

**MUTOH**

**OPERATION  
MANUAL**

**Layout and Print Tool 2**

Read This Manual Before Using The Application

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# 1 Introduction

This manual explains the operation procedure for Layout and Print Tool 2 (referred to as “Layout Tool 2”), which enhances the printing.

Layout Tool 2 enables:

- Easy printing operation corresponding to media size
- Multi-layer printing with color and white ink and varnish (\*1)
- Single-layer printing via ValueJet Layer Editor

For the printer operation and ink handling, see the printer's operation manual.

**The name, design and specifications of Layout Tool 2 are subject to change without notice.**

Windows described in this document are registered trademarks of US Microsoft Corporation in US and other countries.

\*1 Varnish is only available with UV printers.

### **ValueJet Layer Editor and Layout Tool 2**

To perform following printing, please use Layout Tool 2.



The comparison table below briefly describes the specifications of ValueJet Layer Editor (stored in the supplied CD-ROM) and Layout Tool 2.

For available image formats, see 3. Image Formats.



For layer printing, see 4. Printer Setting and Print Method.

For the details of ValueJet Layer Editor, see its operation manual.

### **UV Flatbed Printer**

	Layout and Print Tool 2 	ValueJet Layer Editor 
Function	<ul style="list-style-type: none"> <li>- Enables the layer printing for the image data.</li> <li>- Users can edit the layer print layout for up to 15 layers and save it.</li> </ul>	<ul style="list-style-type: none"> <li>- Receives the print data from the printer driver.</li> <li>- Users can assign the received print data to each layer.</li> <li>- Requires Layout Tool 2 or other printing application for printing.</li> </ul>
Intended use	<ul style="list-style-type: none"> <li>- Suitable for small print production or inserting text for each printing.</li> <li>- Recommend to use ValueJet Layer Editor for large print production.</li> </ul>	<ul style="list-style-type: none"> <li>- Saves the already converted data for printers to start printing soon after sending data to a printer.</li> <li>- Suitable for repeating print.</li> </ul>
Image printing (PNG/TIFF)	✓	N/A
Multi-layer printing (Print on the same spot to build up layer on layer.)	✓	✓
Single-layer printing (2 or 3-layer printing in one pass)	✓ (*Available when sending a print data to Layer Editor.)	✓
Layer Control	N/A	✓ (Change the printing speed, vacuum fan mode, and etc.)

**Roll Printer, Hybrid Printer**

	Layout and Print Tool 2 	ValueJet Layer Editor 
Function	<ul style="list-style-type: none"> <li>- Capable of performing layer printing using image data.</li> <li>- Users can edit color and white data to create a layer printing layout and save it.</li> </ul>	<ul style="list-style-type: none"> <li>- Receives the print data from the printer driver.</li> <li>- Users can assign the received print data to each layer.</li> <li>- Requires Layout Tool 2 or other printing application for printing.</li> </ul>
Intended use	<ul style="list-style-type: none"> <li>- Suitable for small print production.</li> <li>- Recommend to use ValueJet Layer Editor for large print production.</li> </ul>	<ul style="list-style-type: none"> <li>- Saves the already converted data for printers to start printing soon after sending data to a printer.</li> <li>- Suitable for repeating print.</li> </ul>
Image printing (PNG/TIFF)	✓	N/A
Single-layer printing (2 or 3-layer printing in one pass)	✓ (*Available when sending a print data to Layer Editor.)	✓
Layer Control	N/A	✓ (Change the printing speed, vacuum fan mode, and etc.)

**Note****Printing Large Image**

When printing a large image from Layout Tool 2 or Windows driver through ValueJet Layer Editor (referred to as "Layer Editor"), it takes a time to accumulate the data in Layer Editor, and the printer may not be able to start printing quickly.

To perform printing more efficiently:

- Accumulate the data in Layer Editor in advance to reduce the idle time.
- Directly send the data to printer when the layer printing is not performed.

It is more efficient to use Layer Editor when the same print data is repeatedly used.

Layout Tool 2 does not support "LayerEditor" option for VJ-628, XPJ-1641SR, XPJ-1682SR.

## 2 Operating Environment

This manual describes Layout Tool 2 [Ver.1.8.7](#).

Before use, make sure the following Windows driver is already installed.

### 2.1 Supported Printer Model

The supported versions and functions for Layout Tool 2 are as follows:  
Layout Tool 2 is compatible with the driver system requirements.

Printer Model	Printer Type	Driver Version	ValueJet Layer Editor
VJ-626UF	UV Flatbed Printer	1.02 or later	4.1.0 or later
VJ-426UF (*1)		1.01 or later	1.0.0 or later
XPJ-461UF		0.02 or later	5.0.0 or later
<a href="#">XPJ-661UF</a>		<a href="#">0.01 or later</a>	<a href="#">5.0.1 or later</a>
VJ-628	Roll Printer (Roll media loading printer)	1.05 or later	N/A
VJ-628MP	Roll Printer (Roll media loading printer)	1.00 or later	4.4.0 or later
VJ-1627MH	Hybrid Printer (Roll media/Rigid media loading printer)	1.00 or later	4.8.0 or later
XPJ-1641SR	Roll Printer (Roll media loading printer)	1.00 or later	N/A
XPJ-1682SR	Roll Printer (Roll media loading printer)	1.00 or later	N/A

#### NOTE

Available menus and functions vary by printer model.  
This manual describes the supported printer type (UV Flatbed or Roll) or printer model for the menus or items designed for specific model or printer type.  
For Hybrid printer, refer to the function of Roller printer.

Some menus are disabled if you select 4-color configuration on your printer driver, or if the ink colors are not available on your printer.

\*1 Layout Tool 2 does not support the varnish glossy finish option for VJ-426UF.

## 2.2 Printable Media Size

Preset Media Size and Custom Media Size:

Printer Model	Preset Media Size	Custom Media Size (mm)	
		Width	Height
VJ-426UF	Fullsize A3	Same as Preset Media Size	
VJ-626UF	Fullsize A2, Fullsize A3		
VJ-626UF Rotary Unit	-	360	405 (No margin)
XPJ-461UF	Fullsize A3 (No margin)	Same as Preset Media Size	
XPJ-661UF	Fullsize A2, Fullsize A3		
XPJ-661UF Rotary Unit	-	360	405 (No margin)
VJ-628	Fullsize A1 (No margin)	620	3200 *1
VJ-628MP	Fullsize A1 (No margin)	620	3200 *1
VJ-1627MH	Fullsize A0 Plus	1615	3200 *1
XPJ-1641SR XPJ-1682SR	Fullsize A0 Plus	1615	3200 *1

Media Type and Size:

Type	Size	Width	Height
FullSize A1	A1	594	841
FullSize A2	A2	483	594
FullSize A3	A3 Plus	483	329
FullSize A0Plus	A0 Plus	1240	841
Custom Size	-	30 - Maximum media width of the printer	30 - Maximum media height of the printer

### NOTE

- \*1 3200 mm is not the maximum printable length (height) for these three models. To print more than 3200 mm length per print job, please use the supported RIP software.



## 2.3 Supported OS

The supported Windows versions are as follows.

Install the latest service pack.

Windows7	Service Pack 1 or later [32bit/64bit]
Windows8/8.1	[32bit/64bit]
Windows10	[32bit/64bit]

The supported languages are as follows:

Japanese
English

### NOTE

Following restrictions apply depending on the OS version of your computer.

N/A=not available, restriction=restriction, ✓=available without restriction

	Details			
	7	8.1	10	
PostScript fonts	N/A	✓	✓	For details, see 7.12 Insert Text.
PDF Image File	N/A	restriction	✓	For details, see 3.2 PDF File.

## 3 Image Formats

### 3.1 Popular Image Format

The available image format is as follows:

See the note below for more details.

PNG	(.png) *1, *2
Bitmap	(.bmp)
JPEG	(.jpg) *3
TIFF	(.tif) *2, *3

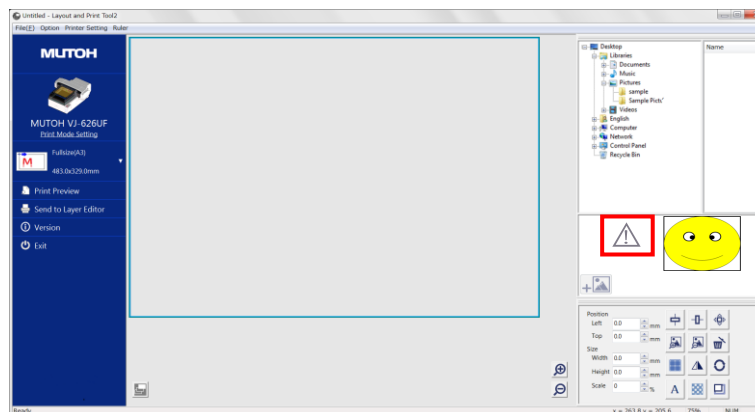
These files appear in the Folder Tree and the Image Preview on the right side of the screen.

#### NOTE

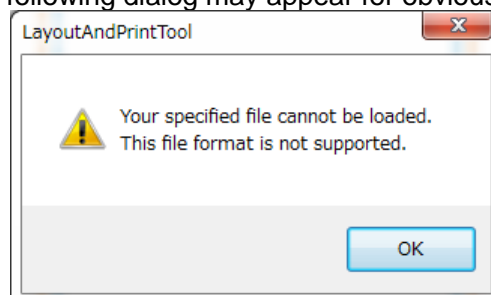
- Use 24-bit RGB color model for the color data.
- \*1 PNG format is the recommended format for Layout Tool 2.
- \*2 RGBA color model (with an alpha channel) can be used with RGB color model.
- \*3 CMYK color model data is not supported by Layout Tool 2.

When selecting the file, if the mark shown to the right appears on the preview pane, this data format is not supported by Layout Tool 2.

If you print the unsupported file, the printing may not be available depending on formats or the printed color may differ from the actual color.



The following dialog may appear for obviously unavailable files.



When this dialog appears, convert the file to PNG format.

## 3.2 PDF File

If you are using Windows 8.1 or Windows 10, you can also use the following image format by drag and drop.

PDF (.pdf)

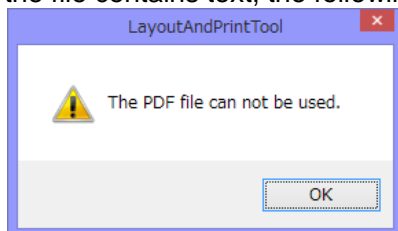
PDF files do not appear in the Folder Tree and the Image Preview on the right side of the screen. Select a PDF file from Windows Explorer.

If a PDF file contains more than one page, the following dialog will appear. Select the page which you want to use and click **Apply**.



### NOTE

- In **Windows 8.1**, a PDF file containing text cannot be used. If the file contains text, the following dialog will appear.



- If a text is contained in the first page of the PDF file, the above dialog will appear. If it is contained in other than the first page, the appropriate page will be skipped and the rest of the pages will be loaded.

When loading a PDF file containing multiple pages, please note the followings:

- Once started, you cannot interrupt loading the PDF file.
- An Out of Memory error may occur while loading the PDF file.
- Do NOT load a document PDF file such as user guide.
- When converting PDF to image file, the image file resolution may be decreased. Use the original image file, if you have saved it.
- An embedded profile such as color profile cannot be correctly applied.

## 4 Printer Setting and Print Method

Layout Tool 2 offers the following print mode to enable the layer printing: Color Printing, White Printing, Color-on-White Printing and Varnish Printing.

Choose the print mode depending on your desired output.

Each mode has different function:

Color Printing	Prints color data on object.
White Printing	Prints white data: <ul style="list-style-type: none"><li>- on dark-colored object to achieve monotone printing.</li><li>- as white underbase.</li><li>- between color printings (double-sided printing) as both underbase.</li></ul>
Varnish Printing	Prints varnish data over the color or white printing to offer the glossy finish and smooth texture. You can also achieve the emboss effect. (UV Flatbed)

This section explains the printer panel setting and printing method.

### NOTE

Important Notes for UV Printing (UV Flatbed)

- Handling UV ink requires special care. Before use, please read 'Notification sheet (How to handle UV inkjet printer/its supplies)' supplied with the printer and operation manual of your printer.
- Do not touch uncured UV ink.  
If the printed area is not properly cured, go to 'Mnt.3 UV Scan' > 'UV Scan1 Start' from the operation panel to perform extra UV scanning.
- • Depending on media type, media curl may occurred with layer printing.
- • In multi-layer printing, if media curl occurs or the printed layer gets thicker, the height of table is automatically (or manually) adjusted to keep proper gap between the print head and the highest position on the media  
If a wider head gap is required, distance between the UV lamp and media also gets wider, resulting in insufficient UV power to cure the print.
- • When creating emboss effect with multi-layer printing, distance between the UV lamp and media may get wider as you build up multiple layers on the media.  
With the wider head gap, if you print on non-embossed area of the media, the area may not be properly cured due to insufficient UV power. In such case, please change order to print layers.

### NOTE

UV Flatbed

- Layout Tool 2 enables to print multiple layers on the same spot. However, Mutoh cannot guarantee the quality of excessive layered object.

## 4.1 Print on Uneven Media

If distance between print head and media surface varies by using uneven media, ink mist will be produced and it may affect print quality.

Try the steps below in such case.

### NOTE

- We do not guarantee that you can achieve the print quality equivalent to those obtained with appropriate media even if you follow the steps below.

A) Specify **Low Speed** from the printer panel. (UV Flatbed)

Panel Menu

Menu	Menu1:	Setup>
		↓
	Set:	User Type>
		↓
	User:	Type1 - 10
		↓
	**>6:	Low Speed
	Low Speed:	25% or 50%

### NOTE

- Since the print head traveling speed (printing speed) will be decreased to prevent ink mist, the printing requires longer time.

B) Set Head Gap to **Large** from Layout Tool 2.

Prevent ink mist by printing with large dot.

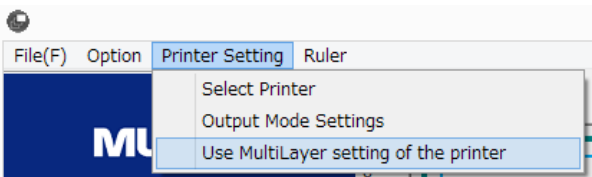
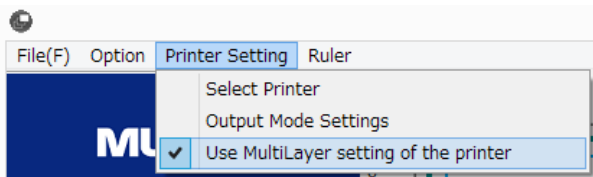
### NOTE

- Print quality may be lower than setting Head Gap to Normal.

## 4.2 Multi-Layer Printing (UV Flatbed)

Multi-layer printing is a layer printing method that a printer prints more than one layer data on the same media by layer. Every time before printing the next layer, the print head goes back to the print start position.

Layout Tool 2 offers two types of multi-layer printing methods. You can select it from the Printer Setting menu as described below.

Method 1 Uncheck 'Use MultiLayer setting of the printer' (Default setting)	Method 2 Check 'Use MultiLayer setting of the printer'
	
Layout Tool 2 sends more than one layer data to the printer as one print job to print on the same media layer by layer. In normal cases, use this setting.	By setting the Multi Layer option to ON from the printer panel with this setting, you can send layer data to the printer one by one to print on the same media layer by layer.
Once the printing is complete, the table automatically moves to the eject position. If more than one person shares the same printer, this method is more preferable to avoid accidentally printing on the wrong media.	With this setting, you can print on the same media unless pressing the Remove Media key on the printer panel. To avoid printing on the wrong media, when the layer printing is complete, press the Remove Media key to remove the media from the printer.

### Note

- In Method 2, to enable Multi Layer setting on the printer, set the Multi Layer menu to ON from the printer panel.  
Check the panel setting below.

#### Panel Menu

Menu	Menu1:	Setup>
		↓
	Set2:	Advanced>
		↓
	Adv. 7:	Multi Layer
		↓
	Multi Layer:	On

## 4.3 High-Density White/Varnish Option

If you want to print white or varnish (UV Flatbed) with high density, check High-Density option. It allows you to print the selected white or varnish layer with double density (print speed will be decreased by half).

The image shows a software interface with two sections: 'White Printing' and 'Varnish Printing'. Each section has a 'Fast', 'Fine' (selected), and 'Super Fine' radio button. To the right of these is an 'Ink Adjustment' section with a '100' value in a text box, a '%' symbol, and a checked 'High-Density' checkbox. Below this are three checkboxes: 'Choke edges', 'Spread edges' (with a '0.10' text box and 'mm' label), and 'Enable gradation'. At the bottom of each section is an 'Ignore white in the non-alpha channel image' checkbox. The 'White Printing' section has a 'Printing method' row with 'Under coating' text and 'All area' and 'Image only' (selected) radio buttons. The 'Varnish Printing' section has a 'Printing method' row with 'Over coating' text, 'All area' and 'Image only' (selected) radio buttons, and an additional 'Glossy Finish' checkbox on the right.

White Printing	
<input type="radio"/> Fast	Ink Adjustment: 100 % <input checked="" type="checkbox"/> High-Density
<input checked="" type="radio"/> Fine	<input type="checkbox"/> Choke edges <input type="checkbox"/> Spread edges 0.10 mm
<input type="radio"/> Super Fine	<input type="checkbox"/> Enable gradation
	<input type="checkbox"/> Ignore white in the non-alpha channel image
Printing method: Under coating <input type="radio"/> All area <input checked="" type="radio"/> Image only	

Varnish Printing	
<input type="radio"/> Fast	Ink Adjustment: 100 % <input checked="" type="checkbox"/> High-Density
<input checked="" type="radio"/> Fine	<input type="checkbox"/> Choke edges <input type="checkbox"/> Spread edges 0.10 mm
<input type="radio"/> Super Fine	<input type="checkbox"/> Enable gradation
	<input type="checkbox"/> Ignore white in the non-alpha channel image <input type="checkbox"/> Glossy Finish
Printing method: Over coating <input type="radio"/> All area <input checked="" type="radio"/> Image only	

For High-Density option in varnish printing, see descriptions of the Glossy Finish option on page 64.

## 4.4 White Printing and Varnish Printing

When printing with white or varnish ink, the print finish varies by media being used. Before using new media, make sure to run a test print to check for compatibility.

The default values set in Layout Tool 2 are optimized for characteristics of each printer model. Run a test print and find the optimum settings for your media.

### NOTE

- Here are some points to check during test print.

<UV ink>

Run the ink adhesion tape test on a new media and make sure that the print does not come off.

<MP ink>

Perform three types of printings; layer printing, color printing and white printing to ensure that the ink dries properly.

- When performing white-on-color printing on transparent media, if the image looks worse, the white ink volume is too much. Reduce the white ink density.

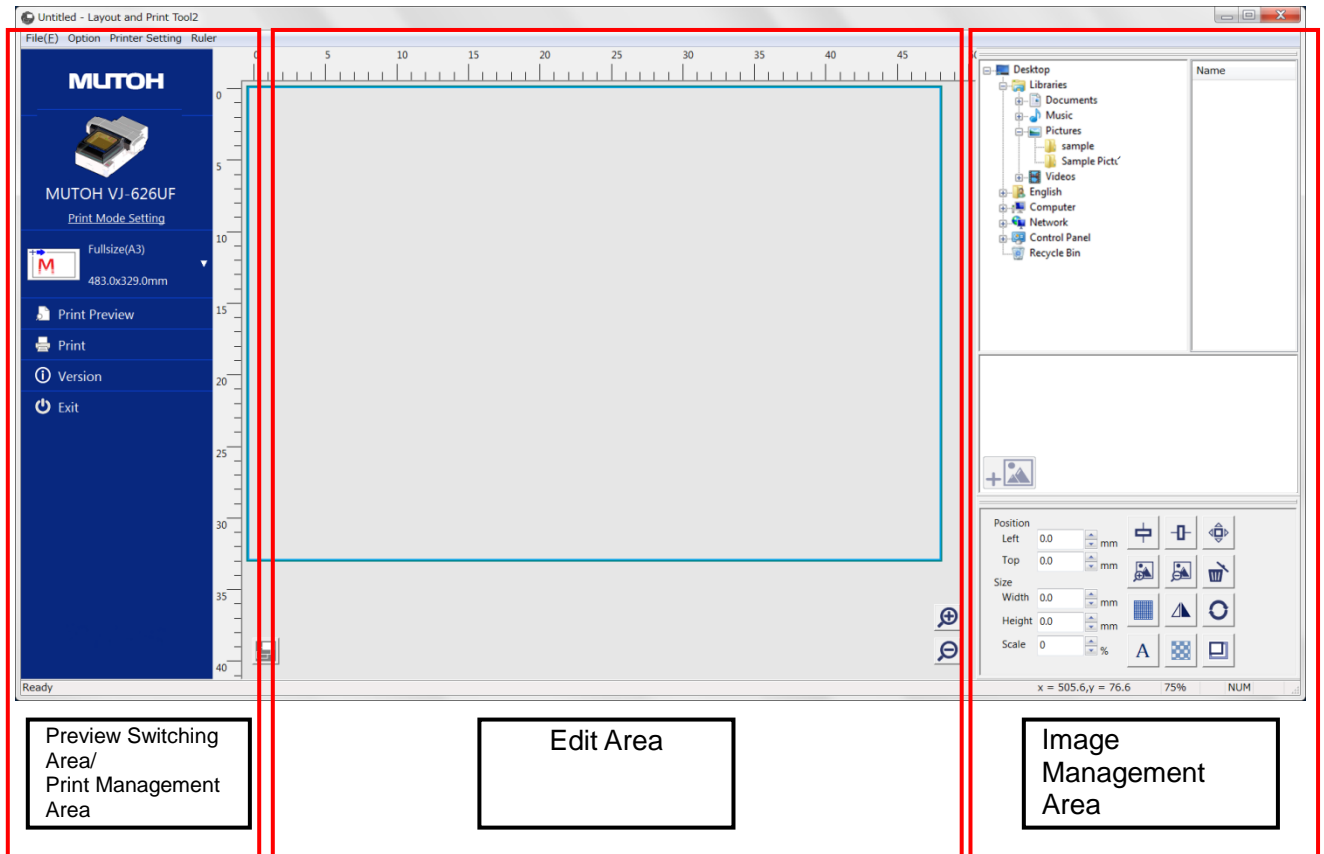
- If ink bleeding occurs on your print, the ink drying time is not enough. Specify the ink drying time between passes from one of the following menus:

- Operation panel or Printer driver: Pass Wait
  - Layer Editor: Interval time (Multi Strike Setting)
-



## 5 Main Screen

Below is the main screen of Layout Tool 2.  
For the operation procedure, see the following pages.



Preview Switching Area/  
Print Management Area

- Displays the printer driver properties
- Switches the preview
- Starts printing
- Select the media size.

Edit Area

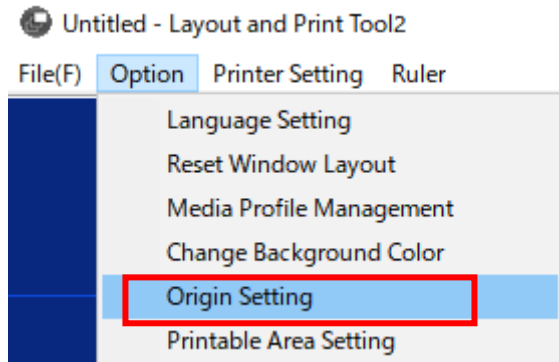
- Displays the inserted image.
- Use as preview.

Image Management Area

- Insert the image
- Change the image size and position.

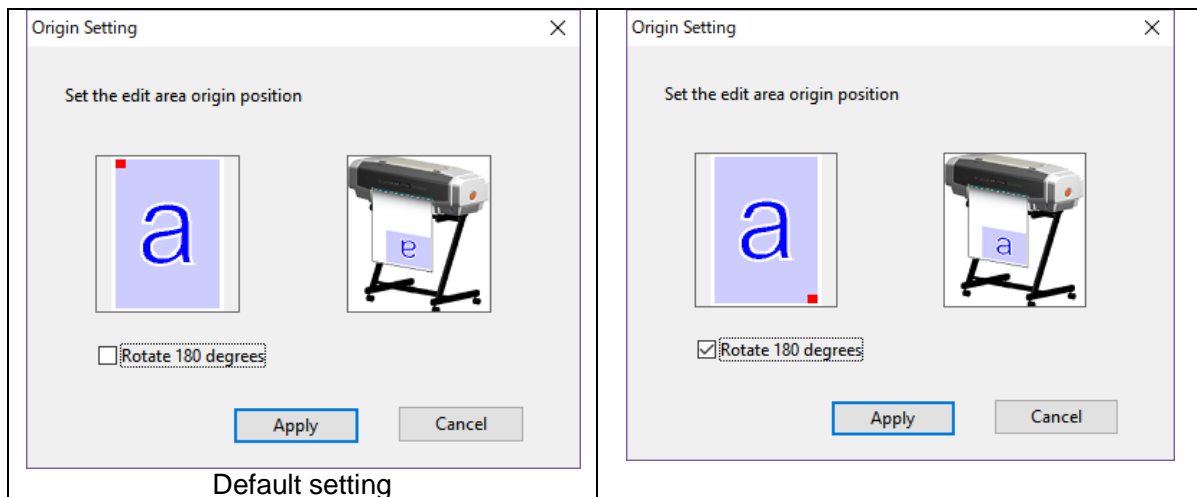
## 5.1 Change Origin Setting

From Option > Origin Setting, you can change the origin in the Edit Area by 180-degree rotation check box.



In default, the origin in the Edit Area is set to top left.  
When 180-degree rotation is enabled, the origin is set to bottom right.

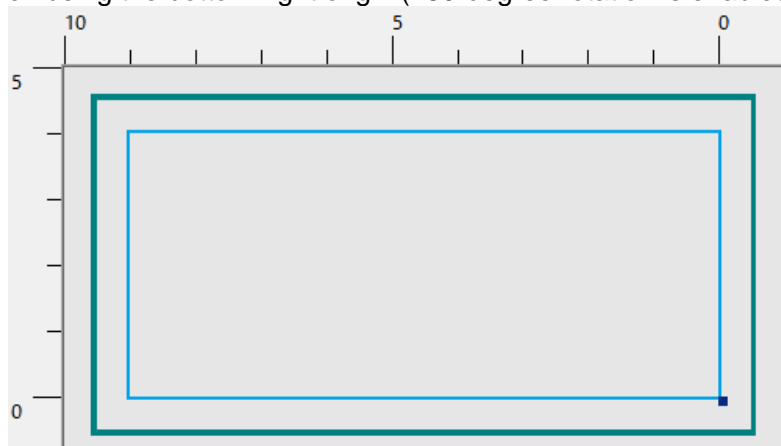
With this setting, your design will be printed from the origin specified in this menu.  
Please see the figures below and choose the appropriate setting.



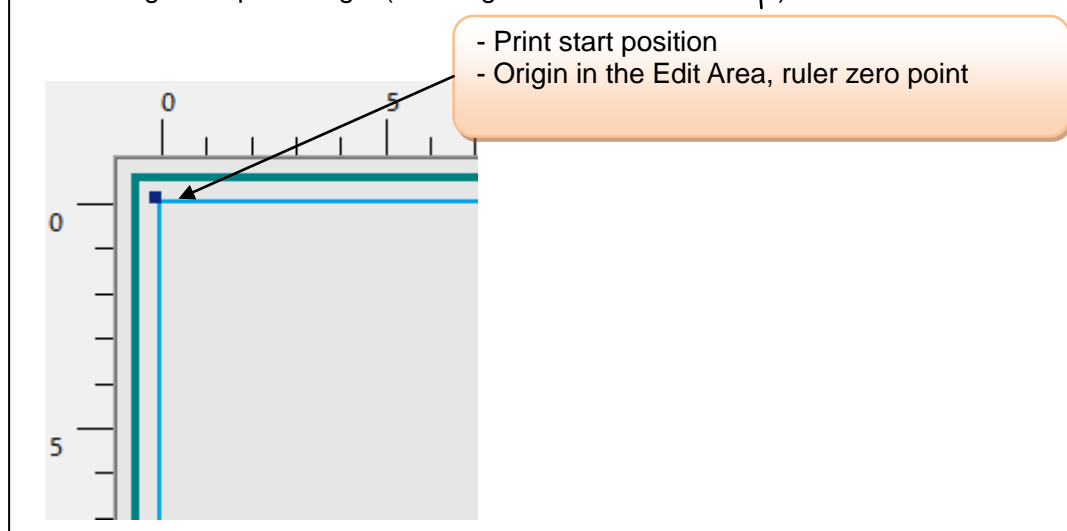
Once changed, this setting is saved in Layout Tool 2 and will be applied until you change it.

Depending on the origin setting, the origin of rulers in the Edit Area and print start position on your design change as shown below by arrow.

<When using the bottom-right origin (180-degree rotation is enabled)>



<When using the top-left origin (180-degree rotation is disabled)>



For details of printable area, see 7.2 Printable Area.

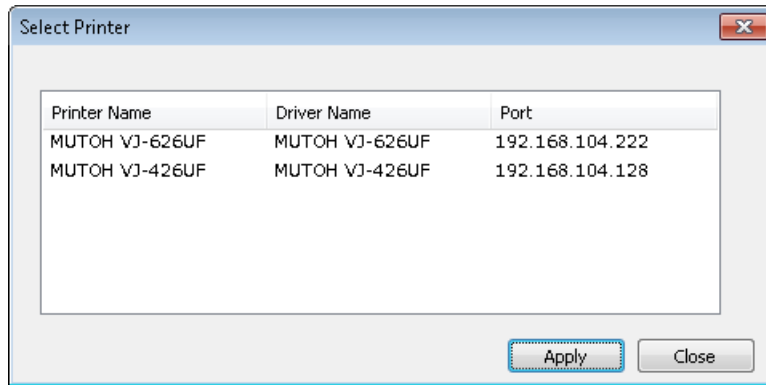
For media loading position and print start position on the media, see the operation manual of your printer.

## 6 Basic Operation

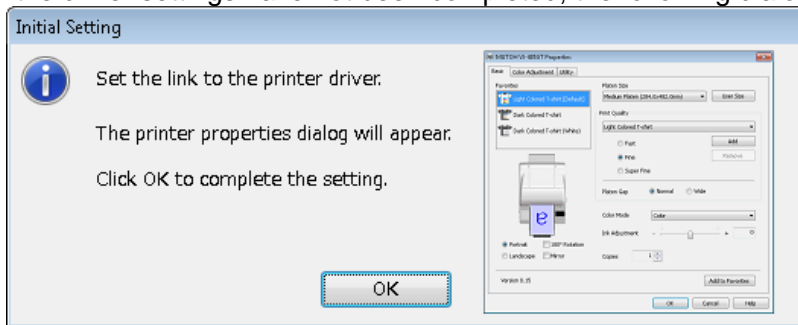
### 6.1 Initial Setting (for Initial Startup only)

Before running the Layout Tool 2 for the first time, make sure to install the printer driver. The following dialog appears to select the printer driver when you first run this application.

