Plug-in Cutting Software

Fi*n*e Cut 5 *for Illustrator*®

Windows® / *Macintosh*®

OPERATION MANUAL

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D201007

About FineCut

Thank you very much for purchasing a product of Mimaki.
FineCut, a plug-in software for Adobe®Illustrator®, offers simple operation and stable cutting environment which have never been realized by other cutting software.

System Requirements

The following conditions are required to use FineCut5.

Windows:
- IBM PC or compatible mounting Pentium processor or compatible CPU
- Microsoft® Windows®98, Windows®ME,
  Windows®NT4.0 (service pack 3 to 6a), Windows®2000, Windows®XP
  (When connected to a plotter by USB, Windows2000 Service-Pack3, WindowsXP Service-Pack1, or later version is required.)

Macintosh:
- Macintosh mounting Power PC
- Mac OS 8.1 to 9.2.2, Mac OS X 10.1 to 10.3
  (When connected to a plotter by USB, Mac OS 9.22, Mac OS 10.2.5, or later version is required.)

Monitor:
- 800 x 600 pixels, or higher resolution is required

Software:
- Adobe®Illustrator® 8 to 10, CS (English Version)

Plotter:
- Mimaki CG series, Mimaki CF-0912 series

Notes:

- Do not copy this manual in whole or parts in any form without prior approval from Mimaki.

- Do not copy this software to any other disk for the purpose of other than making a backup disk or load it in memory for the purpose of other than execution.

- Except for the damages prescribed in Warranty Notes of Mimaki Engineering Co., Ltd., Mimaki Engineering Co., Ltd. assumes no responsibility for effects (including loss of income, indirect damages, special damages, or other financial damages) resulting from the use or non-use of the product. This also applies to the case when Mimaki Engineering is notified of the possibility of damages. For example, Mimaki Engineering Co., Ltd. assumes no responsibility for damages of media (work) caused by using this product and indirect damages caused by a product created using the media.

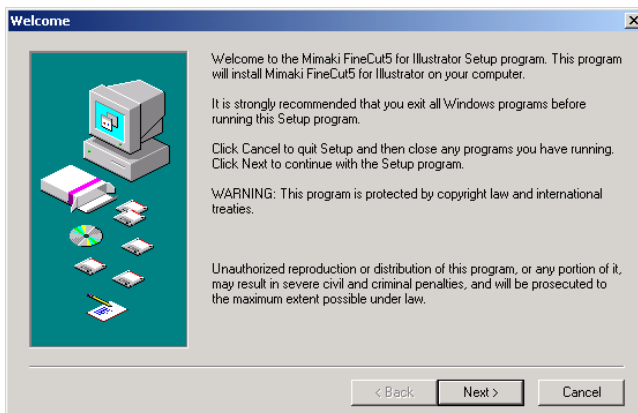# Table of contents

Installation procedure (Windows)

For more detail, refer to "Read me.pdf".

1 | Turn on the power of the personal computer and then start Windows.

2 | Set the CD-ROM of FineCut into the disk drive.
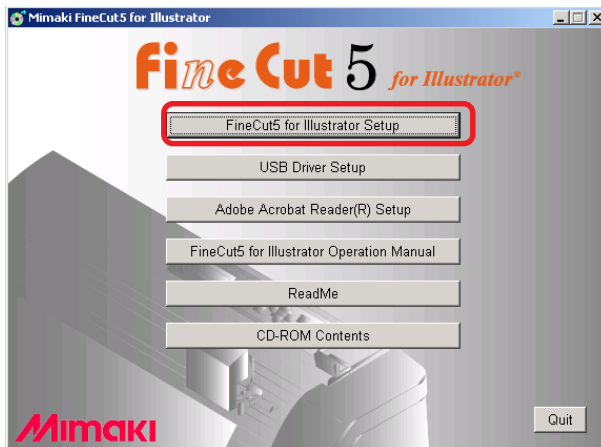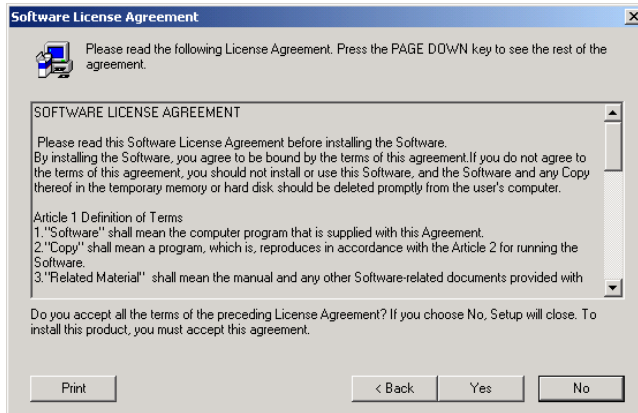

Click FineCut5 for Illustrator Setup .
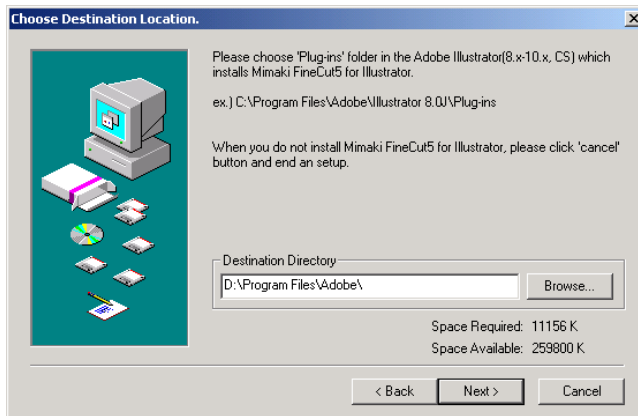
3 | Set up screen is activated.

Click Next .

4 | The Software License Agreement screen appears.

Read this thoroughly and then click Yes .

5 | Select the location to which the software is to be installed.

Click Browse... , and then double-click the plug-in folder in the target Illustrator.
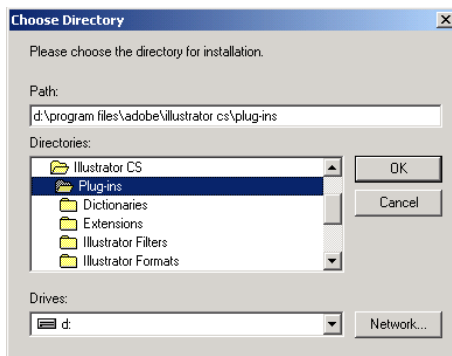
Select the target plug-in folder, and then click on OK .

3

6 | Return to the Choose Destination Location screen.
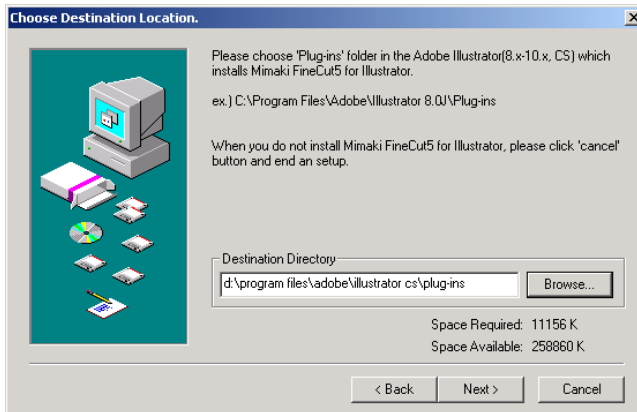
When in need of changing the destination directory, click Browse.. .
Click Next .

7 | Installation starts.

To stop installation, click Cancel .

