

EaglePrint CAM

User's Manual



G.U. Eagle America, Inc. www.gueagle.com

855 S Milliken Ave Ste E, Ontario, CA 91761

+1 (626) 671-4014

Table of Contents

Introduction

- How to Use This User's Manual
- Notes Used in This Manual
- EaglePrint vs. EagleWorks

Safety

• Laser Safety

Install EaglePrint

- Get EaglePrint
- Install EaglePrint
- Upgrade EaglePrint

Getting Started

- Get Familiar with the EaglePrint UI
- Set up EaglePrint
- The Workflow
- Set up Laser Connections
- Connect the License Key

Technology in EaglePrint

- Important Concepts
- Job Settings
- Machine Settings

Laser Processing

- Laser Window
- Managing Offline Jobs in EaglePrint
- Auxiliary Machine Settings

Drawing Software Use Cases

- Use EaglePrint with CorelDRAW
- Use EaglePrint with Illustrator
- Use EaglePrint with AutoCAD
- Use EaglePrint with Photoshop

If any details in this manual is unclear or if you need additional assistance setting up your laser, please feel free to call us at +1 (626) 671-4014 or email at service@gueagle.com.

Introduction

How to Use This User's Manual

Thank you for purchasing a GU Eagle laser system coming with the EaglePrint CAM software. EaglePrint has been designed to be easy to use, but you will utilize it to its fullest potential by taking some time to read this user's manual prior to use. You will be ready to use the software as soon as you read the first few sections. Then you can refer to topics in the remaining sections, as you work.

Notes Used in This Manual

Look for these kinds of notes to help you find valuable information throughout the text:

NOTE

Helpful notes to keep in mind while running the laser!

IMPORTANT

Important instructions you should always follow.

WARNING

Warnings and cautions to keep in mind while running the laser.

EaglePrint vs. EagleWorks

EaglePrint is a print driver first, just like normal print drivers come with printers, and is designed to be used with a 3rd-party drawing software such as CoreIDRAW, Adobe Illustrator, AutoCAD, Adobe Photoshop, etc. With EaglePrint, you can use your laser just like using a normal printer, make a design in your favorite drawing software, print and get the job done! No more export and import, no mess, and what you see is what you get.

On the other hand, EagleWorks is a standalone CAD/CAM software with a more comprehensive support of our laser technology. With EagleWorks, you have to make or import a design, lay out, set technology and send the job to the laser.

In a short, EaglePrint is a tool to simplify the more complicated workflow of EagleWorks with less functions and flexibilities, but is much easier to use, more intuitive, and more suitable for some projects, e.g. designs depend on vector line width which can not be recognized by EagleWorks.

Safety

Laser Safety

Lasers use intense beams of light to create heat and fire as a normal part of their operation, and depending on the laser, the light might not be visible to you. If the proper safety measures are ignored, you could burn or blind yourself or someone else, or start a fire that could damage or destroy the building in which the laser system is housed.

IMPORTANT

ALWAYS wear protecting glasses while doing laser processing.

WARNING

DO NOT aim and fire laser on anything but the workpieces you want to process.

WARNING

DO NOT leave a running laser unattended.

IMPORTANT

ALWAYS follow the laser safety regulations while operating a laser directly in EaglePrint.

The visible output beam of the Laser Diode Pointer (Red Dot Pointer) is accessible to the operator. While this device employs the same technology as the familiar laser pen-pointers, like them it is potentially hazardous if its beam is directed into the eye.

WARNING

DO NOT view directly into the beam of the Laser Diode Pointer (Red Dot Pointer).

Install EaglePrint

In this chapter, we will guide you to get, install and upgrade EaglePrint.

- Get EaglePrint
- Install EaglePrint
- Upgrade EaglePrint

Get EaglePrint

Before diving into the installation, you need to get the EaglePrint installation package by the following ways.

1. The EaglePrint installation package comes with your CO₂ lasers.

Visit our official website to get more information about our CO_2 lasers.



- 2. Get the latest EaglePrint installation package from our official website.
- 3. Buy an EaglePrint license separately

If you have an EaglePrint compatible laser and do not have EaglePrint yet, you can buy it separately.

NOTE

You can have a taste on EaglePrint without a license, only the job output function is disabled.

Install EaglePrint

Before getting started, plug in the software USB flash or download the EaglePrint installation package from our official website, refer to Get EaglePrint for more details.

1. Browse to and double click the file *EaglePrint_setup_[version].exe* to launch the installer, a welcome screen appears.

闄 EaglePrint Setup	_		×
EaglePrint			
	<u>♥</u> Install	<u>C</u> lose	2

IMPORTANT

EaglePrint can be installed on Windows 7 and up only! You will get an error message if you try to install it on an unsupported operating system.

2. Click Install to start the installation.

₩ EaglePrint Setup	-		×
EaglePrint			
Setup Progress			
Processing: Initializing			
		<u>C</u> ano	cel

NOTE

The installer may take some time to finish initializing depends on the operating system environment, please wait with patience.

3. A setup dialog pops up. Click **Next** to move on.



4. Accept the End-User License Agreement. Click Next to continue.

🛃 EaglePrint Setup —	×
End-User License Agreement Please read the following license agreement carefully	E
G.U. Eagle	^
License Agreement Notice to User: By opening this packet you accept all of the terms and conditions of this agreement. The enclosed G.U. Eagle software program (the "SOFTWARE") is licensed by G.U. Eagle for use only or the terms set forth herein. If you do not agree to these terms, return the entire product with this packet unopened to your dealer within	5 9 1 1
30 days for a full refund. ☑I accept the terms in the License Agreement	~
Print Back Next Car	ncel

5. Have a look at the features going to be installed. Click **Next** to move on.

EaglePrint Setup	- 🗆 X
Custom Setup Select the way you want features to be installed.	E
Click the icons in the tree below to change the wa	y features will be installed.
Core Print Driver Setup Tools EaglePrint	Intall core print driver.
	This feature requires 17MB on your hard drive.
	B <u>r</u> owse
Re <u>s</u> et Disk <u>U</u> sage	Back Next Cancel

6. Click **Install** to start installing the features.

Ready to install EaglePrint		F
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.		
Back	Car	ncel

7. Wait for installing the features.

🔀 EaglePrint Setup	_		×
Installing EaglePrint			E
Please wait while the Setup Wizard installs EaglePrint.			
Status:			
Back	<u>N</u> ext	Car	ncel

A Windows security dialog will pop up and ask you to confirm the installation, click **Install** to continue.

📰 Windows Security	×
Would you like to install this device software?	
Name: Smart Laser Printers Publisher: 北京德美鹰华系统科技有限公司	
✓ <u>Always trust software from</u> "北京德美鹰华系统科 <u>Install</u> Do <u>n</u> 't Install <u>Don</u> 't Install	
You should only install driver software from publishers you trust. <u>How can I decide which device</u> <u>software is safe to install?</u>	

8. Click **Finish** to close the setup dialog.



9. Click **Close** to finish the installation.



IMPORTANT

If the installation fails with errors, please check the log file and send it to us.



← Settings \times Find a setting Ш<mark>о</mark> System Devices Display, sound, notifications, Bluetooth, printers, mouse power Phone Network & Internet Link your Android, iPhone Wi-Fi, airplane mode, VPN Personalization Apps Background, lock screen, colors Uninstall, defaults ₽₽ Time & Language Accounts Speech, region, date Your accounts, email, sync, work, family Gaming (1₇ Ease of Access \bigcirc Game Bar, captures, Game Narrator, magnifier, high

After the installation, on Windows 10, go to Settings, click Devices.

Choose Printers & scanners, you will see the printer EaglePrint.



