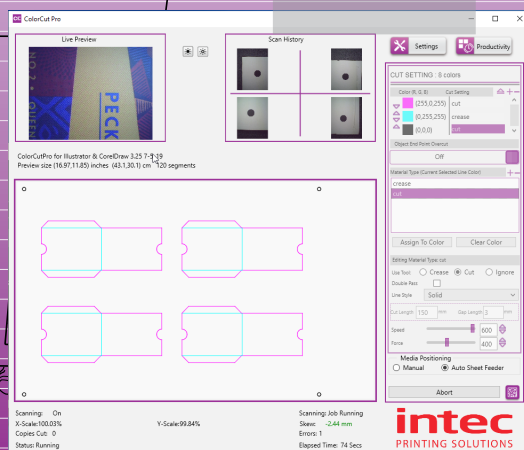
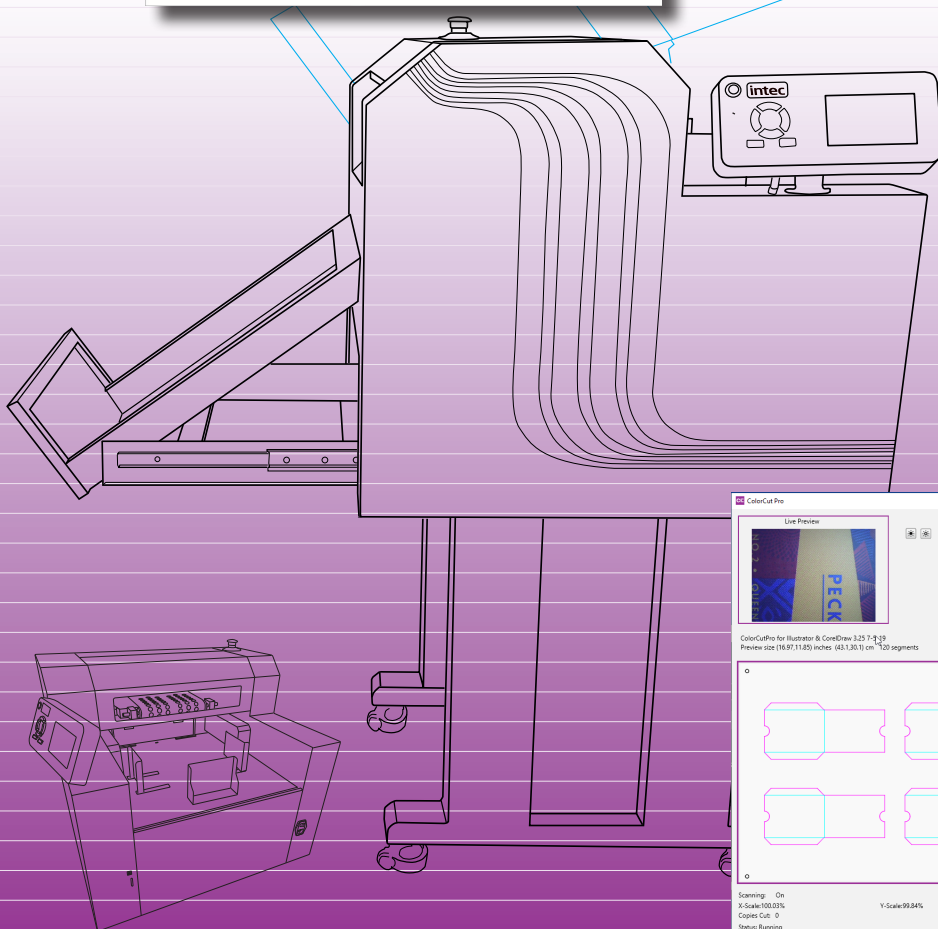


ColorCut SC5000 Series

ColorCut Pro - Production Studio 2021 User Guide

Revision: 1.2



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1. INTRODUCTION

To cut your projects with the Intec ColorCut SC5000 cutter, you need to be able to design your artwork and then apply lines that you designate for cutting, creasing, scoring or perforating. Projects and artwork can be created using either Adobe Illustrator on Mac or PC, or CorelDraw on PC.

ColorCut Pro is a plug-in that provides you the ability to send projects that you have designed in Adobe Illustrator® or CorelDRAW® directly to your Intec ColorCut Flatbed cutter with no need to convert them to a different format.

After you install ColorCut Pro™ (including ColorCut Pro - Production Studio) you will be provided with a new option within your Adobe Illustrator® or CorelDRAW® software program enabling you to send vector lines from your software to your ColorCut SC5000 cutter. During the installation, ColorCut Pro will also add an option that enables you to automatically add Page Registration Marks (Referred to as PageMARKs in this manual) for print & cut jobs, these are scanned automatically using the ColorCut SC5000's Vision3 CCD sensor, providing origin, scale, skew and rotation information. In addition ColorCut Pro will add an option for you to assign Job numbers or QR Codes to your cut jobs, enabling you to build a library of cut job files which can be used with a stand alone version of ColorCut Pro known as ColorCut Pro - Production Studio (or Job Server).

Files can be cut directly from your graphics application using the ColorCut Pro plug-in, or using the ColorCut Pro - Production Studio version of software, which can be launched separately either on the same or a different computer. ColorCut Pro - Production Studio is a simple interface that enables other individuals within your company the ability to cut your jobs at any time without requiring Adobe Illustrator or Corel Draw, and without having to re-open the original file.

The ColorCut Pro plug-in does not currently work with any other vector imaging programs aside from those listed in the Compatibility section below.

Files may be cut directly from PC Graphics applications using ColorCut Pro's plug-in or using the by using ColorCut Pro - Production Studio (PC only). Mac users can design their jobs, add cutting registration marks, assign Job numbers, add QR Codes and add jobs to the ColorCut Pro Job library using the ColorCut Pro Mac Client. The Mac workstation is not used to cut the files, Mac jobs are sent to the ColorCut Pro job library on a remote PC for cutting with the ColorCut Pro - Production studio software.

Compatibility

The plug-in requires Adobe Illustrator® (Mac or PC) or CorelDRAW® (PC only) to be installed on the computer in question. The ColorCut Pro™ software does not include the Adobe Illustrator® or CorelDRAW® software.

Workstation Hardware requirements:

Compatible Vector Programs:

PC - Adobe Illustrator®* CS1–CS6, CC, CC2014, CC2015, CC2017, CC2018 , CC2019, CC2020, CC2021

CorelDRAW®** X4 - X8, 2017 - 2020

MAC - Adobe Illustrator®* CC2015, CC2017, CC2018 , CC2019, CC2020, CC2021

* Does not support illegal copies of Illustrator

** Full version only. Does not support “Home and Student”, “Essentials” edition or illegal copies of CorelDRAW

Multicore Intel processor with 64-bit support

Windows 10 Professional x64 bit

4 GB of RAM (8 GB recommended (As supplied with ColorCut Pro Server Station)

Minimum display resolution : 1024x900

Recommended Display Resolution: 1280x960 or higher.

(Screens with resolutions such as: 1152x900, 1024x900, 1280x960, 1440x900, 1440x960, 1440x1024, 1440x1080, 1600x900, 1600x1080, 1600x1280, 1920x1080 or higher)

2x available USB Ports

(Note KB & Mouse often use a port each so factor this in)

FB750, FB1150, FB8000, SC5000 and LC600 users:

PC directly connected to ColorCut must have Wi-Fi capability for Direct connection to Vision3

Camera Sensor. (for PC users with no wi-fi currently a USB Wi-Fi dongle included)

Compatible OS Versions:

PC Windows v7,8 or 10 – 64bit with

Mac OS version 10.15 (Mountain Lion), Mac OS 10.13 (High Sierra), MacOS version 10.12 (Sierra), or Mac OS X version 10.11 (El Capitan)

Compatible Cutting Units:

Intec ColorCut® Flatbed (SC5000)

2. INTRODUCTION, COLORCUT PRO - Production Studio

ColorCut Pro - Production Studio (The main application), is PC Only. This is the application that communicates with your Intec cutter and will ultimately cut your designs. This can be launched in two ways:

ColorCut Pro (Direct Plug-in): The ColorCut Pro plug-in can be accessed and launched from inside Illustrator or CorelDraw - just under your PRINT command. When starting ColorCut Pro directly from Illustrator or CorelDraw, it works just like the PRINT command. When the ColorCut Pro option is selected from the **[FILE]** menu in your graphics application, the vector lines on the currently selected layer are directly exported into the ColorCut Pro cutting window. Once exported to ColorCut Pro, simply choose the action for each colored line in your design e.g. Cut, Crease, Ignore, Perforate, Score and click start. Cutting will commence immediately. This is a very simple way to cut directly from your file.

Where access to the original artwork files is not practical, such as where a different user wishes to cut the job, then we recommend jobs are created with a job number and/or QRcode. Adding a Job Number will automatically add the Cut file to the ColorCut Pro Job library, thereby enabling the job to be cut using ColorCut Pro - Production Studio software (detailed below), either on the same computer or a different computer.

ColorCut Pro - Production Studio (Job Server), Launched from the START MENU on your computer. Identical to the main application that launches from inside Illustrator or CorelDraw, ColorCut Pro (Job Server) will open with no cutting file or job selected instead cut files are retrieved from the ColorCut Job library by entering the job number OR scanning the QR Code on the printed sheets and then cut the file. The advantage of using ColorCut Pro - Production Studio in job server mode is that there is no need to open the original design files, thus no need for Illustrator or CorelDraw. The Job Server version of ColorCut Pro is stand alone, thus will cut files or jobs created and saved to the ColorCut Pro Job library using the *ColorCut Pro ADD PageMarks & QRcode* feature (detailed below). Both in *Direct* or *Job Server* mode, users can choose speed, force and other cutting related controls and can set productivity options such as number of copies to cut.

Within Illustrator (Mac or PC) or CorelDraw (PC only) you will find 2 additional functions:

ColorCut Pro ADD PageMARKs; this is a utility that automatically adds cutting registration marks to your artwork. (Known as PageMARKs). Illustrator or Corel Draw files with PageMARKs can be cut directly from Illustrator or Corel Draw by using the ColorCut Pro application.

ColorCut Pro ADD PageMARKs & QRcode; this is a utility that enables users to assign a Job number AND a QRcode to their artwork so that it may be cut at a later date. The QRcode is automatically generated and the job number and placed on your artwork. Once a QRcode has been assigned to your artwork, the cutting file is sent (in the background) to the ColorCut job library for use later with the main ColorCut Pro (Job Server) application. With Job numbers and QRcodes, files can be printed (or sent to RIP's (like a Fiery) and printed at a later date). The sheets can be cut using the ColorCut Pro (Job Server) version which can be done on a separate PC and does not require the original file to be opened. The design to be cut is retrieved automatically as the user enters the job number OR the cutter reads the QRcode. This is ideal for larger companies looking to separate design and finishing(Cutting) of jobs.

Mac users and ColorCut Pro

Mac users can design and generate jobs on Mac workstations using ColorCut Pro's Job library feature.



Note the main ColorCut Pro (Production Studio) cutting application is PC only, so Mac users can design their artwork on the Mac and use a PC to connect to the cutter for the cutting of the jobs.

Mac users can design and cut files using 2 different approaches:

1. You can use the Mac ColorCut Pro feature '**ColorCut Pro ADD PageMARKs**'; this utility will add the registration marks necessary to cut your file. You should then save your design as an illustrator file that can be opened on the PC which is connected to the cutter. (If you save the files in Illustrator format, you must have Illustrator also installed on the PC to open Illustrator files). You can then use ColorCut Pro in direct mode and then cut directly from the PC version of Illustrator.

or (the recommended solution is):

2. Connect a PC to your Intec cutter and install ColorCut Pro - Production Studio, on the PC (on the same network as the MAC), configure the ColorCut Pro Job Library feature to act as a cut job library server for your Mac.

Use your Mac to create your artwork and then use the Mac ColorCut Pro feature '**ColorCut Pro ADD PageMARKs & QR Code**'. (On MAC, this feature is found in the Illustrator main menu, just under the PRINT command). This feature enables Mac users to design on their Mac and then when the 'Add PageMARKs & QR Code' feature is selected from the Illustrator menu, ColorCut Pro will assign a Job number AND a QR Code to the artwork, the cut file is automatically sent (in the background), to the ColorCut Pro Job library server on your PC so that it may be cut at a later date. This enables Mac designers to design efficiently on their MAC and allows Print Production operators to cut the Mac designed jobs from the remote PC connected to the Intec cutter using the Job Server and Job Library feature.

3. Setting Up Live Video for ColorCut Pro

ColorCut Pro uses the Vision3 registration system on your SC5000 to identify your cutting registration marks (PageMarks) and to read the QR code for retrieving job numbers.



Please Note: ColorCut Pro does NOT require a live video feed to do this, your cutter will work perfectly fine with no video connection as all this is all handled in the cutter. However, the Vision3 registration system uses a CCD camera which incorporates a camera image echo function.

This function will broadcast over Wi-Fi the video feed that the Vision3 sensor can see. You can connect to the live video relay using the ColorCut Pro application and display the video feed which is useful when placing sheets manually or to see while cutting and help identify issues. We recommend you do enable this feature. Please follow the guide below on how to connect to the live video feed before launching ColorCut Pro.

3.1. Using Wi-Fi to connect to your ColorCut's Live Video Feed

The Vision3 registration system fitted in an Intec SC5000 cutter, has a camera image echo function which enables the live video feed from the camera to be 'echo'd' or transmitted through a direct Wi-fi connection so that you can also see what your SC5000 cutter can see. To connect to the Video feed you will need to 'make' a Wi-Fi Direct connection from the computer that is running the ColorCut Pro application and is connected to the cutter.

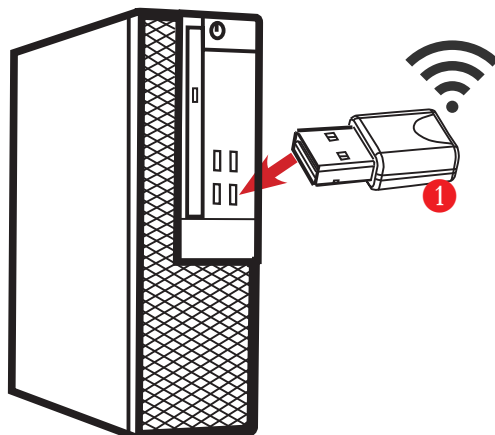
The SC5000 cutter will connect to a 2.4GHz Wi-Fi Direct connection or Wi-fi HotSpot defined as follows:

SSID: H3

Password: 12345678

If your computer is not a laptop then you may not have Wi-Fi capabilities on your PC, therefore your Intec SC5000 is supplied with a USB Wi-Fi Dongle B. to enable you to do this.

If you are connected on a PC with a Wi-Fi connection (such as a laptop you can ignore this step).



1. Insert the Wi-Fi Dongle supplied with the SC5000.

2. When the dongle is recognised, please install the drivers (supplied in the Wi-Fi dongle box).

3.2 Windows applications for creating a Wi-fi HotSpot.

Once you have Wi-Fi installed on your computer there are 2 methods to connect to your Intec SC5000 cutter.

1. Use the built in Windows HOTSPOT function. This is easy to use and uses Windows 10's own HOTSPOT feature.



Note: Windows HotSpot is a WindowsOS feature that enables a Mobile HotSpot - Direct Wi-Fi connection. However, it as initially intended for sharing an internet connection, so please bear in mind that if you do not have an internet connection on your computer, the Windows HOTSPOT feature can not be enabled. (This is true, even though you are connecting directly to the Intec SC5000 cutter and not using the feature to connect to the internet). If you do not have an internet connection then we recommend creating a DIRECT connection (Below) which is how newer devices like some TV remote controls (Roku 3)work, to do this use a utility like **Wi-Fi Direct Access point** (below).

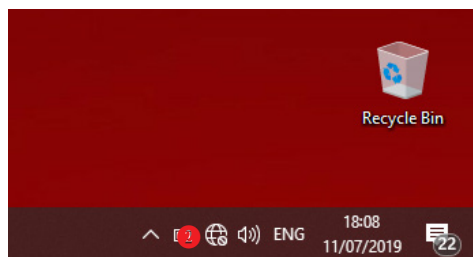
2. Use the Wi-Fi Direct Access Point. This is a paid for utility from the Windows Store for Windows 10 users.



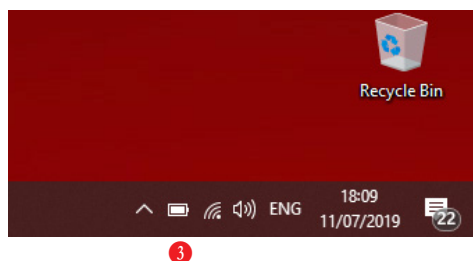
Wi-Fi Direct makes a direct connection to the Intec Wi-fi video feed from the Camera, eliminating any routers or network management issues. It does this using the Wi-Fi Direct standard, which enables devices to easily connect with each other without requiring a wireless access point. Wi-Fi Direct allows two devices to establish a direct Wi-Fi connection without requiring a wireless router or internet connection.

3.2.1 Configuring WindowsOS Wi-Fi HotSpot

1. Check the task bar on your computer and ensure you have an internet connection. If NO Wi-Fi connection shows, or the “Not connected to the Internet” icon shows **2** then click on the icon and connect to your Wi-Fi router and enter any ID or passwords required.



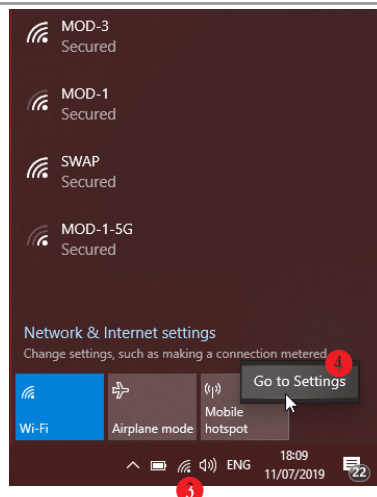
2. Check the task bar on your computer and ensure you have a the Wi-Fi connection showing **3**. (This is essential to start the Wi-Fi HotSpot)



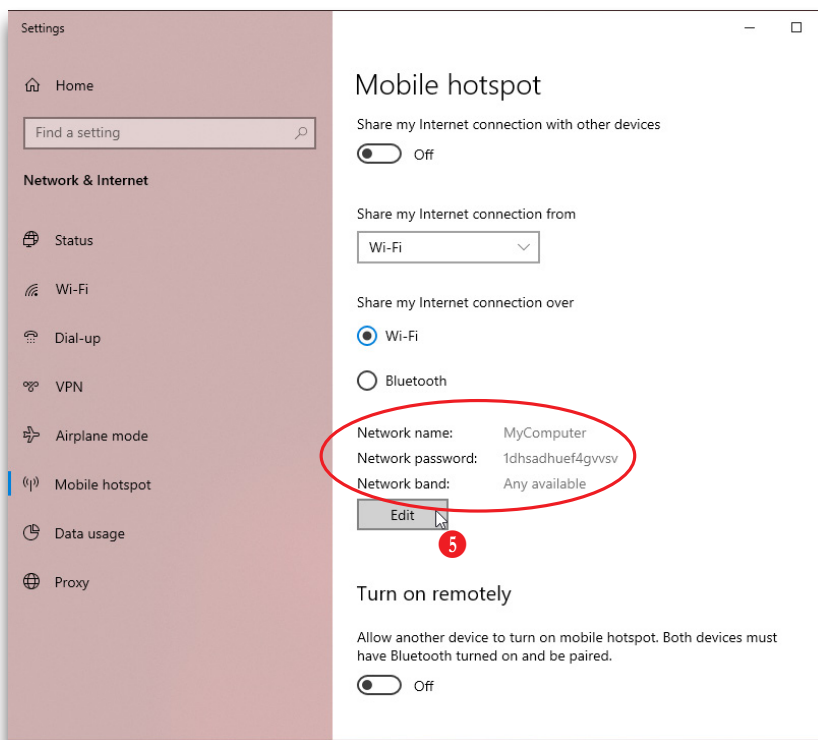
Configuring WindowsOS Wi-Fi HotSpot (Cont.).

3. Left click on the Wi-Fi icon **3** in the task bar to display the 'Wi-Fi, Network & Internet setting' menu, then Right mouse click over the Mobile Hotspot **4** button in the lower right.

The sub menu item 'Go to Settings' will be displayed. Click this.



4. The 'Windows Mobile hotspot' configuration menu will be displayed. This menu is only required when initially setting up the HotSpot. Each time you activate the HotSpot after this, the settings for the SSID, and Password will be remembered.



Your Intec SC5000 is set to make a direct connection to a 2.4GHz WLAN with an SSID of "H3", and broadcasts the Live video feed to that connection.

You need to set up your HotSpot to match this SSID name. Click Edit **5** to configure your Hotspot to 2.4GHz, and set your SSID and the password for connection.



If you can't activate the HotSpot and you see the message show to the right, then you skipped step 2. You must ensure you have an internet connection to use Windows HotSpot, even though the cutter does not need one.

Mobile hotspot

We can't set up mobile hotspot because your PC doesn't have an Ethernet, Wi-Fi, or cellular data connection.

Share my Internet connection with other devices

☐ Off

Configuring WindowsOS Wi-Fi HotSpot (Cont.).

- 5.** Under, *Network Name*, enter the SSID name '**H3**' as shown **6**. Within the field, *Network password*, enter the password '**12345678**' **7** (The Intec SC5000 cutter will automatically connect to the SSID "H3", with a password of '12345678'. So these entries must be set to match exactly.

Edit network info

Change the network name and password that other people use for your shared connection.

Network name **6**

H3

Network password (at least 8 characters) **7**

12345678

Network band

Any available

Save Cancel

- 6.** The Intec SC5000 Vision3 sensor's image Echo feature broadcasts only using the 2.4GHz, so it is essential that you set the '*Network Band*' **8** to 2.4GHz, if you set it to 5GHz or "Any Available" the cutter will not connect to your HotSpot and you will not be able to see the Camera.

Edit network info

Change the network name and password that other people use for your shared connection.

Network name

H3

Network password (at least 8 characters)

12345678

Network band **8**

Any available

5 GHz

Any available

2.4 GHz

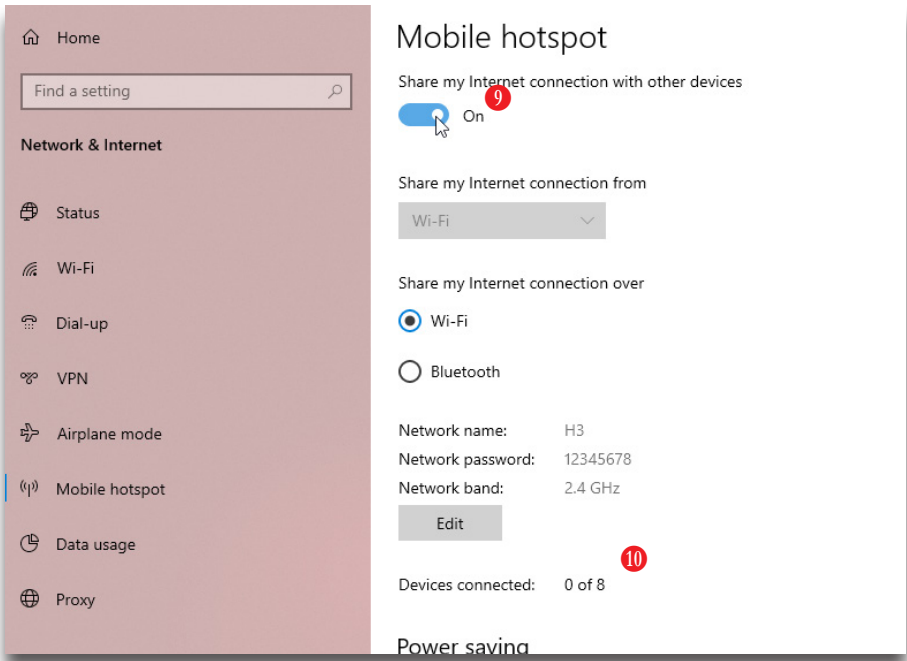
Save Cancel

- 7.** Click save to save finish and save your setting. These will be remembered and in future you only need to enable or disable the connection. When you click SAVE you will be returned to the '*Windows Mobile hotspot*' configuration dialogue box.

Configuring WindowsOS Wi-Fi HotSpot (Cont.).

8. In the ‘Windows Mobile hotspot’ configuration dialogue box, turn ON the ‘Share my hotspot connection with other devices’ 9.

At the bottom of this dialogue box you can see the devices that connect to your computer 10. It will take between 30 secs to 2 mins for the Intec SC5000 to see the connection and connect to your Hotspot.

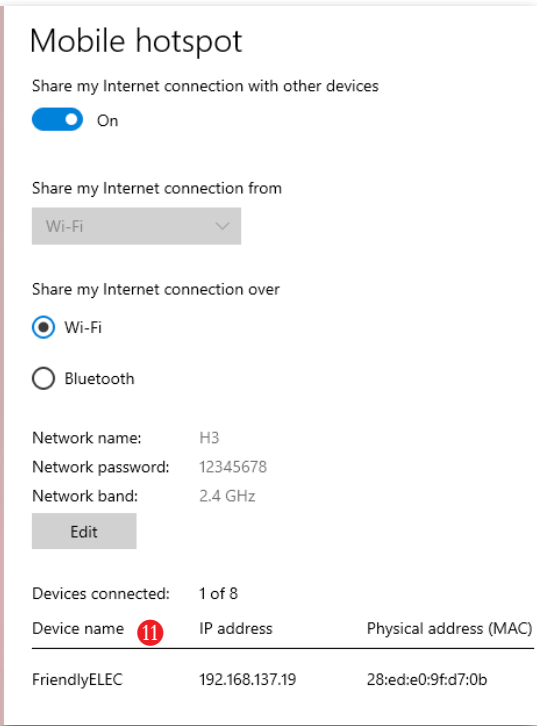


9. After a short period (30 secs to 2mins) you should see a new device appear under the ‘connected device’ list. 11
Either:

FriendlyElec
Intec SC5000

The IP address will be shown in the connected devices list so you know it has connected..

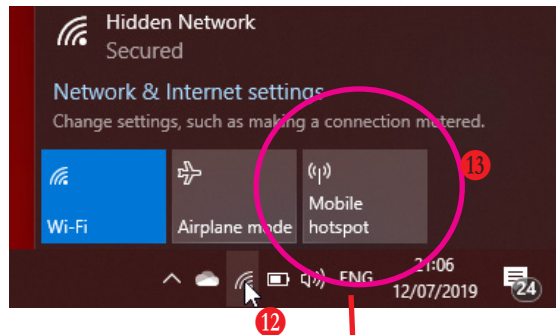
The setup is complete. In future you only need to enable and disable your HotSpot, to connect to the cutter. (See step 10 to understand how to do this).



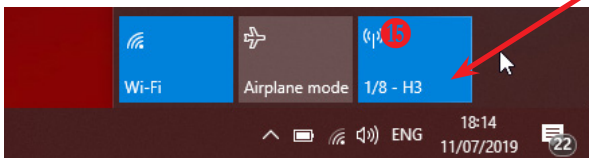
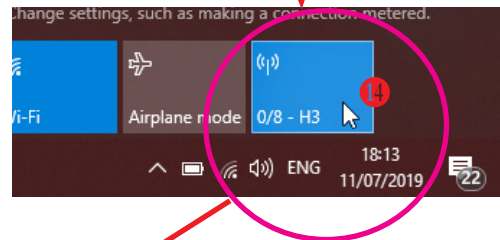
3.2.2 Daily Operation - Enabling WindowsOS Wi-Fi HotSpot.

- 10.** During daily operation you can now enable the connection to your Intec cutter by simply clicking on the Wi-Fi icon in the Windows task bar ¹² (Bottom right of your screen).

Next click on the Mobile HotSpot button ¹³ that appears in the lower right corner of the 'Network and Internet settings' Dialogue box/menu that appears.



The Mobile HotSpot button will change color when it is activated, and indicate the SSID name (H3) and how many devices are connected. ¹⁴



After enabling the mobile Hotspot, ensure you power ON the Intec SC5000 cutter, and allow 30 secs - 2mins for it to connect to your HotSpot. Your Mobile HotSpot will show when the device is connected. ¹⁵

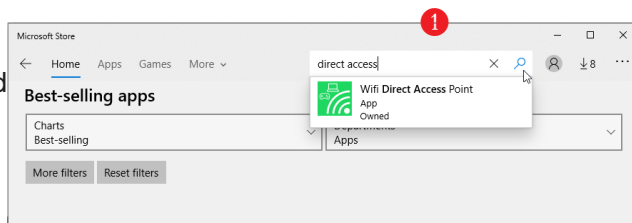
You can now skip to the section on Graphic Design and Using ColorCut Pro. However, if you do not have an Internet connection then follow the steps on how to set up a direct connection to the Cutter without requiring an internet connection or router. (Wi-Fi Direct Access Point following.)

3.2.3 Configuring Windows Wi-Fi Direct Access Point (Method 2)

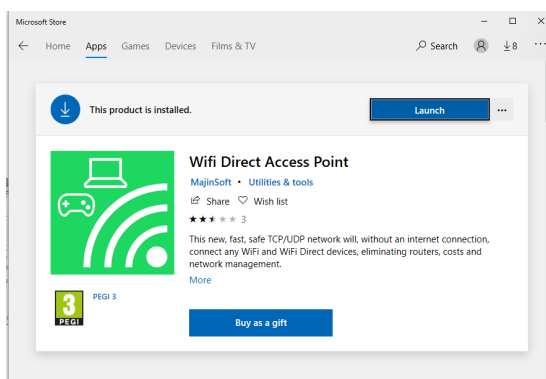
'Wi-Fi Direct Access Point' is an app available from the MicroSoft Store. It is available for Win 10 users and enables you to set up a Direct Wi-Fi connection to the Intec cutter without the need for an internet connection or a separate router. It is ideal for users without connection to a router OR users in secure environments where connection to the Internet is not permitted for IT reasons and as such the normal WindowsOS Wi-Fi HotSpot will not work.

'Wi-Fi Direct Access Point' (other alternative apps may be available), is a paid for application available from the MicroSoft Store.

1. To download it, open the Microsoft Store program from your Windows Start Menu, and click on the SEARCH box **1**, enter the search term 'Direct Access' and the app will appear in the search.



2. Click on the application and click [GET] to download it. (Note: This is a paid app and not part of the Intec ColorCut solution, please check it is compatible with your Wi-Fi equipment (The USB Dongles supplied have been tested so if you are using these it should be fine).



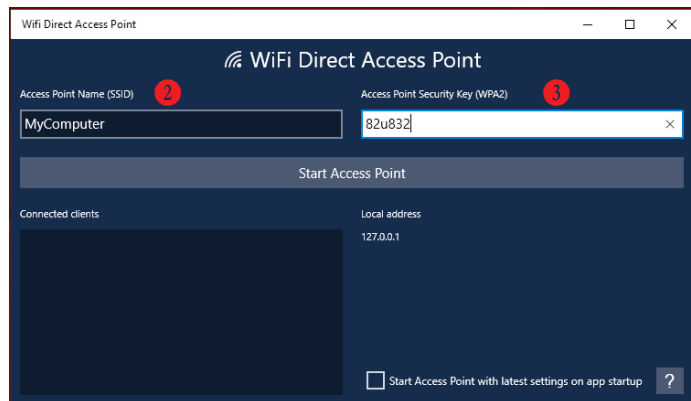
3. After installing the Wi-Fi Direct Access Point, locate the app from your Windows START Menu and click to launch it.

Configuring Windows Wi-Fi Direct Access Point (Cont.)

- 4.** The first time you launch Wi-Fi Direct Access Point, you will need to set the Access Point Name (SSID) and the Security Key/Password to match the SSID and Password that your Intec ColorCut Cutter will try to connect to.

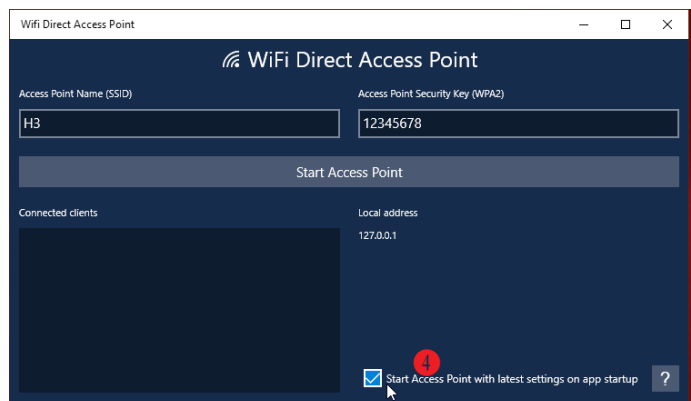
Click on the Access Point Name SSID **2** and set it to 'H3' .

Click on the Access Point Security Key and set the password to '12345678' **3**

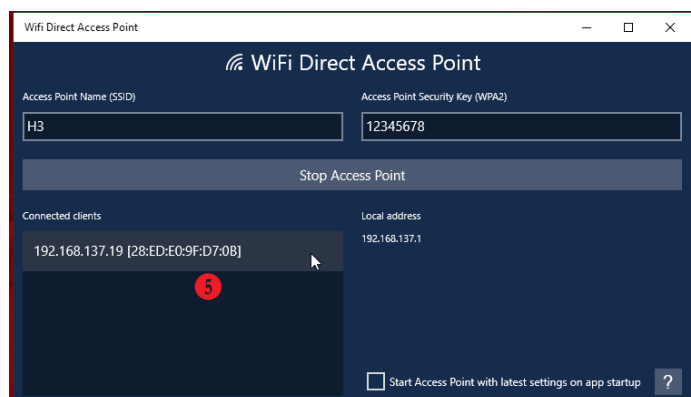


- 5.** Having entered the Access Point Name and the Password ensure that it starts each time with the same settings by clicking the check box next to “Start Access Point with latest settings on app startup” **4** .

Click on the button **‘START ACCESS POINT’** to configure the PC to accept Direct Wi-Fi connections.



- 6.** After clicking ‘START ACCESS POINT’, the Intec cutter will take approx 30 secs to 2mins to see the Wi-Fi access point and connect. When the Intec cutter connects, you will see the device and IP address appear in the left column, **5**



You can now follow the the section on Graphic Design and Using ColorCut Pro. For how to set up your artwork and how to configure the ColorCut Pro app for initial use and daily operation.

4. GRAPHICS FILE DESIGN - CREATING YOUR ARTWORK

The ColorCut Pro Plug-in works directly from Adobe Illustrator or CorelDRAW. It requires the lines for cutting, perforating and creasing to be organised on a **single** layer. Therefore when designing with graphics you should organize the graphic design in different layers:

- One (or more layers) for the main graphics (The design you will print).
- One layer for the cutting contour (*the lines to be cut -which you don't want to print*).
- An additional layer will be created by ColorCut used for Page Registration Target (PageMARKs) which are automatically placed on this different (additional) layer.

Designing using layers makes life easier because when printing, you don't want to print the cutting lines or folding lines on your artwork. Equally, when sending cutting lines to the cutter, you don't want to confuse the cutter with lines that may be in your printed design. The layers feature enables you to turn the visibility of layers, on or off as required.



The most common mistake people make is to print all the layers including the contour layer (the cut lines) that make the prints unusable in most cases.

Similar commands are available in Adobe Illustrator and CorelDRAW to enable and disable the layers.

In the pictures shown on this page there is an external frame to indicate the border of the sheet making it easier for you to see the page.

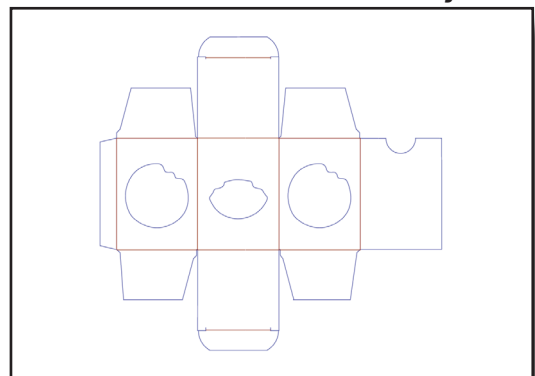
Note: This is for illustration purposes only.

Also please note: When you open some PDF format files directly in Adobe Illustrator or CorelDRAW, very often you may also find an external frame on the graphics. You may need to delete the external frame if it exists or ColorCut Pro may cut this in addition for you.

