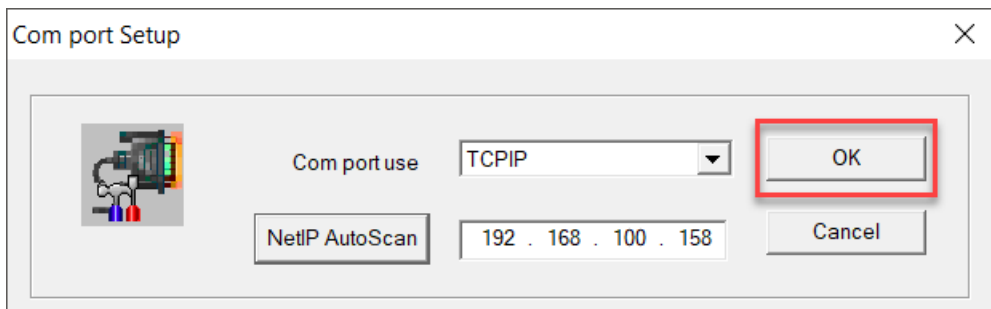
7. Click "NetIP AutoScan" to launch "Net IP AutoScan" window



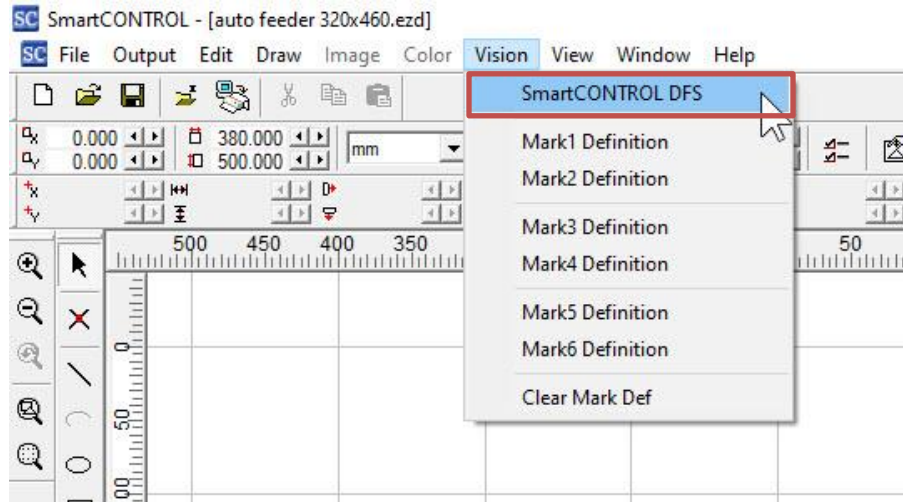
8. Select machine from the list and click OK button



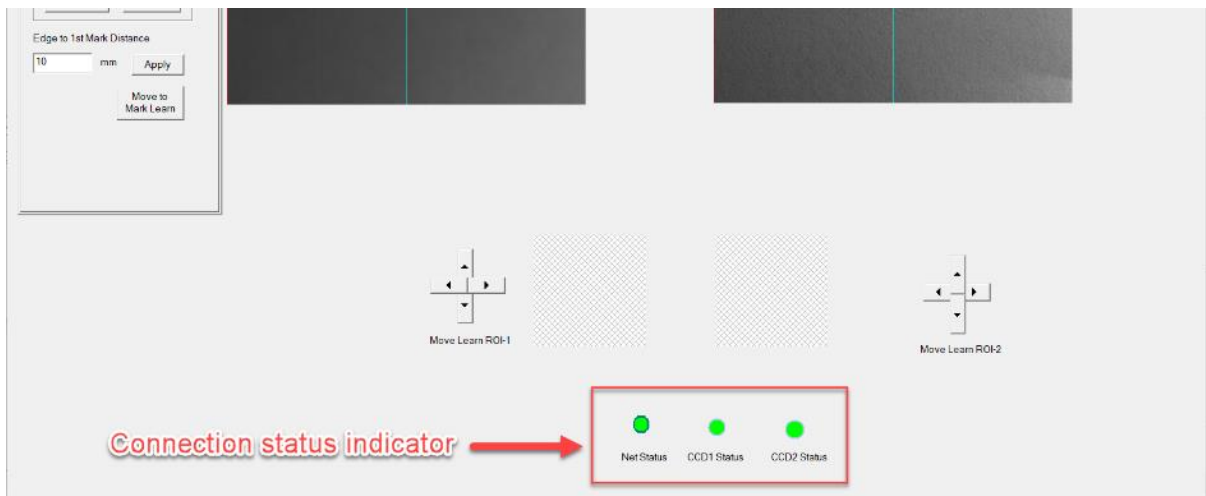
9. Click OK button to close the Com port setup window



10. Go to “Vision” in the Menu Bar and select “SmartCONTROL DFS”.

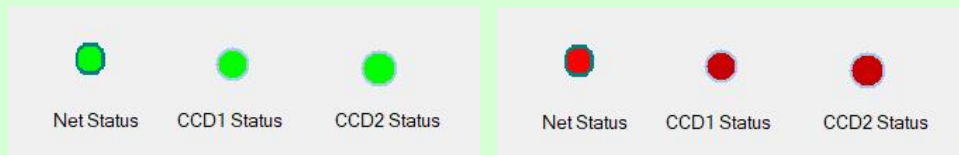


11. Make sure connection status indicator shows **green** for “Net Status”, “CCD 1 Status” and “CCD 2 Status”.



NOTE

If the connection status indicator shows red, please reconnect the two USB cable or check network setting and make sure “Net Status” green light is on and the “CCD 1 status” and “CCD 2 status” green light is blinking.



▲ Successful Connection

▲ Incorrect Connection

Incorrect connection may cause the GCC LaserPro DCP fail to work.

Chapter 5

Operating the GCC LaserPro DFS

Stack Light Installation

Running the SmartCONTROL™ DFS

Convert and Import File

GCC LaserPro DFS Registration Marks Generator

SmartCONTROL DFS Operating – Single Mode

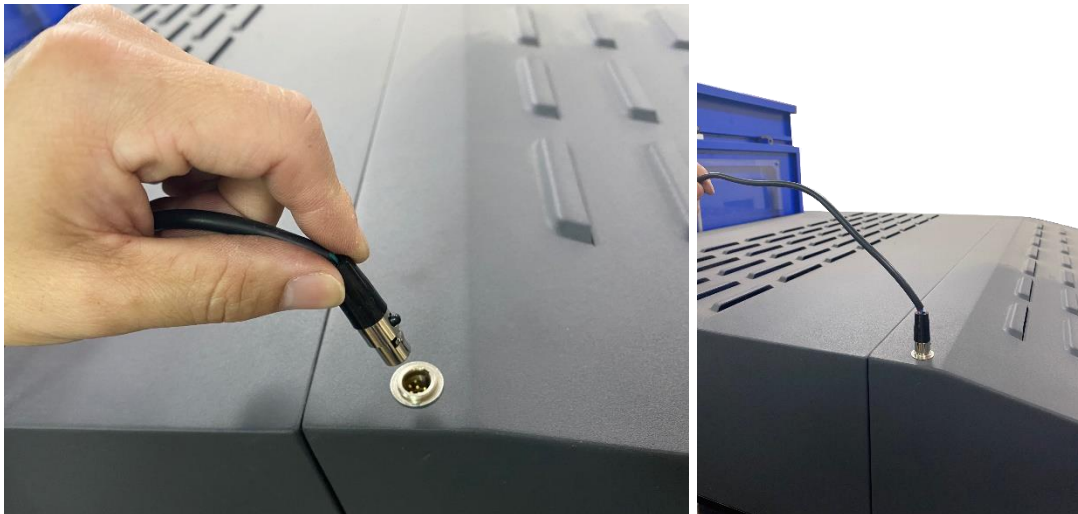
SmartCONTROL DFS Operating – Production Mode

Vector Engraving function

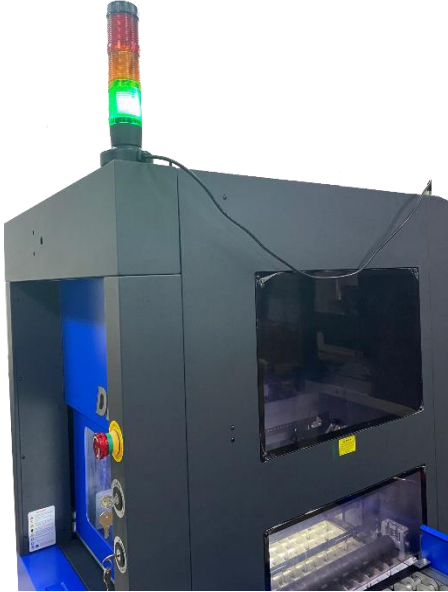
5.1 Stack Light Installation



1. Plug the stack light to this port which is located on the top right side of machine.



2. Put the warning light on top of DFS machine, it will help to show the current state of the machine without standing beside DFS.



Red light: stands for error messages

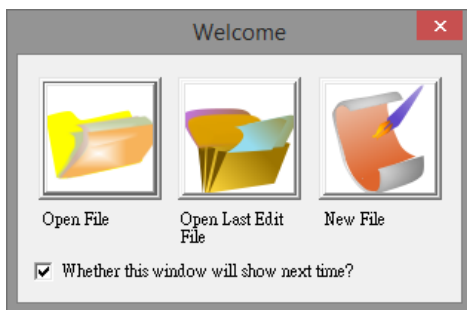
Yellow light: when machine is working

Green light: while machine is stand-by for laser engraving/cutting

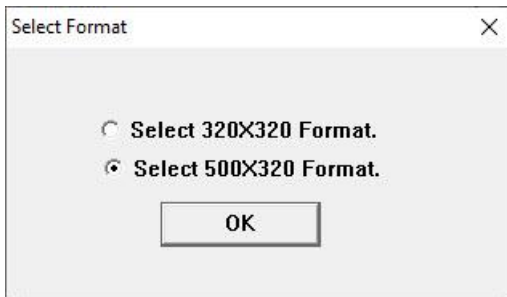
* Buzzer Module will make sound while red light is on.

5.2 Running the SmartCONTROL™ DFS

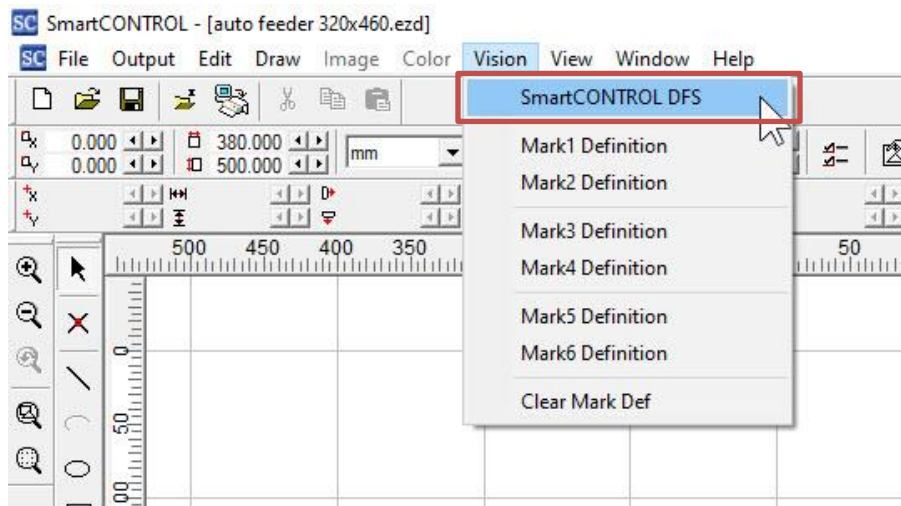
3. Launch SmartCONTROL™ DFS software program and click “New File” or “Open File” to open history file.



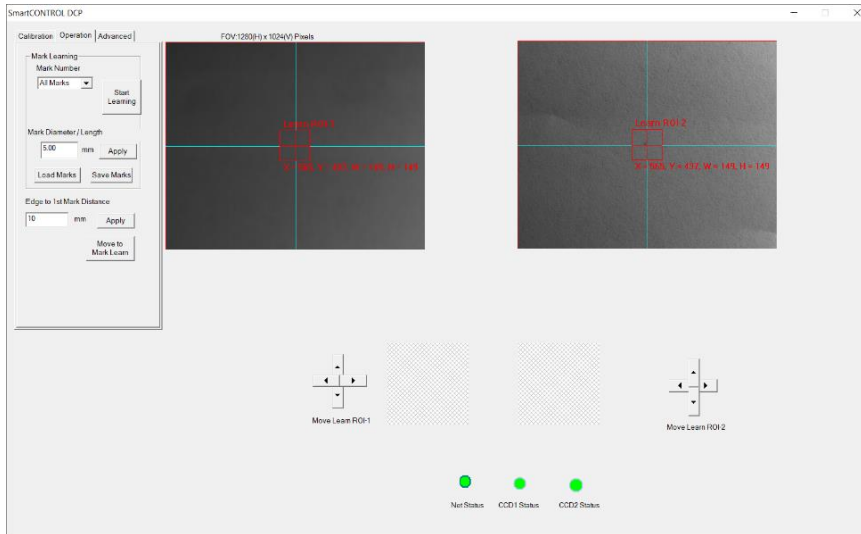
4. If you click “New File”, please select a format according to your file.



5. Go to “Vision” in the Menu Bar and select “SmartCONTROL DFS”.



6. Make sure connection status indicator shows **green** for “Net Status”, “CCD 1 Status” and “CCD 2 Status” and then live window.



5.3 Convert and Import File

For the best output quality, we recommend you convert the graphic file to PRN or PLT format via SmartCONTROL™ print driver from the graphics software (e.g. CorelDRAW / AutoCAD). SmartCONTROL™ print driver will install to your computer automatically when you installed SmartCONTROL™ software.

5.2.1 Convert file from CorelDRAW

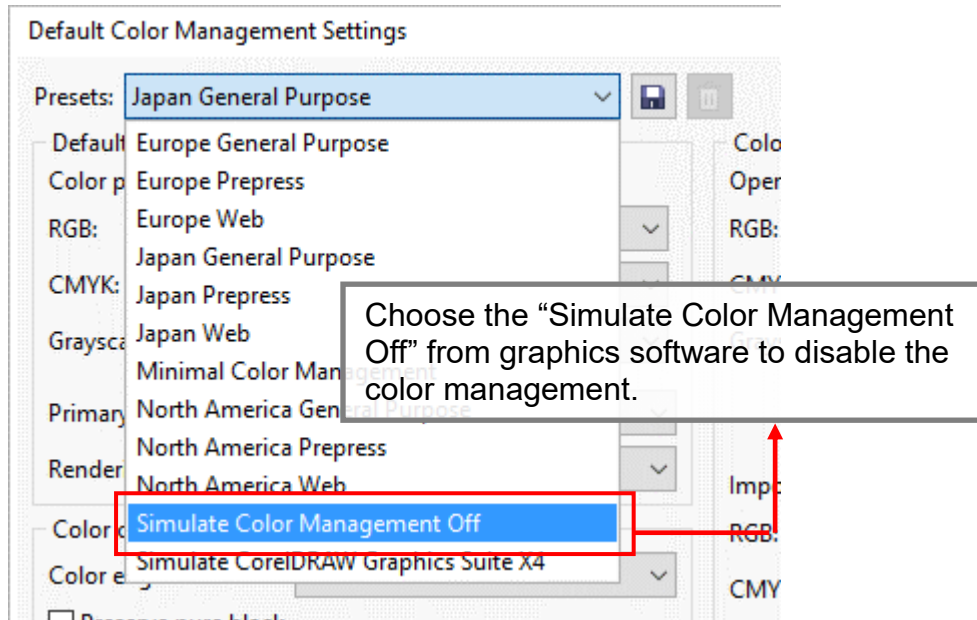
Before converting the graphic file, please make sure Color Management is disabled and the Page Size fits to SmartVISION™ Pro CCD under graphic software.

CorelDRAW Example (Color Management)

The following is an example of how to properly disable Color Management in the graphics software. CorelDRAW is the designated graphics software used for this example. For other graphics software, you will need to access the corresponding Color Management page.

- 1) From the primary menu, click Tools → Color Management → Default Settings... and CorelDRAW's Default Color Management Settings will appear.

- 2) Under the Present pull down menu, select Simulate Color Management Off.



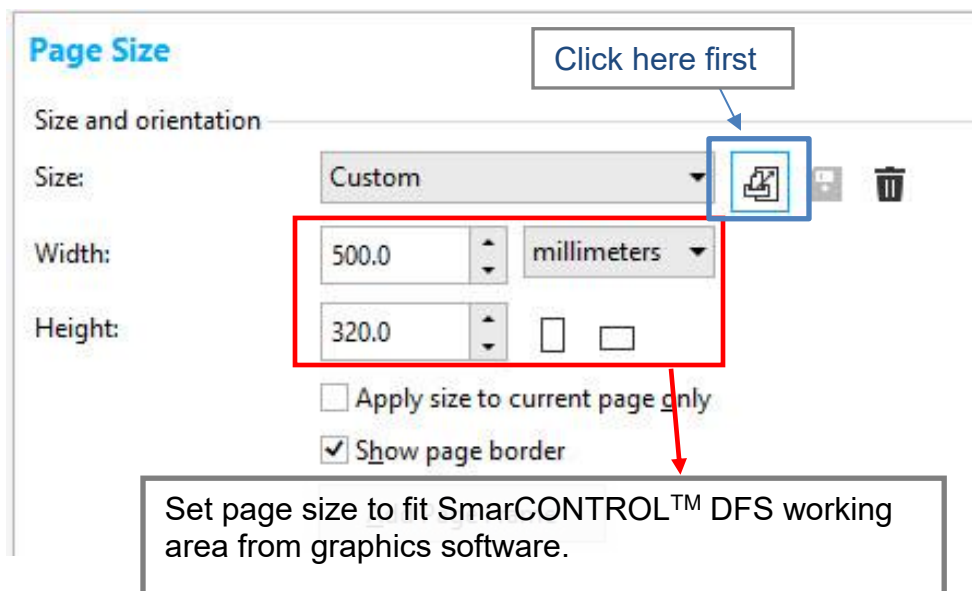
- 3) Click OK to complete the color management adjustments.

From your graphic software's Page Setup page:

CorelDRAW Example (Page Setup and Orientation)

The following is an example of how to set the Page Setup and Orientation in the graphics software. CorelDRAW is the designated graphics software used for this example. For other graphics software, you will need to access the corresponding Page Setup page.

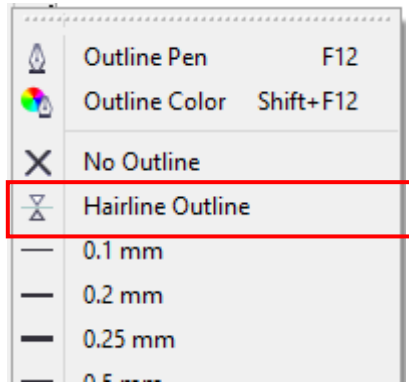
- 1) From the primary menu, click Layout → Page Setup.
- 2) From the navigation bar on the left, click Document → Page → Size.
- 3) Ensure that LANDSCAPE is selected.
- 4) Input the size of Width and Height dimensions to match the LaserPro DFS work area dimensions.



- 5) Click OK to end the paper size adjustment.

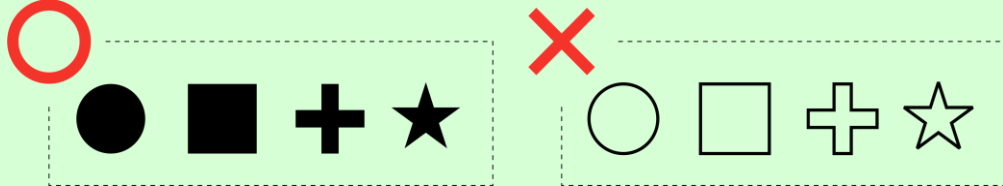
Here we use CorelDraw as illustration of how to convert a file.

- 1) Select all the designed objects and set the outline to hairline from tool bar in the graphics software.



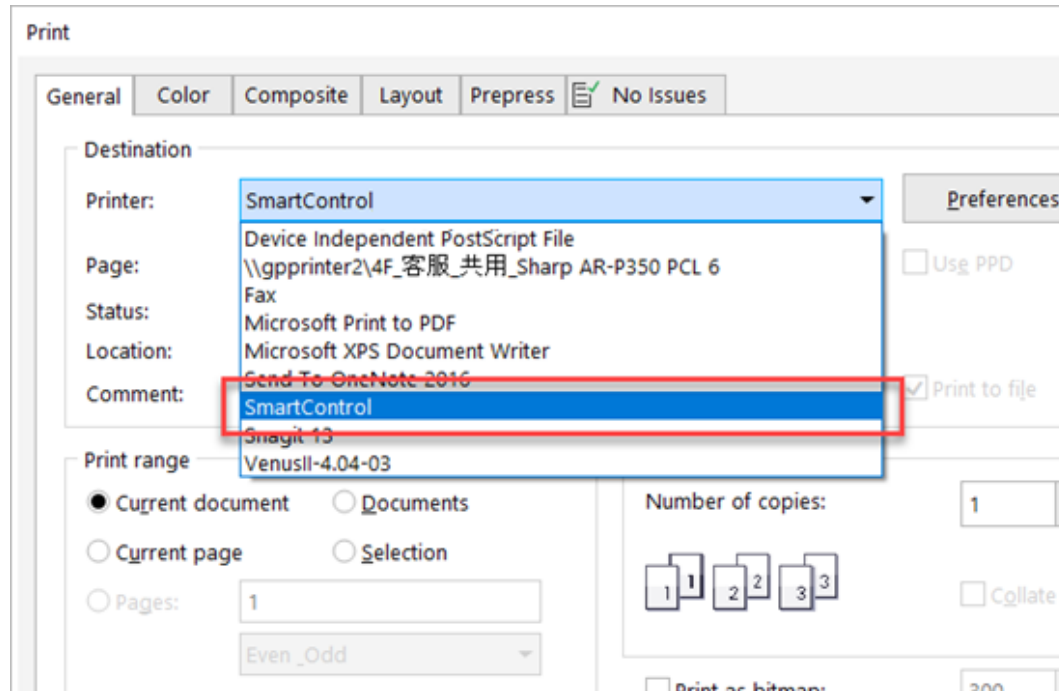
NOTE

- SmartCONTROL™ DFS will automatically define all the mark. Make sure all the registration marks are the same type and filled before converting the graphic file to prn format.