\*This printer driver will be automatically selected from the next time.

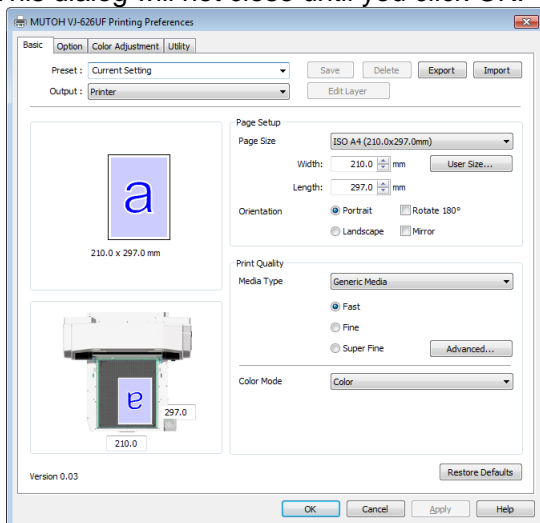


If the driver settings have not been completed, the following dialog will appear. Click **OK**.



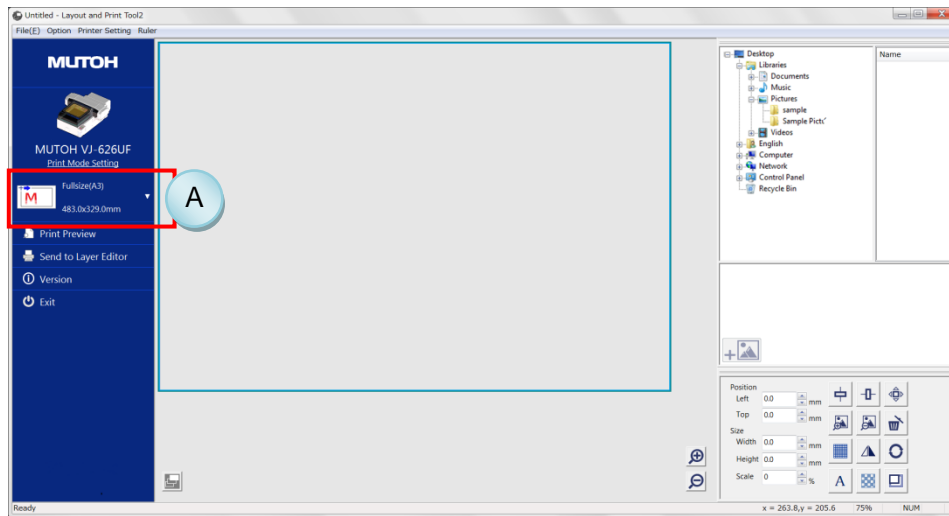
Then, the printer properties will open. Click **OK**.

This dialog will not close until you click OK.

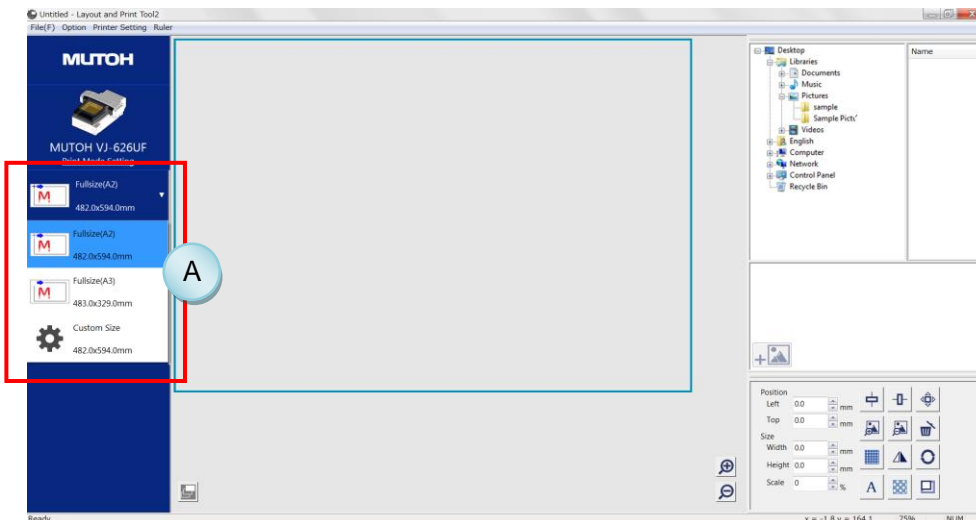


## 6.2 Media Size Setting

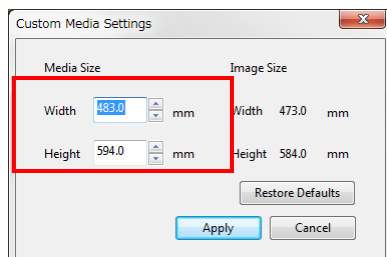
1. Click **A** to select the media size.



2. Select the size from the drop-down list of **A**.  
Select from: Fullsize(A3), FullSize(A2) or Custom Size.



When selecting Custom Size, the Custom Media Settings dialog appears.  
Directly enter the width and height or click the up/down button to specify the value.

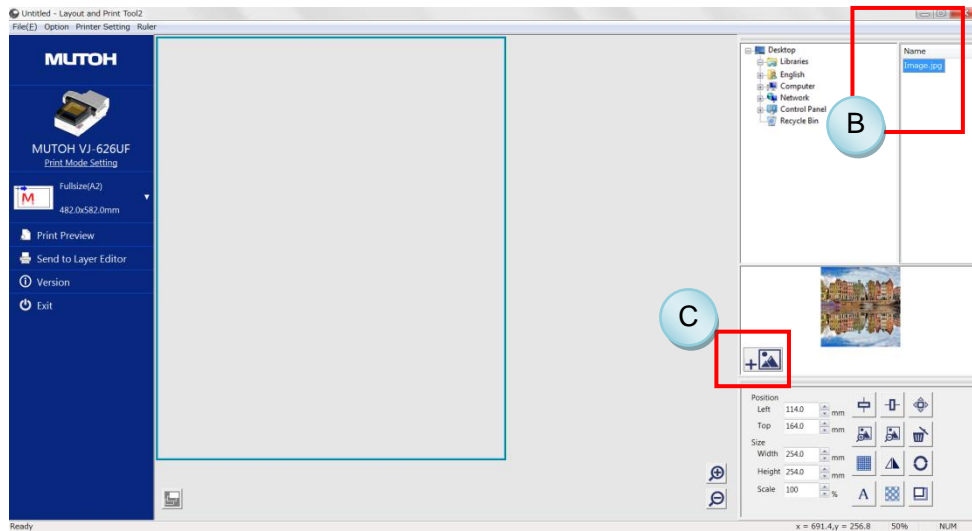


## 6.3 Insert Image

Insert the image to each layer.

Upon startup of Layout Tool 2, the edit area for Layer 1 will always appear on the main screen.

1. Select an image file from **B**.  
Click **C** to insert the image.



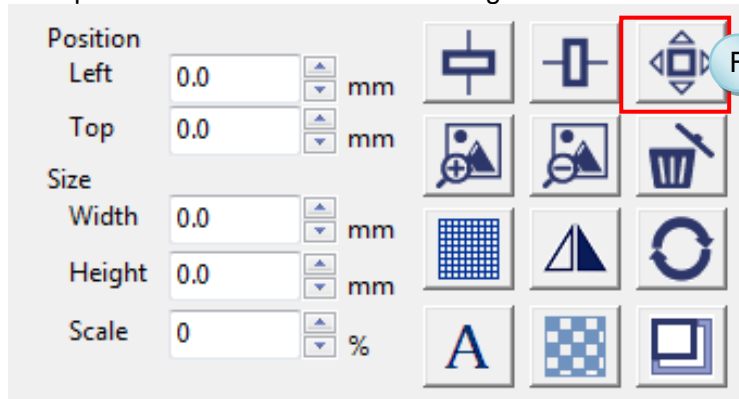
### NOTE

- You can also insert the selected image by pressing [ctrl] + [i] keys instead.

2. The inserted image can be moved with the mouse or by clicking **D** (Edit buttons).  
In **E** field, you can directly enter the value of image position or size.



3. If you use only one image, click **F** to optimize the image to the largest size such that fits entirely within the printable area and center the image.

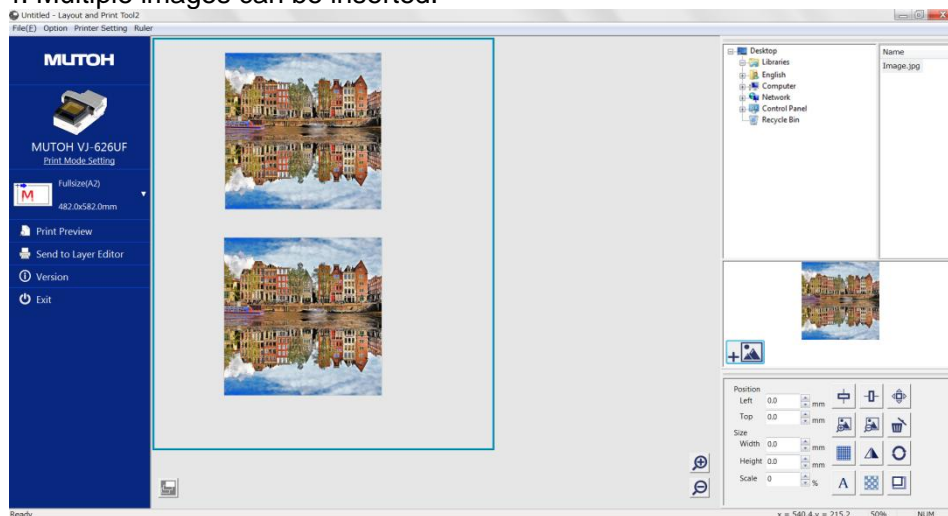


For the details, see 6. Functions.

## NOTE

- The latest inserted image is the target for editing.
- If you click anywhere except for the inserted image, **E** and **D** become invalid. If so, click the target image again.

4. Multiple images can be inserted.



## NOTE

- The maximum number or size of image insertion depends on your PC capability.
- If you insert too many images or large images, the Layout Tool 2 operation including printing may become slow.

## 6.4 Layer Printing

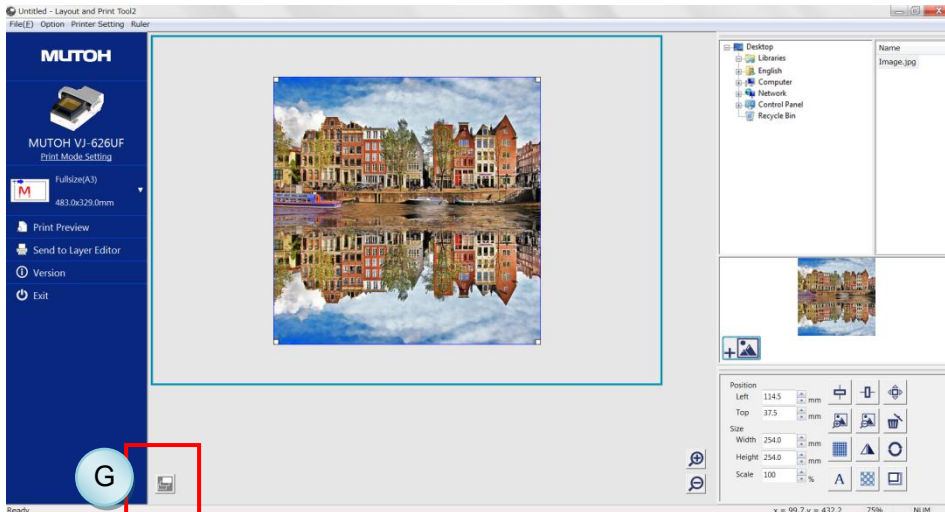
### 6.4.1 Multi-Layer Printing

Print the selected layers with multi-layer printing according to the specified color mode or the multi strike setting.

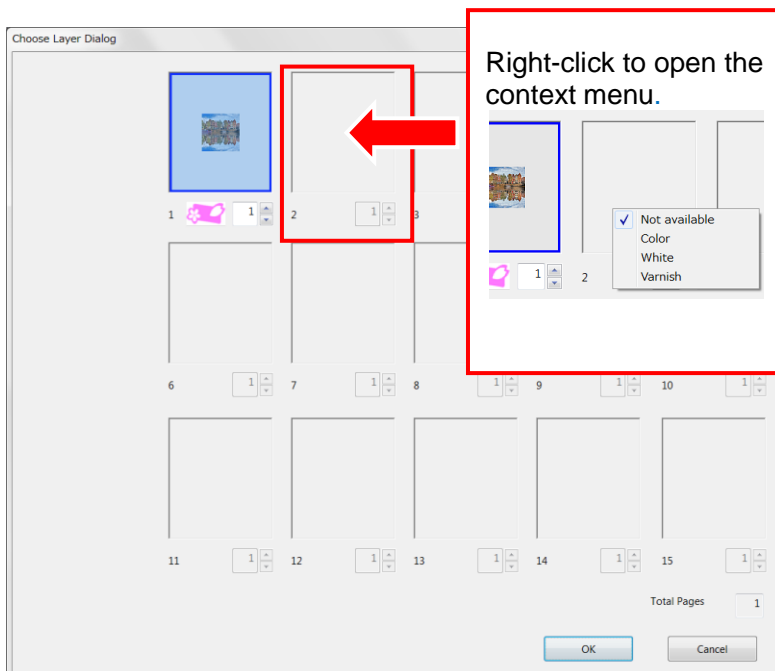
Specify each layer setting from the Choose Layer dialog.

#### A) Multi-Layer Setting

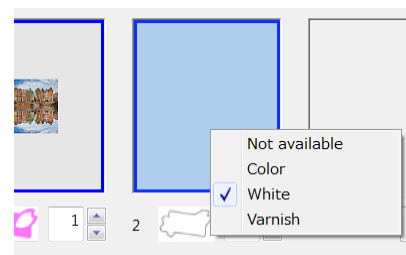
Click **G** to open the Choose Layer dialog.



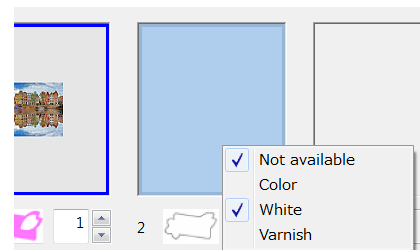
Right-click the layer to specify the color mode.  
Up to 15 different layers can be assigned.



Check either Color, White or Varnish (UV Flatbed) for the layer.



If you do not want to print the layer, check Not available.





**NOTE**

**Not available** Setting

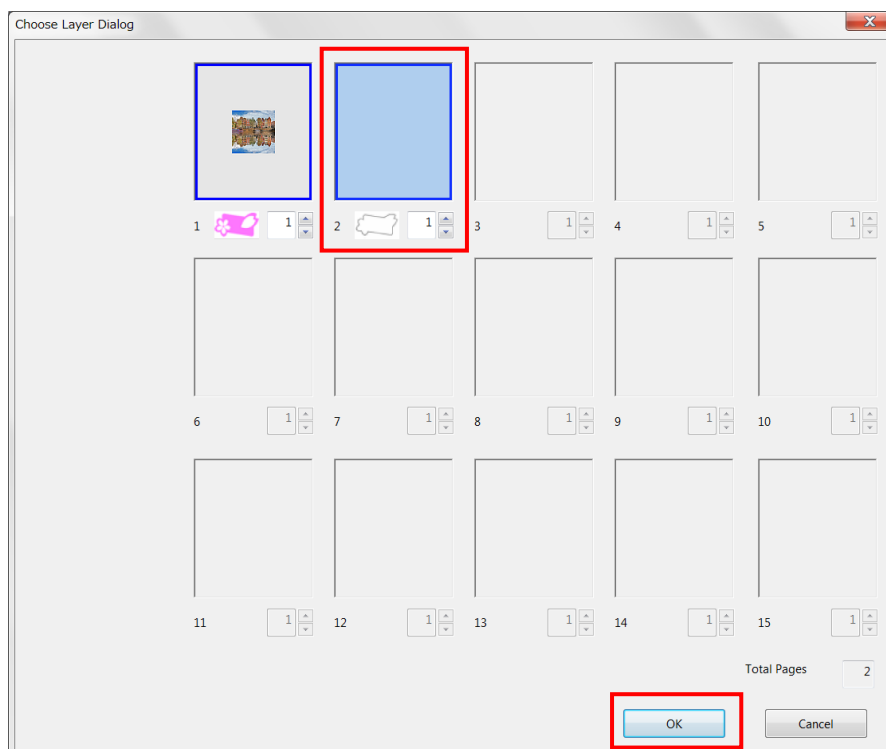
- Even if a layer is set to 'Not available' in this dialog, you can still select the layer and print it from the 'Print the selected layer' dialog.
- This function can be used to delete unwanted layer. See page 20 for more details.

**NOTE**

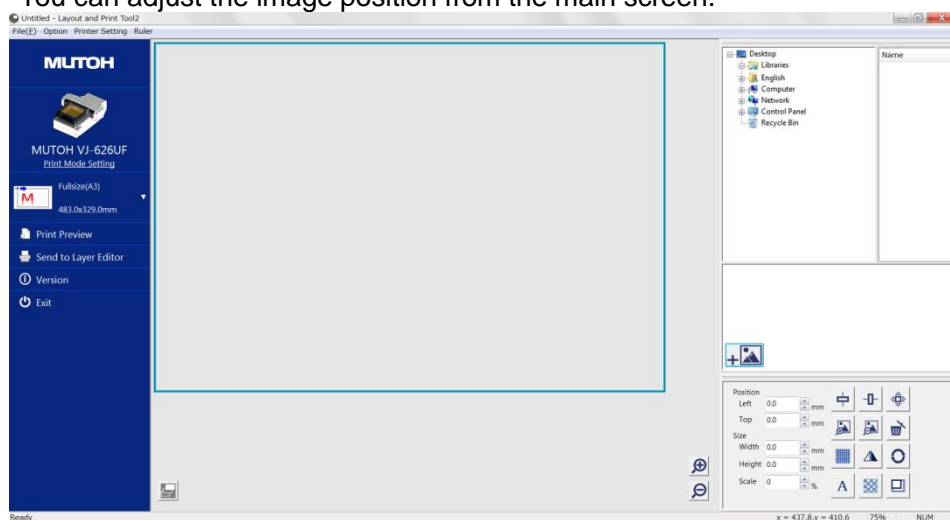
'Choose Layer' dialog for roll printer

- Multi-layer printing is not available for roll printer.  
If you select the roll printer driver, each 1 layer of color and white are valid.  
To perform layer printing, go to Printer Setting > Output Mode Settings to select Layer Editor, and print from Layer Editor.

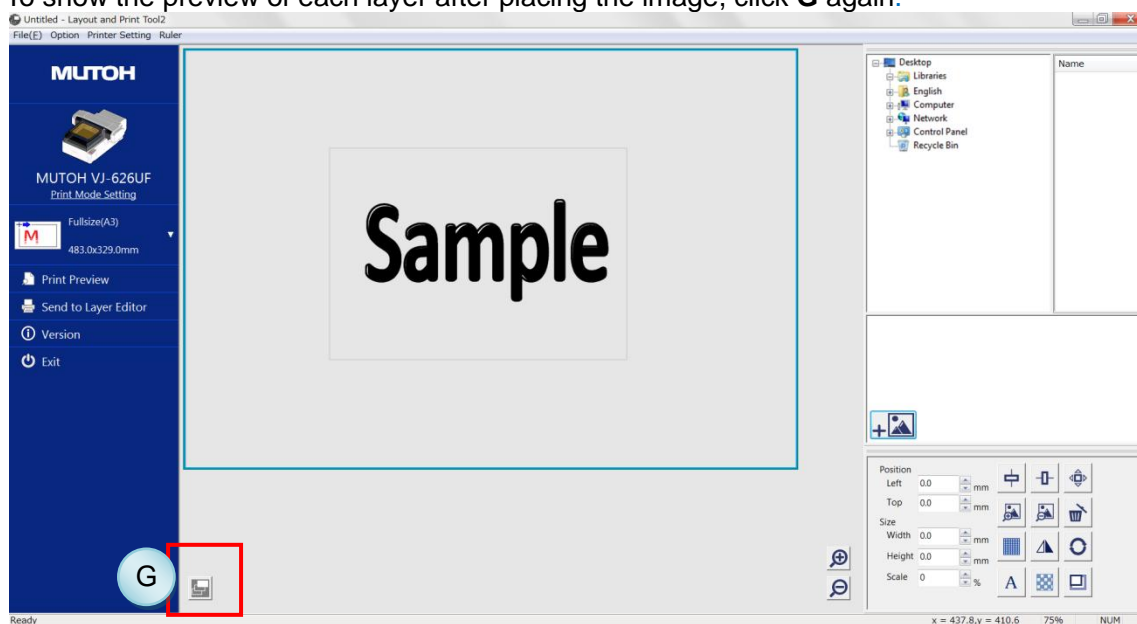
Select the layers you want to print and double-click the layers or click **OK**.  
The selected layer is shown with the blue frame.



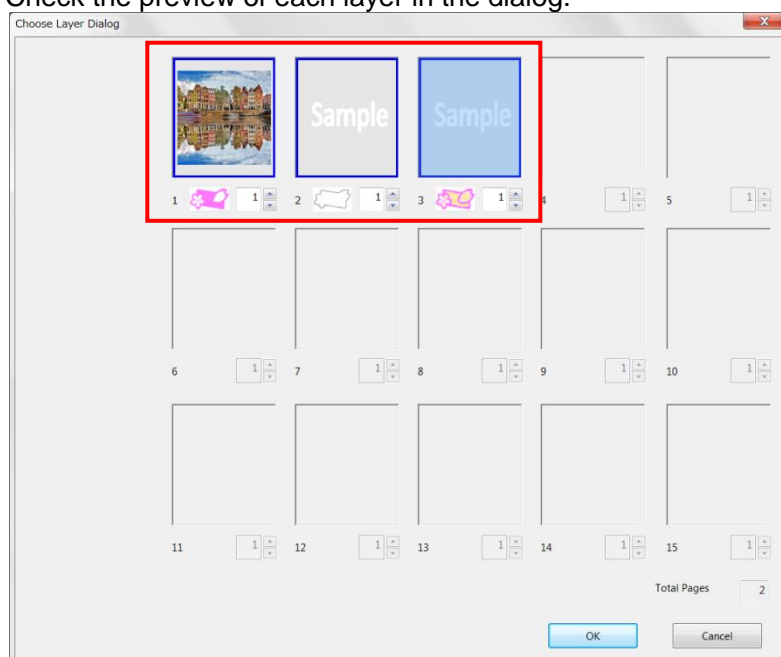
You can adjust the image position from the main screen.



To show the preview of each layer after placing the image, click **G** again.



Check the preview of each layer in the dialog.



You can drag and drop each layer.



#### NOTE

- When swapping the position of Layer 1 and other layer, the confirmation dialog will appear if different print mode settings are applied to those two layers. For more details, see **Swap Layers** in B) Print Mode Setting.


**NOTE**

The last layer with no image and Not available setting is deleted from printing.  
To delete the unwanted layer, follow the steps below.

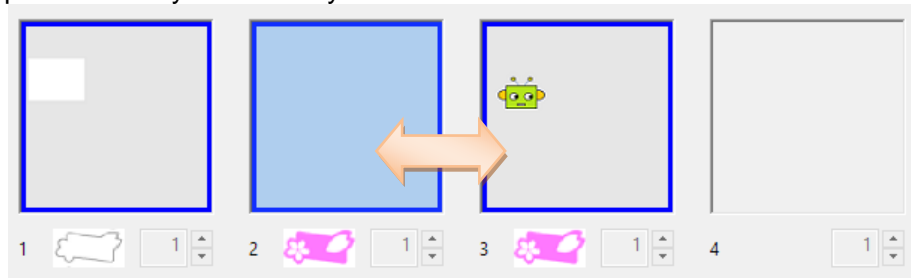
Example) The steps below describes how to delete Layer 2.

An image is added to Layer 1 to Layer 3 respectively.



Double click on Layer 2. Select the image and click  to clear the image from Layer 2.

In the Choose Layer Dialog, drag Layer 2 and drop it on Layer 3 to swap the position of Layer 2 and Layer 3.



Right click on Layer 3 (originally Layer 2) and check **Not available**. Layer 3 will be shown with gray frame.



Close the dialog. The layers with right side gray frame and no image will be deleted from printing.



## B) Print Mode Setting

You can individually specify desired print mode setting per layer.

When newly creating .ladm file, 'Apply Layer 1 print mode setting' is enabled so that a print mode setting which will be specified for Layer 1 will be applied to other layer.

Before printing, specify the print mode setting for Layer 1.

If you want to apply different setting per layer, uncheck **Apply Layer 1 print mode setting** and individually specify desired setting per layer.

When you unchecked 'Apply Layer 1 print mode setting', use one of following options to specify the print mode setting.

### Select print mode file

To reuse a saved print mode setting file, check **Select print mode file**.

In the Print Mode dialog, click Open/Delete button. In the Open/Delete Print Mode Setting dialog, select a print mode setting file and click Apply to load the file. In the initial status, only 'Default' is available.

If you want to newly save a print mode setting,

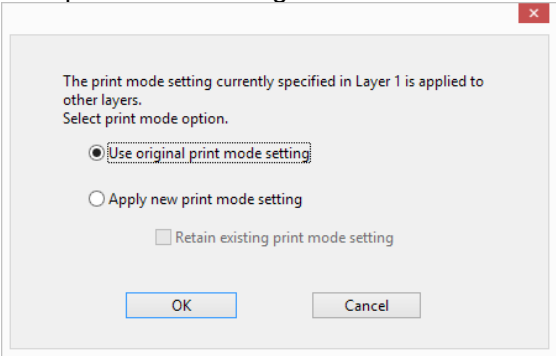
- 1) go to the Print Mode dialog
- 2) check **Specify print mode setting**
- 3) specify the setting
- 4) click **Save** to save the setting.

### Specify print mode setting

If you want to specify desired setting, check **Specify print mode setting**. For more details of each setting, see 7.16.

Swap Layers

When Apply Layer 1 print mode setting is enabled, the print mode setting which specifies for Layer 1 is applied to other layer.  
If you attempt to swap the position of Layer 1 and other layer, the following dialog will appear to select a print mode setting.



**Example)** The following example shows that how print mode setting will be changed when swapping the position of Layer 1 and Layer 3 while following print mode settings are applied to Layer 1 to Layer 3.

Current settings

<div>Layer 1 'Specify print mode setting' is selected. Print mode is set to 'Fine'.</div> <div><div><input checked="" type="checkbox"/> Apply Layer 1 print mode setting</div><div>Print mode dialog value</div><div>Layer 1 Setting</div><div><div><input type="radio"/> Select print mode file</div><div><input checked="" type="radio"/> Specify print mode setting</div></div><div><div>Color Printing</div><div><div><input type="radio"/> Fast</div><div><input checked="" type="radio"/> Fine</div><div><input type="radio"/> Super Fine</div></div><div>Color Balance</div><div><div>Red:</div><div>Green:</div><div>Blue:</div></div></div></div>
--

New settings after swapping the position of Layer 1 and Layer 3

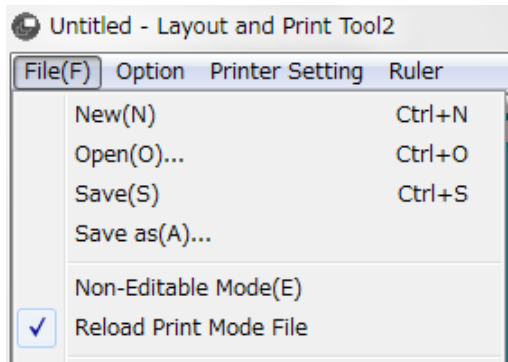
When enabling following options	Print mode settings applied to each layer		
	New Layer 1 (originally Layer 3)	Layer 2	New Layer 3 (originally Layer 1)
<div><input checked="" type="radio"/> Use original print mode setting</div>	<div><input checked="" type="radio"/> Fine</div>	<div><input checked="" type="checkbox"/> Apply Layer 1 print mode setting</div>	<div><div><input checked="" type="radio"/> Fine</div></div>
<div><input checked="" type="radio"/> Apply new print mode setting</div> <div><input type="checkbox"/> Retain existing print mode setting</div>	<div><input checked="" type="radio"/> Fast</div>		
<div><input checked="" type="radio"/> Apply new print mode setting</div> <div><input checked="" type="checkbox"/> Retain existing print mode setting</div>	<div><input checked="" type="radio"/> Fine</div>		

Reload Print Mode File

When you checked 'Select print mode file' to use the saved print mode file, you can also choose from following options:

Options	Details	Print mode display
Apply the print mode file available at the time	The print mode file available at the time when created .ladm file is applied. (Initial Setting)	Reload when loading .ladm
Apply the latest available print mode file	Whenever .ladm file is loaded, the latest print mode setting will be reloaded.	Reload when loading .ladm

To apply the latest available print mode file, check 'Reload when loading .ladm' from the File menu.

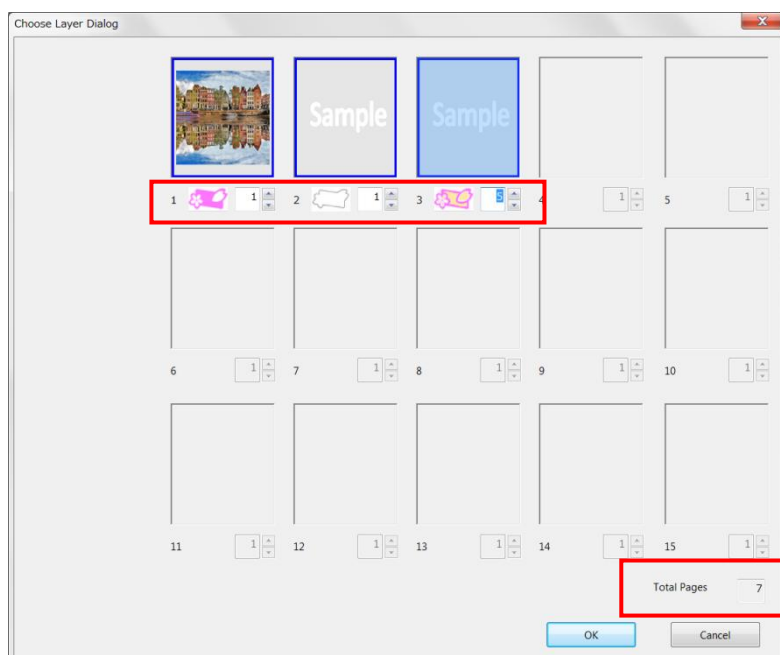
**NOTE**

- Terms of Initial Setting and Default

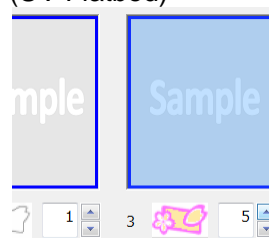
Initial Setting	The factory default setting. If you have changed some of the print mode settings and want to restore the factory default setting, click the Restore Defaults button.
Default	The print mode setting file stored in the folder. In the initial status, the setting in the 'Default' file is the same as 'Initial Setting'. You can rewrite the original setting of Default file. In that case, use a recognizable name to save the file.