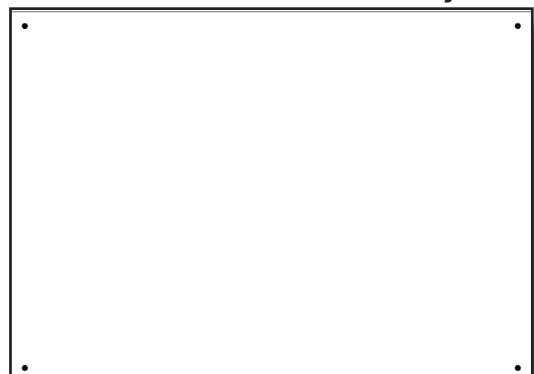
Graphics/Artwork layer



Cut contour layer



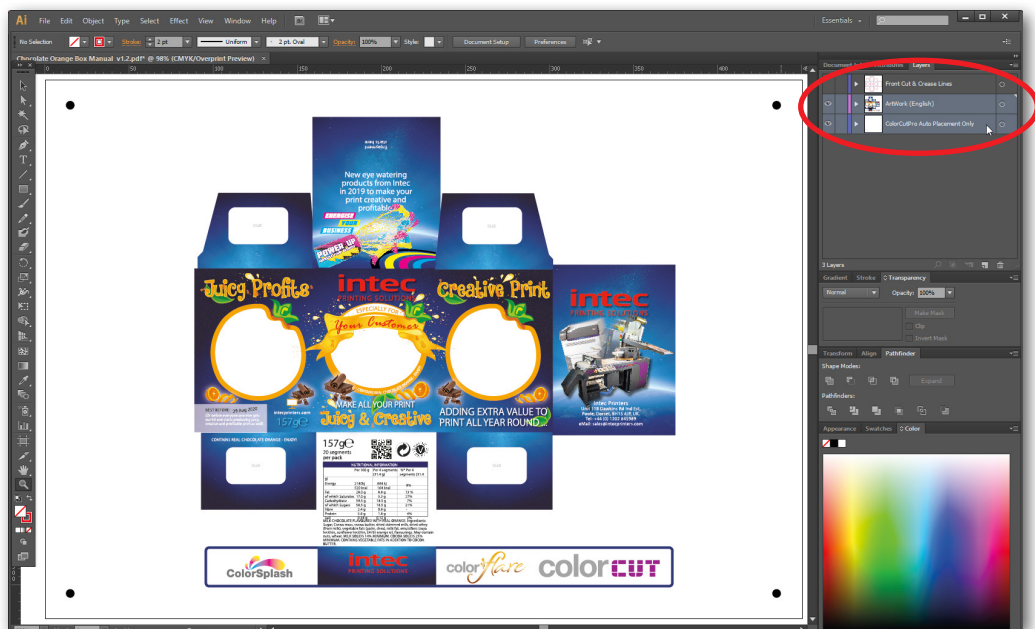
Automatic ColorCut Pro Marks Layer



4.1 Layers for printing

In this example, the main graphics layer is visible and active. The ColorCut auto-generated 3rd layer with Alignment PageMARKs is also visible. (Detailed later).

The cut contour layer is disabled. *This drawing is ready for printing.*

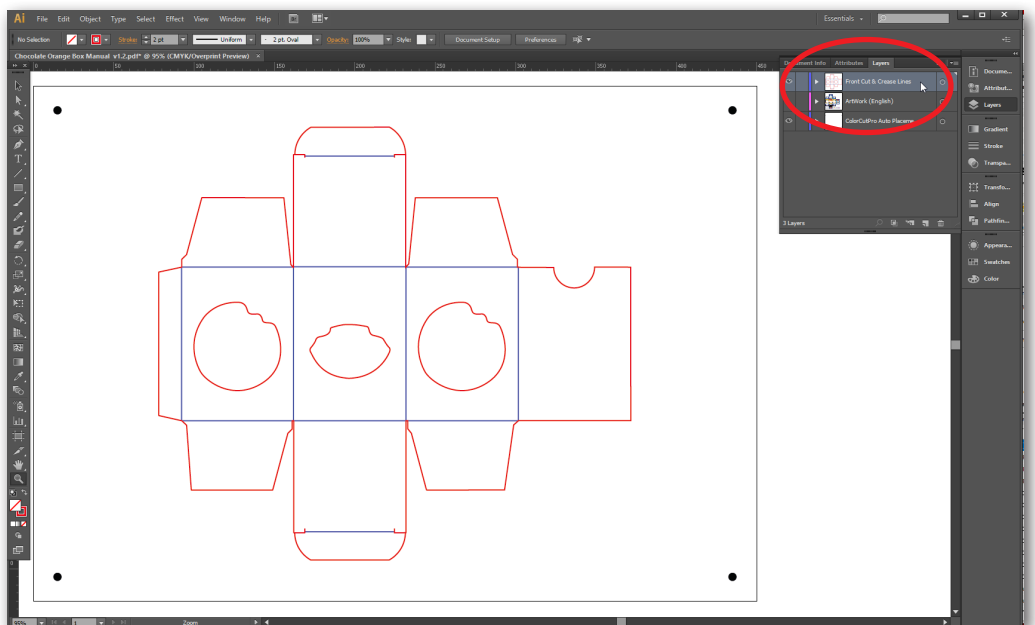


4.2 Layers for cutting

In this example, the main graphics layer is disabled. The ColorCut auto-generated 3rd layer with Alignment PageMARKs is still visible. (Detailed later).

The cut contour layer is **active**. *This drawing is ready for cutting.*

If you used guidelines then it is not necessary to hide or remove them before saving.



5. DRAWING CUT LINES, PERFORATED LINES OR CREASE LINES

The Intec ColorCut has 2 tools.

A Blade Tool, which can be used to:	A double ended Creasing Tool which can be used for:
Contour-Cut shapes	Wide Crease lines
Score lines	Narrow Crease lines
Perforate lines	

When creating your projects you may wish to perform 2 or more actions with your cutter. For example cutting a box and creasing the folds.

The easiest way to do this in your artwork is to use a different coloured line in your design for the Crease line to the Cutting line. ColorCut Pro can recognise up to 8 pre-defined colored lines (detailed below) making it easier for you to design and assign actions for each line.

If you created a job with 4 colored lines (For example; RED, YELLOW, BLUE, GREEN) in the ColorCut software you could set the actions as follows :









- RED to Cut using the Blade with full pressure
- YELLOW to Score, using the Blade with half pressure
- BLUE to Crease using the Creasing Tool, with full pressure.
- and GREEN to Perforate, using a dashed line and the Blade with full pressure.

NOTE: The actions you select a Line Color to perform can be reassigned at any time, and the order in which they are performed can be adjusted easily. (See following pages).

5.1 Line Colors recognised by ColorCut Pro

ColorCut Pro uses 8 standard colors, which when used on the cutting layer are recognised by ColorCut Pro. Even if your cut lines are not drawn in these specific colors, the ColorCut Pro software will intelligently Color match up to 256 variations of these each of these colors and assign your colored line to the closest match with one of the below colors.

ColorCut Pro will recognise the named colors in either RGB or C,M,Y,K.

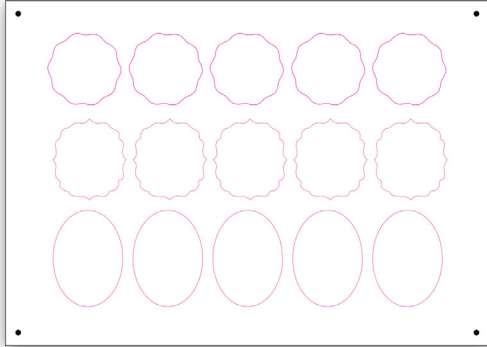
	Black 	Red 	Green 	Yellow 
RGB No:	(0,0,0)	(255,0,0)	(0,255,0)	(255,255,0)
CMYK No:	[75,68,67,90]	[2,98,95,0]	[76,0,100,0]	[4,2,98,0]
	Blue 	Magenta 	Cyan 	Violet 
RGB No:	(0,0,255)	(255,0,255)	(0,255,255)	(115,0,204)
CMYK No:	[91,80,1,0]	[0,100,0,0]	[100,0,0,0]	[70,87,0,0]

If you have designed your cut lines using a Pantone or other color spaces you must use the Illustrator or CorelDRAW color commands to convert to (or remap) the color to one of the above RGB or CMYK line colors.

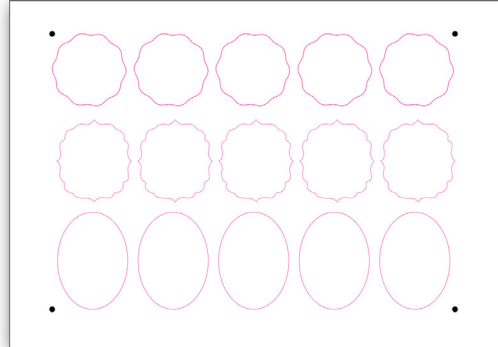
6. COLORCUT REGISTRATION PAGEMARKS

Before you design your page you need to consider that for accurate cutting each job requires 4 Registration PageMARKs. The PageMARKs are automatically placed on your artwork by ColorCut Pro's ADD Pagemarks option. They are placed on all 4 corners of a rectangle that is typically surrounding the cut lines.

The PageMARKs can be placed at a fixed position on the Page, or anywhere on the page as long as it surrounds your design. Either example below can be used.



PageMARK's based on **PageSize**.
*Fixed position of targets (PageMARKs) near page edges to maximise cutting area.
(Recommended for easier sheet replacement)*

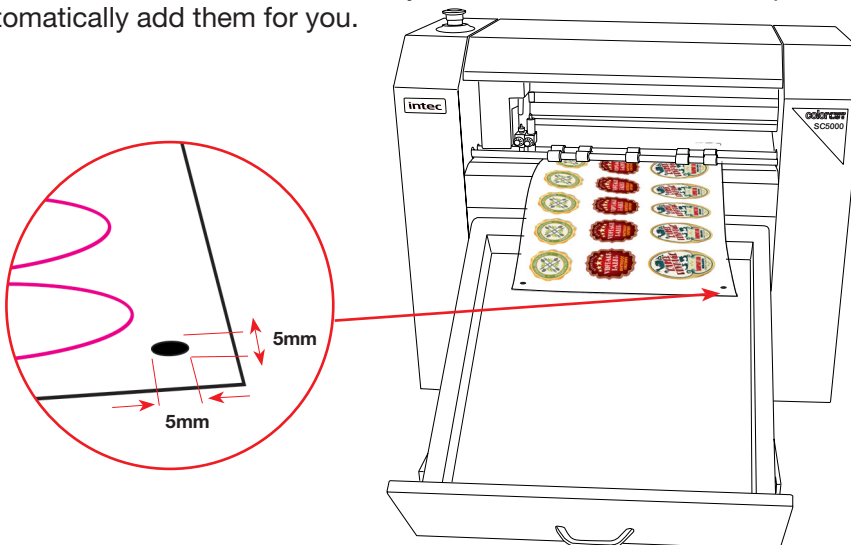


PageMARK's based on **Design size**.
*Marks around artwork.
(Alternative to PageSize)*

The first Registration PageMARK provides the origin of the job and is positioned at the bottom left edge of the sheet. The second which provides scale (Y) and skew parameters is positioned top left in the drawing shown. The third mark provides skew and rotation information and is positioned at the top right in the drawing shown and the final fourth mark provides scale (X), skew and error checking is bottom right.

Each Registration PageMARK is a 5mm x 5mm circle and 100% K black with no outline.

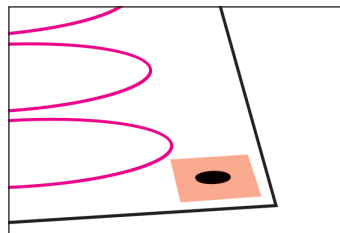
Although you can manually draw the Registration PageMARKs on to your design, PageMARKs do not need to be manually drawn on; ColorCut Pro simplifies this, and will automatically add them for you.



6.1 Positioning of Registration PageMARKs

To maximise your cutting area you may choose to place the cut marks close to the edge of your media. Be aware that there is a 8mm scanning zone around the cut mark, (shown in red) so care should be taken not to place artwork too near the mark as this may be read by the sensor and cause an error or reduce the accuracy of PageMARK scanning.

In addition, be aware that digital printers may have a non-printable margin around the edge of the sheet. So take care to observe your printer's non-printable margin when printing near the edges of a page so as not to 'clip' the PageMARK.



The Vision Sensor needs 8mm around the mark to read correctly

Technically the absolute minimum margin (due to the scanning window) is 8mm from the page edge or 8mm to artwork elements. However for best practise, it is recommended to place the marks with a 10mm margin to the leading page edge and to either side. (For the rear of the page please see the considerations below).

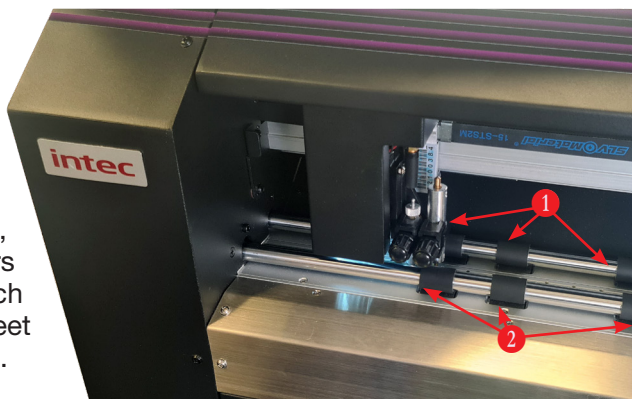
Note: The ColorCut Plug-in that applies your PageMARKs automatically includes a preferences option that enables you to define the margin you wish to use. The value you enter here in this option/setting, is the distance to the CENTRE of the PageMARK. The PageMARK is a 5mm diameter circle, so you should set a 12.5mm margin in PageMARKs preferences to achieve the recommended 10mm margin from the edge of your media to the edge of the PageMARK).

6.2 Considerations for rear PageMARK placement.

The SC5000 does not hold the sheet static while cutting, instead it uses an X-axis cutting system, (this is commonly the type of cutting system most vinyl cutters use), meaning it moves the sheet along the X-axis during cutting. Typically in this type of cutter, the main feed rollers grip the sheet during cutting. However, the cutting head cannot cut the sheet under the grip rollers therefore for under normal circumstances it is not possible to cut the last 30mm of a sheet.

To enable you to cut the entire sheet and minimise label sheet waste the Intec SC5000 is fitted with a unique "Dual Grip" roller system.

The Dual Grip roller system, incorporates a second set of rollers known as 'SLAVE' grip rollers, which holds the media further up the sheet enabling you to cut the last 30mm.



Dual Grip Roller configuration

- ① Main Grip Rollers ② Slave Grip Rollers

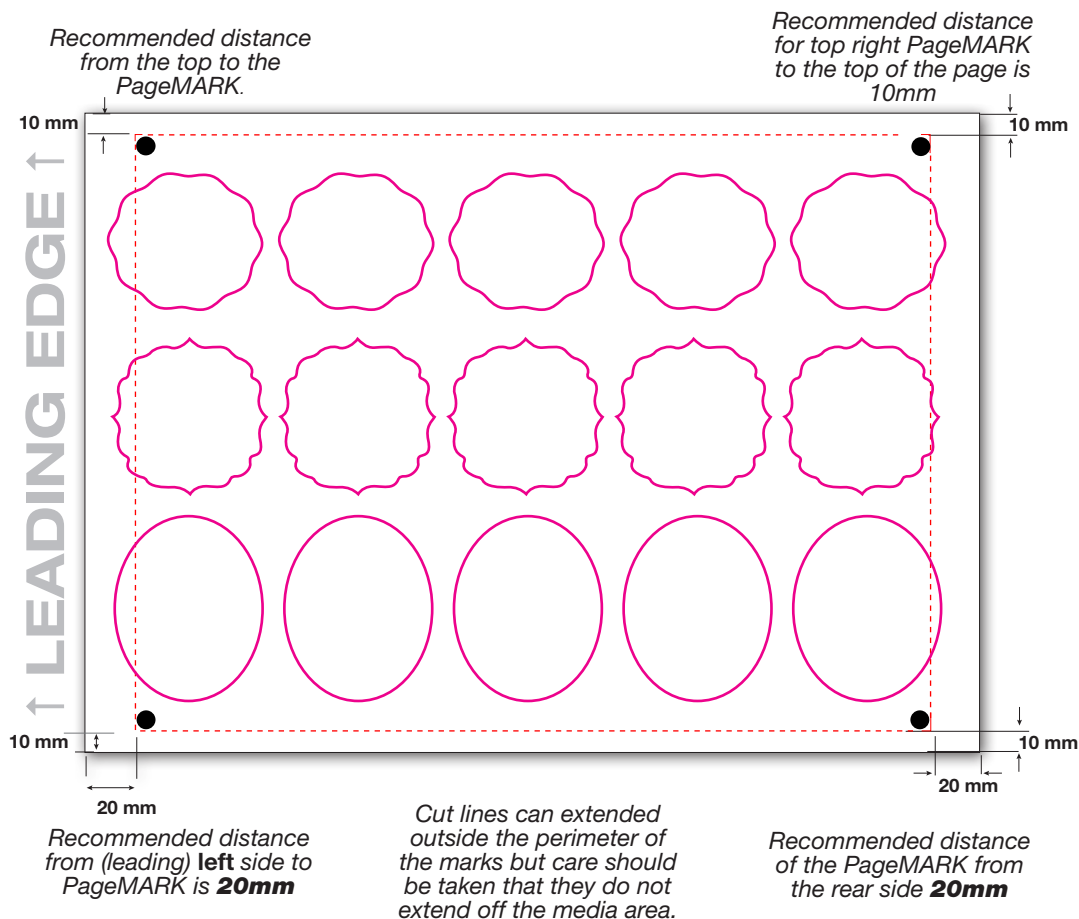


Note: Please be aware, when the media is held only by the 'Slave' grip rollers during the registration process or in the cutting process, the accuracy may be fractionally reduced.

6.2.1 Configuring PageMARKs for maximum cut accuracy.

For designs or elements requiring the highest cut accuracy, it is recommended that the ALL PageMARKs are placed in a position that enables the MAIN grip roller to retain grip of the sheet during the registration process. If the design includes PageMARKs placed close to the trailing edge of the sheet then only the 'Slave' grip rollers will hold the sheet when it is advanced to scan the trailing edge PageMARKs. This may affect the overall registration of the sheet and all cut lines on the sheet.

Therefore, the recommended margins for the highest cut accuracy are shown below.



As previously mentioned, using the above mark distance, will ensure the media is held within the main grip rollers while all marks are scanned and adjustments for registration scale and skew are calculated. The sheet can then be cut from the lead edge, delivering the highest degree of accuracy for all elements within the main cutting area. However, it is also possible to cut outside the cut mark perimeter. Therefore, while the rear PageMARKs are set at 20mm from the rear edge of the sheet, you can design and cut elements up to 10mm from the rear of the sheet using the dual grip roller system.

Note: Any element in the last 20mm of the cutter area will have fractionally reduced cut accuracy due to only the slave roller retaining the sheet during cutting. In most cases this reduction in accuracy will not be noticeable.

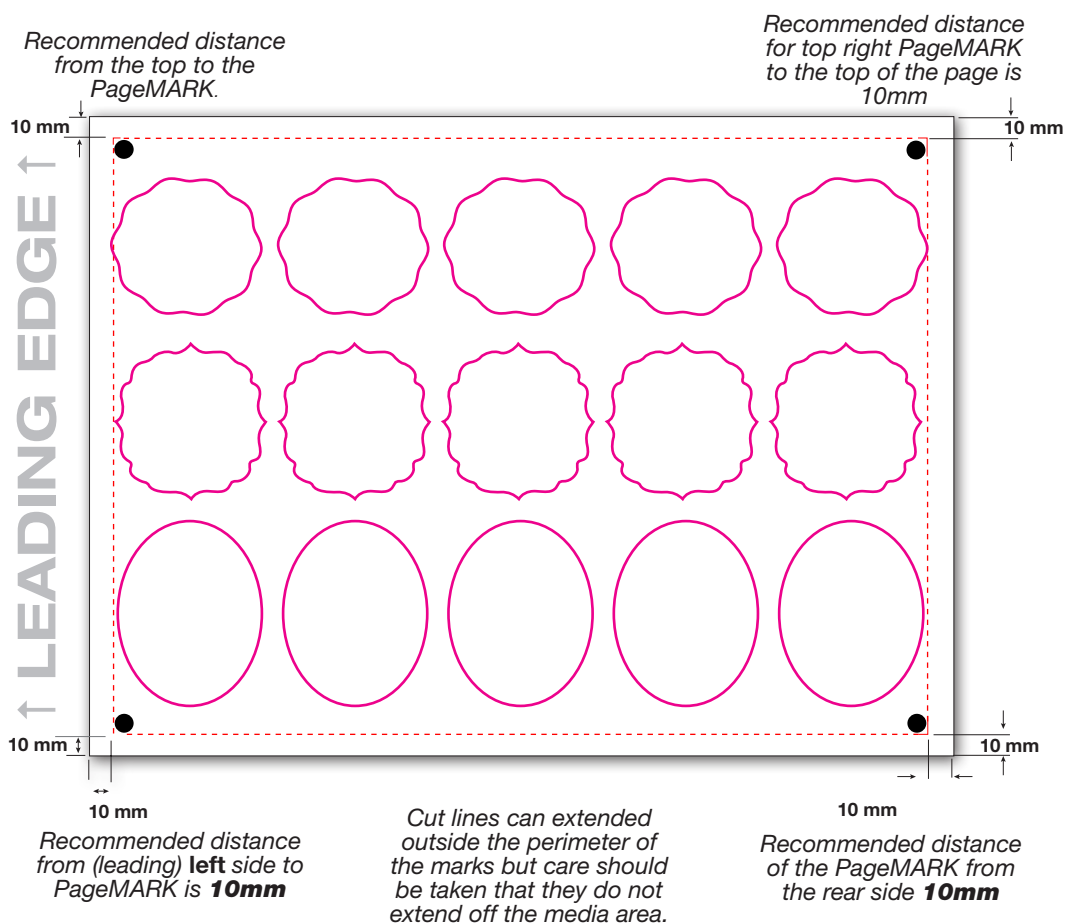
6.2.2 Configuring PageMARKs for maximum efficiency.

Maximising the space on the page is important for many users and here the Dual Grip roller system provides users with the ability to achieve a full page and enable cutting right up to the edge of the media.

You can cut beyond the PageMARK position, so it is possible to right to the edge of the sheet but in most cases you will need some media /matrix left on the label sheet to make removing the waste matrix on your labels easier. Also, cutting off of the sheet is not recommended as the blade, may snag the side of the sheet as it turn to come back onto the sheet area.

Typically we recommend you observe the 10mm margin on all sides, this will eliminate the risk your cut lines will exceed the media size AND allow enough waste material on the sides of your media to ensure the waste matrix can easily be removed.

The recommended margins for the maximum efficiency of the media usage are shown below.

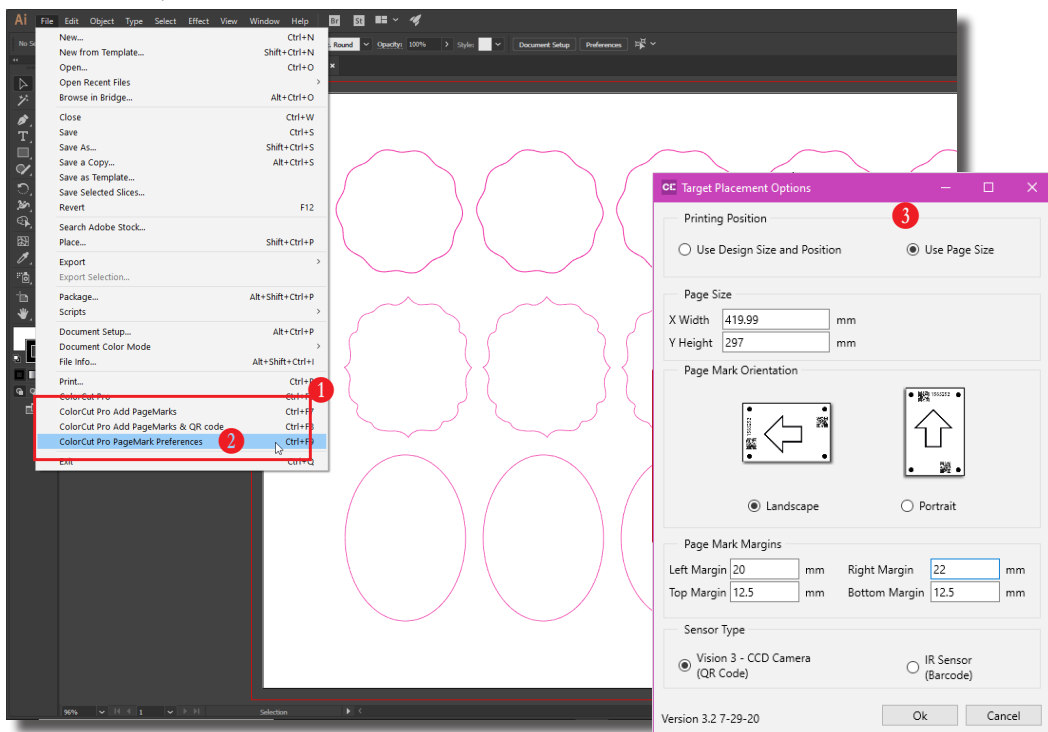


When feeding the sheet during the registration process or cutting the sheet. Please be aware that any time the sheet is held only by the 'Slave' grip rollers the accuracy may be fractionally reduced, if maximum accuracy is required please see section 6.2.1.

6.3 Automatically Adding Registration PageMARKs

You do not need to manually draw your PageMARKs on to your designs. ColorCut Pro will automatically add the marks for you. After installing ColorCut Pro and launching Illustrator (or CorelDraw), you will find a new set of options under the PRINT command in the FILE menu **1**.

Start by setting up how your PageMARKs will appear on your jobs. Click on the Menu item '**ColorCut Pro PageMARK preferences**' **2**. (You only need to do this on initial use.)



The ColorCut Pro PageMARKs Preference dialogue box will appear **3**. You can use this control to set where the cutting registration marks (PageMARKs) will appear on the sheet.

Choose if the marks are placed:

Based on your page size and then define the margin (i.e. how far from the page edge the centre of the PageMARK should appear).

or.

Based on your design size and then define the margin (i.e. how far from the design edges, that the centre of the PageMARK should appear).



With the SC5000 series of auto-feed sheet cutters, it is recommended that you place the PageMARKs based on "Use Page Size" (as opposed to based on "Use Design size and Position"). We also recommend you keep the Mark position margins consistent across your jobs. This is because your SC5000 will load the sheet and move a pre-set distance in from the edge of your sheet to scan the PageMARK. If your PageMARK position changes on subsequent sheets you will need to adjust the location setting in your software before starting each cut job to enable your sheet's marks to be located. Therefore placing marks based on Design size is not recommended when using the auto-feeder.

6.3.1 Configuring Automatic PageMARKs

1. Select 'Printing Position' and select 'Use Page Size' 1.



Page size is updated from your Artboard size in Illustrator, so you do not need to adjust the page size setting here it will automatically adjust when the PageMARKs are added.

2. Locate the 'PageMARK Orientation' 2 section and select the orientation for your design.

Ensure the PageMARKs are orientated so the 1st mark and the QR Code are placed on the lead edge of your media when placed on the table.

ColorCut Pro scans identifies the **origin mark** and then moves the appropriate distance (based on your design) to locate the second/next mark (across the lead/feed edge of the media). When designing jobs on to be cut on the SC5000 using SRA3 media, ensure the 1st mark is placed on the lead edge used in the auto-feeder (This will be Narrow edge of the media). So it is important you add your marks using the CORRECT orientation.

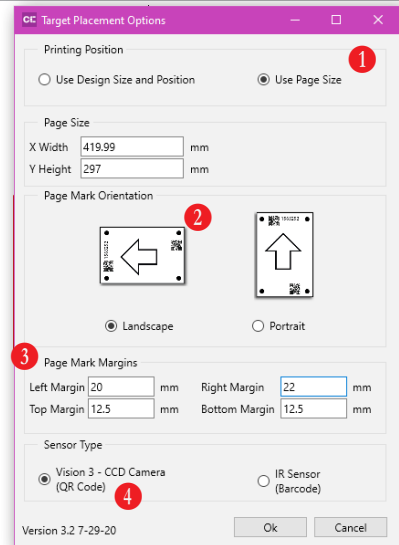


Failure to choose the correct orientation can mean your cutter will try to scan a mark that is located at a different position and fail (i.e. a distance equivalent to the length of your sheet rather than the width).



The terms Landscape or Portrait in the ColorCut Pro PageMARKs preferences, relate to the positioning of the marks on the sheet based on the thumbnail shown (i.e. Landscape places them on the LEFT of the design and so if your design is already Landscape then choosing LANDSCAPE in the ColorCut Pro preferences will effectively rotate the mark position and add your marks to the left edge as you design on screen. Thus, ColorCut Pro will add marks 1 & 2 (& QR code if appropriate) on the left edge - this is now the lead edge when placed into the Auto-sheet feeder (which will be correct for SC5000 users, NOTE however applying the marks using the Portrait option - will add PageMARKs to the top of the sheet (the wide edge) this will not be correct as it is not possible to place the wide edge of the sheet as the leading edge in the auto sheet feeder.

With the SC5000, if your design is Portrait, then choose to add the PageMARKs in a Portrait Orientation. (Adding marks 1 & 2 (and QR code if appropriate) to the top edge - Please consider the orientation you need the marks to ensure the PageMARKs are added to the lead edge of your sheet when it is placed in the Auto-Sheet feeder.



6.3.1 Configuring Automatic PageMARKs (Cont.)

3. Locate the **'PageMARK Margins'** section **3** and enter the margin you would like.

It is also IMPORTANT to note that the measurements are to the **CENTRE** of the 5 x 5mm Circle registration PageMARK. When adding PageMARKs, consider therefore to use a 12.5mm margin for the left Margin & Right Margins (Portrait) and 20mm-22mm margin to the Lead edge (top) and tail edge (bottom) boundaries to give recommended margin to the page edge.

4. **Sensor Type** - The SC5000 uses an advanced Vision 3 CCD camera sensor which reads ROUND registration marks and will recognise QR codes. However the ColorCut Pro application supports a number of different Intec cutters, some with standard IR sensors that use traditional square marks and barcodes. Therefore to ensure that ColorCut Pro adds Round marks, please ensure that the **'Sensor Type'** is set to "Vision3 CCD Camera (QR Code)" **4** in this dialogue box.

6.3.2 Additional Configuration for Mac users

Adding PageMARKs is exactly the same for Mac users, however Mac users will typically use ColorCut Pro's Job Library feature to assign a job number (and QR code where applicable) to their jobs - enabling them to be cut efficiently in a production environment.

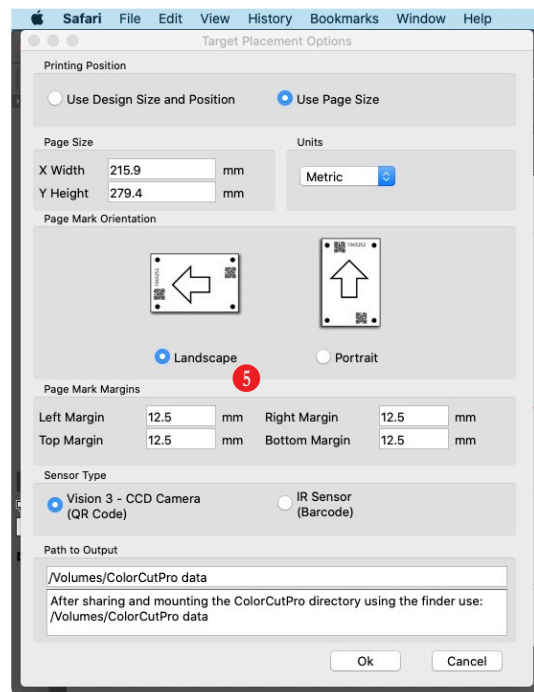
Mac users wishing to use the Job Library and QR code feature must ensure that they configure the connection to the Job Library correctly, otherwise Job Numbers and QR codes can not be generated and added to jobs.

You will need to configure the PC which is hosting ColorCut Pro and connected to the Intec cutter, to broadcast/share the ColorCut Pro Job Library folder.

There is a video guide on the Intec website to guide you through this process, under support, in the How to section; <https://intecprinters.com/how-to-video-support/>

Once you have enabled the PC to share the Job Library folder (ColorCut Pro Data), then you will need to mount this share on your Mac, and enter the path to it in the **'Path to Output'** section in the ColorCut Pro Add PageMARKs preference screen. **5**

To confirm the path to be entered, please follow the video guide highlighted above or read the section 'Mac users - Connecting to the ColorCut Pro Job Library' in the separate 'Setup & Installation guide'.



6.4 Using 'ColorCut Pro Add PageMARKs'

It is important to note, that when you activate the '**Add PageMARKs**' feature from the [**File**] menu, the ColorCut Pro software will examine the currently selected 'Layer' in your graphics application and isolate all vector lines and curves on the page.



You may see an *Error Message* if there are artwork elements or images on the layer selected when you launch ColorCut Pro. You can avoid this by drawing the cutting profile and the artwork graphic on separate layers.

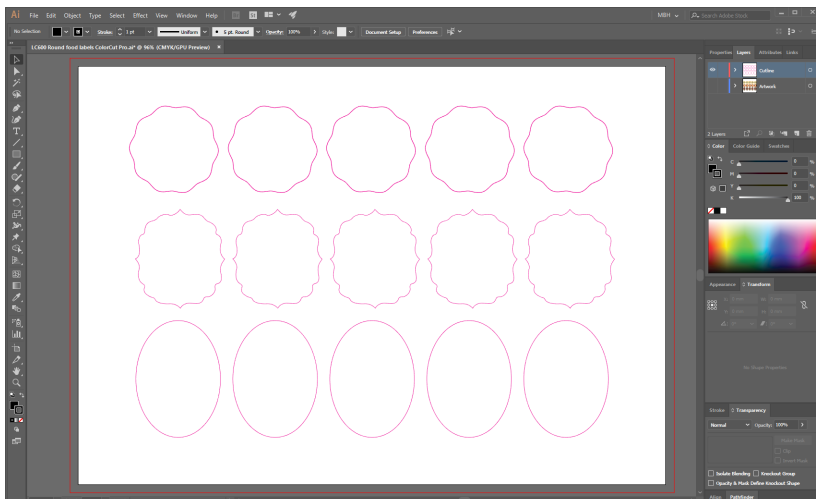
In this example the graphic layer is active; this drawing is ready for printing.



6.4.1 Selecting the Layer to Add PageMARKs

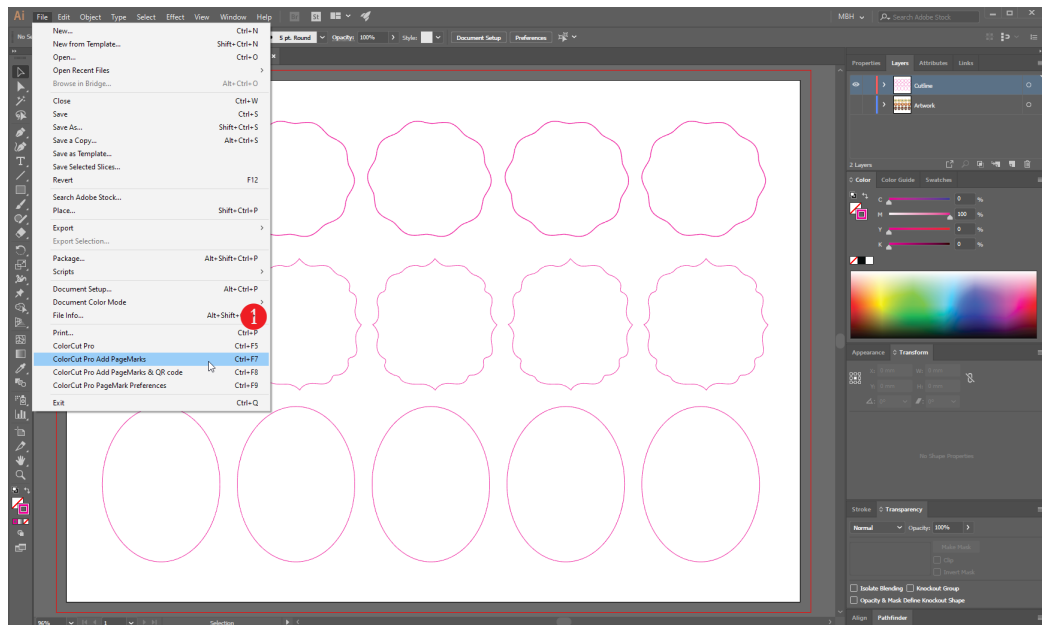


Ensure **ONLY** the vector lines you wish to cut and send to your Intec ColorCut are on the layer selected before adding the PageMARKs using '**ColorCut Pro Add PageMARKs**'. (You do NOT need to delete your artwork. It simply must be on a separate layer). In the example below the Cutline is selected (The artwork layer is not selected) and the layer is ready for you to '**Add PageMARKs**'.