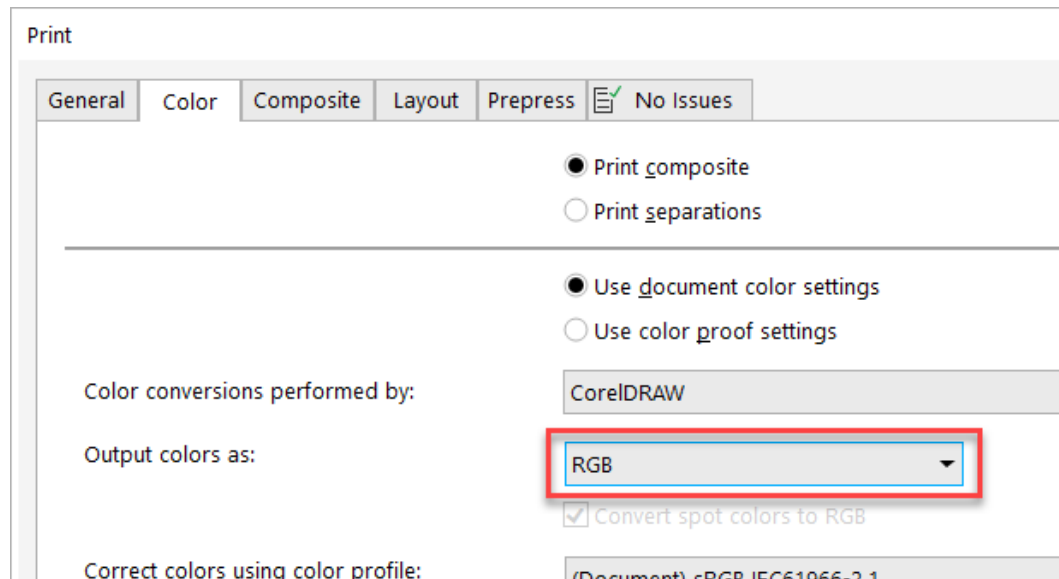


- 2) From the primary menu in graphics software, click File → Print... and the Print window will appear.

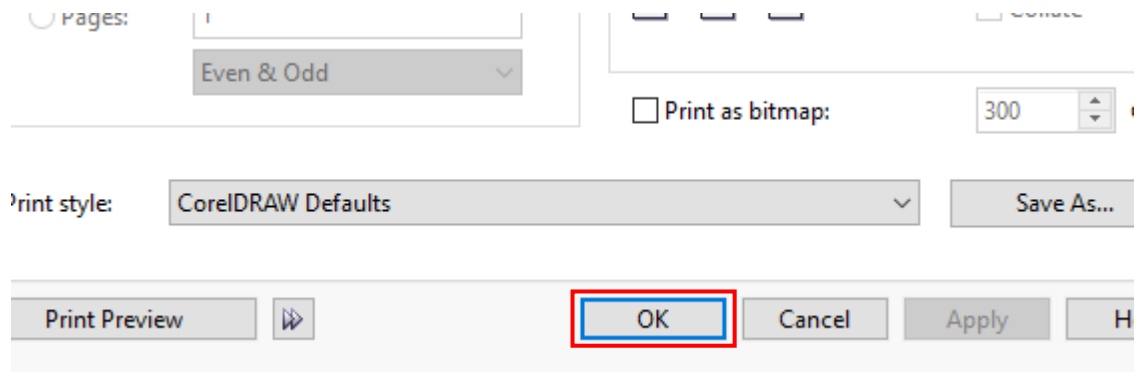
3) From the drop-down menu of Printer, select “SmartCONTROL”



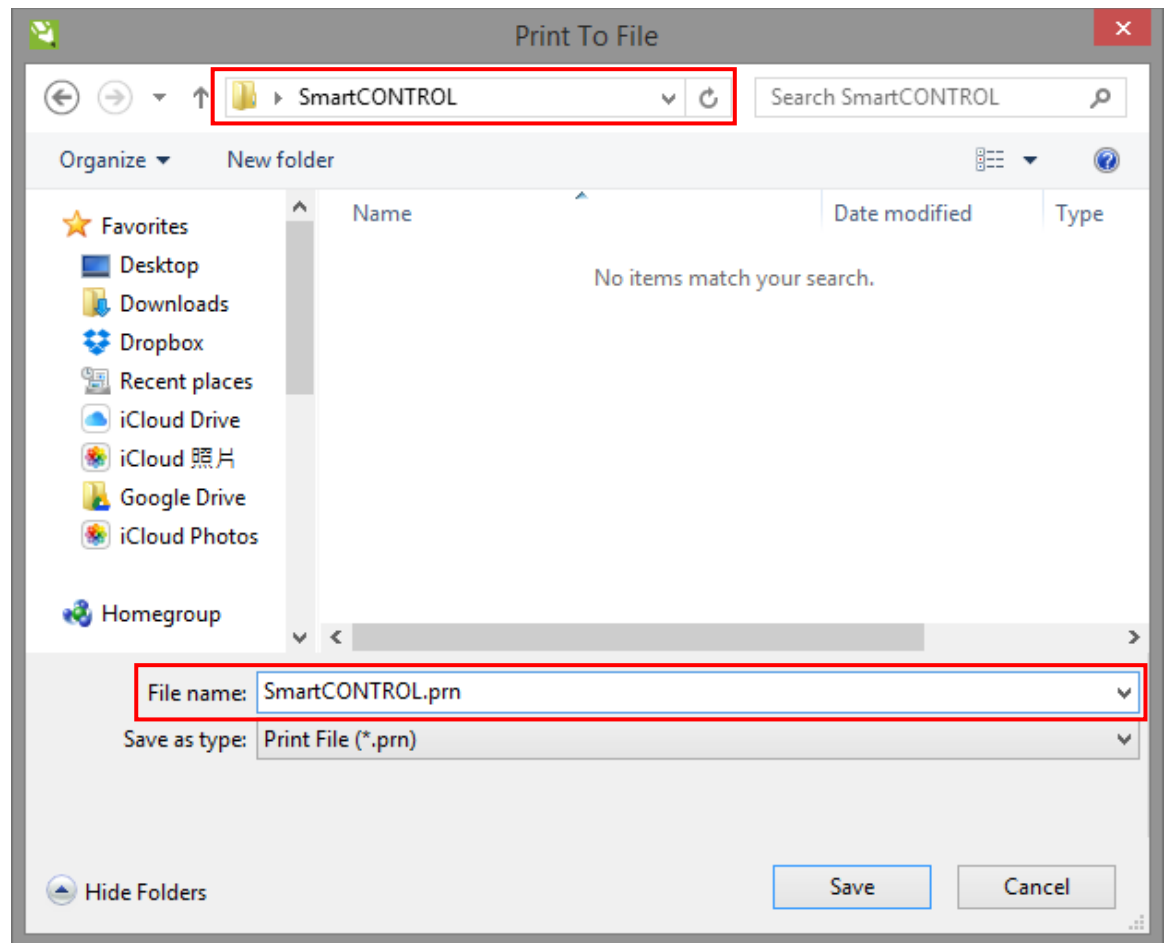
4) Click “Color” tab and then select “RGB” from the drop-down menu of Output colors as:”.



5) Click “OK” and Print To File window will appear

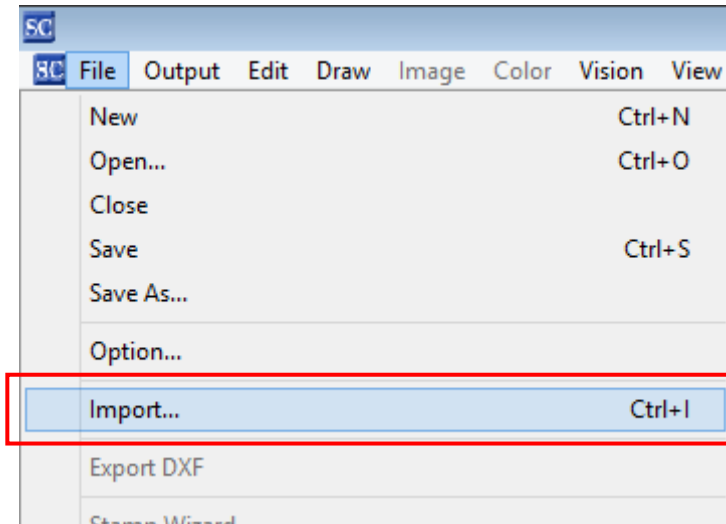


6) Select the save folder and define file name, then click “Save” to convert

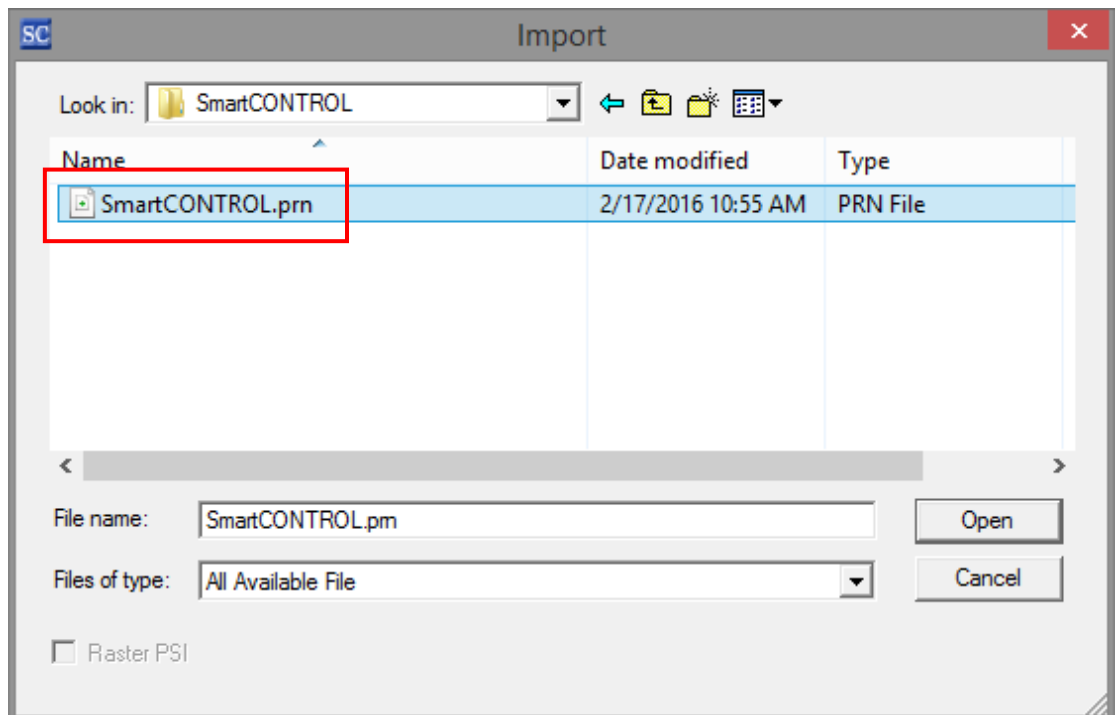


7) Close the graphics software (here is Corel Draw) and open the SmartCONTROL™ Software.

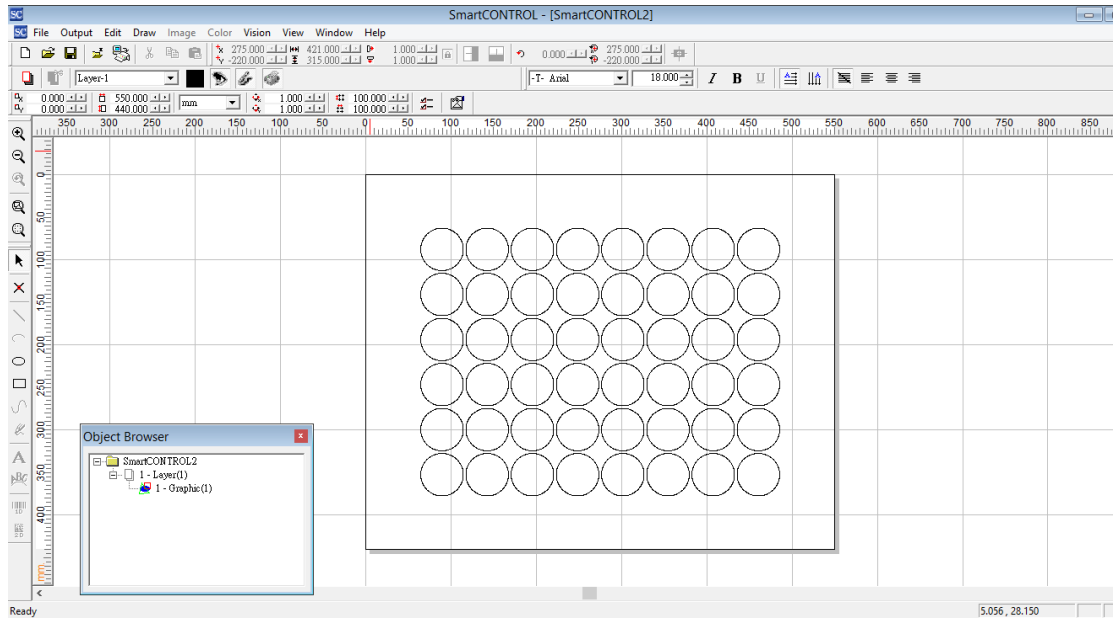
8) Click “File” → “Import”



9) Select the converted file and click “Open” to import the saved file to SmartCONTROL™

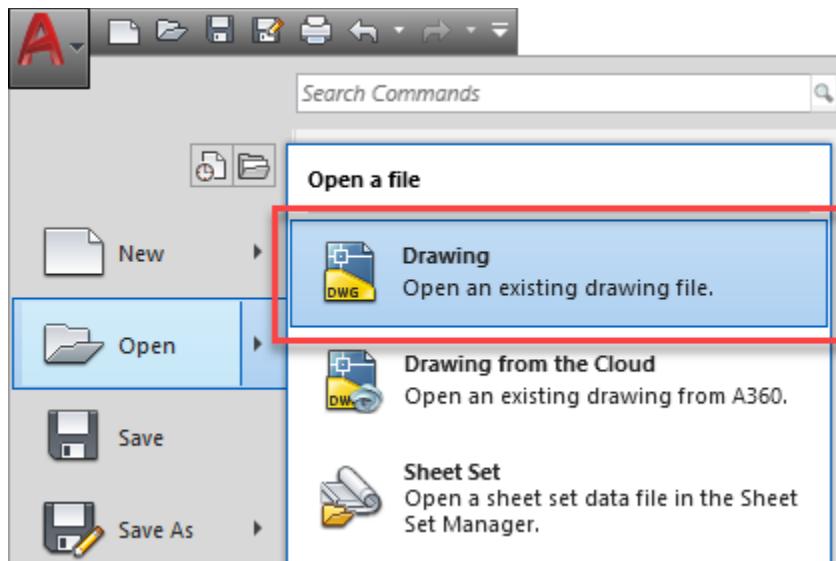


10) File import is completed.

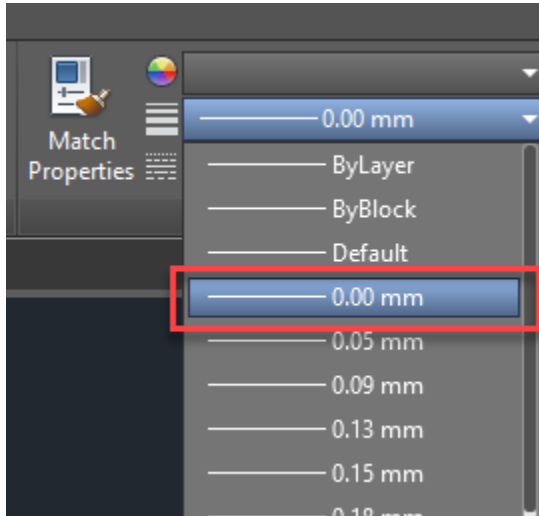


5.2.2 Convert file from AutoCAD

1) Click AutoCAD icon → Open → Drawing from the top-left corner to open the file.



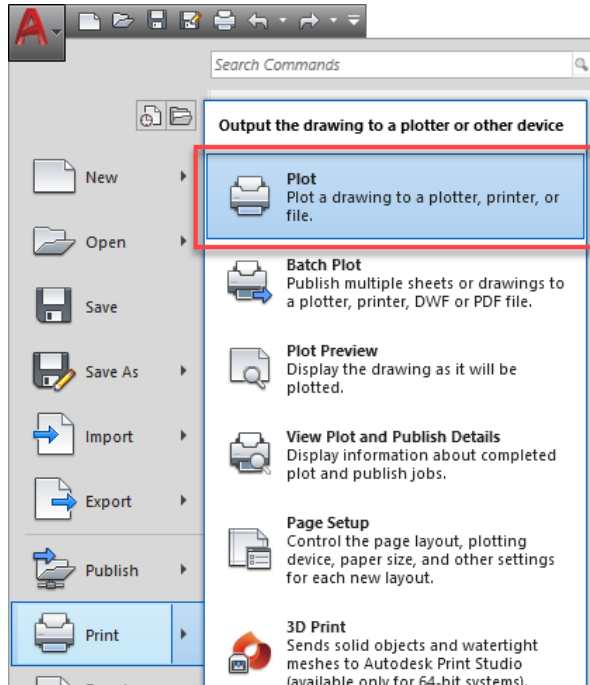
- 2) Select all the design objects and set the lineweights to 0.00mm from the properties tool in AutoCAD.



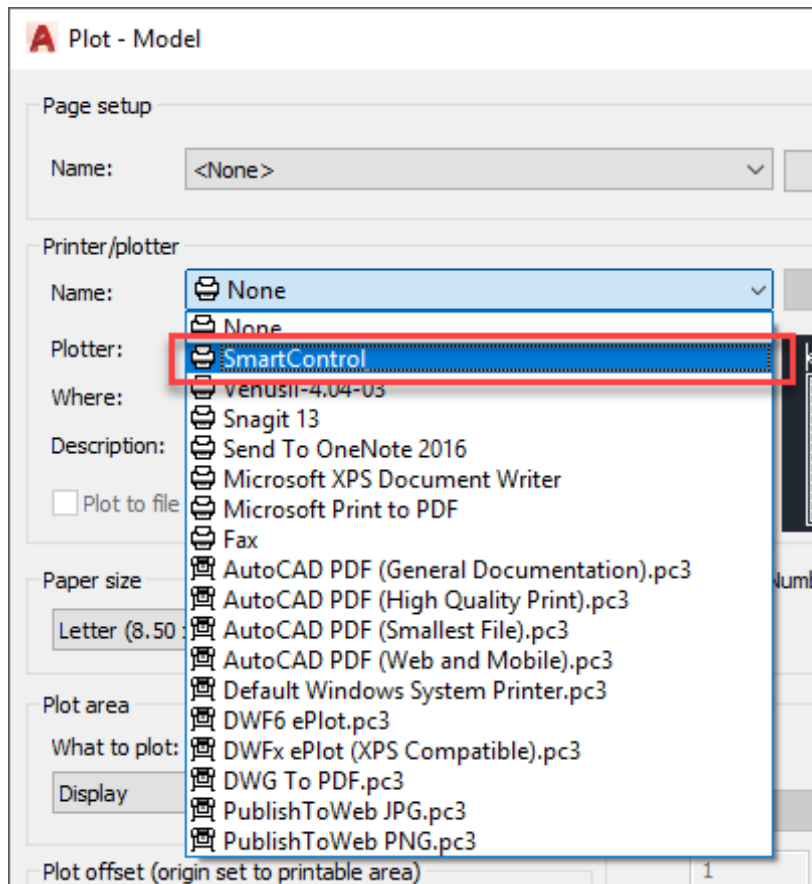
NOTE

- Please make sure all the lineweights have been set as 0.00mm, incorrect lineweights may cause the fail to import.

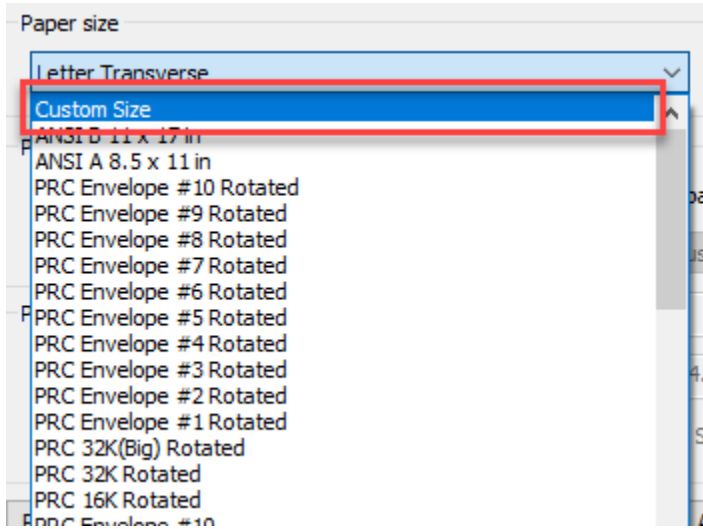
- 3) Click AutoCAD icon → Print → Plot from the top-left corner, and the plot window will appear.