## C) Print

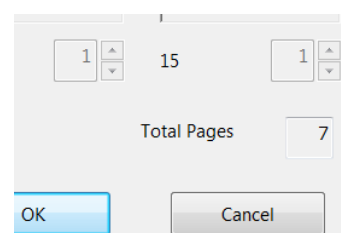
Before printing, check the layer setting from the dialog.



You can specify the multi strike setting on each layer by entering the number or clicking the up/down button.  
(UV Flatbed)

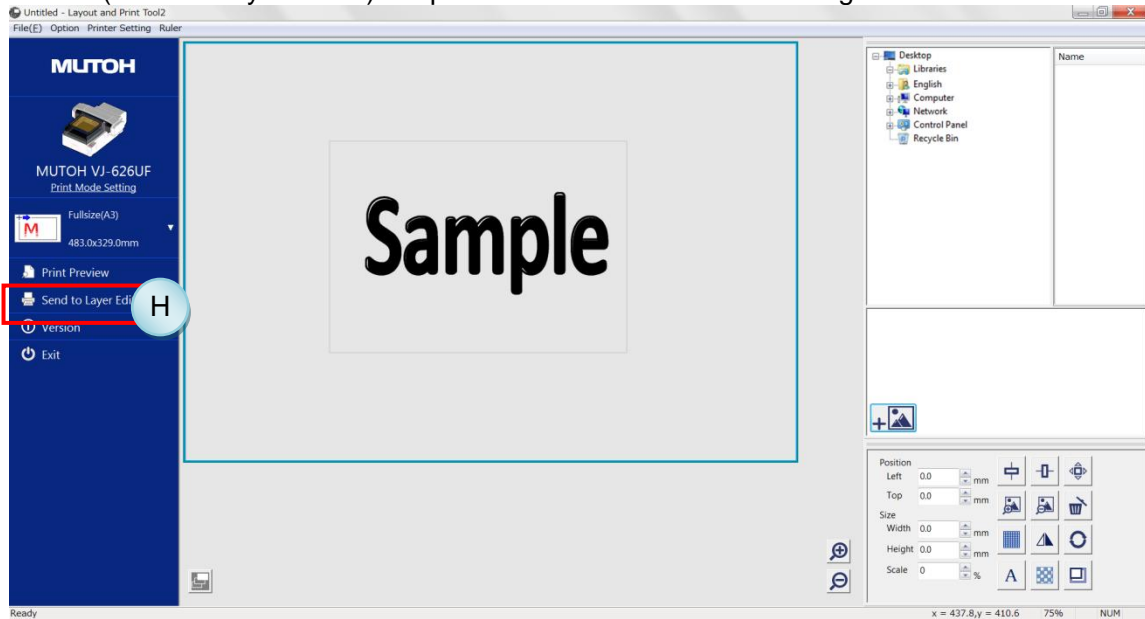


Check the total print pages (including the multi strike setting) in the lower right corner.

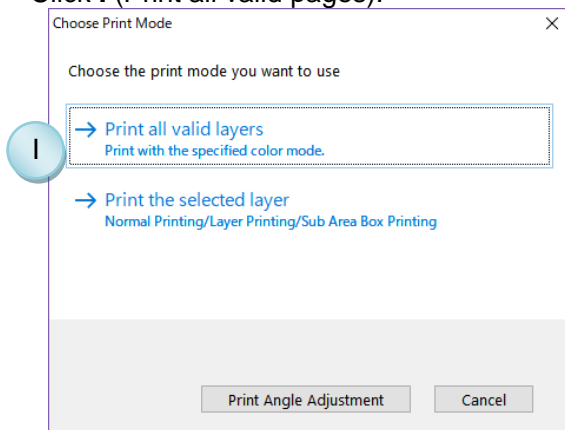




Click **H** (Send to Layer Editor) to open the Choose Print Mode dialog.

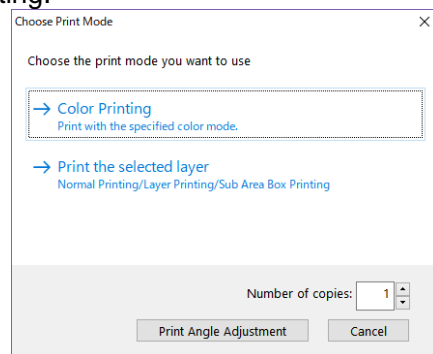


Click **I** (Print all valid pages).



## NOTE

- For roll printer, the following dialog appears since it is not able to perform multi-layer printing.

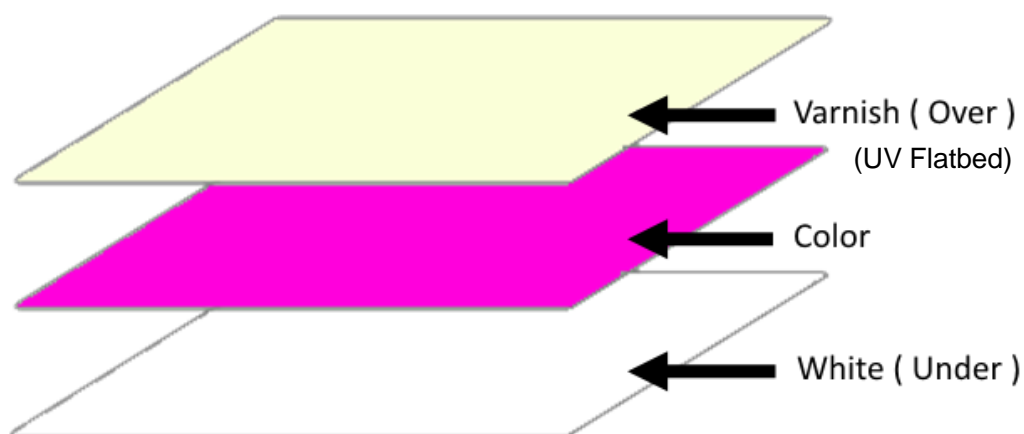


To perform single-layer printing, check Layer Editor in the Output Mode Settings dialog.

## 6.4.2 Automatic Coating Printing

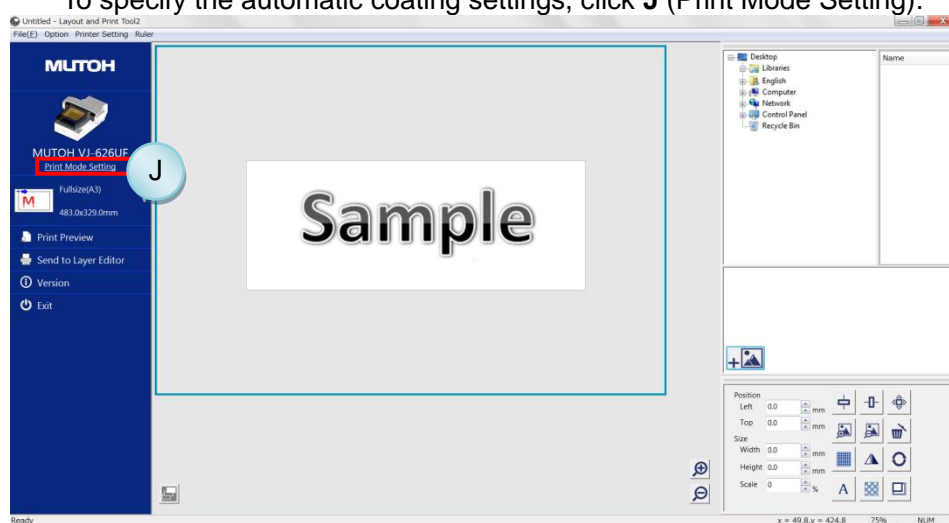
With the automatic coating function, the white underbase and varnish over-coating (UV Flatbed) are automatically added to the selected single color image.

### Automatically Coating Layers

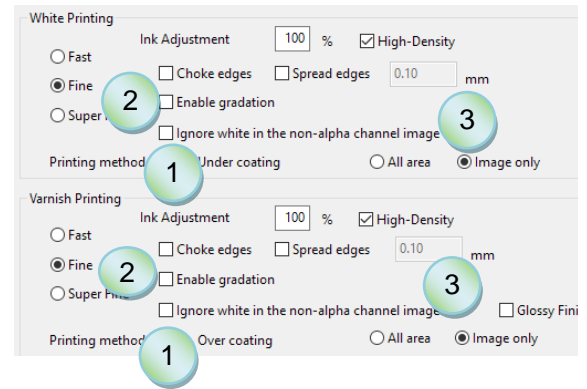
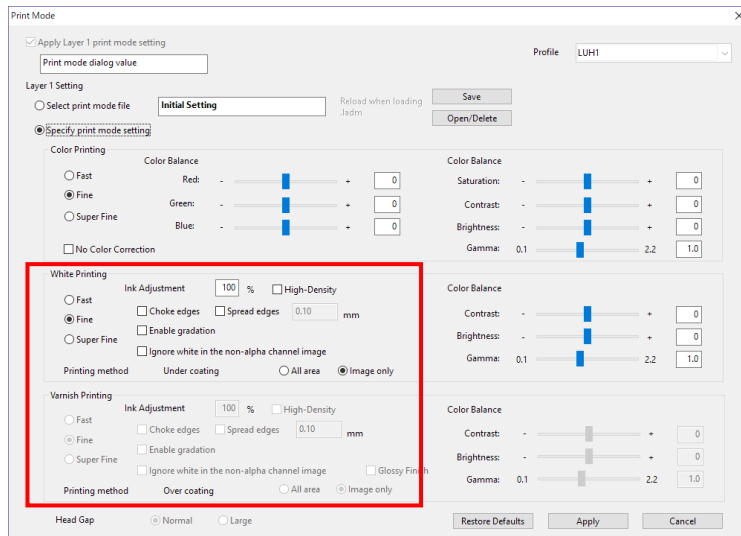


### A) Print Settings

To specify the automatic coating settings, click **J** (Print Mode Setting).



The Print Mode dialog appears.



### 1. Undercoating, Over Coating, All area/Image only

All area: Print the white underbase and varnish over-coating in the same area as specified in 6.2 Media Size Setting.

Image only: Print the white underbase and varnish over-coating only under/over the image.

### 2. Enable gradation

- Check Enable gradation

Remain a gradient of image for white underbase or varnish over-coating.

Convert a color image to black and white (2-tone) image and print it with white ink or varnish.

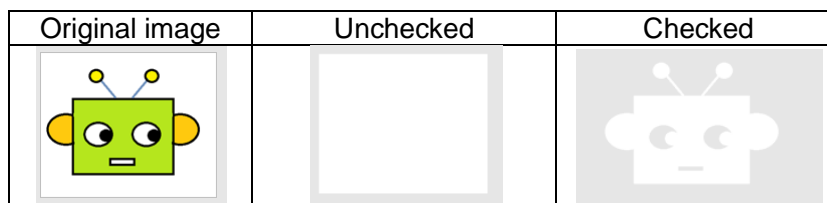
### 3. Ignore white in the non-alpha channel image

- If checked, recognize white objects as transparent objects in a non-alpha channel image.

- Uncheck Enable gradation



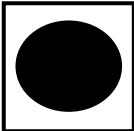
Print a solid white underbase or varnish over-coating without a gradient of image.

Apply a solid printing on all color objects except for transparent object.

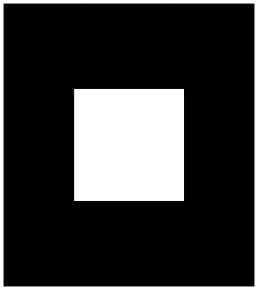
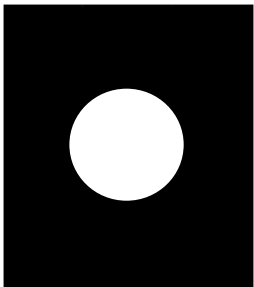


Alpha Channel Image

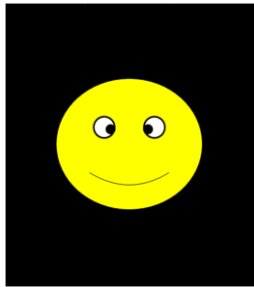
An alpha channel image is an image containing transparency information channel as follows.

Popular image data (= non-alpha channel image)	BMP, JPEG, TIFF, PNG (no transparency contained) 
Image data with transparency (= alpha channel image)	TIFF, PNG with transparency contained   Transparency or opacity of a color should be defined in the alpha channel of the image data.

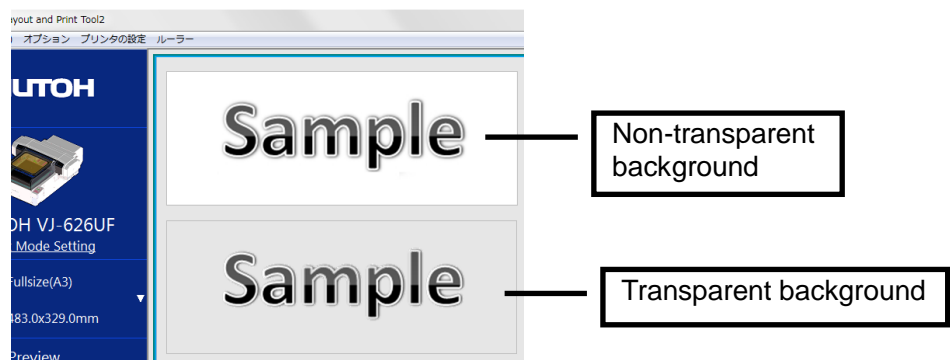
White Data Printed Result

Popular image data	Image data with transparency
	

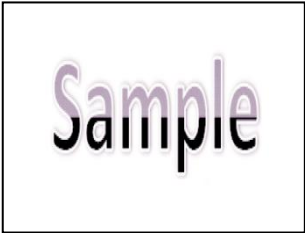


Color-on-White Printed Result

Popular image data	Image data with transparency
	

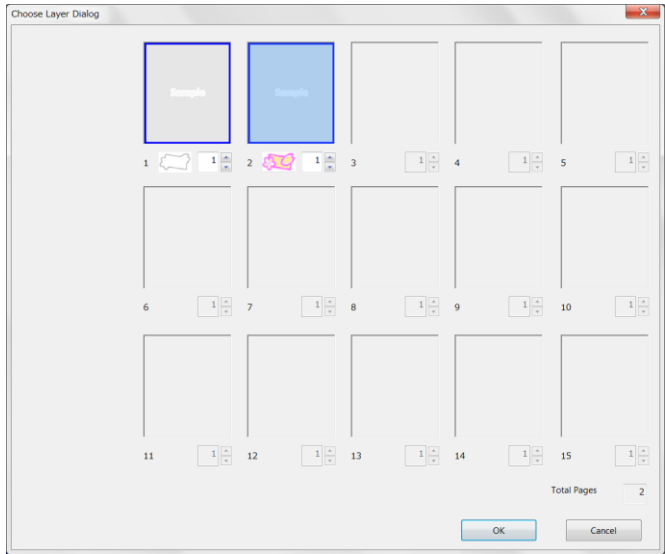
Before checking/unchecking Enable gradation, you can check whether the background of the image is transparent or not from the printable area.



The gradation setting is applied on the images inserted in the printable area as below:

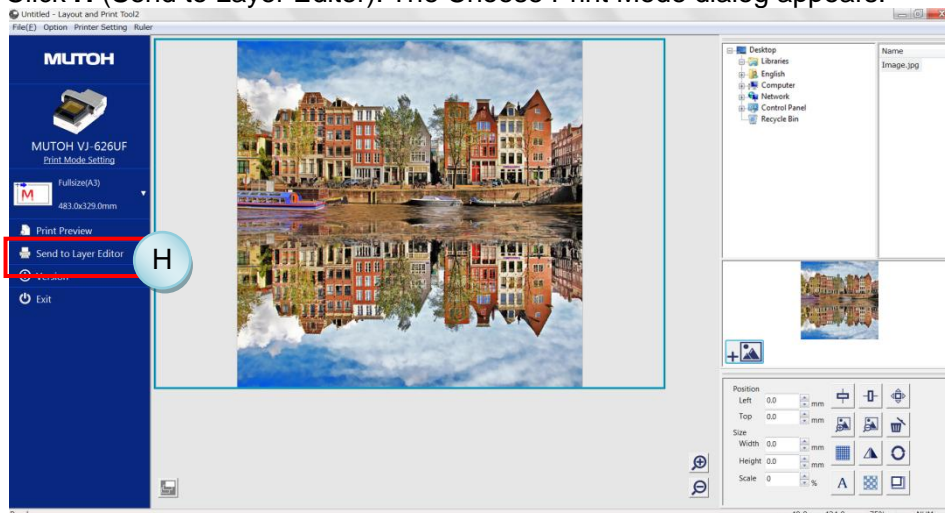
Original Image (Non-transparent background)	Check Enable gradation	Uncheck Enable gradation
		

You can check the selected layers from the Choose Layer dialog.  
The dialog shows the image preview and color mode.  
For the layer setting, see 6.4.1 Multi-Layer Printing A) Multi-Layer Setting.

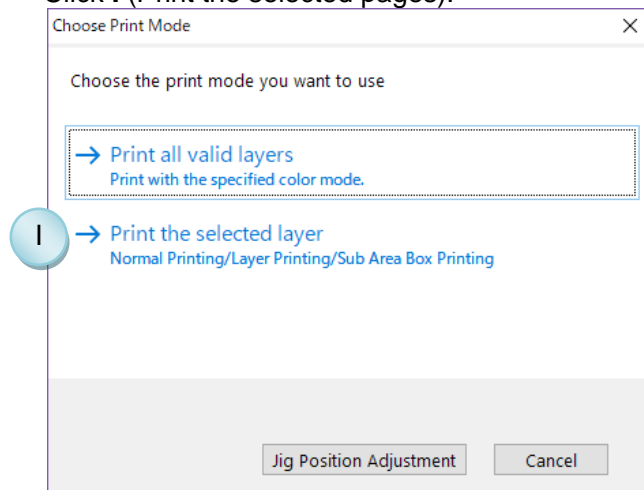


B) Print

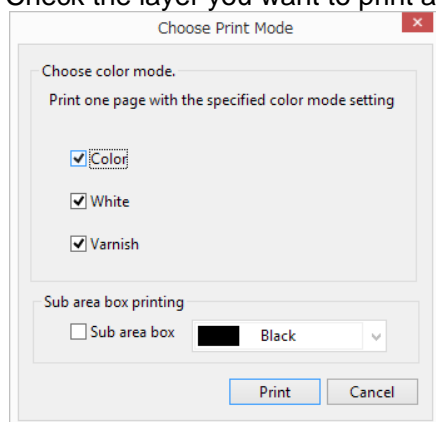
Click **H** (Send to Layer Editor). The Choose Print Mode dialog appears.



Click **I** (Print the selected pages).

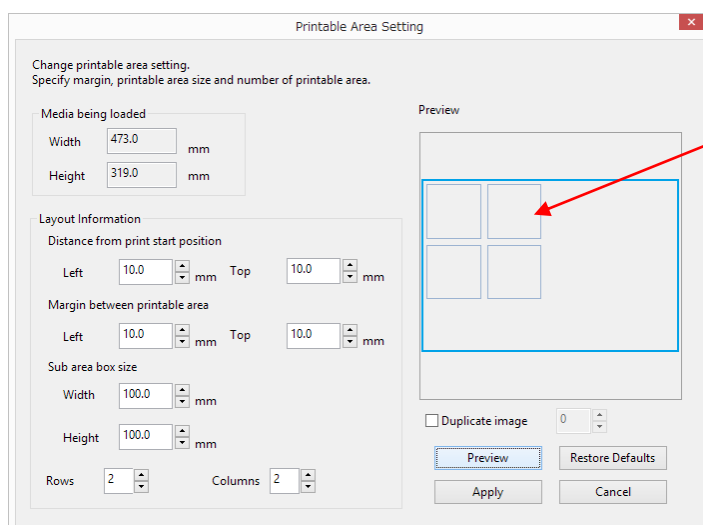


The Choose Print Mode dialog appears.  
Check the layer you want to print and click **Print**.

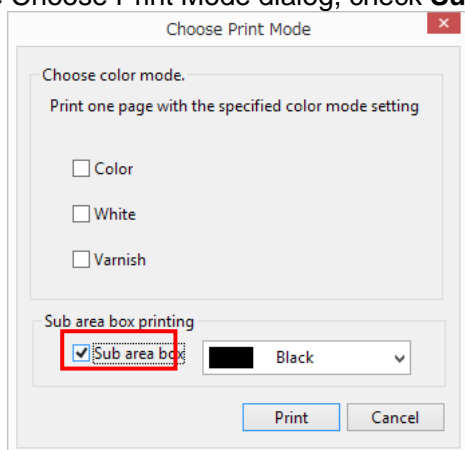


## C) Sub Area Box Printing

You can print each sub area created in the printable area (specified by arrow).

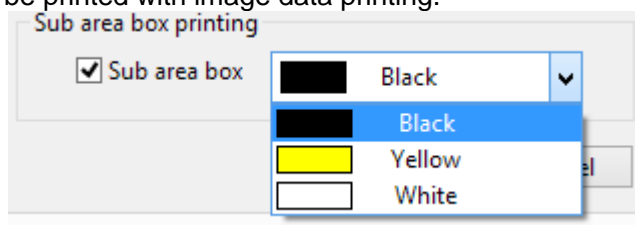


In the Choose Print Mode dialog, check **Sub area box**.



Choose black, yellow or white for sub area box printing.

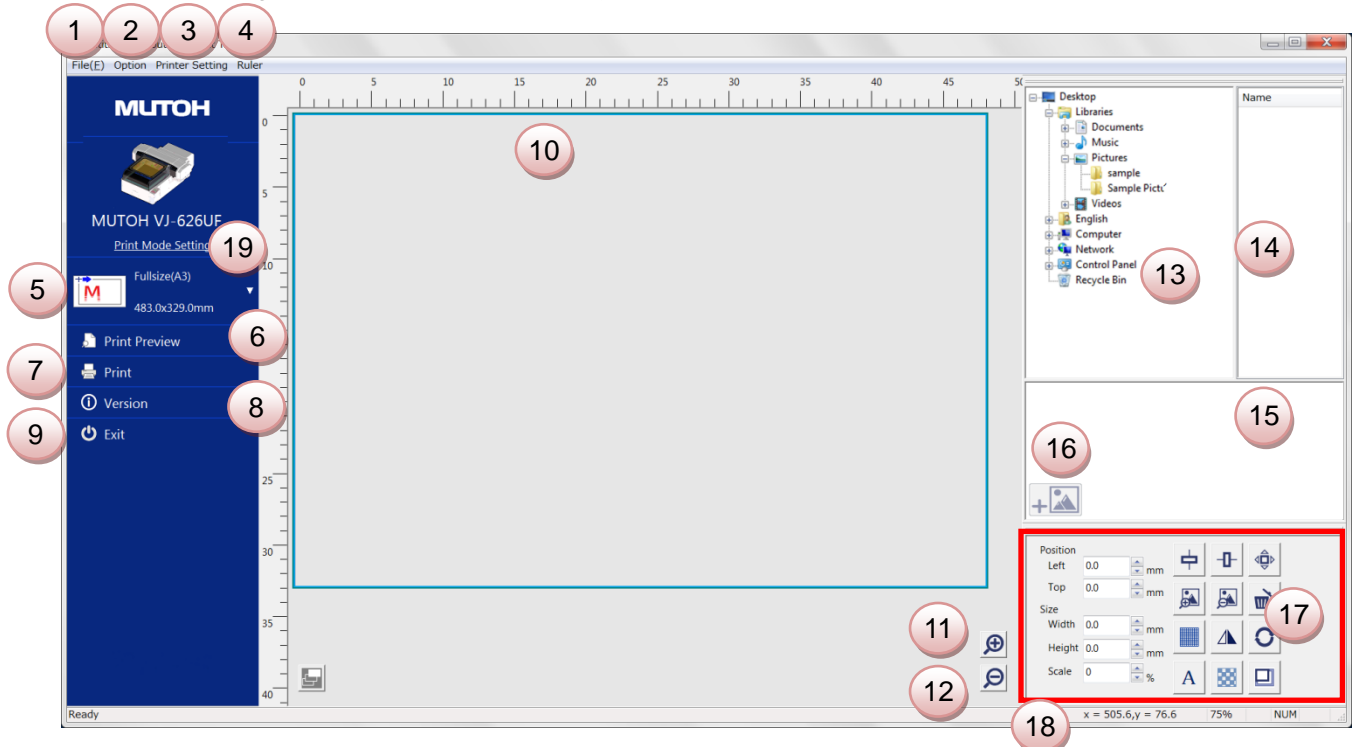
If the color mode for automatic coating printing is also specified in this dialog, the sub area box will be printed with image data printing.



## 7 Functions

### 7.1 Main Screen

The following screen will appear when Layout Tool 2 starts.



1	File Menu	Create a new file, load an edited file and save a file.
2	Option Menu	Opens Language Setting menu.
3	Printer Setting Menu	Opens Select Printer menu.
4	Ruler Menu	Show or hide rulers. Show or hide guides.
5	Choose Media	Choose the media size for printing.
6	Print Preview/Edit	Switch the printable area between the print preview mode and edit mode.
7	Print/Send to Layer Editor	Displays the output destination (Print or Send to Layer Editor) specified in the Output Mode Settings dialog.
8	Version	Displays the application version.
9	Exit	Exit the Layout Tool 2.
10	Printable Area	Indicates the printable area with blue frame.
11	Zoom in	Zoom in the printable area.
12	Zoom out	Zoom out the printable area.
13	Folder Tree	Displays the folder tree to select a file.
14	Image File List	Displays a list of image files to select from.
15	Image Preview/Text Edit Window	Displays the Image Preview of the file selected from 13/14, or displays the Text Edit Window to insert text.
16	Insert the image/Insert or Update Text	Insert the selected image to the printable area. Insert a text.

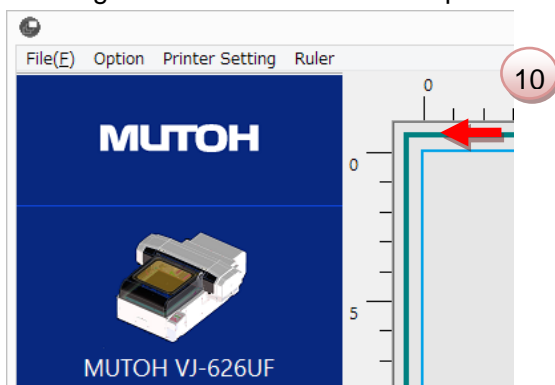


17	Edit Buttons	Displays the edit buttons. For details, see 7-10 Align the image 7-11 Image Preview/ Text Edit Window. 7-12 Insert Text 7-14 Make Specific Color Transparent
18	Information Field	Displays the current mouse position and the zoom percentage value of the printable area.
19	Print Mode Setting	Open the Print Mode dialog.

## 7.2 Printable Area

The printable area is indicated with blue frame (10).

For origin in the Edit Area and print orientation, see 5.1.Change Origin Setting.

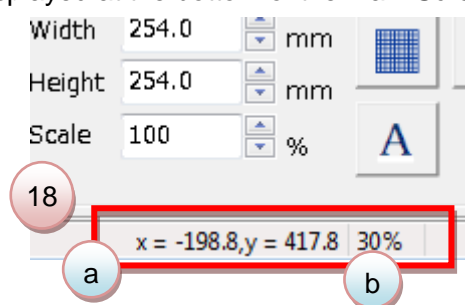


10	Printable area (blue frame)	Indicates the printable area.
	Media size (bold green line)	Indicates the media size for printer driver.
	Origin (green square mark)	Indicates <ul style="list-style-type: none"> <li>• print start position on the design</li> <li>• origin in the Edit Area and ruler zero point.</li> </ul>

In some printer models or print modes, the actual margin is not shown between the blue frame and bold green line.

## 7.3 Information Field

The current mouse position and zoom percentage value of the printable area are displayed at the bottom of the Main Screen.

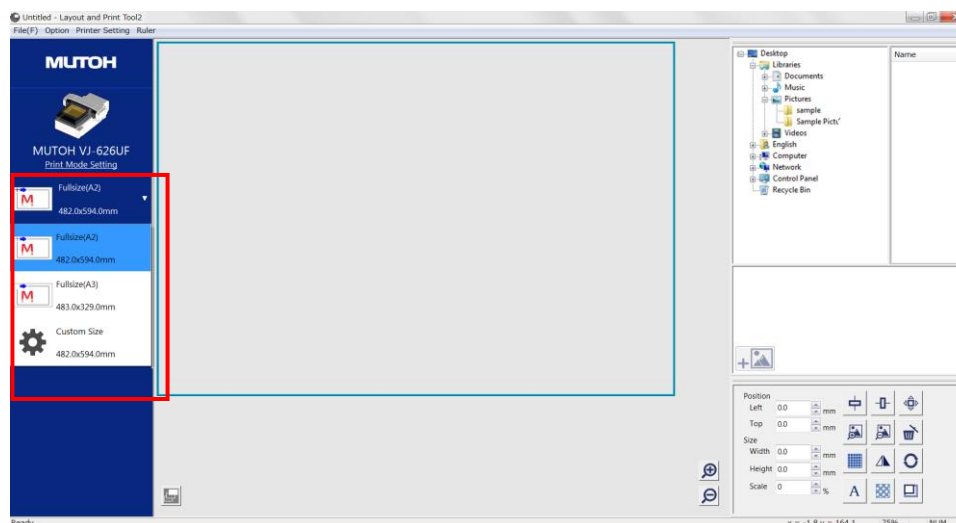


\*Unit: mm

18	a	Mouse position	Indicates the exact X and Y position of your mouse from the upper left corner of the printable area.
	b	Zoom percentage	Indicates the current zoom percentage of the printable area.

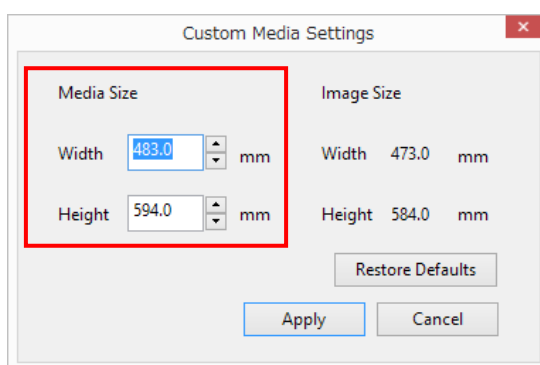
## 7.4 Select Media

Click the drop-down list of **5** and choose the media size that you want to use.



For Available Media Size, see 2.2 Printable Media Size

When selecting Custom Size from the list, the Custom Media Settings dialog appears. Directly enter the width and height or click the up/down button to specify the value.