On Windows 7, or if you are more familiar with the old Windows **Control Panel**, go to **Control Panel**, click **Devices and Printers**.



In the section Printers, you will see the printer EaglePrint.



Follow the steps in the chapter Getting Started to get EaglePrint ready for your laser.

Upgrade EaglePrint

You can always download the latest EaglePrint installation package from our official website.

You can just install the new version directly, the installer will take care of uninstalling the old version, refer to Install EaglePrint for more details.

NOTE

If you want to uninstall EaglePrint, on Windows 10, go to **Settings**, click **Apps**, uninstall the software there.

← Settings	×
යි Home	Apps & features
Find a setting	Apps & features
Apps	App execution aliases
IE Apps & features	Search, sort, and filter by drive. If you would like to uninstall or move an app, select it from the list.
⊟ Default apps	eagleprint $ ho$
띠 Offline maps	Sort by: Name \checkmark Filter by: All drives \checkmark
Apps for websites	1 app found EaglePrint 29.3 MB
□¤ Video playback	1.3.0 2/22/2024
	Modify

On Windows 7, or if you are more familiar with the old Windows **Control Panel**, go to **Control Panel**, click **Programs and Features**, uninstall the software there.

0	eagleprint - Programs and Feat	ures				- c	x c
÷	→ 👻 🛧 🚺 « All C >	Program	5 V	eagleprint			×
•	Control Panel Home View installed updates Turn Windows features on or	Uninstal To uninstal	II or chang II a program,	ge a program select it from the list and th	en click Uninstall, Change, or Rep	pair.	
	off	Organize 🔻	Uninstal	Change			- ()
		Name			Publisher		In
		漫 EaglePrint			G.U. Eagle		2/
		٢					>
		i 🖗 °	5.U. Eagle P	roduct version: 1.3.0 Help link: http://wwv	Support link: http: v.gueagle.c Size: 29.3	//www.gue MB	eagle.com/

Getting Started

In this chapter, you will get familiar with the EaglePrint user interface, learn how to set up EaglePrint, the workflow, how to connect your laser and the license key.

- Get Familiar with the EaglePrint UI
- Set up EaglePrint
- The Workflow
- Set up Laser Connections
- Connect the License Key

Get Familiar with the EaglePrint UI

EaglePrint is a specialized print driver, cooperated with the EagleCAM laser controllers, for laser cutting and engraving. Like normal print drivers, EaglePrint exposes most of its information, features and functions through the printer properties and the printing preferences, which you can find in Windows settings.

To open the printer properties, on Windows 10, go to Settings, click Devices.



Choose Printers & scanners, click the printer EaglePrint.



Click Manage, and then click Printer properties.

← Settings	.—.	Х
命 EaglePrint		
Manage your device		
Printer status: Idle		
Open print queue Set as default		
Print a test page		
Run the troubleshooter		
Printer properties		
Printing preferences		
Hardware properties		
Get help		

On Windows 7, or if you are more familiar with the old Windows **Control Panel**, go to **Control Panel**, click **Devices and Printers**.



In the section Printers, you will see the printer EaglePrint.





Right click EaglePrint, and then click Printer properties.

In the dialog **EaglePrint Properties**, you can have a look at the basic information and the features of EaglePrint in the page **General**, and the port used by EaglePrint in the page **Ports**.

🖶 Eagle	Print Pro	perties				×
General	Sharing	Ports	Advanced	Color Management	Security	
3	[EaglePri	int			
<u>L</u> ocati	on:					
<u>C</u> omm	nent:					
M <u>o</u> del	:	EaglePri	nt			
Colo	ures or: Yes			Paper availabl	e:	
Dou Stap	ible-side ble: No	d: No		1300.0mm x	900.0mm	^
Spe	ed: Unkn	own				
Max	cimum re	esolution	: 1016 dpi			\vee
			Pr	eferences	Print <u>T</u> est Pa	ge
				ОК	Cancel	<u>A</u> pply
🖶 Eagle	Print Pro	perties				×
General	Sharing	Ports	Advanced	Color Management	Security	
3	Eag	lePrint				
<u>P</u> rint t	o the foll ed port.	owing p	ort(s). Docu	ments will print to t	the first free	
checke						
Port		Descripti	on	Printer		^
Port	LE:	Descripti Print to F	on ile	Printer ZWCAD Virtu	al Eps Plotter 1.0	^
Port	LE: /SD-7	Descripti Print to F WSD Por	on ile t	Printer ZWCAD Virtu Brother DCP-	al Eps Plotter 1.0 1618W Printer 7110 series (Netwo	^
Port	LE: /SD-7 /SD-f /4 1c	Descripti Print to F WSD Por WSD Por Standard	on iile t t I TCP/IP Por	Printer ZWCAD Virtu Brother DCP- HP Officejet	al Eps Plotter 1.0 1618W Printer 7110 series (Netw	·
Port Port W W D P P	LE: /SD-7 /SD-f /4_1c /4_1c	Descripti Print to F WSD Por WSD Por Standard Standard	on iile t t I TCP/IP Por I TCP/IP Por	Printer ZWCAD Virtu Brother DCP- HP Officejet t	al Eps Plotter 1.0 1618W Printer 7110 series (Netw	·
Port Port FII W W P U P P	LE: /SD-7 /SD-f 4_1c 4_1c ORTP	Descripti Print to F WSD Por WSD Por Standard Standard Local Po	on file t t TCP/IP Por TCP/IP Por rt	Printer ZWCAD Virtu Brother DCP- HP Officejet t t Microsoft XP	al Eps Plotter 1.0 1618W Printer 7110 series (Netw S Document Writ	 e

To open the printing preferences, on Windows 10, click **Printing preferences** in the EaglePrint manage page.

← Settings	0-0	×
命 EaglePrint		
Manage your device		
Printer status: Idle		
Open print queue Set as default		
Print a test page		
Run the troubleshooter		
Printer properties		
Printing preferences		
Hardware properties		
Get help		

On Windows 7, click Printing preferences from the EaglePrint context menu.



In the dialog **EaglePrint Printing Preferences**, in the page **Layout**, you can set the paper size and orientation according to your laser, and in the page **Paper/Quality**, you can set the color mode for printing. Refer to Set up EaglePrint for more details.

EaglePrint Printing Preferences	×
Layout Paper/Quality Output	
Orientation:	
Ad <u>v</u> anced	
EaglePrint Printing Preferences	×
Layout Paper/Quality Output	

In the page **Output**, you can find the job and some system settings. Refer to Set up EaglePrint and Job Settings for more details.



Finally, there comes the laser window when printing from drawing software. Refer to Set up Laser Connections and Laser Processing for more details.

.	ROutput		×
	wouldn		~
Ou	Itput		
	Save To File		Download
		Filename:	DEFAULT
De	vice		
D	evice USB		~
	Add	Modify	Delete
F	Files		
	No	File Name	
	110.	The Renne	
	Read	Delete	Erase All
		Close	

Set up EaglePrint

Before starting, you need to know that you can set up EaglePrint system wide or just for a specific project. In general, we recommend to do a system wide setup for the system settings and a group of job settings for your every day jobs, i.e. the model of the laser controller, the home position, the paper size and orientation, the coordinates and the job origin, the color mode, a group of cutting and engraving parameters etc, and do a customization for a specific project when necessary, e.g. change some cutting parameters.

Open the printing preferences from Windows settings to do a system wide setup, refer here for more details. Open the printing preferences from the print dialog of the drawing software, e.g. CorelDRAW, to do a customization for your current project.