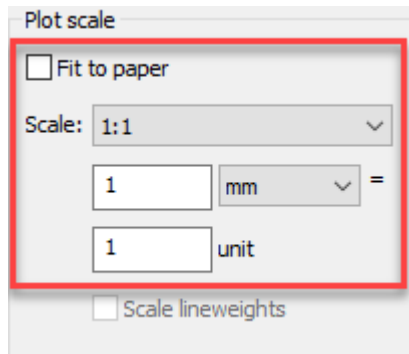
4) From the drop-down menu of Printer, select "SmartCONTROL"



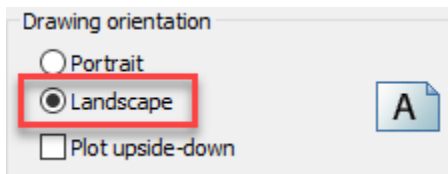
5) From the drop-down menu of Paper Size, select Custom Size



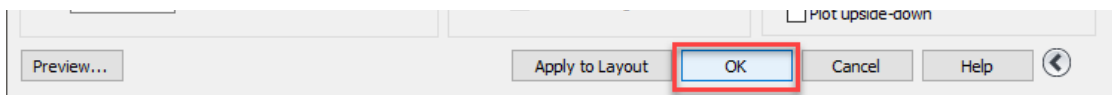
6) Uncheck the box of “Fit to paper” and select the 1:1 from the drop-down menu of Scale



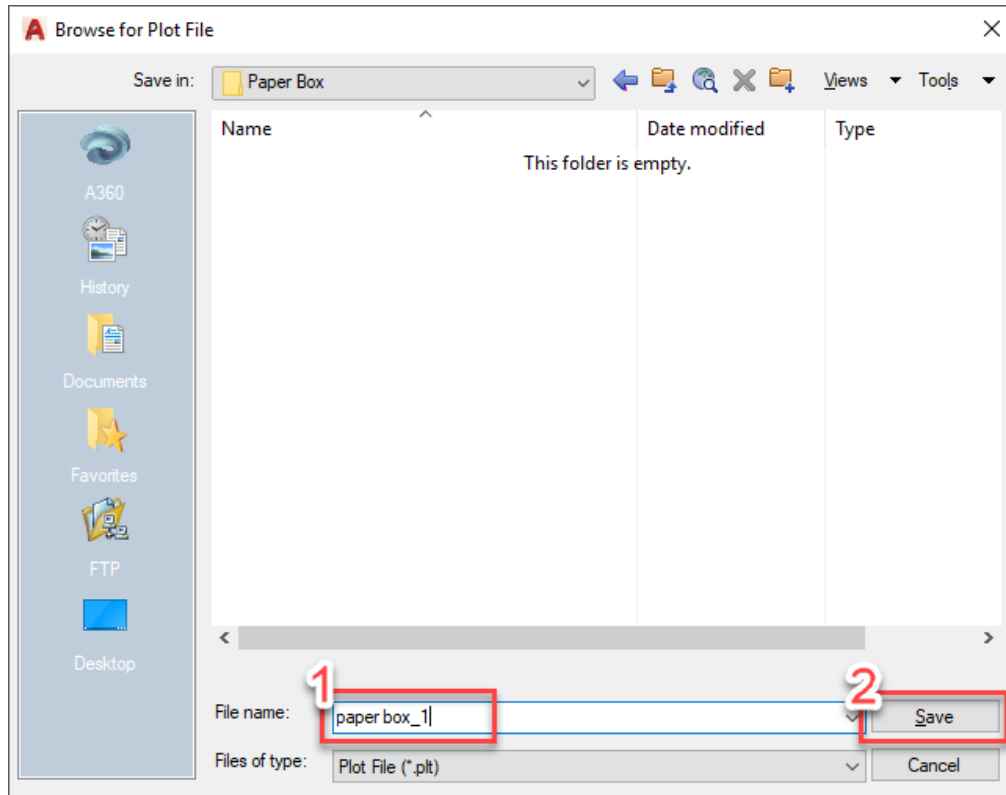
7) Set the Drawing orientation to Landscape



8) Click “OK” and the Browse for Polt File window will appear

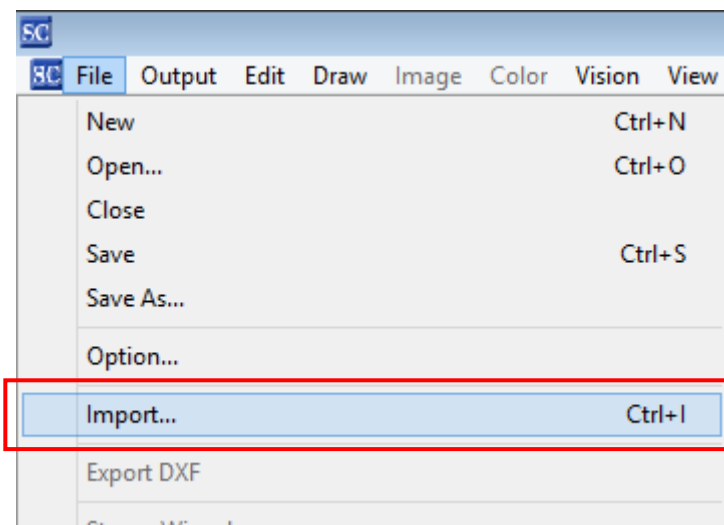


9) Select the save folder and define file name, then click “Save” to convert

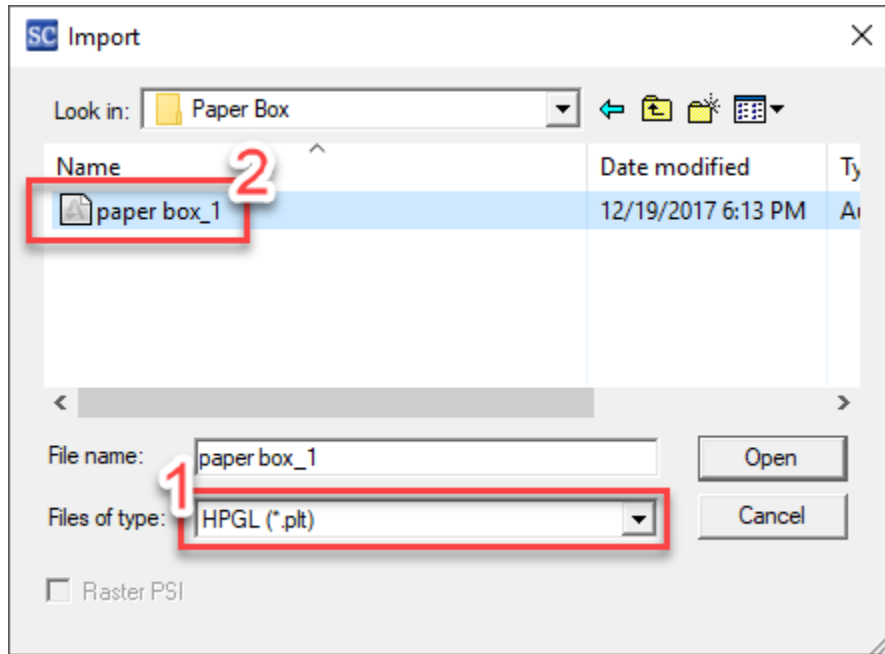


10) Close the AutoCAD program and open the SmartCONTROL™ Software.

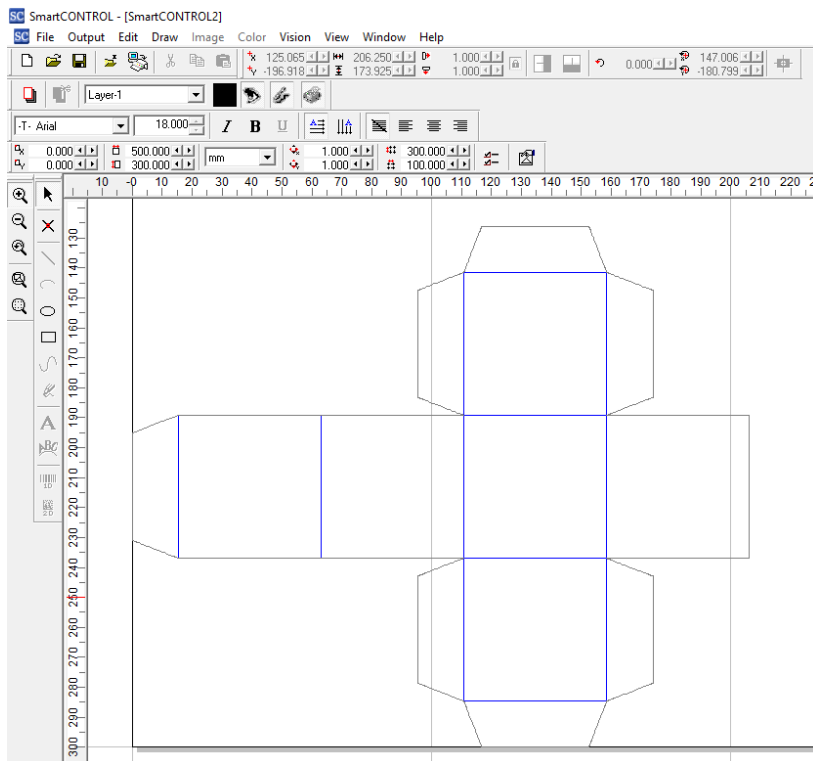
11) Click “File” → “Import”



12) Select HPGL (*.plt) format from the drop-down menu of Files of type, and then select the file to import.



13) File import is completed.

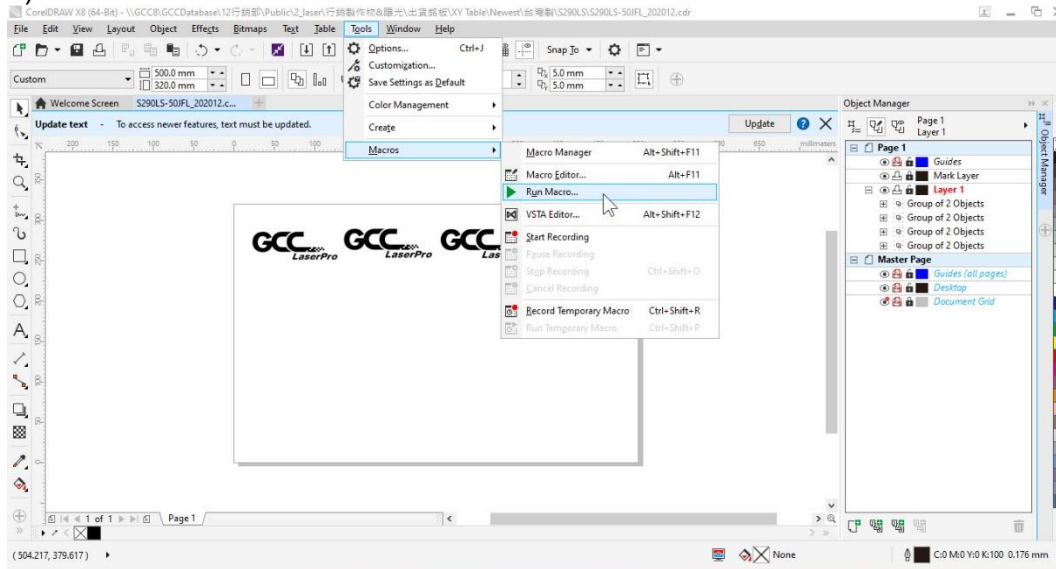


5.4 GCC LaserPro DFS Registration Marks Generator

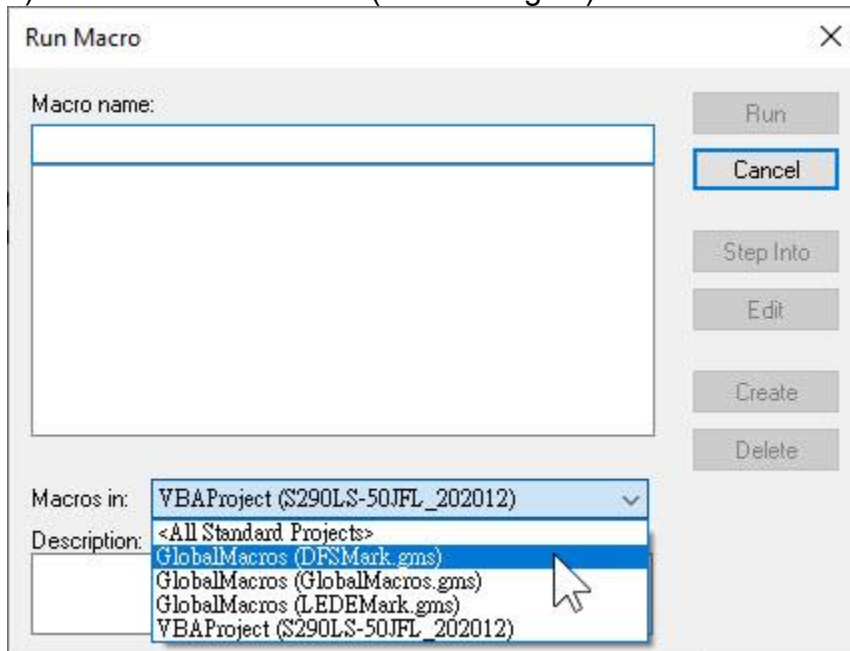
DFS Marks Generator is a script (plug-in) for Adobe Illustrator and CorelDRAW that allows users to create the registration marks directly. The script will be installed on your computer when you installed the SmartCONTROL DFS.

Following take CorelDRAW as an example:

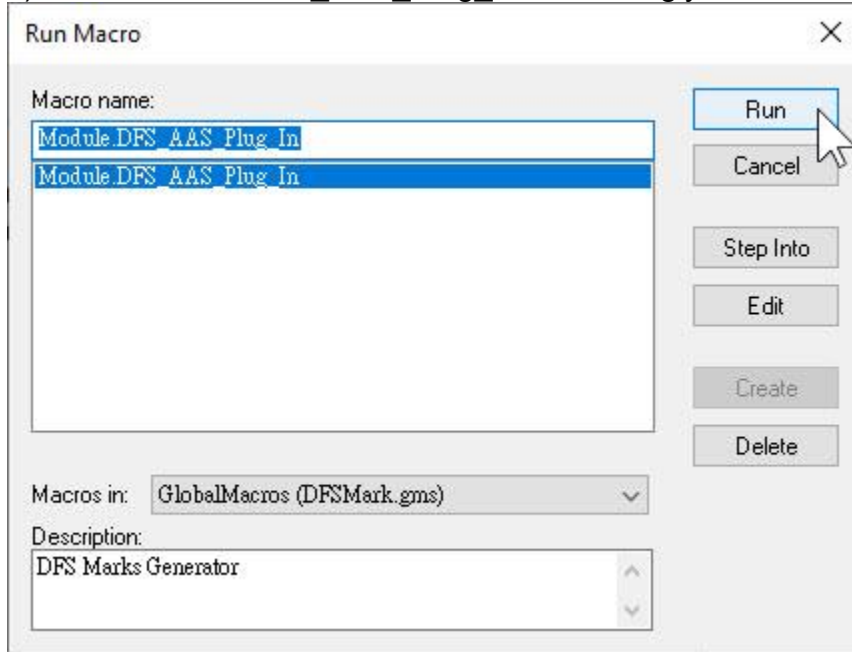
- 1) Open Corel DRAW and open/import the file that you are going to add registration marks.
- 2) Go to Tools > Marcos > Run Marco



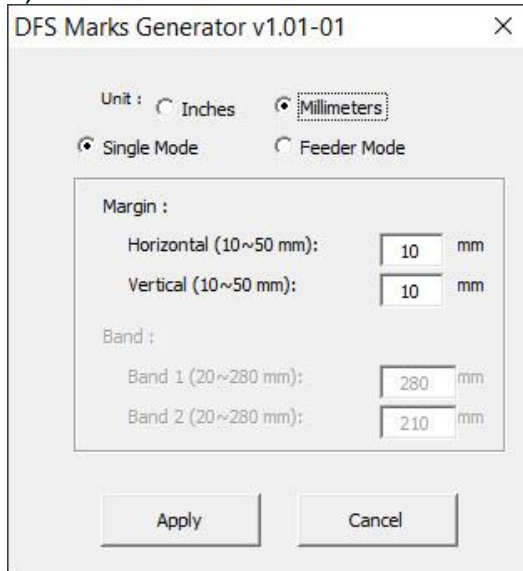
- 3) Select "GlobalMacros (DFSMark.gms)"



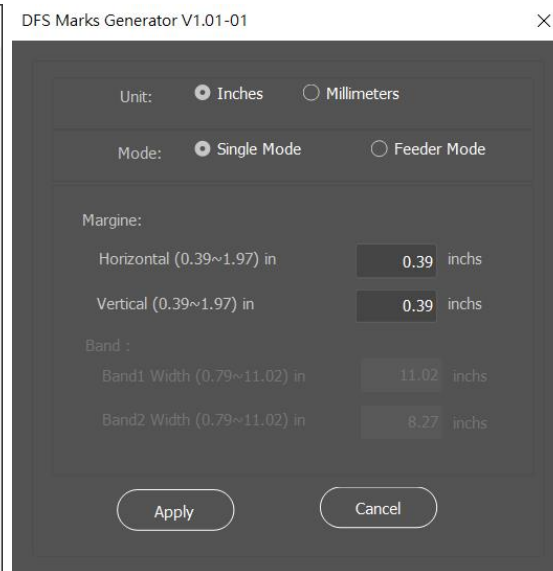
4) Run “Module.DFS_AAS_Plug_In” accordingly



5) DFS Marks Generator user interfaces:



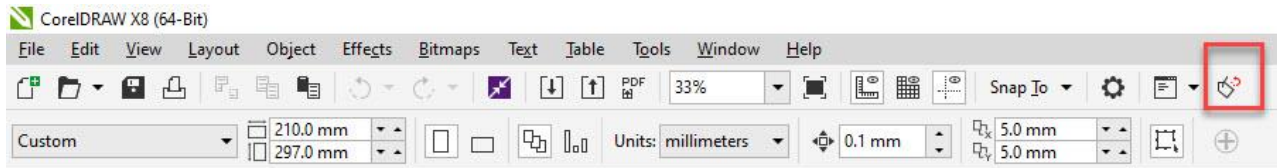
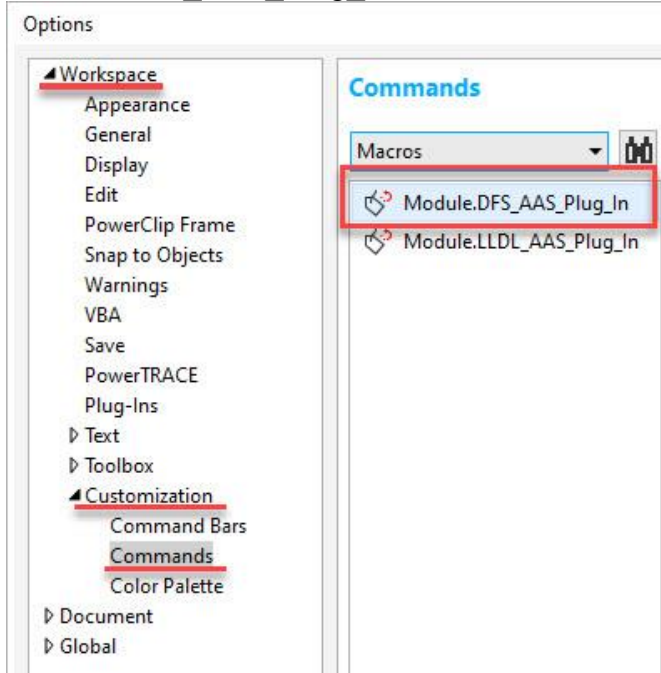
▲ User interface of CorelDRAW



▲ User interface of Adobellustrator

You can also add a Hot Icon for DFS Marks Generator

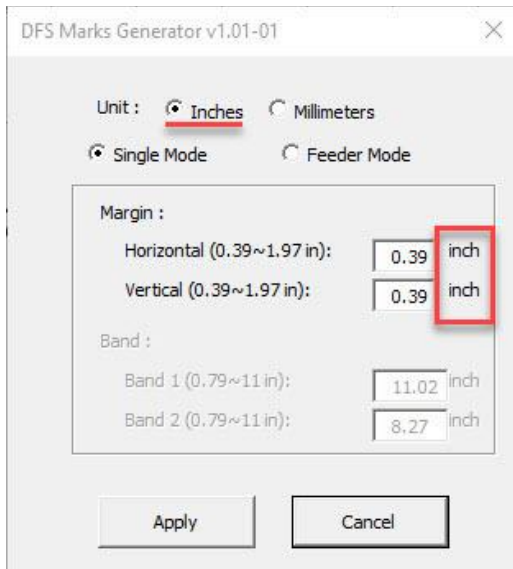
Select “Tools→ Options→ Workspace→ Customization→ Commands→ Macros→ Madual.DFS_AAS_Plug_In” and Click OK.