8 | Setup procedure completes.
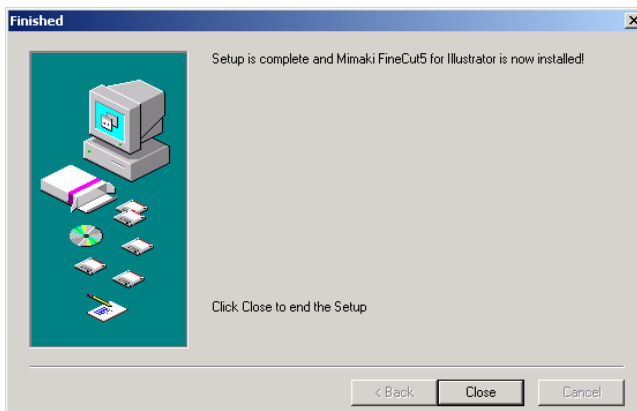
Click Close .
Installation of the FineCut completes.

Installation procedure (Macintosh)
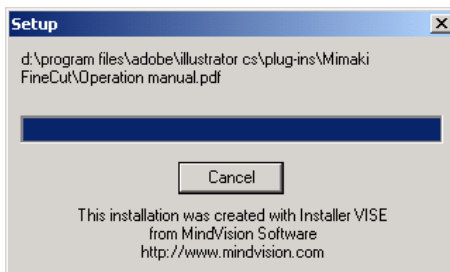
For more detail, refer to "Read me.pdf".

1 | Turn on the power of the personal computer and then start Macintosh.

2 | Set the CD-ROM of FineCut into the disk drive.

3 | Open CD-ROM drive and double-click on the FineCut CD icon.

FineCut5 for AI

4 | FineCut folder opens.

FineCut5E Beta10

10 項目、0 KB 空き

About FineCut Installation license.txt

for Illustrator 8   for Illustrator 9   for Illustrator 10   for Illustrator CS

Operation Manual.pdf   Readme.pdf

USB Driver for MacOS 9.2.2   Adobe Acrobat Reader
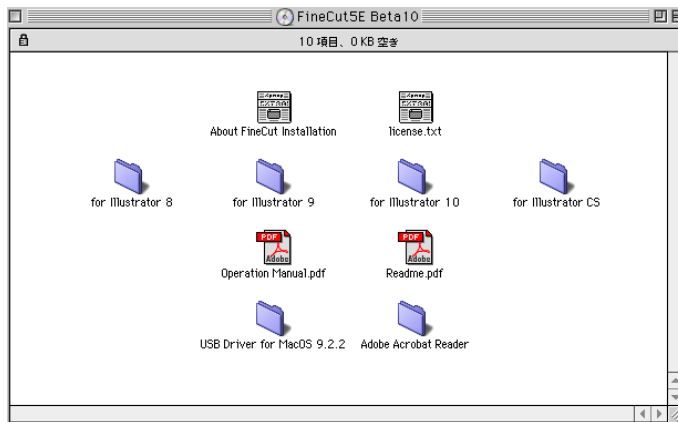
Double-click on the folder with the target Illustrator version.

5 Drag to the plug-in folder in the Illustrator that uses Mimaki
FineCut folder.

FineCut installation completes.

▶ *USB Serial Adapter for Macintosh* ◀

A USB-serial adapter is required to use FineCut with the application of Macintosh USB port.

Mimaki recommends the optional USB-serial adapter (with a model number of OPT-SS036).
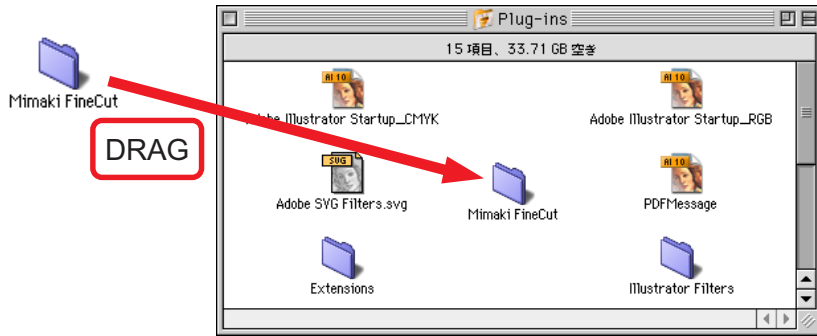
The USB-serial conversion adapter may not operate normally because of a problem between the adapter and the operating system of the computer. Before using an adapter from other manufacturers, contact the manufacture of the USB-serial adapter for existence of problems between the adapter and OS in use.

About This Manual

FineCut Operating Manual describes the FineCut functions.

Notations

Menu items are enclosed in square brackets like [File] menu. Buttons displayed in a dialog are framed like | Plot | .

Symbols

⚠
CAUTION   Indicates a caution you must observe when operating the product.

Indicates a procedure you must perform.

Describes a useful procedure.

The following functions have been added.

1. Support of Adobe Illustrator CS

2. Create a precut line [Weed Line] (Refer to page 29)
   Enables to create a precut line (called as Weed Line) around the object to remove with ease the unnecessary portion of the cut seal.

3. Shadowing/Edging (Refer to page 26)
   Enables to create four kinds of shadows and edge with ease.

4. Select cut condition on each color/layer (Refer to page 39)
   Ebables to select cut condition on each color/layer.

5. Specify the output condition directly (Refer to page 78)
   Enables to output a work by specifying condition on "PlotOut" display even if the output condition has not been registered.

6. Move within a sheet/Fit to a sheet size (Refer to page 74)
   Enables to move an object at the center or corner of a sheet only by a click.
   Alternatively, it enables to enlarge or reduce the object within the sheet.

7. Save/Output a plot file (Refer to page 80)
   Enables to save/output a plot command data.

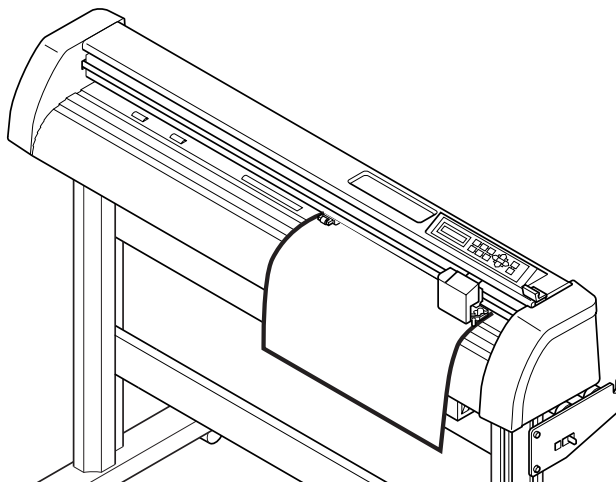8. Improve the maximum cutting size from 10m to 51m

Let's cut !

The following process shows how to cut ABC at the lower right of the A3 size sheet using Mimaki CG cutting plotter series.

Additionally, make a frame around the ABC, and cut it 5 mm away from the characters.