Print	x
General Color Composite Layout	Prepress 1 Issue
Destination	
Pri <u>n</u> ter: EaglePrint	- O
Orientation: Use printer default (Landscape)	Us <u>e</u> PPD
Status: Ready Location: SMARTLASER	Print to fi <u>l</u> e
Comment:	Single File 👻
Print range Current document Documents Current page Selection Pages: Even & Odd 	Copies Number of <u>c</u> opies: 1 ↓
Print st <u>y</u> le: Custom (Current settings not save	Print as <u>b</u> itmap: 300
? Print Previe <u>w</u>	Print Cancel Apply

Here we will guide you to set up EaglePrint step by step.

Set the model of the laser controller and the home position of the laser
 In the page **Output**, in the section **System**, choose the model of the laser controller of your machine to
 let EaglePrint generate proper data for your laser. And the option **Home position** must match the
 home position of your laser, otherwise, jobs will be in a wrong coordinate system, results in mirrored or
 flipped cutting or engraving.

System Control model: EAGLE V O O	Laser frequency	Ref. origin O O O O O O O O O Scale X: 1.000 Mirror Y: 1.000
		OK Cancel Apply Help

2. Set the paper according to the work area of the laser

The paper in EaglePrint represents the work area of the laser, and should be in the exact same size and orientation with the laser.

EaglePrint Printing Preferences X				
Layout Paper/Quality Output				
Qrientation: ▲ Landscape				
Ad <u>v</u> anced				

In the page **Layout**, set the paper orientation.

Click the button **Advanced...** to bring up the dialog where you can set the paper size.

EaglePrint Advanced Options				
Paper/Output Paper Size: 1300.0mm x 900.0mm				

The pages start with *CAD* in their names are being there for being compatible with some old versions of AutoCAD. And the yellow exclamation mark means that the paper's built-in orientation is different with the paper orientation setting and should be corrected.

3. Coordinates and job origin

In the page **Output**, in the section **General**, check the option **Programmed coordinates** to let EaglePrint position jobs according to the programmed coordinates. And the job origin tells the laser how to position the job relative to the programmed origin. Refer to Coordinates and job origin for more details.

0.01 + Reset	General Programmed coordinates
System Control model: Home position EAGLE Control model: C	Ref. origin O
	Negative Y: 1.000 Mirror Y: 1.000 OK Cancel Apply Help

4. Colors in printing

When printing, Windows will spool graphics in your design in black and white or in color, depends on whether the print driver supports color printing. In general, we recommend to set EaglePrint in color mode to support features like multi-colors cutting and get better vector graphics engraving results. Refer to Colors in Cutting, Colors in Engraving and Vector graphics for more details.

In the page Paper/Quality, check the option Color to set EaglePrint in color mode.



In the page **Output**, in the section **Cut settings**, uncheck the option **CMYK** to use RGB colors which are more consistent across different drawing software, avoiding troubles on assigning or setting colors when designing and recognizing colors in EaglePrint.

EaglePrint Printing Preferences									×			
Layout Paper/Quality Output												
Cut settings							Engrave s	ettings				
Enable CMYK	Order 🗹	Freq	Min power	Max power	Speed		Enable	Freq	Power	Speed	Step	
	2	20	85	85	8		\checkmark	20	12	400	2	
	2	20	85	85	12			kHz	%	mm/s		
	2	20	85	85	18				_			
	2	20	85	85	25		Union	objects		nidirection		
	1	20	15	15	80		Top to	bottom				

5. Job settings

In the page **Output**, set cutting and engraving parameters for your every day jobs, refer to Job Settings for more details.



The Workflow

We will go through the workflow of printing with EaglePrint in a drawing software in this section.

- 1. Prepare the design in the drawing software.
- 2. Customize the job settings and print.
- 3. Laser processing.

Prepare the Design in the Drawing Software

Prepare your design in the drawing software, set width of outlines, fill shapes, to match the way how Windows spool vector graphics, and process images, to get better engraving results. Refer to Important Concepts and Drawing Software Use Cases for more details.

Here is an example of preparing a vector design in CorelDRAW.



And here is an example of preparing an image in Photoshop.



Customize the Job Settings and Print

Bring up the print dialog, open the printing preferences there if you want to customize some job settings, e.g. the job origin, cutting or engraving parameters, etc, preview and confirm printing and then print out. Refer to Set up EaglePrint and Job Settings for more details.

Here is an example of printing in CorelDRAW.

Print			х
General Co	lor Composite Layout	Prepress 1 Issue	
- Destination -			
Pri <u>n</u> ter:	EaglePrint	~ Q	
Orientation:	Use printer default (Landscap	e) ▼ Us <u>e</u> PPD	
Status: Location: Comment:	Ready SMARTLASER	Print to file Single File	
Print range — Cu <u>r</u> rent do C <u>u</u> rrent pa Pages:	cument ○ <u>D</u> ocuments ge ○ <u>S</u> election 1 Even & Odd ▼	Copies Number of <u>c</u> opies: 1 1 2 2 1 2 3 Collate Print as <u>b</u> itmap: 300 4 dpi	
Print st <u>y</u> le:	Custom (Current settings not s	aved) - Sa <u>v</u> e As	
? Print Prev	rie <u>w</u>	Print Cancel Apply Page 1	-

IMPORTANT

What you see in print preview is what the Windows spooler will get when printing, so we recommend to **ALWAYS** preview and confirm before printing. If there is anything wrong in print preview, e.g. wrong color, missing parts, paper overflow, etc, please go back and review your design and all relative settings in EaglePrint and in the drawing software.

Laser Processing

There comes the laser window, and you can download the job to your laser for processing. Refer to Laser Window for more details.

🔒 RDOutput X							
Output							
Save To File		Download					
	Filename:	DEFAULT					
Device							
Device USB		~					
Add	Modify	Delete					
Files							
No.	File Name						
]						
Read	Delete	Erase All					
	Close						

Set up Laser Connections

Before downloading jobs, you have to set up laser connections in the laser window of EaglePrint.

뤥 RDOutput		×
Output		
Save To File		Download
	Filename:	DEFAULT
Device		
Device USB		~
Add	Modify	Delete

Laser could be connected to EaglePrint by USB or by network. There could be only one machine connected by USB at a time, and more than one machines connected by network at the same time.

1. Connecting by USB

First, you need to install the USB driver which included in the EagleWorks installation package, refer to Get EagleWorks and Install EagleWorks for more details.

And we highly recommend to install EagleWorks at the same time, because EaglePrint is an alternative to EagleWorks which provides comprehensive support for laser controllers, and lacks some features that you sometimes need to use, as we mentioned in EaglePrint vs. EagleWorks.

Then connect the laser to the computer using the USB cable that comes with the machine. The connection should be up and running immediately because the software already has a USB device set up by default.
2. Connecting by network

There are two ways to connect lasers to the computer by network, depends on the infrastructure and the way you work on your site.

The laser could be connected to the computer directly using the ethernet cable that comes with the machine, just like the connection with the USB cable.

And, the laser could be connected into the sub-network you already have. In this way, you can connect your computer wirelessly or have your workstation in another room, e.g. dedicated for job management or designing.



In either way, a network status prompt will appear on the control panel showing **Lan ON**, and you have to set up the network, put both the laser and the computer in the same subnet to let them communicate with each other.

Here are simple setups for example, please refer to your network administrator if there is a complex setup on your site.

Set up network for a direct connection
 The machine is set up to the IP address *192.168.1.100* by default. You can just set up a static IP address for your computer to put them in the same subnet.



On Windows 10, go to Settings, click Network & Internet.

Choose Status, click Change adapter options to open Network Connections.