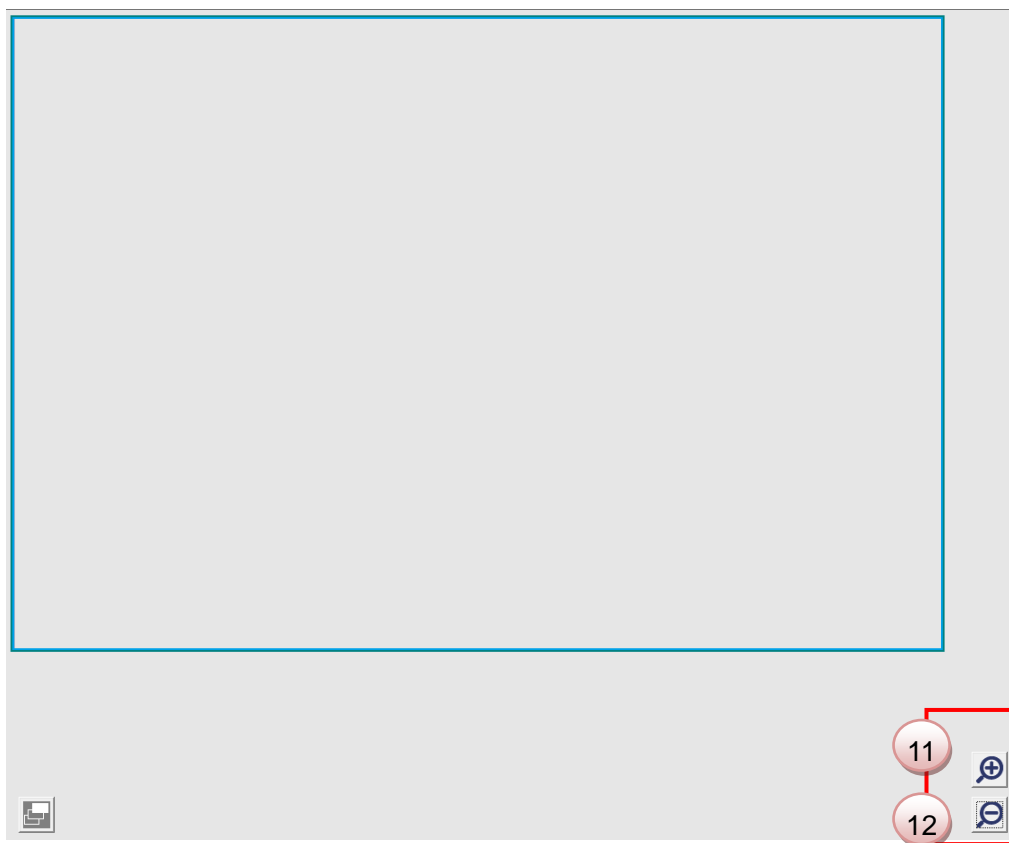


### NOTE

For the printer models which automatically leaves margin, 5 mm from media edges are not printable.

## 7.5 Zoom Printable Area

To zoom the printable area, click **11** (+ button) to zoom in and click **12** (- button) to zoom out.



The zoom percentage:

25%, 30%, 35%, 40%, 45%, 50%, 75%, 100%

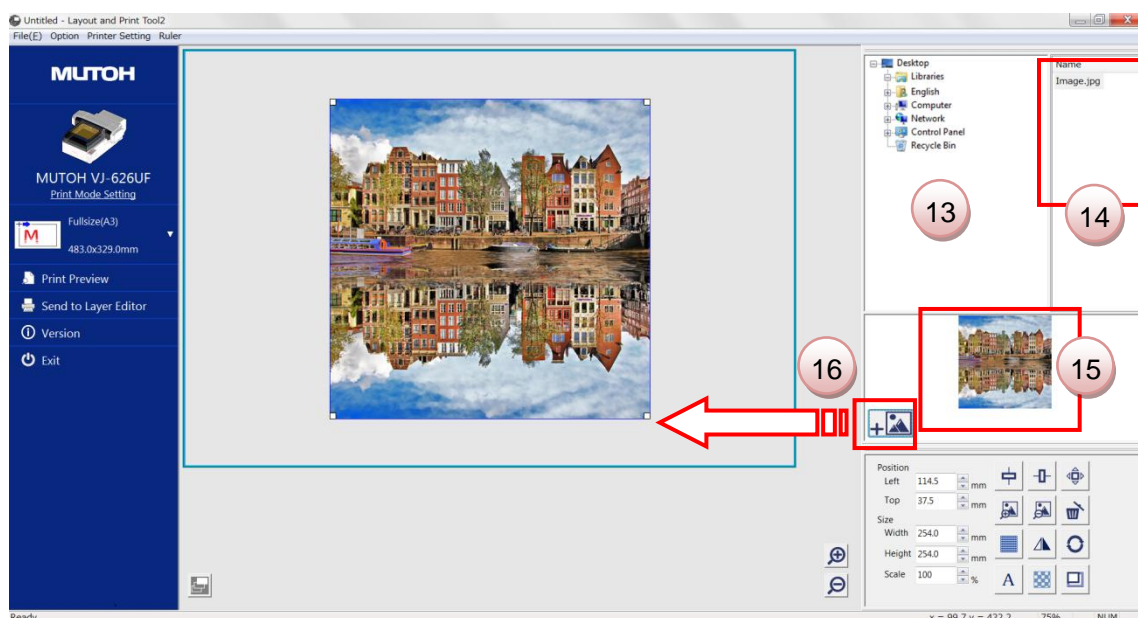
## 7.6 Insert Image

This section explains how to insert an image to the printable area.

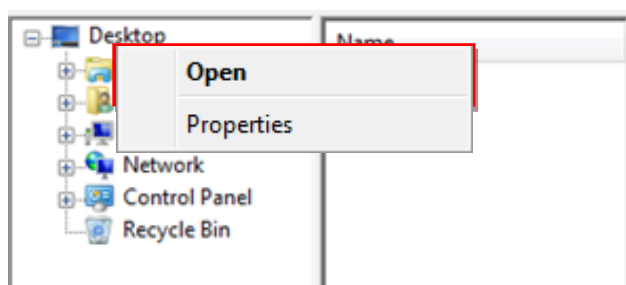
Select the folder of the image file from **13**. The list of image files will be displayed in **14**.

Use one of the following methods to insert the image.

- Double-click the file in **14**.
- Drag and drop the image from **15** using mouse.
- Click on the image file in **14** and then click **16**.
- Directly drag and drop files from Explorer (You can insert multiple files).



To edit an image file in graphic software, right click on the folder in **13** and click **Open** to open Explorer.

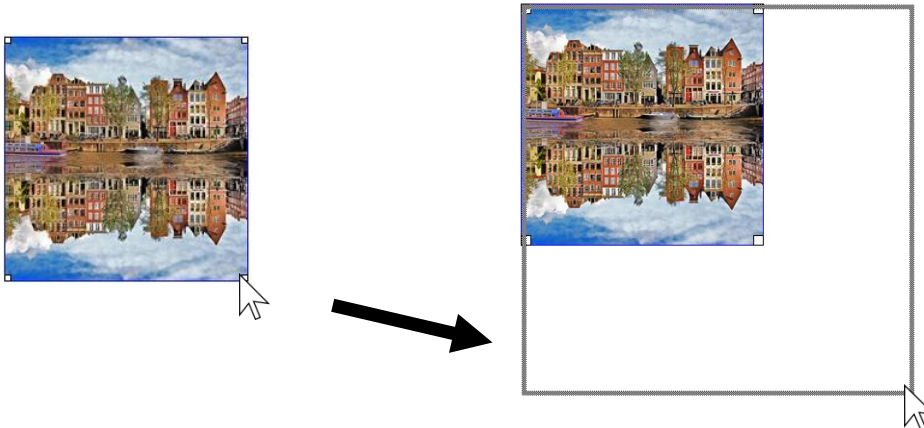


## 7.7 Resize & Move Image

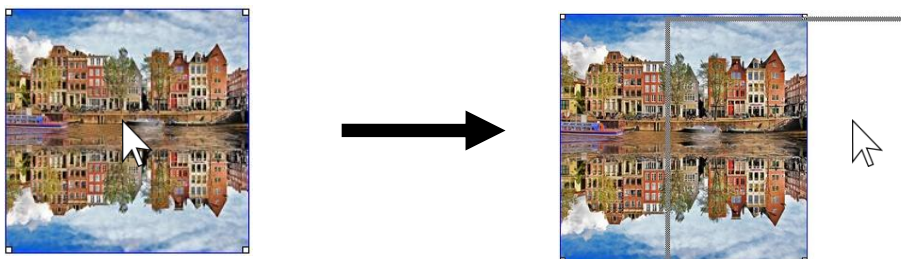
To resize or move an image, click on the image so that corner handles appear on each corner of the image (shown in red box below). If multiple images are inserted to the printable area, click the image that you want to resize or drag.



To increase or decrease the size, drag a corner handle away from or toward the center of the image so that a gray line appears to indicate the resized image size.



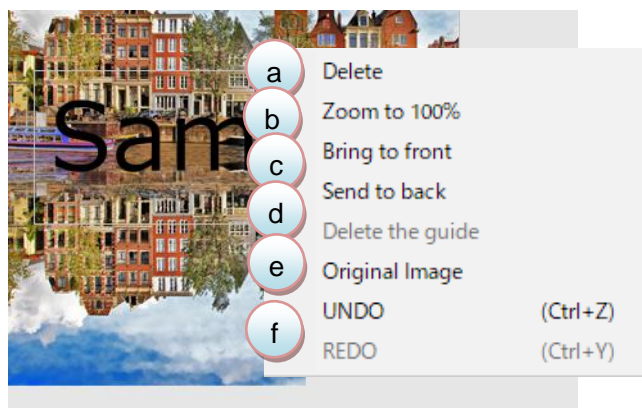
To move an image, click on the edge of the image (except corner handles) and drag to the area you want to move. A gray line appears to indicate the moved location.



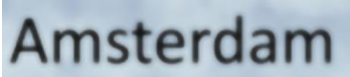



## 7.8 Image Edit Menu

The edit menu appears when you right-click on the image in the printable area.

Five editing functions are available; Delete, Zoom to 100%, Bring to front, Send to back, Original Image. When more than 1 image is inserted to the printable area, “Bring to front” and “Send to back” functions will be valid.



a	Delete	Delete the image you selected.	
b	Zoom to 100%	Restore the zoom to 100% after rescaling.	
c	Bring to front	This function is valid when you inserted more than 1 image to the printable area. To bring the image to the front of layering images, right-click on the image and click <b>Bring to front</b> .	
d	Send to back	This function is valid when you inserted more than 1 image to the Edit Area. To send the image to the back of layering images, right-click on the image and click <b>Send to back</b> .	
e	Original Image	When you insert a larger image than the printable area, this image will be interlaced (decrease its resolution). To display the image with its original resolution, check <b>Original Image</b> .	
		Interlaced image	Non-interlaced image
		 Original Image	 Original Image
			
f	Undo / Redo	You can undo or redo a last editing action. Right-click on the image to select Undo or Redo. Or undo by pressing [ctrl] + [z] keys, redo by pressing [ctrl] + [y] keys as shortcuts.	

## 7.9 Print Preview Mode/Edit Mode

Switch the printable area between the print preview mode and edit mode.

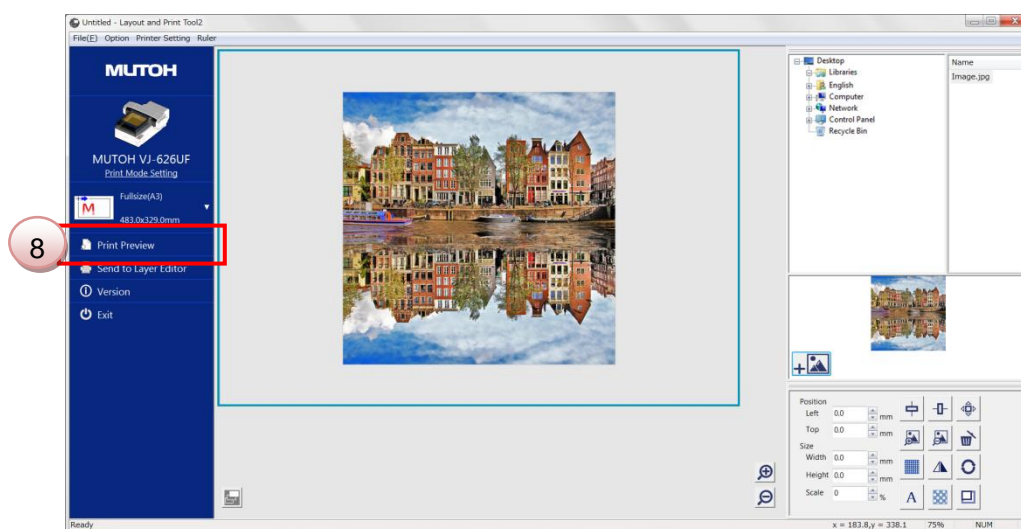
To switch the mode, click **8 Print Preview/Edit Mode**.

Use the edit mode to edit an inserted image. After editing, click **8** to change the printable area to print preview mode to see how the design will look when you print it.

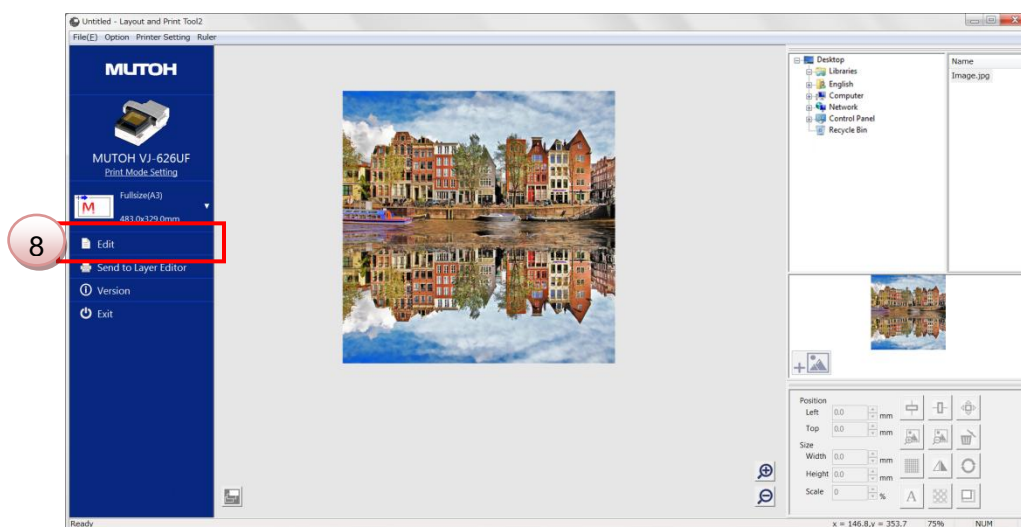
In the print preview mode, you cannot edit the image.

If you want to switch back to the edit mode, click **8** again.

### Edit Mode



### Print Preview Mode

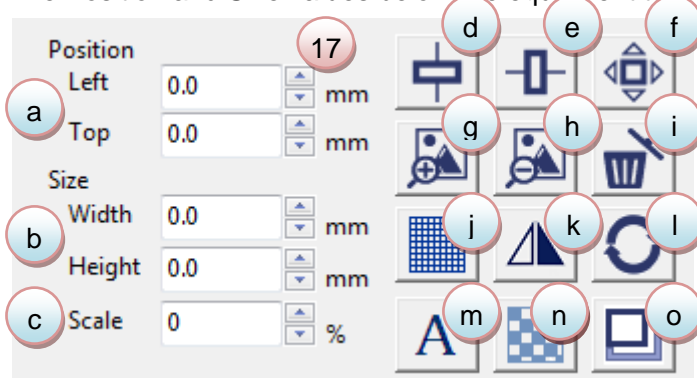


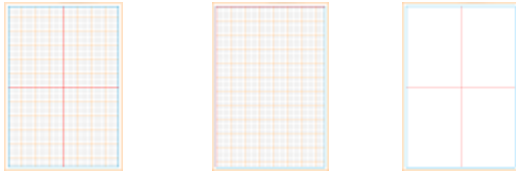


## 7.10 Align the Image

Align the image placement with **17** Edit Buttons.

The Position and Size values below are equivalent to the actual print position and size.



17	a	Position *1	Displays the image position from the upper left corner (editable).
	b	Size *1	Displays the image size (editable).
	c	Scale *1	Displays the scale of the selected image. You can directly enter the scale value to change the scale of the image.
	d	Vertical Align Center *1	Aligns the images to vertical center.
	e	Horizontal Align Center *1	Aligns the images to horizontal center.
	f	Fit to Printable Area	Optimizes the image to the largest size such that fits entirely within the printable area and centers the image.
	g	Scale up *1	Scales up the inserted image.
	h	Scale down *1	Scales down the inserted image.
	i	Clear the image	Clears all inserted images. The confirmation dialog will appear.
	j	Mesh View	Displays the grid lines in the printable area. The following 3 mesh views can be switched by clicking this button.  Mesh 1      Mesh 2      Mesh 3
	k	Flip Horizontal *1	Flips the image horizontally.
	l	Rotate Image *1	Rotates the image by 90 degrees with each clicking.

17	m	Image Preview/ Text Edit Window	Switch between Image Preview and Text Edit Window. For details, see 7-11 Image Preview/Text Edit Window.
	n	Add Transparency	Make specific color transparent. For details, see 7-14 Make Specific Color Transparent.
	o	Crop/Reset	Crop a specific area from the selected image. For details, see 7.15 Crop Image.

**NOTE**

\*1 When more than one objects are selected using the mouse, the function is applied to all the selected objects.

To select all objects in the printable area, use the Ctrl-a keyboard shortcut.

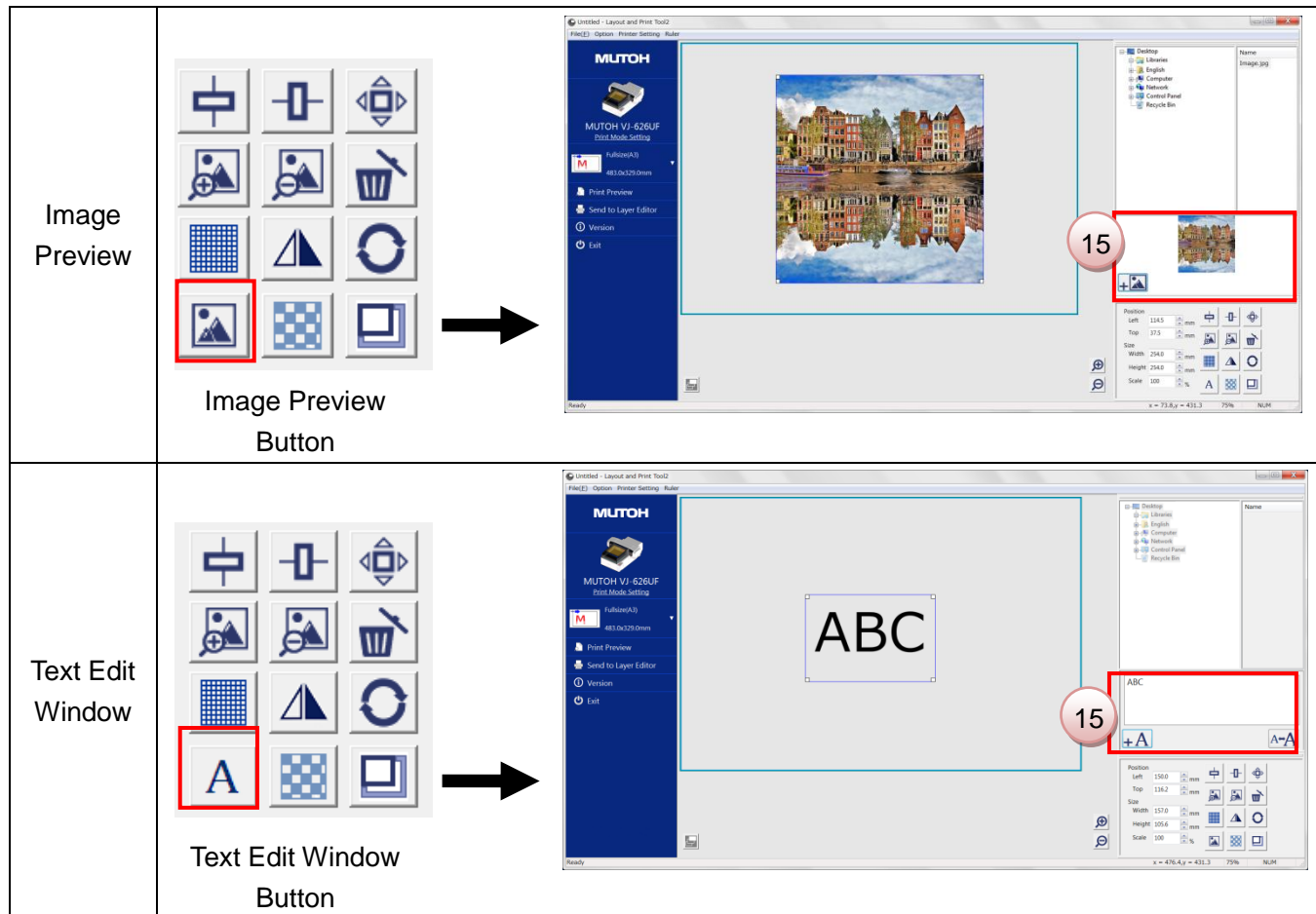
To select more than one objects using the mouse, see 7.31 Copy and Paste Object.

---

## 7.11 Image Preview/ Text Edit Window

Switch the data to be edited between the Image Preview and the Text Edit Window by clicking the Image Preview/ Text Edit Window button in 17 Edit Buttons.

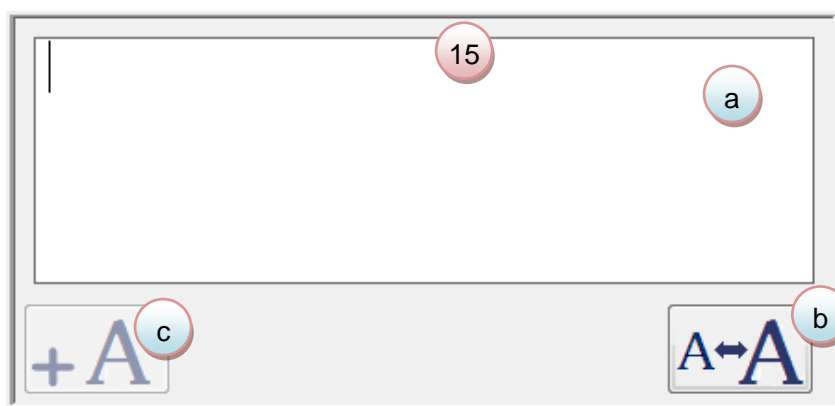
When switching this pane, the icon shown on the left bottom of this pane and on the button will also be changed.



## 7.12 Insert Text

Click the Image Preview/Text Edit Window button to switch this pane to Text Edit Window.

In this menu, you can enter text, select font, and insert or update it into the printable area.

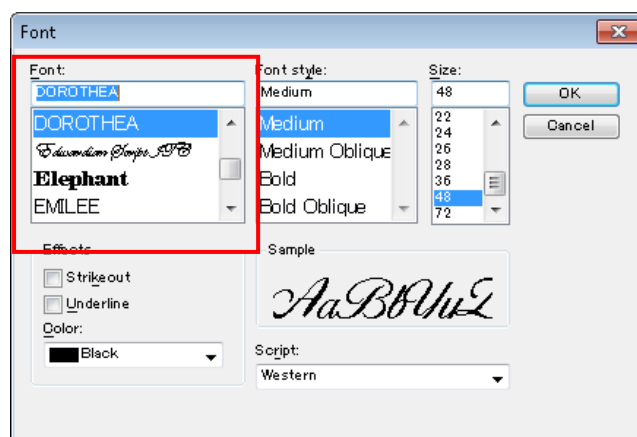


⑮	a	Text Entry Box	Enter text you want to insert to the design.
	b	Font Settings	Click here to open the Font Settings Dialog.
	c	Insert/Update	Insert the text to the printable area or update the text inserted to the printable area. This button will be enabled, when you enter text in the Text Entry Box.

### Windows Font Settings

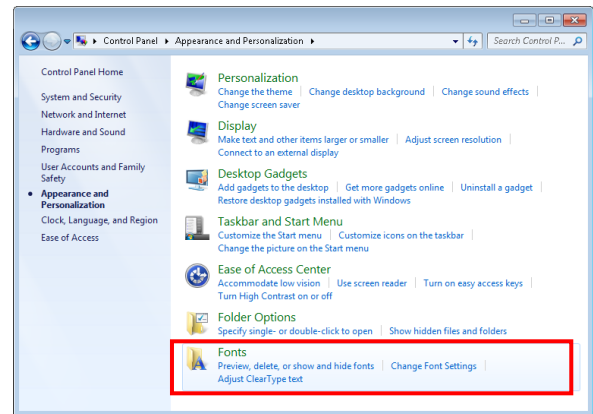
Click **b. Font Settings** to open the Font Settings Dialog.

Available Windows fonts will be listed in the Font option.

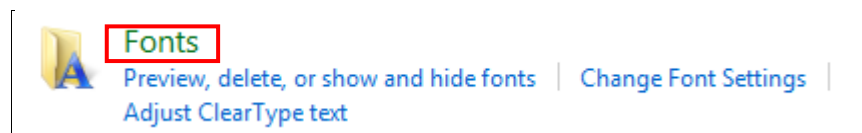


If you cannot find a Windows font you want to use from the list, follow the procedures below to show the hidden font.

Control Panel → Appearance and Personalization → Fonts

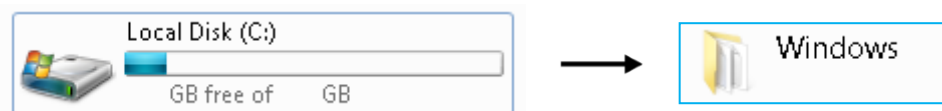


Click **Fonts**.

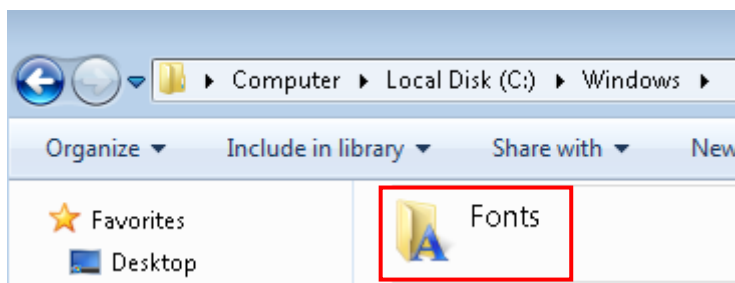


or

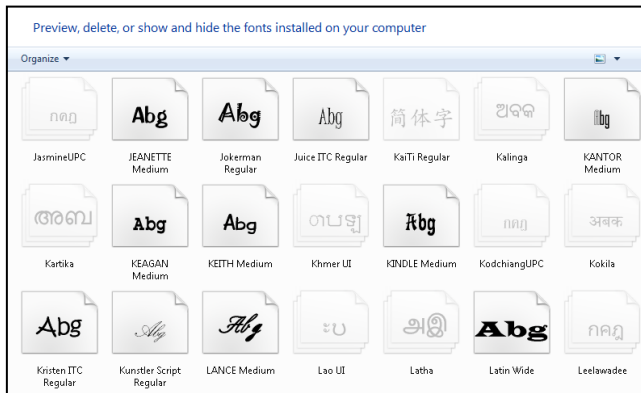
Start Button → Computer → Local Disk  
→ Windows → Fonts



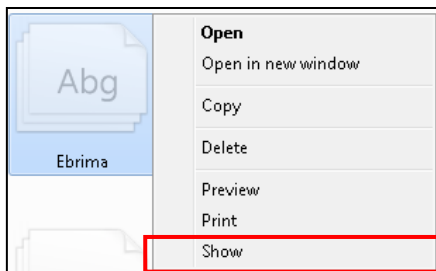
Double-click **Fonts** to open the Font folder.



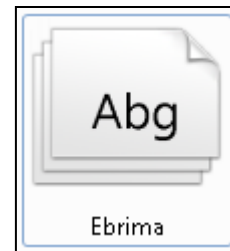
The Font folder stores all installed fonts including the hidden (transparent) fonts. The hidden fonts cannot be used for common applications.



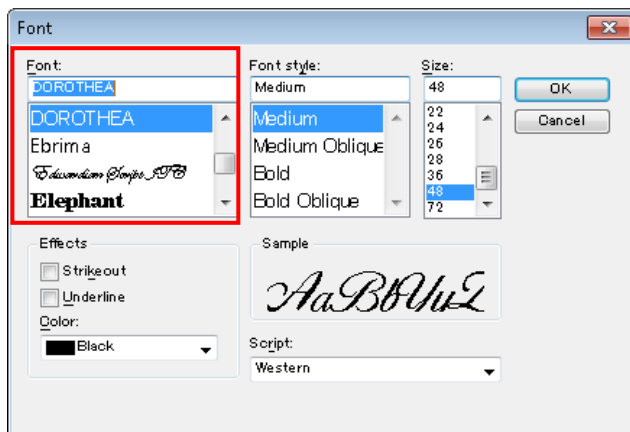
To show a font, right-click the icon and click **Show**.



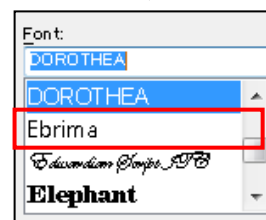
The font icon appears.



Check the list.



The font appears in the list.

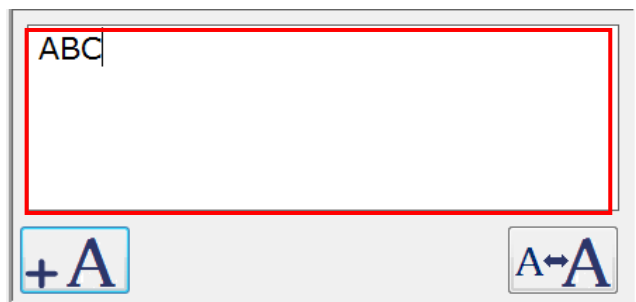


## NOTE

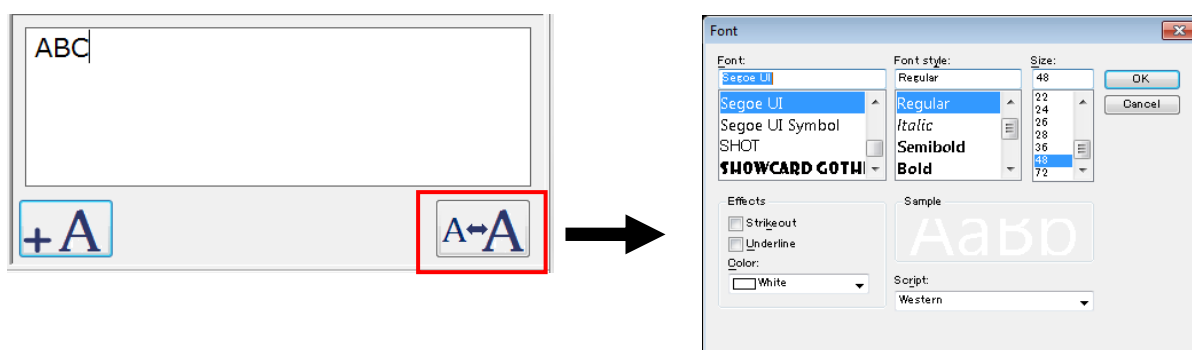
- Having too many fonts in the list can slow down some application performance.