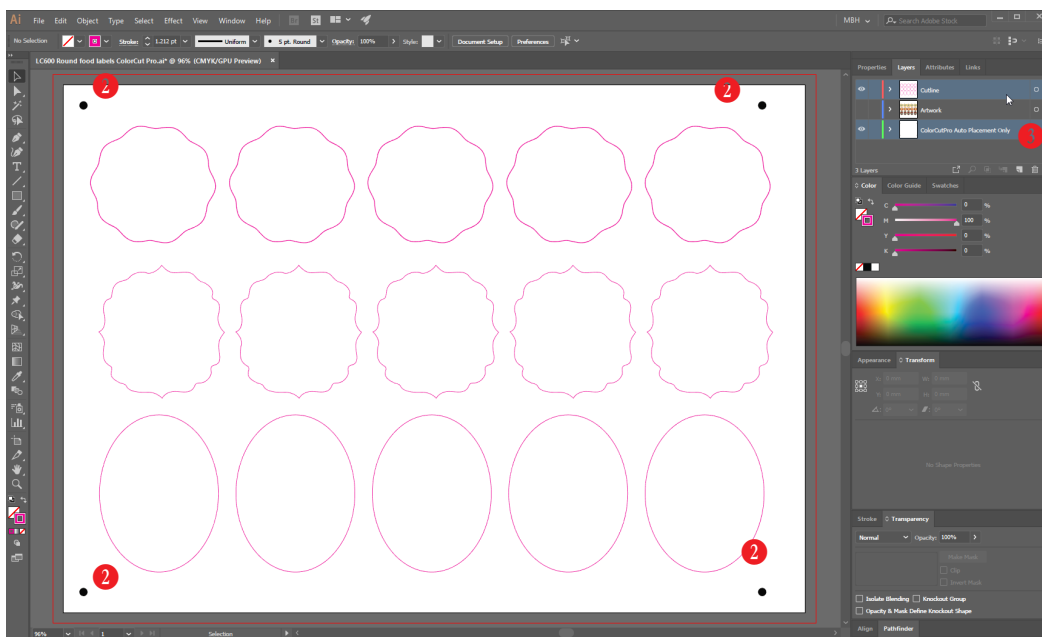


6.4.2 Automatically Adding PageMARKs

From the File menu in Illustrator or CorelDraw, select the menu item '**ColorCut Pro Add PageMARKs**'. ❶



PageMARKs will be automatically added to your job ❷ and you will see a NEW LAYER '**ColorCutPro Auto Placement Only**' added in your Layers palette. ❸



Automatically Adding PageMARKs (Cont.)

When printing your artwork you will want to hide the cut lines as you do not want these to print. Generating the PageMARKs on a separate layer means that you don't hide your PageMARKs when hiding your cut lines and enables you to leave the PageMARKs layer visible alongside your artwork layer (while still enabling you to hide your cut lines).

Below the file is prepared for Printing (or saving as a PDF for digital printing systems). The cut line layer is hidden and NOT visible however the NEW LAYER which includes the alignment PageMARKs ('**ColorCutPro Auto Placement Only**') is visible alongside the layer including your artwork **3**, enabling your job to print with your artwork AND the PageMARKs visible on your document.



6.5 Job Numbers, BarCodes and the Job Library

The standard way of adding PageMARKs (detailed above) provides accurate cutting of your files directly from Illustrator or CorelDraw. However in many cases the Graphic Designer who generates the designs may not be the operator who is responsible for also cutting the jobs.

Files including PageMARKs MUST be cut from Illustrator or CorelDraw, so this means that the operator responsible for cutting the jobs must also use Illustrator or CorelDraw. Even when the same operator is cutting the files, it may be some time later when the printed job needs to be cut and this would require the operator to find and open the original file again.

The ColorCut Pro Job Library feature assigns Job Numbers for your cut jobs and makes cut file retrieval simpler, faster and more efficient while also making cutting much easier.

7. THE JOB LIBRARY, JOB NUMBERS & QR CODES

The recommended way to work is to assign a Job Number & QR code when adding PageMARKs. When you assign a Job number and QR code to your job the cutting file (lines for cutting) are sent automatically to a job file and stored in the Intec ColorCut Pro Job library. This means that the file can be cut at any time using the ColorCut Pro (Job Server) with NO NEED to open the original file in Illustrator or CorelDraw simply by manually entering the job number or scanning the QR code.

This enables faster, more efficient retrieval of cut files and simplifies the cutting process. It also enables a different operator with no knowledge of drawing applications such as Illustrator or Corel Draw to cut and finish the jobs.

The **'Add PageMARKs and QR code'** feature will automatically apply the registration PageMARKs to your jobs AND add the Job number ❶, with a QR code to the design. At the rear of the job you will note an additional QR code for orientation purposes ❷. If the cutter sees the rear QR code first, it knows you have placed the sheet rotated 180degrees around and so it will rotate your cut lines automatically to match.



The second (rear) QR code is not mandatory, so if it overlaps artwork, you can delete this to maximise sheet space (but you will reduce the automation for rotated sheets if you do this).



IF you plan to scan the QR code, for maximum efficiency the sheets are typically placed on the cutting table with the QR code (and Job number) next to the first mark scanned. This means for SRA3 or 12 x 18" jobs the QR codes are placed :

(FB750) on the LEADING EDGE (TOP edge) for Landscape oriented jobs which are rotated 180° around when placed on the cutting table- or on the LEFT of the sheet for Portrait oriented jobs.

(FB1150) on the LEADING EDGE (LEFT edge) for Landscape oriented jobs - or on the TOP of the sheet for Portrait oriented jobs which are rotated 180° around when placed on the cutting table.

The orientation of the Marks being added is selected using the **'PageMARK Placement Preferences'** from the FILE menu.

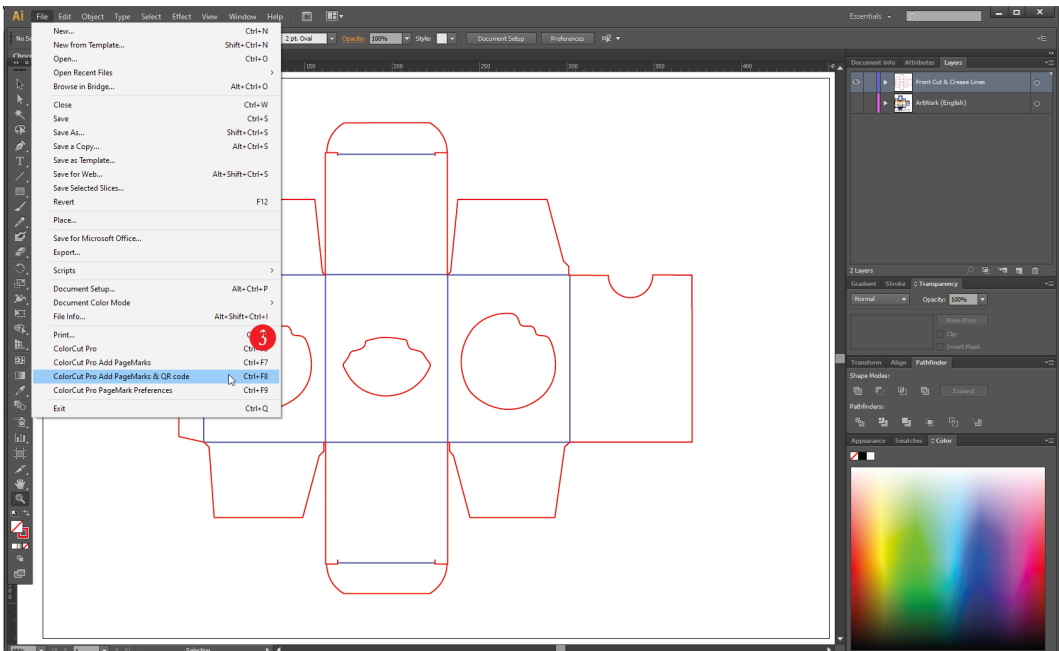
7.1 Automatically Adding PageMARKs and QR codes

When you select the '**Add PageMARKs and QR code**' feature from the File menu, the ColorCut Pro software will examine the currently selected 'Layer' in your graphics application and isolate all vector lines and curves on the page. Therefore the same requirements apply when adding PageMARKs and QR codes as they do when adding standard PageMARKs.



You will see an *Error Message* if there are artwork elements or images on the layer selected when you launch ColorCut Pro. By drawing the cutting profile and the artwork graphic on separate layers you can avoid this.

Therefore remember to select the Cut line layer. With the Cut line layer (Not the artwork layer) selected, select the menu item '**Add PageMARKs and QR Code**' from the File menu.

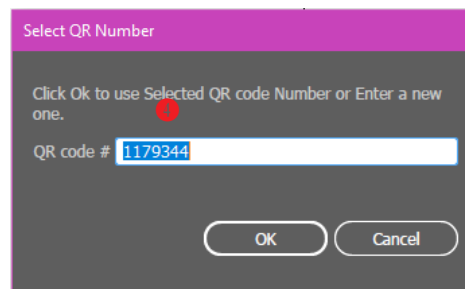


The '**Select QR Code Number**' dialogue box will be displayed. A randomly generated Job Number will be automatically filled out in the Job number field.

The Job Library function supports up to 1,000,000 different jobs.

The valid range of numbers is 1,000,000 - 1,999,999

The software will automatically generate the job number for you (checking that the number does not already exist first). However if you wish to use your own job numbers then you can manually enter this instead (providing it falls within the valid number range).



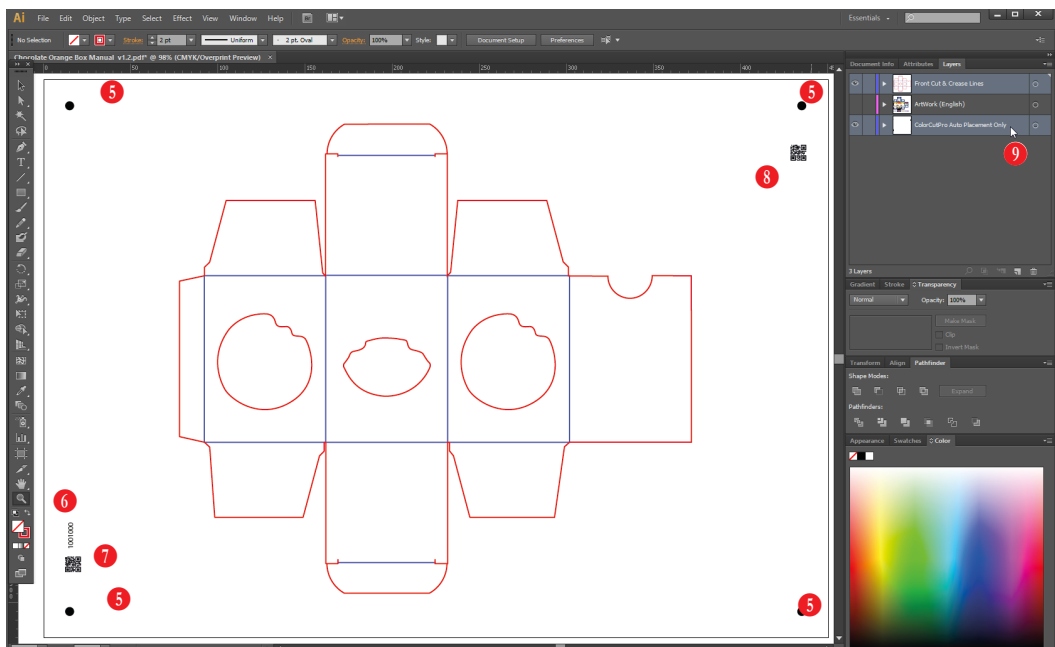
Either accept the job number by clicking on the [**OK**] button or enter your preferred job number into the dialogue box. 4

7.1 Automatically Adding PageMARKs and QR codes (Cont.)

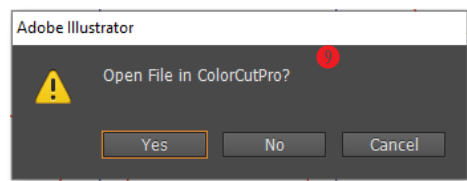
PageMARKs will be automatically added to your job **5**, along with the job number **6**, QR Code **7** and reverse orientation QR code **8**. In addition you will see a NEW LAYER 'ColorCutPro Auto Placement Only' added in your layers palette. **9**



If your job already included a 'ColorCutPro Auto Placement Only' layer which had been either previously added using 'Add PageMARKs' OR had been added when using 'Add PageMARKs & QR Code' but you have changed the cutting lines or wish to change the QR Code, the existing 'ColorCutPro Auto Placement Only' layer will automatically be replaced by the newly generated one and the cut job file (if you added a QR code) will also be updated/replaced. This is useful as if you have already printed files with your QR Code and wish to update the cutting profile to change how the printed sheets are cut, then re-generating the QR Code (But using the SAME job number) will replace the existing saved cutting profile, updating it with your new one.



After generating your PageMARKs and sending your job file to the ColorCut Pro cutting library, **9** you will be asked IF you want to open the file directly into ColorCut Pro.



If you have already printed the file and wish to cut one, click YES. Alternatively if you just want to see if all the lines transferred correctly, also click YES to see the cutting job preview. Otherwise, click NO to be returned to your artwork. (Mac users will automatically see a preview here as they can not open ColorCut Pro directly).

Remember to now hide your cut lines and make visible your artwork layer WITH the PageMARKs and QR Code to print or save as a PDF for printing later.

8. HOW TO CUT YOUR FILES USING COLORCUT PRO

Two different ways to Launch ColorCut Pro Production Studio.

ColorCut Pro - Production Studio is the full version of ColorCut Pro, and is used to cut your files. It can be used in two different ways, you can select the most suitable method for your working environment.

1. ColorCut Pro (**Direct Plug-in**) is launched DIRECTLY from your graphics application. Launching ColorCut Pro, directly from your Graphics application will transfer the currently open design file (specifically the currently selected layer) directly to ColorCut Pro for cutting. This enables you to cut the file you are working on (or open a previously saved file). This way of working is ideal for testing a design or where the cutting will be handled by the same person that makes the artwork.



NOTE: When working in ColorCut Pro (**Direct**) mode, as ColorCut Pro is launched directly from the graphic application it **requires** either Adobe Illustrator or Corel Draw installed on the computer that will do the cutting. In addition the operator will need to locate the file to cut and to be able to use the graphics application in order to launch ColorCut Pro. For this reason we typically recommend using the stand-alone mode of ColorCut Pro - Production Studio, also known as ColorCut Pro Job Server mode.

2. ColorCut Pro (**Job Server Mode**) does not need a graphics application installed on the computer. It also does not require you to locate the original graphics file. In addition the simplified interface is designed to be used by any operator (typically a Print Finisher with no specific computer or Graphic Applications skills) by providing a START/SCAN QR Code button to start operation.

When using ColorCut Pro in Job server mode your files must already have been creating and had PageMARKS AND a Job Number/QR Code added during the design stage. When the '**Add JobNumber & QR Code**' feature is carried out by the designer, the cutting lines are saved automatically for all users in the Job library folder.

When using ColorCut Pro - Production Studio (**Job Server Mode**), ColorCut Pro is launched on its own (stand alone) on your computer from the Windows Start Menu. The appropriate cutting file is retrieved by the operator entering the job number or can be retrieved automatically as the SC5000 scans the QR Code.

Using ColorCut Pro - Production Studio in (Job Server) mode streamlines the cutting process and retrieves cut files for you making cutting much easier. It is the recommended way of working for busy designers so they can find the files quickly and especially in companies where the cutter operator is a different person to the graphic designer, or where a different computer will be used for the cutting such as in MAC environments.



NOTE2: When working in ColorCut Pro - Production Studio (**Job Server**) mode, as ColorCut Pro will retrieve the cutting files from the job library for you, it is important that your files were created with a Job Number and QR Code using the '**ColorCut Pro 'ADD PageMARKS and QR Code**' feature in the design process from your Graphics Application.

The following section of this manual details how to launch ColorCut Pro - Production Studio to cut your files using either method.

8.1 Launching ColorCut Pro - Production Studio (Direct Mode)

8.1.1 Selecting the Cutline Layer.

It is important to note that when you launch ColorCut Pro - Production Studio, the software will examine the currently selected 'Layer' in your graphics application and isolate all vector lines and curves on the page.



You may see an *Error Message* if there are artwork elements or images on the layer selected when you launch ColorCut Pro. Therefore by drawing the cutting profile and the artwork graphic on separate layers you may simplify the process.

In this example the graphic layer is active; this drawing is ready for printing.

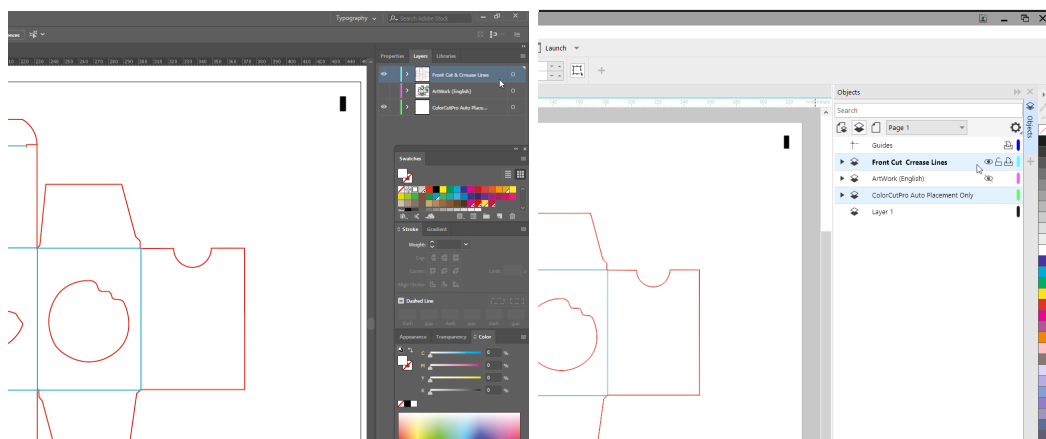


Launching ColorCut Pro with this layer selected will generate an error as ColorCut Pro does not know how to handle graphics to a Cutter

8.1.2 Select the layer for the cutting



Ensure **ONLY** the vector lines you wish to send to your Intec ColorCut cutter are on the layer selected before launching ColorCut Pro. In the example below, the layer is ready for you to launch ColorCut Pro.



Adobe Illustrator

Corel Draw

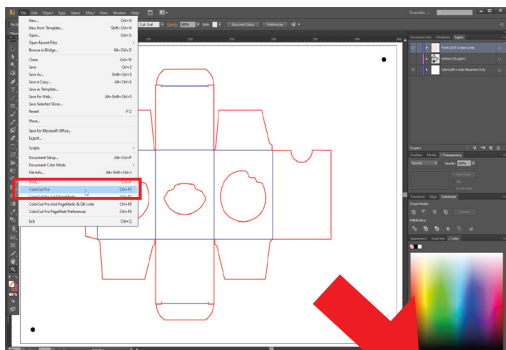


Although most of the screen-shots shown in the manual are from Adobe Illustrator, Corel Draw (as shown above right) uses object layers enabling you to separate the cut lines & artwork to different layers

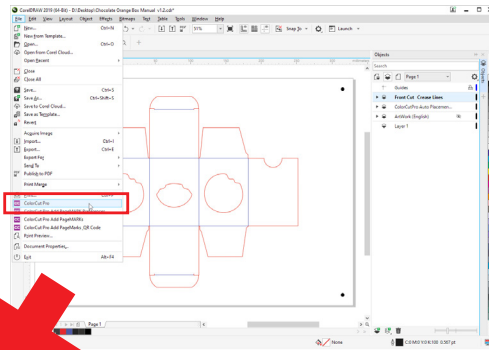
8.2 Launching ColorCut Pro (Direct Mode)

After selecting the layer you wish to send to the Intec ColorCut SC5000 Cutter, select ColorCut Pro from the File menu. Both Adobe Illustrator and CorelDRAW can be seen below with the Cutline selected and then ColorCut Pro selected from the [FILE] menu.

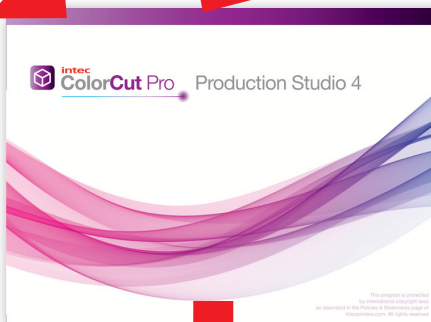
Adobe Illustrator



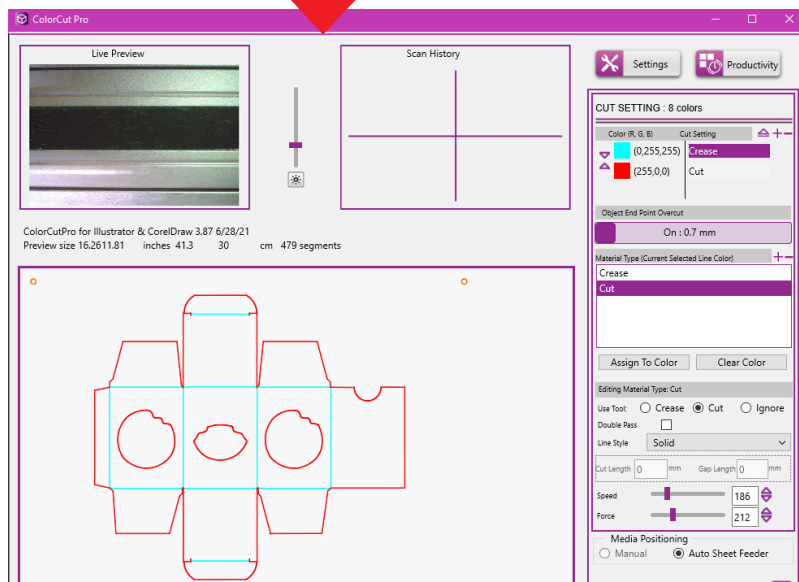
CorelDRAW



The ColorCut Pro splash screen will briefly appear, then the main ColorCut Pro application will be displayed.



You will see a preview of the cutting profile from the **CURRENTLY SELECTED LAYER** in the window in front of you.



During installation you should have selected the cutter you wish to use. If the main ColorCut Pro screen does not look like the one shown above, follow the instructions on the next page to set the correct customisation of ColorCut Pro to match your cutter.

Configuring ColorCut Pro to match your cutter.



Set-up
Initial
use ONLY

During installation you should have selected the cutter you wish to use and ColorCut Pro will have customised its configuration to match your selected SC5000 cutter. However, if you skipped this step it can be changed at any time (including now, as detailed below). Before first use of your SC5000 with ColorCut Pro we recommend you check the “Intec SC5000” device has been selected to ensure that all the settings/messages and screens displayed are applicable to your cutter.

8.2.1 Customising the ColorCut Pro skin to your SC5000 cutter

ColorCut Pro, supports a number of different Intec cutters with different registration sensing methods, number of tools and manual or auto-feeding methods. Therefore various ‘skins’ which display options and screens will be unique to the your specific cutter model and its features (i.e. the SC5000). The Settings Button **5** opens a dialogue box which displays the current configuration settings and enables you to set or change the Cutter “**Device Type**” / skin that ColorCut Pro has been customised to match.

Click the [SETTINGS] button to open the settings dialogue window.

Knife Offset: 0.75 mm

Knife Offset Tool 2: 0 mm

Scan Targets: Yes

Units: Metric

ColorCut Pro Control

Device Type: SC 5000

Output Port: USB

Output Device: USB Printing Support 1:SC 5000

Device IP Address: 172.30.0.75

Vision3 Sensor Offset: Auto Find

Auto Find Force: 300

Sensor Offset X: 1.1 mm

Sensor Offset Y: 22.9 mm

Vision3 CCD Camera Live Video feed Connection

☒ Obtain IP address automatically Hot Spot SSID: INTEC

☐ Use The following IP address: IP Address: 192.168.137.13

ColorCut Pro Control

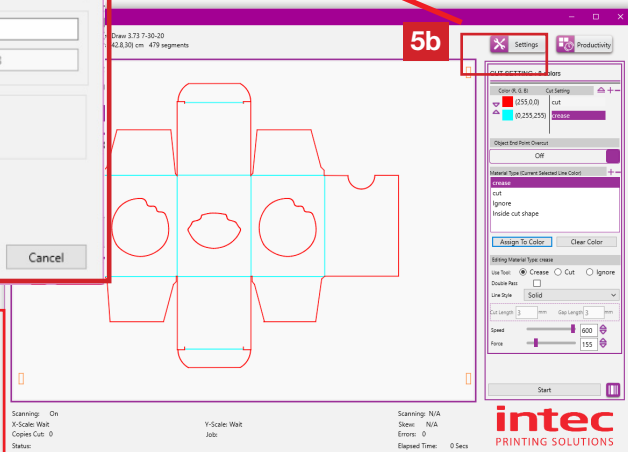
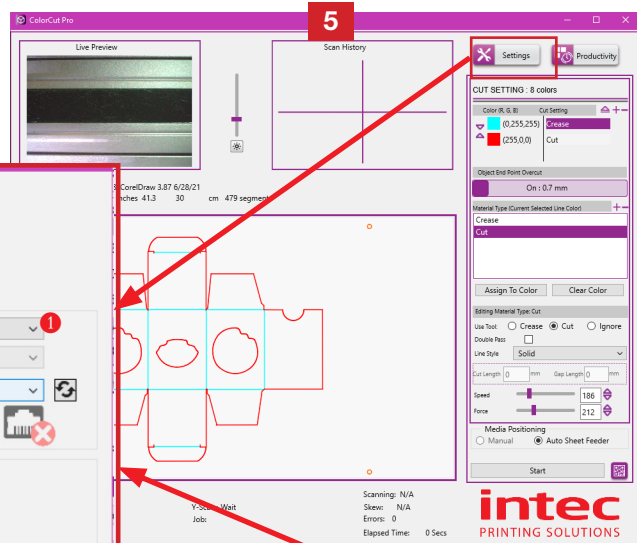
Use ColorCut Pro to set Speed on ColorCut: ☒

Use ColorCut Pro to set Force on ColorCut: ☒

Software Licensing: Activation/Deactivation

Display Language: English

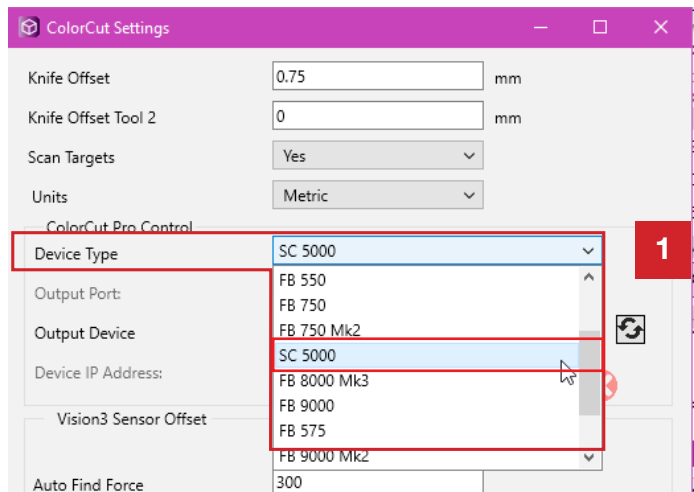
OK Cancel



If the “**Device Type**” is set to the wrong cutter, your main screen may look like. **5b**

8.2.2 Device Type

This setting shows the “**Device Type**” of Intec Cutter connected. ColorCut Pro’s ‘skin’ (the personality or appearance of the main screen layout, Productivity controls, dialogue boxes and Tool controls) will change based upon the “**Device Type**” selected and not all features will be available as detailed in this manual unless you have selected the cutter type to match your Intec Model **1**.



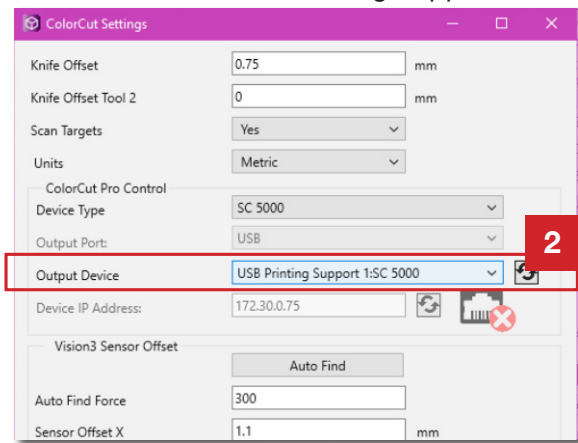
To ensure ColorCut Pro displays correctly to match the SC5000 with a CCD Camera Sensor and auto-feeder, set the cutter type to SC5000.

8.2.3 Output device

This setting shows the current ‘ON-LINE’ output device connected. When the Intec ColorCut SC5000 Cutter is connected this should read “*USB Printing Support:x*”

If the Intec ColorCut Pro software cannot sense an Intec ColorCut cutter on the USB connection of your computer, then this will show: “*File Output*”.

In such circumstances, check your connection to your computer and power cycle your Intec ColorCut SC5000 cutter. (Ensure it is off for 45 seconds to enable the USB cache to flush).



If the connection to your cutter is successful then under the Output Device option **2** you will see the term USB Printing Support.

(After a short delay, the identifier ‘SC5000’ may appear after the description ‘USB Printing Support’. However you don’t need to wait for this and this may take a few minutes to appear). Alternatively ‘Unknown device may appear if the cutter is ‘OFF-LINE’, turn the cutter ‘ON-LINE’ and click the refresh devices button.

8.2.4 Overview of the ColorCut Pro Main Screen (Direct Mode)

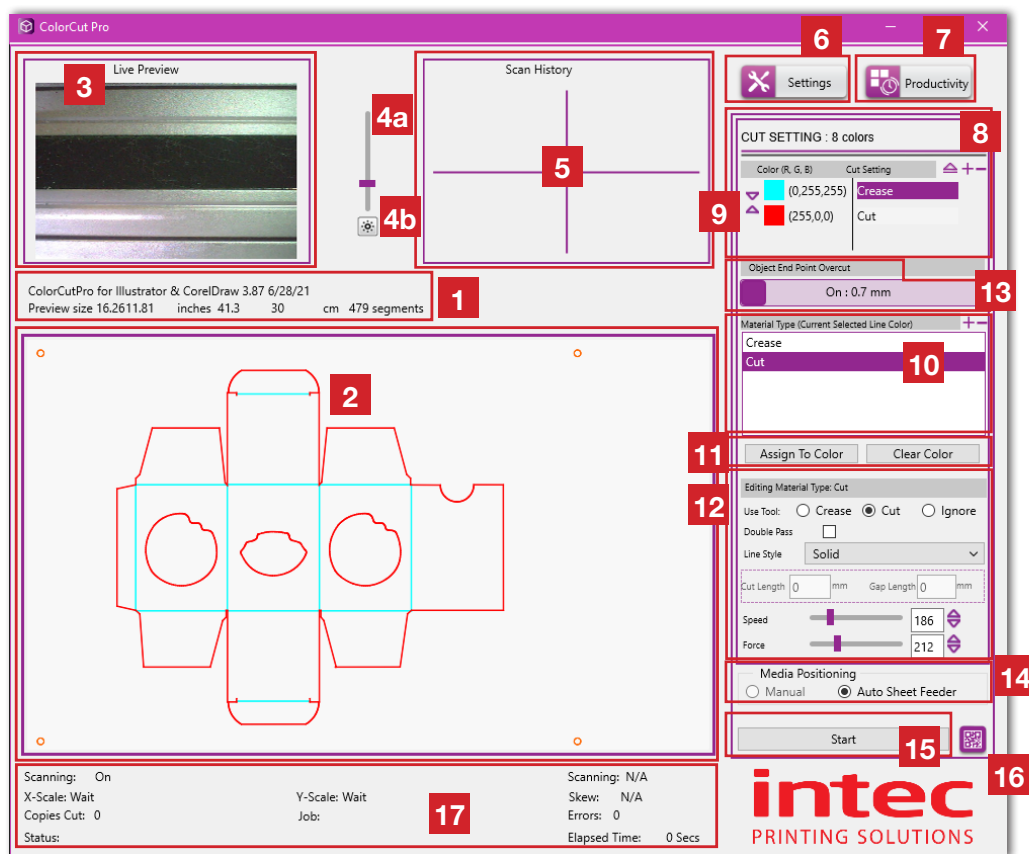
The ColorCut Pro - Production Studio application handles all the functions for the automation of the digital cutting process. When launching ColorCut Pro in **Direct Mode**, ColorCut Pro transfers the currently selected layer containing contour cut lines from Adobe Illustrator or CorelDRAW directly into ColorCut Pro.

Specific parts of the software panel are dedicated to controlling how the different tools in your Intec ColorCut are controlled and can be customised by material type.

For an overview of the options available to set the proper cutting parameters, please see below:



Before cutting for the first time, ensure that you have set up your ColorCut in the [**Settings**] dialogue box. Prior to first use, ColorCut Pro **MUST** have the Sensor offset aligned and you **MUST** set the correct Blade offset.



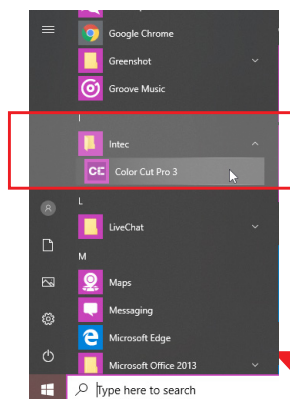
1. Current Plug-in version details
2. Preview of selected cut/crease job
3. Vision3 Sensor video echo
- 4a. Camera Illumination control
- 4b. Default Camera Illumination
5. PageMARK registration history
6. Settings
7. Productivity Options.
8. Colours available in job & actions

9. Change Cutting order.
10. Pre-Set Action/Material types.
11. Assigning an action to a color
12. Edit Material/Action setting.
13. OverCut option.
14. Media Loading & Positioning.
15. Start Cutting.
16. Switch to **Job Server** mode.
(Access QR code mode & Job Library)
17. Status bar

8.3 Launching ColorCut Pro (Job Server Mode)

There are 2 ways to launch the ColorCut Pro (Job Server) version of ColorCut Pro.

1. Open the ColorCut Pro (Job Server) from Start menu
- Or 2. If you are already running ColorCut Pro (Direct mode) then open from ColorCut Pro (Direct)

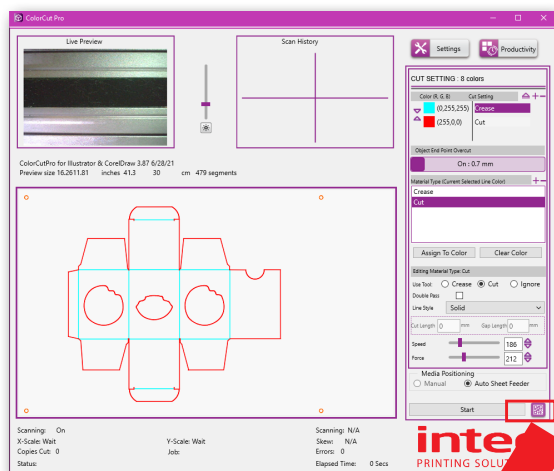


Open the Windows [START] menu, and select ColorCut Pro from the Programs/Intec folder.

The ColorCut Pro splash screen will briefly appear then the main ColorCut Pro application will be displayed.

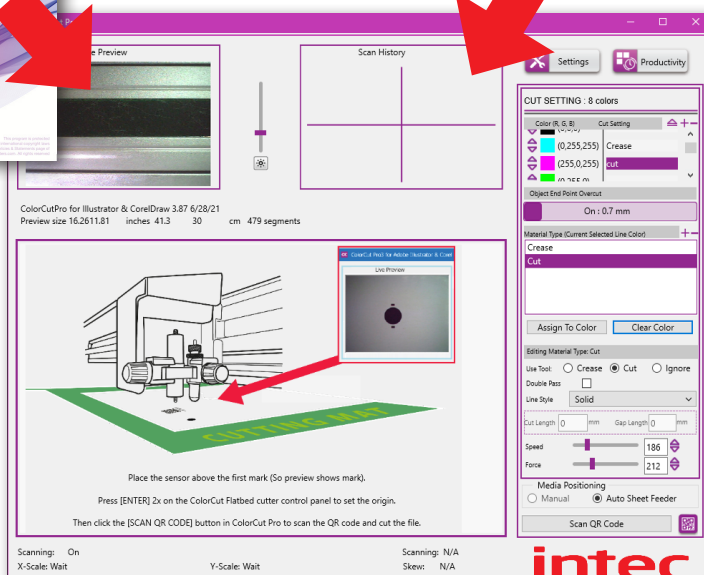


In the preview window, an informational image will appear showing you where to position a job (if manually positioning). Once a job is retrieved by scanning a QR Code OR by entering a job number, the preview of the loaded job will then be displayed.



If you already have ColorCut Pro (Direct) open, you can

SWITCH to Job Server mode, by clicking the QR Code icon.



If you skipped the previous section 8.1-8.3 then please note: During installation you should have selected the cutter you wish to use. If the main ColorCut Pro screen does not look like the one shown above, please follow the instructions on the next page to set the correct customisation of ColorCut Pro to match your cutter.

Configuring ColorCut Pro to match your cutter



Set-up
initial
use ONLY

During installation you should have selected the cutter you wish to use and ColorCut Pro will have customised it's configuration to match your selected SC5000 cutter. However, if you skipped this step it can be changed at any time (including now, as detailed below). Before first use of your SC5000 with ColorCut Pro we recommend you check the "Intec SC5000" device has been selected to ensure that all the settings/messages and screens displayed are applicable to your cutter.