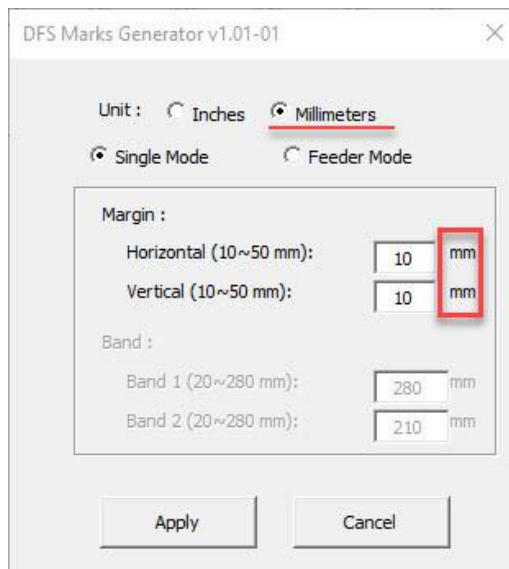
Unit

Set the imperial units or metric systems as your preference.

Inches

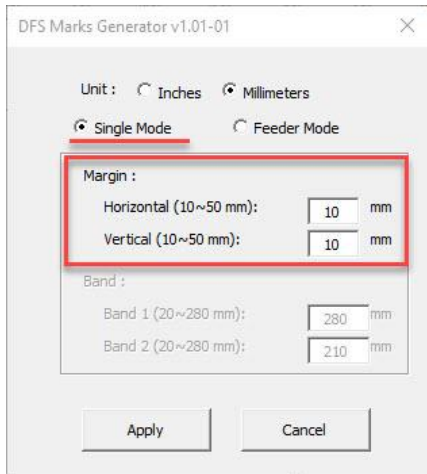


Millimeters



Single Mode/Feeder Mode

Set Single-mode or Feeder mode according to your demand. Single mode will appear two registration marks on the right side of the object. Feeder mode will appear six registration marks to cover whole object.

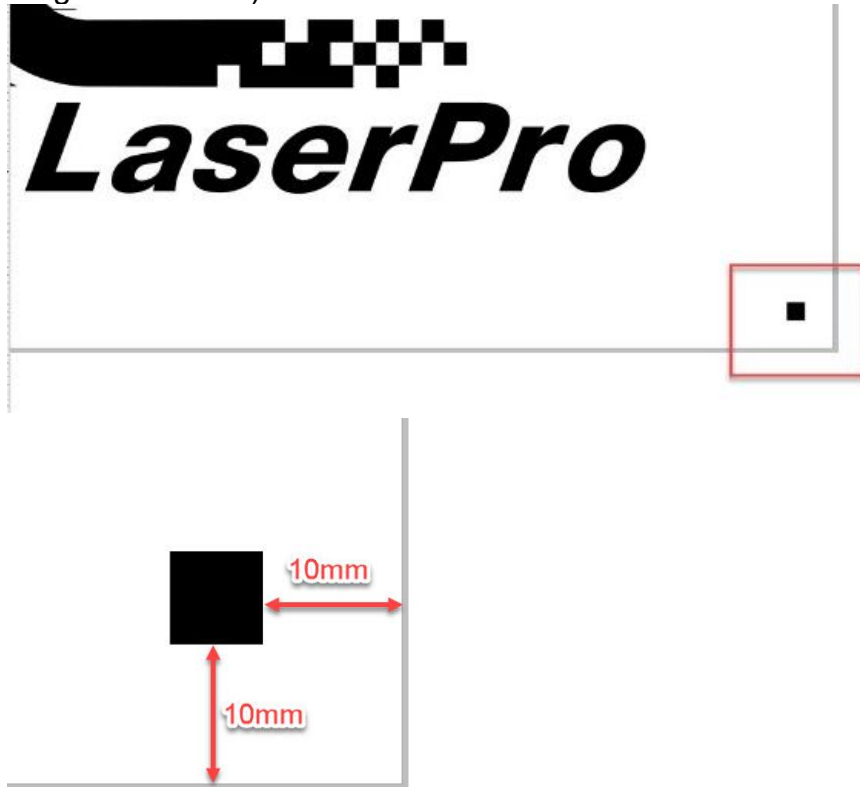


Single mode: The plugin will insert two registration marks automatically.



Margin

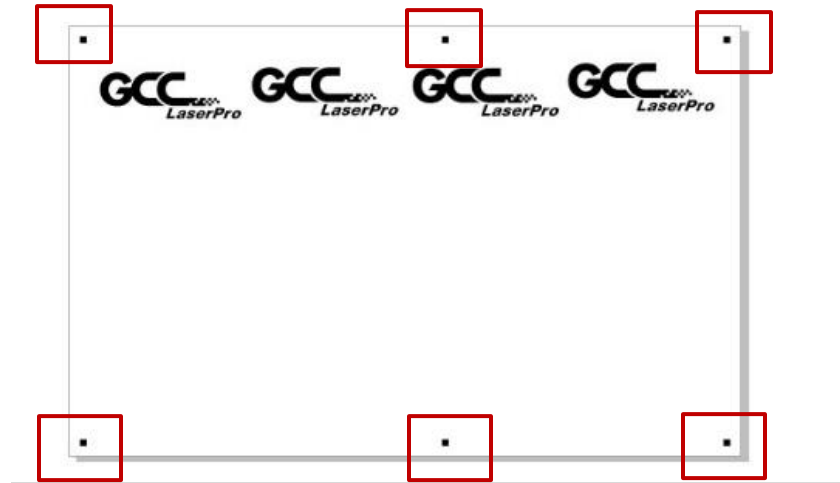
You are free to adjust horizontal/vertical margin start from the paper edge. (Available range: 10~50mm) Default value of DFS Marks Generator is 10mm as below pictures.



Note:

1. DO NOT move all registration marks on the CorelDRAW or Illustrator. It will cause the CCD cannot read all registration marks.
2. Please enter a new value of the margin if you want to modify the position of the registration marks.
3. Please make sure that your graphic is located inside the field of registration marks. The pattern outside the registration marks will not be cut or engraved.

Feeder mode: The plugin will insert six registration marks automatically.

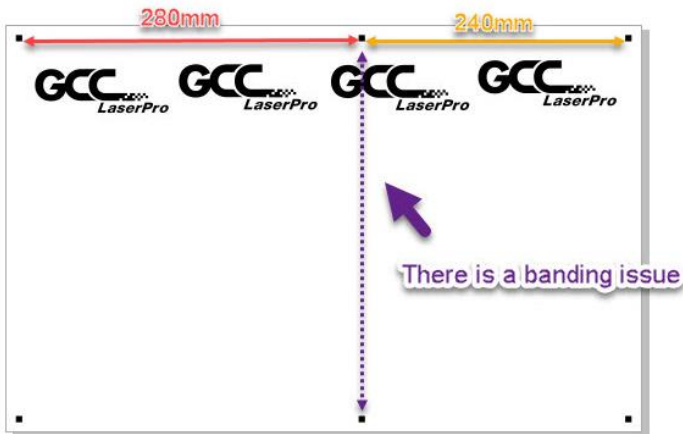


Band

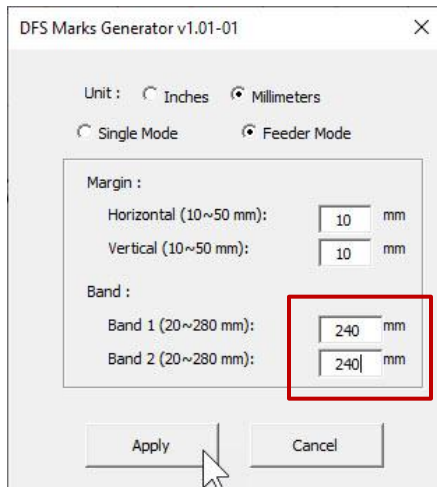
Available to adjust band distance for band 1 and band 2, range is 20mm~280mm. Default value of DFS Marks Generator is 280mm (band 1) and 210mm (band 2) as shown below:



You might tell from the above picture, there is a banding issue if we use the default setting.



6) So we will need to go back to “DFS Marks Generator” to adjust the band distance as 240mm as shown below.



7) After adjustment, there is no banding issue.

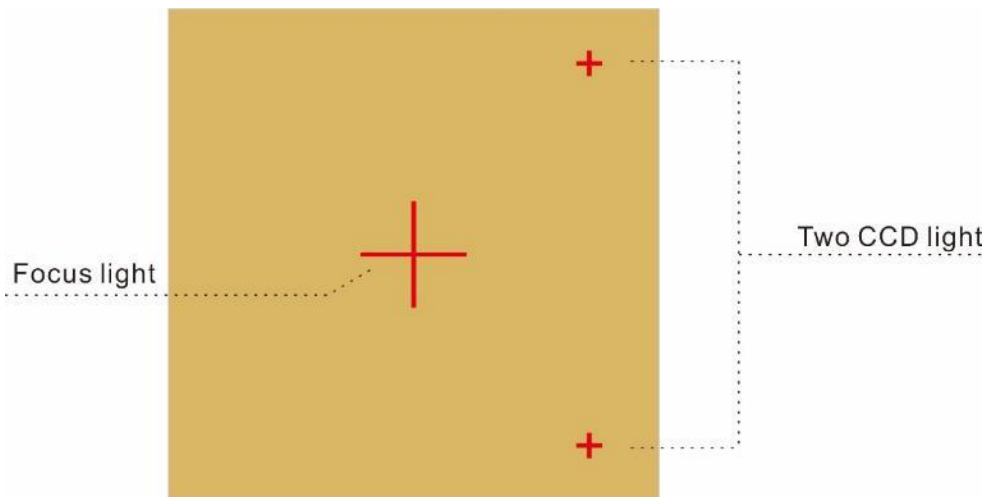


5.5 SmartCONTROL DFS Operating - Single Mode

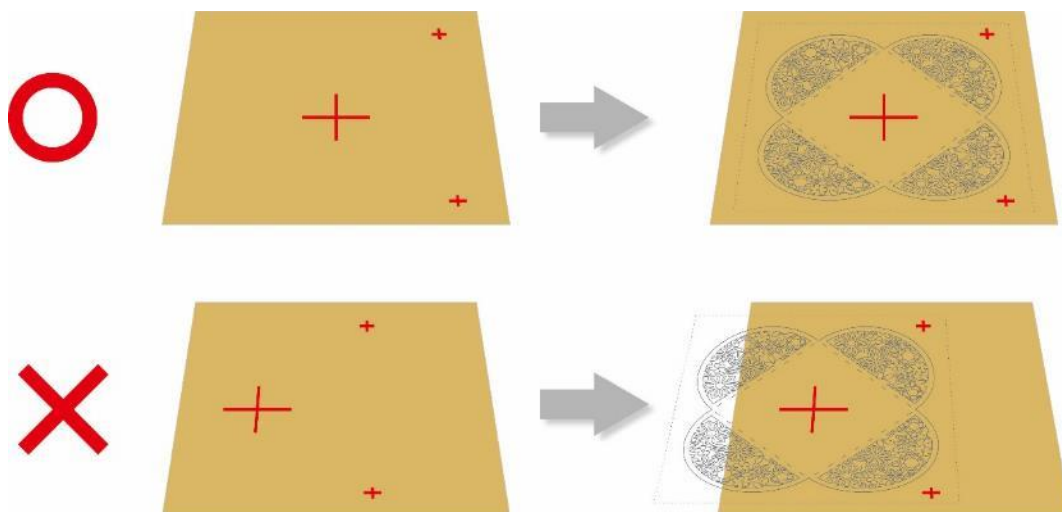
Single mode allows user to manually load and unload a single blank or printed media sheet, GCC LaserPro DFS will cutting directly or read the registration mark and cutting precisely.

For blank media sheet

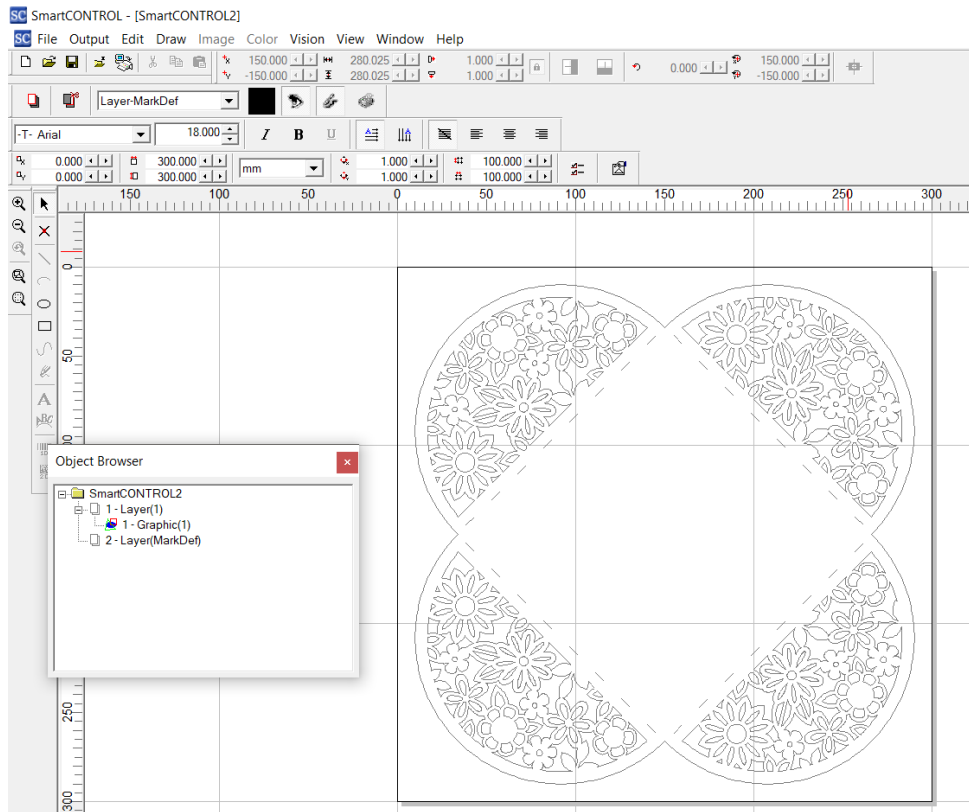
- 1) Place the blank media sheet on the working table.
- 2) Turn the focus light on from right side of the DFS, and then the focus light and two CCD light will show on.



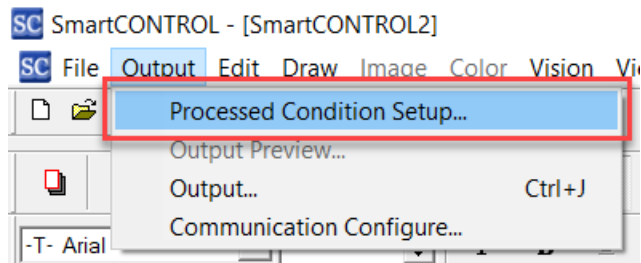
- 3) Please make sure the focus light is alignment center on the media sheet.



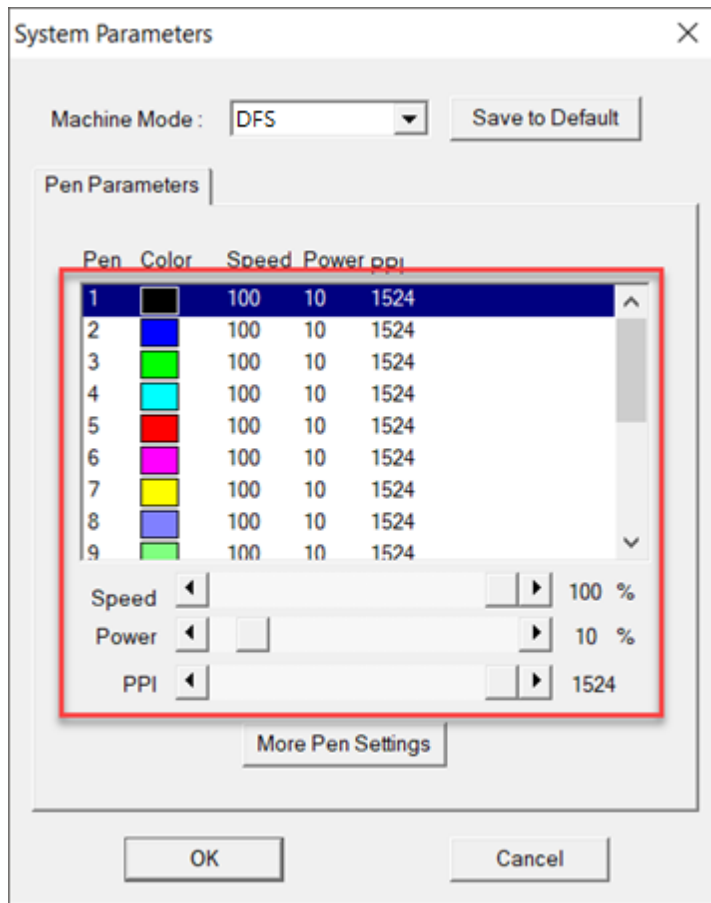
4) Open the file or import prn file



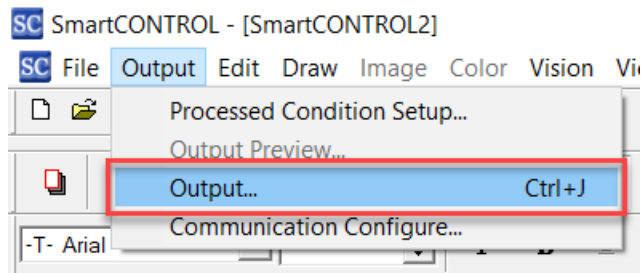
5) Click “Output” on the menu bar and select “Processed Condition Setup...”



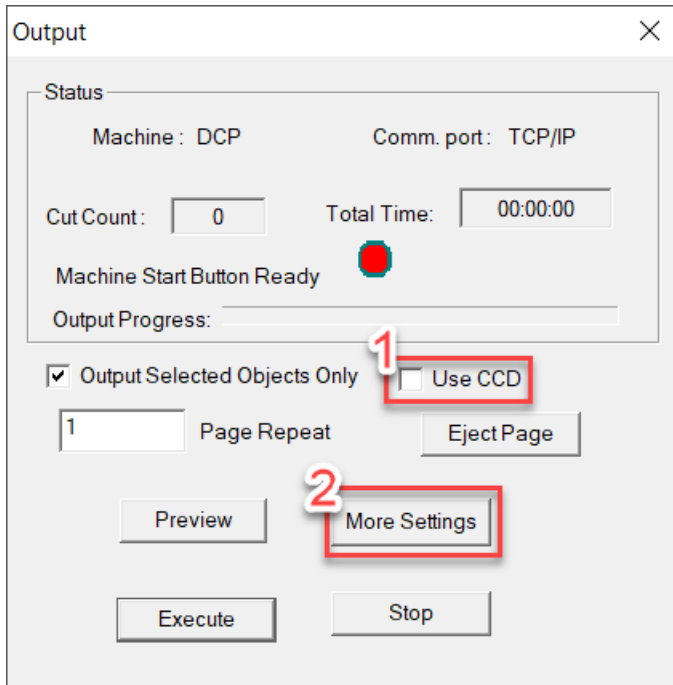
6) Set the processing parameter in “Pen Parameter” tab



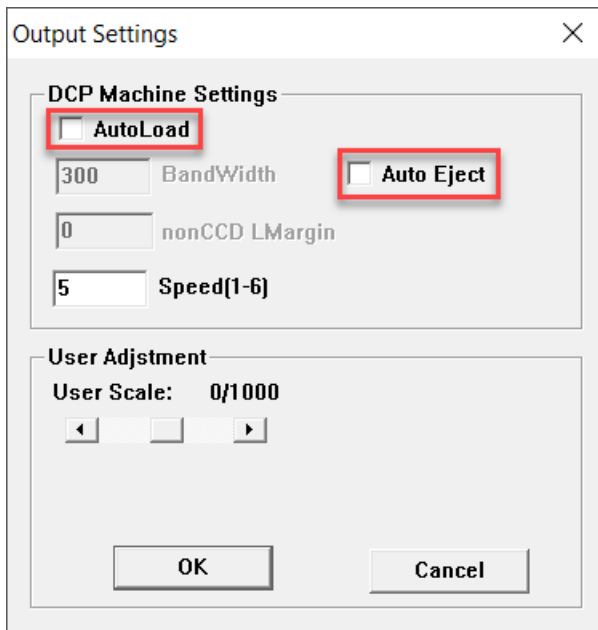
7) Click “Output” on the menu bar and select “Output...” to launch the output window



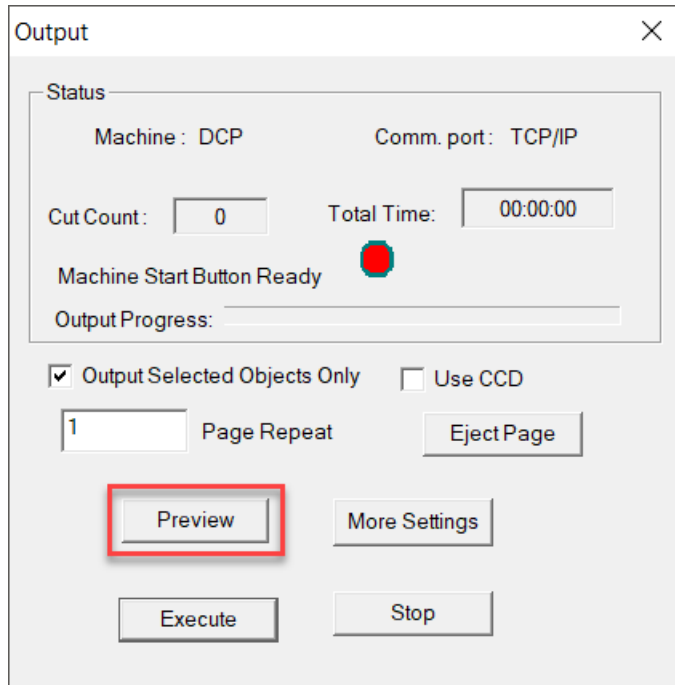
- 8) Deselect checkbox of the “Use CCD” and Click “More Settings” and then the “Output Settings” window will pop up.