4	Settings		×
ŵ	Home	Status	
Fin	d a setting $ ho$ vork & Internet	Show available networks View the connection options around you.	
₽	Status	Advanced network settings	
(î,	Wi-Fi	Change adapter options View network adapters and change connection settings.	
% %	Dial-up VPN	Retwork and Sharing Center For the networks you connect to, decide what you want to share.	
ц.	Airplane mode	Network troubleshooter Diagnose and fix network problems.	
(y)	Mobile hotspot	View hardware and connection properties	
⊕	Ргоху	Windows Firewall Network reset	

On Windows 7, or if you are more familiar with the old Windows **Control Panel**, go to **Control Panel**, click **Network and Sharing Center**.



Click Change adapter settings to open Network Connections.

👯 Network and Sharing Center		- 0	×
$\leftarrow \rightarrow \checkmark \uparrow$ 🗱 « All > Netw	✓ ^で Search Control Panel		Q
Control Panel Home View yo	our basic network information and	d set up connections	
Change adapter settings	r active networks		
Change advanced sharing settings		Access type: Internet Connections: M Wi-Fi	
Media streaming options			
Change y	our networking settings		
2	Set up a new connection or network Set up a broadband, dial-up, or VPN connec Troubleshoot problems Diagnose and repair network problems, or g	ction; or set up a router or access point. get troubleshooting information.	
See also			
Internet Options			
Windows Defender Firewall			

👰 Network Cor	nnections				_		\times
← → ~ 1	🛯 😰 « All > Netw	ٽ ~					٩
Organize 🔻	Disable this network device	Diagnose this connection	Rename this connection	»			?
				Ethernet 2 Network cable Realtek USB Gb	unplugged E Family C	d Controller	
7 items 1 ite	m selected					1 1 1	== 📰

In **Network Connections**, double click the adapter connecting to the laser.

Scroll to and double click Internet Protocol Version 4 (TCP/IPv4) in the pop-up dialog.

Ethernet 2 Properties	×
Networking Sharing	
Connect using:	
Realtek USB GbE Family Controller	
<u>C</u> onfigure	
This connection uses the following items:	
Procap Packet Driver (NPCAP)	
Endge Unver Image Driver Image Driver	
Microsoft Network Adapter Protocol	
Microsoft LLDP Protocol Drive	
✓ Internet Protocol Version 6 (TCP/IPvo)	
<	
I <u>n</u> stall <u>U</u> ninstall P <u>r</u> operties	
Description	
Transmission Control Protocol/Internet Protocol. The default	
wide area network protocol that provides communication across diverse interconnected networks	
OK Cancel	

Check **Use the following IP address** in the pop-up dialog, set **IP address** to, for example, *192.168.1.99*, set **Subnet mask** to *255.255.255.0*. Click **OK** to finish.

Internet Protocol Version 4 (TCP/IPv4)	Properties	\times
General		
You can get IP settings assigned auton this capability. Otherwise, you need to for the appropriate IP settings.	natically if your network supports ask your network administrator	
O Obtain an IP address automatical	v	
• Use the following IP address:		
IP address:	192.168.1.99	
S <u>u</u> bnet mask:	255.255.255.0	
Default gateway:		
Obtain DNS server address autom	natically	
• Use the following DNS server add	resses:	
Preferred DNS server:		
<u>A</u> lternate DNS server:		
Validate settings upon exit	Ad <u>v</u> anced	
	OK Cancel	

Set up network for connecting to an existing sub-network
 First, set up a static IP address for the laser according to the existing subnet.

	Z move	Language+	File:	TempFile					
	U move	IP config+	MaxPower:	50.0%					
1	Keyboard lock+	Diagnoses+	X:	965.3 mm					
	Manual Set+	Screen origin	Y: Z:	729.7 mm 3000.0 mm					
	Laser Set+	Axes Reset+							
	Origin set+								
	Set factory para								
	Set default para								
1	Auto focus								
	Idle 00.00.00 Count 1 X: 0.0mm Y: 0.0mm Lan ON								

Press the button **Z/U** on the panel, highlight **IP config+**, and press the button **Enter**.

Set up the IP address, and press the button **Enter**.

Z move	Languaget	File:	TempFile						
U move	IP config+	Speed: MaxPower:	200mm/s 50.0%						
Keyboard lock+	Diagnoses+	X:	965.3 mm						
Manual Set+	Screen origin	Υ: Ζ:	729.7 mm 3000.0 mm						
Laser Set+	Axes Reset+	IP addres	ss:						
Origin set+		192, 168	. 0. 100						
Set factory para		Gateway:							
Set default para		242 - 57 Press 7/1	to move itm						
Auto focus		Modified	to press Enr						
Idle 00.00.00 Count 1 X: 0.0mm Y: 0.0mm Lan ON									

Then, set up a static IP address for your computer, as described above, or get a dynamic IP address by DHCP, according to your network preference.

After setting up the network, set up a corresponding device in the laser window.

Click **Add** to bring up the dialog for setting up a new network device.

Manage De	vice		>	<
Name:	Device			
IP:	192 . 168 . 1	. 100	Test	
	ОК		Cancel	

Set a name for the laser, fill in the IP address of the machine. We recommend to click **Test** to do a connection test. Click **OK** if you get a successful message, then the laser will be selected as the current one automatically and you will be good to go with it.

You can connect more than one lasers to EaglePrint by network at the same time, just remember to assign different IP addresses for them.

If there are more than one lasers connected, make sure to select the right one in the device list before starting jobs, because the software needs to identify the model of the laser and then generate the proper data.

Sometimes, you just cannot connect the laser, e.g. you have a workstation in a room which is far from the laser and without a network setup. In this case, you can send jobs to the laser with a USB flash: make your design, save the job to a USB flash, and read it from the laser. Refer to Laser Window and the laser's manual for more details.

Connect the License Key

You need to connect the license key, comes with your laser or the software, to get allowed to download a job to the laser or save a job to a USB flash, refer to Get EaglePrint for more details.

Plug the license key into a USB port of your computer, and Windows will set it up and install the device driver automatically.



Technology in EaglePrint

In this chapter, you will get to know some most important concepts and get familiar with the detailed job settings in EaglePrint.

- Important Concepts
- Job Settings
- Machine Settings

Important Concepts

So far, you are familiar with the basics of EaglePrint, but you may still have questions about how the software maps your designs to cutting and engraving. We will show you some most important concepts in this section, to answer your questions and help you use EaglePrint properly.

1. Laser processing modes

First of all, you need to get familiar with the laser processing modes, which mean what a laser can do on laserable materials. EaglePrint supports laser cutting and engraving, here is a definition of laser cutting on Wikipedia.

Laser cutting is a technology that uses a laser to cut materials. Laser cutting works by directing the output of a high-power laser most commonly through optics. A typical commercial laser for cutting materials would involve a motion control system to follow a CNC or Gcode of the pattern to be cut onto the material. The focused laser beam is directed at the material, which then either melts, burns, vaporizes away, or is blown away by a jet of gas, leaving an edge with a high-quality surface finish.



And here is a definition of laser engraving on Wikipedia.

Laser engraving, which is a subset of laser marking, is the practice of using lasers to engrave an object. The technique does not involve the use of inks, nor does it involve tool bits which contact the engraving surface and wear out, giving it an advantage over alternative engraving or marking technologies where inks or bit heads have to be replaced regularly.



2. Vector graphics

EaglePrint supports cutting on thin outlines and engraving on thick outlines and fills of vector graphics. Here is a definition of vector graphics on Wikipedia.

Vector graphics is the use of polygons to represent images in computer graphics. Vector graphics are based on vectors, which lead through locations called control points or nodes. Each of these points has a definite position on the x- and y-axes of the work plane and determines the direction of the path; further, each path may be assigned various attributes, including such values as stroke color, shape, curve, thickness, and fill.

The example below is an artwork of our logo in CorelDRAW, there are three parts, the shape eagle is drawn in black thin lines for cutting, the outbound of the shape eagle, the letters *A*, *G*, *L* and *E*, and the bottom shape are drawn in green thick lines for engraving, and the texts *Advanced Automation* are filled in blue for engraving.