A3 size sheet

Frame

ABC
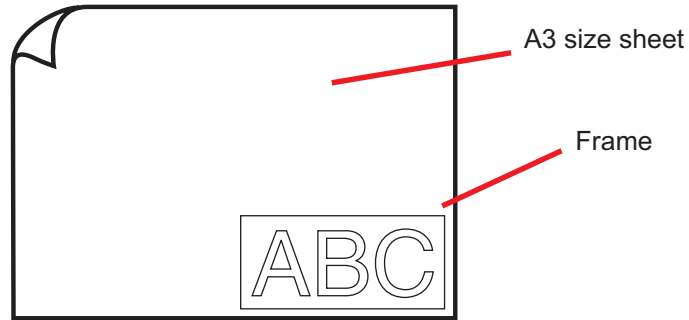
1   Load a A3 size sheet into a plotter as shown below.
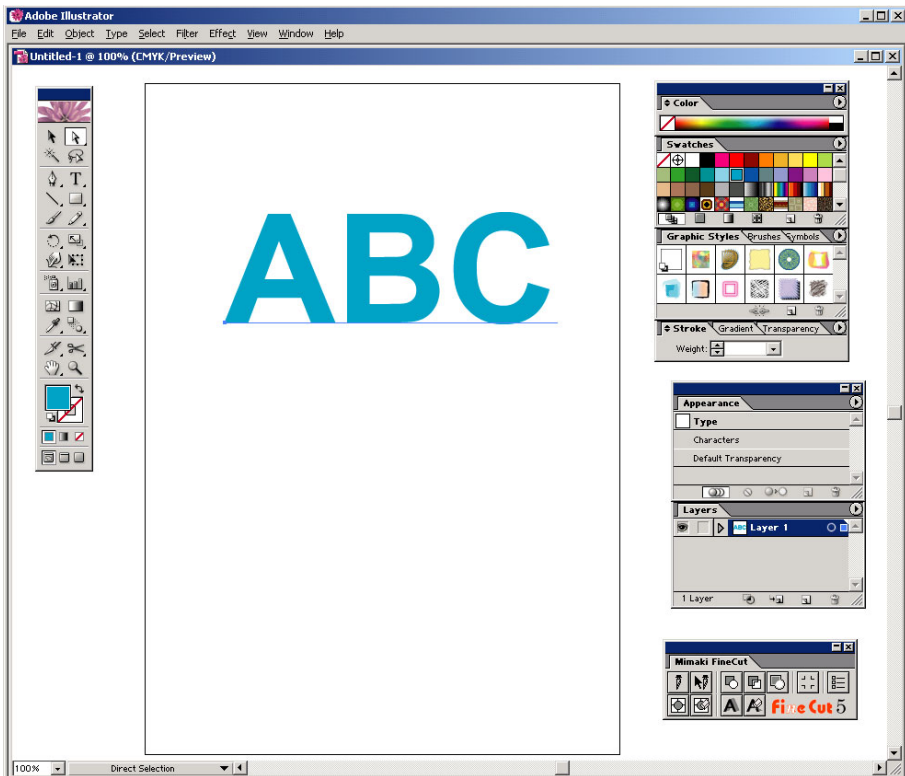

2   Set the plotter to REMOTE mode.

> Be sure to set the plotter to REMOTE mode. In case the LOCAL mode, FineCut cannot load the sheet length.

3 | Activate Illustrator.

No need to set the paper size to A3 size.

Display "FineCut menu" automatically.

4 | Use the Lettering Tool to enter "ABC".

5 | If "FineCut menu" is not displayed. Select [Show FineCut Menu] from the [Window] menu in the Illustrator.

6   Click │ Plotter / User Setup... │ button in the FineCut menu.

Alternatively, select [Plotter/User Setup..] from the [File]-[FineCut] menu.

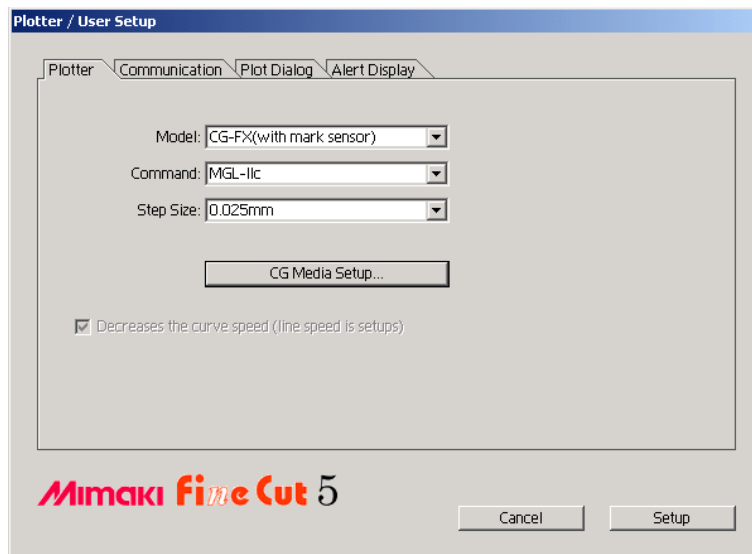## 7   Set the plotter.

Be sure to set the same values for Plotter and Communication as the settings on the plotter. (Refer to page 66)
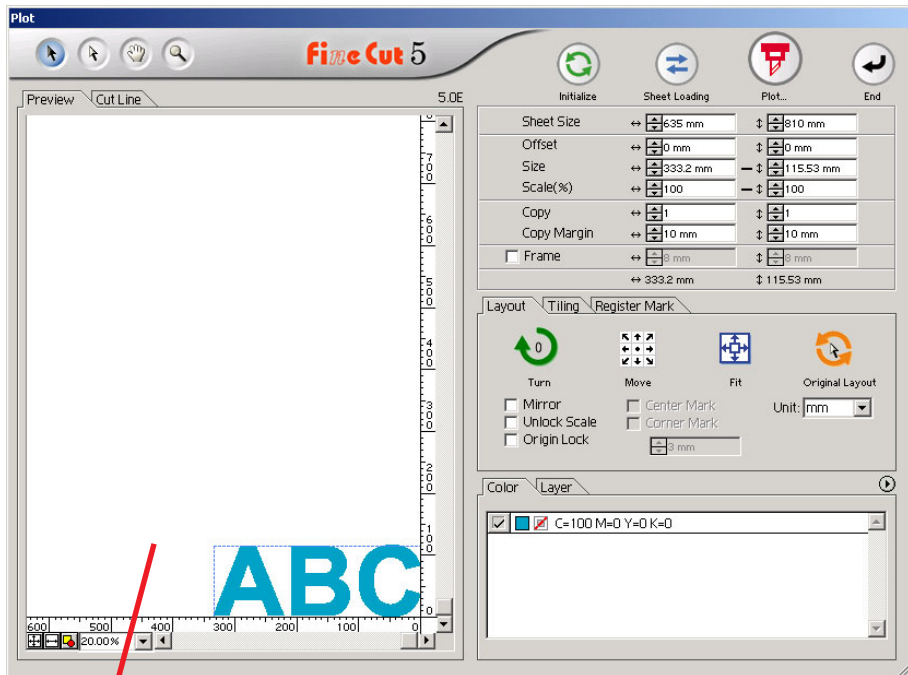
CAUTION

If the entered values differ from the settings on the plotter, the object will not be output normally.

Click │ Setup │ .

8 | Click ｜Plot｜ button in the FineCut menu.

Alternatively, select [Plot] from the [File]-[FineCut] menu.

The effective cutting area
(Mimaki CF Series set the origin point to the bottom left of a sheet.
Therefore, ABC characters are displayed at the bottom left.)

⚠ **CAUTION**

If the ⚠ mark is displayed on the left of ⇄ Sheet Loading button, the plotter sheet size cannot be loaded. Set the plotter to REMOTE mode and then click ⇄ Sheet Loading button to load the sheet size.

9 | Setting a frame.

Set a frame at 5 mm around the object. Check the [Frame] check box and enter value 5 as the frame space.

10 | Click 🖤 Plot button.

Plot Out dialog appears.

Set the cut condition. (Refer to page 78)

Select " Plotter Condition" to use the preset cut conditions on the plotter.

⚠️ **CAUTION**

Make sure to match the media conditions to the preset values on the plotter. If the entered values differ from the plotter settings, the object will not be cut normally.

11 | Click Plot button to start plotting.

The origin point is set to the bottom right of the sheet. Therefore, the object cutting is performed from the bottom right (bottom left with Mimaki CF Series).
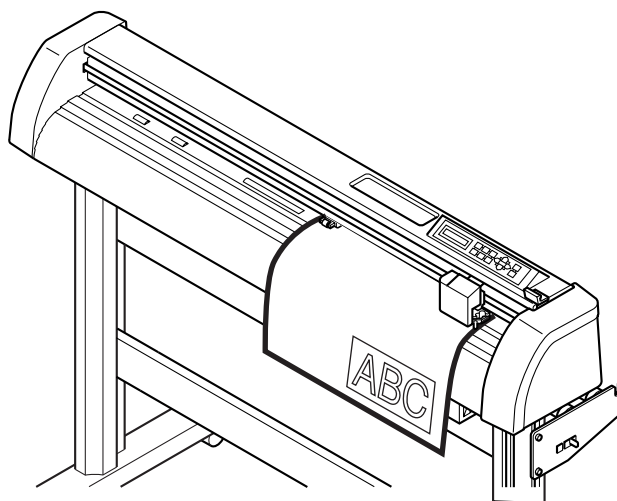
12 | Click ↵ End button.