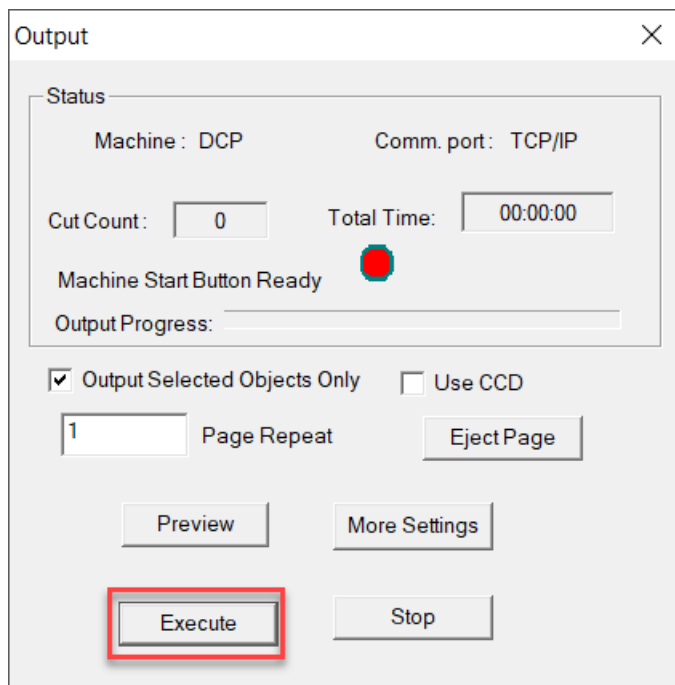
- 9) Deselect checkbox of the “Auto load” and “Auto Eject”, and then click “OK” to close the “Output Setting” window



10) Click "Preview" to make sure output size is fit media sheet

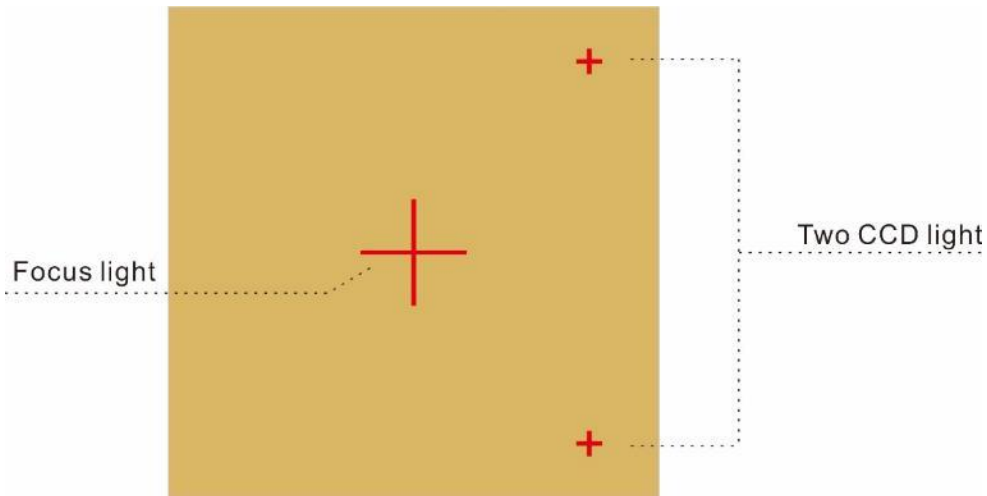


11) Click "Execute" to start laser processing.

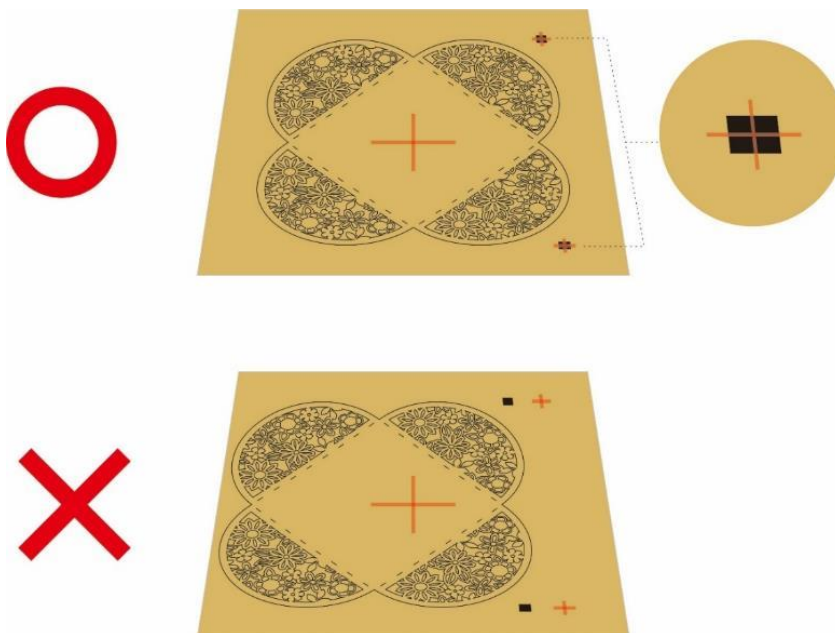


For printed media sheet

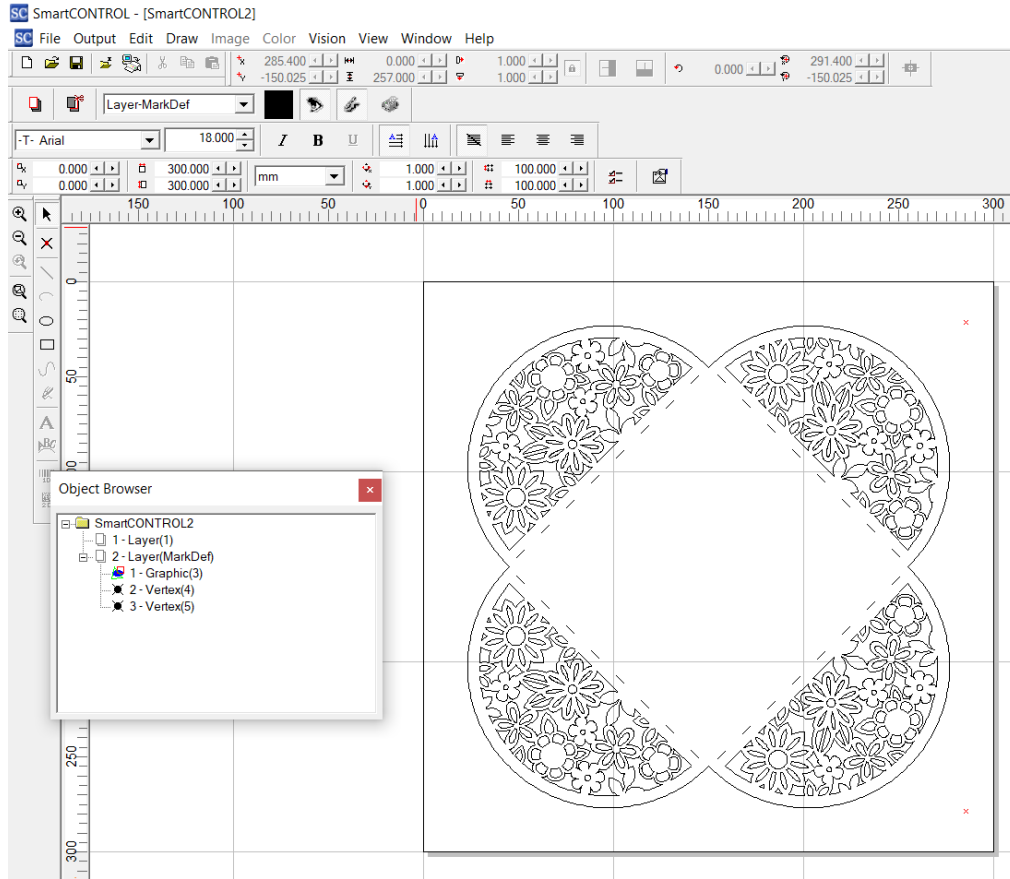
- 1) Place the printed media sheet on the working table.
- 2) Turn on the focus light from right side of the DFS, and then the focus light and two CCD light will show on.



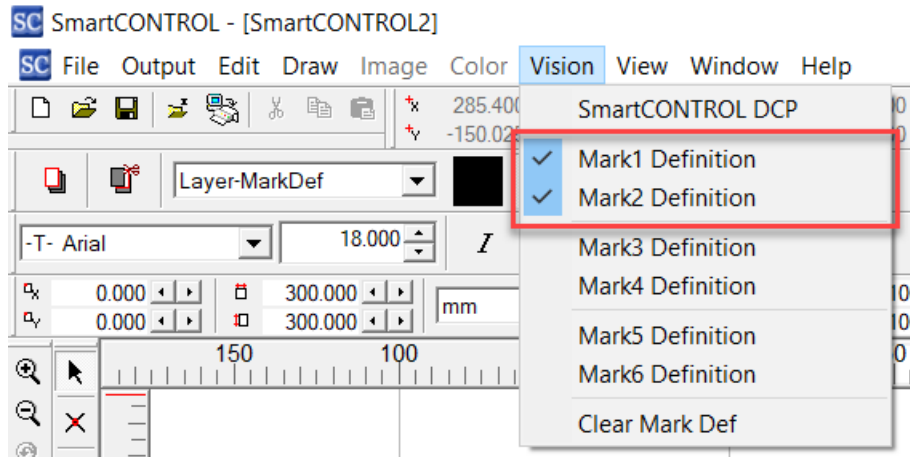
- 3) Move the media sheet and make sure two CCD light are align to two registration mark.



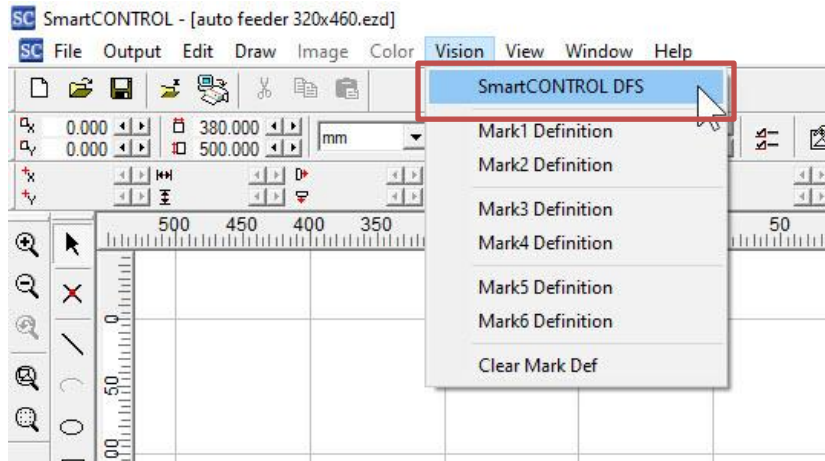
- 4) Open the file or import prn file



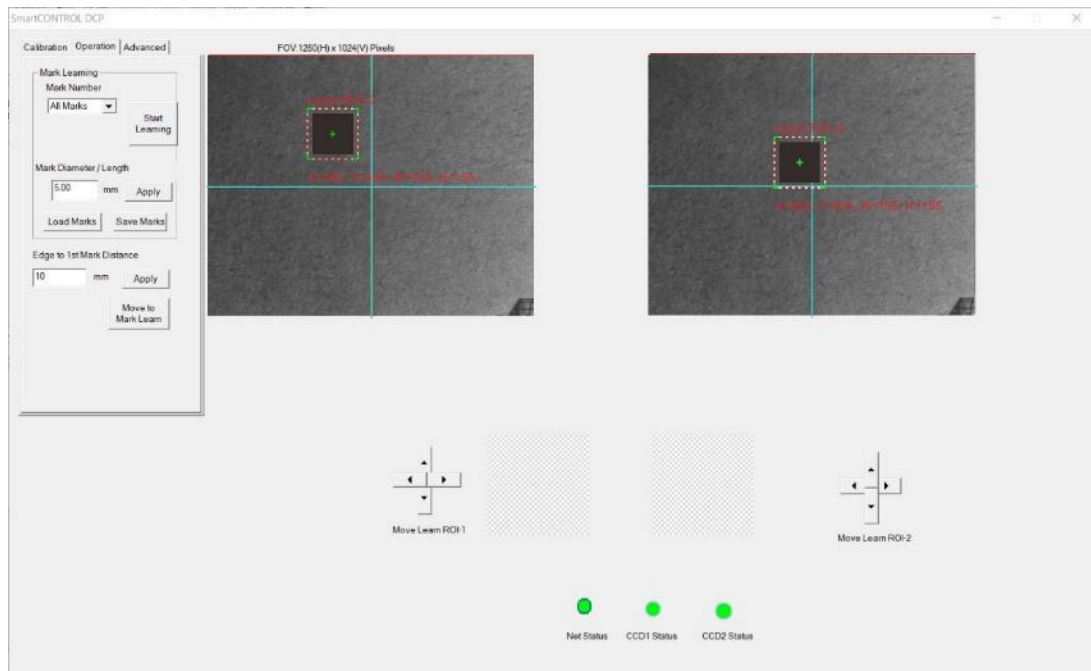
- 5) Click “Vision” on the menu bar and check the mark 1 and Mark 2 are definition automatically.



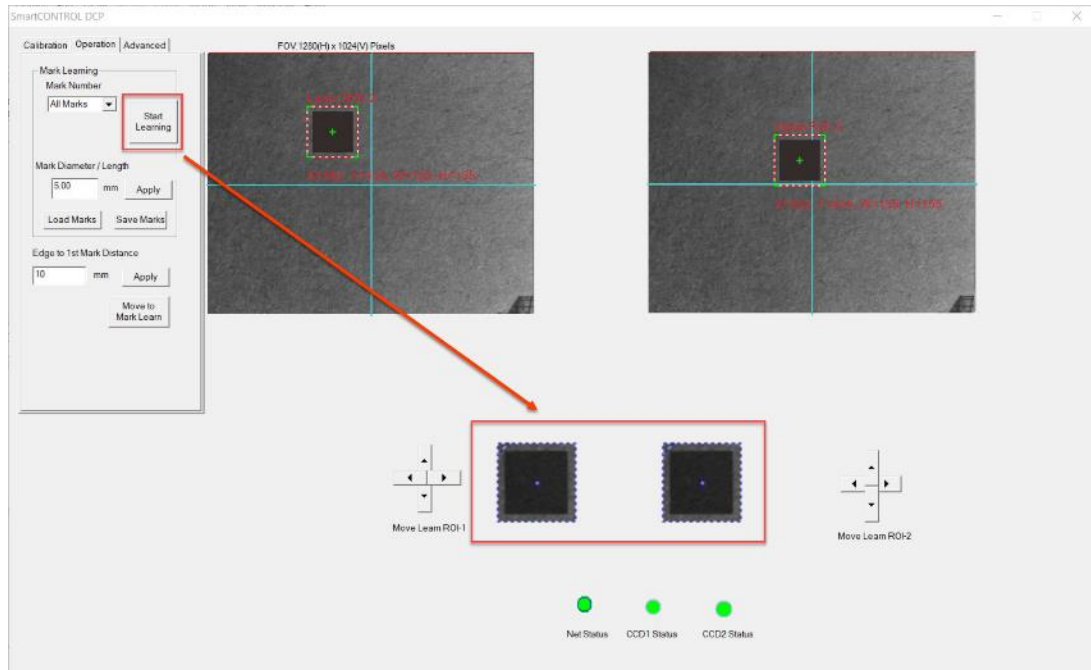
- 6) Click "Vision" on the menu bar and select "SmartCONTROL DFS" to launch the SmartCONTROL DFS window



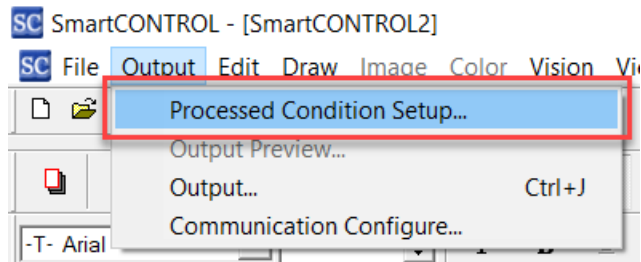
- 7) Use the mouse to move the learn ROI-1 and ROI-2 frame until the frame at the center of registration mark.



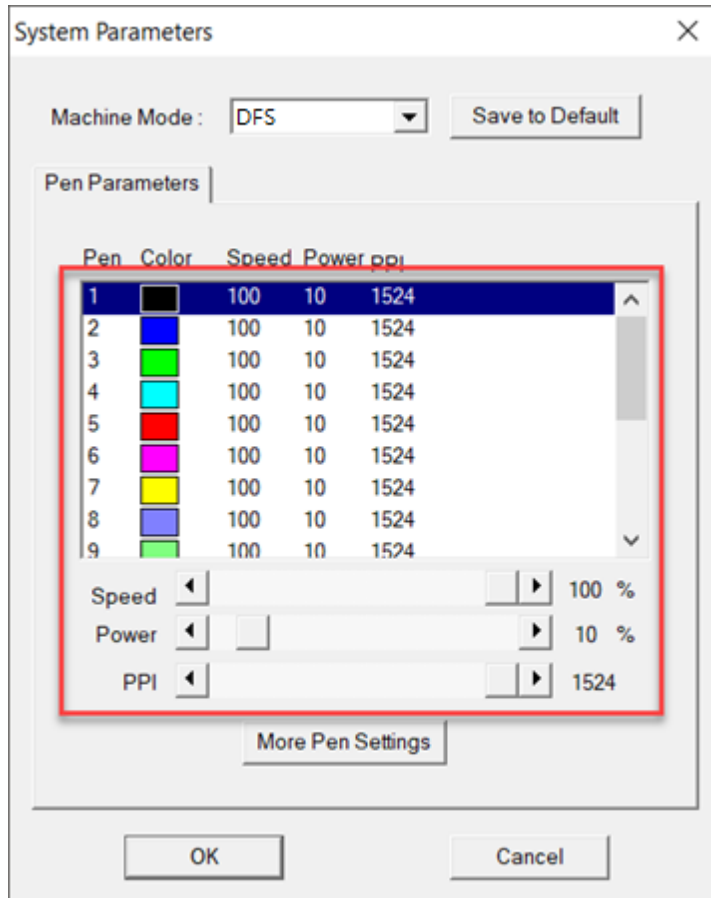
- 8) Click "Start Learning" button and the Learned Mark Window will show the learned pattern.



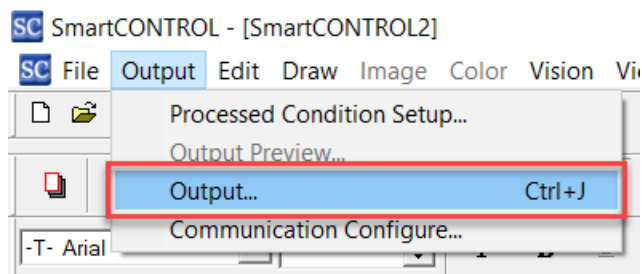
- 9) Click "Output" on the menu bar and select "Processed Condition Setup..."