IMPORTANT

Windows will spool an outline as vector path if it is thin enough which depends and is variant in different drawing software, e.g. hairline in CorelDRAW, less than around 0.01mm in Adobe Illustrator, 0.00mm in AutoCAD, etc. You have to figure out the line width threshold in a specific software, drawing a rectangle, set the line width thinner and thinner until you get cutting instead of engraving.

NOTE

There are some drawing software, such as Adobe Photoshop, which do NOT support vector graphics at all. It is NOT possible to use this kind of software for cutting.

3. Images

EaglePrint supports only engraving on images. Here is a definition of images on Wikipedia.

In computer graphics, a raster graphics or bitmap image is a dot matrix data structure, representing a generally rectangular grid of pixels, or points of color, viewable via a monitor, paper, or other display medium. Raster images are stored in image files with varying formats.

The example below is a photo of Audrey Hepburn in Adobe Photoshop.



Engraving with laser is much different with printing with ink, there is no color applied on materials, laser expresses colors by etching material in different depths or densities. To map colors of an image to different depths, we convert colors to gray scales, and then map gray scales to laser power levels. But in practice, it is usually very difficult to control laser power precisely at a high rate of change, especially for some kinds of laser, such as the CO₂ glass laser which is widely used in laser machines. The better choice is to map colors to different densities. A technique called halftone is often used to simulate gray scales by the use of black dots, varying either in size or in spacing, in a result of a gradient like effect. In the pictures below, the left one shows halftone dots, the right one shows what human eyes would see from a distance far enough.



The example below shows the original and the halftoned photos of Audrey Hepburn.



4. Coordinates and job origin

Every laser has a coordinate system set up on its work area, you must set up an exact same coordinate system, called machine coordinates or absolute coordinates, in EaglePrint to map the laser. Refer here for how to set up the home position.



Laser controllers support standard Cartesian coordinates and its variants, laser manufactures use one of them according to their machine.

In practice, people are often used to set a position in the work area from the laser, called programmed origin, where you want your job to be aligned. And there comes the job origin in EaglePrint, which tells the machine how to position the job relative to the programmed origin. Refer here for how to enable programmed coordinates and set up the job origin.



Job Settings

A set of appropriate job settings is one of the most important technology for getting good laser results.

Colors in Cutting

In **Color** mode, refer here for more details, there are ten pre-defined colors available for cutting in EaglePrint. A set of cutting parameters, associated with a color, will be applied automatically to the thin outlines which are assigned the color.

🔋 Eagl	ePrint Printing	Preferenc	:es									
Layout	Paper/Quality	Output										
Cut s	settings						Engrave se	ettings				
Ena	able CMYK	Order 🗹	Freq	Min power	Max power	Speed	Enable	Freq	Power	Speed	Step	
		2	20	85	85	8	\checkmark	20	12	400		2
		2	20	85	85	12		kHz	%	mm/s		
		2	20	85	85	18						_
		2	20	85	85	25	Union of	objects		nidirection		
		1	20	15	15	80	Top to	bottom				
		2	20	80	80	100	Dual dire	ction rever	se offset	0.80	mm	
		2	20	80	80	100		Calorine ver		0.00		
		2	20	80	80	100	Stamp)				
		2	20	80	80	100	Co-w	ork with RI	DCAM softv	vare		
		2	20	80	80	100						•
			kHz	%	%	mm/s	Expansi	on:	0.0 mm			

In general, cutting and etching on different materials with different thicknesses and surfaces require different sets of parameters. In practice, we recommend to create a one-to-one mapping between the most commonly used operations and the first few colors, e.g. 3mm acrylic cutting to the color , 5mm plywood cutting to the color , surface etching to the color , and temporarily assign other operations to the last few colors when necessary, e.g. 2mm cardboard cutting to the color . When setting parameters, all you need to do is just assigning the outlines the colors.

The colors are available in both RGB and CMYK, in order to support a wider range of drawing software and use cases. Uncheck the option **CMYK** to use the RGB colors.

#	Color	Hex	R	G	В
1	Black	#000000	0	0	0
2	💭 Blue	#0000FF	0	0	255
3	🦲 Cyan	#00FFFF	0	255	255
4	🦲 Green	#00FF00	0	255	0
5	🦲 Yellow	#FFFF00	255	255	0
6	🦲 Red	#FF0000	255	0	0
7	🦲 Magenta	#FF00FF	255	0	255
8	🖲 Purple	#9900CC	153	0	204
9	🦲 Orange	#FF6600	255	102	0
10	🦲 Pink	#FF99CC	255	153	204

Check the option **CMYK** to use the CMYK colors.

#	Color	С	Μ	Y	К
1	Black	0	0	0	100
2	💭 Blue	100	100	0	0
3	🦲 Cyan	100	0	0	0
4	🦲 Green	100	0	100	0
5	🦲 Yellow	0	0	100	0
6	i Red	0	100	100	0
7	🦲 Magenta	0	100	0	0
8	🖲 Purple	20	80	0	20
9	🦲 Orange	0	60	100	0
10	Pink	0	40	20	0

To assign an outline a color in CorelDRAW, for example, select the RGB or the CMYK color mode when creating a new document, make your design, select the outline and then click the color on the palette or set the color value by yourself. Refer to Use EaglePrint with CorelDRAW for more details.

Sometimes, if you want to process just a part of your design, uncheck the option **Enable** of the colors of the shapes which you want to ignore.



You can also print only the selection to do the same thing if the drawing software support that, refer to Drawing Software Use Cases for more details.

And, by enabling the option **Order** and assigning each color a sequence number, you can sort the shapes of different colors during cutting, refer to Processing Sequence for more details.

Cutting Parameters

🖶 Eag	lePrint Printing	g Preferenc	:es									×
Layout	Paper/Quality	Output										
Cut	settings						Engrave se	ttings				
E	nable CMYK	Order 🗹	Freq	Min power	Max power	Speed	Enable	Freq	Power	Speed	Step	
		2	20	85	85	8	\checkmark	20	12	400		2
	d 🔵 📋	2	20	85	85	12		kHz	%	mm/s		
		2	20	85	85	18						-
	v 🦲 🛛	2	20	85	85	25	Union o	objects		nidirection		
		1	20	15	15	80	Top to	bottom				
	🗹 🔴 🛛	2	20	80	80	100	Dual dire	ction rever	se offset	0.80	mm	
	v 😑 📋	2	20	80	80	100		0.01110101				
	🗹 🔵 🛛	2	20	80	80	100	Stamp)				
	🗹 🦲	2	20	80	80	100	Co-w	ork with RI	DCAM softw	vare		
	v 🦲	2	20	80	80	100						
			kHz	%	%	mm/s	Expansi	on:	0.0 mm			

Here is a list of parameters for cutting.

Parameter	Description
Min Power	The minimum power for cutting.
Max Power	The maximum power for cutting.
Speed	The speed for cutting.

Sometimes, especially when cutting thin sheets in a high speed, the material will catch a lot more heat at the start, end and sharp corners because of the low feeding speed at these positions and results in over burnt edges. In these cases, you should set a low minimum power, e.g. just above the firing threshold, and the software will generate a linear power curve, then the machine will adjust the power level based on the real-time feeding speed.

Colors in Engraving

In **Color** mode, Windows will spool thick outlines and fills all in black, and convert images into black and white in a simple but ugly way.



For getting better engraving results on images, we recommend to use Adobe Photoshop or some other professional image processing software to do halftone by yourself, refer to Use EaglePrint with Photoshop for more details.