The following procedures describe how to insert a text to the printable area.

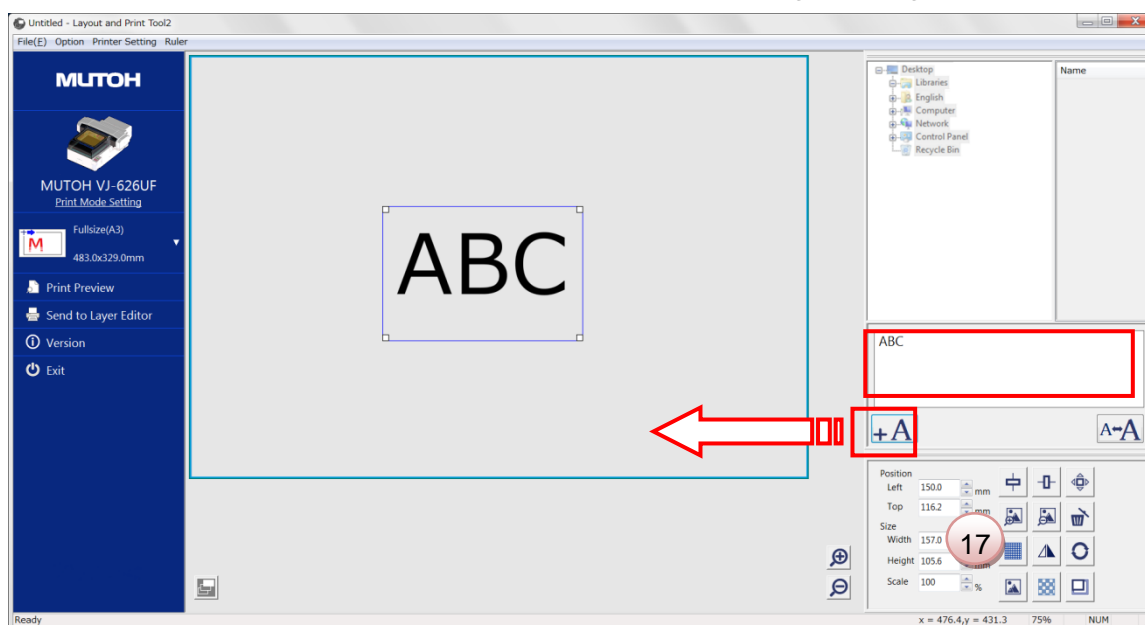
Enter your text in the Text Entry Box.



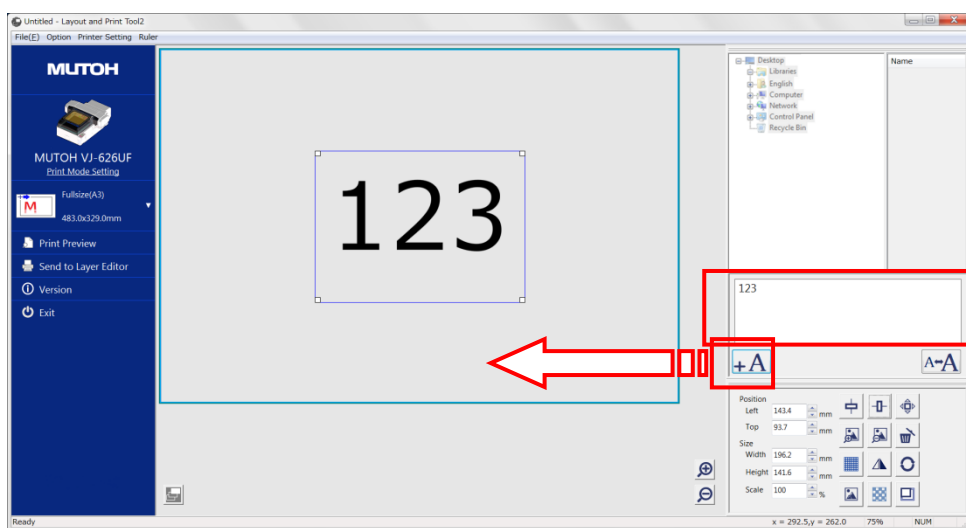
Click **Font Settings** to display the Font Settings dialog and change the font style.



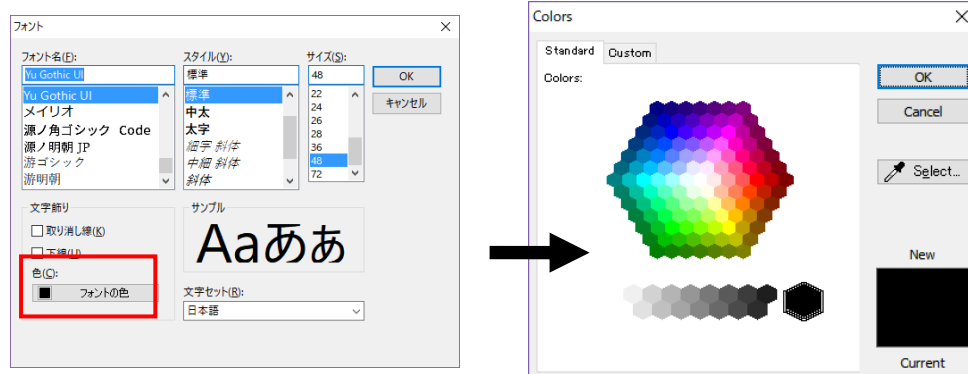
After changing the font style, click **Insert/Update** to insert the text to the printable area. Use 17 Edit Buttons to scale up/down or move the text as editing the image.



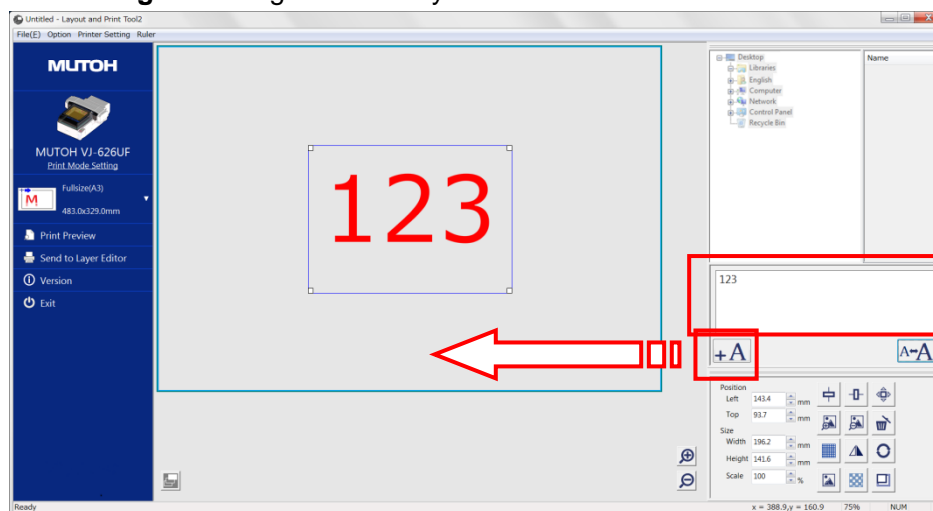
To update the text, enter a new text in the Text Entry Box and click **Insert/Update**.  
Before clicking, make sure to select the target text in the printable area.



To change the color of font, go to the Font dialog to select the color you want.



Click **Font Settings** to change the font style.





If no text is selected in the printable area, a new text will be inserted by clicking Insert/Update.

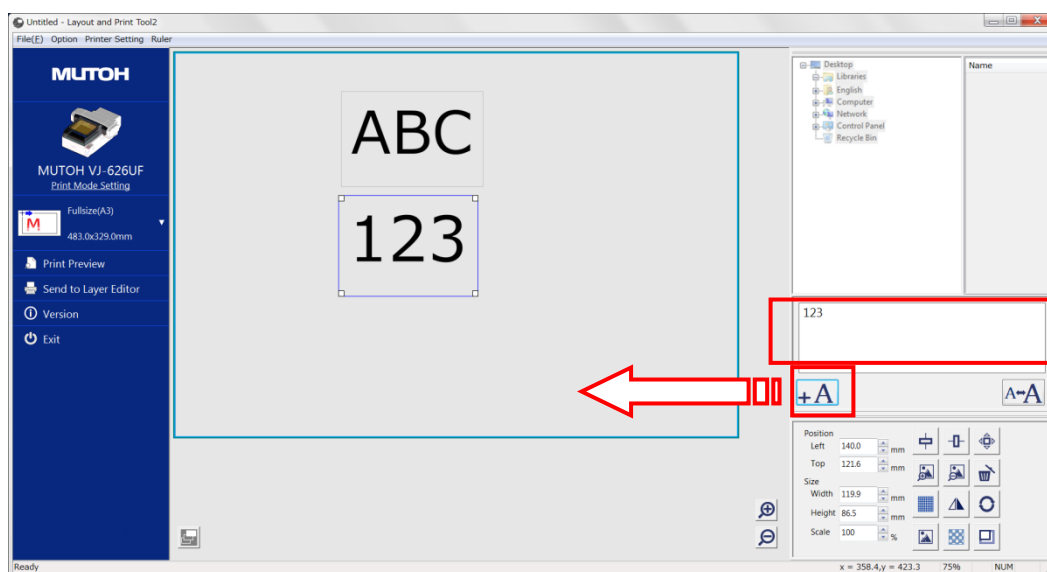
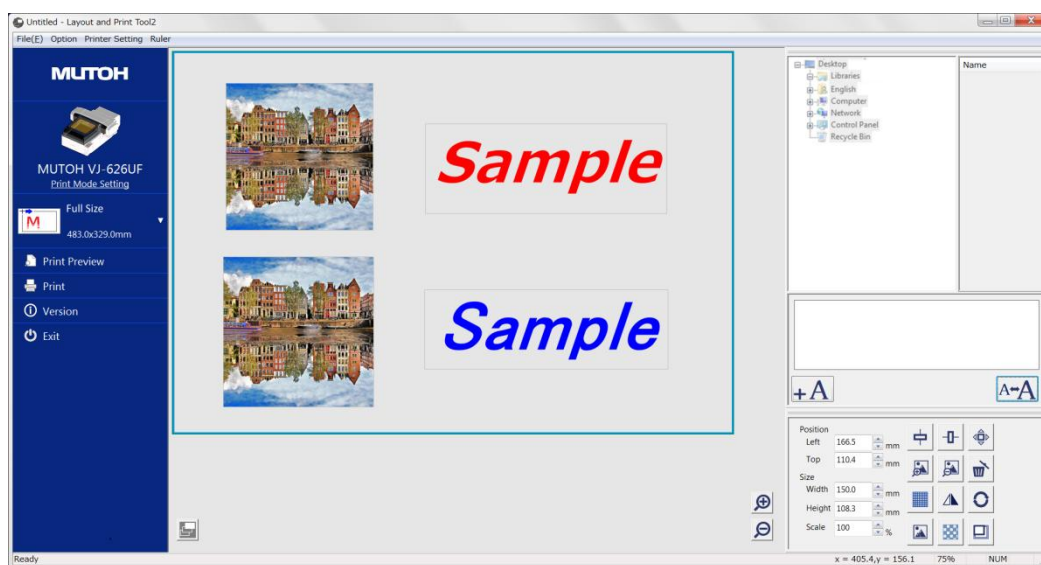


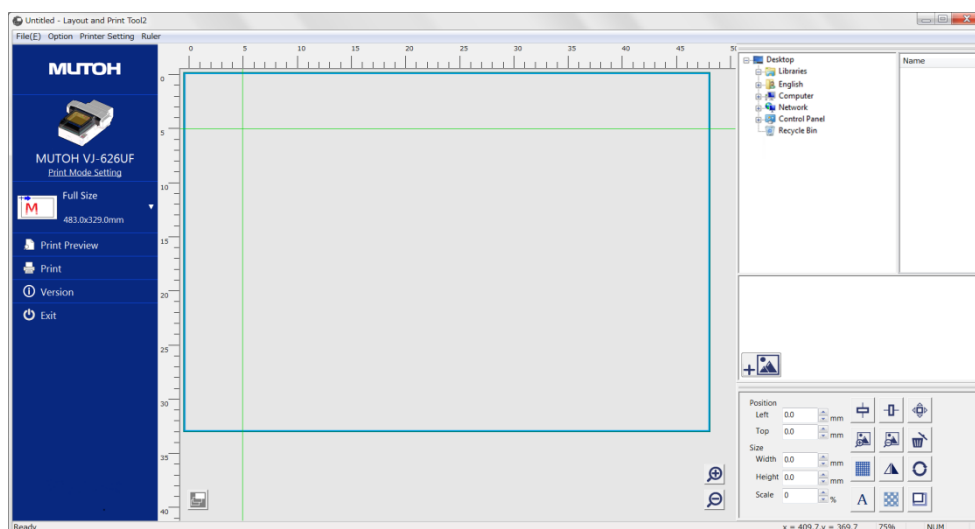
Image and text can be edited at the same time.



## 7.13 Ruler and Guides

You can place rulers and guides from the Ruler menu.

Once the rulers appear, they will remain at the next boot.



The image data can be saved including guides setting with .lad file. When you insert the file into the printable area again, the guides will appear on the image. You can also save the guides setting without image data to use as template file.

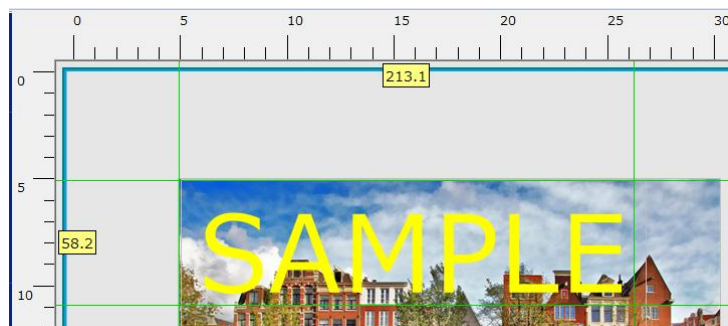
Use the guides as follows:

### **As a Mark:**

- Position a one-point mark or text
- Indicate a print start position for a user defined template
- Indicate a tag position on the media.

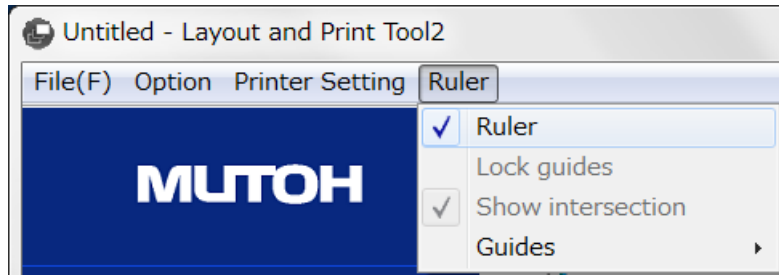
### **Measure Spacing:**

- Measure each spacing to see the actual text size.



## A) Rulers

Check **Ruler** to show rulers.



### NOTE

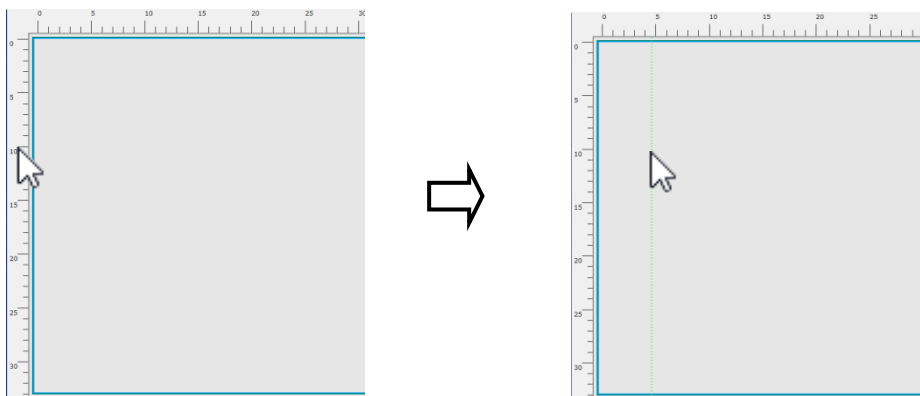
- Depending on the scaling of printable area, scale on the rulers varies as follows:
- | <u>Scaling of printable area</u> | <u>Scale on the rulers</u> |
|----------------------------------|----------------------------|
| Less than 30%                    | 50mm scale                 |
| More than 30%                    | 10mm scale                 |

## B) Guides

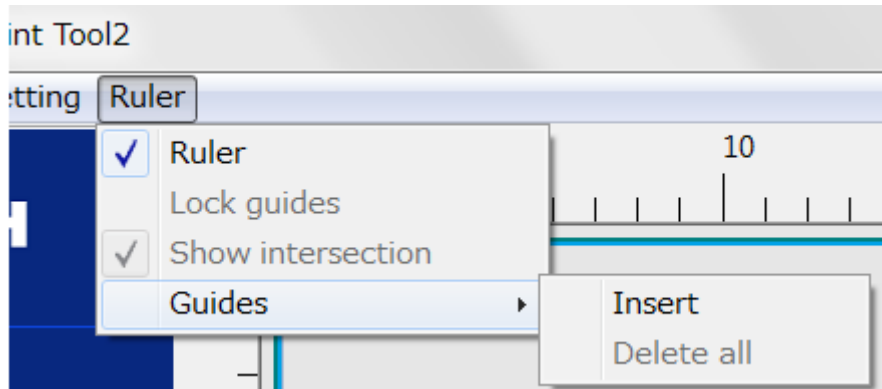
You can place up to 10 guides for both vertical and horizontal guides.

Choose either of the following procedures to insert guides and drag to the appropriate position.

- Left-click the rulers and drag within the printable area.

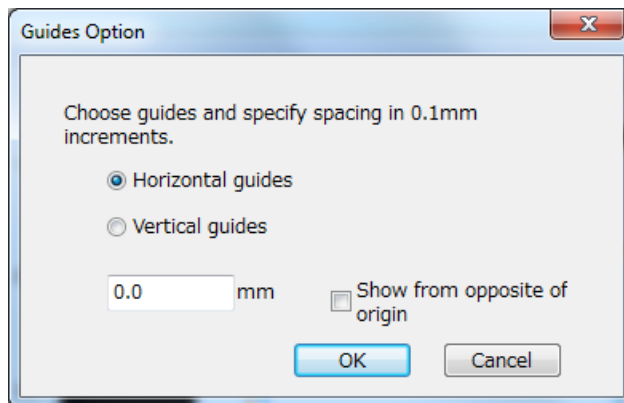


- Specify guides from the dialog.



Choose Ruler > Guides > Insert.  
The Guides Option dialog will appear.

Choose Horizontal or Vertical guides.  
Specify spacing from ruler's zero origin.



If you close the Guide Option dialog and open it again, a new guide will be added to 10mm below or right from the guide you previously inserted and the position of the new guide will be displayed on the dialog.

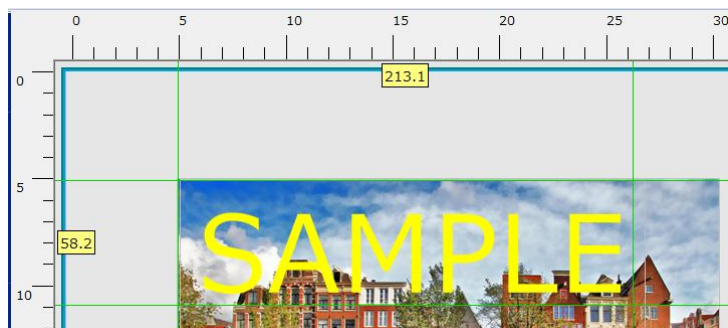
To change the ruler's zero origin to the opposite side, check **Show from opposite of origin**.

The guide shows in red while dragging (before releasing the mouse button).

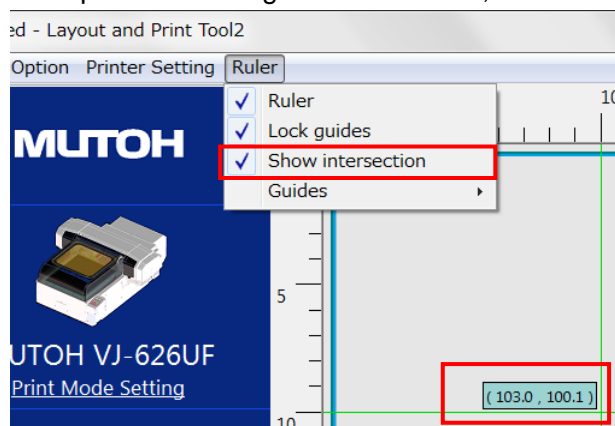
### C) Measure Spacing

The spacing between each guide is displayed.

This display is only available while the rulers appear.

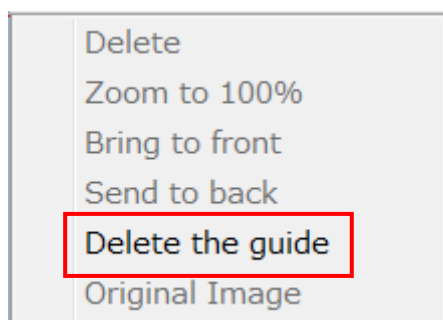


To show the position of the guide intersection, check **Show intersection**.



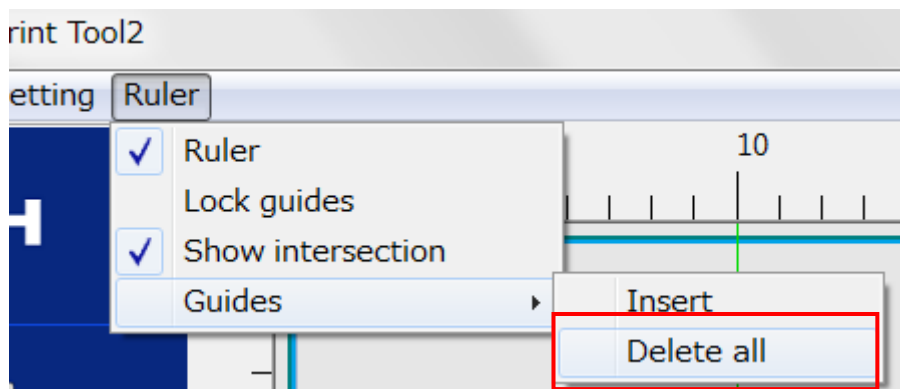
### D) Delete the guides

To remove a single guide, right-click the guide and choose **Delete the guide**.



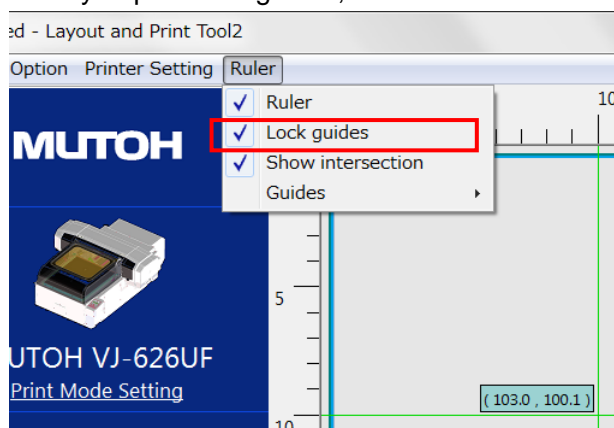
To remove all guides:

Choose Ruler > Guides > Delete all.



### E) Lock the guides

Once you place the guides, lock them to block from the accidental mouse click.



You can save the guides setting in the file.

When you open such files, the guides will be still locked.

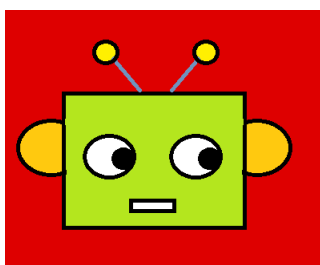
## 7.14 Make Specific Color Transparent

This is the simple function to edit an image.

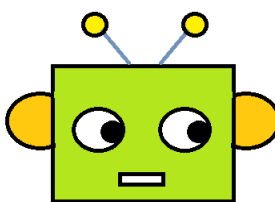
You can remove a solid color from the entire image to make it transparent.

### Example:

Image



Print Image -  
Make the background transparent

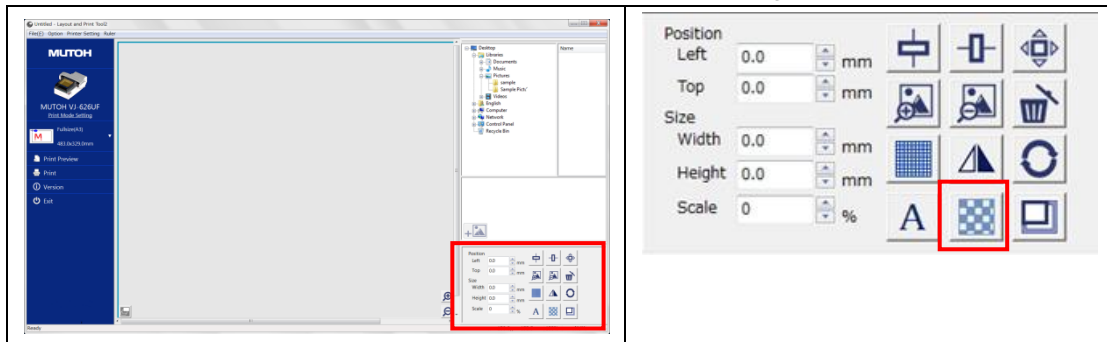


### NOTE

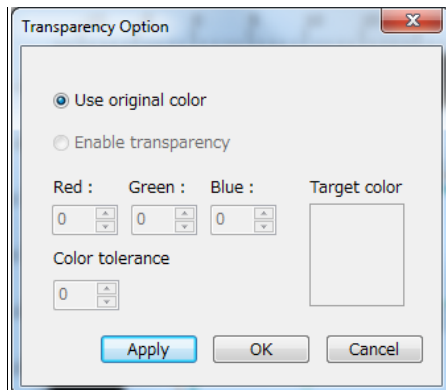
- With this function:
  - Intended objects may not be fully removed
  - Unintended objects may be also removed.

For the better results, we recommend you to edit an image from graphic application.

Click the Transparency button. The Transparent Option dialog will appear.



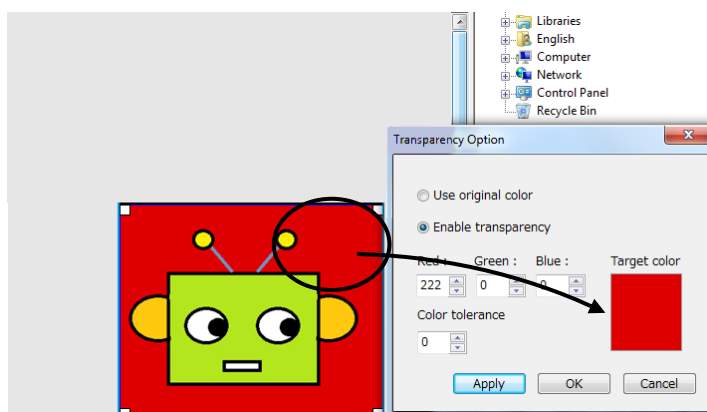
The transparent options are not available unless you select an image.



You cannot remove a color from the text inserted by Layout Tool 2.

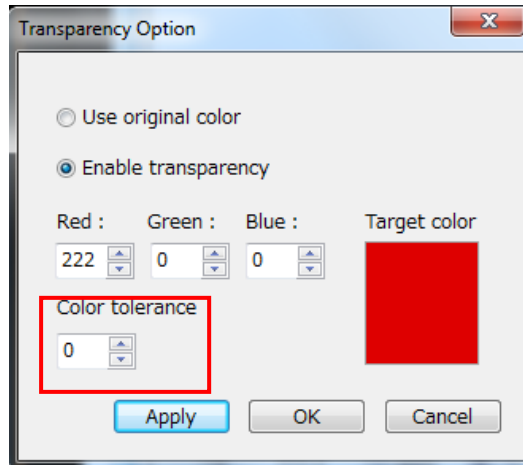
Change a color or text message from the Text Edit Window.

Check **Enable transparency** and click color that you want to make transparent from the printable area. Your specified color appears on the dialog as Target color.



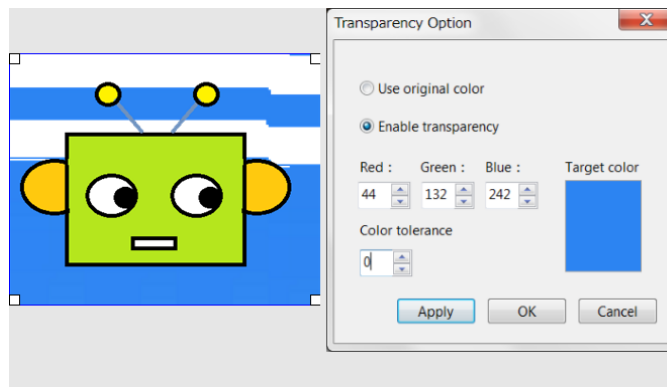


You can specify the acceptable limits or color tolerances from the target color.