Plot dialog closes.

Advanced Operations

Enlarge and Reduce an Object

Enlarge or reduce an object. Move the mouse cursor to a corner of the object and then drag it.

1. Enlarge or reduce the object with a fixed aspect ratio.

Click [Unlock Scale] on the Option menu, and uncheck [Unlock Scale]. Enlarge or reduce the object as dragging a corner of the object.

It indicates the ratio is fixed.
(Refer to page 73)
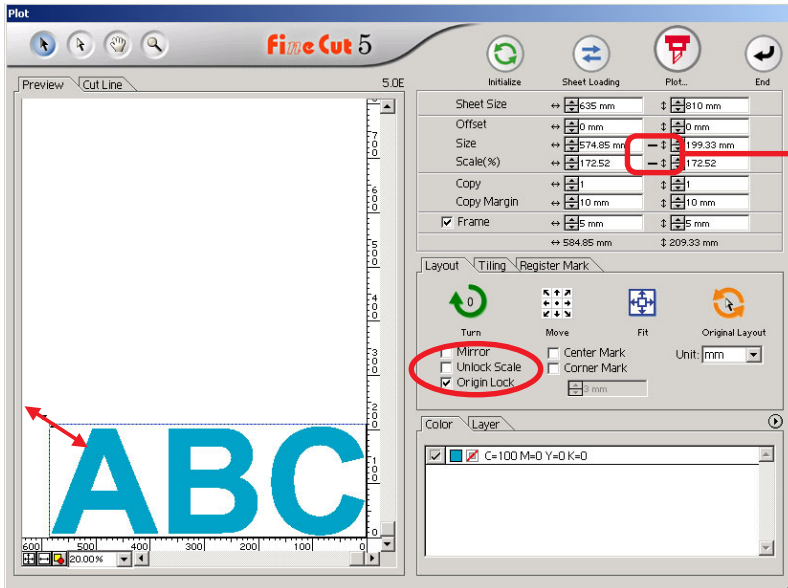
2. Enlarge or reduce the object only along horizontal or vertical direction.

Click [Unlock Scale] on the Option menu. Enlarge or reduce the object as dragging the left or right corner or the top or bottom corner of the object.
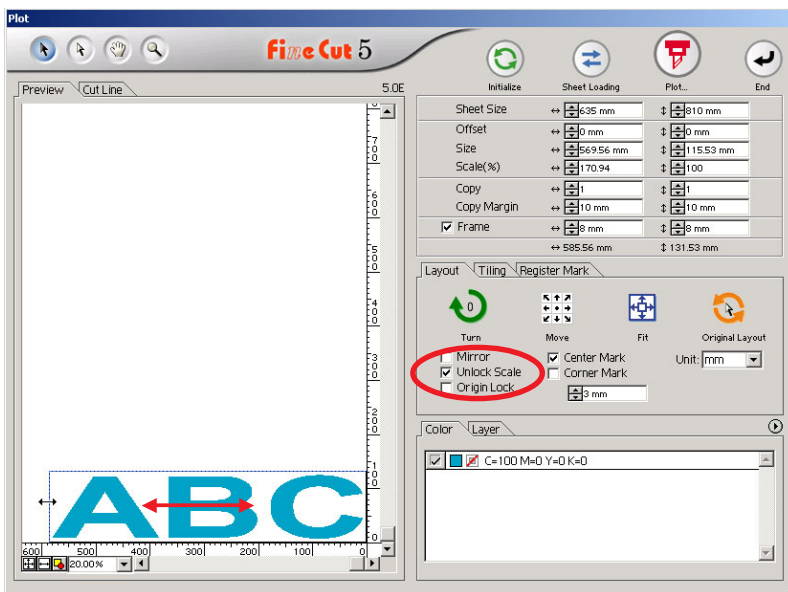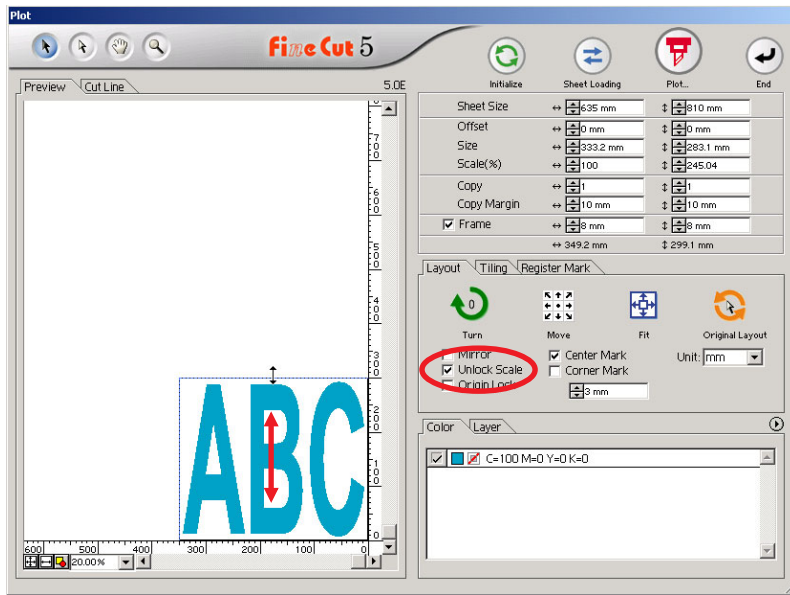
- Drag the mouse as holding down the Shift key of the keyboard to enlarge or reduce the object with the aspect ratio retained.
- Change the horizontal and vertical sizes separately before invalidating Unlock Scale to enlarge or reduce the object with the new aspect ratio retained.

Enter the values of the Size and Scale on the Size Enter Box to enlarge or reduce the object more precisely.
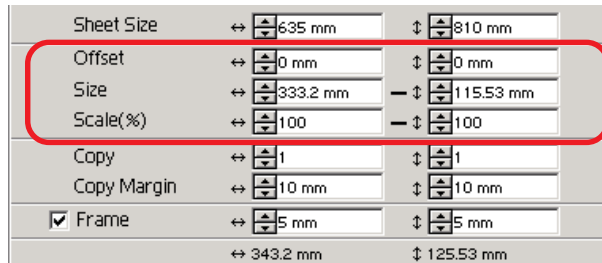
Mark the center and corners

Marking an object frame to align the position for affixing a cut seal.

Cut seal can be affixed by aligning the mark on the ruled lines as shown below.
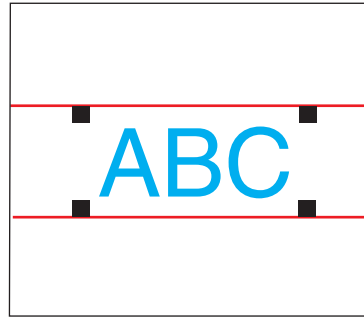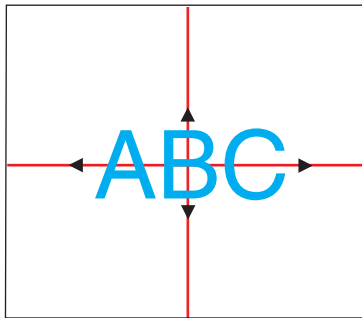
1. Determine the center position of the seal affixing area and draw ruled lines.
2. Align the center mark with the ruled lines; Enables to affix to the expected position.

1. Draw ruled lines.
2. Align the corner marks on the ruled lines or pre-drawn ruled lines; Enables to affix horizontally.

Mark the center.