8.3.1 Customising the ColorCut Pro skin to your SC5000 cutter

ColorCut Pro, supports a number of different Intec cutters with different registration sensing methods, number of tools and manual or auto-feeding methods. Therefore various 'skins' which display options and screens will be unique to the your specific cutter model and its features (i.e. the SC5000). The Settings Button **5** opens a dialogue box which displays the current configuration settings and enables you to set or change the Cutter "**Device Type**" / skin that ColorCut Pro has been customised to match.

Click the [SETTINGS] button to open the settings dialogue window.

The screenshot shows the ColorCut Pro software interface. On the left, the 'ColorCut Settings' dialog box is open, showing various configuration options. The 'Device Type' is set to 'SC 5000' (indicated by a red circle 1). The 'Output Device' is set to 'USB Printing Support 1:SC 5000' (indicated by a red circle 2). The 'Vision3 Sensor Offset' section has an 'Auto Find' button. The 'Vision3 CCD Camera Live Video feed Connection' section has two options: 'Obtain IP address automatically' (selected) and 'Use the following IP address'. The 'Hot Spot SSID' is set to 'INTEC' and the 'IP Address' is '192.168.137.13'. The 'Software Licensing' section has an 'Activation/Deactivation' button. The 'Display Language' is set to 'English'. The 'OK' and 'Cancel' buttons are at the bottom. On the right, the main ColorCut Pro interface is shown. The 'Settings' button (indicated by a red circle 5) is in the top right corner. The main screen (5b) shows a live preview of a cut piece with registration marks. The 'intec PRINTING SOLUTIONS' logo is at the bottom right.

ColorCut Settings

Knife Offset: 0.75 mm

Knife Offset Tool 2: 0 mm

Scan Targets: Yes

Units: Metric

ColorCut Pro Control

Device Type: SC 5000

Output Port: USB

Output Device: USB Printing Support 1:SC 5000

Device IP Address: 172.30.0.75

Vision3 Sensor Offset

Auto Find

Auto Find Force: 300

Sensor Offset X: 1.1 mm

Sensor Offset Y: 22.9 mm

Vision3 CCD Camera Live Video feed Connection

☒ Obtain IP address automatically Hot Spot SSID: INTEC

☐ Use the following IP address: IP Address: 192.168.137.13

ColorCut Pro Control

Use ColorCut Pro to set Speed on ColorCut: ☒

Use ColorCut Pro to set Force on ColorCut: ☒

Software Licensing: Activation/Deactivation

Display Language: English

OK Cancel

5b

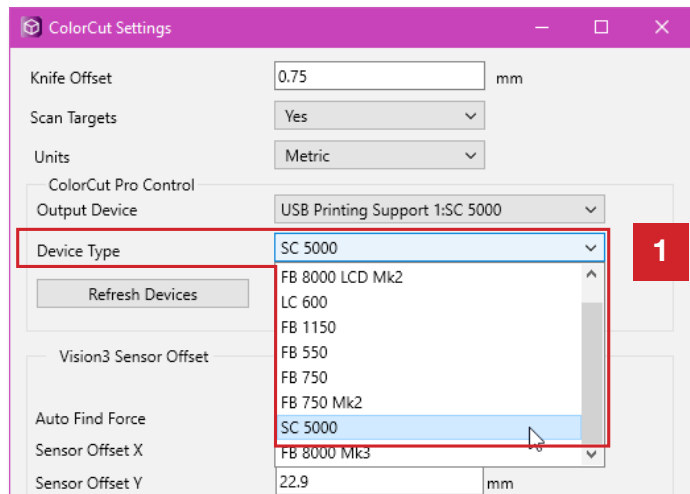
intec PRINTING SOLUTIONS



If the "**Device Type**" is set to the wrong cutter, your main screen may look like. **5b**

8.3.2 Device Type

This setting shows the “**Device Type**” of Intec Cutter connected. ColorCut Pro’s ‘skin’ (the personality or appearance of the main screen layout, Productivity controls, dialogue boxes and Tool controls) will change based upon the “**Device Type**” selected and not all features will be available as detailed in this manual unless you have selected the cutter type to match your Intec Model **1**.



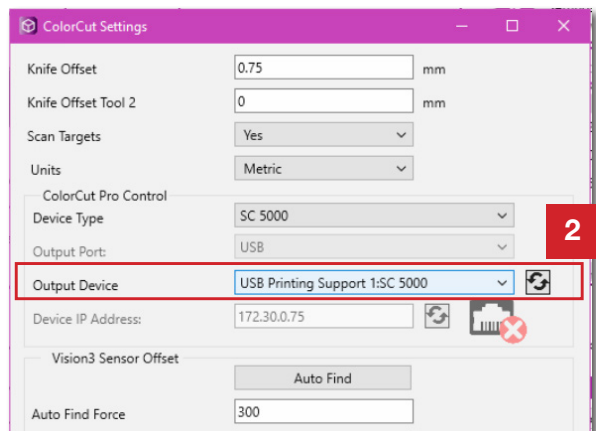
To ensure ColorCut Pro displays correctly to match the SC5000 with a CCD Camera Sensor and auto-feeder, set the cutter type to SC5000.

8.3.3 Output device

This setting shows the current ‘ON-LINE’ output device connected. When the Intec ColorCut SC5000 Cutter is connected this should read “*USB Printing Support:x*”

If the Intec ColorCut Pro software cannot sense an Intec ColorCut cutter on the USB connection of your computer, then this will show: “*File Output*”.

In such circumstances, check your connection to your computer and power cycle your Intec ColorCut SC5000 cutter. (Ensure it is off for 45 seconds to enable the USB cache to flush).



If the connection to your cutter is successful then under the Output Device option **2** you will see the term USB Printing Support.

(After a short delay, the identifier ‘SC5000’ may appear after the description ‘USB Printing Support’. However you don’t need to wait for this and this may take a few minutes to appear). Alternatively ‘Unknown device may appear if the cutter is ‘OFF-LINE’, turn the cutter ‘ON-LINE’ and click the refresh devices button.

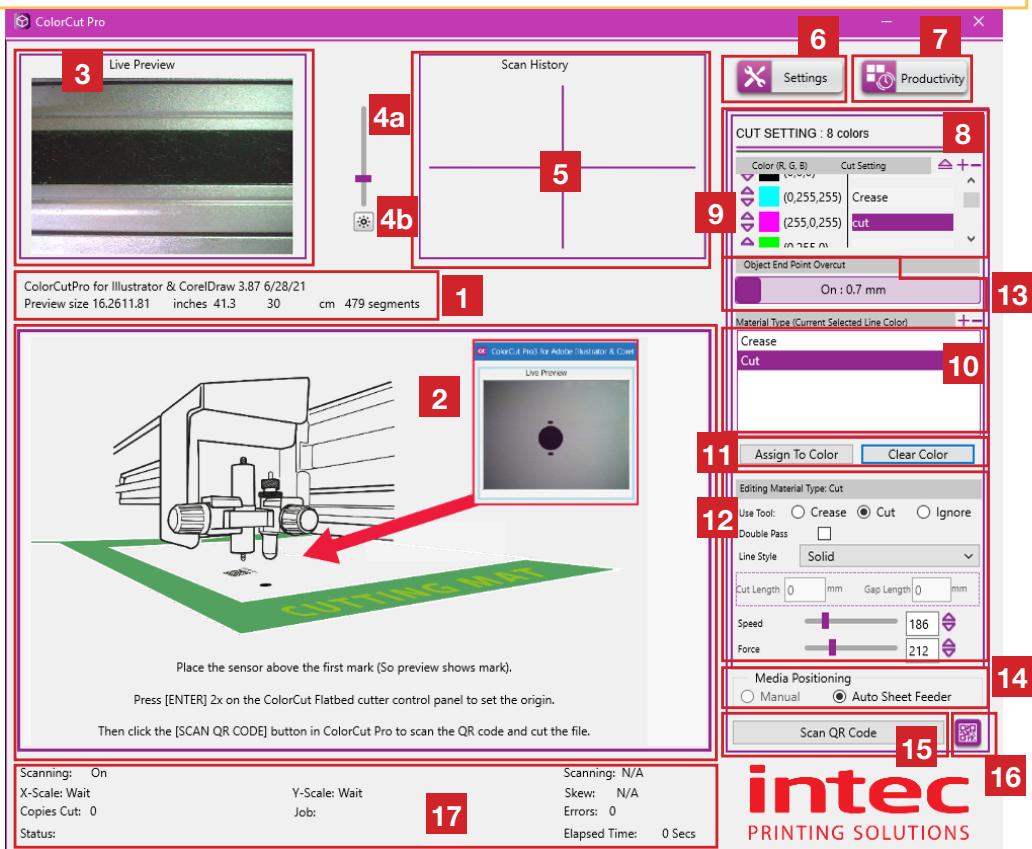
8.3.4 Overview of the ColorCut Pro Screen Layout (Job Server Mode)

The ColorCut Pro - Production Studio application handles all the functions for the automation of the digital cutting process. When launched in **Job Server Mode**, ColorCut Pro will load Cut Job files from the Job Server Library by either by scanning the printed QRCode on the artwork or keying in the Job number (also printed on the artwork). No additional software is required to load or open the cut files*.

The screen options and layout are almost identical to the ColorCut Pro (Direct Mode), with the exception of items. 2, 9, 15 & 16 detailed below. For an overview of the options available to set the proper cutting parameters, please see below:



Before cutting for the first time, ensure that you have set up your ColorCut in the [**Settings**] dialogue box. Prior to first use ColorCut Pro **MUST** have the Sensor offset aligned and you **MUST** set the correct Blade offset.



1. Current Plug-in version details
2. Awaiting JOB Preview
3. Vision3 Sensor video echo
- 4a. Camera Illumination adjustment
- 4b. Reset to default Camera Illumination
5. PageMARK registration history
6. Settings
7. Productivity Options.
8. ALL Colours available

9. Change Cutting order.
10. Pre-Set Action/Material types.
11. Assigning an action to a color
12. Edit Material/Action setting.
13. OverCut option.
14. Media Loading & Positioning.
15. Start Cutting.
16. Switch to **Job Server** mode.
(Access QR code mode & Job Library)
17. Status bar

(*Users can create and save Cut Job files for cutting at anytime either on a PC or Mac using ColorCut Pro Add PageMarks & QR Code from Adobe Illustrator (Mac or PC) or CorelDraw).

9. SETTINGS: CONFIGURING THE COLORCUT PRO PLUG-IN

In addition to setting the cutter model upon first use, it is important to set/check the configuration settings for the software. Among the settings there are several that are important to understand to get the best results from your Intec ColorCut Flatbed cutter.

These are;

Knife Offset : A range of blades fit your Intec ColorCut SC5000 cutter and different blades may alter the way corners and shapes are cut. It is important that each time the blade is changed you set the correct Blade offset for the new blade fitted. This is because different sized blades turn on a different axis. Further information on Knife Offset can be found further on in this section of the manual. Nominally this value should be 0.25 for standard (Label) blades or 0.75 for Circlip (Card- die cut) blades. The Creasing Tool for tool position2, does not require an offset so should be set to 0. However, if you place a second blade tool in position2, then you must also set the Knife Offset for position2.

Scan Targets: This tells the ColorCut Pro software that it should look for the registration PageMARKs and adjust the position and compensate the cutting lines for scale and skew errors on the printed sheet. This provides very accurate cutting in conjunction with images or artwork on the sheet. **Default setting : Yes**



Alternatively it is also possible to cut sheets that are blank or do not contain PageMARKs. This can be useful when it is not necessary to register the cutline to a specific place on the media. i.e. when cutting shapes out of blank media such as hearts from red card on Valentines Day, or Face Shields/Visors from Clear Polyester material.

When cutting without marks, the origin is manually set by the user on the cutter and it does not take into account skew, scale or mis-positioning of the sheet. (Not recommended if artwork is on the media) . For this reason we normally recommend that a user should use 'Scan Targets', in conjunction with PageMARKs on their artwork.

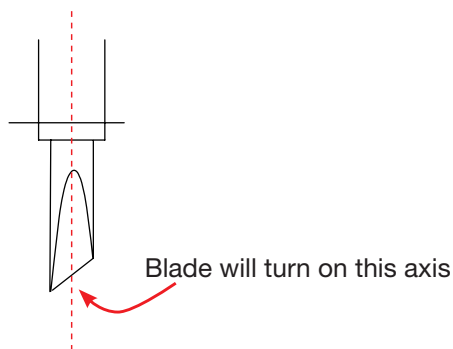
Device Type: This adjusts the ColorCut Pro application's appearance and screens to match your cutter model. Ensure this is set to the appropriate model for your cutter.

Output Device: This shows where your Cut file will be sent to. When the Intec ColorCut SC5000 cutter is detected on the USB port this should show USB DEVICE. If it shows File Output then the Intec Cutter can not be seen, check your connection and that the cutter is ON-LINE and ready.

Vision SENSOR OFFSET: Your cutter is fitted with a Vison3 registration sensor to detect your PageMARKs but this is in a different position to the centre of the blade. Therefore it is important to tell the software the 'offset' between the blade and the sensor itself. This can be manually set however to make life easier, the **Auto Find** feature will automatically set this for you. It is important to have these values set for your SC5000 cutter otherwise you will not cut accurately. It is also detailed in the following pages for your reference.

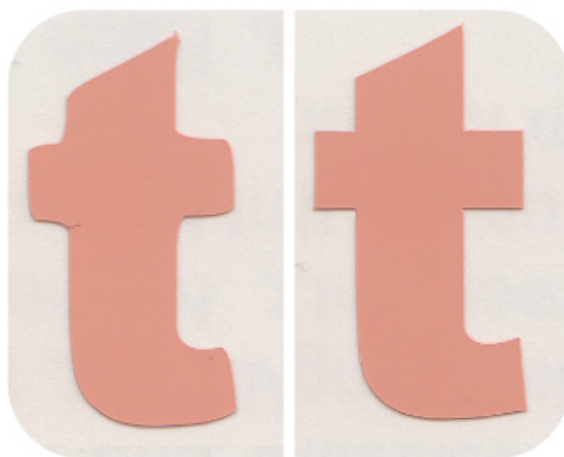
9.1 Knife Offset

The Intec ColorCut series of cutters use a contour-cutting blade (sometimes referred to as a 'drag knife') to accurately cut your shapes. The blade revolves/rotates around its centre as the carriage moves following the cutting path and as the Tool Carriage changes direction.



When the blade reaches a corner its axial centre [the point around which it rotates] arrives before the cutting point and unless there is some means of causing it to do so, the cutting part of the blade would never reach the corner and would start to turn as the cutter changed direction thus creating a radius instead of a sharp corner.

No Blade offset
compensation







Knife Offset
compensation
applied

Intec ColorCut Digital cut engines have a built in routine to manoeuvre the blade in a way that compensates for this, it is known as Knife Offset. BUT ONLY IF YOU SET IT CORRECTLY.

Setting this correctly and checking it each time you change blades is important because Intec supplies a range of blades to enable the cutting of different media and various thickness's. Some blades have a thicker shaft than others. This means the distance from the blade's centre to the cutting point (the Knife Offset) will be different depending upon the blade. The Knife Offset value is used by the software to compensate for the distance from the point at which a blade cuts to the point around which it rotates.

9.1.1 Choosing the correct Blade for the job

Each packet of Intec Blades shows the Knife Offset on the front of the packet. Nominally the standard Yellow, Red and Blue blades that are 1mm, use a 0.25mm Knife offset, while the 1.4mm larger Circlip blades use a 0.75mm Knife Offset.

Name	Image	Angle	Blade Diameter	Knife Offset	Features and Application
Blade		30°	1mm	0.25mm	For film, very soft material, thin label material .
		45°	1mm	0.25mm	Typically for most other label material, stickers, and very thin paper/card,
		60°	1mm	0.25mm	For thick specialty media. (Magnetic or sandblast media) Sharply angled tip provides a longer cutting edge for cutting media from 0.3 to 1mm thick.*
Circlip Knife		45°	1.4mm	0.65 - 0.75mm	Die-Cutting on most packing board up to 500 micron. Circlip provides better pressure and improves blade direction changes on dense media, from 0.25 to 0.5 mm thick.

* While technically the blade can cut 1.0mm thick material, the force required can vary significantly based on material density therefore on typical card based stocks we only recommend up to 350 micron board for optimal results.

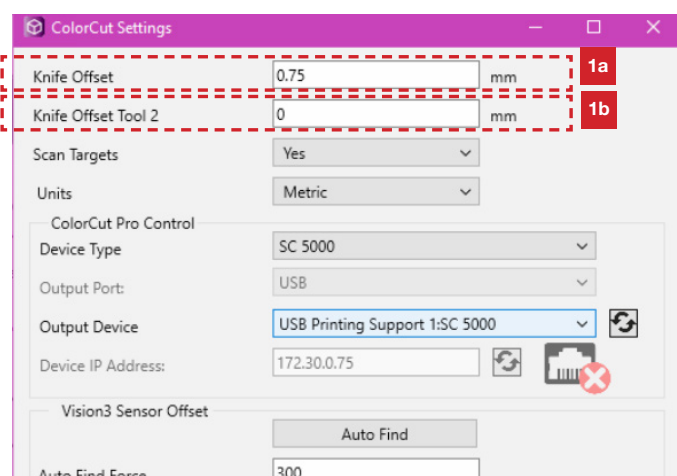


Remember to check and set the Knife Offset when changing blades.

Click the **[SETTINGS]** button on the main ColorCut Pro screen to display the ColorCut **Settings** Dialogue box.

Enter the value for your Knife Offset in the box **1a** shown.

Click **[OK]** to save the settings.



Normally Tool position2, will hold the creasing tool. No Knife offset is required for the creasing tool, so **Knife Offset Tool 2: 1b** should be **0**. However, if you fit 2 Blade Holders into the SC5000, then please remember to set the appropriate Knife Offset for Tool position 2.

9.2 Scan Targets

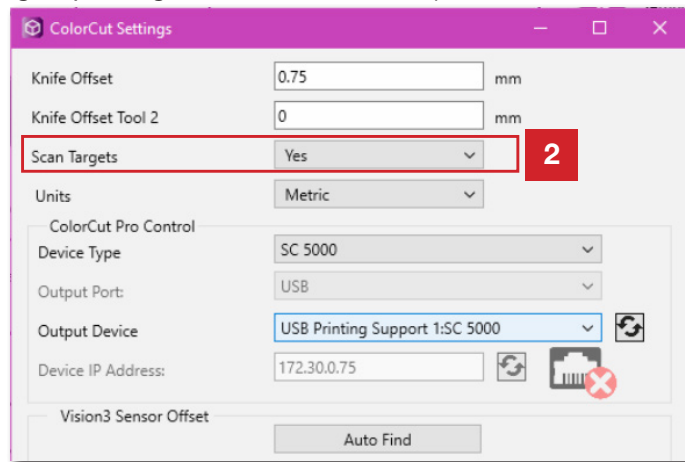
Due to a potential variability when printing sheets, it is possible that a printing device may not consistently start/position the image in exactly the same position on every sheet. In addition some printers may scale or distort the image. Further accuracy issues can occur if you do not position your sheets perfectly squarely on the cutting table.

If your image starts in a different position on varying sheets or suffers from image distortion created by your printer, it is possible the cutter may not cut in accordance with the printed design.

To eliminate imaging issues and enable faster positioning of your sheets on the cutting bed the Intec ColorCut Pro software can be set to read PageMARKs added to your printed sheet enabling it to precisely locate the origin of your artwork. In addition the positioning data read from the printed PageMARKs is used to compensate for scale or skew of up to 3mm coming from your digital printer, or up to 5mm rotation from sheet placement. Your cut lines are then automatically adapted by ColorCut Pro to compensate for these issues, delivering precise and accurate cutting for all your jobs.

However, when cutting shapes with no need for alignment (such as blank media) the cutter can be set to disable the scanning of these registration targets.

1. Set **Scan Targets** **2** to **YES** to ensure the PageMARKs are scanned and any positioning or printing errors are corrected (**this is the recommended mode**).



2. Set **Scan Targets** **2** to **NO**. For the alternative mode of operation where the origin is set manually using the cutter control panel AND the PageMARKs are NOT scanned. (This option is used for cutting blank sheets where registration or alignment of the cut to the image on the sheet is not important).

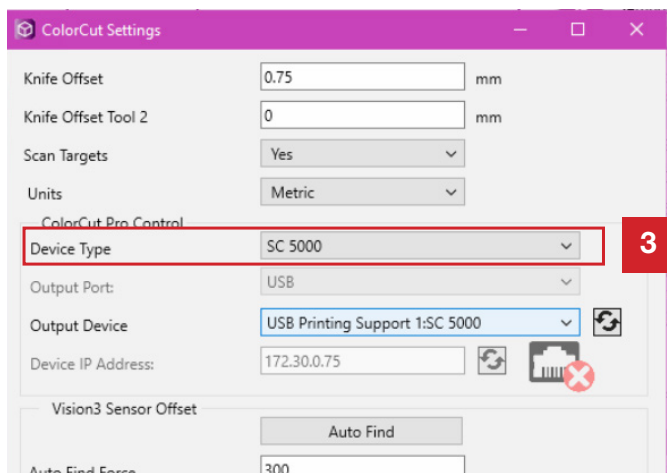


Positional accuracy cannot be assured if you set the cutter NOT to scan for PageMARKs.

The graphics should be designed in accordance with the guide earlier in this manual on PageMARK creation. Only the specific PageMARKs detailed will provide origin reference, scale, skew and rotation references for the Intec ColorCut software so it can adjust your cutting line appropriately for accurate cutting.

9.3 Device Type

This setting shows the current output type of Intec Cutter connected. The main screen and controls for ColorCut Pro will change based upon the Device type selected and not all features will be available as detailed in this manual unless you have selected the cutter type to match your Intec Model.

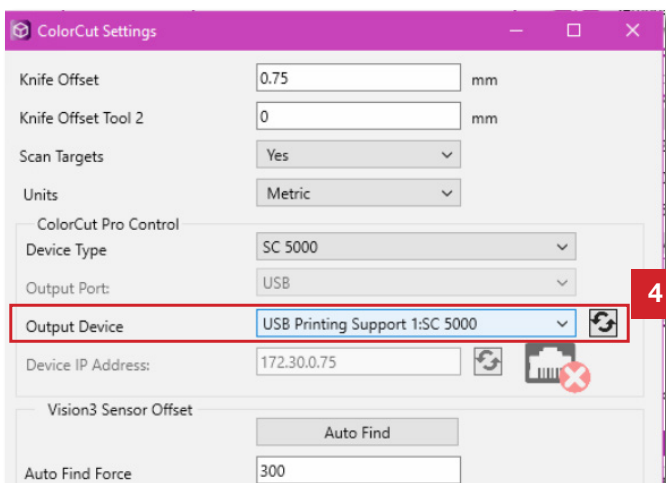


For the SC5000 X-Axis sheet cutter with an auto-feeder, set the cutter type to ‘**SC5000**’.

9.4 Output Device

This setting shows the current output device connected. When the Intec ColorCut SC5000 is connected this should read “*USB Printing Support:x*” where ‘*x*’ is your cutter type (If it is ON-LINE).

NOTE: USB is the **ONLY** interface available on Intec ColorCut SC5000 cutters so the **OUTPUT PORT**: control is fixed to USB not adjustable.



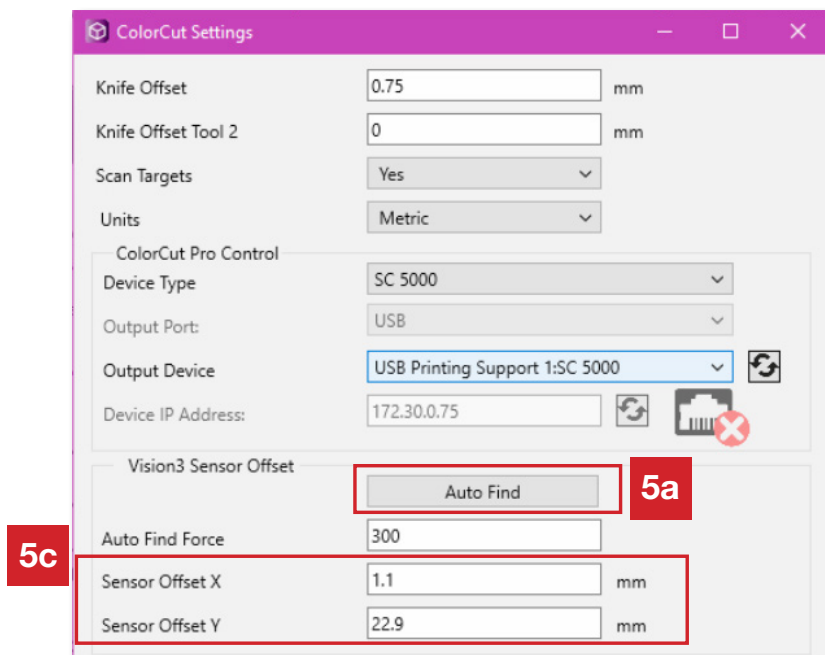
If the Intec ColorCut Pro software cannot sense an Intec ColorCut SC5000 cutter on the USB connection of your computer, then this will show: “*File Output*”.

In such circumstances, check your connection to your computer and power cycle your Intec ColorCut SC5000 cutter. (Ensure it is off for 45 seconds to enable the USB cache to flush).

9.5 Sensor Offset & the Auto Find feature



Sensor Offset is critical for accurate cutting. It tells the ColorCut Pro software the difference in position between the actual BLADE on the cutter and the Vision sensor that reads the PageMARK positions. This only needs to be set once and once set it does not change but it is very important that this is set prior to cutting any jobs.



The Sensor Offset can be automatically set by using the Auto Find feature **5a** (detailed in the next section) or it can manually entered or adjusted by editing **5c** the Sensor Offset X box (looking from the control panel - left to right across the bed) or the Sensor Offset Y box (Back to front).

9.5.1 Auto Find - Setting the Sensor Offset to the Blade

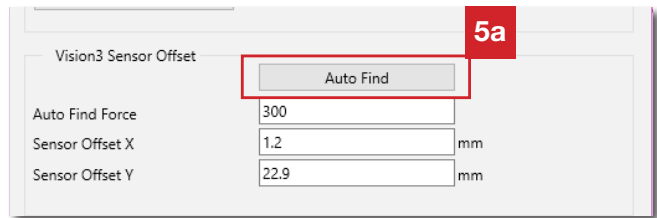
The Intec ColorCut Flatbed cutter includes a Vision3 ARMS system (Automatic Registration Mark Sensor). The Vision3 ARMS sensor uses an high quality CCD camera to automatically detect Registration Marks (PageMARKs), enabling accurate cutting using ColorCut Pro. Being able to automatically detect the PageMARKs enables ColorCut Pro's sophisticated algorithms to compensate for any scale or skew errors during printing or any positional errors, adapting the cutting lines accordingly. In addition to reading PageMARKs the Vision3 camera can read job QR codes and provide live video echo to show progress during cutting.

The Vision 3 ARMS sensor is mounted next to the cutting blade holder and the distance between the centre of the blade, and the centre of the Vision3 camera sensor (known as the sensor offset) must be compensated for to ensure accurate cutting.

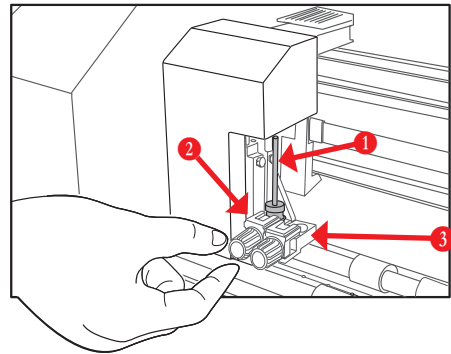
Before you use the Intec ColorCut Pro software for the first time you will need to calibrate the Sensor Offset so your software knows how to adjust the difference between the cutting blade and the actual optical sensor.

9.5.2 Automatically Setting the Sensor Offset

The 'Auto Find' **5a** feature calibrates the offset automatically for you. This is achieved by using the PEN CALIBRATION TOOL. The pen tool is used to draw a circle shape ●, the Vision3 ARMS sensor will then move over the ● shape, scan to locate the ● shape and determine the exact centre point of the ● shape. The ColorCut Pro software then calculates the distance the Vision3 sensor is offset from the centre of the cutting tool automatically.



1. Place the Calibration Pen Tool **1**, in to Tool Holder 1 **2**. (Normally the position for the Blade Holder). (You can place and/or leave the creasing tool into Tool Holder 2 **3**.)

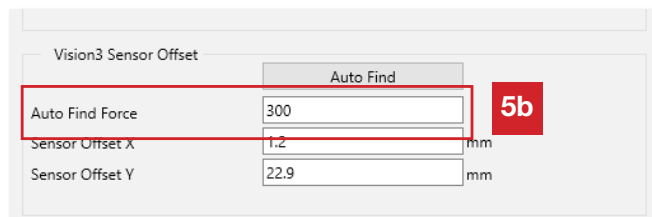


2. Set/Check the appropriate pressure for the Calibration Pen Tool . (Not too much pressure or you may break the pen).

Check the AutoFind force pressure is set to between 200 - 320gms of pressure.

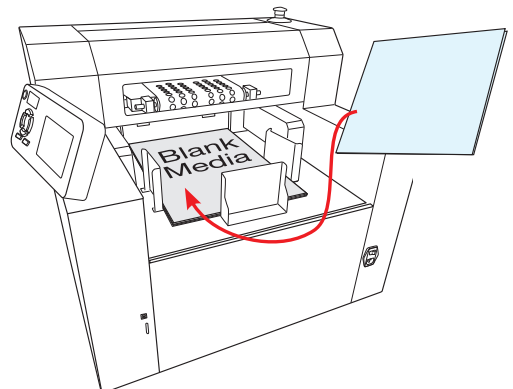
Recommended pressure is 220gms, however for very thin paper you may wish to reduce this.

Note: too little pressure and the pen will not write.



3. Load blank paper sheet(s) into the media tray. Adjust the self centering side guides to the edges of the media.

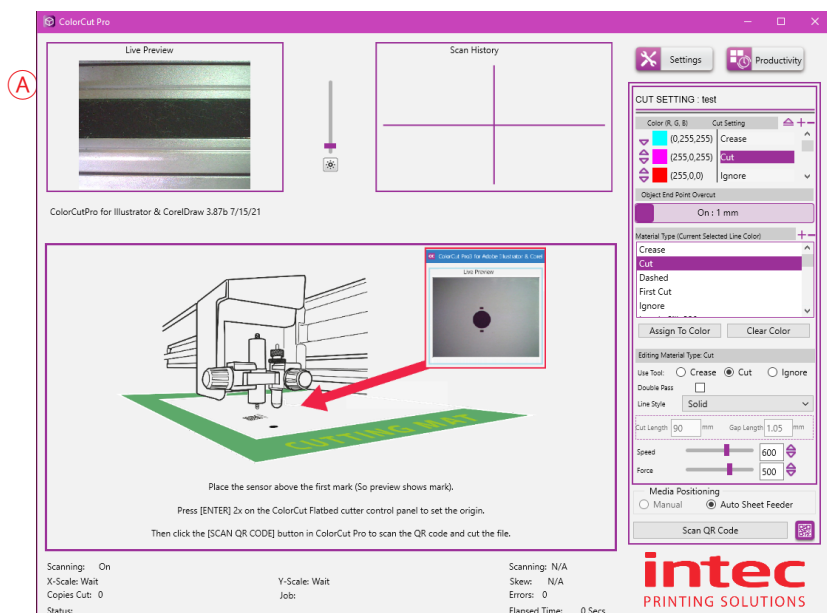
Ensure they are not too tight against the side of the media.



Auto Find - Automatically Setting the Sensor Offset (Cont)

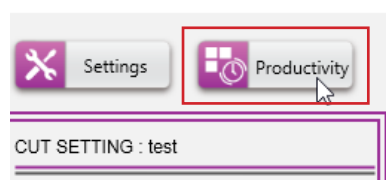
4. Start the Wi-Fi HotSpot on your computer (as described in Section 3.2 of this manual). Ensure 1 connected device appears (this will be the IP address of your cutter), in the HotSpot.

5. Launch the ColorCut Pro application from your computer.



If the SC5000 is connected under the [SETTINGS] button, and your Wi-Fi Hot-Spot is active, you should see a preview of the Vison3's CCD camera in the 'Live Preview' window (A). If not check the Wi-Fi Hot Spot has a device connected and that 'OBTAIN IP ADDRESS Automatically' is set under the [SETINGS]- live video connection option. Then restart the ColorCut Pro app.

6. BEFORE USING THE AUTO-SHEET FEEDER, (USED IN THE AUTO-CALIBRATION PROCESS). IT IS IMPORTANT TO ENSURE YOU HAVE SET THE CORRECT MEDIA SIZE.



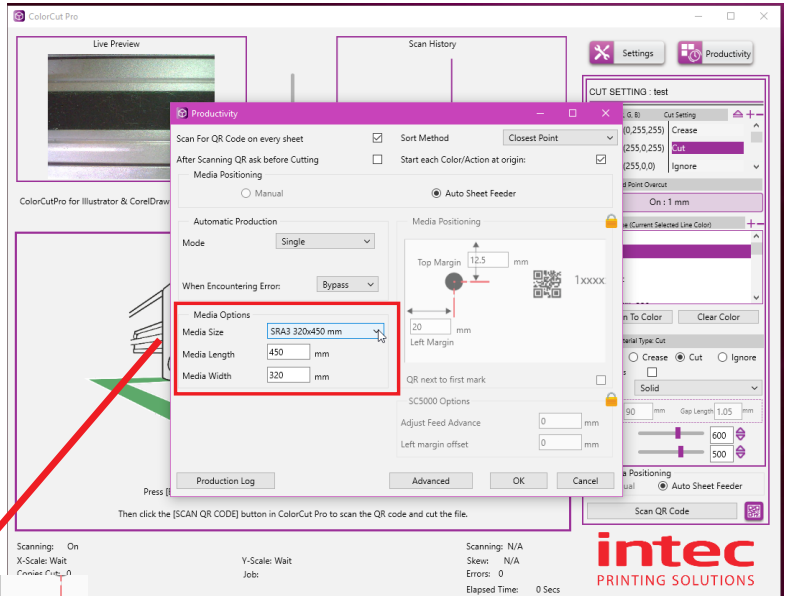
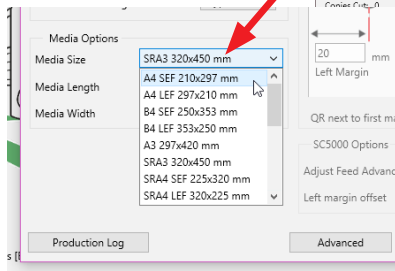
To set/check the media size loaded into the SC5000 Auto-Sheet Feeder (in Step 3 above), and ensure it matches the media you have loaded, click on the [PRODUCTIVITY] button at the top of the ColorCut Pro window.

Auto Find - Automatically Setting the Sensor Offset (Cont)

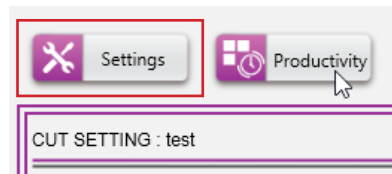
7. From the Media Options click on the media size to match the paper size you placed in the feeder.

Typically we recommend using SRA3 (EU/ROW), or TABLOID (USA).

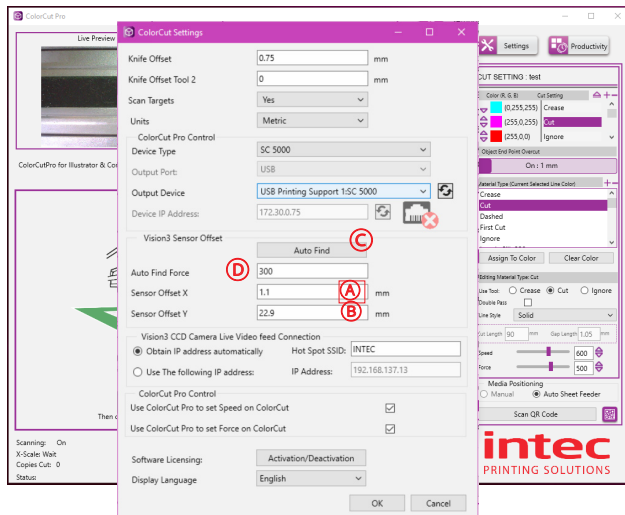
IF selecting A4, or US Letter, ensure you set SEF (Short Edge Feed) orientation. Then click [OK].