Engraving Parameters

🖶 EaglePrint Printing	g Preferenc	ces									×
Layout Paper/Quality	Output										
Cut settings						Engrave se	ettings				
Enable CMYK	Order 🗹	Freq	Min power	Max power	Speed	Enable	Freq	Power	Speed	Step	
	2	20	85	85	8	\checkmark	20	12	400	2	
	2	20	85	85	12		kHz	%	mm/s		•
	2	20	85	85	18						
	2	20	85	85	25	Union of	objects		nidirection		
	1	20	15	15	80	Top to	bottom				

Here is a list of parameters for engraving.

Parameter	Description						
Power	The power for engraving.						
Speed	The speed for engraving.						
Step	The space between scanlines.						

And here is a map between the step values and the corresponding engraving DPI.

Step	DPI
1	1000
2	500
3	333
4	250
5	200
8	125
10	100

Sometimes, if you want to ignore the engraving part of your design, just uncheck the option **Enable**.

If the option **Union objects** is checked, all the separated parts will be treated as a whole when engraving, reduce the overall processing time, especially when there are lots of small parts close to each other. You should uncheck this option if there are just few parts far from each other, avoiding very short laser firing time on long scanlines.

The option **Unidirection** is for single-direction engraving, refer to Engraving Correction for more details.

By default, EaglePrint will engrave a part from the bottom up to prevent the engraving surface from being contaminated by the exhaust airflow carrying smoke and dust. Check the option **Top to Bottom** if you want to engrave from the top down.

Engraving Correction

Laser engraving involves high speed moving of the laser head. In this progress, laser should be triggered simultaneously with the position control. But unfortunately, there must be some timing difference between these two execution subsystems. In a result, each scanline will shift a little with its ideal position, which will be even worse in a dual-direction engraving, and you will see jagged edges, shown as below.



In this figure, the black line represents the ideal position of a scanline, the blue line is the real position of a scanline from left to right, and the green line is the real position of a scanline from right to left. In this example, laser is triggered a little late than the position control of the laser head.

The simple way to solve this issue is to use single-direction engraving by checking **Unidirection** in the engraving parameters, refer Engraving Parameters for more details. Every scanline will shift the exact same and align with each other. But in this way, it will take much longer to finish the job compare to dual-direction engraving, because the laser head travels back instead of engraving back.

EaglePrint has a setting to correct offsets in dual-direction engraving to balance quality and efficiency. To use this function, you need to measure the response of your machine at a specific speed.

- 1. Draw a rectangle in 80mm x 10mm, set it to engraving at the speed of, for example, 400mm/s, and set **Step** to 20.
- 2. Laser the rectangle on a cardboard.
- 3. Measure the distance between the ends of the scanlines.

In the engraving parameters, set the reverse compensation value to the option **Dual direction reverse offset**. You may need to do this multiple times, making minor adjustments to get a clean result.

🖶 EaglePrint Printing	g Preferenc	es				×
Layout Paper/Quality	Output					
Cut settings						Engrave settings
Enable CMYK	Order 🗹	Freq	Min power	Max power	Speed	Enable Freq Power Speed Step
	2	20	85	85	8	20 12 400 2
	2	20	85	85	12	kHz % mm/s
	2	20	85	85	18	
	2	20	85	85	25	Union objects Unidirection
	1	20	15	15	80	Top to bottom
	2	20	80	80	100	Dual direction reverse offset: 0.80 mm
	2	20	80	80	100	

NOTE

The reverse compensation value could be minus, depend on your laser.

Processing Sequence

When printing, Windows will split the paper horizontally into narrow strips, and spool all the shapes and images in each strip from top down. You can let EaglePrint process the job in that order, or in an optimized one which fits your needs better, e.g. engraving before cutting, inner before outer, less traveling, outlines of a color before outlines of another, etc.

First, engraving is always before cutting if it is enabled.

And, for cutting, check **Inner path first** to process inner outlines before outer ones, check **Path optimize** to shorten traveling path.

🖶 Eagl	ePrint Printing	Preference	25				>
Layout	Paper/Quality	Output					
-Cut s	settings						Engrave settings
En	able CMYK	Order 🗌	Freq	Min power	Max power	Speed	Enable Freq Power Speed Step
		1	20	80	80	100	0 20 10 400 2
		2	20	80	80	100	0 kHz % mm/s
		3	20	80	80	100	
		4	20	80	80	100	0 Union objects Unidirection
		5	20	80	80	100	D Top to bottom
	🗹 🛑	6	20	80	80	100	Dual direction reverse offset: 0.80 mm
	✓ ()	7	20	80	80	100	
	✓ ●	8	20	80	80	100	D Stamp
	☑ 🦲	9	20	80	80	100	Co-work with RDCAM software
	☑ 🥚	10	20	80	80	100	
			kHz	%	%	mm/s	Expansion: 0.0 mm
	aser timing			oner nath firs	+	1	Cut off
	Layout Paper/Quality Output Cut settings						
Las	ser on anead:	Ums		Path optimiz	e		
La	aser off delay:	0 ms) End to end			Overstrike: 0 🗸
			-	Center to c	enter		
□ <i> </i>	Auto flatten			Reverse path	optimize		
	0.01 🜲	Reset	.				General
			I				Programmed coordinates

Set the sequence number of a color smaller than the number of another to process the outlines of the color before the ones of the other. The sequence numbers of more than one color can be same, means that the processing order of the outlines of those colors will not change.



In the example above, the color black, blue, cyan and green are for cutting, the color yellow is for etching, and the user just cares about doing etching before cutting.

Machine Settings

There is a set of machine settings for cutting and engraving, which affects all jobs, saved in the laser controller. You can set them up through EagleWorks, refer to Machine Settings for Cutting and Machine Settings for Engraving in the EagleWorks user's manual for more details.

Laser Processing

In this chapter, you will get familiar with the laser window, and learn how to manage offline jobs in EaglePrint.

- Laser Window
- Managing Offline Jobs in EaglePrint
- Auxiliary Machine Settings

Laser Window

Now you can print for laser processing. The job sending functions are grouped in the laser window.

🔏 RDOutput		×
Output Save To File	Filename:	Download
Device		
Device USB		~
Add	Modify	Delete
Files		
No.	File Name	
Read	Delete	Erase All
	Close	

Before sending jobs, select a laser in the device list, refer to Set up Laser Connections for more details.

If the laser is connected, set a filename, and click **Download** to send the job to the laser, then control the processing from the machine panel.

Otherwise, click **Save to File** to save the job into a file, and you can send it to the laser by a USB flash, then read it and control the processing from the machine panel.

Managing Offline Jobs in EaglePrint

If the laser is connected, you can manage offline jobs in EaglePrint.

Output Save To F	ile	Download					
5	Filename:	DEFAULT					
Device							
Device USB		~					
Add	Modify	Delete					
Files							
No	File Name						
1		TECT2					
2	TESTA						
3	TEST9						
4	TEST 10						
5	TEST11						
6	TEST12						
7	TEST13						
8	TEST14	¥					
Read	Delete	Erase All					

EaglePrint will read jobs from the laser automatically by default, or you can click **Read** to update the file list by yourself. Click **Delete** to delete the current selected job, click **Erase All** to delete all jobs.

Auxiliary Machine Settings

There are some auxiliary machine settings you can set up through EagleWorks for the laser, refer to Auxiliary Machine Settings for more details.

Drawing Software Use Cases

In this chapter, we will guide you in details to use EaglePrint with CorelDRAW, Adobe Illustrator, AutoCAD and Adobe Photoshop.

- Use EaglePrint with CorelDRAW
- Use EaglePrint with Illustrator
- Use EaglePrint with AutoCAD
- Use EaglePrint with Photoshop

Use EaglePrint with CorelDRAW

We will guide you in details to use EaglePrint with CoreIDRAW in this section.