Check [Center Mark] checkbox on the Options menu. Enter the marking size.
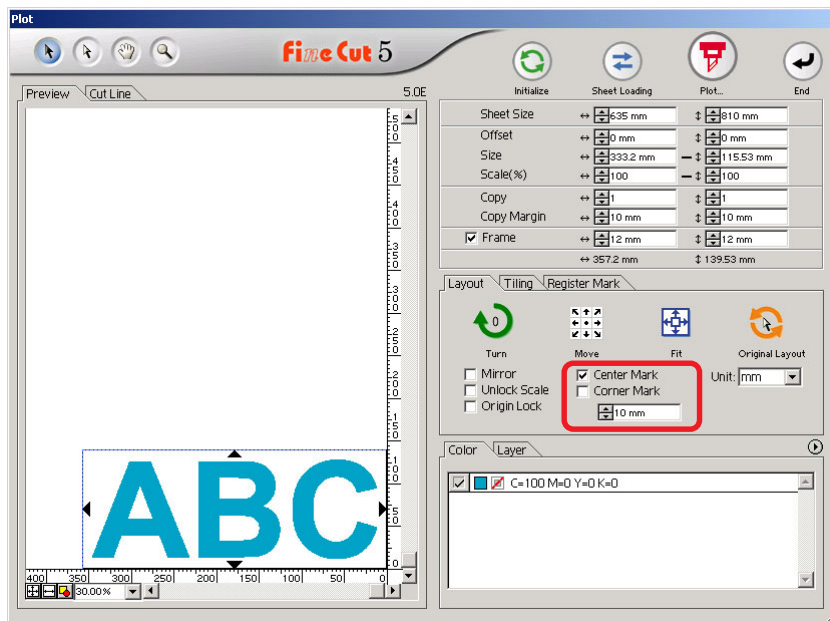
Mark the corners.

Check [Corner Mark] checkbox on the Options menu. Enter the marking size.
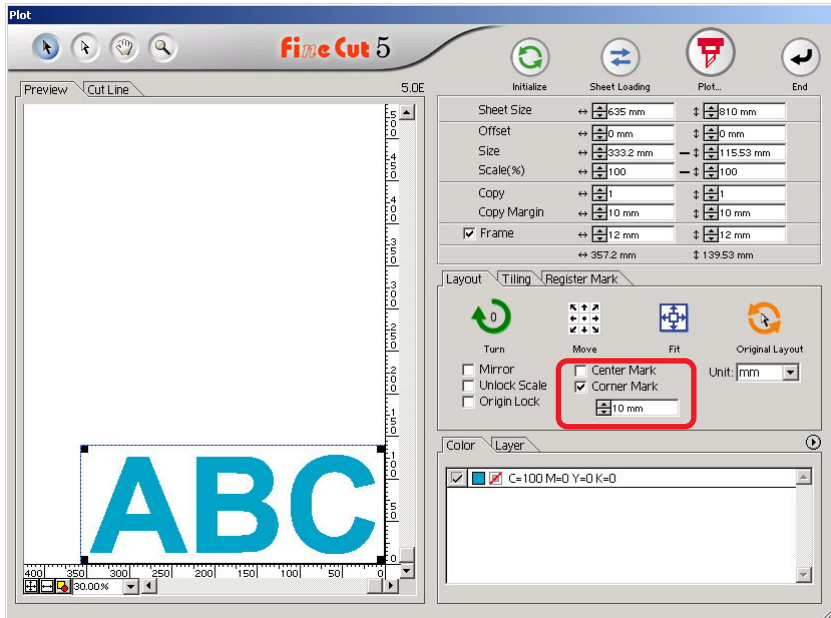
Cut an Object Multiple Times (Copy)

Use the copy function to cut an object multiple times vertically and horizontally, Use the copy function.

The following example shows how to cut ABC on the A3 size sheet.
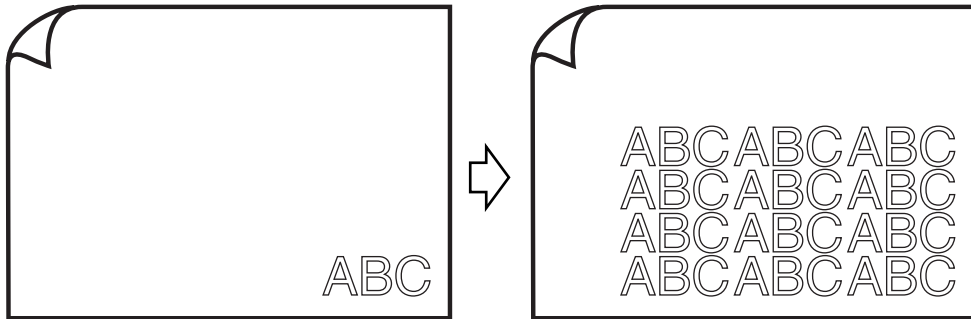
Enter value 3 for horizontal and value 4 for vertical on the [Copy].

Set the margin between objects (horizontally and vertically) to 10 mm.

The total length indicates the size including all margins of the object.
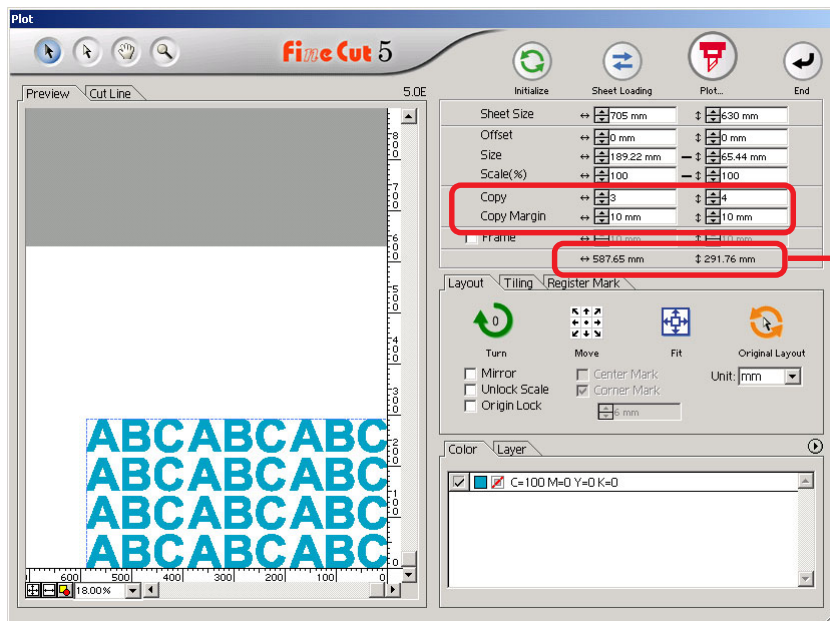
Set the frame at 10 mm around the object.
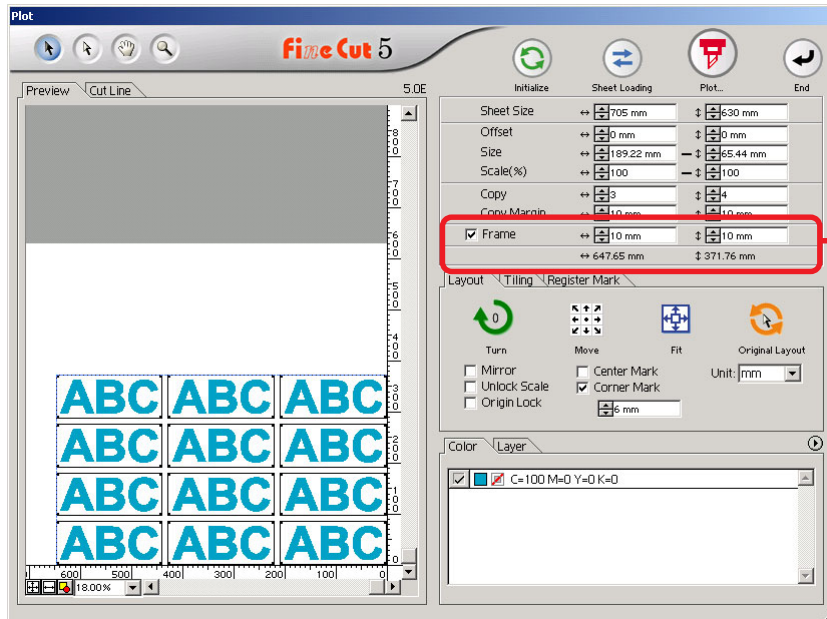
The total length indicates the size including the frame size.