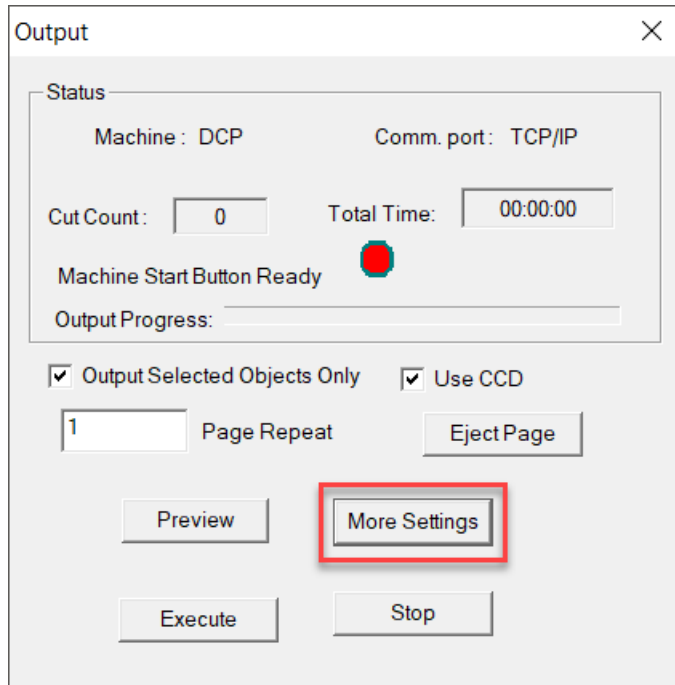
10) Set the processing parameter in “Pen Parameter” tab



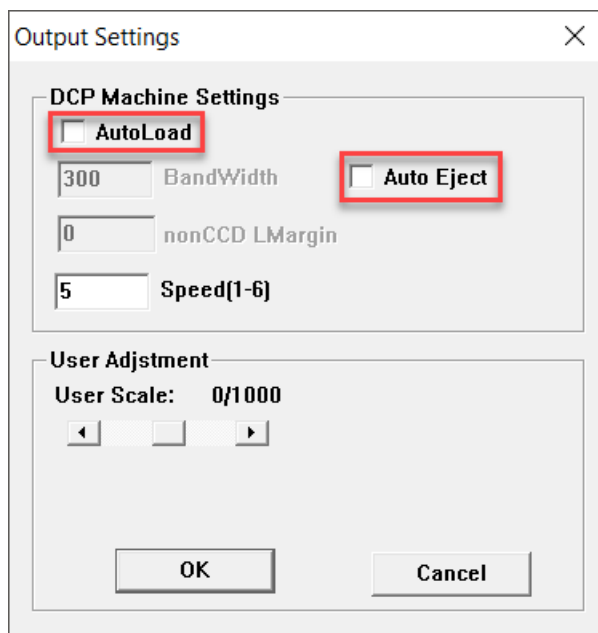
11) Click “Output” on the menu bar and select “Output...” to launch the output window



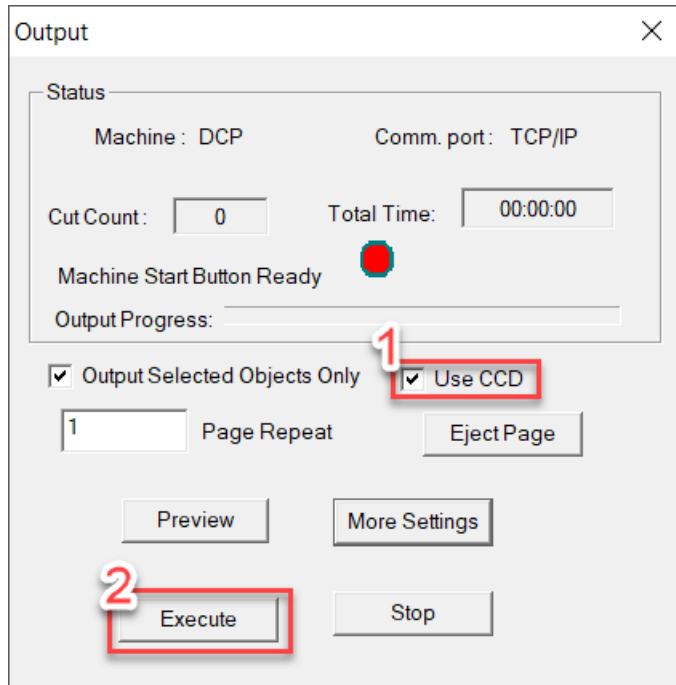
12) Click “More Settings” to launch the “Output Settings” window.



13) Deselect checkbox of the “Auto load” and “Auto Eject”, and then click “OK” to close the “Output Setting” window



14) Click “Use CCD” and “Execute” to start laser processing.

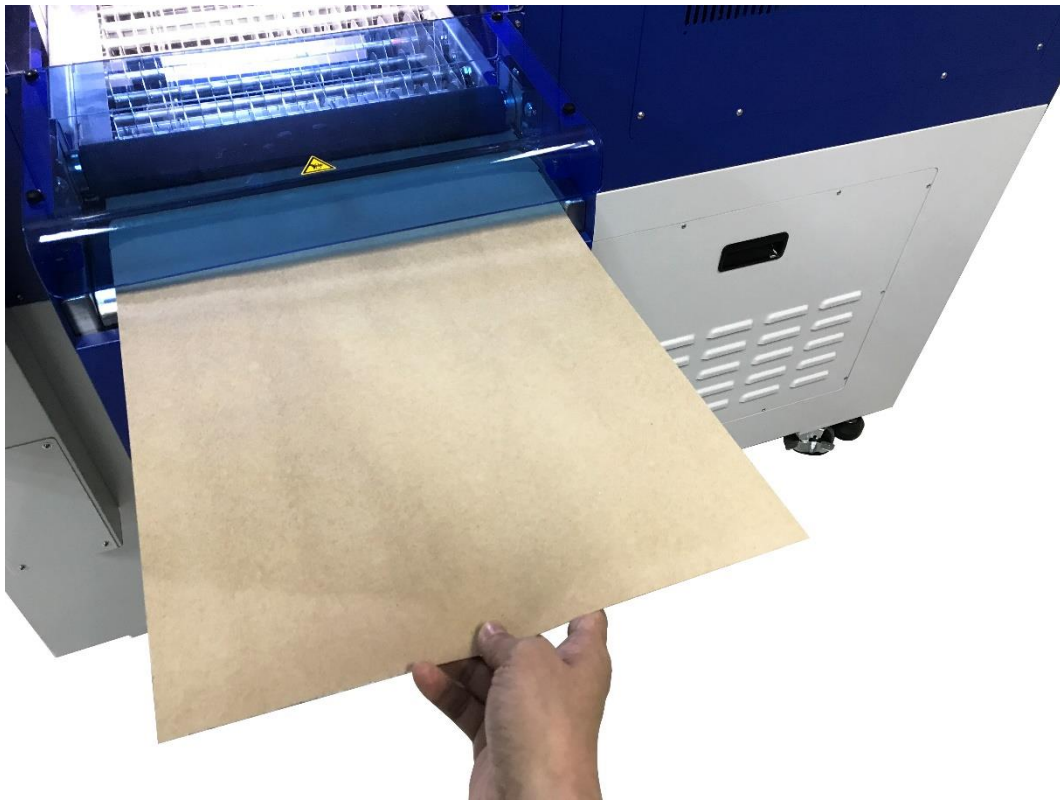


5.6 SmartCONTROL DFS Operating - Production Mode

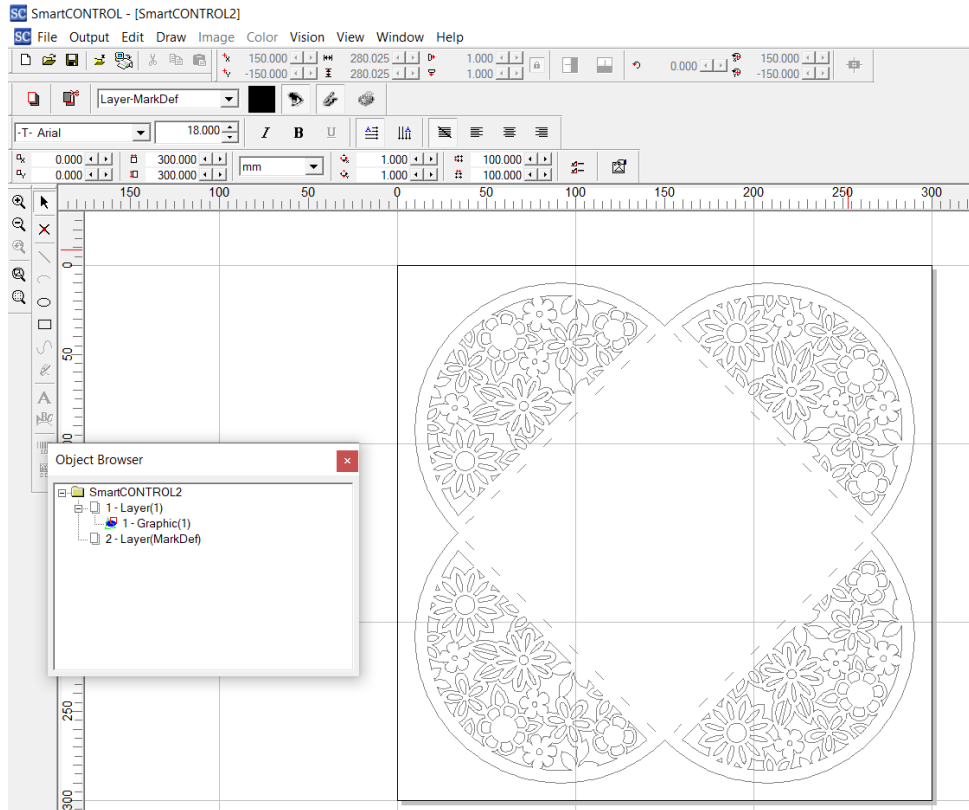
Production mode allows user to automatically load and unload blank or printed media sheets by conveyor, DFS will cutting directly or read the registration mark and cutting precisely.

For blank media sheets

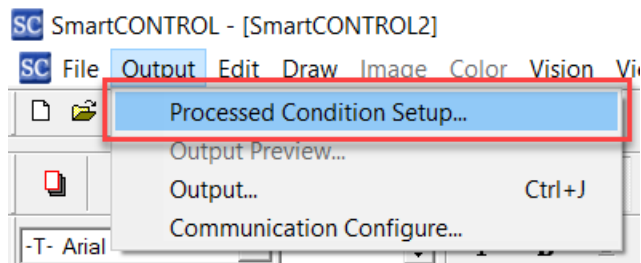
- 1) Place the blank media sheet on the feeder from right side of the DFS



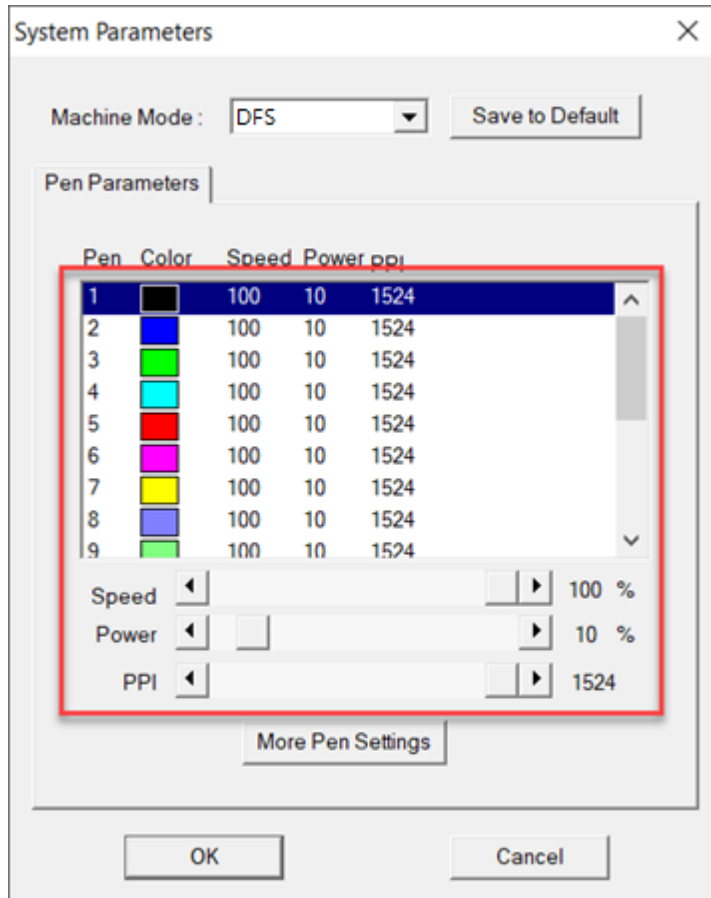
2) Open the file or import prn file



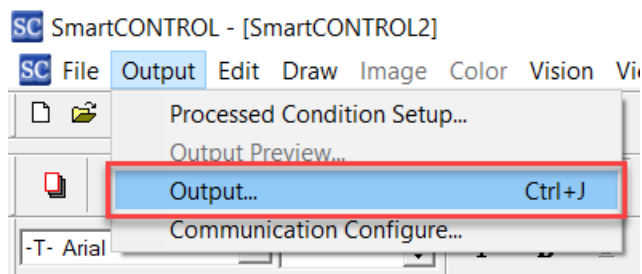
3) Click “Output” on the menu bar and select “Processed Condition Setup...”



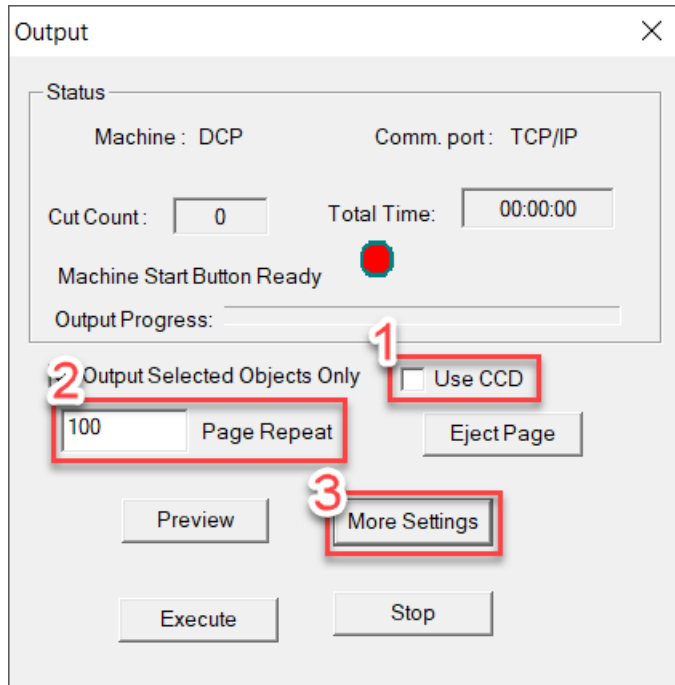
4) Set the processing parameter in “Pen Parameter” tab



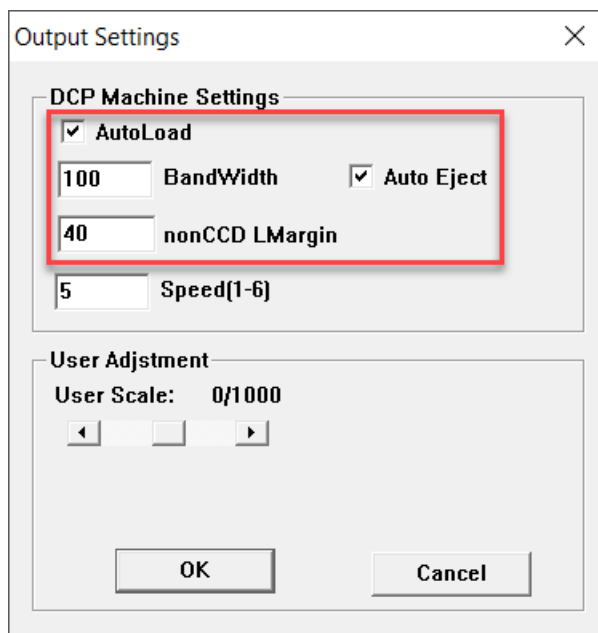
5) Click “Output” on the menu bar and select “Output...” to launch the output window



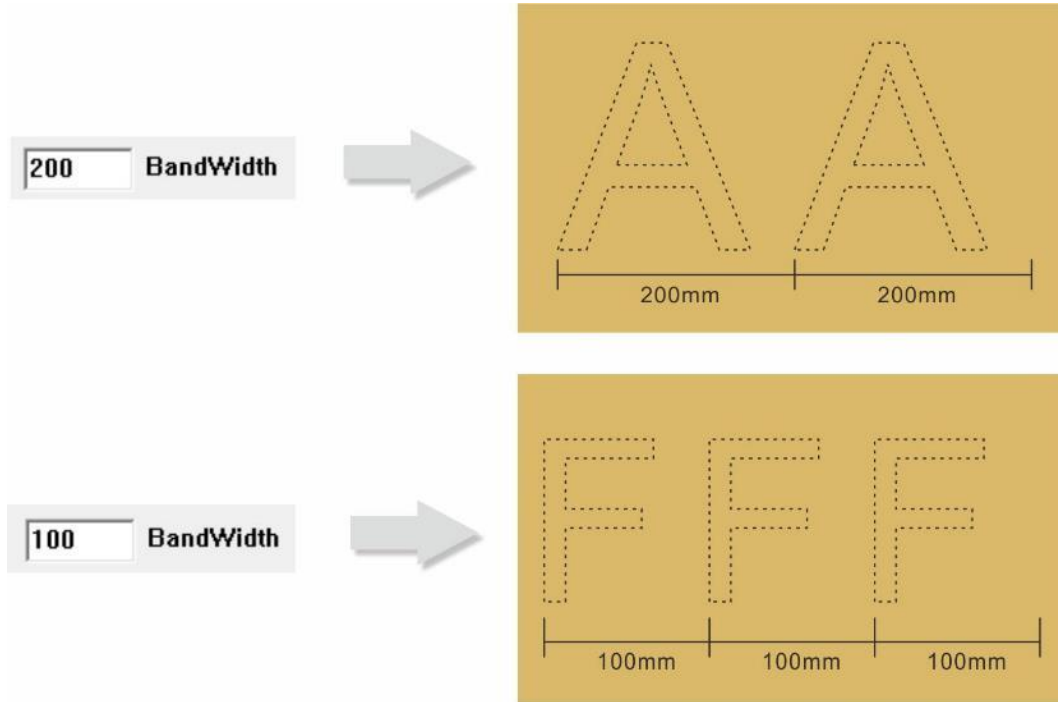
- 6) Deselect checkbox of “Use CCD” and Input repeat value at “Page repeat”, and then click “More Settings” to launch “Output Settings” window



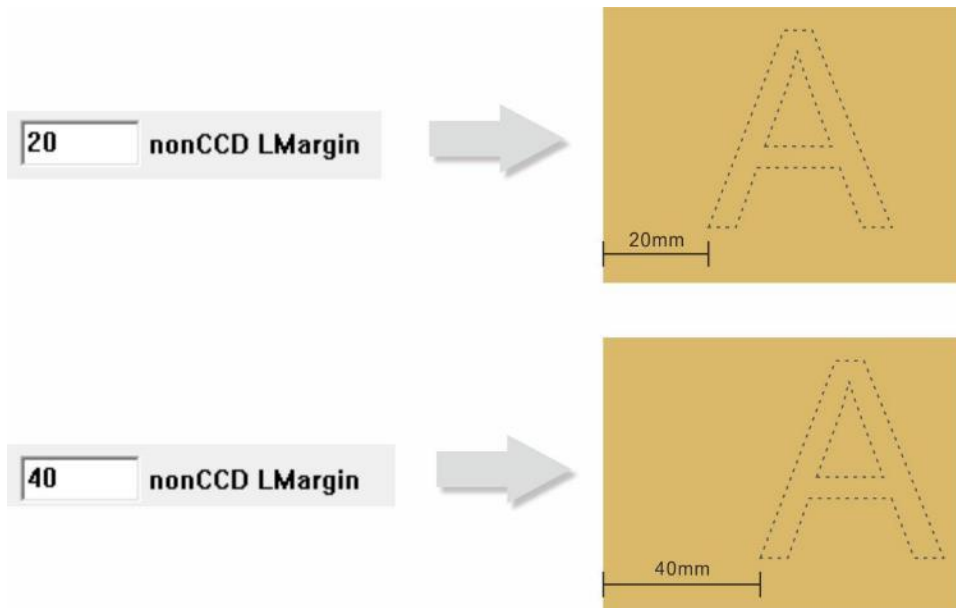
- 7) Select checkbox of the “Auto load” and “Auto Eject”, and then input value of the “BandWidth” and “nonCCD LMargin”



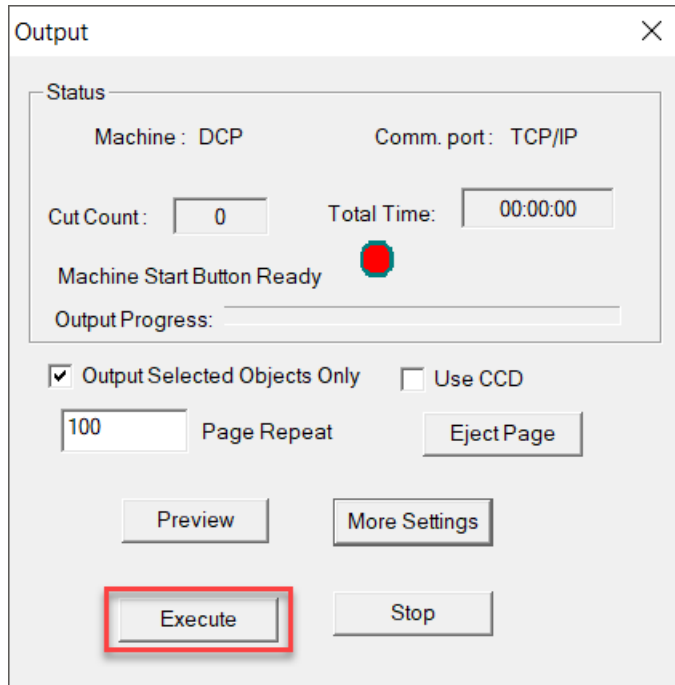
- BandWidth – it allows user to setting the processing size, the value depend on your graphic size.



- NonCCD LMargin – It allows user to setting the offset of graphic

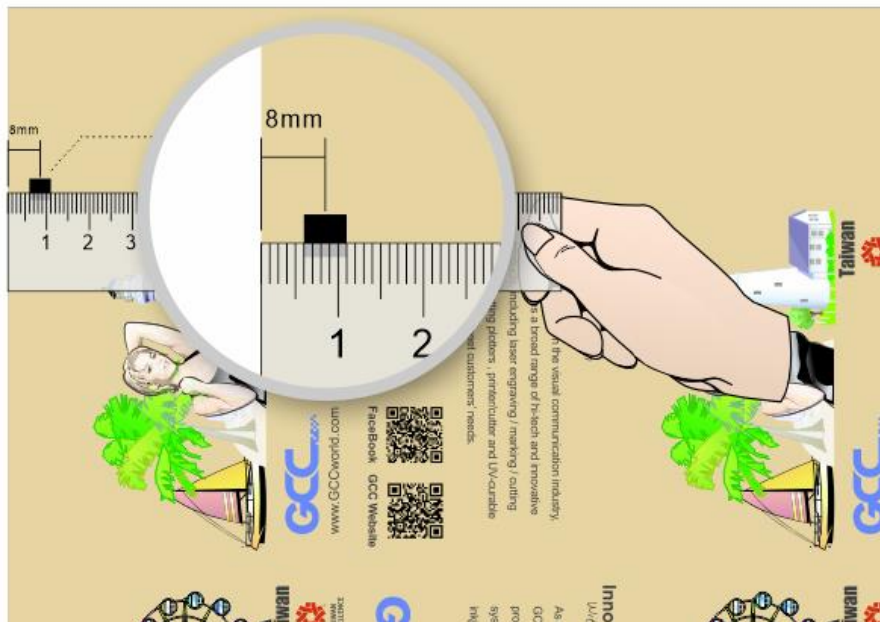


8) Click “Execute” to start laser processing.