1. Create a new document

Choose the color mode to match the colors for cutting in EaglePrint, refer here for more details. And set the paper size and orientation according to your laser, refer here for more details.

Create a New Document	X
Search presets	Page Type
Custom CorelDRAW Def Default CMYK Legal 210 x 297mm 2:10 x 297mm 8.5 x 14in.	Document Settings General <u>N</u> ame: Untitled-1 <u>N</u> umber of pages: 1 <u>P</u> age view: <u>C</u>
Letter Tabloid Government Le Government Let 8.5 x 11in. 11 x 17in. 8.5 x 13in. 8 x 10.5in.	Primary <u>color mode:</u> CMYK RGB Dimensions Width: 1300.0 mm millimeters Height: 900.0 mm Qrientation:

2. Create your design

Create your design. EaglePrint will cut thin outlines, which are set as hairline, and engrave thick outlines and fills, help you get an exact same result as the design. Refer to Vector graphics for more details.



If you want to set different cutting parameters on outlines, assign them with different colors, matching the corresponding ones in EaglePrint, refer to Colors in Cutting for more details.

Here is an example of assigning color with the palette.



And here is an example of setting the color value directly.

	Properties
540 550 560 570 580 590 millimeters	🔄 🕹 🕸 🖈 🔪 🔛
	Outline
Advanced Automation	×
	RGB 👻 🗘
	R: 0
	G: 0
	B: 255
	#0000FF
	× ···

In color mode, all thick outlines and fills will be spooled in black and results in same engraving effects, refer to Colors in Engraving for more details.

CorelDRAW does not support image engraving well, we suggest to do that in Adobe Photoshop, refer to Use EaglePrint with Photoshop for more details.

3. Print

Bring up the print dialog. Choose EaglePrint, confirm **Orientation**. Check the option **Selection** in the section **Print range** if there is a selection in your design which is the only part you want to process. Click \square to show the instant preview window which helps you have a look at what is going to be printed out.

Destination -	5 1 D 1 .	~	
Pri <u>n</u> ter: Orientations	EaglePrint		
Status:	Ready		
Location:	SMARTLASER	Print to fi <u>l</u> e	
Comment:		Single File 👻	
Print range -		Copies	FACTR
Current do Current pa	age <u>Selection</u>	Number of <u>c</u> opies:	E-Kal GI LI M
O Pages:	1	[2]3 [2]3 ✓ Collate	
	Even & Odd 🔷 👻		
		Print as <u>b</u> itmap: 300 🗘 dpi	
	.		
rint style:	Custom (Current settings not	saved) v Save As	

If you want to change the job settings, click to bring up the printing preferences dialog. Refer to Job Settings for more details.

IMPORTANT

What you see in print preview is what the Windows spooler will get when printing, so we recommend to **ALWAYS** preview and confirm before printing. If there is anything wrong in print preview, e.g. wrong color, missing parts, paper overflow, etc, please go back and review your design and all relative settings in EaglePrint and in the drawing software.

If you cannot see the colors in the design, click the tab **Color** and check if the option **Color conversions** is set to **CorelDRAW** and the option **Output colors** is set to **RGB**, or if the option **Color conversions** is set to **EaglePrint**.

it .										
ieneral	Color	Composite	Layout	Prepress	1 Issue					
Color:			• <u>C</u> ompos	ite						
			○ <u>S</u> eparati	ons						
Setting	js:		• <u>D</u> ocume	nt color						
			O Color pr	oof					 	
Color c	con <u>v</u> ersions	:	CoreIDRAV	v			-			
<u>O</u> utput	t colors:		RGB	*						
			🗸 Convert	spot colors to	RGB					
Color p	pro <u>f</u> ile:		(Documen	t) sRGB IEC61	966-2.1		*		<u>E-la CJ D D</u>	_
			Preserve	RGB number					4.	
			✓ Preserve	pure <u>b</u> lack						
<u>R</u> ender	ring intent:		Relative co	lorimetric			*			
The Grap	color settin phic device	gs and preview printer that you	available in t selected on	his dialog bo> the General ta	are set for ab.	the Wind	ows			
D :	at Decisions			Γ					Page 1	•

Click the tab **Issue** if there is a badge number on the tab to check if there is a series issue you have to resolve before printing.

nt														
General	Color	Composite	Layout	Prepress	1 Issue									
<u>P</u> reflight	for: Defa	ault Settings						~ Q						
fi Co	olor correcti	on has been ena	bled for nor	-PostScript o	utput									
									[
Details:										1	Adv	inced Aut	omation	
Color out driver for results.	tput to this this device	device will be ca is also set to do	librated usin color correc	g the current tion, it may h	ly selected co appen twice	omposite which w	e color pro ill cause ir	file. If the consistent		f F	<u>à A</u>	GI	<u>] R</u>	
Suggesti	ons:													_ [
lf you wis If you wis ""Propert	sh to use the sh to use Co ties"" under	e printer driver c orel's color corre the General tab.	olor correcti ction, turn o	on, set it to p if color corre	erform color ction in the p	correction correction	ons in the iver by ch	Color tab. oosing						
Don't	check for th	ois issue in the fu	iture											
<u>_</u> onr	encentor of th	in a search and the re												
				r										
Prir	nt Previe <u>w</u>				Print	C	ancel			Pag	e 1		Ŧ	

4. Output

If everything is good, click **Print** to bring up the EaglePrint laser window, select the laser, set a name and download the job, or save the job to a USB flash and read it from the laser. Refer to Laser Window for more details.

Use EaglePrint with Illustrator

We will guide you in details to use EaglePrint with Adobe Illustrator in this section.

1. Create a new document

Set the paper size and orientation according to your laser, refer here for more details. And choose the color mode to match the colors for cutting in EaglePrint, refer here for more details.

New Document					×
🕚 Recent Saved Mobil	le Web Print Film & V	ideo Art & Illustration			
YOUR RECENT ITEMS (13)			PRESET DETAILS		
			1300 mm	Millimeters	~
			Height	Orientation Artboa	
[Custom]	[Custom]	[Custom]	Bleed		
1300 x 900 mm	1300 x 900 mm	1300 x 900 mm	Top	Bottom	
				Right	Ì
4			0 mm	0 mm	
 A4	[Custom]	[Custom]	Color Mode		
210 x 297 mm	1000 x 620 mm	610 x 450 mm	RGB Color		
P Find more te		Go		Create	Close

2. Create your design

Create your design. EaglePrint will cut thin outlines, which are less than around 0.01mm, and engrave thick outlines and fills, help you get an exact same result as the design. Refer to Vector graphics for more details.



If you want to set different cutting parameters on outlines, assign them with different colors, matching the corresponding ones in EaglePrint, refer to Colors in Cutting for more details.

Here is an example of setting the color value directly.



In color mode, all thick outlines and fills will be spooled in black and results in same engraving effects, refer to Color in Engraving for more details.

Illustrator does not support image engraving well, we suggest to do that in Adobe Photoshop, refer to Use EaglePrint with Photoshop for more details.
3. Print

Bring up the print dialog. Choose EaglePrint. Illustrator will set **Media Size** to **Defined by Driver** and check the option **Auto-Rotate** by default. The paper in print preview might be in portrait and will be rotated automatically to match the laser.