⚠ **CAUTION**

When setting a frame, it is set for each object. Cannot enclose all the copied objects with a single frame.

Divide and cut an object (Tiling)

Use the tiling function to cut the object divided into pieces.

This function enables to create a signboard greater than the sheet width.

In this section, each divided object is called as "Tile".

Divide an object.

1 Click [Tiling] tab.

2 | Set the tiling pattern.

```
Layout \ Tiling \ Register Mark \
    Separation
  ⊙ All Tiles        ↔ 224.58 mm      ↕ 128.37 mm
  ○ Detail Size      □ Show Size
    Overlap  3 mm              Build Order
  □ Mark    10 mm           Tiles Space  3 mm
```
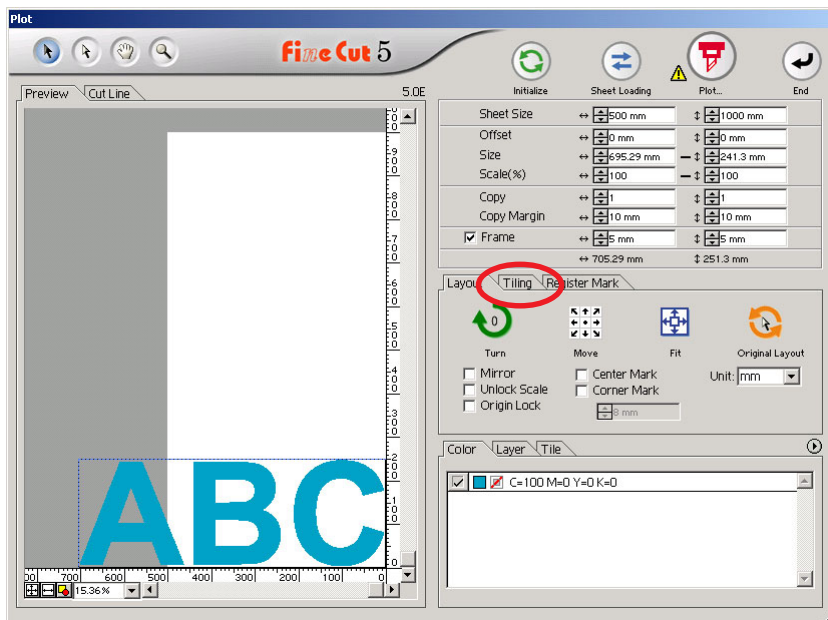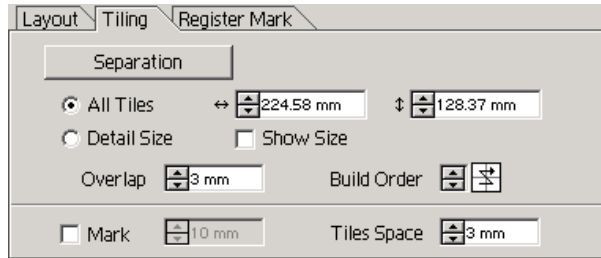
(1) All Tiles   Enter the tile size. Divide into same tile size.

(2) Detail Size   Shift the division line of the cut area to define the tiling position.

(3) Show Size   Displays the size of each divided tile.

(4) Overlap   Set the tile overlapping margin.

(5) Build Order   Set the object cutting order. This cutting order is the order of affixing cut tiles to a sign board. Cutting order is displayed at the lower right of each object.
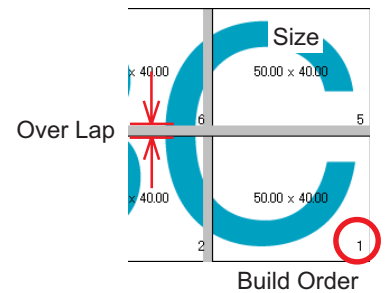
It determines the tile numbers and the overlapping direction.

"Build Order" can be selected from the following eight patterns:
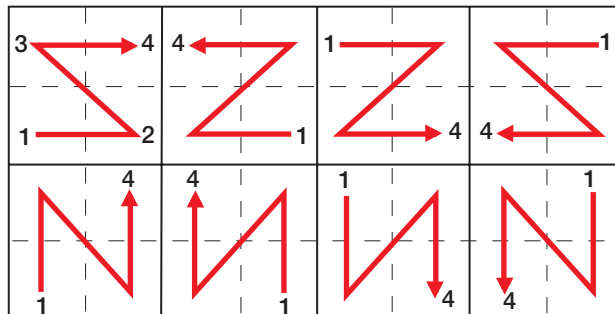
3   Click Separation button. (Refer to page 75)
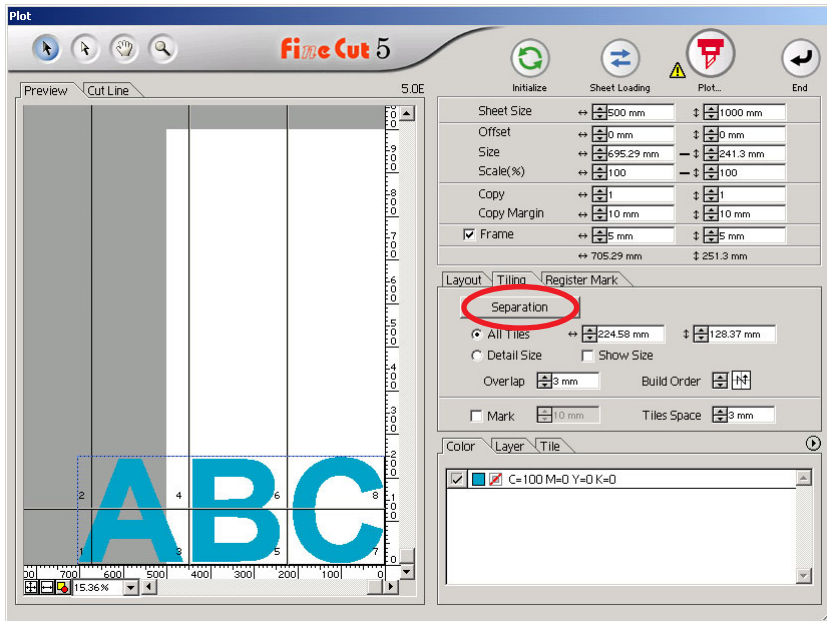
4   The divided object is displayed.
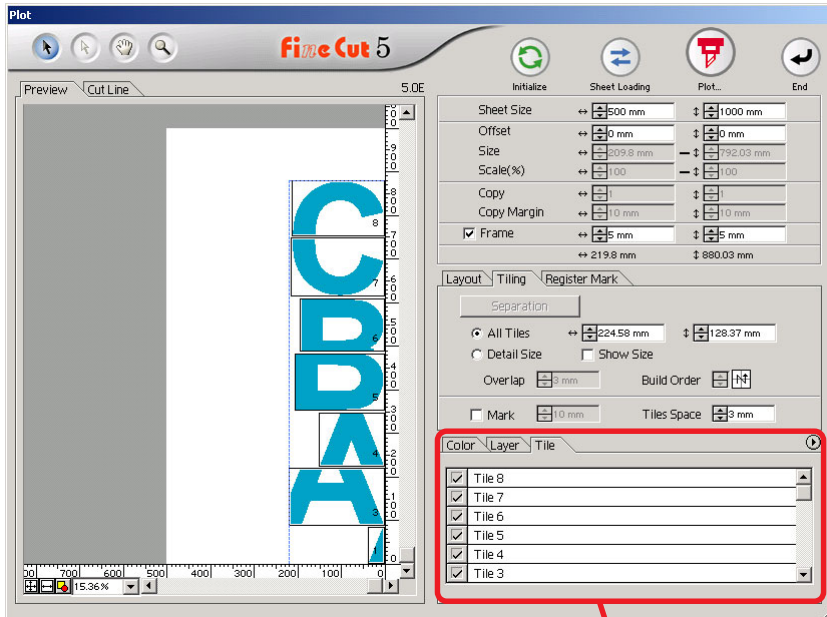
A tile list is displayed.