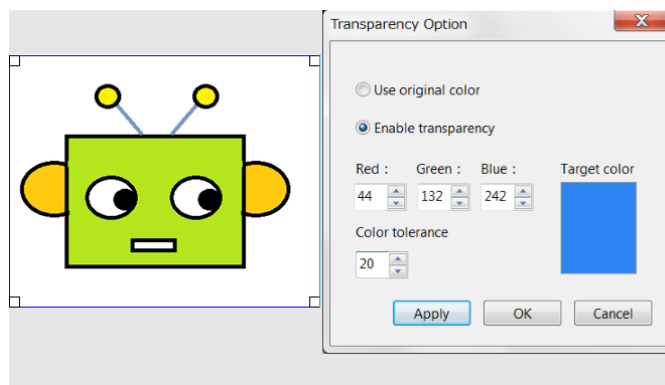


**Example:**

Specify a solid color (color tolerance = 0):



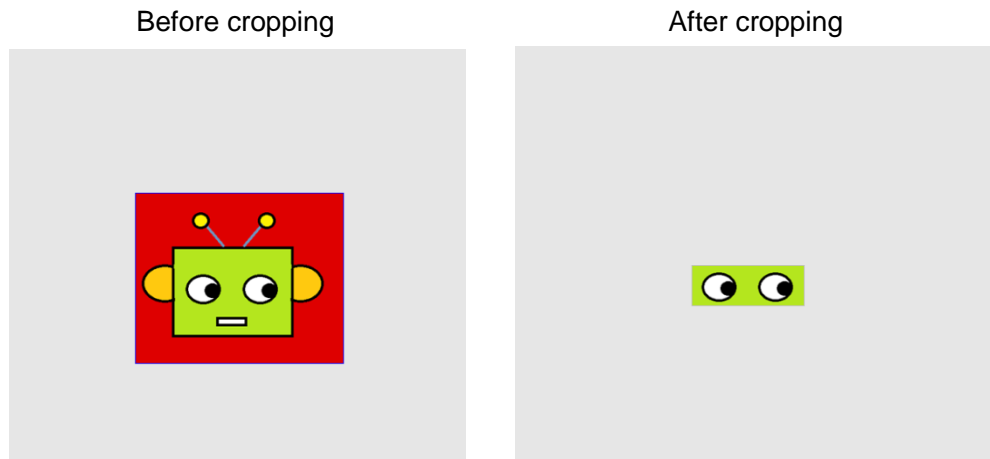
Specify color tolerance (color tolerance = 20):



## 7.15 Crop Image

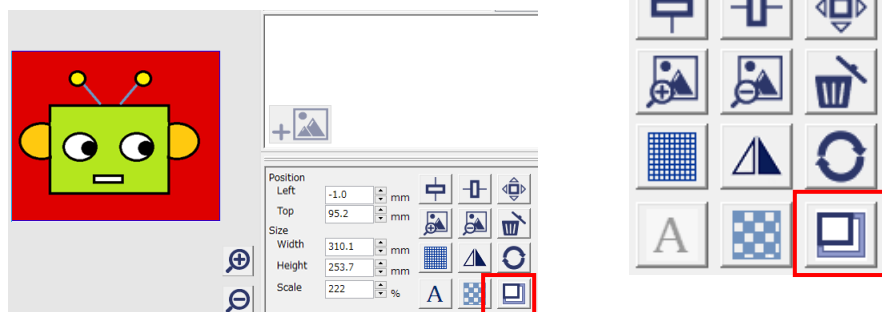
If you want to use a specific object in your image, use the cropping tool to easily crop the area you want to use.

### Example



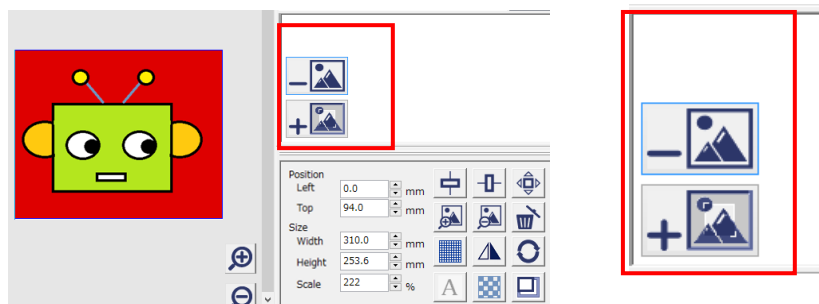
- (a) How to crop a specific area

Keep the image selected and click the **Crop/Reset** button.

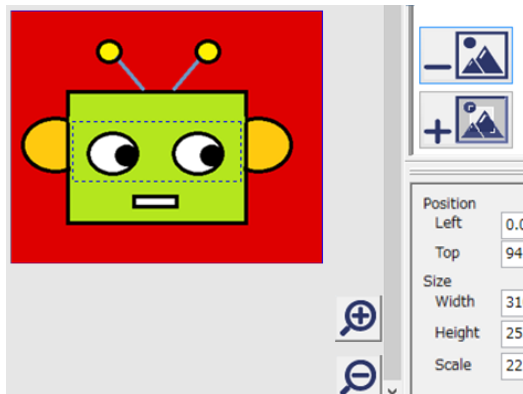


Switches to Crop Mode on the selected image.

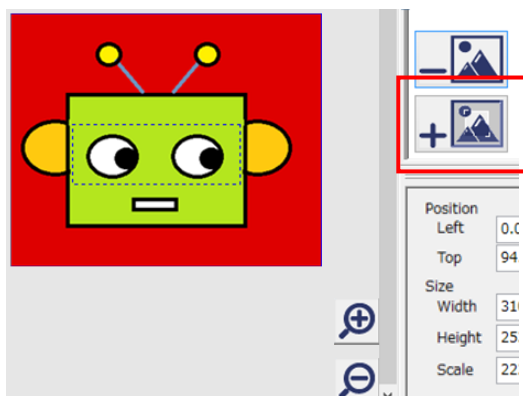
The Crop (+) and Reset (-) buttons appear.



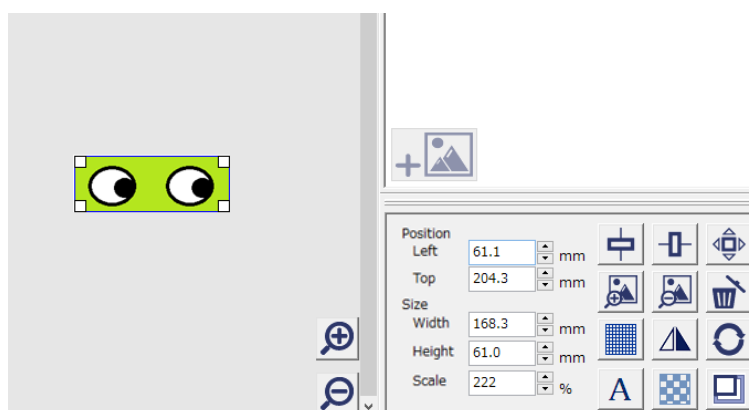
Drag on the image using mouse to choose the cropping area. The selected area is marked in dotted frame.



Click the **Crop (+)** button to confirm the cropped area and exit Crop Mode.

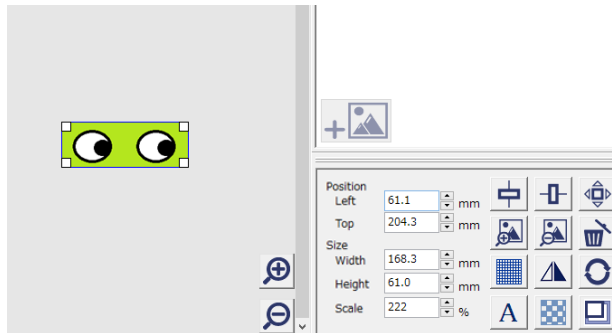


The cropped area is displayed in the printable area.

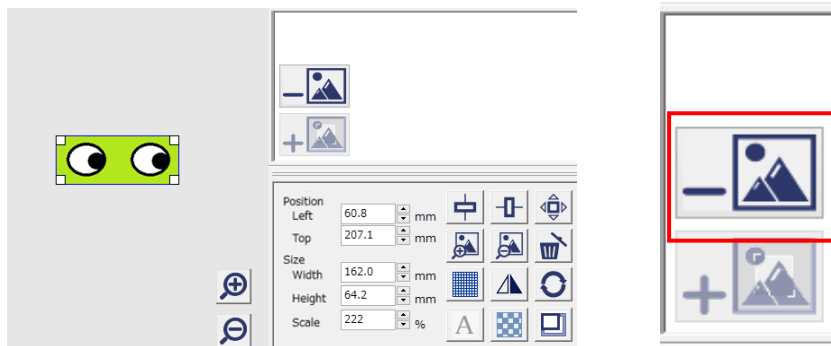


(b) How to reset the crop

Select the cropped image.

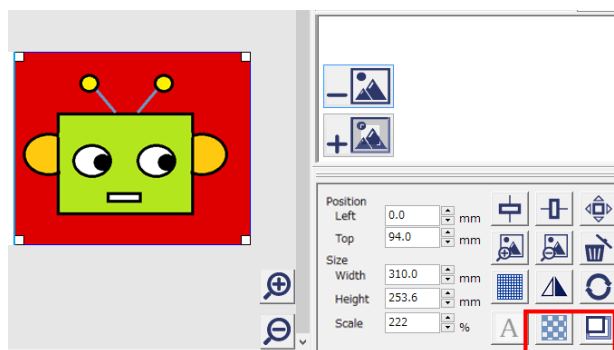


The Reset (-) and Crop (+) buttons appear, but only the Reset (-) button is enabled.



Click the **Reset (-)** button so that the original image will appear.

Then, click the **Crop/Reset** button to exit Crop Mode.

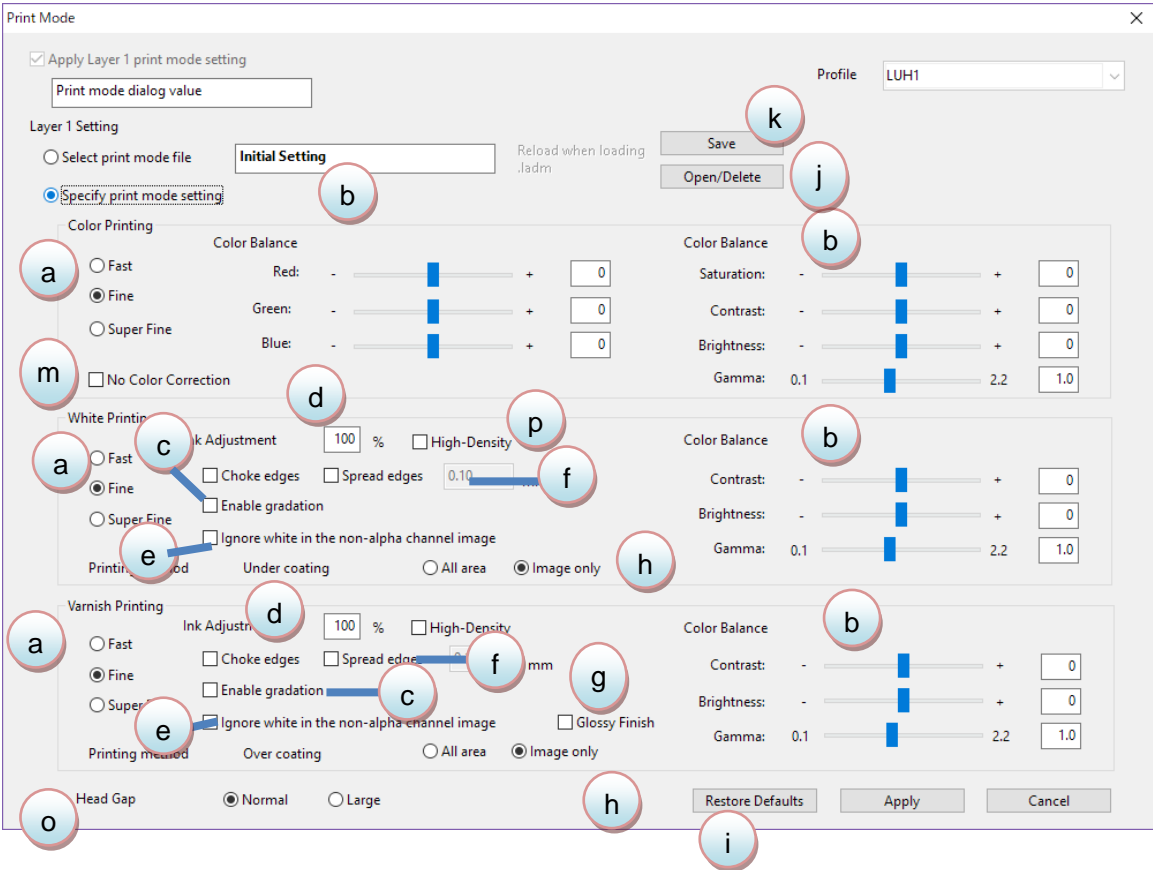


## 7.16 Print Mode

Click **Print Mode Setting** to display the following dialog.  
Color balance adjustment and ink density adjustment are available from the dialog.



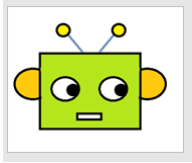
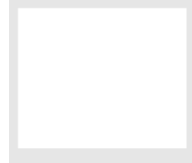

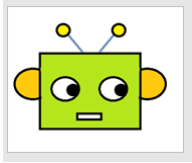
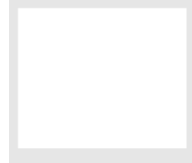

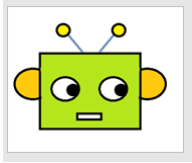
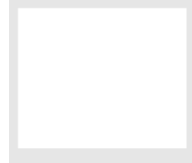



### NOTE

- For the functions of 'Apply Layer 1 print mode setting', see 6.4.1 Multi-Layer Printing B)



\*To adjust settings in b, drag each slider.

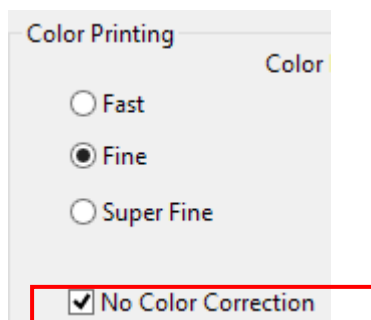
a	Print Quality	Choose between Fast/Fine/Super Fine.
b	Red	Adjust color balance for each color. Set the value between -20 and +20 (in increments of 1).
	Green	
	Blue	
	Saturation	Adjust saturation of the output images. Set the value between -20 and +20 (in increments of 1).

	Contrast	Adjust contrast of output images. Set the value between -20 and +20 (in increments of 1).						
	Brightness	Increase or decrease brightness of output images. Set the value between -20 and +20 (in increments of 1).						
	Gamma	Optimize the brightness in the midtones. Set the value between 0.1 and 2.2 (in increments of 0.1).						
c	Enable gradation	Use for white or varnish printing. If checked, convert a color image to black and white (2-tone) image and print it with white ink or varnish. If unchecked, print a solid white underbase or varnish over-coating without a gradient of image.						
d	Ink Adjustment	Adjust the ink density.  Ink density: 10%      Ink density: 100%   						
e	Ignore white in the non-alpha channel image	If checked, recognizes white objects as transparent objects in a non-alpha channel image. <table border="1"> <thead> <tr> <th>Original image</th><th>Unchecked</th><th>Checked</th></tr> </thead> <tbody> <tr> <td></td><td></td><td></td></tr> </tbody> </table>	Original image	Unchecked	Checked			
Original image	Unchecked	Checked						
								
f	Choke Edges/ Spread Edges	Scale the outline of white or varnish layer by 0.01mm increments. Check either one of them and specify the amount to choke or spread the outline.  <b>NOTE</b>  <ul style="list-style-type: none"> <li>Spread Edges function uses the ink density specified in the Ink adjustment field (d) to increase the outline. If you want to increase the edges of patterned image, use graphic software to edit the image, and then use it with Layout Tool 2.</li> <li>This function can enlarge even tiny points which are hardly visible. It may cause unintended results especially with JPEG image. Please perform test print before using the Spread Edges function.</li> </ul> 						

g	Glossy Finish	Use for varnish printing. (Not available for VJ-426UF) Apply the glossy finish over the printing. When this option is checked, following settings will be automatically selected. If needed, change the Ink Adjustment setting. <div>Print ModeFast (Fine and Super Fine are not available)</div> <div>Ink AdjustmentInk Adjustment: 35%, High-density: Enabled</div>
h	All area/ Image only	Use for white or varnish printing. Specify the printing area for automatic white underbase and varnish over-coating. All area: Print the white underbase and varnish over-coating in the same area as specified in 6.2 Media Size Setting. Image only: Print white underbase and varnish over-coating only under/over the image.
l	Restore Defaults	Restore to the default setting.
J	Open/Delete	Opens the Open/Delete dialog to select the saved Print Mode settings or delete unwanted Print Mode settings.
k	Save	Save the Print Mode settings.
m	No Color Correction	See <b><u>No Color Correction Printing</u></b> on the next page.
o	Head Gap	Select Large when printing on uneven media that distance between the print head and media surface varies from place to place. However, print quality may decrease with Large setting.
p	High-Density	Print white or varnish with high density. When this option is checked, the selected white or varnish layer is printed with double density (print speed will be decreased by half).

**No Color Correction Printing**

When you want to use the primary color of the ink to print your image, select this menu.

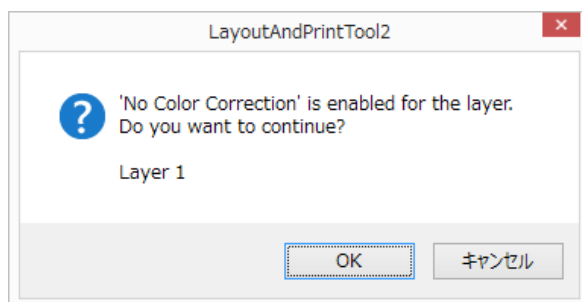


The table below shows the RGB values of each primary ink color.

Ink Color	RGB values
Black	(x, x, x) all same value
Cyan	(x, 255, 255)
Magenta	(255, x, 255)
Yellow	(255, 255, x)

**NOTE**

- If you print an image data using No Color Correction, mostly the color of the prints look different from the original image data.
- When this setting is enabled for Color printing, the following confirmation dialog will appear.

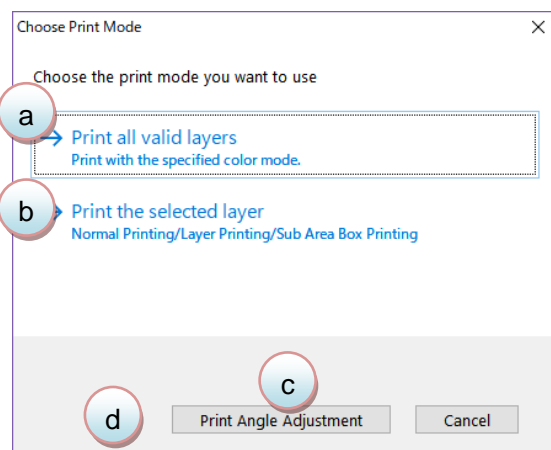




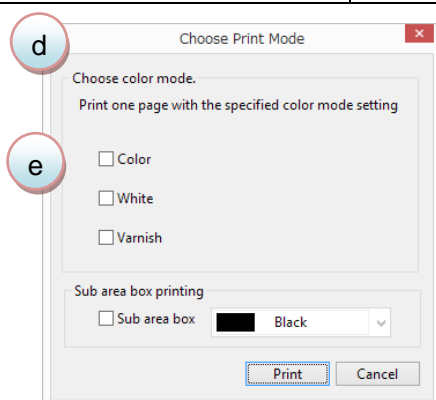
## 7.17 Print

When finished editing, click **7-Print**. The following dialog will appear.

## 7.18 UV Flatbed Printing



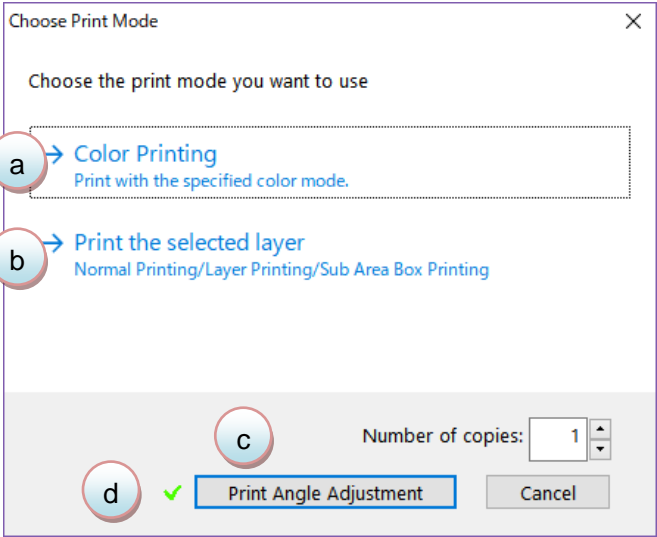
a	Print all valid Layers	Print the selected layers with multi-layer printing by specified color mode.
b	Print the selected Layer	Print the selected layer by automatic coating printing. Opens the Choose Print Mode dialog below.
c	Print Angle Adjustment	See 7.20 Print Angle Adjustment.
d	Adjustment valid mark	The green check mark ✓ appears when Print Angle Adjustment is valid.



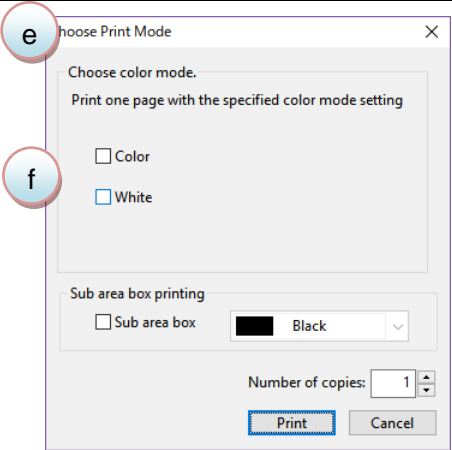
d	Choose color mode	Check the color mode you want to print for automatic coating printing.
e	Sub area box printing	Check Sub area box to print sub areas created in the printable area. Choose black, yellow or white for sub area box printing.

For the details, see 6.4.2 Automatic Coating Printing, B) Print and C) Sub Area Box Printing.

### 7.19 Roll Printing



a	Color printing	Print with the specified color mode.
b	Print the selected Layer	Print the selected layer by automatic coating printing. Opens the Choose Print Mode dialog below. Specify the print destination to Layer Editor from the Output Mode Settings dialog before clicking this mode.
c	Print Angle Adjustment	See 7.20 Print Angle Adjustment.
d	Adjustment valid mark	The green check mark ✓ appears when Print Angle Adjustment is valid.



e	Choose color mode	Check the color mode to print the selected page.
f	Sub area box printing	Check Sub area box to print sub areas created in the printable area. Choose black, yellow or white for sub area box printing.

For the details, see 6.4.2 Automatic Coating Printing, B) Print and C) Sub Area Box Printing.

## 7.20 Print Angle Adjustment

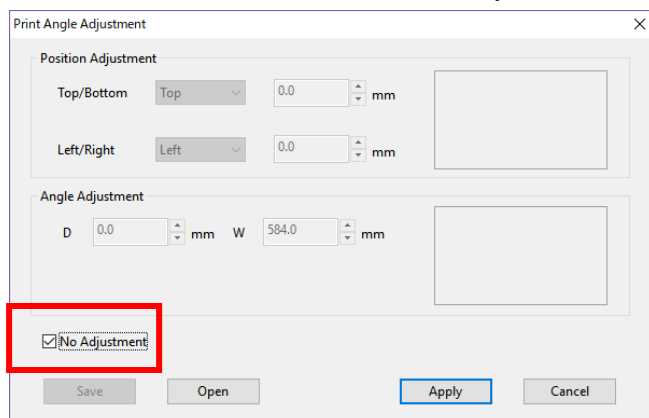
The Print Angle Adjustment menu allows you to correct the print start position and angle of an image to match to the angle of media on the table.

Once specified, you can save this setting to use it again.

### NOTE

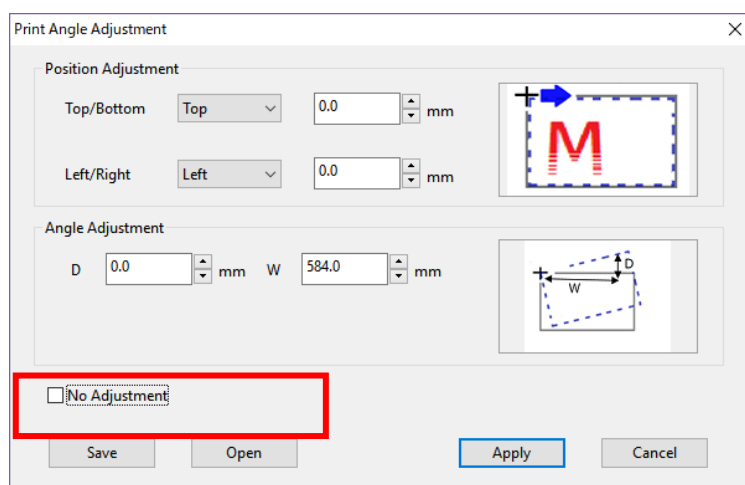
- This function intentionally changes the print start position or rotates the image. If the image exceeds the printable area, it will be clipped.
- When this function is enabled, the printer takes more time to start printing an image.

To use this function, uncheck the No Adjustment checkbox.



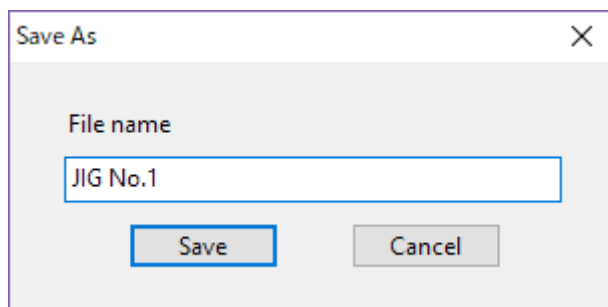
The blue arrow in the preview indicates the print start position on the printer.

By using the buttons appeared in the lower part of this dialog, you can save the print angle adjustment setting specified in this dialog, or open or delete the saved setting.



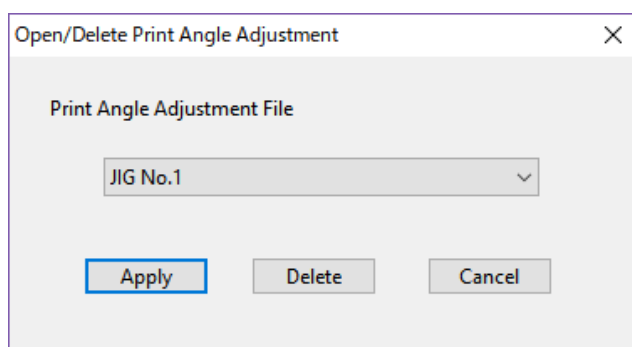
### **Open/Save/Delete Print Angle Adjustment**

If you want to save the setting specified in the Print Angle Adjustment dialog, click **Save** in the dialog. The Save As dialog appears to save under a new file name.



To open the saved setting, click **Open** in the Print Angle Adjustment dialog so that the Open/Delete Print Angle Adjustment dialog appears. Select the file from the dropdown list, then click **Apply**.

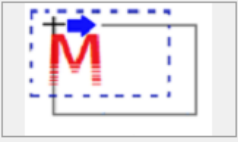
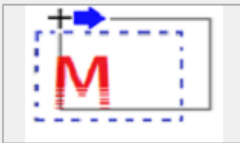
If you want to delete the saved setting, select the file and click **Delete**.



## **Position Adjustment**

Select the position of the image from the Top/Bottom and Left/Right dropdown lists and enter the amount to shift the image respectively.

According to the input value, the preview on the right shows the degrees of position correction.

Example	<div><p>Position Adjustment</p><p>Top/Bottom <span>Top</span> 0.5 mm</p><p>Left/Right <span>Left</span> 0.0 mm</p></div>
	<div><p>Position Adjustment</p><p>Top/Bottom <span>Bottom</span> 0.5 mm</p><p>Left/Right <span>Left</span> 0.0 mm</p></div>

## **Angle Adjustment**

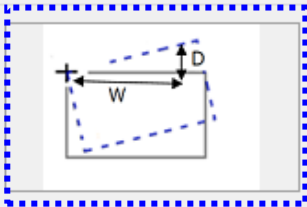
To rotate the image to match to the angle of media, measure the width of image printed on the media (W) and distance between the printed image and media at right angle to the image (D). Enter the measured values to D and W input boxes in the Angle Adjustment field respectively.

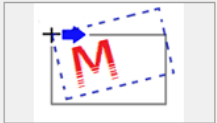
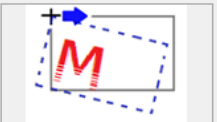
According to the input value, the preview on the right shows the degrees of angle correction.

(See the area shown by the blue dotted line.)

Angle Adjustment

D 0.0 mm W 584.0 mm

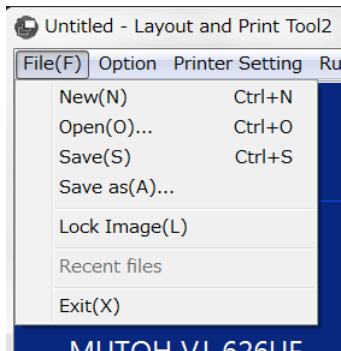


example	<div><p>Angle Adjustment</p><p>D 0.5 mm W 584.0 mm</p></div>
	<div><p>Angle Adjustment</p><p>D -0.5 mm W 584.0 mm</p></div>

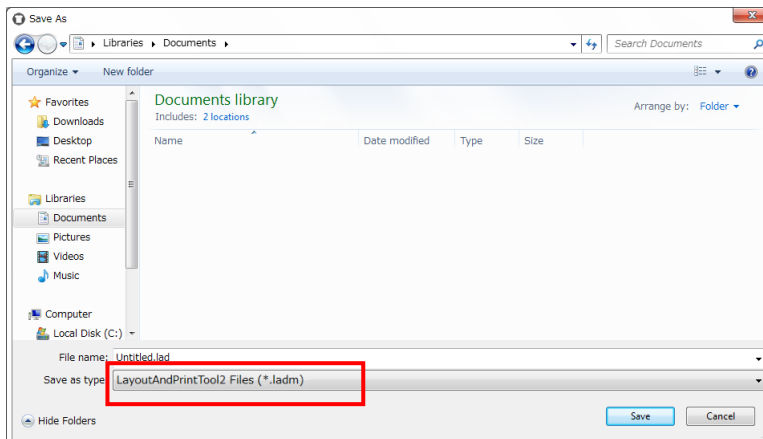
## 7.21 Save and Load the file

Save and load the file from the File menu on the Toolbar.

The edited image data, platen size and image position are saved into the file. The saved file can be loaded for printing/editing again.

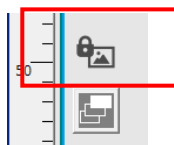


The edited file will be saved as file extension **.ladm**.



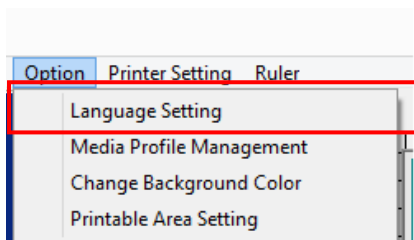
### NOTE

- When you use multiple images or large images, make sure there is enough space on your target disc.
- When an image is locked, the following icon appears at the bottom left of the printable area.

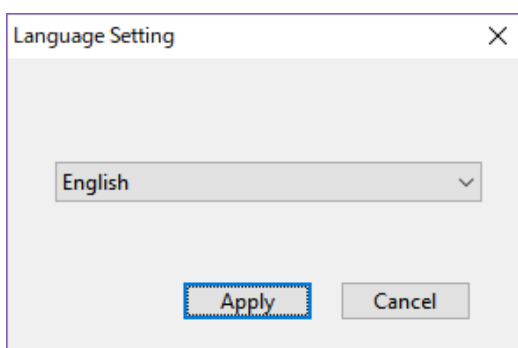


## 7.22 Language Setting

To select a language, go to Option > Language Setting.



The Language Setting dialog appears.

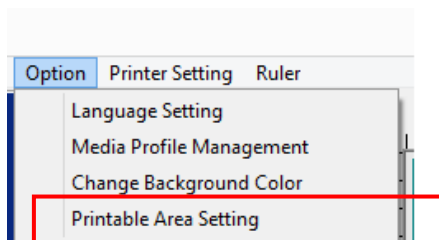


Japanese or English is available.