	Printer: EaglePrint
General	General
Marks and Bleed	Copies: 1 Collate Collate Corder
Output Graphics	Artboards: O <u>A</u> ll O <u>R</u> ange:
Color Management	☐ Ignore Art <u>b</u> oards ☐ S <u>k</u> ip Blank Artboards
mation	Media Size: Defined by Driver ✓ Width: 902 mm Height: 1302 mm Orientation: ☑ Auto-Rotate ☑ ☑
Advanced Auto	Options Print Lavers: Visible & Printable Lavers
	Placement: Do Not Scale Y: -501.5 mm Scaling: Do Not Scale Omm
I	Scale: W: 100 Ø H: 100 Tile Range: Tile Range:
Set <u>u</u> p	Do <u>n</u> e Print Cancel

If you want to change the job settings, click **Setup...**, and then click **Preferences** to bring up the printing preferences dialog. Refer to Job Settings for more details.

🖶 Print		×
General		
Select Printer		
🚍 Brother	DCP-1618W Printer	🚍 Foxit PDF Reader Printer
🚍 EaglePr	int	🖻 Foxit PhantomPDF Printe
🚔 Fax		📷 HP Officejet 7110 series (
<		>
Status:	Ready	Print to file Preferences

IMPORTANT

What you see in print preview is what the Windows spooler will get when printing, so we recommend to **ALWAYS** preview and confirm before printing. If there is anything wrong in print preview, e.g. wrong color, missing parts, paper overflow, etc, please go back and review your design and all relative settings in EaglePrint and in the drawing software.

4. Output

If everything is good, click **Print** to bring up the EaglePrint laser window, select the laser, set a name and download the job, or save the job to a USB flash and read it from the laser. Refer to Laser Window for more details.

Use EaglePrint with AutoCAD

We will guide you in details to use EaglePrint with AutoCAD in this section.

1. Create a new document

There is no document setup dialog in AutoCAD, different with CorelDRAW and Adobe Illustrator.

2. Create your design

Create your design. EaglePrint will cut thin outlines, which should be set to 0.00mm in AutoCAD, and engrave thick outlines. Refer to Vector graphics for more details.



If you want to set different cutting parameters on outlines, assign them with different colors, matching the corresponding ones in EaglePrint, refer to Colors in Cutting for more details.

Here is an example of assigning color with the palette.

todesk AutoCAD LT 2019 test1.dx	f			► Type a	keyword or phrase	
 in an antipart of the second s	Insert • Block •	Match Properties	ByLayer ByLayer ByBlock	Group	Image: solution Image: solution Image: solution Measure Image: solution Image: solution	Mana Pa ■ ■
	0		Index Colors More Colors			

Click **More Colors...** in the dropdown-window shown above, you can set the color value directly in the tab **True Color**.

A Select Color	×
Index Color True Color Red: 0 ÷ Green: 0 • Blue: 0 • RGB Color: 0.0	Color Books Color model: RGB True Color Stored as RGB: Red: 0 Green: 0 Blue: 0 Cancel Help

In color mode, all thick outlines will be spooled in black and results in same engraving effects, refer to Colors in Engraving for more details.

AutoCAD does not support image engraving at all, we suggest to do that in Adobe Photoshop, refer to Use EaglePrint with Photoshop for more details.

3. Print

Bring up the print dialog. Choose EaglePrint, confirm the paper size, set **Drawing orientation** to **Landscape**, set **Plot scale** according to your design, set **Plot area** to **Extents**, and check **Center the plot** in **Plot offset**.

Printer/olotter		Shaded viewpo	ort options
Na <u>m</u> e: 🖨 EaglePrint	✓ Properties	Sha <u>d</u> e plot	As displayed \checkmark
Plotter: EaglePrint - Windows System Driver - by A	utodesk	<u>Q</u> uality	Normal \checkmark
Where: SMARTLASER	<u>к— 1302 ММ—Я ()</u> Д	DPI	300
Description:		Plot options	kground
Paper size	Number of copies	✓ Plot object	t lineweights
1300 0mm v 900 0mm		Plot trans	parency
1500.0mm x 900.0mm		Plot with p	olot styl <u>e</u> s
Plot area	Plot scale	Plot paper	rspace last
What to plot:	Fit to paper	Hide pape	rspace objects
Extents ~	Scale: 1·1	Plot stamp	on
		Sa <u>v</u> e char	nges to layout
Plot offset (origin set to printable area)	1 mm ~ =	Drawing orient	ation
<u>X</u> : 620.80 mm ⊡ <u>C</u> enter the plot	1 u <u>n</u> it	OPortrait	
<u>Y</u> : 432.81 mm	Scale lineweights	Landscape The apside	e A
Preview	Apply to Layo <u>u</u> t OK	Cancel	Help

Click **Preview...** to show the preview window which helps you have a look at what is going to be printed out.



IMPORTANT

What you see in print preview is what the Windows spooler will get when printing, so we recommend to **ALWAYS** preview and confirm before printing. If there is anything wrong in print preview, e.g. wrong color, missing parts, paper overflow, etc, please go back and review your design and all relative settings in EaglePrint and in the drawing software.

If you want to change the job settings, click **Properties...**, and then click **Custom Properties...** to bring up the printing preferences dialog. Refer to Job Settings for more details.

lotter Configuration Editor - EaglePrint	×		
General Ports Device and Document Settings			
 EaglePrint Media Source and Size <size: 1300.0mm="" 900.0mm="" x=""></size:> Media Destination <default></default> Graphics Custom Properties User-defined Paper Sizes & Calibration Custom Paper Sizes Modify Standard Paper Sizes (Printable Area) Filter Paper Sizes Plotter Calibration PMP File Name <none></none> 			
Access Custom Dialog Press the following button to access the device driver-specific user-interface. Custom Properties			
<u>I</u> mport <u>D</u> efaults OK Cancel <u>H</u> elp			

4. Output

If everything is good, click **OK** to bring up the EaglePrint laser window, select the laser, set a name and download the job, or save the job to a USB flash and read it from the laser. Refer to Laser Window for more details.

Use EaglePrint with Photoshop

We will guide you in details to use EaglePrint with Adobe Photoshop in this section.

1. Open an image

Open an image or make your own in Photoshop.



2. Apply halftone on the image

First, click **Mode** > **Grayscale** in the pulldown-menu **Image** to convert color image to grayscale. And click **Mode** > **Bitmap...** to bring up the bitmap dialog, set output resolution to at least 500 pixels per inch, and set **Method** to **Halftone Screen...**.



Then click **OK** to bring up the halftone screen dialog, set **Frequency** to *20* lines per inch, set **Angle** to *45* degrees, and set **Shape** to **Round**, click **OK** to apply.

Halftone Screen			×
Halftone Scr	reen		
Erequency:	20	Lines/Inch ~	
A <u>n</u> gle:	45	degrees	Cancel
<u>S</u> hape:	Round		Load
			Save

Here is the halftoned image.



3. Print

Bring up the print dialog. Choose EaglePrint.

Photoshop Print Settings	×
51.25 in x 35.5 in	Printer Setup Printer: EaglePrint Copies: 1 Print Settings Layout: 👔 🚯
	 Color Management Position and Size Position Center Top: 13.756 Left: 22.5 Scaled Print Size Scale: Height: Width: 100% 7.98 6.25
	 Scale to Fit Media Print Resolution: 500 PPI Print Selected Area Units: Inches Printing Marks Functions
🔽 Match Print Colors 🗌 Gamut Warning 🔽 Show Paper White	Reset Don <u>e</u> Print

If you want to change the job settings, click **Print Settings...** to bring up the printing preferences dialog. Refer to Job Settings for more details.

IMPORTANT

What you see in print preview is what the Windows spooler will get when printing, so we recommend to **ALWAYS** preview and confirm before printing. If there is anything wrong in print preview, e.g. wrong color, missing parts, paper overflow, etc, please go back and review your design and all relative settings in EaglePrint and in the drawing software.

4. Output

If everything is good, click **Print** to bring up the EaglePrint laser window, select the laser, set a name and download the job, or save the job to a USB flash and read it from the laser. Refer to Laser Window for more details.