8. In the main ColorCut Pro application screen, click on the [SETTINGS] button.



9. The ColorCut Settings dialogue box will appear. Here you can manually enter the Sensor offset (A) (B).

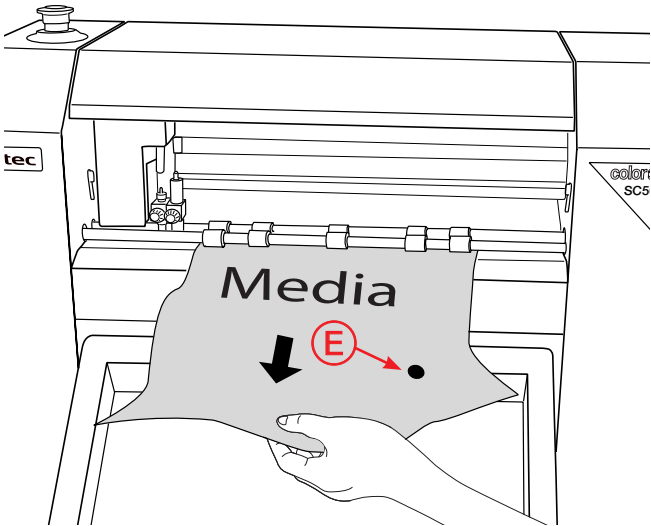


Or automatically set it by clicking the [AutoFind] button (C).

(The force used, can be manually set here (D), by default for you. >200 <320g this should not need to be changed)

Auto Find - Automatically Setting the Sensor Offset (Cont)

10. Click the **[AutoFind]** button, a message will appear asking you to place a sheet of media in the cutter, and click OK, then the Intec ColorCut SC5000, will load the sheet automatically from the feeder and use the Pen Calibration Tool, to repeatedly draw a spiral pattern **(E)** to simulate a registration mark. it will then move the Vision3 sensor over to find the mark and automatically enter the values into your Sensor Offset X and Y settings. Once completed you will see a confirmation message.



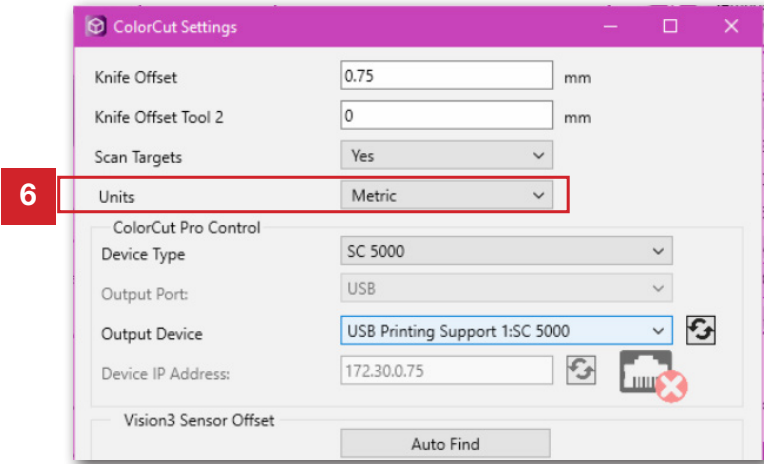
You can now close this window, the calibration for ColorCut Pro is now complete.



If you do not set the X and Y Sensor offset values (either using the AutoFind function - or manually) then the cutter will not cut accurately. Please ensure you have done this. However once done, this should not need to be repeated.

9.6 Units of Measurement

ColorCut Pro can be operated in Metric (mm) or Inches (Imperial). Use the Units **6** control to set the measurement units to your preference.



9.7 Vision3 CCD Camera Live Video feed connection

ColorCut Pro uses a Vision3 high resolution CCD camera system. The Vision3 camera can scan and locate registration marks and also interpret QR codes printed on the media. This enables ColorCut Pro to retrieve cut files associated with the job, scan the position of PageMARK targets, calculating any scale, skew or rotation issues with your printed artwork and then adapt your cut lines as required.

Output Port:
USB

Output Device:
USB Printing Support 1:SC 5000

Device IP Address:
172.30.0.75

Vision3 Sensor Offset

Auto Find

Auto Find Force
300

Sensor Offset X
1.1 mm

Sensor Offset Y
22.9 mm

7a Vision3 CCD Camera Live Video feed Connection

☒ Obtain IP address automatically

Hot Spot SSID: H3

☐ Use The following IP address: IP Address: 192.168.137.13

ColorCut Pro Control

Use ColorCut Pro to set Speed on ColorCut ☒

Use ColorCut Pro to set Force on ColorCut ☒

The Vison3 sensor is directly connected to the SC5000 cutter’s control board and the image manipulation and results are all are calculated internally on the cutter.

However the Vision3 sensor also ‘echoes’ a copy of the live video feed from the camera providing a video feedback for the user to follow the progress within their ColorCut Pro application.

The ‘echo’ of the video from the Vision3 camera is not required for operation and the SC5000 will work perfectly without connecting to the camera. However tit is useful to be able to see the PageMARK when scanning sheets and it is useful to follow the progress of scanning and sensing QR codes, as it helps to understand any issues, therefore we recommend enabling the ‘echo’ of the live video from the Vision3 sensor.

To enable ColorCut Pro to receive the live video feed, please set the Video feed connection settings detailed following.

9.7.1 Setting IP address for Vision3 CCD Camera Live Video Echo

The Vison3 sensor ‘echos’ the live video feed over a WLAN connection. It will connect to a HotSpot or Direct Wi-Fi connection broadcast using the default SSID **H3**, and default Password: **12345678**. Ensure you have set up a HotSpot or, Wi-Fi Direct connection as described earlier in this manual.

In most cases it is recommended that you use the default setting (7a Obtain IP address automatically) to allow ColorCut Pro to set the IP address of the Vision3 camera after it has connected to your HotSpot / Direct Wi-Fi connection.

Vision3 CCD Camera Live Video feed Connection

☐ Obtain IP address automatically

Hot Spot SSID: H3

☒ Use The following IP address: IP Address: 7b 168.137.251

This will take 45 sec to 2 mins the first time you launch the software each day.

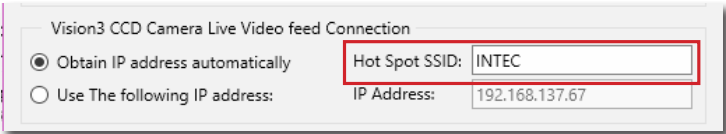
However if you have multiple cutters or despite seeing the IP address in your HotSpot Wi-Fi Direct connection, the ColorCut Pro software can not connect to your cutter, then you can manually enter the IP address for the cutter (shown in your Wi-Fi HotSpot connection list or Wi-Fi Direct connection list 7b

9.7.2 Setting the HOTSPOT SSID

The connection to the Wi-Fi camera for the SC5000 is a WI-FI DIRECT connection (it is not an external internet connection) so the SSID HotSpot name is specific ONLY to the link to the cutter itself. The HotSpot SSID name does not need to be changed or modified to link to your own normal internet WI-FI, and doing so will cause the camera connection to fail. It is recommended to use the default setting of **H3**.

However in larger installations with multiple ColorCut ServerStations driving clusters of cutters, it may be necessary to change the SSID for each Server station and the cutters connecting to it.

To change the HotSpot SSID, Power off the cutter.



Enter the new SSID name (**7c**), and click on **[OK]** to exit the settings window.

Now restart your Intec cutter and click on **[OK]** when the safety message appears.

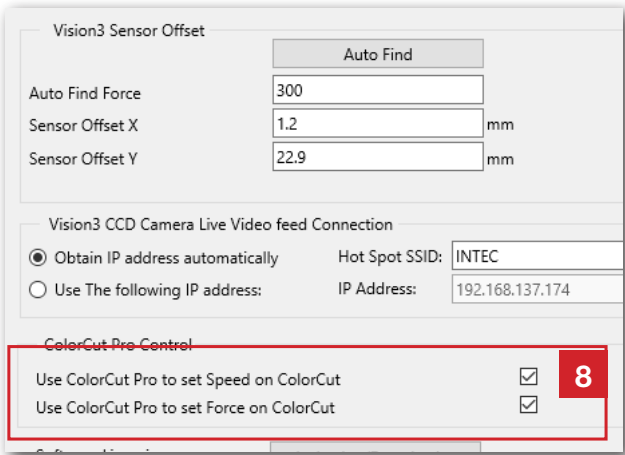
When the cutter is ON-LINE, restart the ColorCut Pro software. During start up the ColorCut Pro software will send down the new SSID to the Intec Cutter.

Remember to set the HOTSPOT SSID on your WINDOWS HOTSPOT to match the new SSID name you set in ColorCut Pro (Section 3.21 (step 5 in this manual).

9.8 Choosing where to set Speed and Force

ColorCut Pro allows you to define the Speed and Force Settings for each material type which is important especially if you wish to cut with different pressures in one job (i.e. a high force to cut through an element and a light force to apply a score to the element).

Alternatively large sweeping curves may be cut quickly however complicated delicate shapes can be drawn using different colored line so you can associate a different speed for each line. To achieve this the speed and force settings must be controlled by ColorCut Pro. Ensure that the check boxes **8** are enable to ensure ColorCut Pro can control your cutters speed and force.



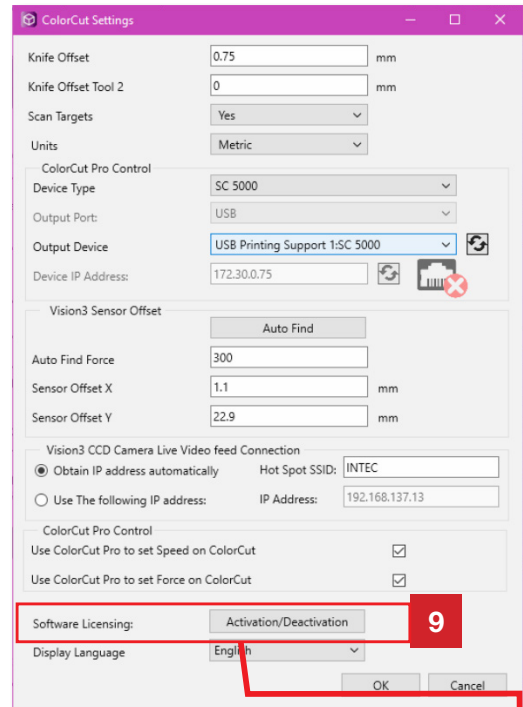
If you wish to ignore the Speed and Force Settings set under ColorCut Pro's options, unchecking these boxes will stop the Speed and Force settings being sent to your cutter. When these options are NOT checked all artwork lines being cut or creased will be controlled by the settings shown on the LCD panel of the Cutter itself. You can change the values by selecting the Tool directly on the LCD panel and using the Hard keys to adjust speed or force as shown on the panel.

9.10 Activation/ Deactivating your ColorCut Pro License

ColorCut Pro is activated and licensed using an On-Line License server. You receive a license providing 2 activations. One is for your Artwork PC, one is a remote cutting computer (in case you do not wish to use your design PC (or the same person) to perform your cutting tasks.

The Mac client does not require a license.

If you wish to move ColorCut Pro from one computer to another, you **MUST** deactivate ColorCut Pro **9** on your current computer before installing on the new one.



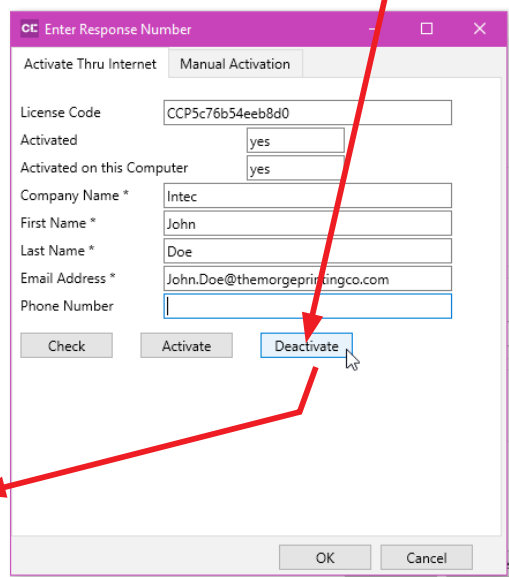
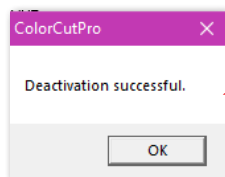
WARNING: If you do not deactivate your ColorCut Pro license, the online activation server will run out of activations/licenses for your license code and you will not be able to license the new computer. Therefore ColorCut Pro will not run. In this circumstance, you will need to either de-activate your previous installation of ColorCut Pro or purchase an additional license code.

9.10.1 Deactivating ColorCut Pro

After clicking the [Activation/Deactivation] button **9** the license activation screen will appear at the bottom of this screen. Click on the [Deactivate] button **9a**.

Clicking the Deactivate button will connect to the On-Line license server and deactivate your license. At the same time it will disable your license on this computer and you will free up one license code for either re-activation on this computer OR for installation on an alternative PC.

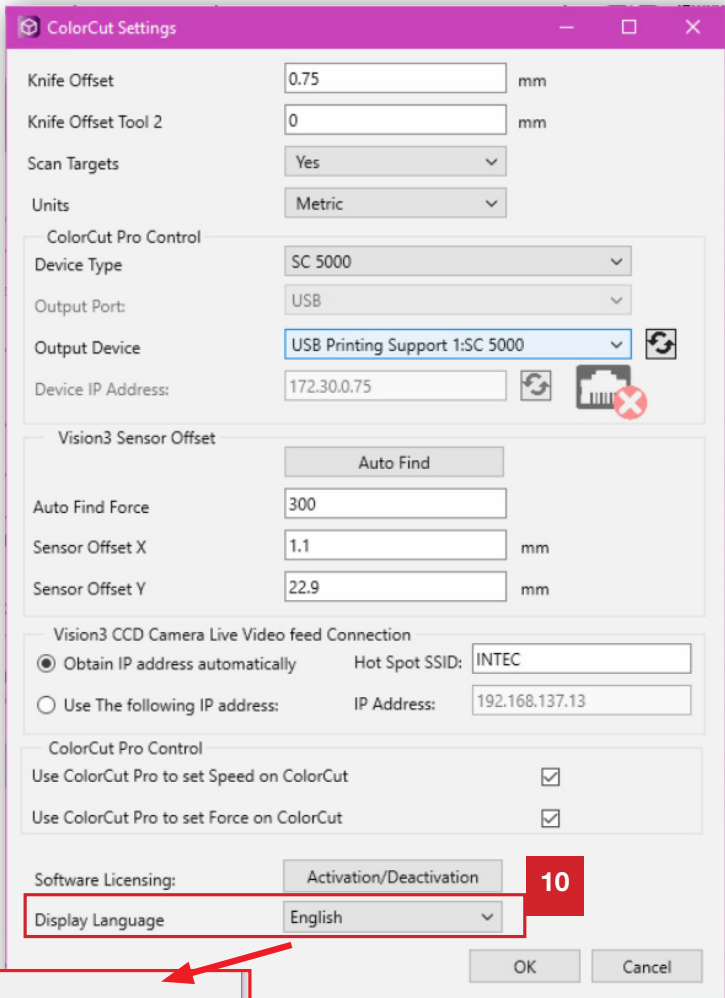
NOTE: If an on-line connection is not available then it will not be possible to deactivate your license until you have an on-line connection.



9.11 Regional Language Options

ColorCut Pro is installed by default into the English language. If you wish to use ColorCut pro in an alternative language then use the drop down menu **10** at the bottom of the settings screen to change languages.

At the time of writing this manual, English and Italian are available, please contact your dealer regarding the latest translation files for additional languages.



ColorCut Settings

Knife Offset: 0.75 mm

Knife Offset Tool 2: 0 mm

Scan Targets: Yes

Units: Metric

ColorCut Pro Control

Device Type: SC 5000

Output Port: USB

Output Device: USB Printing Support 1:SC 5000

Device IP Address: 172.30.0.75

Vision3 Sensor Offset

Auto Find: Auto Find

Auto Find Force: 300

Sensor Offset X: 1.1 mm

Sensor Offset Y: 22.9 mm

Vision3 CCD Camera Live Video feed Connection

☒ Obtain IP address automatically Hot Spot SSID: INTEC

☐ Use The following IP address: IP Address: 192.168.137.13

ColorCut Pro Control

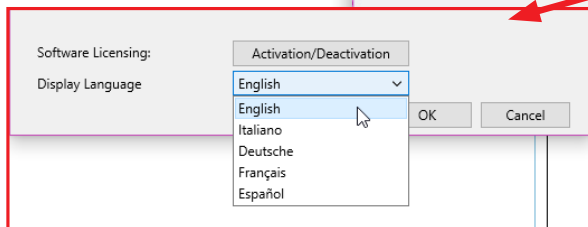
Use ColorCut Pro to set Speed on ColorCut: ☒

Use ColorCut Pro to set Force on ColorCut: ☒

Software Licensing: Activation/Deactivation

Display Language: English

OK Cancel



Software Licensing: Activation/Deactivation

Display Language: English

English

Italiano

Deutsche

Français

Español

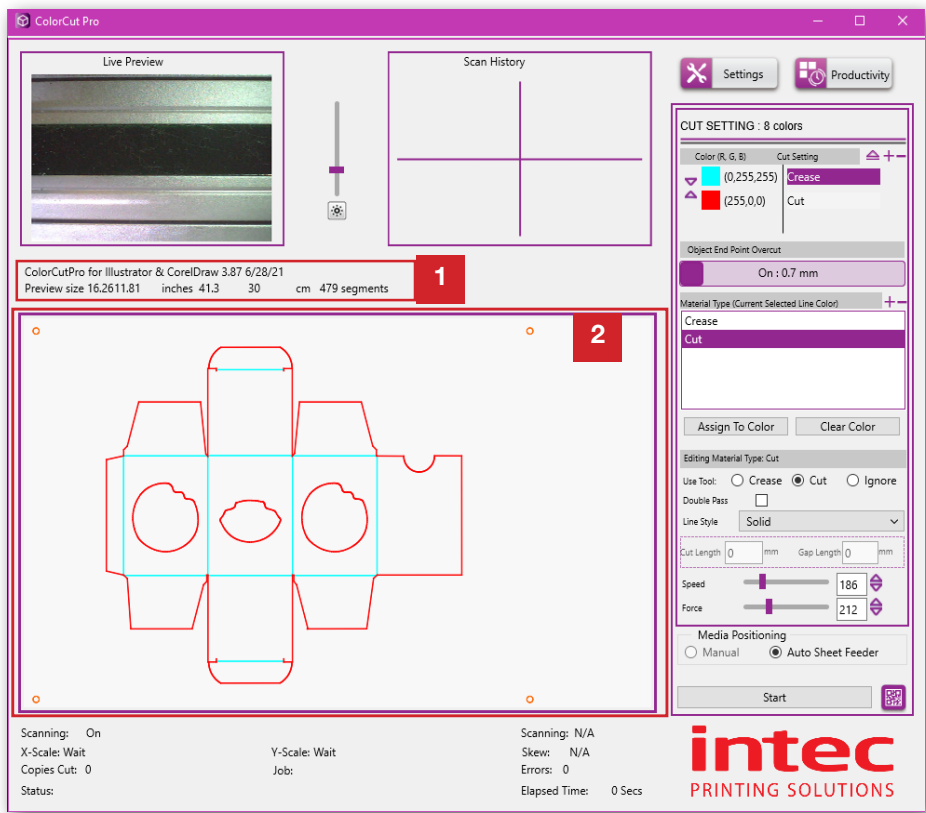
OK Cancel

After changing the language, please RESTART ColorCut Pro to enable ALL fields to be updated correctly.

10. COLORCUT PRO - MAIN INTERFACE OVERVIEW

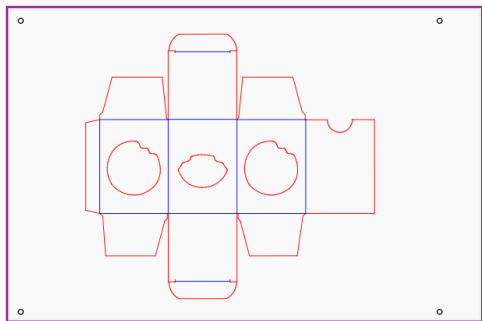
10.1 About (Version information) for ColorCut Pro

The version of ColorCut Pro can be seen in the main interface Window, just under the Live preview Window and above the Job Preview Window. **1** .



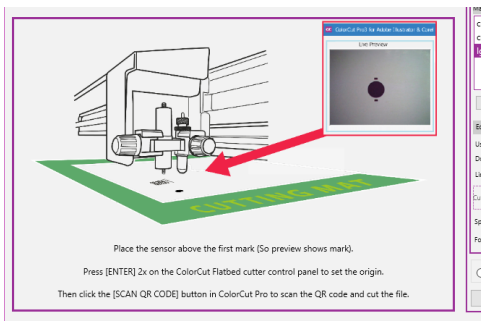
10.2 The Job Preview Window

When launching ColorCut Pro in Direct mode a preview of the cutting profile on the selected layer will be shown in the Job Preview Window.



(ColorCut Pro (Direct mode))

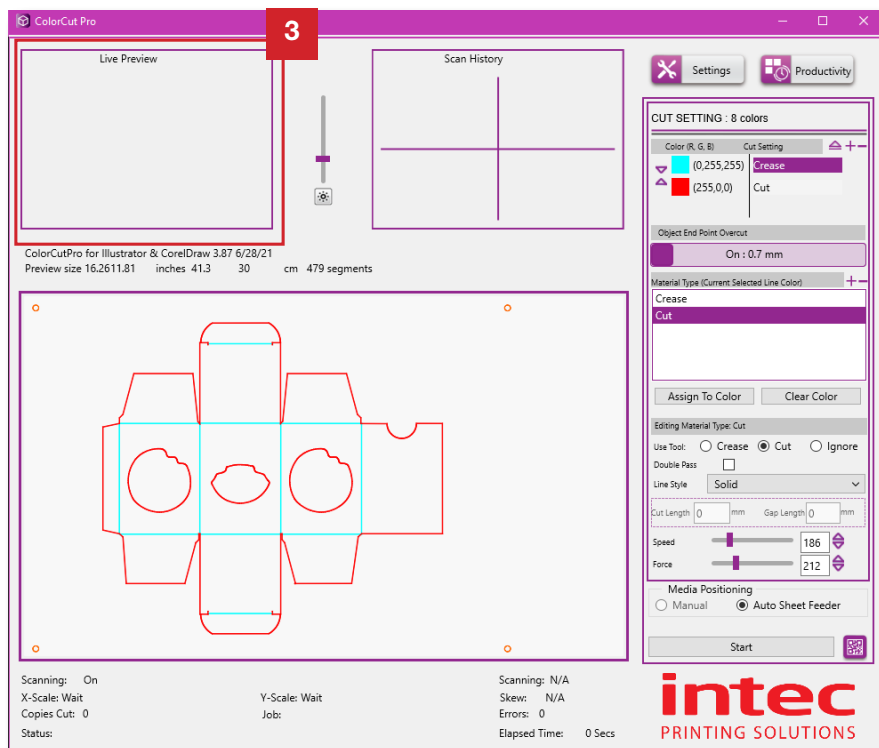
When launching ColorCut Pro in Job Server mode an information graphic will be displayed in the Job Preview Window. This will be updated with the Cut Job file preview once you have manually entered the Job number or scanned the BarCode.



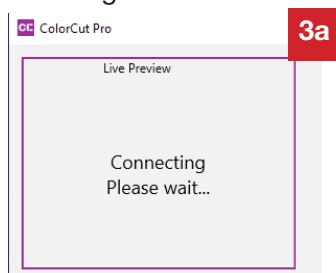
(ColorCut Pro (Job Server mode))

10.3 The Live Preview Window

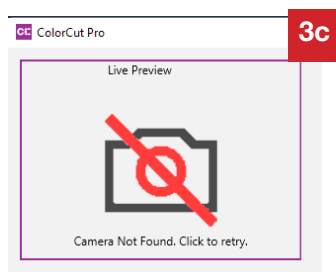
Upon launching ColorCut Pro for the first time each day, the software will acquire the IP address of the Live Video Feed from the Vision3 registration sensor/CCD camera. This may take 30 secs to 2 mins. During this period the Live Video preview may appear blank **3**.



During the connecting period, the Live Preview window may change to display a 'Connecting Please Wait' message. **3a**



Once connected it will display the echo of the Live Video feed (often the cutting strip to start). **3b**

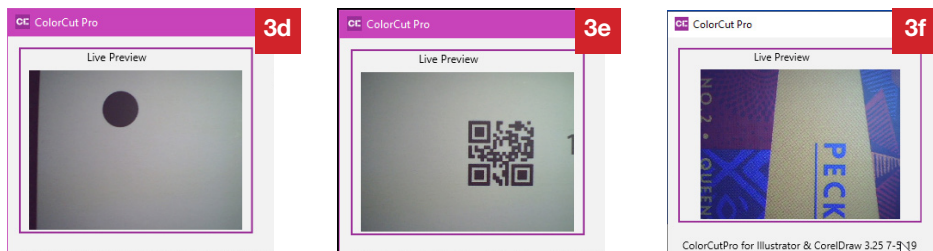


NOTE: If you have not set up either the Wi-Fi Hot Spot, or where applicable the Wi-Fi Direct connection to the camera, then ColorCut will not be able to connect to the camera **3c**.

Set up your Hot-Spot as previously detailed at the start of this manual, and try again.

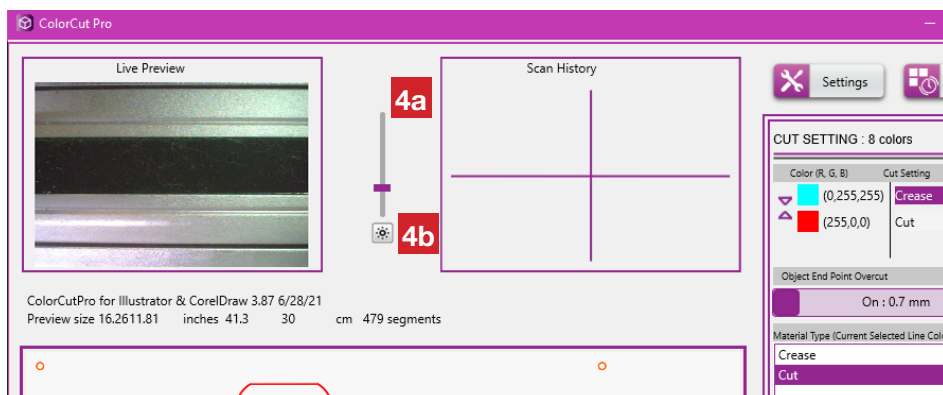
10.3 The Live Preview Window (cont.)

The Live Preview Window is a live video 'echo' showing you what the Vision3 CCD camera sensor captures. When starting a Cut Job, you will see the initial PageMARK being captured **3d** if you are also scanning QR codes, you will see this being captured **3e** and then each of the other PageMARKs. Also during the cutting you will see Live Video of the media surface (your printed job) as it cuts. **3f**.



10.4 The Brightness / Illumination Control

The Vision3 CCD camera sensor, includes a mini-LED strip that illuminates the area being captured. With some types of media it may be necessary to increase or decrease the brightness of the illuminated area, particularly with porous substrates like rice paper, or reflective/foiled materials. Adjusting the slider **4a** up, will increase the brightness, while adjusting the slide down will reduce it. When positioned right at the bottom of the slide, the illumination will be OFF.



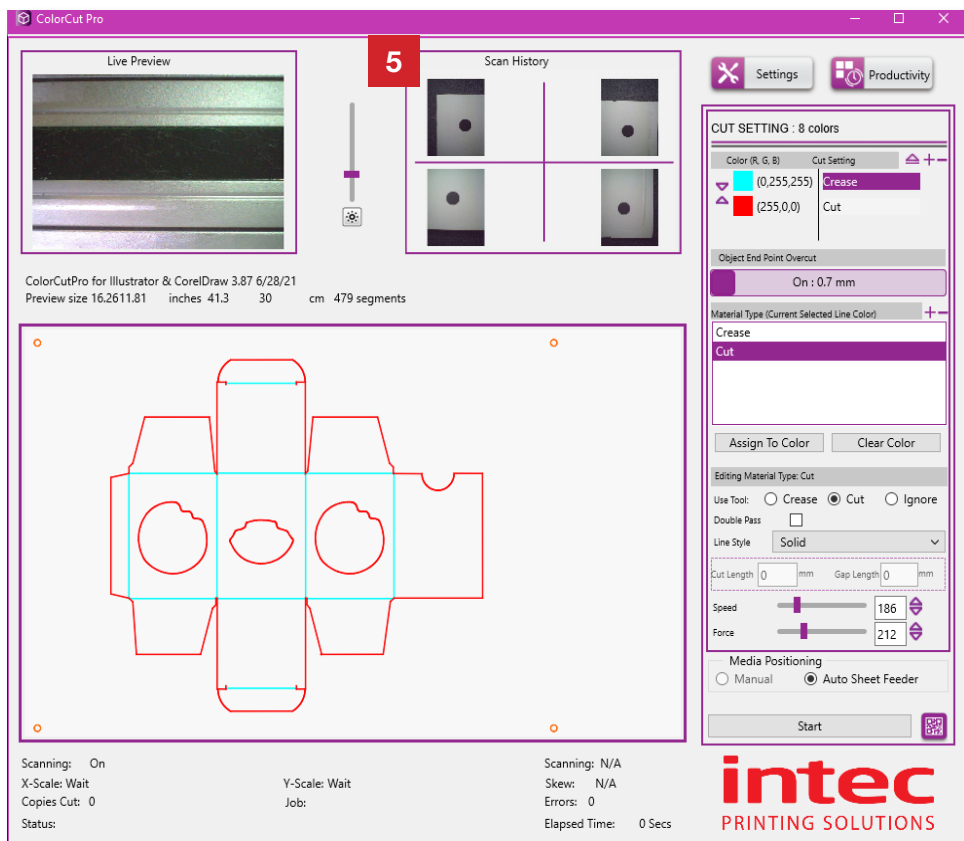
The button **4b** at the base of the slide, will reset your slider to the DEFAULT level we recommend for daily operation.



While adjusting the slider may help for a one off, selected media if you find you are frequently having difficulty scanning marks on a specific colour media or reflective media. You may find it better to use the AUTOMATIC: RETRY SCAN, with VARYING LIGHT LEVELS feature. This will scan the marks on the current light level then retry the scan on a lower, then a higher light level automatically for you. To find out more information on this feature, please refer to the productivity section (11.11) in this manual.

10.5 The Scan History Window

The Scan History window **5** will display the history of each scan, enabling you see if a scan failed and to help you understand the progress of your cutter.



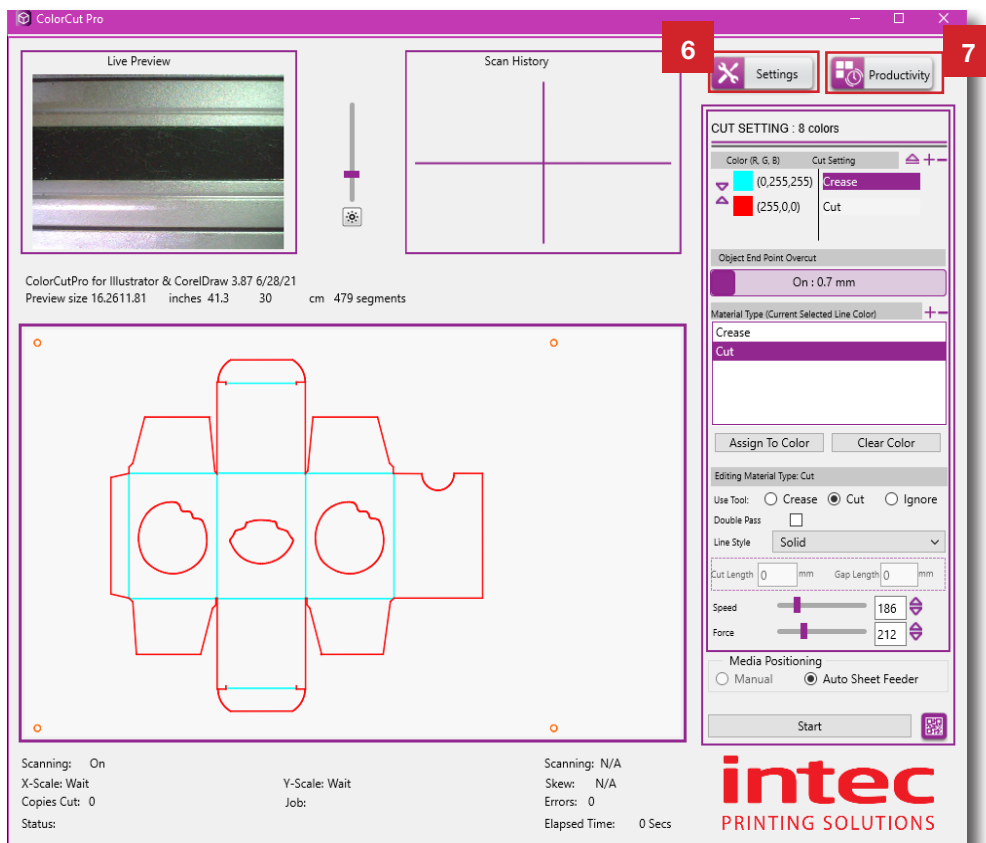
You can watch the live video preview and the Scan History window, when a sheet is loaded. If your page size is configured correctly - then during the initial loading of a sheet. The Vision3 sensor will move DIRECTLY over the 1st mark. In the live video preview the 1st Mark (Target) should appear in the CENTRE of the video preview area. If it is slightly off centre the cutter will readjust for centre and save the position in the SCAN HISTORY window, and move on to the next mark.

The SC5000 will position the Vision3 sensor over the first Mark based on the media size set under the **PRODUCTIVITY** window. If the pagesize set under the **PRODUCTIVITY** window does match the media size loaded, then the PageMARK (targets) may not scan. You should be able to see the SC5000 moving the Vision3 sensor to the wrong position if this is the case and correct the issue.

In addition, IF you have changed the margin/offset of the Targets from the edge of the sheet, it may also be that the Vision3 sensor does not move to the correct location. Again, the margins you are using for the 1st pageMark can be defined under the **PRODUCTIVITY** window (see section 11 following).

10.6 The Settings Button

The Settings Button **6** will display the Settings Window, enabling you to alter configuration settings for the application (already detailed earlier in this manual).

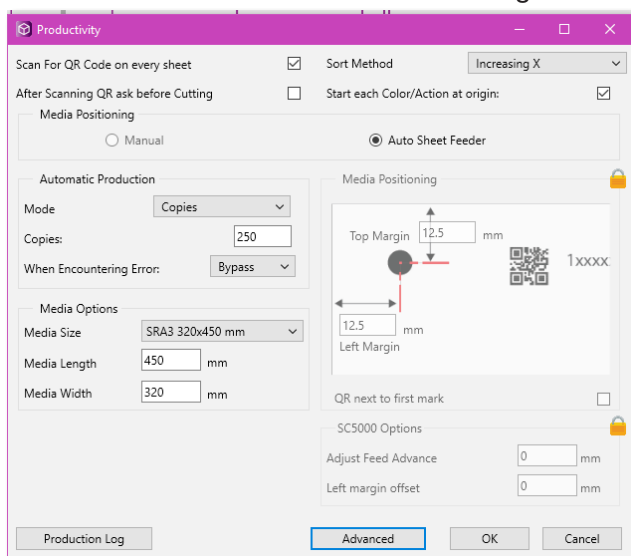


10.7 The Productivity Button

The **[PRODUCTIVITY]** Button **7** will display the **Productivity** Window, required for setting the Media size loaded in the Auto-Sheet feeder and the default margin of the 1st PageMark (These are required for correct scanning of the PageMARKs & QR code). The Productivity options also enabling optimisation of features that affect the cutters productivity, including the ability to handle single sheets, copies or continuous mode.

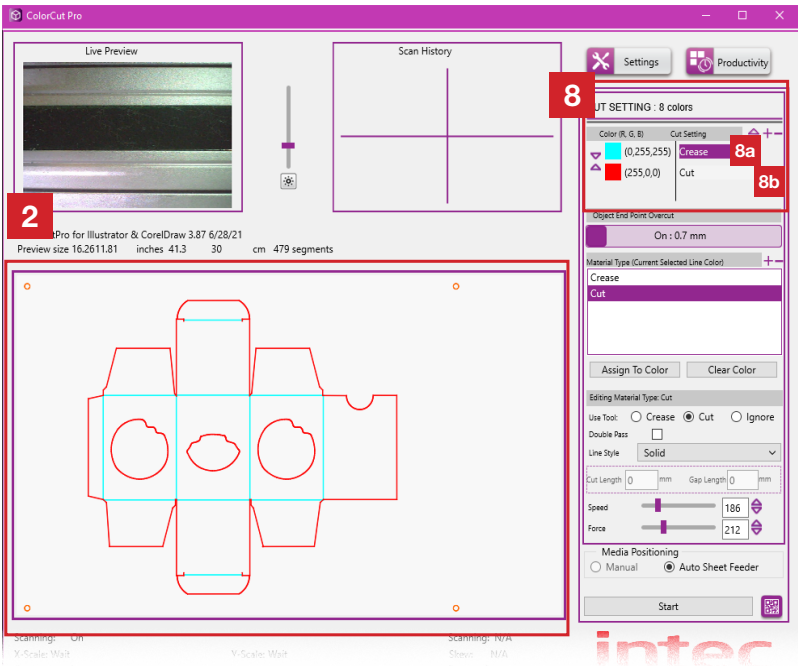
Plus, cutting order AND advanced features, such a **“Vary Light levels during mark scanning”**.