For printed media sheets

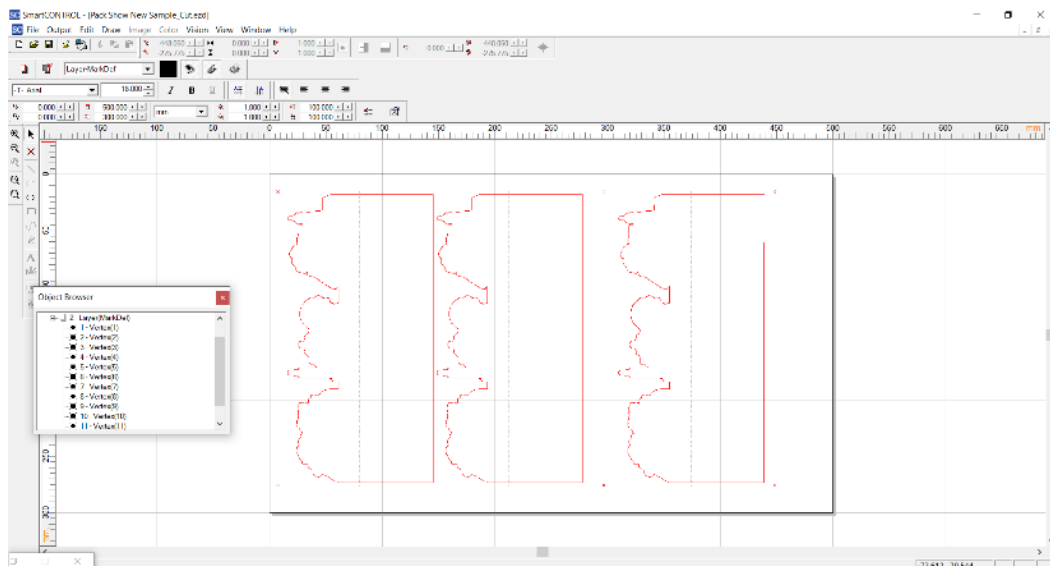
1) Measure the distance from paper edge to center of the first registration mark



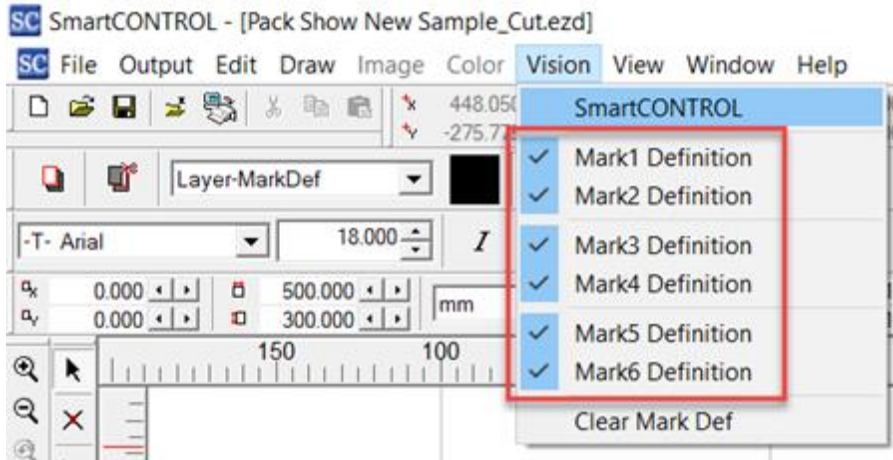
2) Place the printed media sheets on the feeder from right side of the DFS



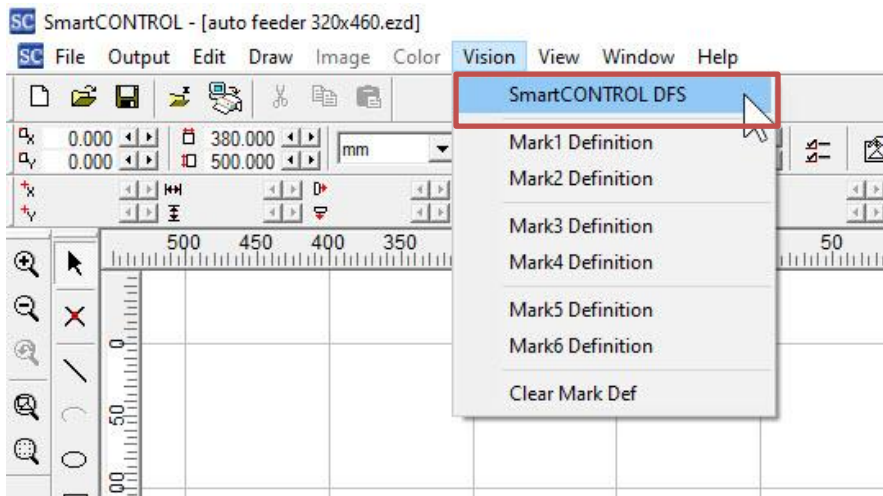
3) Open the file or import prn file



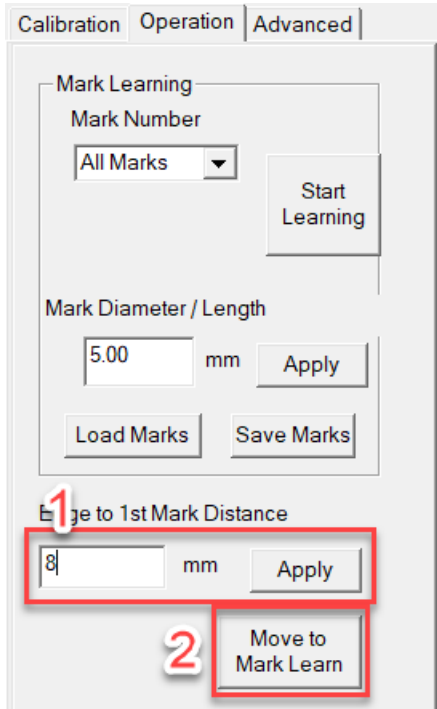
- 4) Click “Vision” on the menu bar and check all the marks are definition automatically.



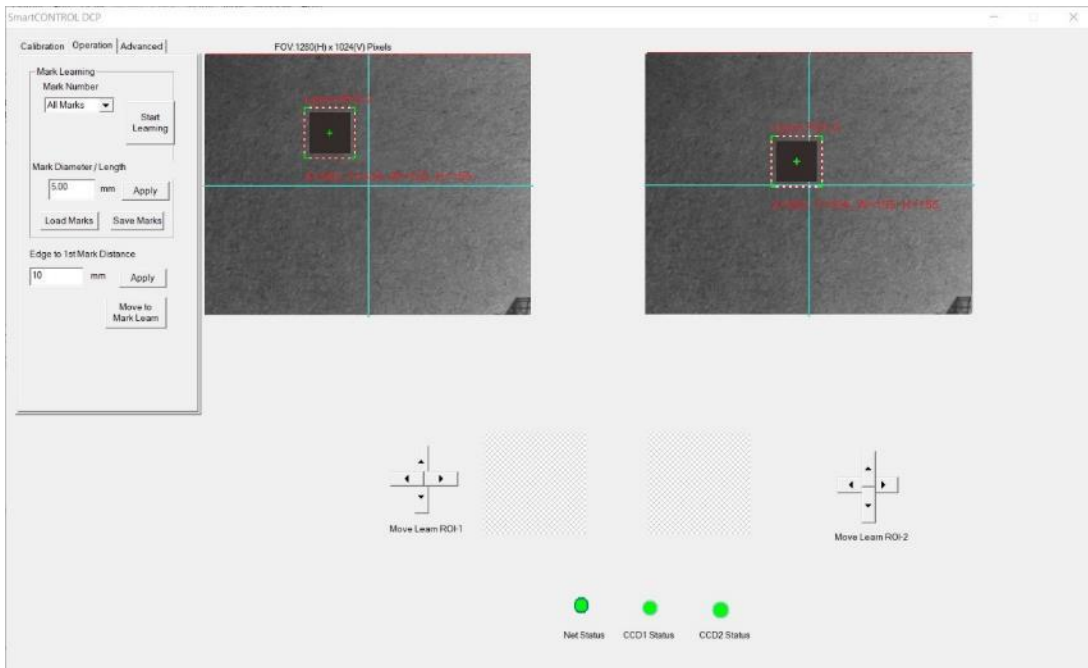
- 5) Click “Vision” on the menu bar and select “SmartCONTROL DFS”



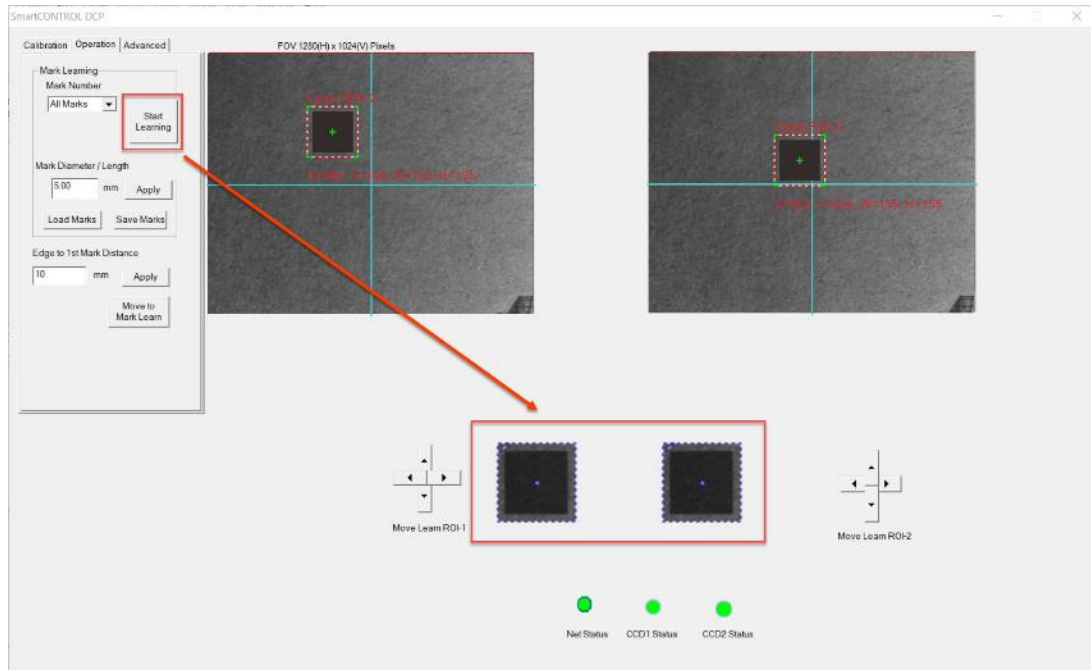
- Go to “Operation” tab and input the distance value at “Edge to 1st Mark Distance” and click “Apply”, and then click “Move to Mark Learn”. Conveyor will load media sheet automatically to work area for CCD learning.



- Use the mouse to move the learn ROI-1 and ROI-2 frame until the frame is at the center of registration mark.



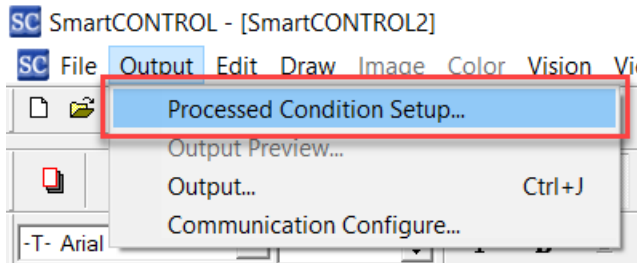
- 8) Click "Start Learning" button and the Learned Mark Window will show the learned pattern.



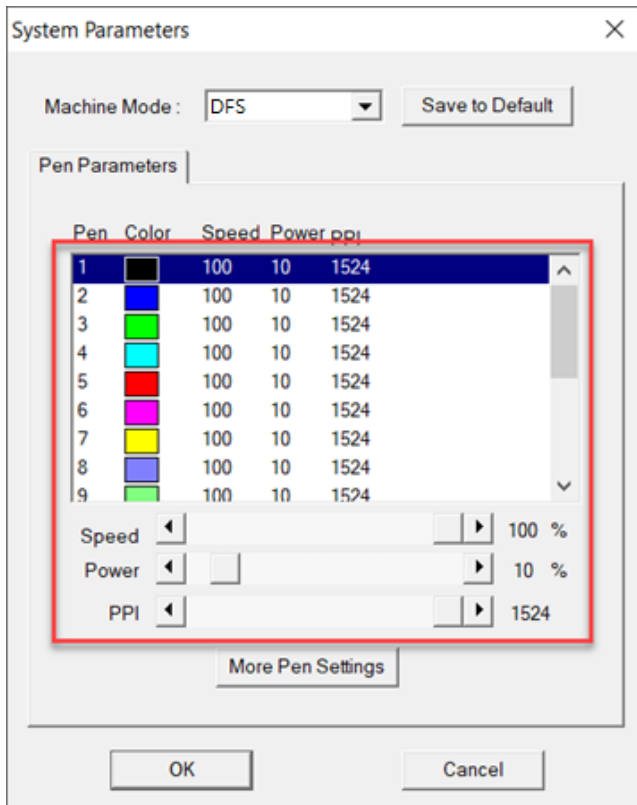
- 9) Mark learning is complete, remove the media sheet from work area and place the printed media sheets on the feeder from right side of the DFS again



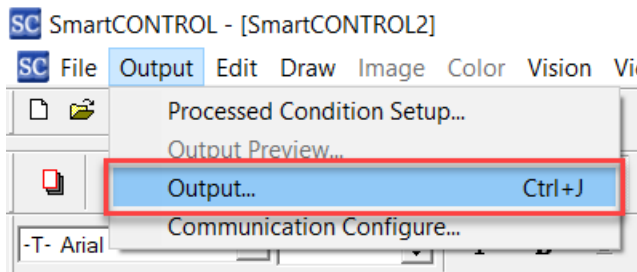
10) Click “Output” on the menu bar and select “Processed Condition Setup...”



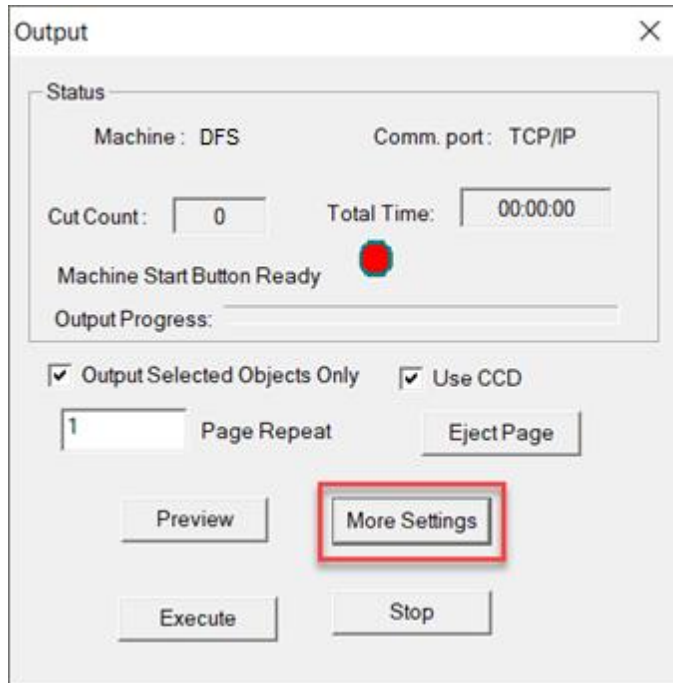
11) Set the processing parameter in “Pen Parameter” tab



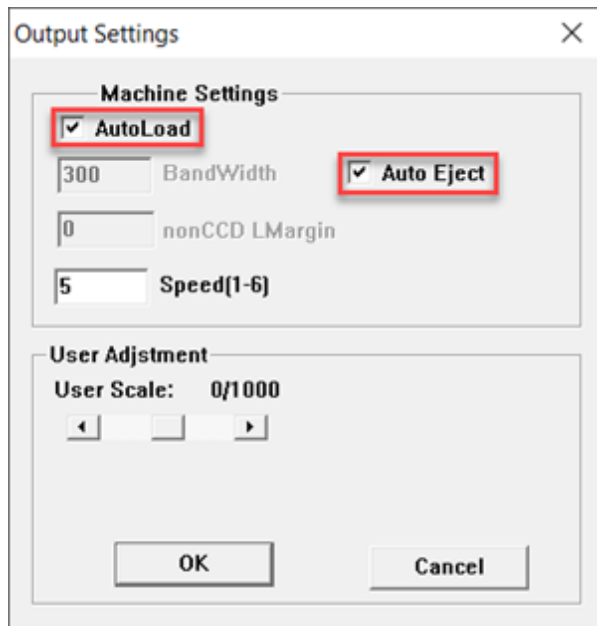
12) Click “Output” on the menu bar and select “Output...” to launch the output window



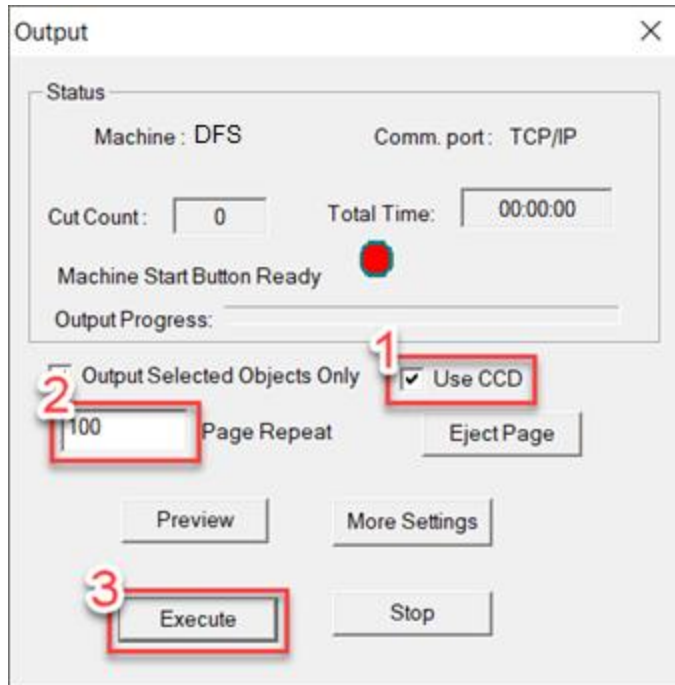
13) Click “More Settings” to launch the “Output Settings” window.



14) Select checkbox of the “Auto load” and “Auto Eject”, and then click “OK” to close the “Output Setting” window

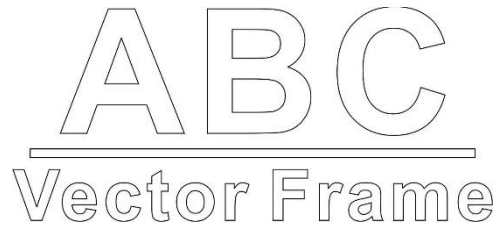


15) Click “Use CCD” and input repeat value at “Page repeat”, and then click “Execute” to start laser processing.



5.7 Vector Engraving Function Operating

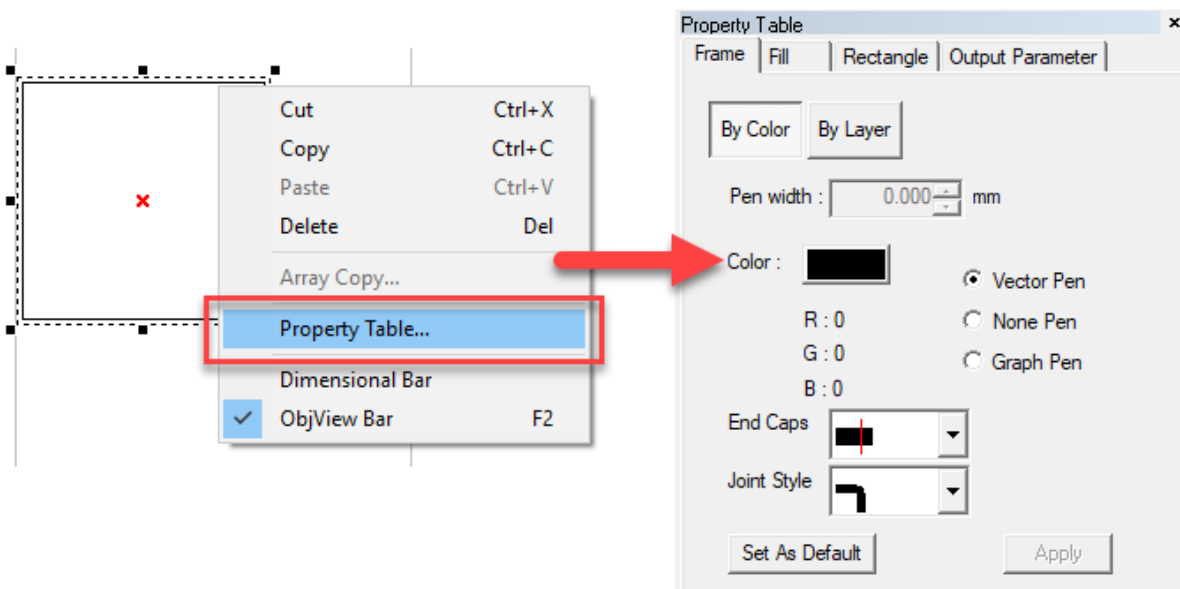
Vector engraving function allows user to choose the fill / frame to process the objects of vector.