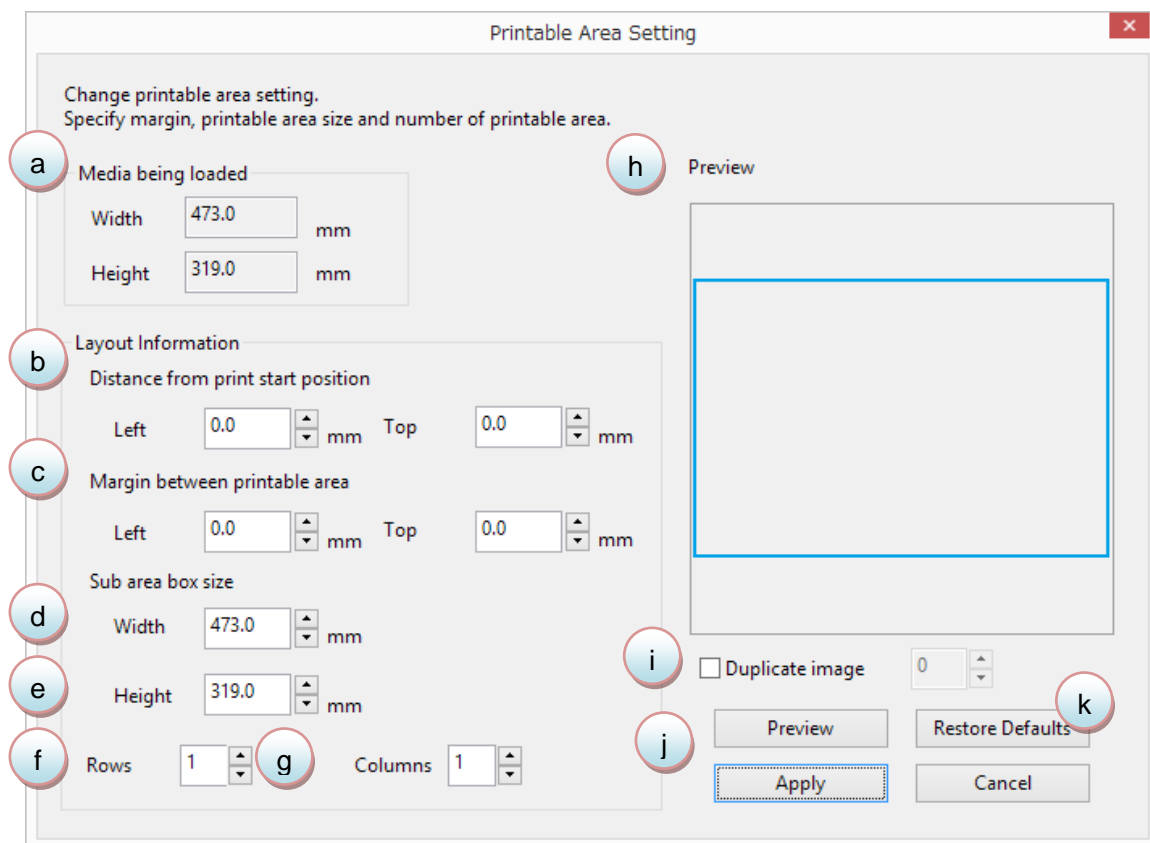
Select a language from the drop-down list and click **Apply**.

## 7.23 Printable Area Setting

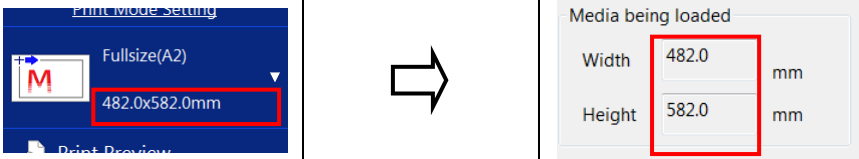
To print more than one image at equal distances on the same media, go to Option > Printable Area Setting to create sub area. You can add different image to each sub area.



The Printable Area Setting dialog will appear. In this dialog, you can specify the position, size and number of sub area to create on your media.





a	Media being loaded	Displays the size of media selected in the main screen. 
b	Margin from print origin	Specify left and top margins from print origin (print origin. = upper left corner). (*1)
c	Margin between printable areas	Specify the margin between sub area in rows and columns.
d	Width	Specify the width of sub area.
e	Height	Specify the height of sub area.
f	Rows	Specify the number of sub area in rows.
g	Columns	Specify the number of sub area in columns.
h	Preview	By clicking (i) Preview, sub area specified in (b) through (g) is displayed in (h) Preview.
i	Duplicate image	Duplicate the same image in sub area for a specified number.
j	Preview	Click Preview to update (h) Preview.
K	Restore Defaults	Click Restore Defaults to restore to the default setting.

### **How to specify Printable Area Setting**

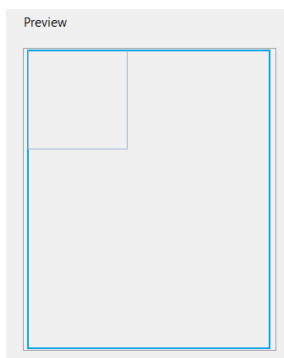
- 1) Specify ④ Width and ⑤ Height of each sub area.



The image shows two input fields for specifying dimensions. The first field is labeled 'Width' and contains the value '200.0' followed by a unit 'mm'. The second field is labeled 'Height' and also contains the value '200.0' followed by a unit 'mm'. Both fields have small up and down arrow buttons next to them for adjustment.

\*To see the actual size of sub area on the media, click **Preview**.

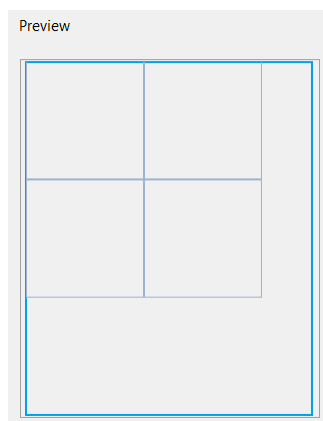
•Preview



- 2) Specify the number of sub area to create in ① Rows and ② Columns.

Rows    Columns

·Preview



- 3) Specify ③ Margin from print origin and ④ Margin between printable area.

Margin from print origin

Left  mm Top  mm

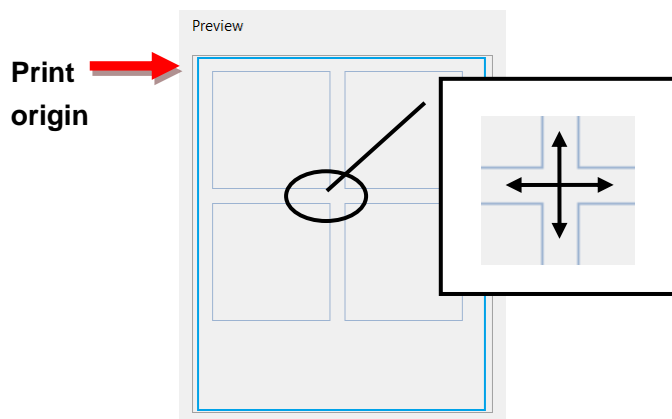
Margin between printable area

Left  mm Top  mm

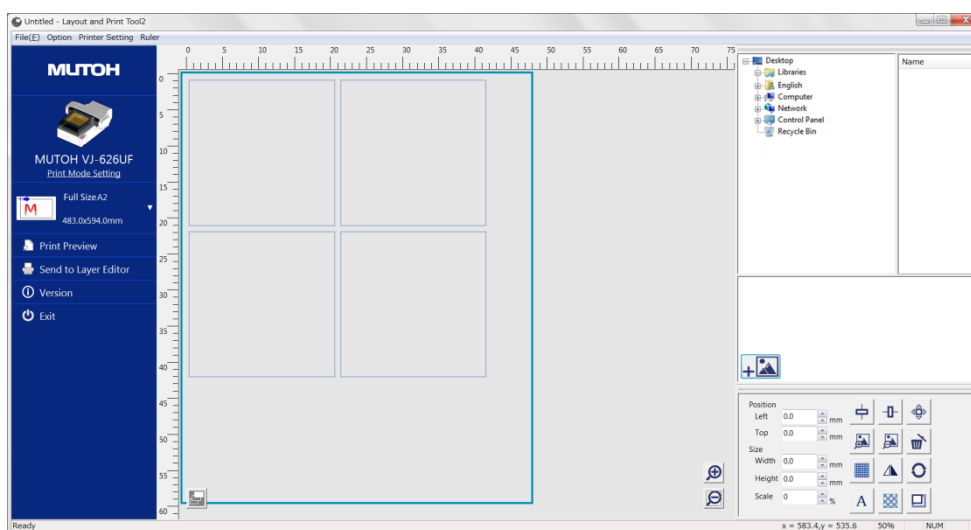
·Preview

The print origin is located in the upper left corner.

- ④ Margin between printable area specifies the blank space between each sub area.



- 4) After specifying all the settings, click Apply. The sub areas specified in the Printable Area Setting will appear in the printable area.

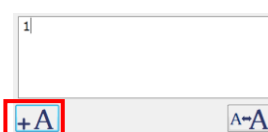
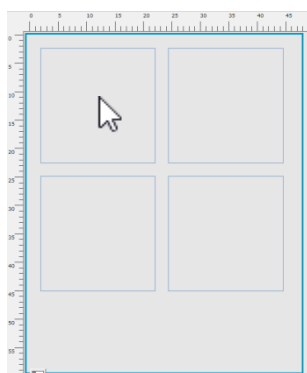


- 5) To insert an image or text into sub area, light click on a sub area you want to insert. Then choose an image or text and click **Insert/Update** to add it to the sub area.

You can also add an image to each sub area by drag and drop.

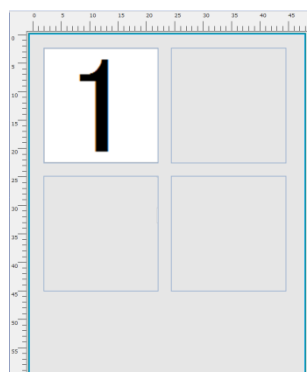
· Left click on a sub area

· After choosing an image or entering text, click **Insert/Update**.

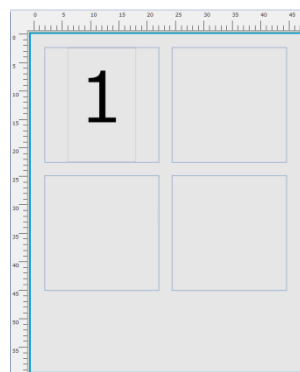


· The inserted image or text will be displayed on the Edit Area as follows:

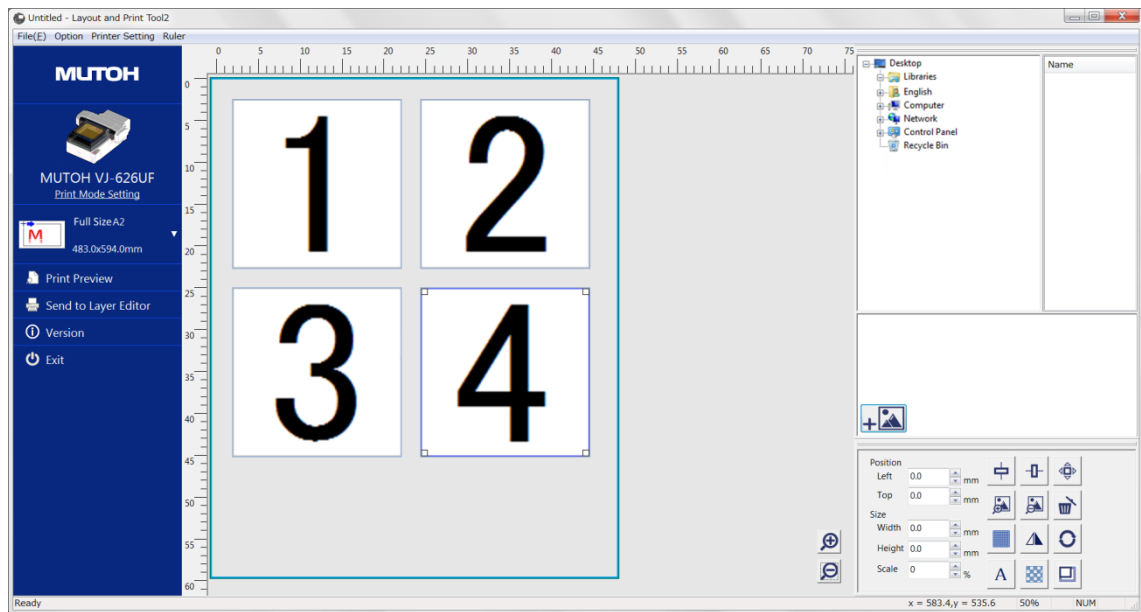
Image



Text



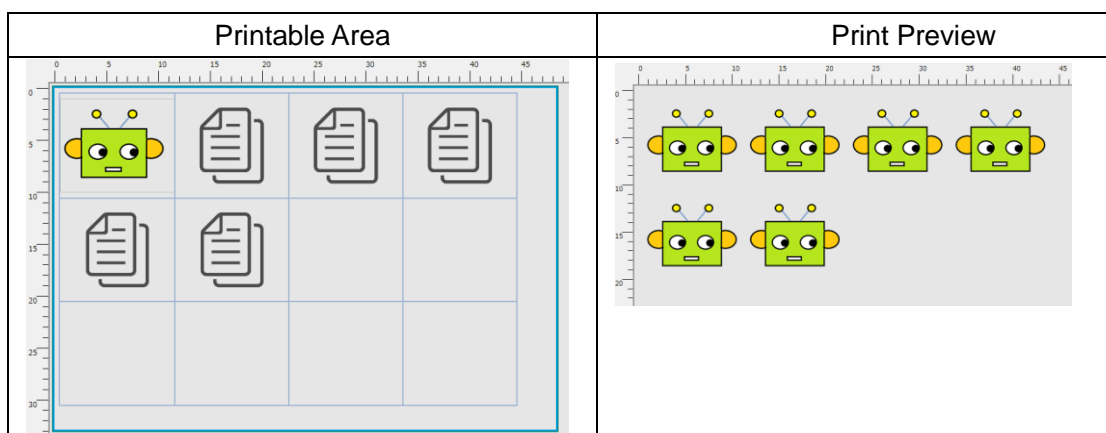
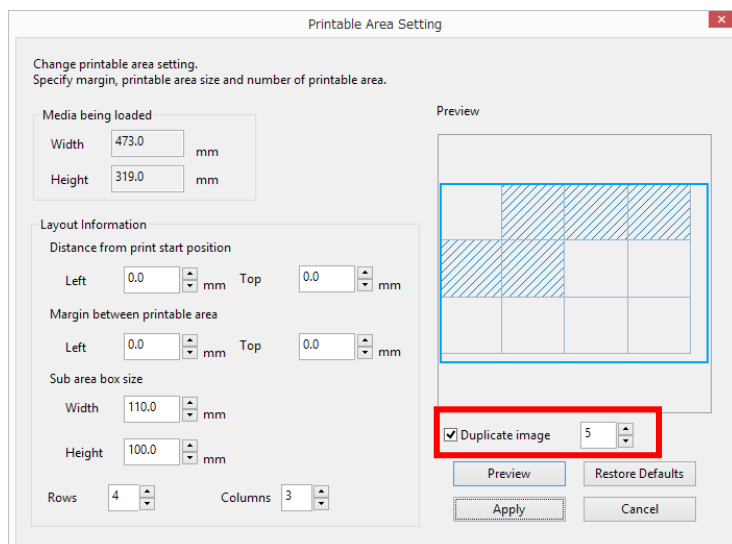
- 6) Repeat Step 5) to add image or text to each sub area.



## Duplicate Image

If you want to duplicate the same image in sub area, check 'Duplicate image' and specify the number of sub area. This setting is reflected in all layers.

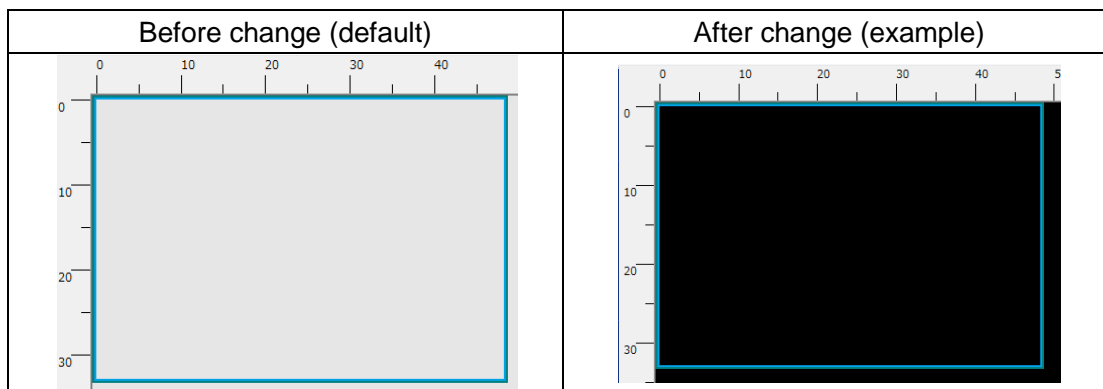
The same image will be printed for the specified sub area.



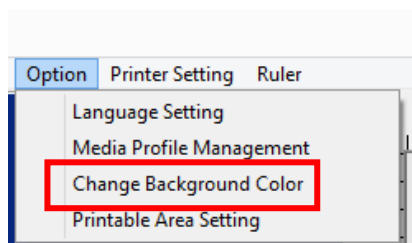
## 7.24 Temporarily Change Background Color

You can temporarily change the background color of the printable area.

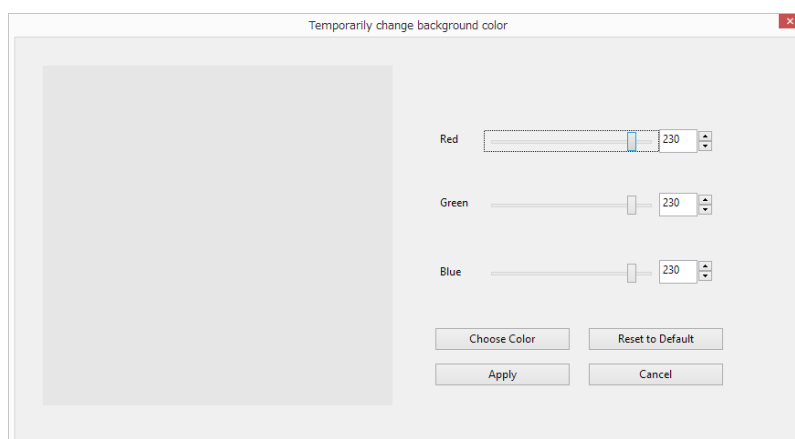
The background color will be restored to default at the next boot.



Go to Option > Change Background Color.



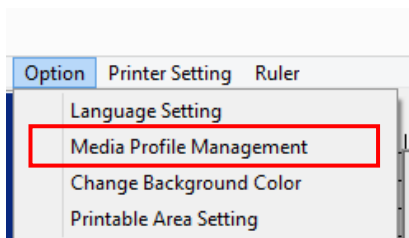
To specify the color, use the red/green/blue sliders or click Choose Color button.



## 7.25 Add Media Profile

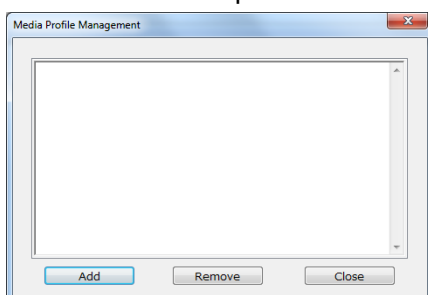
If you want to add media profile, follow the procedures below:

Choose Option > Media Profile Management.



When the media profile dialog appears, click **Add** to add a new media profile.

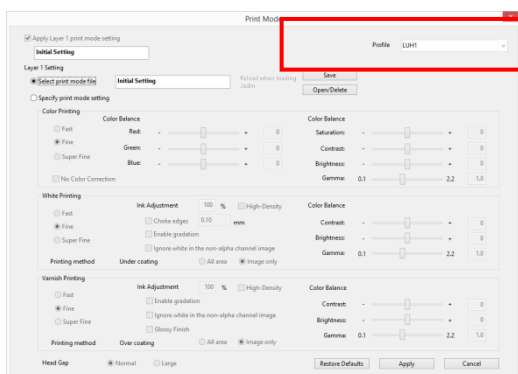
The default media profiles are not displayed in this dialog.



You can remove a media profile from this dialog.

Media profile can be added or removed from both printer driver and Layout Tool 2, and once added, it will be available in both software.

The added profile can be selected from Print Mode > Profile.



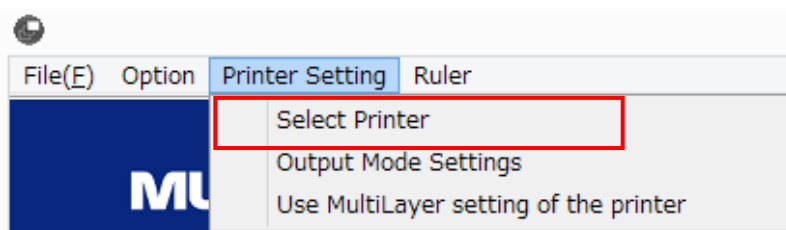
### NOTE

- Media profiles for Layout Tool are already stored in the printer driver and Layout Tool 2.
- Layout Tool 2 cannot use Non-Mutoh media profiles.

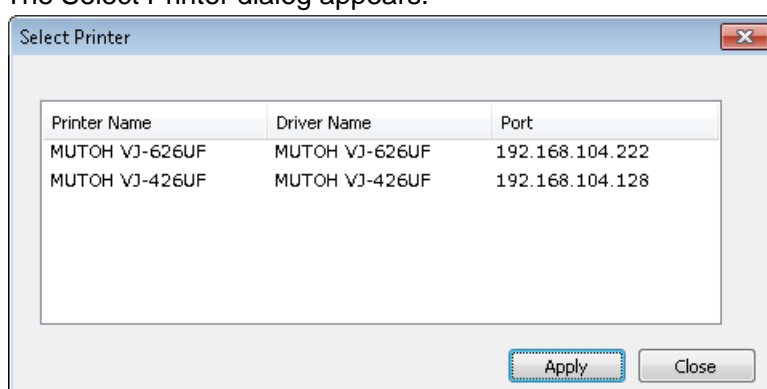


## 7.26 Select Printer

To select a printer, go to Printer Setting > Select Printer.



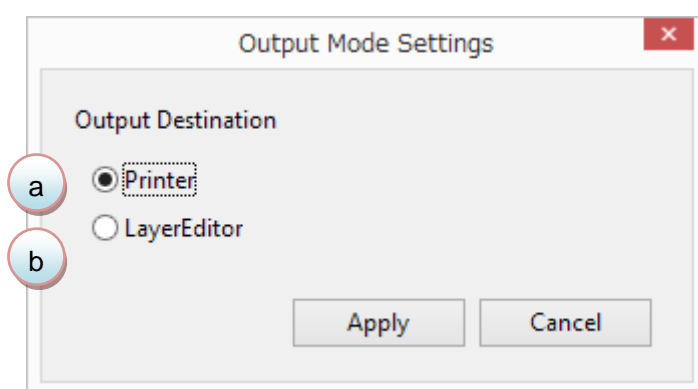
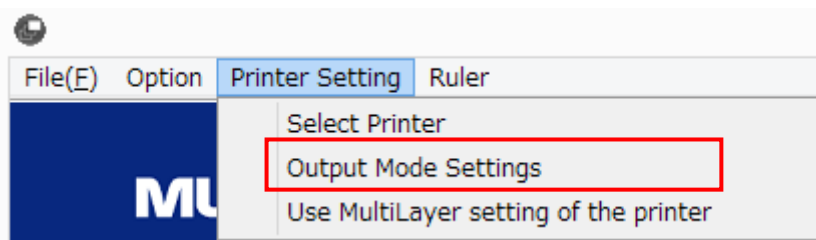
The Select Printer dialog appears.



Select a printer to print from and click **Apply**.

## 7.27 Output Mode Setting

To select output destination of the data, go to Printer Setting > Output Mode Settings.



a	Printer	Output to the printer selected from the Select Printer menu.
b	LayerEditor	Output to the spool folder in Layer Editor. *1

Once the output destination is selected, it is displayed on the main menu as below.

Output Destination: Printer	Output Destination: LayerEditor
Print Preview	Print Preview
Print	Send to Layer Editor
Version	Version

### NOTE

\*1 Layout Tool 2 Ver.1.6.0 does not support "LayerEditor" option for VJ-628.

## 7.28 Keyboard Shortcut Keys

The keyboard shortcuts which can be used with Layout Tool 2 are as follows.

### **Edit menu**

Keys	Description	Operable state
Ctrl-a	Select all objects in the printable area.	-Edit area -Text edit window
Ctrl-i	Insert an image displayed in image preview to the Edit area.	-Edit area
Ctrl-z	Undo an action.	See 7.32 Undo/Redo
Ctrl-y	Redo an action. (Redo the 'Undo' action)	
Ctrl-c	Copy object (image, text).	See 7.31 Copy and Paste Data.
Ctrl-v	Paste object (image, text). (The copied object retains the same position in the Edit Area.)	

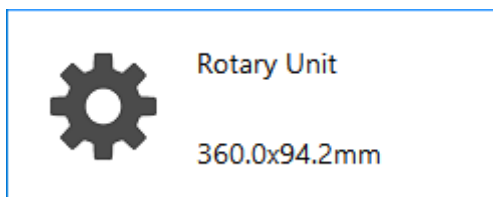
### **File menu**

Keys	Description	Operable state
Ctrl-n	Create a new file	In any state
Ctrl-o	Open a file	
Ctrl-s	Save a file	

## 7.29 Cylindrical Printing using Rotary Unit

To perform layer printing on cylindrical items using Mutoh Rotary Unit, please also see the Rotary Unit Operation Manual.

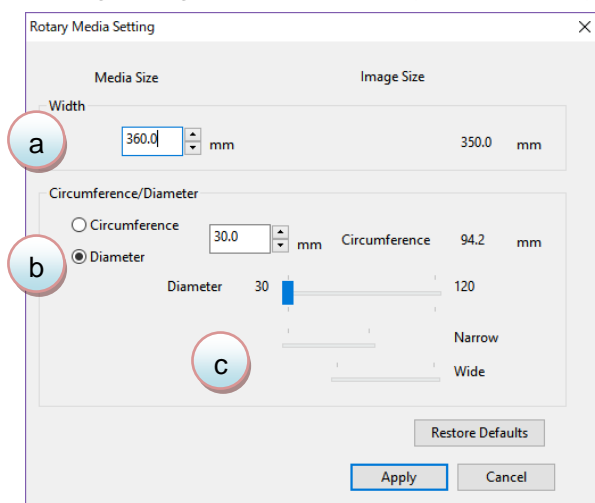
When a printer model which supports Rotary Unit is selected from the Select Printer dialog, the following Rotary Unit option appears in the Choose Media dropdown list.



### NOTE

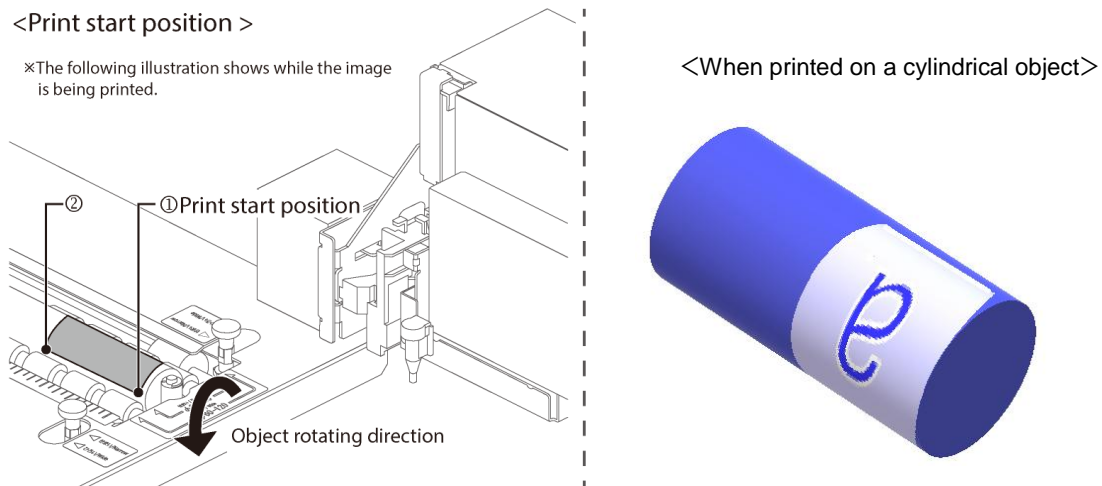
- To perform layer printing using Rotary Unit, it is recommended to use Layer Editor to perform single-layer printing. Multi-layer printing from Layer Editor is not recommended since the next layer may not be printed on the intended position.
- Supported diameter of cylindrical item using Rotary Unit is from 30mm to 120mm.
- To perform 360 degree printing, choose an image which does not create the seam visible or intentionally overlap the seam by a few mm to hide it.

When the Rotary Unit option is selected from the dropdown list, the Rotary Media Setting dialog appears to specify the size of cylindrical item.

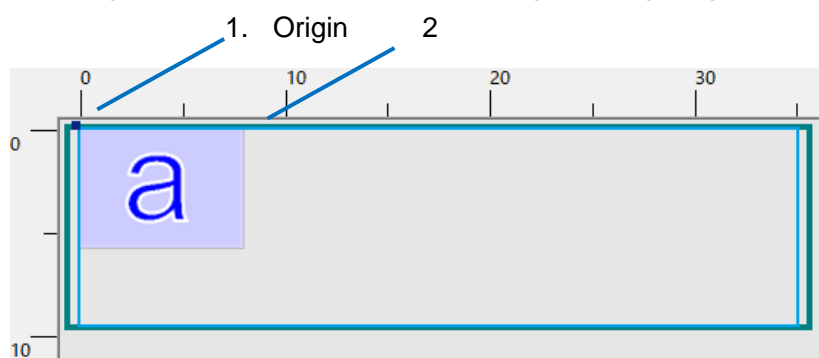


a	Width (for media)	5 mm margin is required at the left and right side. Enter the media width in the range from 30mm to 360mm.
b	Circumference/ Diameter	<p>Choose Diameter or Circumference by the radio button.</p> <p>When 'Diameter' is checked: Enter the diameter of cylindrical item in the range from 30mm to 120mm (94.2mm to 377mm in circumference).</p> <p>When 'Circumference' is checked: Enter the circumference of cylindrical item in the range from 94.2mm to 405mm (you can specify more than the maximum diameter). To overlap the seam line for 360 degree printing, check 'Diameter' to enter the diameter of cylindrical item, then check 'Circumference' to increase the value by clicking ▲ button.</p>
c	Roller Pitch setting on the Rotary Unit	<p>By entering diameter or circumference of a cylindrical item, the diameter slider bar indicates the appropriate roller pitch setting (Narrow or Wide). Use this indication as a guide to decide the roller pitch setting.</p> <p>Make sure that the roller pitch setting on Rotary Unit and operation panel are matched.</p>

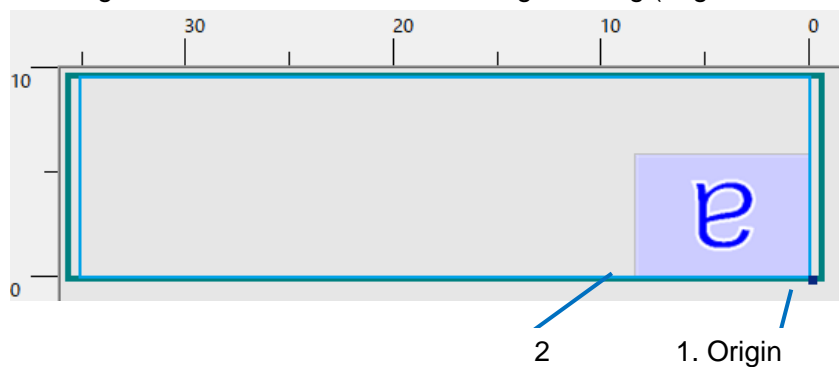
The illustration below shows where the origin of image on Layout Tool 2 will be located on Rotary Unit.