5 | Set [Mark] and [Tile Space] of Tiling option.

1
2
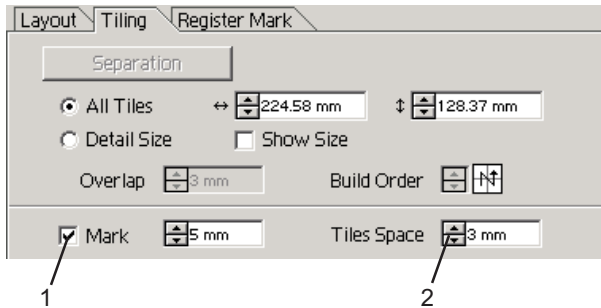
(1) Mark :   Mark the divided object.

The marked object can be built up easily by matching the marks.

(2) Tiles Space: Enter the cutting space for the continuous cutting of divided tiles.
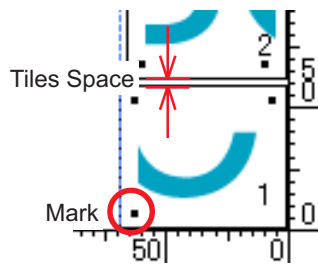
6 | Select the tile to plot from the tile list.
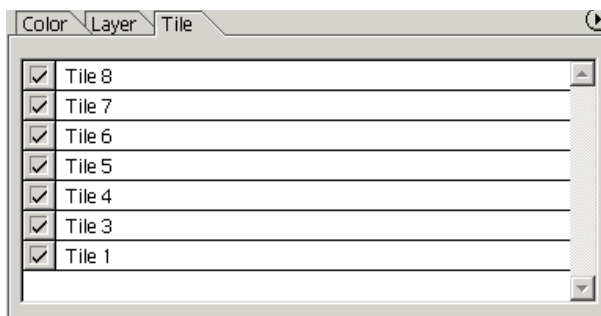
Change the list tab setting from [Tiles] to "Colors" or "Layers" to re-tile the object.

Create Shadow/ Edge

Create a shadowed/edged object. FineCut enables the various shadowing/edging functions with ease operation.

1 Select the object.
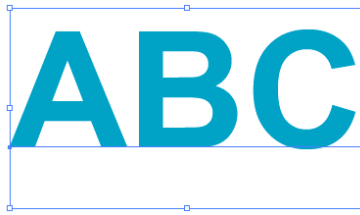
2 Click Create Shadow/Edge button in the FineCut menu.

Alternatively, select [Create Shadow/Edge] from the [File]-[FineCut] menu.

3   Set the shadowing/edging details on the object.

Drag the path to move the object or to change the shape

1) Shape :   Select the shadow type (4types) or edge.

Drop   Box   Perspective   Cast   Edge

2) Options :   Set the offset distance between the object and shadow.
               If selected "Perspective", set the perspective by %.
               For the "Edge", set the corner shape and ratio.
               (For details, refer to "Attaching a Frame" on page 45.)

3) Color :   Set the shadow color.
               Click on Color to display the following setting dialog.

Click on the target color, or inputting the number
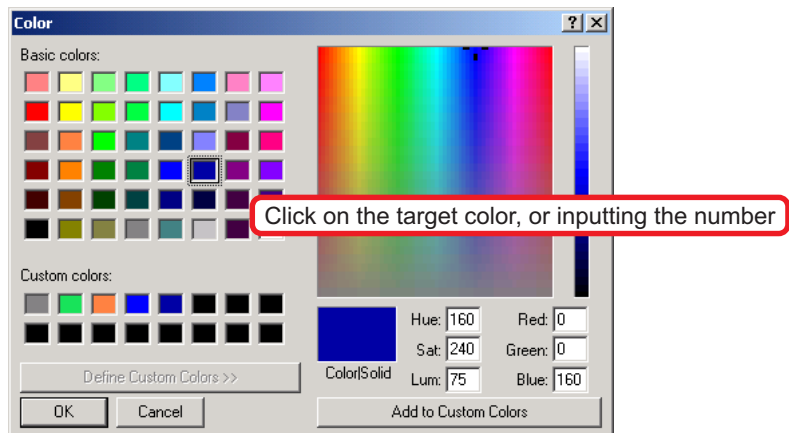
Click OK after selecting a color or inputting the number.

Make sure to specify the RGB colors for the shadow/edge. If the document color mode is CMYK, it may not be able to display by the specified RGB colors. In the case, it is converted to the nearest CMYK colors.

4 | Click OK to create a shadow or edge.
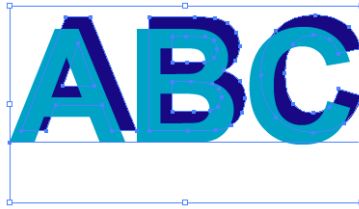
(Black/four-by-four Offset/Drop shadow)

If the multi anchor points are contained within the shadow or edge, execute Illustrator-[Object]-[Path]-[Simplify...].

To remove the created shadow or edge, click Remove the shadow/edge from the FineCut menu.

Note, in case editing the created shadow or edge on the Illustrator, it may not be able to delete.

CAUTION

Create a precut line [Weed Line]

Precut line around the object enables to cut the object with ease.
In this section, the precut line is called as "Weed Line". Weed line function enables to create the precut line and frame.

> The unit used in the Weed Line dialog refers to the Illustrator setting. If changing the unit, reset the unit in the Illustrator-[File]-[Preferences]-[Units & Undo].

> **CAUTION**
> Do not set a precut line (Weed Line) on a thick sheet. If performing precut line (Weed Line) cutting on a thick sheet, it may damage the work.
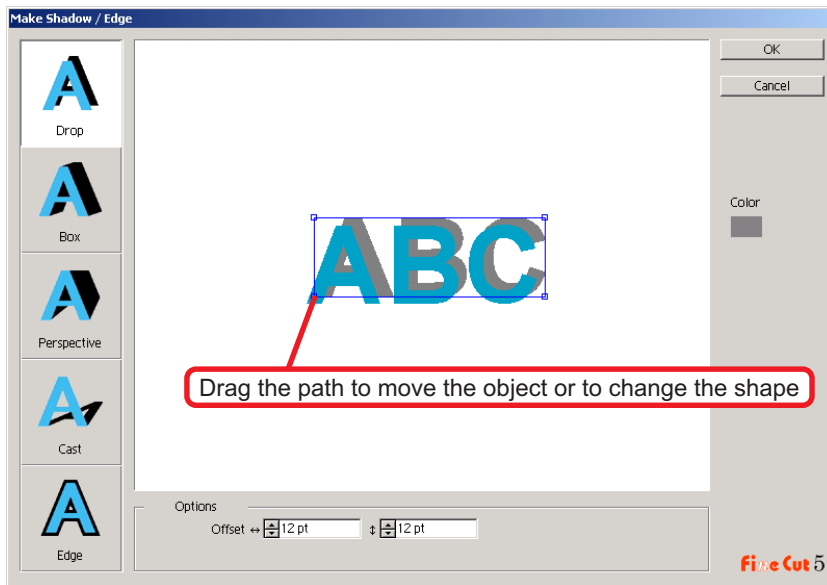
1 | Select the object.

ABC
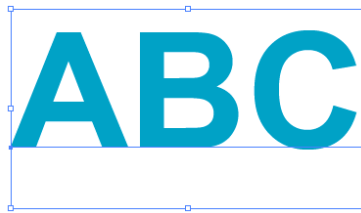
2 | Click Create Weed Line button in the FineCut menu.