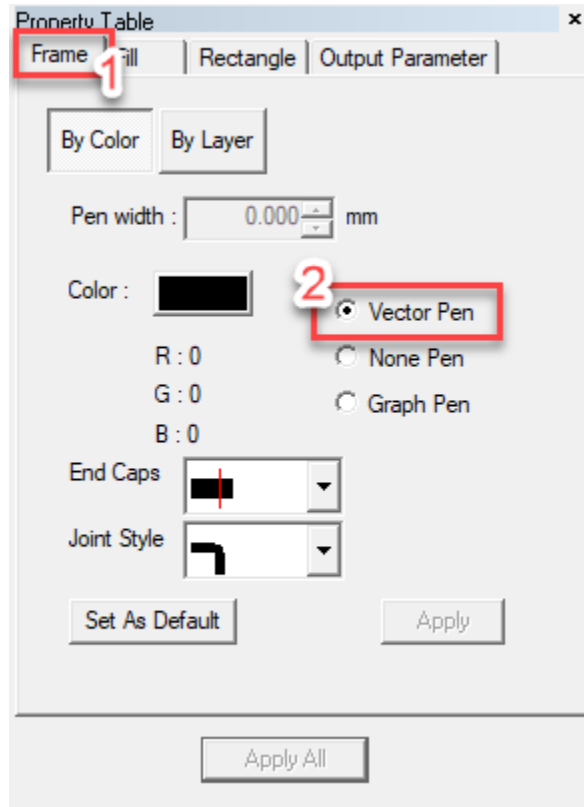
The following is an instruction of how to use the vector engraving function in the SmartCONTROL DCP.

5.5.1 Engraving by Frame operating

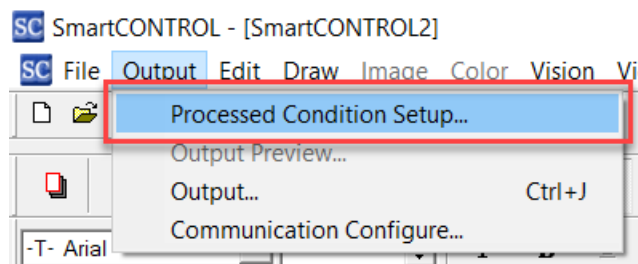
- 1) Right-click on the object and then select "Property Table" from the menu to launch the property table window.



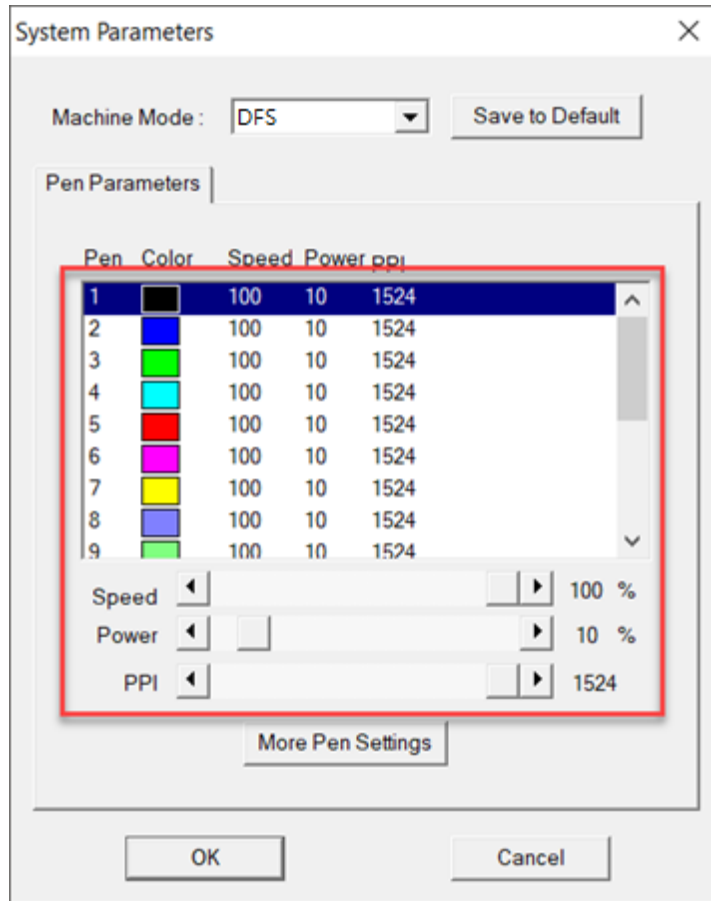
- 2) Click “Frame” tab and select the “Vector Pen”, and then click “Apply All” button to make sure the setting.



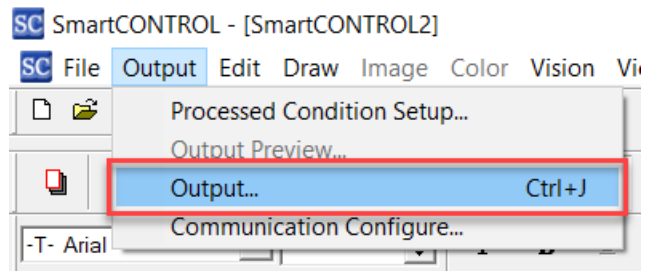
- 3) Click “Output” on the menu bar and select “Processed Condition Setup...” to launch System Parameter window



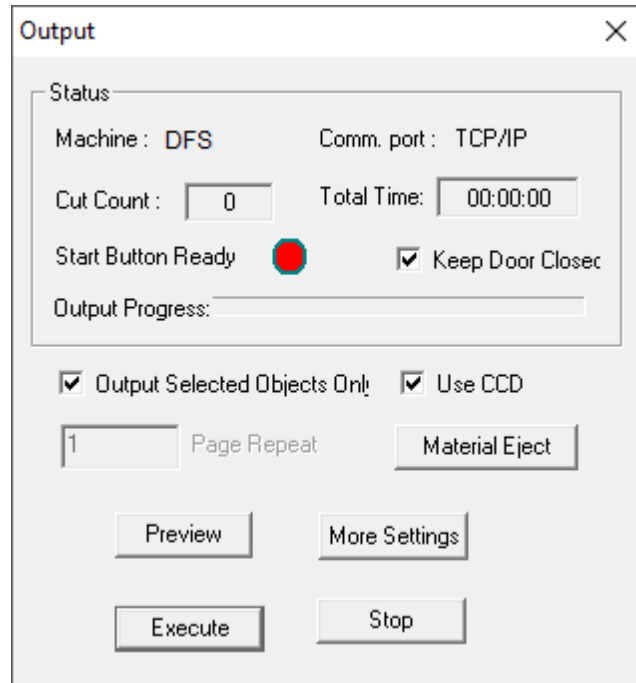
- 4) Set the processing parameter in “Pen Parameter” tab, and then click “OK” button to make sure the settings.



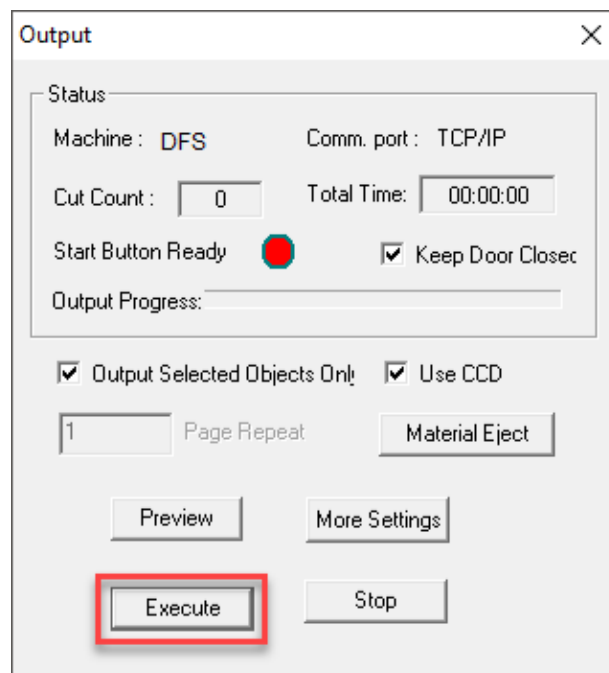
- 5) Click “Output” on the menu bar and select “Output...” to launch the output window



- 6) Depend on your design to setting the Output parameter in Output window. For more detail please refer to chapter 5.3 or 5.4

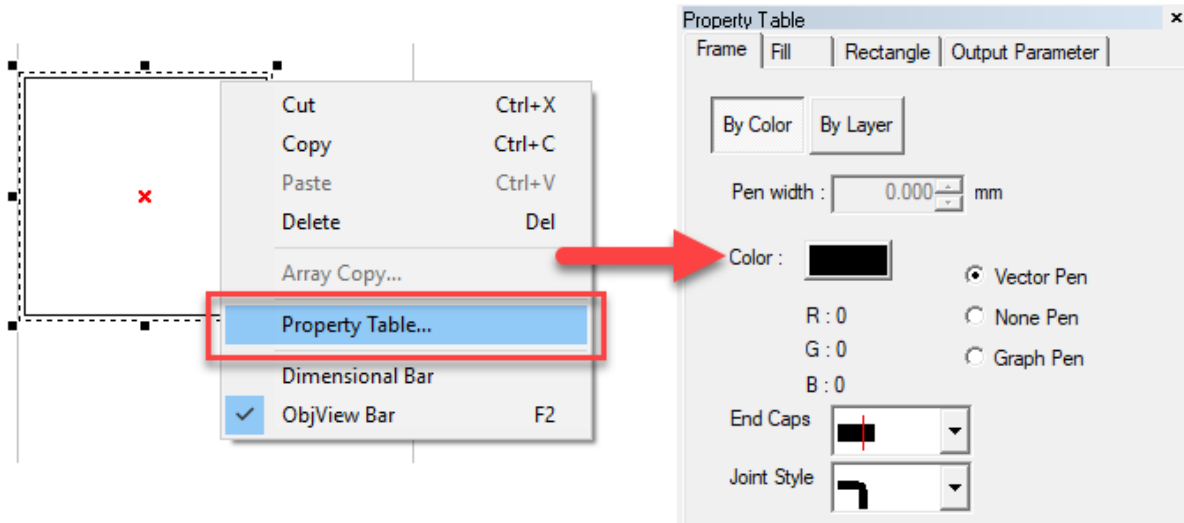


- 7) After the settings of output parameter, click “Execute” to start laser processing.



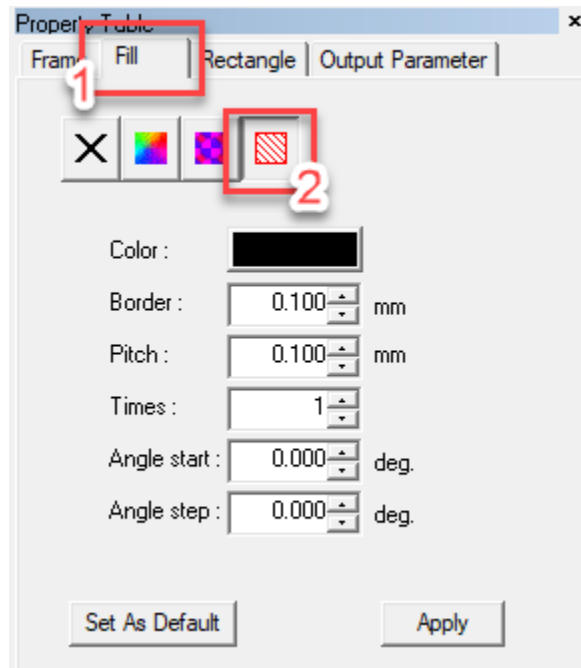
5.5.2 Engraving by Fill operating

- 1) Right-click on the object and then select “Property Table” from the menu to launch the property table window.



- 2) Click “Fill” → “fill by line” to show the setting page.

After the settings, click “Apply” button to make sure the settings.



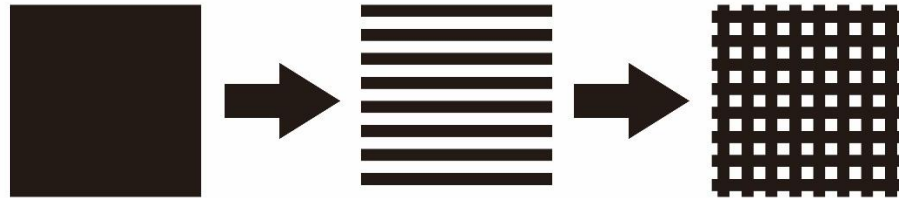
Border:

Use Border to frame the unwanted bulging edge of marking image.

Pitch:

It is the numbers of lined images that you wish to be marked.

For instance, a lined image is set with parameters of angle start: 0, and angle step: 90, at time: 2, the lined image will be marked as below:



Times:

Setting the number of times to repeat the process of the object

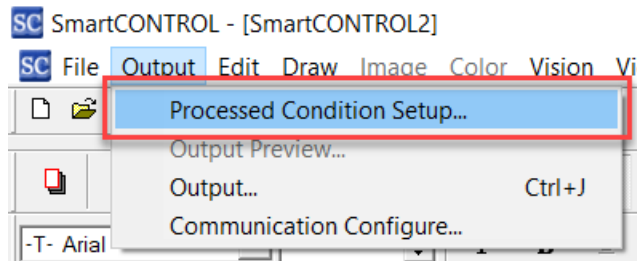
Angle Start:

A lined image can be rotated by Angle start.

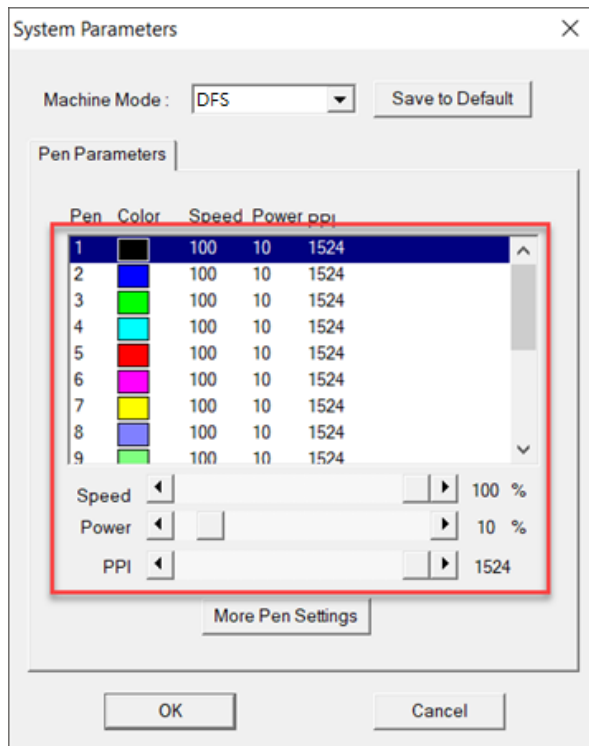
Angle Step:

This is how much angle of a lined image you would like to rotate at second time.

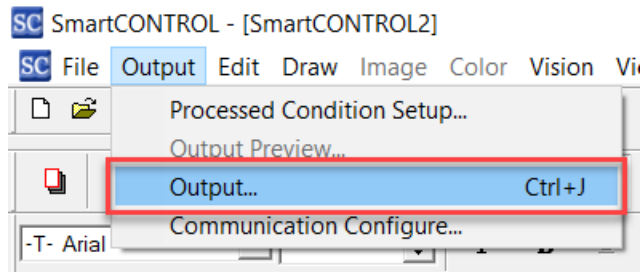
- 3) Click “Output” on the menu bar and select “Processed Condition Setup...”



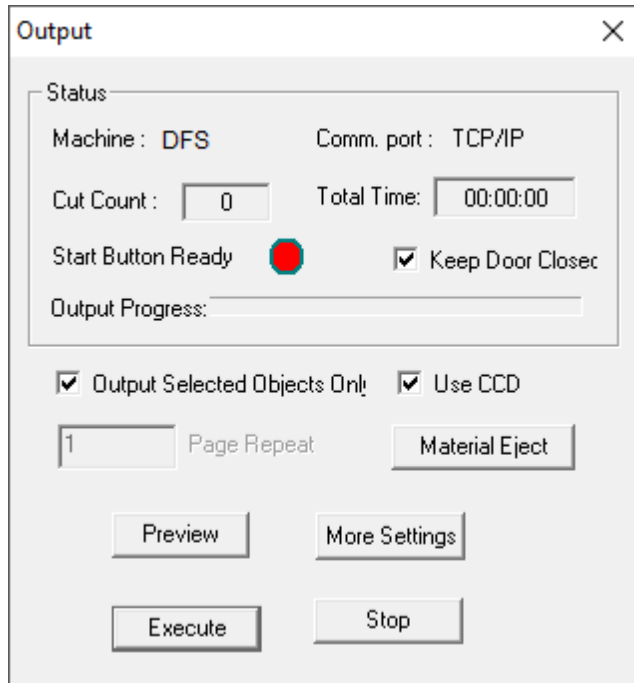
4) Set the processing parameter in “Pen Parameter” tab



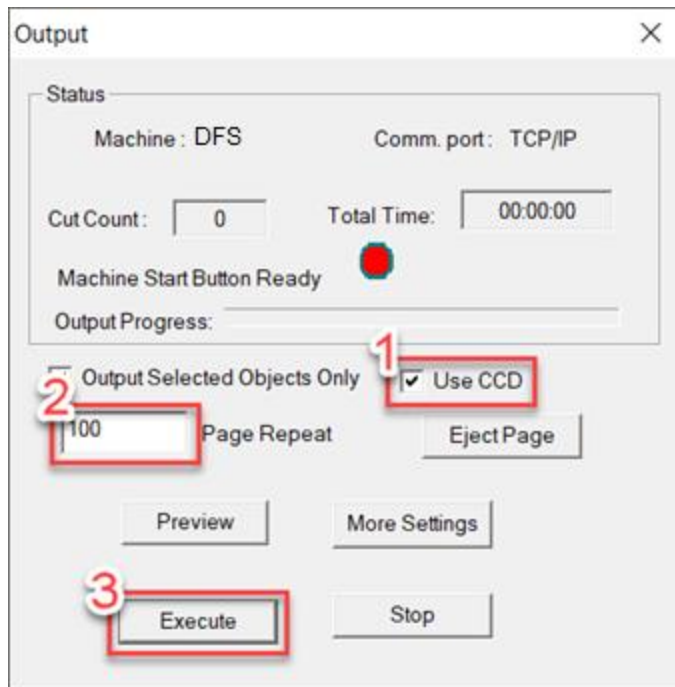
5) Click “Output” on the menu bar and select “Output...” to launch the output window



- 6) Depend on your design to setting the Output parameter in Output window. For more detail please refer to chapter 5.3 or 5.4



- 7) After the settings of output parameter, click "Execute" to start laser processing.



Chapter **6**

Appendix

GCC LaserPro DFS Specification Sheet



6.1 GCC LaserPro DFS Specification Sheet

Specification	DFS30-80GT	DFS30-100GT	DFS30-150SR	DFS30-200SR
Field Size of Galvo	320 x 320 mm (12.6 x 12.6")			
Max. Line Speed	11m/sec (depending on cut lengths)			
Material Thickness	0.15 mm ~ 0.3 mm (0.006"~0.012")			
Laser Source	CO2 laser, 10.57-10.63μm wavelength (CW)		CO2 laser, 10.57-10.63μm wavelength (CW/Pause)	
Laser Wattage	80W	100W	150W	200W
Cooling	Air-cooled		Water-cooled	
Media Size	Max. Media size 353 x 500 mm (13.9" x 19.69")			
Working Area	320X320 mm / 320 x 500 mm (12.6" x 12.6" / 12.6" x 19.69") with conveyor			
Machine Dimension	L1607 x W1403 x H1730 mm (63.27" x 55.24" x 68.11")			
Conveyor	Standard			
Conveyor Drive	Servo Motor			
Conveyor Loading	Max. 2 kg			
CCD Recognition	CCD x 2			
Compatible Operating Systems	Windows 10 (32 & 64Bit)			
Computer Interface	USB 3.0 port x 2 (only support USB 3.0), Ethernet			
Display Panel	Button Base			
Safety	Class 4 Laser Product Compliant with EN60825-1:2007			
Electricity	200-240V AC			
Power Consumption	4500W (Include: Laser and conveyor system)		6100W (Include: Laser and conveyor system)	
Air Exhaust System	External exhaust system with minimum flow rate 1350 m3/hr (795 cfm) is required, one 6" connection on the machine			
Auto Sheet Feeder (Optional Item)				
Max. Speed	34M(111ft) / min			
Max. Paper Width	13.9"X19.7"(353mmX500mm)			
Paper Weight	120gsm~500gsm			
Min. Paper Size	8 1/2" (216mm)			
Power Requirement	220V, 50/60HZ, 4.6A/2.3A Fuse Rating 6A TimeDelay			
Dimension	32.4" x 30.8" x 47.1" (823 x 782 x 1196mm)			
Weight	305lbs (120Kgs)			