Further information on the productivity setting and options are detailed in section 11 (following in this manual).



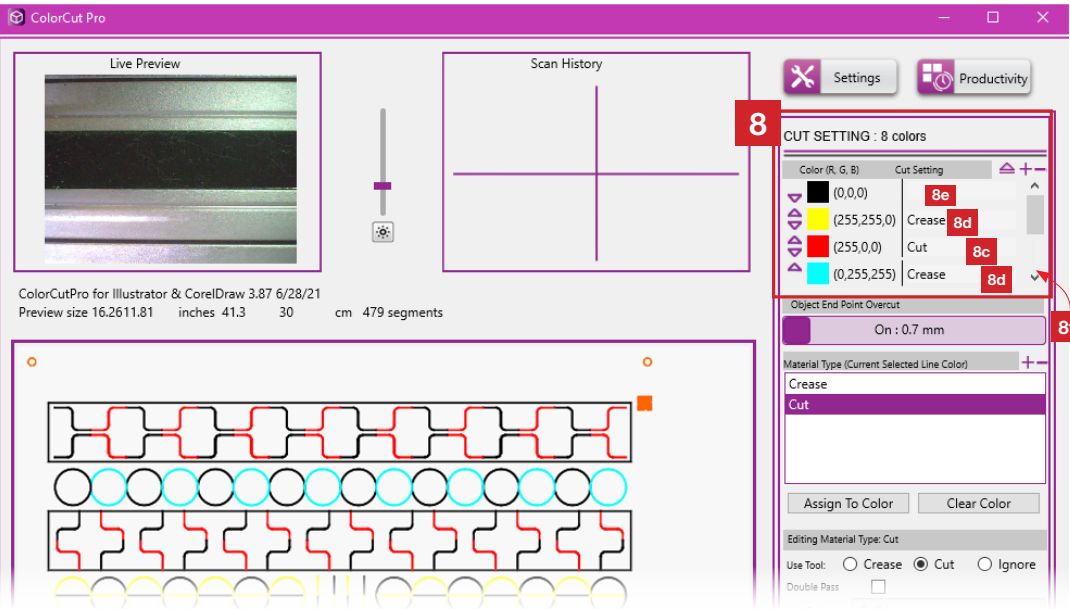
10.8 The Cut Settings Window

ColorCut Pro displays a preview of the file to be cut in the Job Preview Window **2**. If your cut file contains different line colors then each color is matched to one of the 8 primary colors that ColorCut Pro recognises. The cutting lines are displayed in their respective colors, with each color listed in the *Cut Setting* window **8**.



Next to each Color, a Cut Setting/Action will be shown **8a**, **8b**. The software will remember previous Cut Setting assignments applied to a color from the last time the Color was assigned. (If a Color has not previously been used, the assignment may be blank).

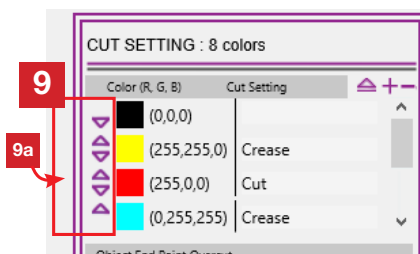
In the example below (showing a different cut profile in the Job Preview window for explanation purposes) there are multiple colored lines within the cutting profile. Again the Red line has the Cut Setting/Action 'cut' next to it **8c**, Yellow & Cyan are set to 'crease' **8d** while the Black colored lines are yet to have an action assigned to them **8e**. If there are more colors than shown on the list, use the scroll bar **8f** to see the additional colors.



10.9 Selecting Order of the Cut/Creasing to be performed.

The sequence/order in which the actions are completed is the order in which the colors are shown in the Cut Settings list.

It is normal to perform Creasing or Scoring operations BEFORE cutting your substrate. If necessary the cutting and creasing order can be changed by using the arrow **2** symbols next to each color. The UP **9a** arrow will move a color up the list.



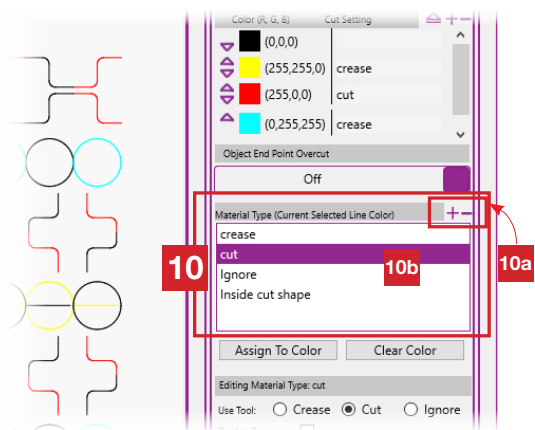
Remember colors at the top of the list will be processed first.

10.10 The Material Type/Actions Window

The **Material Type** Window can also be considered an action Window. You can create **Material Types** or **actions** for each process/task you wish the cutter to perform.

A **Material Type/Action** is a profile consisting of the following saved settings being used:

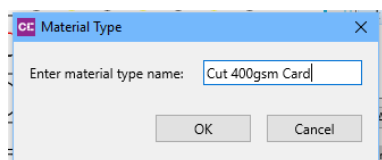
- Intec Cutting Tool (*Cutter, Crease, or Ignore*)
- Speed of Tool
- Force/Pressure applied by Tool
- Type of Line (*Solid, or Dashed, or with Tags*)
- If the Tool should double pass.
(e.g. *Double Crease*)



As you get used to your Intec ColorCut SC5000 and the different materials you cut, you can start to save these profiles for different cutting forces or speeds dependant on the media types. So the **Action** Window is also known as the **Material Type** Window.

The **Material Type/Actions** Window **10** shows a list of all the pre-defined settings / profiles you have created that you can use or employ.

You can click the **[+]** symbol **10a** to add a new **Material Type/ Action**.

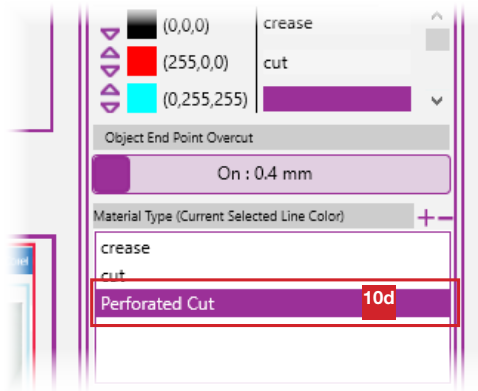


After clicking the **[+]** symbol you will be prompted to enter the name you wish to call your **Material Type/Action**.

Click **[OK]** and then follow the instructions following for **EDITING Material Type /Actions** section 10.12 following.

10.11 Assigning a Material Type/Action to a Color (or clearing one)

To assign a Material Type/Action to a colored line, select the Line Color you want to assign the action to in the *Cut Setting* Window, in this example we will click on the Cyan/light Blue color **8e**. (Click on the right side of the list, next to the Color).

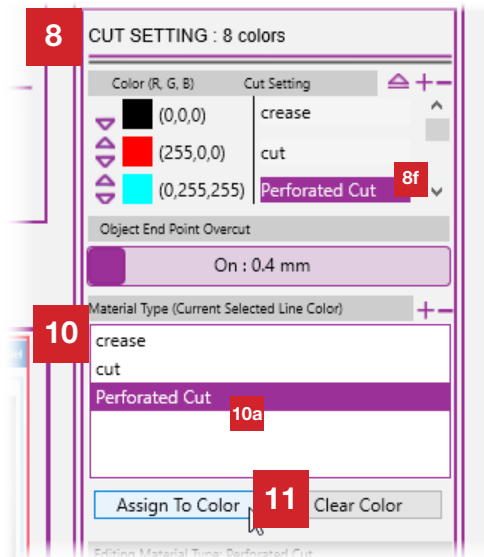


Then select the Material Type/Action you wish to be applied **10d** (in this case we selected a new material type we created called 'Perforated Cut').

Finally click **11** the **[Assign Color]** button. The name of the selected action will now appear next to the Line Color **8f**.

To change an action, follow the same steps, Click on the right side of the Color Settings **8** (on the currently assigned action name). Then select the new Material Type/Action you wish to apply **10**. And click **11** **[Assign Color]**.

To **CLEAR** a **Material Type/Action** from a **Cut setting**, Click on the right side of the Color Settings **8** (on the currently assigned action name). And click **11** **[Clear Color]**.

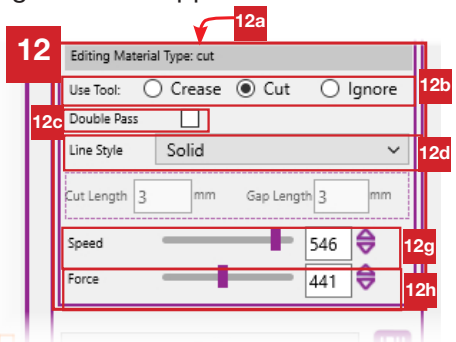


10.12 The Editing Material Type Window

The **Editing Material Type** Window **12** displays the parameters used for the **Material Type** selected (the action **10** in the material Type section) . You can check,review and edit the settings to suit the action and any changes will be applied to the **Material Type/Action** immediately on the next cut.

Each **Material Type** (Action), includes the following adjustable settings.

- **Tool Used** **12b**.
- Number of **Passes** **12c** for the tool.
- **Line Style** **12d** (Solid or dashed/perforated)
- **Speed** **12g** of the tool during cutting
- **Force/Pressure** **12h** applied during cutting.



10.12 The Editing Material Type Window (cont.)



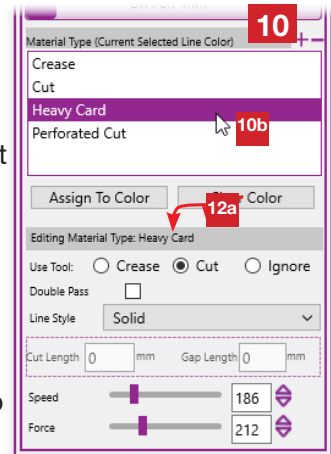
When creating a new Material Type, first create a **NEW** material Type name (as described in section 10.10 (10a) above).

To edit Material Type/Action; select it's name from the list in the **Material Type** Window 10.

When a **Material Type**/Action is highlighted (in this case you can see we have highlighted the material type 'Heavy Card' 10b). The name of the selected Material Type/Action 'Heavy Card' can be seen in the top of the **Editing Material Type**: section 12a.

All parameters displayed in the section below combine to create the profile for the Material Type "Heavy Card".

You can edit these values if required to adjust the profile to suit your requirements.



10.12.1 Selecting the Tool (Cutting/Creasing/Ignore)

The tool to be used is shown 12b (in this case the radio button for **cut** is selected). You can choose between the **Cutting Tool** (the Tool positioned closest to the Carriage Beam on the Tool Carriage), the **Creasing Tool** (the Tool positioned furthest from on the Tool Carriage). Or you can choose to **Ignore** the line for cutting.

The **Ignore** feature is useful if you realise that your cut file includes some lines you did not intend to cut or crease. (All other features such as speed or force will also be ignored if you select **Ignore**).

10.12.2 Selecting the Double Pass Feature

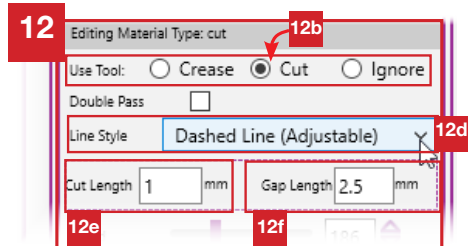
The Double Pass function 12c enables you to enhance the cut or crease function, by effectively repeating the process selected. This can be useful for creasing (when pressure can not be increased further) as Double Pass will cause the ColorCut Pro software to crease the lines twice therefore providing a stronger crease.

However it can also be useful for some cutting applications on particularly soft media, such as Rice Paper for foodstuffs. A Double Pass here will often provide a cleaner cut.

10.12.3 Selecting the Line Style of the Cut or Creasing Tool

The parameter Line Style 12d controls the type of line that will be cut or creased. By default this is a **SOLID** line. However, you can change the line style to a **Dashed Line** for a perforated cut.

Changing the Line Style will update the preview in the Job Preview Window (if the Material Type is assigned to one of the Line Colors in the job preview) so you can see the Line change to a dashed line.



You can set the distance of the knife down (cut) and the knife up (gap) so this feature can also be used to create tags to hold elements in the sheet.

10.12.4 Creating TAGs to hold elements in Using “Line Style”

The SC5000 is an X-Axis cutter. This means during cutting the sheet is moved back and forwards. This type of cutter is common for label cutting as the backing sheet for the labels naturally holds the labels in place.



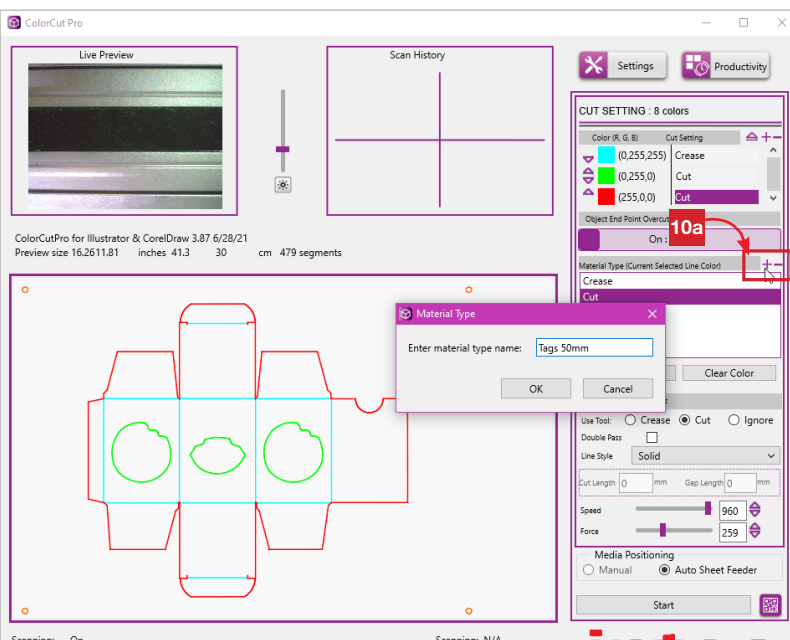
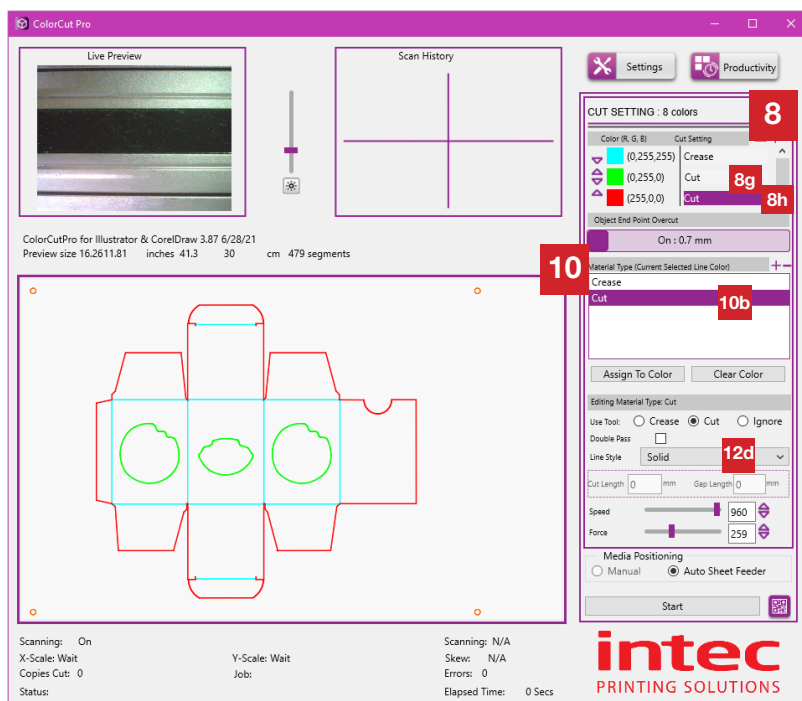
When using the SC5000 for Die-Cutting (full cut through), applications. It is important to place TAGs in the cutting lines to hold the elements in the sheet to prevent them from falling out during cutting and causing an obstruction. This can be done automatically using the Line Style feature.

1.

In the preview shown right, the example box has a cut line for windows (in Green) and a cut line for the outside (in Red).

Currently both green and red line colors **8g** & **8h** are assigned to CUT **10b**. (which is a solid cut **12d**).

The preview shows these lines as solid.



2.

To automatically ADD Tags to the cut file. First create a new **Material Type/ Action** by clicking the **[+]** button **10a**

Create a name to reflect the Action you are creating e.g. “Tag every 50mm”

10.12.4 Creating TAGs (Cont.)

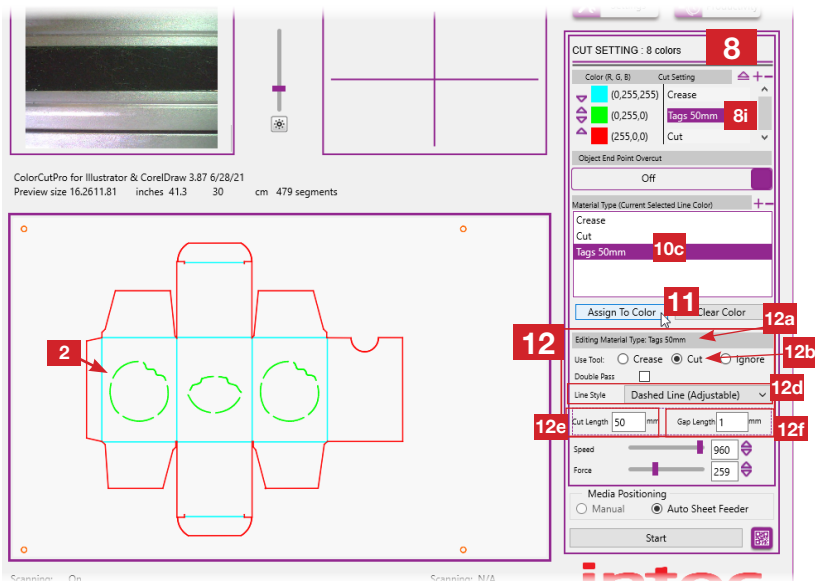
3

Select the new Media Type ("Tags 50mm")

10c, Ensuring the "Tags 50mm" media type is selected 12a set Use Tool to Cut tool 12b.

Set the 12d Line Style to "Dashed Line (Adjustable)"

Complete the Line Style profile by setting a Cut length 12e to 50mm and the Gap Length 12f to 1mm.



This will create a **Material Type/Action** that when assigned to a line color will provide a 1mm Tag every 50mm.

4. Now the Material Type has been created, you must **apply** the material type for creating tags to the line you wish to contain tags. Click on 8 **Cut Setting** section, next to the Color GREEN 8i, then select the NEW "Tags 50mm" **Material Type/Action** 10c and assign it to the Color Green. The preview (above) 2 updates to reflect the NEW material type (**Tags 50mm**) that you created and will show the line with gaps every 50mm (**Note: If your tags are small (such as 1mm) you may need to make the tag slightly larger (3-5mm) to see it in the preview, then reduce it back to 1mm.**)

This will prevent the Green inside elements falling out of the sheet during cutting.

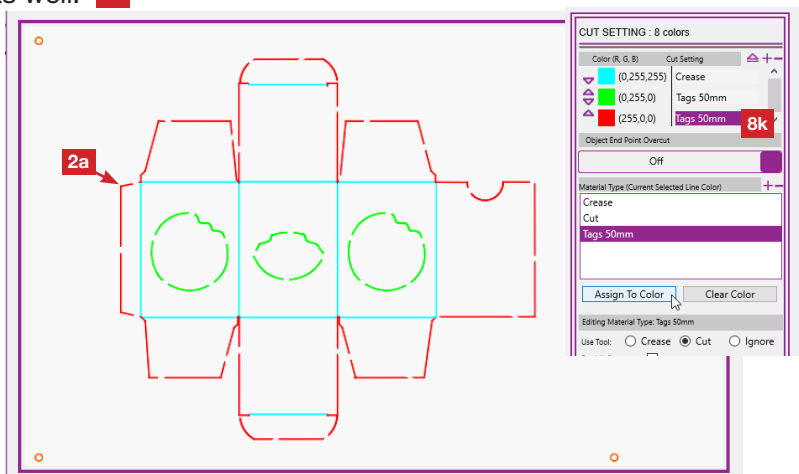


You could also assign the NEW "Tags 50mm" **Material Type/Action** it to the Color red as well. 8k

However, the perimeter cut line is usually a long cut line and a tag every 50mm 2a may create a lot of tags - slowing production and making the element difficult to easily pop out.

Therefore we recommend you use different colors in your design for larger and smaller elements when you design your jobs. This will then enable you to use a new Material type with

less frequent tags for longer cut lines. (Detailed following).



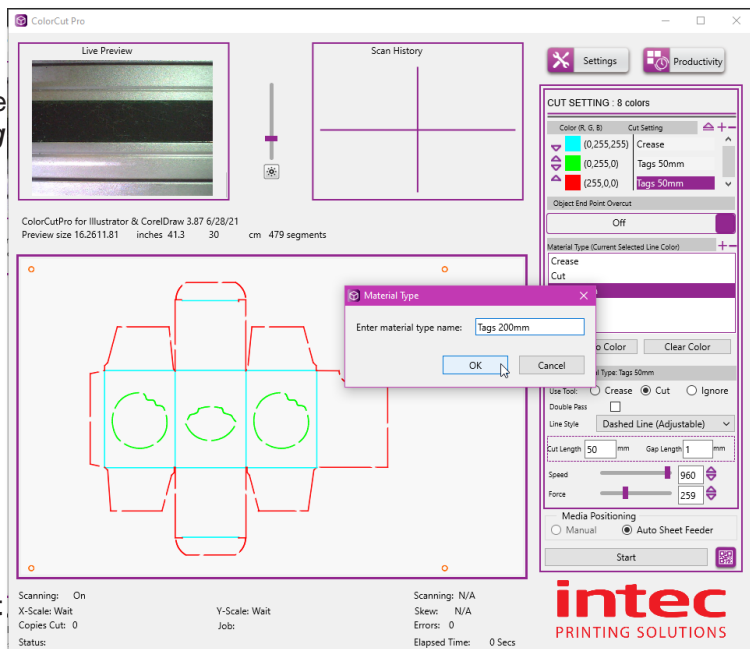
10.12.4 Creating TAGs to hold elements in Using “Line Style”

5. Follow the steps detailed in Step 2 to add another NEW material type. In this example we will add a **“Tag 200mm”** for longer lines.

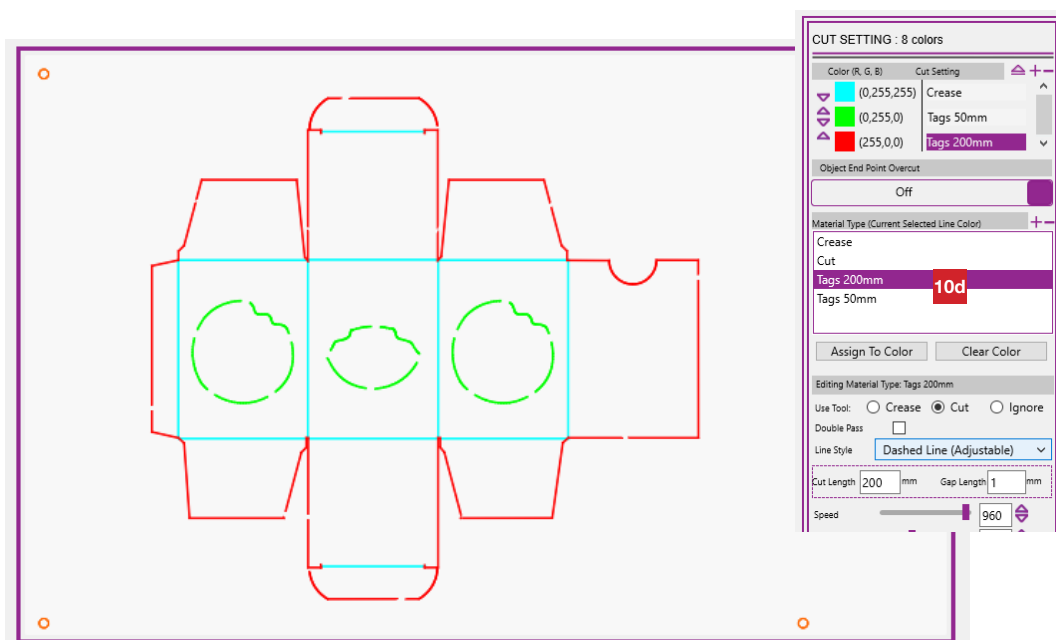
Use the [+] symbol under Material Types to add a New Material Type and enter the name **“Tag 200mm”**

Select the **“Tag 200mm”** material Type from the list once added and Edit the Material Type settings as detailed in step 3. above.

But this time set the **Cut length** **12e** to 200mm.



6. Now the **“Tag 200mm”** Material Type has been created, **apply** this material type for to the red line. Click on **8** **Cut Setting** section, next to the Color Red **8j**, then select the **“Tags 200mm”** Material Type/Action **10d** and assign it to the Color Green. The preview (below) **2** updates to reflect the NEW material type (**Tags 200mm**) for the RED line with **“Tags 50mm”** for the green line.



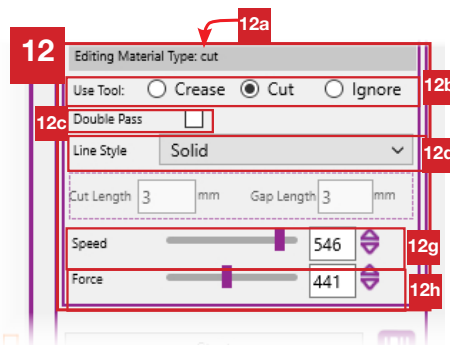
10.12.5 Selecting the Speed of the Cut or Creasing Tool

The parameter Speed **12g** controls the speed of the carriage while cutting your design/project. The available range is 7mm/s - 960mm/s.

When cutting packaging projects with predominantly straight lines and sweeping curves, high speeds can be used for example; 850 - 960mm/s. However for small delicate shapes slower speeds are recommended.

When using the creasing tool, on some substrates a slower crease may yield superior results.

It is possible to create multiple Material Types with different speeds. You can then apply the different material types to various elements within your cutting design (the design will need to be created using different line colors to allow you to identify each element) This makes ColorCut Pro highly versatile as it enables you to assign multiple different speed profiles within one cut file using the different line colors.



10.12.6 Selecting the Force of the Cut/Crease

The parameter Force **12h** controls the Force applied by the tool. The range available is 0 - 750g.

A cutting force of 250-350g should be sufficient for card or media up to 350 microns thick. Settings above 550g may suggest that more blade is required.

Settings below 220g may suggest that you have too much blade exposed and less blade is required (except when cutting labels).



The most OPTIMAL cutting results are achieved when using pressure to help cut, NOT by extending the amount of blade. For the best results, you require the smallest amount of blade achievable.



Cutting with too much blade, will reduce the life of the blade and cause excessive wear on the cutting strip. In addition it is likely to create poor inverted turn (tears - a name for corners on inverted turns being turned over).

Please take care to observe the above guide lines for cutting force with regular card on die-cut projects.

However, creasing often requires maximum Force and often up to 750g for is used for creasing applications & you also further increase the creasing effect by selecting 'DoublePass' **12c**.

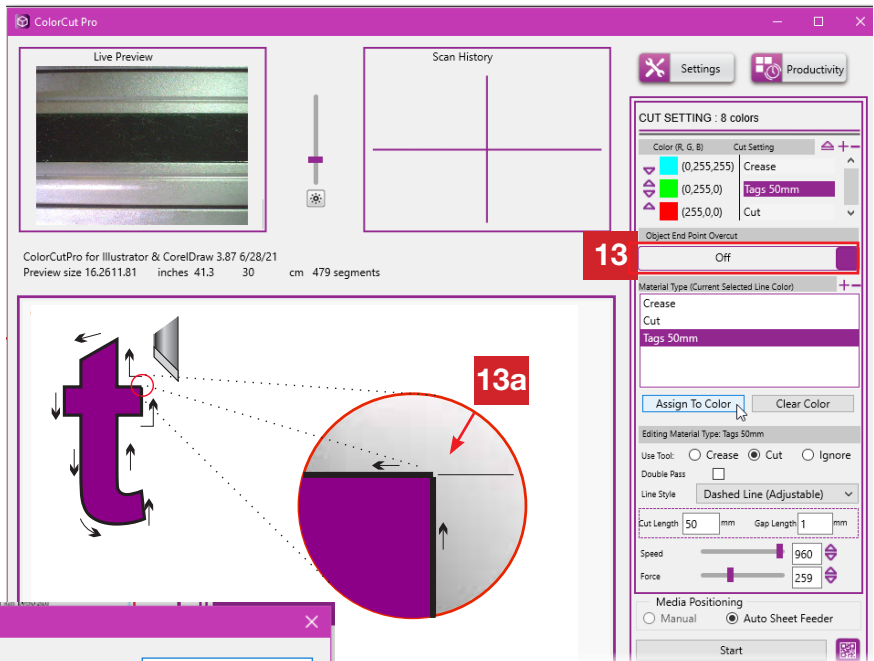
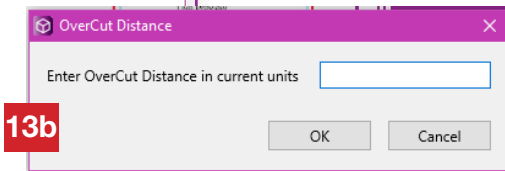
10.13 OverCut

“OverCut” extends the cutline at the end of an object line (or curve) at the point where the blade would normally be lifted.

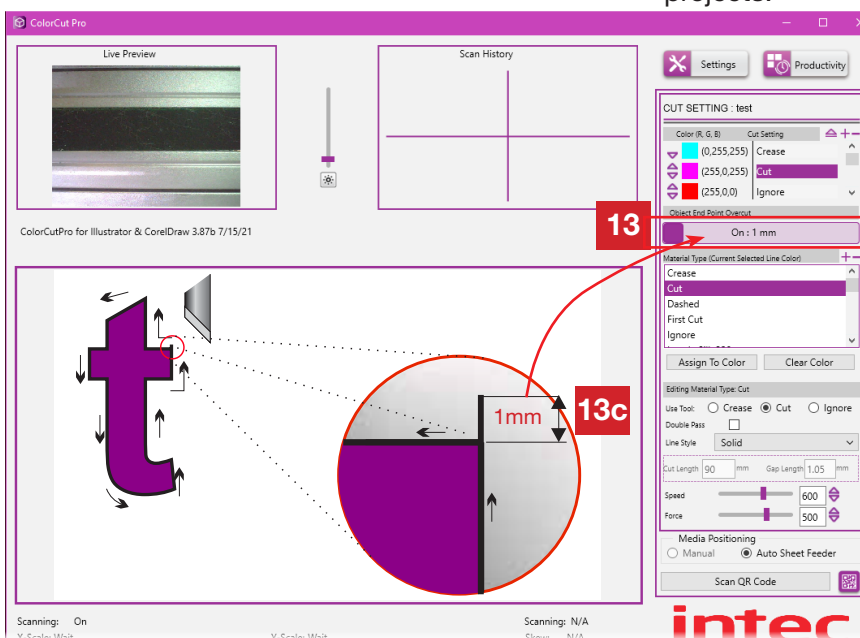
This way it makes sure that the design is completely cut through. Due to a variety of tolerances without the “OverCut” function, the cut line may not be completely closed causing unwanted Tags on die-cut items or difficulties when weeding label media.

The default setting for **13** **Overcut** is “Off” **13a**.

To Activate OverCut, click on the Purple button on the left side of the **OverCut** section and a dialogue box will appear **13b** asking you what value you wish to set **OverCut** to.



Set the **OverCut** value to approx. the width of the blade (for labels) or approx 1mm for Card based projects.



With **OverCut** enabled the blade will overcut the endpoint of the object prior to lifting **13c**.

NOTE: If cutting complete shapes and 1mm is insufficient, it may be necessary to increase the value to 2 or 3mm.

10.14 Media Positioning (AutoFeed / Manual Feed)

The **Media Positioning** 14 control is typically set to “AutoSheet Feeder”. In this mode, each time you click **Start** or **Scan QR Code**, the SC5000 will automatically load a sheet of media from the auto-sheet feeder using the settings you pre-set under the **PRODUCTIVITY** button.

In most cases you will not need to alter this behaviour.

When using colored material that may not be a standard size where you simply wish to cut shapes or lettering on it, you may wish to switch the cutter into the Manual mode.

The “**Manual**” positioning mode allows users to place non-standard sizes of media **Manually** in to the SC5000 from the front.

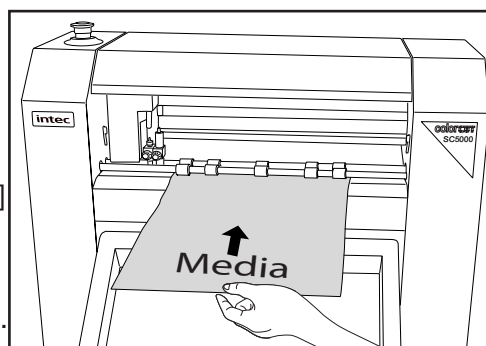
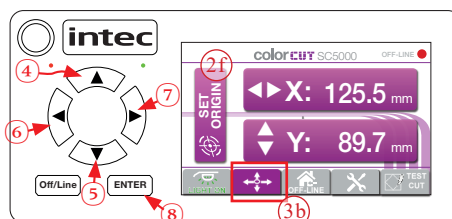
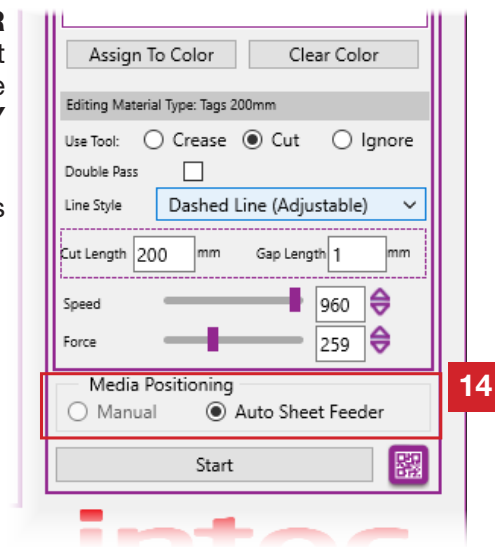
(Typically this may be used for cutting Vinyl lettering, on sheets of colored vinyl).

The manually positioned mode is for unique or custom sized sheets which are not printed and therefore will not have any PageMARKs or QR codes on them.

To use the SC5000 in Manual media positioning mode;

- 1.** Set “**SCAN TARGETS**” is set to **NO** within the SETTINGS options. (Section 9.2 in this manual)
- 2.** Switch the cutter to the **MOVE** 3b mode on the SC5000 LCD Panel and Manually load a sheet from the front, using the **RIGHT** arrow key 7.
- 3.** Use the **MOVE** mode and the arrow keys to move the tool carriage to the position on your media where you wish to start cutting.
- 4.** When the Tool Carriage is where you want cutting to start, press the [ENTER] key 2x, to set the ORIGIN.

Now select “**Manual**” under media positioning and send your cut file for cutting.



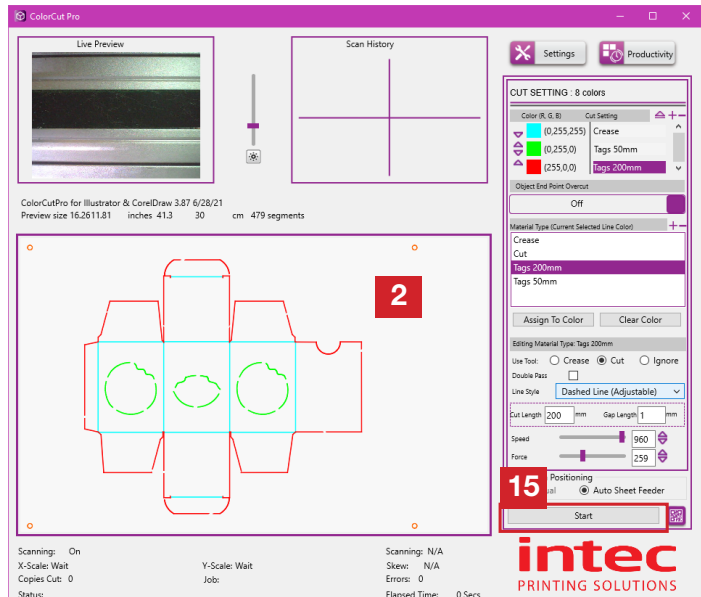
If “**SCAN TARGETS**” is set to YES within the SETTINGS options. “**Manual**” positioning option will be greyed out.