When '180-degree rotation' is disabled in the Origin setting (origin: top left):



When '180-degree rotation' is enabled in the Origin setting (origin: bottom right):



When the Rotary Unit option is selected, the print mode and head gap settings are automatically selected as follows:

Print Mode(resolution)	Fast (720x1080 dpi)
Head Gap	Large

**NOTE**

- Users can change the print mode setting from the operation panel of the printer or VSM remote panel. However, the printer always prints at 720 x 1080 dpi(Fast) for any print mode.

Available print modes are as follows:

“Print Mode: Balanced”

Balanced mode of high quality print and quick print time.

“Print Mode: Fast”

Select this mode for high speed printing. Print quality might be reduced.

“Print Mode: Fine”

Select this mode for high quality printing. Printing speed would be reduced.

This mode can be effective for small diameter objects to improve print quality.

---

Layout Tools 2 also automatically selects the following high-density and ink adjustment settings for white and varnish printing. If needed, change these settings to optimize for an image and cylindrical item to be used.

White Printing	High-density, Ink Adjustment 60%
Varnish Printing	High-density, Ink Adjustment 60%
Varnish Printing (Glossy Finish)	High-density, Ink Adjustment 100%

**NOTE**

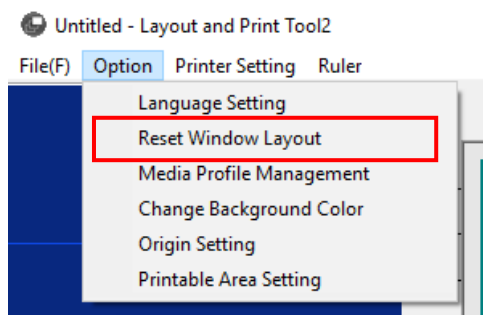
- In Rotary Unit option, the settings displayed in the Print Mode dialog vary from the one used for normal layer printing.

When performing normal layer printing after the cylindrical printing from the Rotary Unit option or vice versa, go to the Print Mode dialog and click Restore Defaults or click Open/Delete to open the print mode file that you want to use.

---

## 7.30 Restore Window Layout

To restore the default window layout in Layout Tool 2, go to Option > Restore Window Layout.



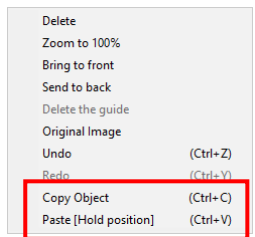
## 7.31 Copy and Paste Object

An image or text added to the Edit Area can be copied and pasted using keyboard shortcuts or mouse.

The copy and paste between Layout Tool 2 and other application is not available.

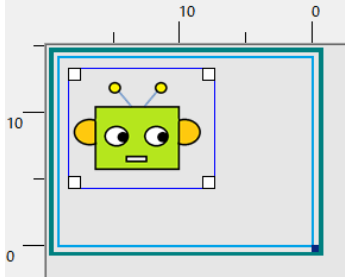
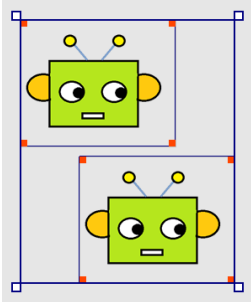
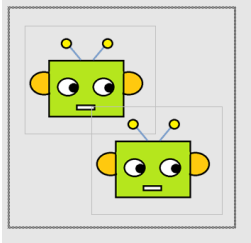
Once pasted, the copied object is placed on the top of the original one in the Edit Area with a blinking bounding box.

This function is available by pressing Ctrl-C (copy) and Ctrl-V (paste; retain position), or right-clicking on the object to access to the menu.

Function	Operation
Copy by keyboard shortcut	Ctrl-C
Paste by keyboard shortcut	Ctrl-V
Copy & paste by mouse	Right-click menu 

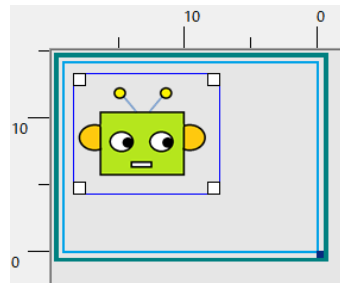


## How to select image/text

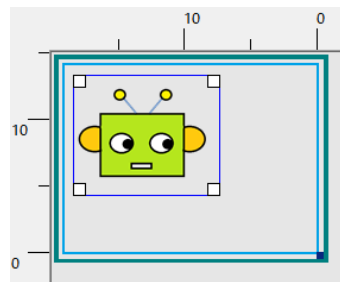
Function	Operation
Select single image or text	<p>Use the mouse to left click on the object.</p> 
Select more than one objects	<p>Hold down the Ctrl key and left click on the objects you want to select.</p>
	<p>The red corner handles appear on each corner of the selected objects.</p> 
Select area	<p>Hold down the Shift key and click-drag the area you want to select using the mouse. A gray bounding box appears while selecting. The objects touched with the gray box will be selected.</p> 

### How to copy and paste

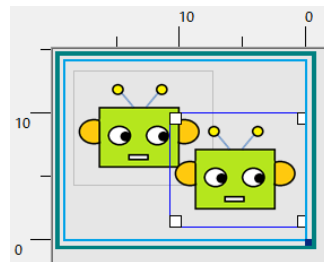
Left-click to select single object.



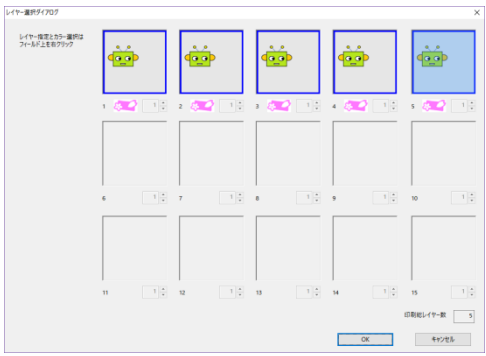
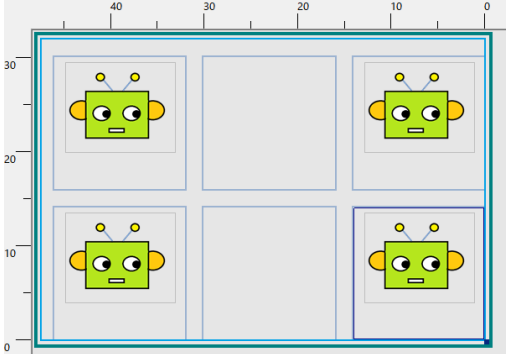
When using keyboard shortcuts with Ctrl-C and Ctrl-V, the copied object is placed on the top of the original one as shown to right. You can see the blinking bounding box around the copied object.



Then, use the mouse to move the copied object to where you want.



This function is intended to use in the following cases:

<p>When you want to lay out the same image in the exact same position on the different layers.</p>	
<p>When you want to add the same image to more than one sub area and add different text to each image.</p> <p>*If you just want to add the same image to more than one sub area, use the 'Duplicate image' function.</p>	

## 7.32 Undo/Redo

Undo and Redo is available using the following keyboard shortcuts:

Undo (undo an action)      Ctrl-z

Redo (reproduce an action)   Ctrl-y

The actions are recorded by each layer in the Choose Layer dialog.

When it reaches the maximum log size, the oldest record will be deleted automatically.

The all record is cleared when a new file is created.

### NOTE

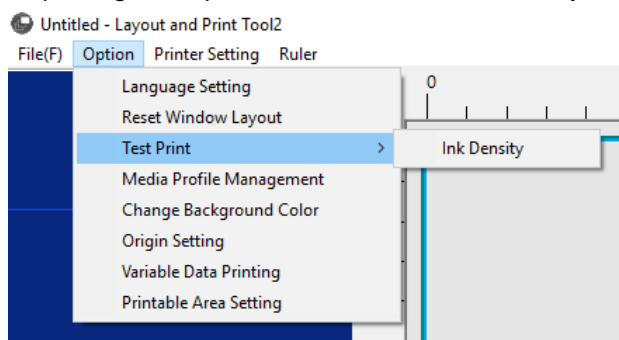
- Any insertion or removal records are stored in the same location. If memory shortage occurs, an error message will be prompted.  
In such cases, save the file and exit Layout Tool 2. Then restart the application.

## 7.33 Test Print

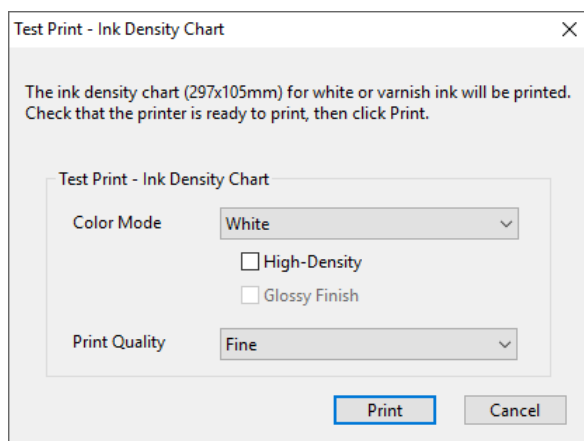
### 7.33.1 Ink Density

Before you perform white or varnish printing, you can print the Ink Density chart to find the optimum density for white or varnish ink.

To print, go to Option > Test Print > Ink Density.

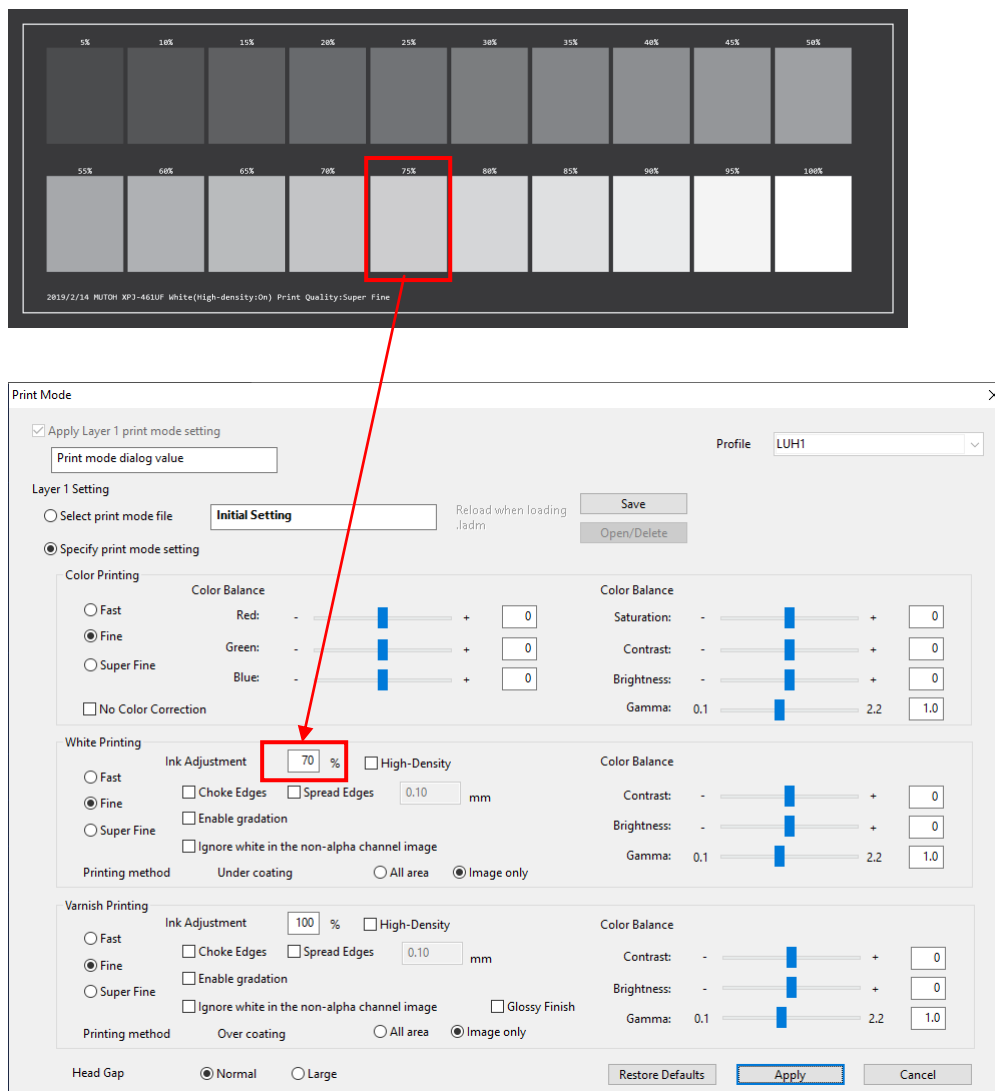


In the following dialog, choose the Color Mode and Print Quality from the drop-down list. If you want to print a chart for high-density or glossy finish, check the appropriate check box. Once selected, click **Print**.



Look at the print and find the optimum ink density.

Click the Print Mode Setting to open the following dialog, and enter the density chosen from the chart.



## NOTE

- This feature is available on the XPJ-461UF/XPJ-661UF printer driver. For other printer models, it will be supported sequentially through driver updates.

## 7.34 Variable Data Printing

The variable data printing gives ability to print each copy by changing a text or image in your design.

To perform variable data printing in Layout Tool 2, save a variable data file in CSV format.

If you use the Duplicate Image feature, you can print more than one copy in a single printing run by changing variable elements in each copy. See 7.23 Printable Area Setting for more details about duplicate image.

### **CSV file**

The following file format can be used for variable data printing.

File format	Description
CSV	Comma-separated values file
TXT	Tab-delimited text file

### Column and row limits

Column/ Row	Limitation
Column	Up to 30 columns. If the file contains more than 30 columns, the exceeded data will be ignored.
Row	No limitation.

### Special characters in the CSV file

Special characters	Interpretation
□ (half-width space)	Can be used as a character without enclosing in double quotes.
“ (double quotation)	Can be used as a character.
¥ (yen mark/ backslash)	Can be used as a character. The CSV file should not contain a string with line breaks since an escape sequence cannot be included.
, (comma)	A comma is used to separate the columns of data in each row. To use it as a character, create a txt file with tab delimited.
., (blank data)	Can be treated as blank.

To load images from a CSV file, a relative path or absolute path should be used to specify the image file.

[d:¥LPT2¥test.csv]	...trigger a directory in the CSV file.
1.png	...1) a file name only (current directory)
image¥2.png	...2) relative path (subdirectory)
image¥sub¥3.png	...3) relative path (subdirectory N level below)
..¥4.png	...4) relative path (directory N level above)
..¥aaa¥5.png	...5) relative path (subdirectory of the directory N level above)
d:¥sample¥6.png	...6) absolute path

Example)

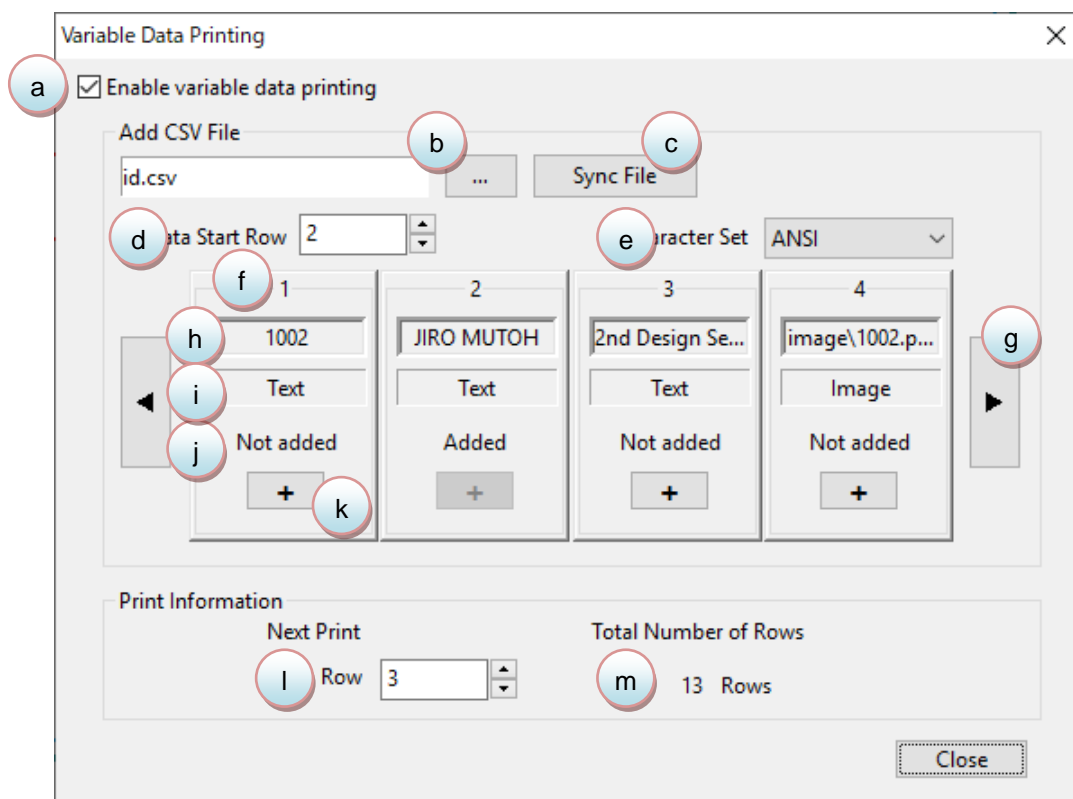
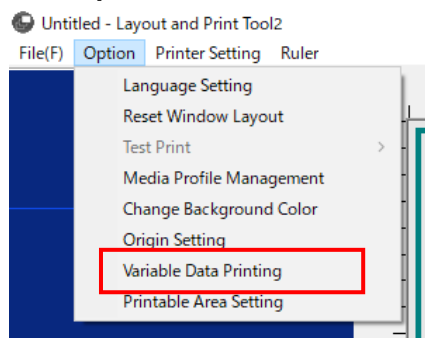
ID	Name	Department	Photo
1001	Ichiro Mutoh	1st design department	image¥1001.png
1002	Jiro Mutoh	2nd design department	image¥1002.png
1003	Saburo Mutoh	3rd design department	image¥1003.png
1004	Shiro Mutoh	4th design department	image¥1004.png

#### NOTE

- A blank line with line breaks is ignored.
- The number of the columns present in the first row can be loaded to Layout Tool 2. If other rows contain columns more than the first row, those data will be ignored.
- If both text and image elements exist in the same column, the element attribute is determined when the column is added in the Variable Data Printing dialog.  
If an image path is present in the text element column, the string of the file path will be inserted.  
If a text is present in the image element column, it will be treated as “data not found”.

### How to load CSV file

- 1) Go to **Option > Variable Data Printing**.





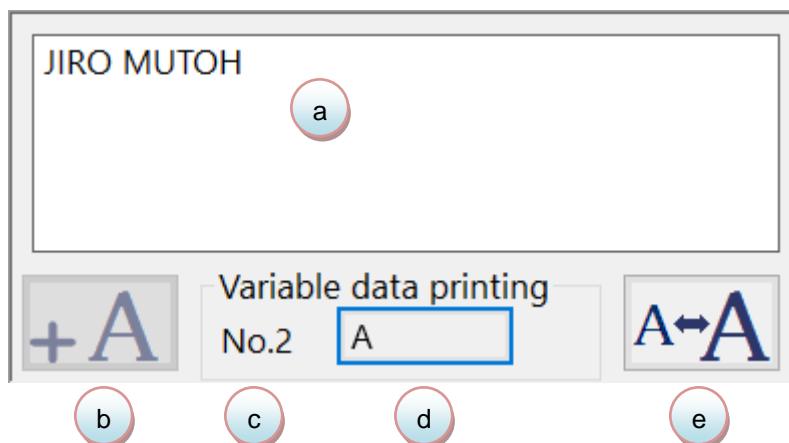
a	Enable variable data printing	Check this box to enable variable data printing. Uncheck this box to clear the Variable Data Printing dialog.
b	Load CSV	Open the CSV file to load the variable data.
c	Sync file	Load the CSV file again.
d	Data start row	(If the CSV file contains the header row) specify the row where your data starts.
e	Character set	Choose the character set encoding used in the CSV file.
f	Row number	Displays the row number in the CSV file.
g	Left/Right arrows	Click the left/right arrow to switch to the next/previous column in the CSV file.
h	Contents	Displays the contents written in the CSV file.
i	Attribute	Displays an attribute of the variable element (text or image).
j	Added/ Not added	“Not added” appears if the column is not inserted (disabled). “Added” appears if the column is inserted (enabled) for variable data printing.
k	Add object	Click [+] to add (enable) an element to use it for variable data printing.
l	Next print	Select the first row where the next print starts in the CSV file. It will automatically count up once the print job is done.
m	Total number of rows	Displays the total number of rows loaded from the CSV file.

- 2) Check **Enable variable data printing**, then click “...” to choose and load a CSV file.
- 3) Choose the character set from the drop-down list.
- 4) If the CSV file contains the header row, specify the row in the Data Start Row field.
- 5) Specify the row in the Next Print field to select the row where the next print starts.
- 6) Click “+” to add an image or text to use it for variable data printing.

**How to edit a text element**

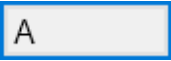



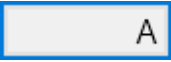
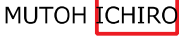
You can change a text font or color like usual font options.

See 7.12 Insert Text for more details.



a	Text preview	Displays a text currently selected. You cannot edit the text in the preview. To change the text, edit the text in the CSV file and click <b>Sync File</b> to load it again.
b	Add text	-
c	Column number	Displays the column number of the text selected.
d	Text alignment	Align a text in the element frame.
e	Font	Click to open the Font dialog.

The length of the text inserted may vary by row. You can use the text alignment feature to align text on the element frame.

Text alignment	Function
Left align 	Align the text to the left in the element frame. 
Center 	Align the text in the center of the element frame. 
Right align 	Align the text to the right in the element frame. 

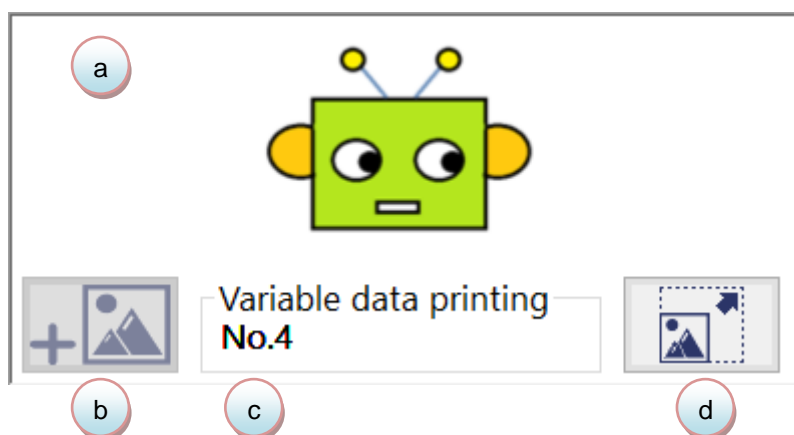
**How to edit an image element**

The layout of the text can be changed within the element frame.

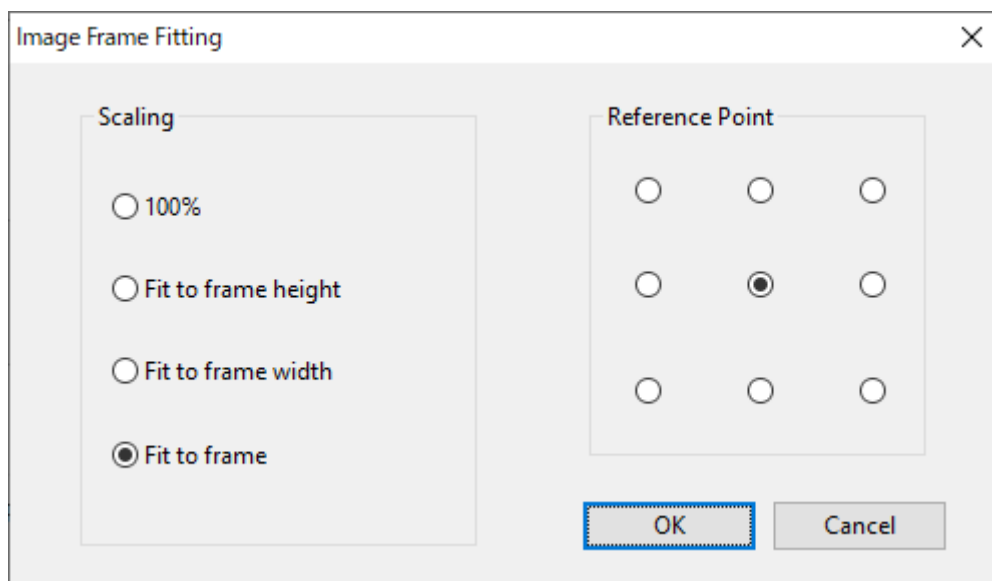
You can use the Image Frame Fitting feature to change the layout or resize the image.

**NOTE**

- The cropping tool is disabled.



a	Image preview	Display an image selected.
b	Add image	-
c	Column number	Displays the column number of the image selected.
d	Image frame fitting	Scale or align an image in the element frame.



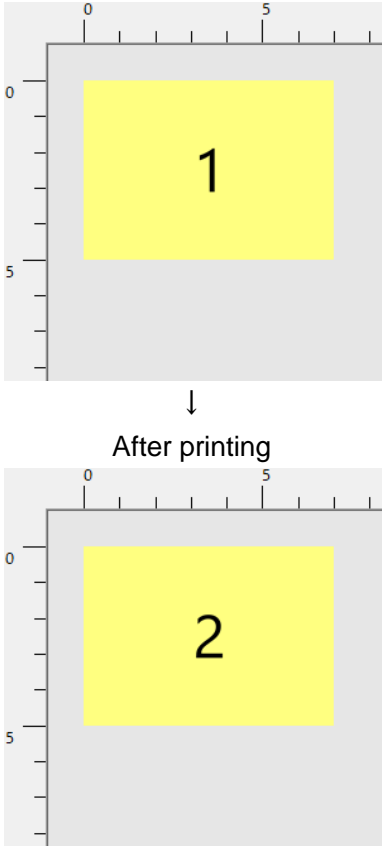
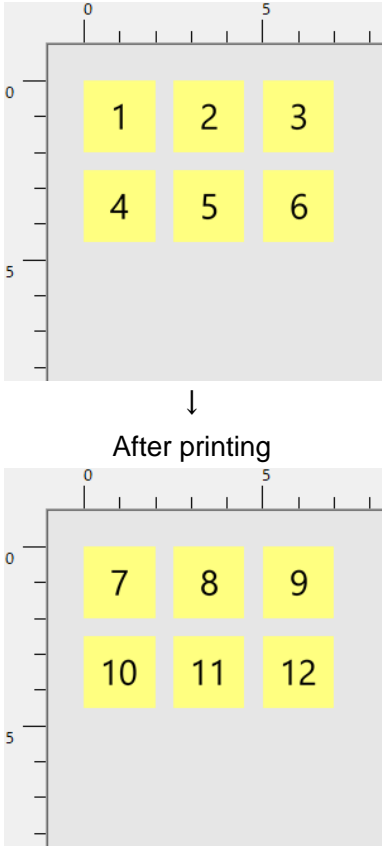
Scaling	Function
100%	An image can be printed with original size.
Fit to frame height	An image is scaled to fit to the height of the element frame.
Fit to frame width	An image is scaled to fit to the width of the element frame.
Fit to frame	An image is scaled to fit to the height or width of the element frame whichever greater.

To move the position of the image in the element frame, change the referent point.

**How to print**

Once you finish editing, you can print from Layout Tool 2 by usual printing methods. See 7.17 Print, 7.18 UV Flatbed Printing, or 7.19 Roll Printing for more details.

After printing, the Next Print row will be updated automatically.

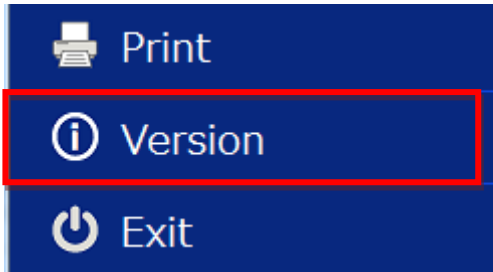
When printing one copy in a single printing	When using sub area + duplicate image
	

**NOTE**

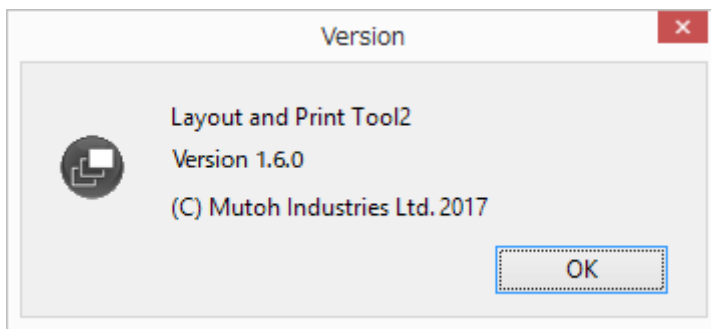
- If you are using a roll printer, you can continuously print multiple copies by specifying the number of copies in the Choose Print Mode dialog.

## 7.35 Version Check

Click **Version**.



The version of Layout Tool 2 will be displayed.



## 8 License

This application uses following open source library.  
For this software license agreement document,  
please see LICENSE file in the application folder.

Open Source Computer Vision Library (OpenCV)  
Ver.2.4.10

Copyright (C) 2000-2008, Intel Corporation, all rights reserved.  
Copyright (C) 2009-2010, Willow Garage Inc., all rights reserved.



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