10.15 START / SCAN QR CODE

The **START** or **SCAN QR CODE** **15** control is a dynamic button which changes based upon the mode you are working in.

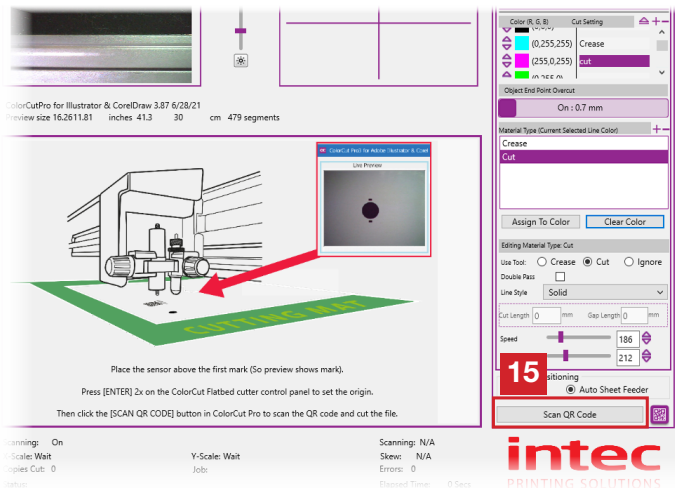
IF you have opened the Cutting file **directly** from your Graphics application, or you have manually entered a JOB ID (**Section 10.16 in this manual**) to manually load a job be cut. The JOB preview area **2** will show the job which will be sent to the cutter, and the button **15** will display **[START]** enabling you to start cutting.

This is also known as **DIRECT Cutting Mode**.



Alternatively, if you have opened ColorCut Pro Stand Alone (**Job SERVER Mode**) there will be no preview of a job in the preview area **2**.

In **Job SERVER** mode the button **15** will show **[Scan QR Code]**, which when clicked, will load a sheet and scan the QR code to retrieve the job and load it into the cutting preview area **2**, then start cutting as defined in the **PRODUCTIVITY** set-up.



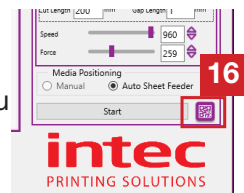
10.16 SWITCH MODES

The QR code **16** icon enables you to change the mode of the current instance of ColorCut Pro.

Clicking the icon **16**, when NO job is shown in the preview window (When the ColorCut is in Job Server Mode), enables you to manually enter a QR code to pre-load the job.

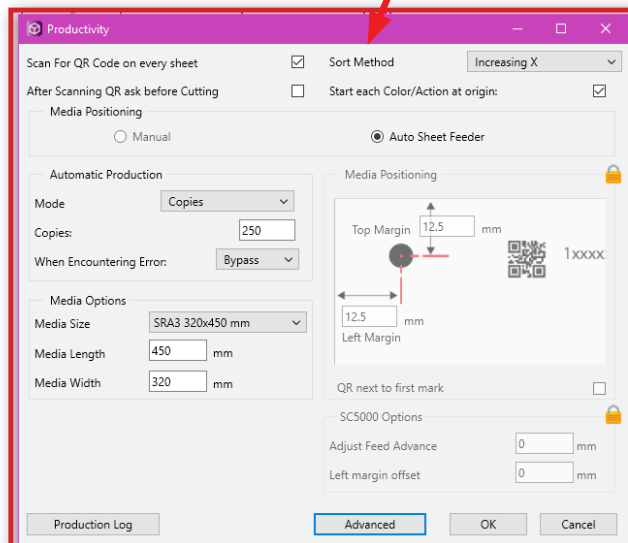
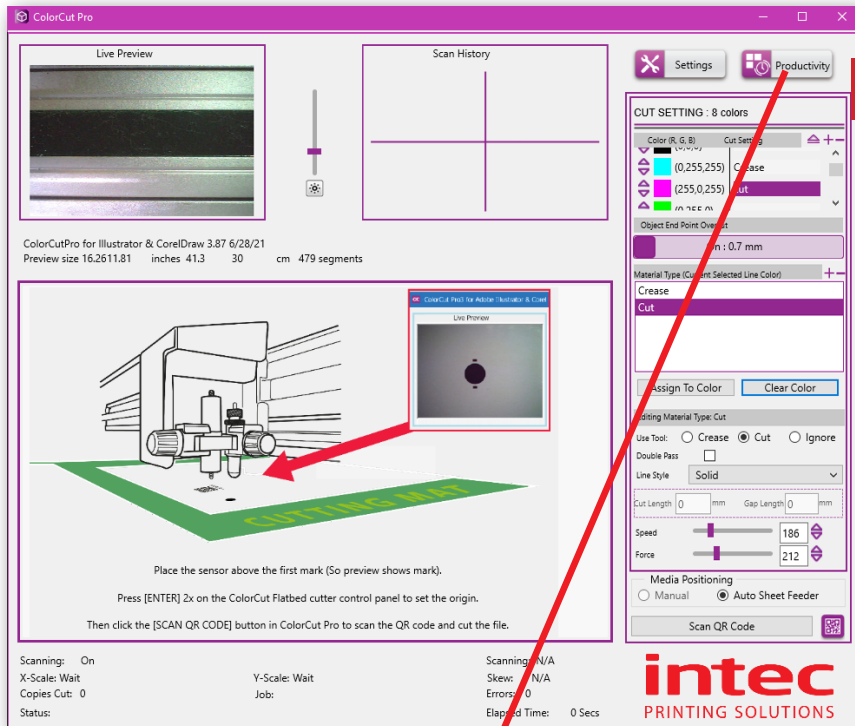
This enables you to check line/action assignments prior to large productions . See section 13 later in this manual for details on Retrieving files using JOB ID).

Clicking the Icon **16**, when a JOB is loaded in the Preview Window (the cutter is in DIRECT Cutting Mode). Switches to Job SERVER mode (ready to Scan a QR code).



11. PRODUCTIVITY OPTIONS

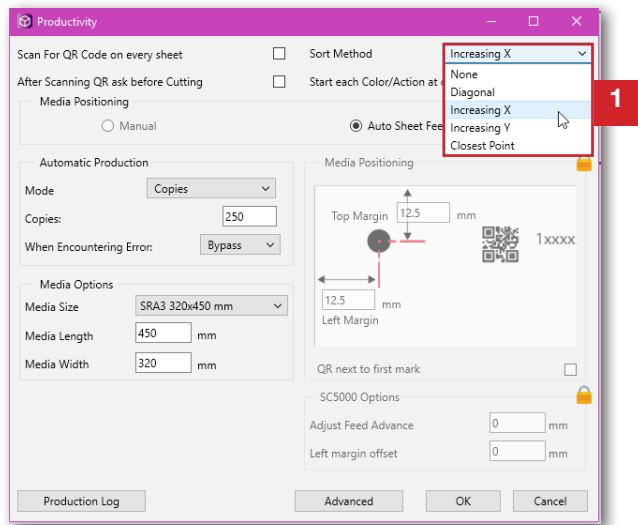
In addition to the configuration settings there are additional settings that can influence your productivity and furthermore enable automated batch production. These settings are all grouped under the **[Productivity]** 7.



The 'Sort Method', 'Scan For QRCode on every sheet', 'After Scanning QRCode ask before Cutting', Automatic Production control: 'MODE', 'Copies' and 'Media Size' Control options are available at any time and apply to all jobs when the cutter is set to Media Positioning - AutoSheet Feeder.

11.1 Sort Method

The Sort Method setting **1** changes how the cutter moves from the end of one cut to the beginning of the next.



The Intec ColorCut Pro software can operate in 5 modes:

None: No sort to the cutting is employed and the software will cut in the order it read the lines into the application.

Diagonal : Aimed to reduce cut times based on the principle that while moving between cuts, both the X,Y motors may be used. If both motors are used the travel speed is higher. Diagonal sort gives weighting to close movements that engage both motors. (Sometimes but not always producing diagonal travel paths).

Increasing X: Cuts all lines starting from the top of the sheet, working down the sheet (along the X axis only.)

Increasing Y: Cuts the longest straight cut first on the Y axis only. A predictable cutting sort method but not always the fastest.

Closest point : The order of the cutting is sorted such that the ColorCut will cut closest to PageMARK4 first. At the end of each cut, ColorCut will continue cutting from the next closest point trying to avoid long circuitous travel paths.

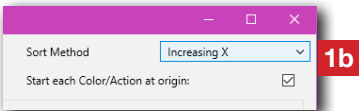
There is no wrong setting; however **Increasing X** is best for most profiles, especially Die-Cut (Cut Through applications) as any elements that might drop out will ‘stay out of the machine’, as the cutter continues to work down the sheet.

However if you are experiencing a peculiar cutting problem, changing between the options can change the direction of the blade and may help eliminate issues.



Typically it is *recommended* to use the sort method “**Increasing X**” for optimum output path.

When using **Increasing X**, it is recommended to ensure ‘**Start Each Color at Origin**’ is checked. If more than 1 color/action is used (such as first CREASING), this will ensure ColorCut Pro to start the CUT sequence at the top of the sheet.



11.2 Scan for QR Code on every sheet

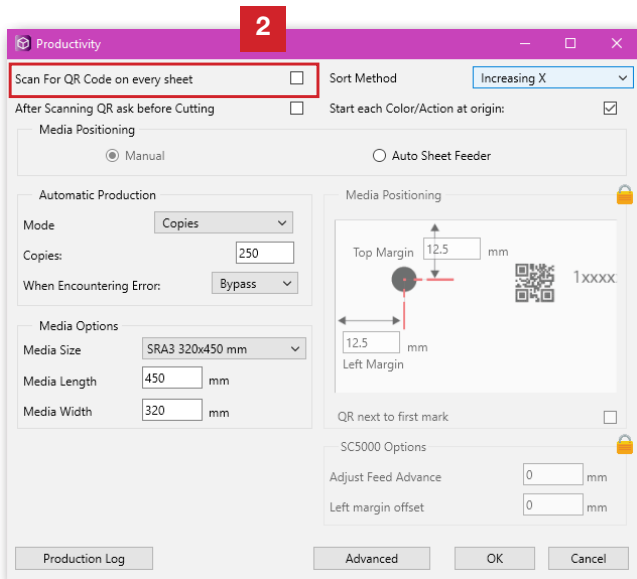
This is a useful feature which allows users to choose if the ColorCut Pro software should scan for a QR Code code on EVERY sheet.

Typically, ColorCut will load the job to cut as follows:

In Direct mode, by using the selected/open file in Illustrator or CorelDraw.

OR

In Job Server mode - from scanning the QR Code or from the job number keyed.



When 'Scan Qr Code on every sheet' box is checked; after cutting the first job the SC5000 will automatically eject your sheet and ColorCut Pro will clear the job in the preview screen the load the next sheet of media in the auto-sheet feeder and scan the QR code to check which cutting file should be used.

In JOB Library mode this function is recommended and can very useful when different/mixed jobs are placed in the auto-sheet feeder, as each cut file will be retrieved automatically. In addition by scanning each QR Code, ColorCut Pro, will detect if a sheet has been accidentally loaded in the wrong orientation, or rotated around 180 degrees, and automatically rotate your cutting file to match the way you loaded the sheet. This ensures each sheet is cut correctly, even if different jobs have been mixed in the auto-feeder, or if you loaded the sheets the wrong way around. (This only works if you use QR codes on the sheets).

In contrast when operating in DIRECT MODE (cutting directly from the application without QR codes on the printed sheet). You should disable 'Scan QR Code on every sheet' then after cutting the currently loaded job ColorCut will keep the current cut file loaded and cut the same file again on the next sheet loaded by the auto-sheet feeder. Otherwise you may need to return to your Graphics Application and resend the file from the Graphics application.



You can also retrieve jobs by manually keying in the job number (printed at the end of the sheet), If you plan to cut multiple sheets of the same job, you may wish to manually enter the job number and remove the step of scanning the QR Code (which can save a small amount of time. However, if you skip reading the QR Code on each sheet, while cutting time is reduced by approx. $\frac{1}{2}$ sec per sheet (which is the length of time required to scan the QR Code) - ColorCut Pro will no longer recognise if Mixed Jobs are loaded into the feeder (or if a job is accidentally placed in the wrong orientation).

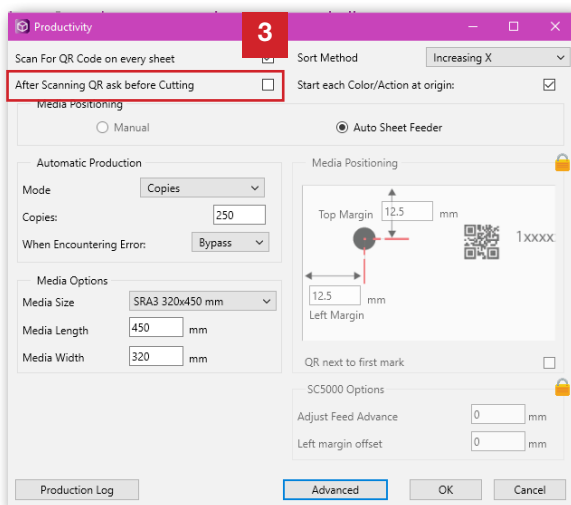


IF you enable 'Scan QR Code on every sheet' and the sheets do NOT contain QR Code codes, the SC5000 will error, (because the QR Code can't be read) and the cutter will stop. Therefore it is ONLY recommended to enable the scanning of QR Codes IF you have placed QR Codes on each sheet.

11.3 After scanning QR Code ask before cutting

ColorCut Pro performs the actions (i.e. cut, crease, ignore, perforate) according to the line colors which you specify.

It will remember the previously used assignment of line colors in relation to an action. i.e. if the last job you cut you had previously set RED to CUT and BLUE to CREASE, then when the next file is opened using RED or BLUE, ColorCut will assume you wish to continue to use that Color/Action assignment unless you change it.

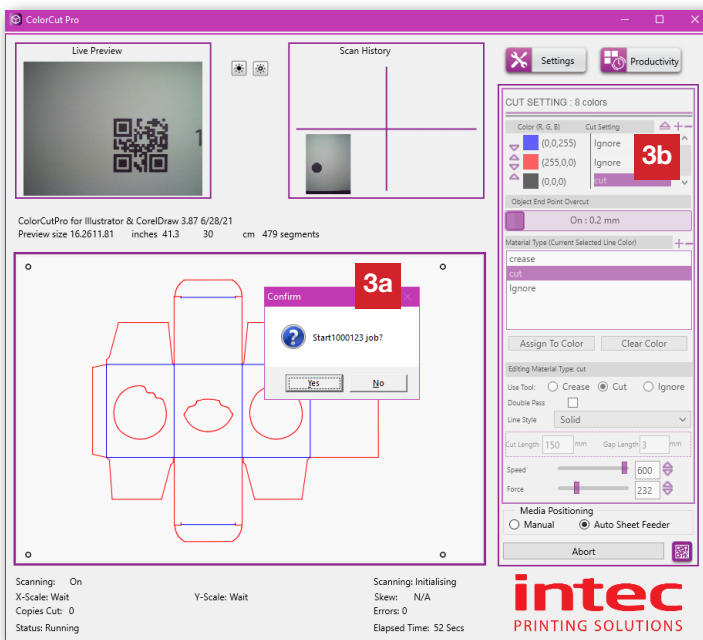


When **'After scanning QR code ask before cutting'** is enabled then after scanning a QR Code, ColorCut Pro will read the Colors used within your cut file design and automatically assign each color to the last action (i.e. cut or crease) it used for that color (Or set it to none, if that color has not been used before) then wait for you to confirm the assignment is okay before cutting the job **3a**.

When loading a job for the first time, this may be useful as you may not have correctly assigned the right action for each line color **3b**.

However, if you have previously cut a job (i.e. a long production) or you typically use the same action for each color in all your jobs then you may not wish to see this dialogue box.

To prevent this message appear after each sheet is loaded and scanned UNCHECK the tick box next to 'After scanning QRCode ask before cutting' **3**.



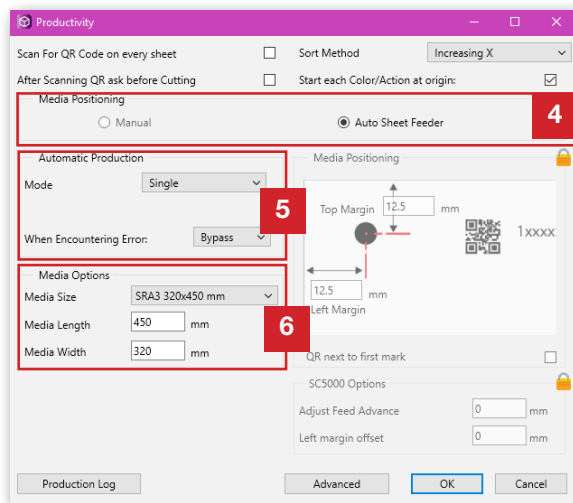
It is recommended to do a single manual test cut prior to an production run. For simplicity and optimum efficiency, you should try to design your jobs using the same line colors. If you have performed a test cut and previously defined the action for each colored line, or consistently use the same action for each colored line (i.e. Red = cut, Blue = crease), you can disable this warning to ensure uninterrupted cutting of your production jobs.

11.4 Media Positioning

The **Media Positioning** Control **4** is linked to the setting from the **Main Screen** (Section 10.14) and reflects the settings selected there.

The **default setting** is to use the **Auto-Sheet feeder**. However, you can also switch to Manual mode if required here, in the Productivity screen. (The change will be Mirrored on the main screen when you return to that).

The Auto-Sheet Feeder, will load sheets following the Automatic production profile **5** and the Media size (Specified under Media Options **6**).



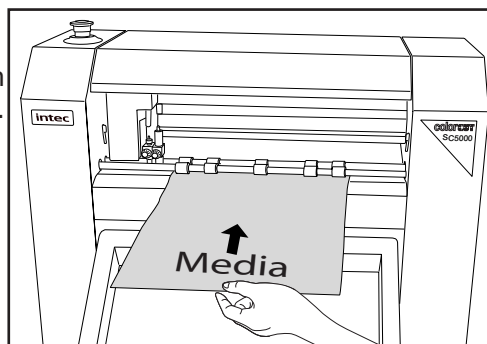
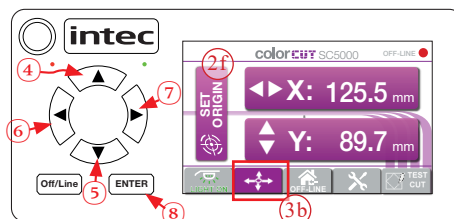
In most cases we recommend you use the Auto-Sheet feeder. However, as previously detailed, the **Manual** mode is designed for manually feeding odd shaped media from the front of the cutter which does not include Targets.

The “**Manual**” positioning mode allows users to place non-standard sizes of media **Manually** in to the SC5000 from the front. (Typically this may be used for cutting Vinyl lettering, on sheets of colored vinyl).

The manually positioned mode is for unique or custom sized sheets which are not printed and therefore will not have any PageMARKs or QR codes on them.

To use the SC5000 in Manual media positioning mode;

- 1.** Set “**SCAN TARGETS**” is set to **NO** within the SETTINGS options. (Section 9.2 in this manual)
- 2.** Switch the cutter to the **MOVE** **(3b)** mode on the SC5000 LCD Panel and Manually load a sheet from the front, using the **RIGHT** arrow key **(7)**.
- 3.** Use the **MOVE** mode and the arrow keys to move the tool carriage to the position on your media where you wish to start cutting.
- 4.** When the Tool Carriage is where you want cutting to start, press the [ENTER] key 2x, to set the ORIGIN.



Now select “**Manual**” under media positioning and send your cut file for cutting.



If “**SCAN TARGETS**” is set to YES within the SETTINGS options. “**Manual**” positioning option will be greyed out.

11.5 Automatic Production Options

The Automatic Production section in the '**Productivity**' dialogue box enables you to change between production modes **8**.

The options are:

11.5.1 COPIES Mode

Displays a new dialogue box in the area **8b**, allowing you to enter the number of copies to cut.

11.5.2 SINGLE Mode

The SC5000 will load a single sheet of media and cut/crease the media accordingly. (Will hide **8b** the Copies entry area.)

11.5.3 CONTINUOUS Mode

Continues to cut all sheets in the feeder until the feeder is empty.

Clicking on the drop down selection **8a** next to '**MODE**' will allow you to select the production option.

11.5.4 Copies Entry

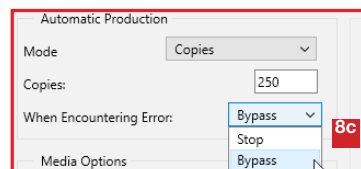
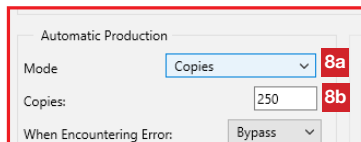
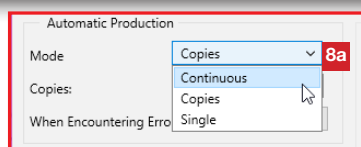
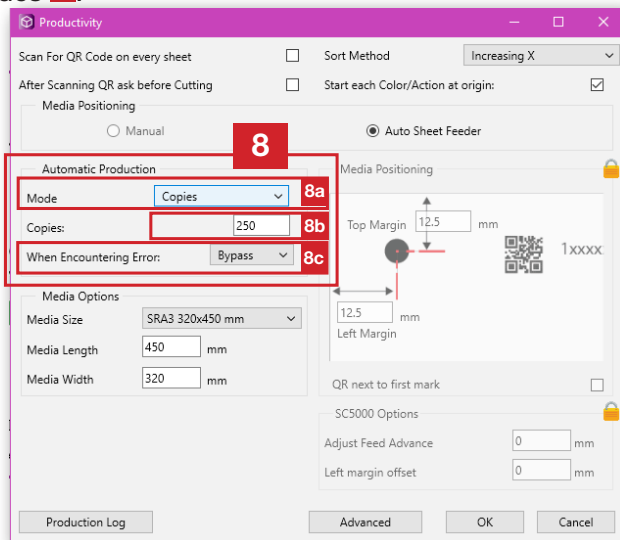
When the Production '**MODE**' is set to **COPIES**, enter the number of copies you would like to cut into the Copies Box **8b**.

11.5.6 Error handling

Another important item to consider is what should happen if an error is encountered. This can be a mis-feed so the target was not read, an error reading a QR code, or a blank sheet mixed in with your cut jobs.

The error handling is set within the option '**When encountering an Error**' **8c**. The recommended action is to **BYPASS** the error. When this is set and after an error is encountered, there is a short pause then the sheet will be ejected and the production process will continue.

The alternative option is to **STOP** which will halt production and leave the sheet in the SC5000. You will need to remove the sheet and then start production again after resolving the error.



For the most efficient and easiest production, use a combination of the options in the Production dialogue box. i.e.

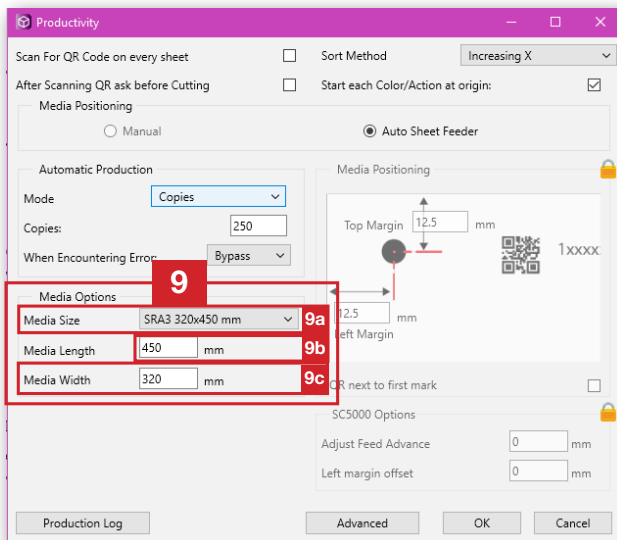
Enable **Scan QR code on every sheet**, Disable **After Scanning Ask before cutting**, Set **Productivity mode** to Copies or Continuous and set **When Encountering an Error** to Bypass. This will cut the number of jobs you require without requiring user intervention or stopping and will reject/bypass any failed sheets.

11.6 Media Options

The Auto-Sheet feeder, uses self centering media guides, this means the edge of the media will be located in different positions depending on the media size you have loaded.

Therefore, **Media options** 9 is one of the most important areas to set within the Productivity settings screen.

ColorCut Pro uses the media size set here to correctly calculate the position for the Vision3 sensor to scan for the registration PageMARK (and QR code - if applicable).

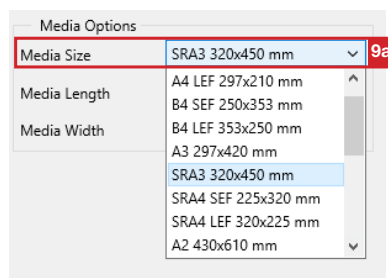


IMPORTANT NOTE: As different media sizes will result in the edge of the media being in a different (and therefore your registration PageMARK) location, it is very important to ensure you set the **Media Options** correctly to match the media size loaded in the Auto-Sheet Feeder.

11.6.1 Media Size

The most popular media sizes are listed under the **Media Size** drop down menu 9a.

Typically, you only need to select your media size here. Selecting a media size within this menu, will automatically populate the **Length** 9b and **Width** 9c fields for your media.

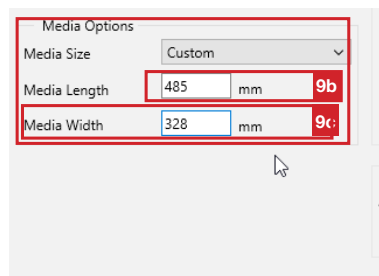


However, your media size is not listed in the Media Size list 9a scroll to the base of the list and select '**CUSTOM**'. Now enter :

Media Length 9b (the distance from the front of the media to the position of the backstop in the media feeder)

and

Media Width 9c (the left to right distance across the mouth of the cutter).



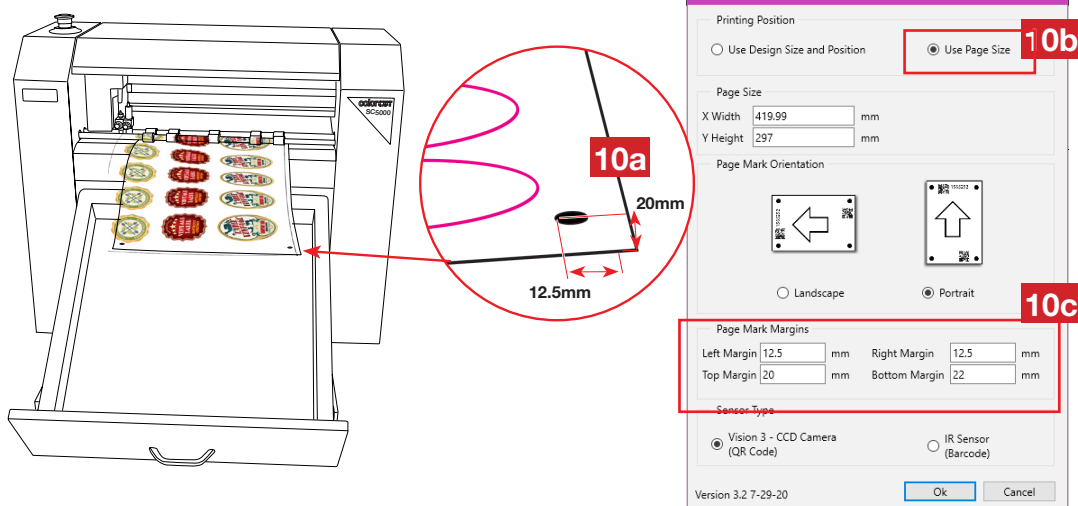
11.7 Recap - Position of PageMarks on your Media

PageMARKs are applied during the design stage, in your Graphics Application. .



It is important that (*in section 6*) you followed the recommendation to set ColorCut Pro to place your PageMARKs relative to the PageSize **10b** which keeps PageMARK positioning consistent across all of your designs, we also recommend you use the same margins **10c**, to avoid having to frequently change settings.

The 1st PageMARK **10a**, is located on the lead edge of your sheet at the offset/ margin you specified when applying the PageMARKs (*refer to section 6 in this manual and section 6.3* **10c**)

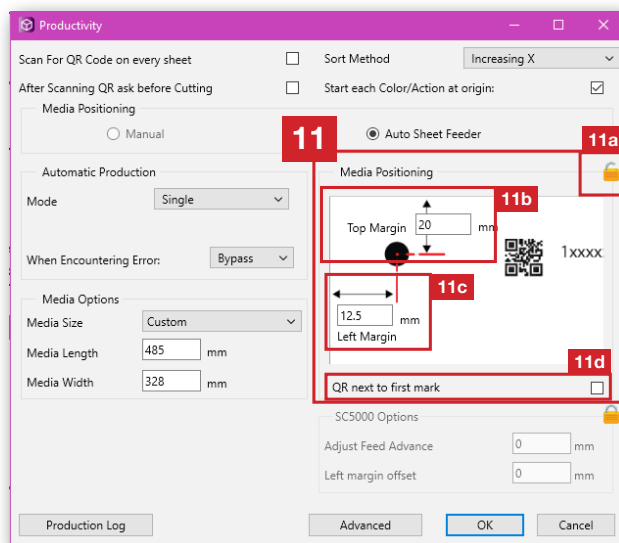


11.8 Media Positioning

The **Media Positioning** **11** control sets location that the SC5000 should move to, when scanning for the 1st PageMARK. The **Top Margin** **11b** and the **Left Margin** **11c** settings should reflect the margins set under the ColorCut Pro PageMark Preferences in your Graphics Application (**10c** above).

Once set, it should not need to be changed again (assuming you do not frequently change the PageMARK margins).

To prevent accidental changes, the control is locked by default. If you need to adjust the values (normally only first time to match your design positions), click the Padlock to edit the values **11a**.



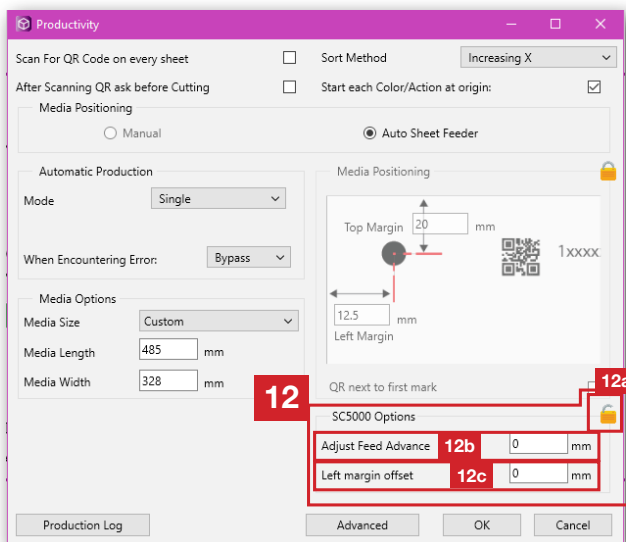
*Note: QR next to Mark **11d** is an experimental feature not is use at this time.*

11.9 SC5000 - Cutting without Targets (Origin fine tuning)

The SC5000 uses an optical sensor to detect the front edge of the sheets when fed into the cutter, and the self-centering feed guide system which will correctly position the Left Side of your sheets.

However due to manufacturing tolerances, the actual position of the front or left side of the sheet may vary slightly. The Vision3 registration system will automatically adjust for this, so this normally these values do not need to be adjusted.

HOWEVER: If you plan to cut without registration PageMARK targets, then you may wish adjust the **SC5000 Options** 12, which controls the origin point (the point at which cutting starts) for each sheet loaded.



As typically the values do not need to be adjusted, they are '**Locked**' by default. To change the values, click on the **LOCK** 12a symbol to unlock the fields for editing.

To **Adjust the Feed Advance** 12b (The default value is 0) increase or decrease the value. Increasing the value will advance the sheet further (placing your origin and any cut lines further down the sheet). Decreasing the value will move the sheet further back, effectively moving the origin UP the sheet and any cut lines.

To adjust the **Left Margin Offset** value 12c, (The default value is 0). Increasing the value will increase the left margin position and move your cut further into the sheet or decreasing the value (negative values are permitted) will reduce the left margin, moving the cut out further to (or beyond) the sheet edge.



Important NOTE: ColorCut Pro, uses cut files containing the vector lines exported from your artwork. **It does not know your Page size.** Therefore, when cutting without targets - the cutting starts from the top corner of any elements (**NOT the edge of your page**). You can visualise this, by drawing a select marquee around your cutting elements. The TOP corner of this marquee will be the cutting origin (NOT YOUR PAGE !!). Please see the section later on in this manual to learn how to modify your design to enable ColorCut Pro to cut relative to your page size. Do NOT edit the Feed Advance or Left margin Offset values when cutting without PageMARKs, if you have not adjusted your design to as detailed in section 14. Excessive changes in these values may affect the normal operation of your SC5000.

11.13 Production Log

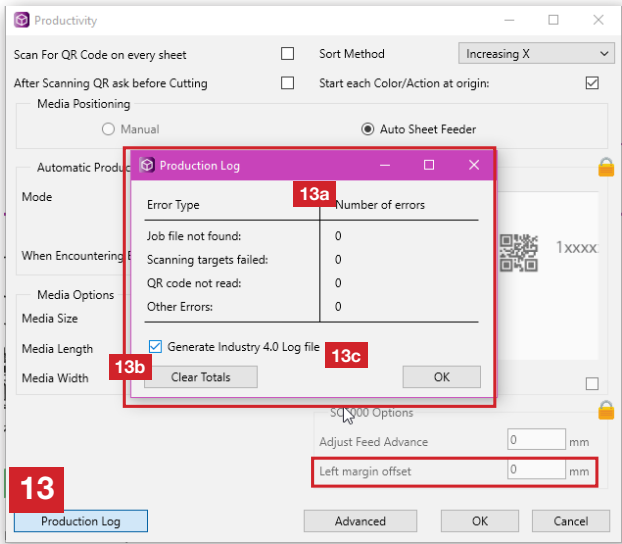
The SC5000 has 2 different log's that provide feedback on your cutting.

The view the basic log, click the Production Log button at the bottom left of the Production screen **13**.

Here you will be able to view a summary of an errors during cutting. **13a** i.e. *Jobs not found, QR codes not read and Target Scanning errors.*

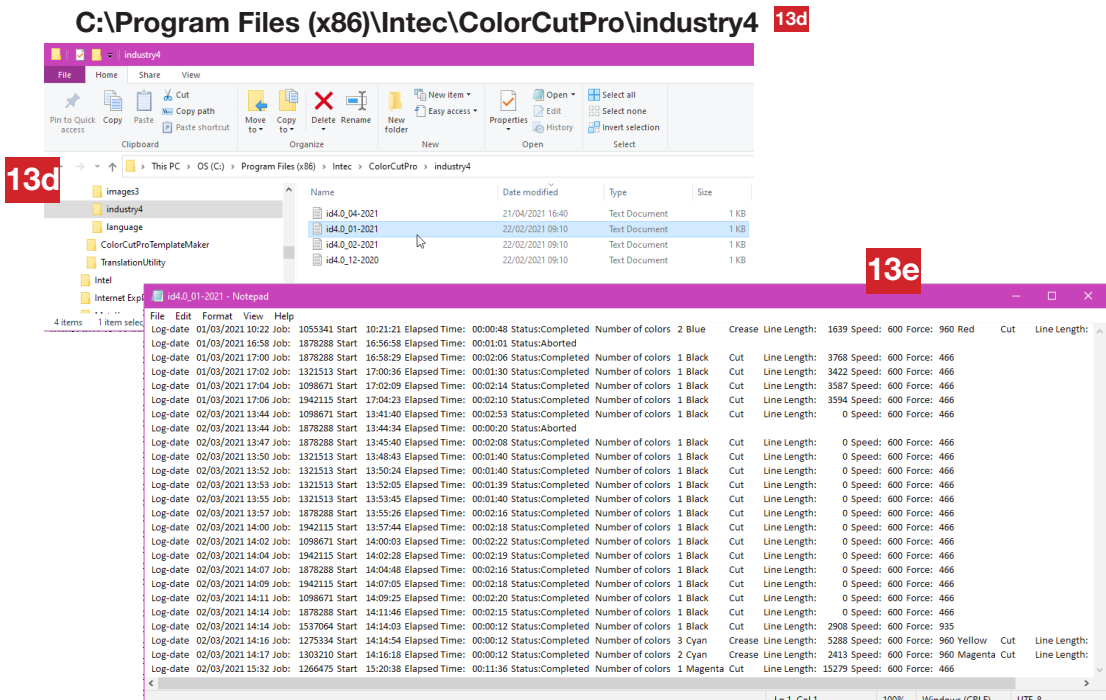
The summary totals can be cleared, by clicking the CLEAR TOTALS button **13b**.

A more advanced log can be generated by enabling the **Generate Industry 4.0 Log file** check box **13c**.



The Industry 4.0 log is an external log.file (Tab delimited) that is generated as each job is output, including identification of the Job ID, the time released, the status of the job, number of colors within the job, along with the color used, tool applied and length cut for the specified tool (example shown **13e**).

The Industry 4.0 Log may be required by EPOS systems and certain JDF systems. To find the location of the output data file, for your EPOS, JDF system (or third party application) navigate to :

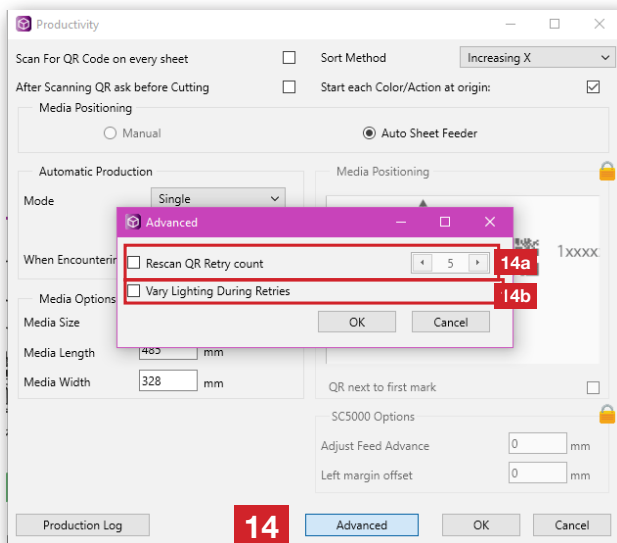


11.11 ADVANCED Productivity options

The SC5000 uses a sophisticated image processing system to identify the PageMARK registration targets (and QR codes). Designed primarily to read Black PageMARKs on White media the advanced Vision3 sensor, will auto invert images, to additionally enable the reading of White PageMARKs on Black Sheets.

The Vision3 image scanning system is designed to determine the DMIN vs DMAX of the Mark versus the background area (Using edge detection based on maximum dynamic range contrast point and determining the centre point).

You can widen the range of media that can be scanned by adjusting the back lighting system (*refer to section 10.4*) on ColorCut Pro's main interface panel.



However, the **Advanced** button **14** within the Productivity Dialogue box provides the user with some extended options and automated options to assist scanning of registration PageMARKs and QR codes that increases the scanning tolerance and helps scan a wider range of media.

Click the ADVANCED button to display the Advanced scanning options.

Checking the **ReScan QR Rerty Count** **14b** check box, will instruct the SC5000, to ReScan BOTH Registration PageMARKs and QR codes as set (the applicable range is 1 - 5 times). This can be useful on some colored media, mettlic or foild media and porous media such as Inkjet Printed RICE paper. However note, this may fractionally reduce productivity as the Scanning of each PageMARK will take fractionally longer (approx 1.5sec more per target).

Checking the **Vary Lighting During Retries** **14c** check box, is very useful, as this will pulse the background lighting from low to high during the mark scanning (then returning it to the previous setting). This avoids the need for the user to adjust the Back lighting control on the main ColorCut Interface, and enables automation of a range of lighting conditions during the PageMARK scanning AND QR code scanning.



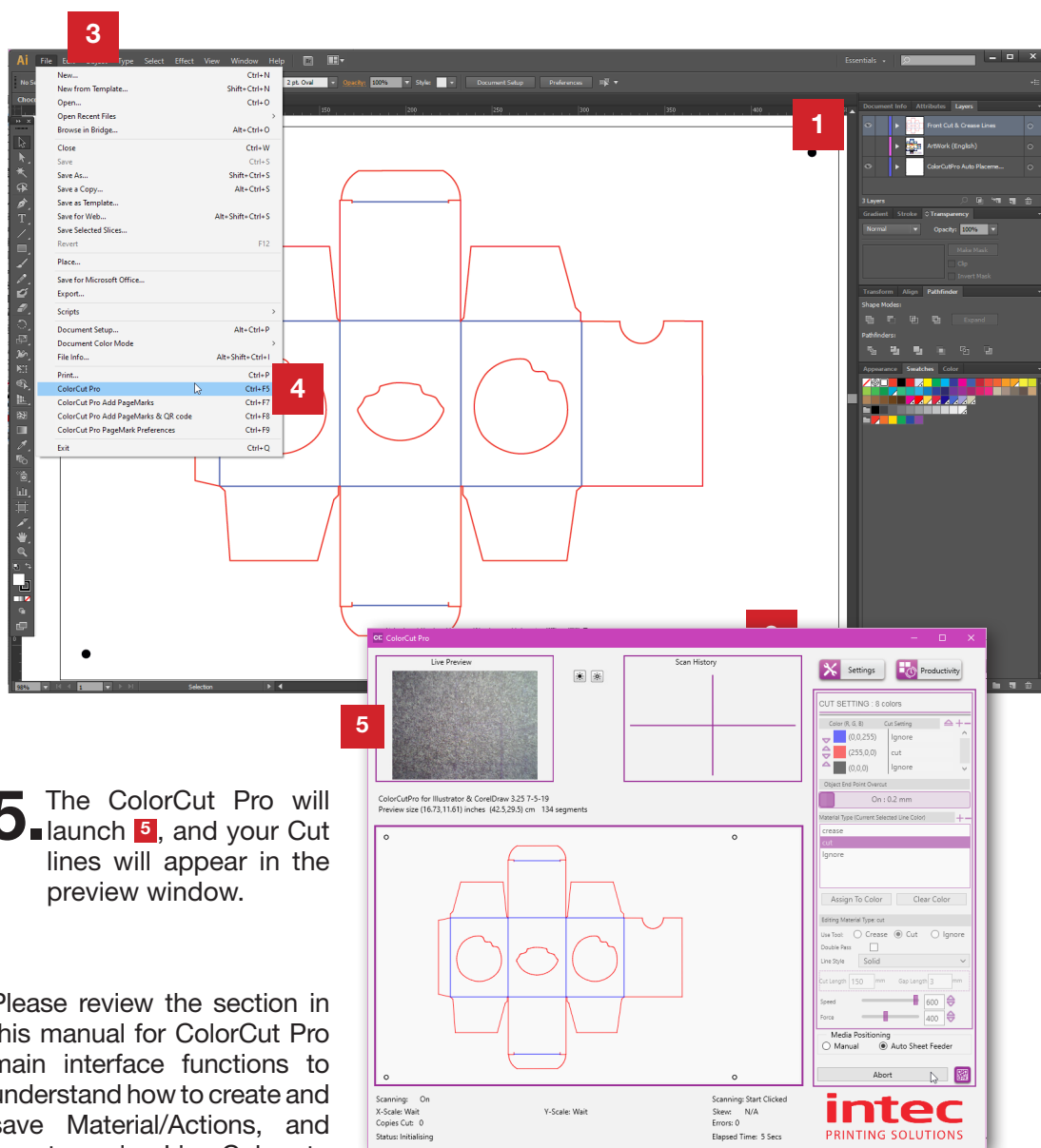
While both of these functions can widen the tolerance for different media that can be scanned and read, it should be noted that each additional step will extend the time required for scanning and reduce productivity, Thus, for the optimum productivity when using standard media or paper/card/label stocks it is not necessary to activate these features.

12. ColorCut Pro (Direct Mode)

12.1 Cutting jobs directly from your Graphics Application

In Adobe Illustrator or CorelDraw, open the file you wish to cut.

1. Ensure you have selected the layer with the Cutting line **1** you wish to cut.
2. Ensure you have already added PageMARKs **2** using the ColorCut Pro add PageMARKs feature.
3. With the Layer which you wish to cut selected, choose the [FILE] Menu **3** in Illustrator or CorelDraw.
4. Now select 'ColorCut Pro' **4** just under the Print command in the File menu.



5. The ColorCut Pro will launch **5**, and your Cut lines will appear in the preview window.

Please review the section in this manual for ColorCut Pro main interface functions to understand how to create and save Material/Actions, and how to assign Line Colors to the material/actions.

Intentionally Blank

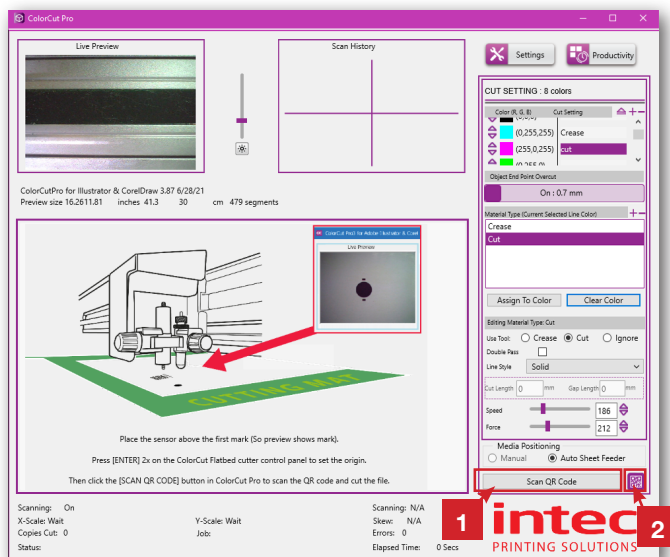
13. ColorCut Pro (Job Server Mode)

13.1 Retrieving jobs from the job Library

ColorCut Pro (Job Server mode) enables you to open files previously saved during the design process, to the ColorCut Pro Job Library. This can streamline your production and make your design process easier.

Creating Cut Job files using Job Numbers means you can assign a Cut Job number to a specific customer. OR you can assign a specific 'Design Template'/ Style to a Cut Job number.

Your Cut files are saved to the Job Library when you generate the Job number & QR code for the cut line. The Job Library can be accessed at any time without Illustrator or CorelDraw on the PC hosting the Job Library. To launch ColorCut Pro - Production Studio (Job Server Mode), simply launch the ColorCut Pro software from the Start menu (or desktop shortcut if you created one) on your computer).



There are two ways to retrieve Jobs from the Job Library.

- 1 To 'Scan QR Code'
- 2 To manually enter the Job Number.

13.2 Retrieving jobs with QR codes printed on them

- 1 Place your sheet to cut in to the guides in the 3 Auto Sheet Feeder. (Try to ensure the end with the Job number is on the leading edge - although if you do place the sheets in the wrong orientation ColorCut Pro will correct this for you).




Becareful to check the front guides, ensure when placing the sheets in the feeder, that you take care the sheets are also positioned inside the FRONT guides.

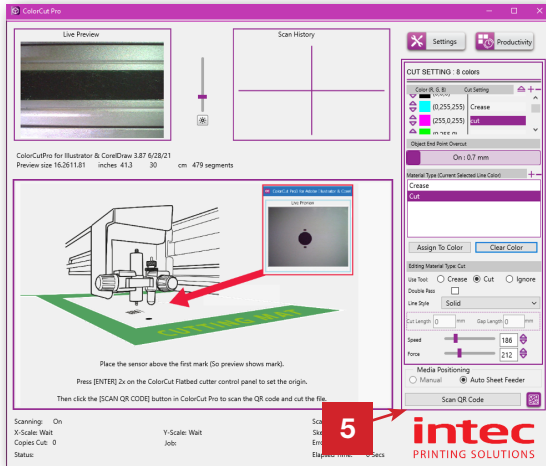
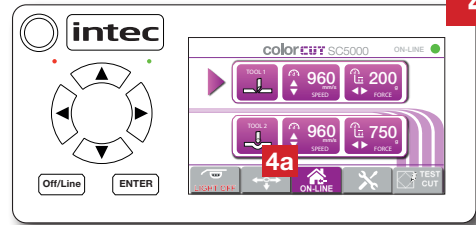


You can use the Silver button on the top left of the SC5000 control panel to lower the feeder bed. (pressing the button a second time will stop the bed lowering). Pressing again will raise the feeder - OR the feeder will raise automatically when you click Start on your ColorCut Pro software screen.

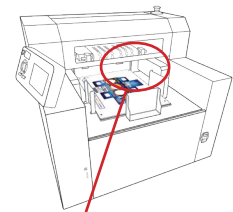
13.2 Retrieving jobs with QR codes printed on them (Cont.)

On the SC5000 control panel **4** check that the LCD panel shows your SC5000 cutter is ON-LINE and ready to receive jobs (The HOME screen). The LCD display should show the status of Each Tool and show the ON-Line icon.

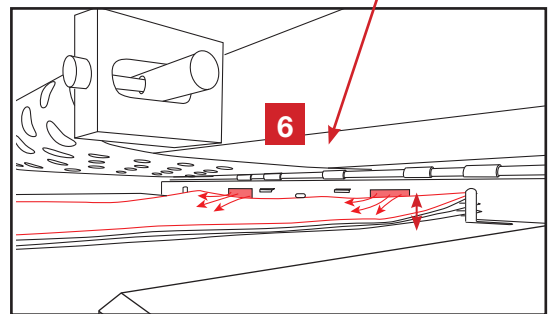
If 'ON-LINE' is not shown on the SC5000 Control Panel, then press the [] (HOME) **4a** button to place the cutter On-Line and to display the Home Screen as shown (**4**)



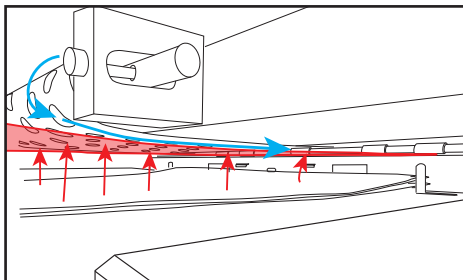
Using ColorCut Pro, Click on the [SCAN QR CODE] button on the main application **5** to load the media from the Auto Sheet Feeder and to scan the QR Code



The AirBlade sheet separation system **6** (at the front of the Auto Sheet Feeder) will fire a stream of air into the stack from the front of the feeder to 'shingle the sheets' and aid separation. Then the Vacuum belt will then drop momentarily to collect the top sheet of media in the Feeder media stack.



Viewed from the rear of the SC5000 - to front of media (under the belt)



Viewed from the Rear of the SC5000 (under the belt)

The vacuum belt will lower and the top sheet of media will be lifted from the feeder's stack as the Vacuum belt lifts (media that clings to the bottom of the sheet being lifted up will be dislodged either by the AirBlade, or the retaining fingers on the lead edge of the feeder next to the AirBlade vents).

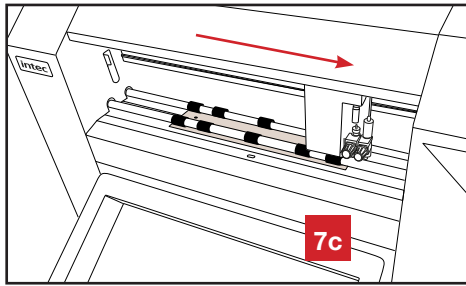
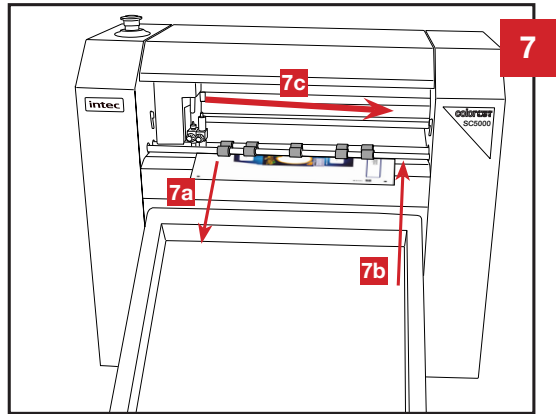
The vacuum belt will momentarily move backwards to 'JOG' the media which further aids separation - before finally advancing into the SC5000 and being gripped by the Dual Grip Rollers for the registration process.

13.2 Retrieving jobs with QR codes printed on them (Cont.)

The SC5000 will advance the sheet forwards **7a** approx 50mm past the dual grip rollers, then reverse the media back **7b** so the first PageMARK is directly inbetween the dual grip rollers.



The distance the sheet is moved back is based on the PageMARK TOP MARGIN value set under the **PRODUCTIVITY** window, in the ColorCut Pro application. See section 11.8 (11b) earlier in this manual.



The tool carriage will then move to the right side of the cutter **7c** over the first PageMARK.



The distance the Tool carriage is moved right is based on the PageMARK Left Margin* value set under the **PRODUCTIVITY** window, in the ColorCut Pro application. *See section 11.8 (11b) earlier in this manual.

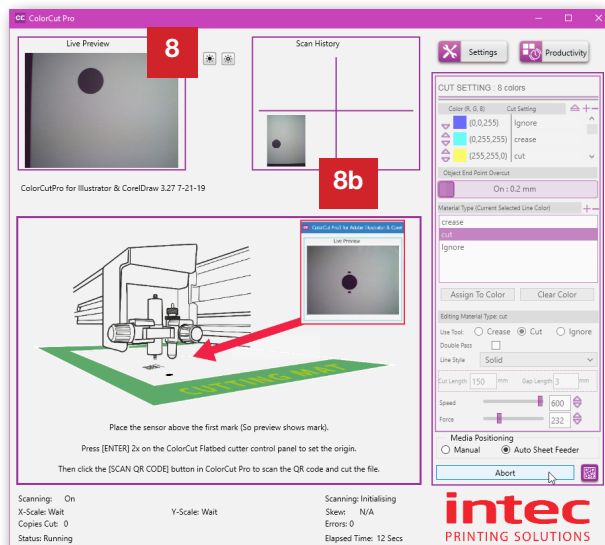
On the ColorCut Pro main screen you will be able to see an 'echo' of what the Vision3 registration sensor is seeing **8**. (if you have enabled Live Video preview).

The first PageMARK scanned will appear in the Live preview Window, as the position is captured the 'HISTORY' of the location will be shown **8b**.



If the *PageMARK* is not in the centre of the **Live Preview** when it is scanned, then check your margins on the printed sheet **MATCH** your setting under the **PRODUCTIVITY** setting, for both the **TOP MARGIN**, and the **LEFT MARGIN**.

See section 11.8 (11b) earlier in this manual.



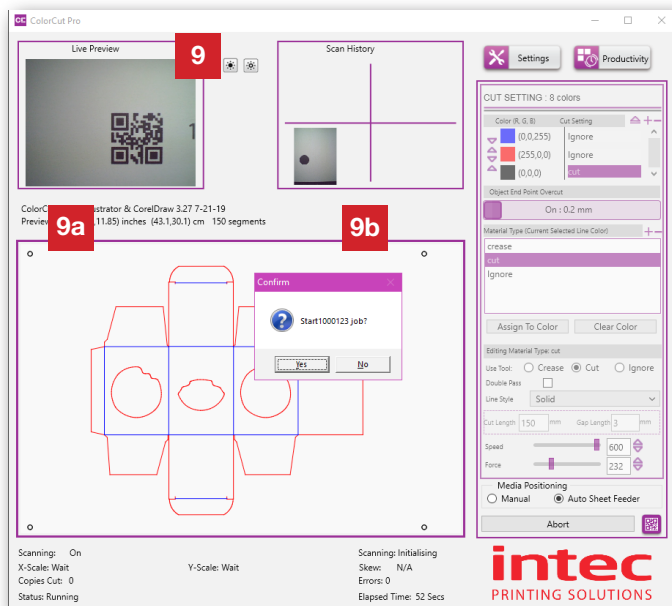
NOTE: The PageMARK position setting under the **PRODUCTIVITY** window is **ONLY** important for the 1st PageMARK (the location and margins for the others is taken from the cutting file).

13.2 Retrieving jobs with QR codes printed on them (Cont.)

The Carriage will now move approx 25mm (1 inch) to the side of the position of the first mark and seek the QR code. (You will also be able to see this happen in the Live Preview window) **9**

Jobs are saved to the Job Library during the design process. Each job is stored with the designated Job Number. The QR code carries the Job number and retrieves the Job cut file for you.

As soon as the QR code is recognised (which takes less than 1/2 second), a preview of the job to cut will appear in the Job Preview Window **9a**.



When you first start using the SC5000 it is recommended that you enable **'After scanning QR ask before cutting'** in the **PRODUCTIVITY** menu. This will pause the SC5000 cutter after loading the cut job and display the message **9b** asking if you wish to Start the job. *See section 11.3 earlier in this manual.*

This is useful when first using the cutter, as it helps provide the opportunity to set up the actions, set cutting force and speed and helps you understand how to assign actions to each of the colored lines.

After you are confident with your cutter and the selection of actions in respect to Colors, you should disable this setting, so full automated operation can be achieved.

13.3 Enter a Job number to retrieve the Cut Job file directly.

In addition to scanning a QR code to retrieve a cut file, from the Job Library you can also manually enter the job number to load the cut file. There are several reasons why it is useful to enter the Job number directly rather than scanning the QR code:

13.3.1 Manually entering the Job Number can enable you to pre-load line Color assignments



In **Production** menu, you would normally have the option '*After scanning QR Code ask before cutting*' set to no. This enables automatic production so that after scanning a QR code the Intec ColorCut SC5000 will automatically start cutting your job using your currently assigned Material actions/ line colors (for example; if you have previously used red for cut and blue for crease). However in some circumstances this may not be desired, e.g. if the artwork/job contain lines that do not follow your normal (assigned) convention (e.g. the red color was designed by another use and is intended for crease in this job and green for cut), so to automatically start cutting will assign the wrong actions and this may not be ideal.

To solve this you could set the '*After scanning QR Code ask before cutting*' to YES. But this would stop at every sheet. So, to avoid the need to enable and disable the '*After scanning ask before cutting*' control you can simply load your sheets and manually enter the Job number, of your first sheet.

This will load the Cut Job file and enable you to check/assign cut actions and line colors - giving you the option to start the cutting only after you have set the line color actions and when you are ready.

13.3.2 Manually entering the Job Number can enable Jobs without QR codes to be retrieved without the original graphics file.

Adding your Jobs to the ColorCut Pro Job Library is useful as this enables the job to be retrieved at a later stage or another user to cut the file without needing the original file, or the graphics application that created the design.

In the design stage, Jobs can be added to the Job Library by selecting **"Add PageMARKS and QR Code"** from the Graphics application's main menu. However, there are occasions where it may be necessary to Add the Job to the ColorCut Pro Job Library, without the QR code on the printed sheet.

i.e. when cutting artwork which contains some graphics or elements that would obscure the QR code (such as a solid bleed color). OR when the Graphic Designer needs to maximise sheet area used for cutting but in doing so the QR code may resultantly appear within the finished product

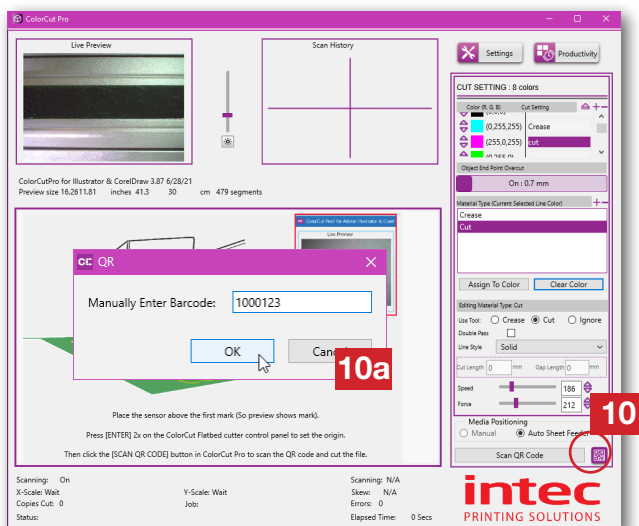
In the above instance, the graphic designer, "Add PageMARKs and QR Code" as normal, to assign the Job to the ColorCut pro Job Library, but then delete the QR code from the artwork after they have assigned a job number to the design.

Jobs that have been created with a QR Code and JOB number (but then have, had the QR code removed), can be recalled from the Job Library by simply entering the job number (normally) printed at the top of the sheet.

13.3.3 Retrieving the Cut Job using the Job number.

1. To load a Job file from the ColorCut pro Job Library using the Job Number click on the QR Code Icon **10**.

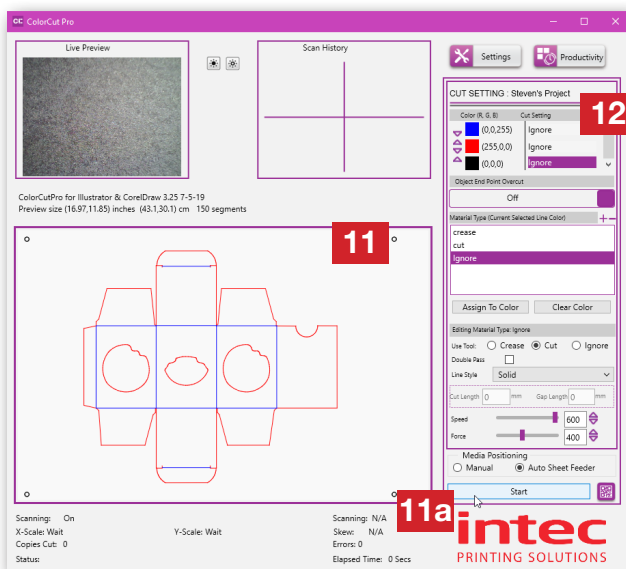
This will display a dialogue box asking you to enter the Job Number manually **10a**.



2. Enter the Job Number (found at the end of the printed sheet) and click the [OK] button to accept.

Your Cut Job File will be loaded directly into the Job Preview window **11**.

You will notice the [SCAN QR Code] button has now changed to [START] **11a**.



3. You can now assign any actions/material types to each Color **12**.

4. As soon as you have checked the line Color assignment, set the number of copies you wish to cut or changed any other relevant settings and are ready to cut your job, simply click the [START] **11a** button.

14. Cutting without using PageMarks

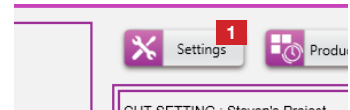
It is recommended that normally you use PageMARKs, ColorCut Pro will scan the PageMARKs on your sheet to calculate where your sheet is (the origin) and compensate for any positional errors, scale or skew therefore accurately aligning your cut with a print or position on the sheet. However, in some cases, e.g.

- On a sheet that is unprinted/blank, such as a clear sheet of Polyester to be used as a face shield. You only need to cut a visor shape and have no print, and no PageMARKs on the sheet.
- On clear material for Mobile phone screen covers. Again, no PageMARKs and the sheet is blank, you are not aligning to an element.
- Blank red card at Valentines day, to cut multiple red heart shapes. The hearts will be blank and not aligned to the sheet.
- A difficult media which has been foiled and the PageMARKs can not be read using the normal process (This may have print to align to, but the accuracy of alignment has a high degree of tolerance).

Cutting without PageMARKs is simple and often quicker as the process of scanning the PageMARKs is skipped, however the downside of skipping the registration PageMARKs is that there is no process to register the position of the sheet accurately and no ability to adapt your cutting lines for printing scale, skew or rotation errors.

14.1 Disabling Scan Targets

To cut sheets without PageMARKs, open the [SETTINGS] **1** window in ColorCut Pro.



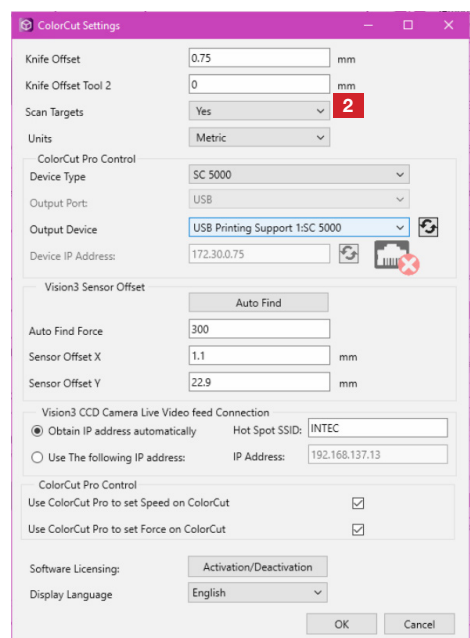
Set the 'Scan Targets' **2** option from [YES] to [NO].

This setting applies to all sheets until the setting is toggled back to [YES].

The cutting accuracy in respect to where the origin of your cut starts on the sheet or in respect to alignment of the cut to printed elements varies according to the media size you set, the feed and feed advance and left offset values (under the **PRODUCTIVITY** button) and the first cutting element on your design.



Setting “**Scan Targets**” to [NO] also disables scanning of QR codes, so if you have a stack of sheets in the Auto Sheet Feeder, some without PageMARKs and some with. It will no longer detect ANY PageMARKs.



14.2 Design requirements when cutting without PageMARKs

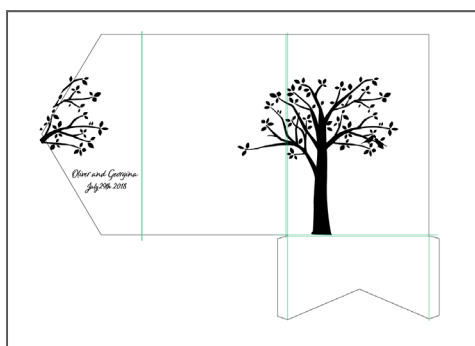


ColorCut Pro **does not use your document page size**, normally cutting starts relative to the first PageMARK. Therefore if you disable '*scan targets*', cutting will start at the furthest left and upper point of the perimeter around your elements for cutting. It is therefore recommended you consider this in the design.

In the following example, the media used was foiled due to the process involved this including the PageMARKs, in addition the surface of the media contained a glitter, which rendered the foiled PageMARK's unreadable. As the artwork is such that a small degree of movement would not be noticeable, this job was cut with '*scan targets*' disabled.

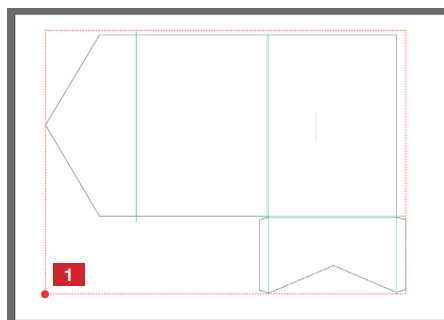


Desired result.



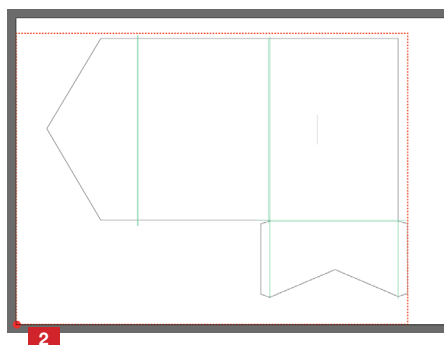
Artwork (before modification)

The frame on the artwork design (*Right*) represents the media size the job was printed on. However, ColorCut Pro files ONLY contain the cut line and position data relative to each element (The elements inside the RED dotted line), NOT your design in relation to the media size. Therefore to cut accurately we would need to manually adjust the start/origin point of the cutting to the position **1** shown right.



This would be very difficult to get correct.

Therefore, as ColorCut Pro, works from the First element on your page it is much easier and simpler to set ColorCut Pro to use the leading corner of the sheet as the origin. This can be easily achieved by **adding** a small DOT or 0.1mm circle on the corner of your Page **2**.



The perimeter of your cut lines/elements (Shown right again in the RED dotted area) now relate to the corner of your media. If the **PRODUCTIVITY** settings for feed advance and left margin offset are correct then this will now cut relatively accurately.

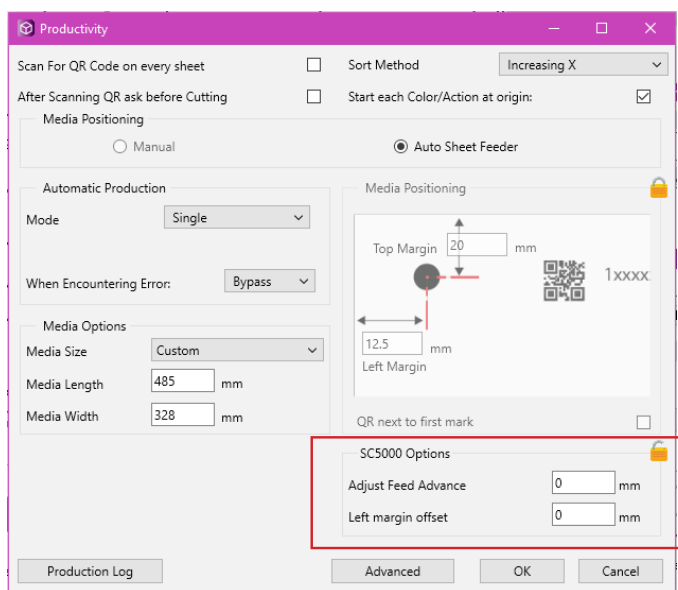
Use a different color for this dot, then you can set a specific action for this color to lightly tap the creasing tool there before cutting the rest of your design as desired.

14.3 Setting/Adjusting the Origin when cutting without Marks.

Due to manufacturing tolerances, the feeder guides may present the media fractionally offset from the zero point. However, under normal circumstances the origin for the position of the sheet is automatically obtained using the Vision 3 camera sensor, as it scans the first PageMARK. Any positional inaccuracy in the feeder guides or feed advance is automatically adjusted for and the Mark recentred.

When you disable the Vision3 Registration sensor for scanning the PageMARK you no longer have the automatic adjustment system available, therefore you should manually check and adjust the alignment and the feed advance settings to enable sheets to cut as accurately as possible.

14.3.1 SC5000 Feed Advance & Left Margin offset control



The control to adjust the offset when feeding sheets can be found under the **PRODUCTIVITY** settings button.

The default settings should be :

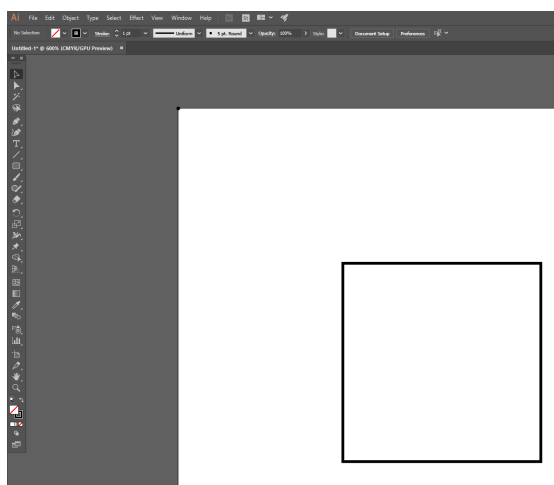
Adjust feed Advance : 0

Left Margin Offset : 0

To check and adjust the origin for cutting without PageMARKs (Targets):

1. Using your graphics application, create a job in your graphics application, consisting of a 25mm x 25mm box, placed 25mm from left margin and 25mm from the top margin With a 0.1mm circle placed on the top left corner (the origin) of a page.

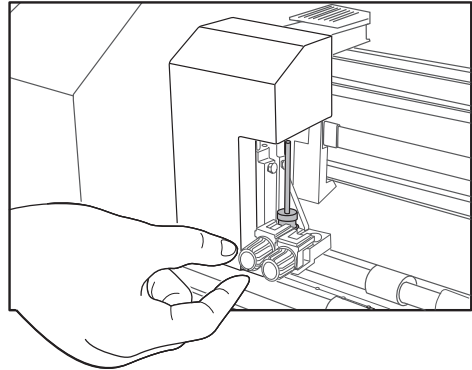
2. Print the job file on the media size that you will normally use for cutting with “*scan targets*” off.



14.3.1 SC5000 Feed Advance & Left Margin offset control

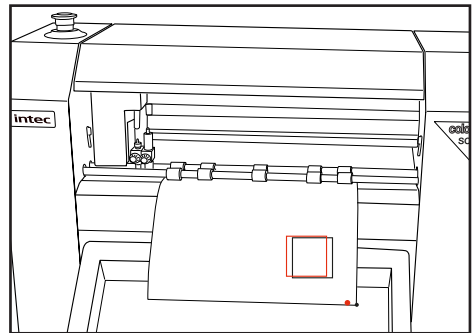
3. Replace the Tool1 (Knife tool) with the calibration Pen in the Tool Carriage of your SC5000.

4. Ensure Scan Targets (see section 14.1 in this manual) is set to NO.



5. From your graphics application send the job DIRECTLY using ColorCut Pro, from your graphic applications main menu. (See section 12 in this manual).

6. Your SC5000 should place a tiny dot in the corner of the sheet, then draw the 25mm square.
(The Black is the printed image, the RED is an example of what the cutter may have drawn).



7. Measure the distance from the top of the sheet:

8. If the square is not 25mm from the top of the sheet adjust the “**Adjust Feed Advance**” value within the SC5000 options under the Productivity Window.

9. If the square is not 25mm from the left of the sheet adjust the “**Left Margin Adjust**” value within the SC5000 options under the Productivity Window.

10. Print your file again, and retest your new values .



Any large values (>8mm) may reduce the tolerance when scanning normal PageMarks and QR codes. The adjustments should be <8mm providing you placed the dot in the corner of your page AND you have set the Media size under **PRODUCTIVITY** to the size that you are loading in to the SC5000. If you have not set the Media size correctly the left margin will be incorrect. If the adjustments are >8mm please you may need to zero them back out when turning back on Scan Targets otherwise the cutter will seek in the incorrect position for the 1st PageMARK.