Alternatively, select [Create Weed Line] from the [File]-[FineCut] menu.

3 | Set the Weed Line.
There are 3 ways of setting procedure.

1. Free

1) Select [Interval]-[Free].

2) In the [Frame Offset], set the distance between the object and frame.
   (In the dialog below, the distance is set to 10 pt, vertically.)

3) Select the Weed line direction (Horizontal or Vertical) in the [Direction].

4) Click on the target position to create a Weed line.
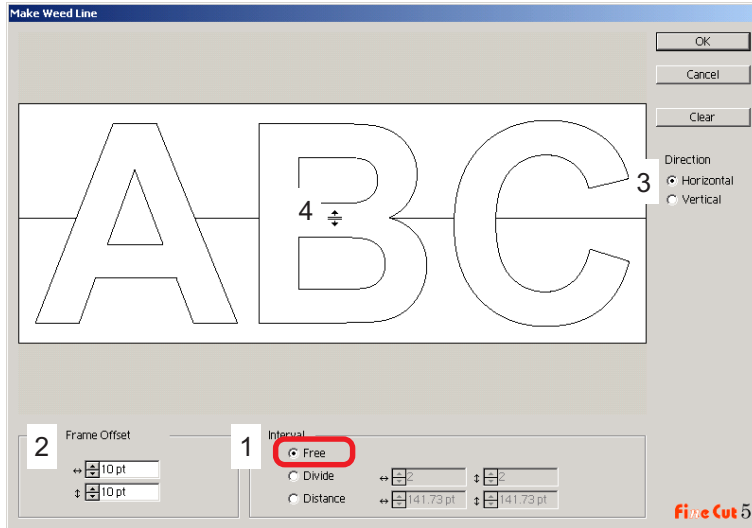
2. Divide

1) Select [Interval]-[Distance].

   Select or input the divide number to both horizontal and vertical directions.

2) In the [Frame Offset], set the distance between the object and frame.
   (In the dialog below, the distance is set to 10 pt, vertically.)

Drag the weed line to move the position
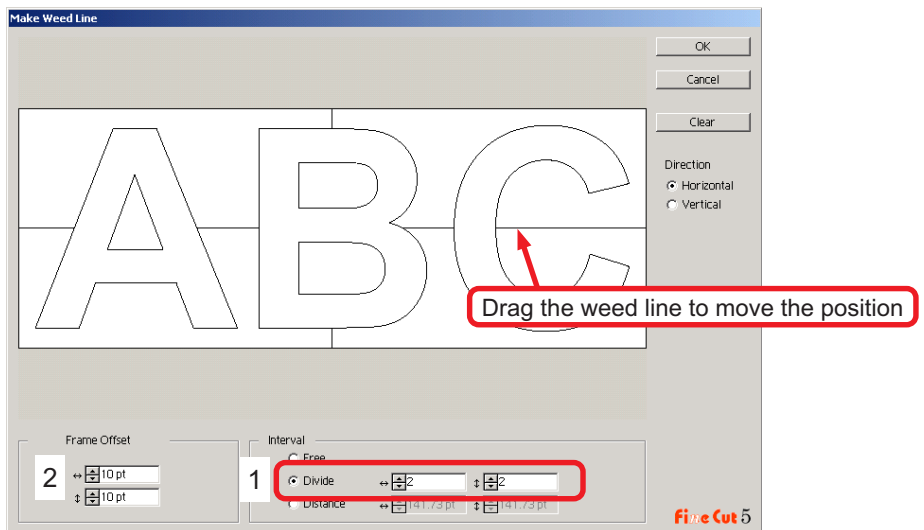
3. Distance

1) Select [Interval]-[Distance].

Select or input the distance in between the objects to both horizontal and vertical directions.

2) In the [Frame Offset], set the distance between the object and frame.

(In the dialog below, the distance is set to 10 pt, vertically.)
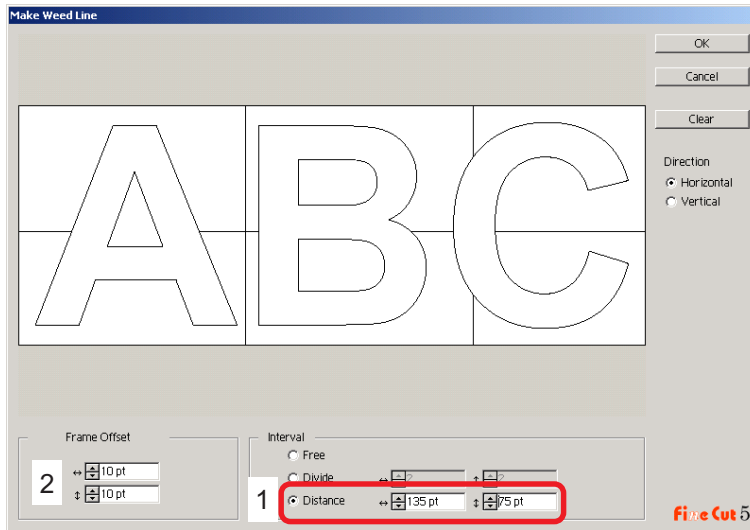
Click on Cancel to return to the Illustrator without creating any weed line on the object. Click on Clear to delete all weed lines.

When removing a precut line (Weed Line) one by one, click on the target line, and drag it up to the edge of the screen.

4   After setting, click OK .
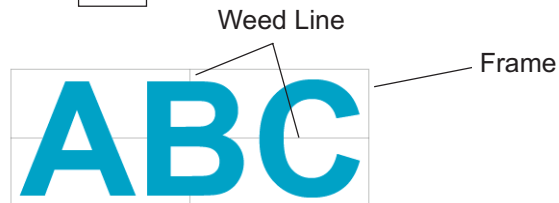
To delete the created weed line, click Remove the weed line in the FineCut menu.

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Cut an Object by Color

If an object consists of multiple colors on Illustrator, you can cut out the specified color object.

The following example shows how to cut out the Cyan (C=100%) colored ABC.
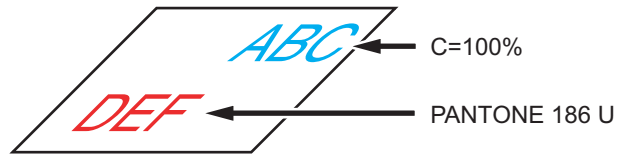
The color list of the Plot dialog indicates the color configuration of the object. Uncheck the check box of the color set of object DEF. Object DEF disappears from the cutting area.
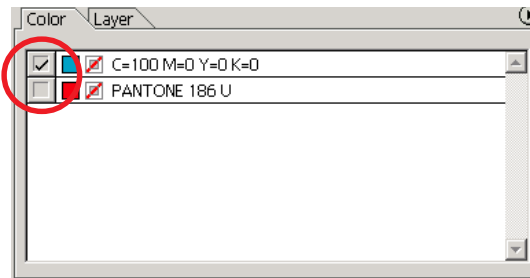
Color List

The color list displays all the colors (including PANTONE and other characteristics) used for the object. It also displays the color of fill and stroke colors of the object.
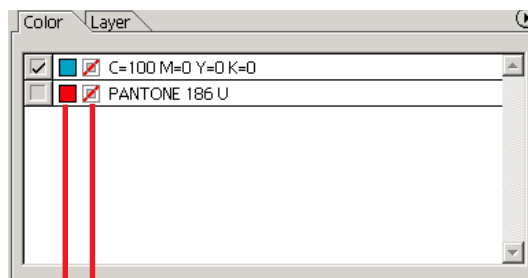
Stroke color : Click the color preview of the stroke color to display the information on the stroke color.

Fill color : Click the color preview of the fill color to display the information on the fill color.

To keep the layout (Origin Lock)

Origin Lock setting   Cut result

Check the [Origin Lock] check box to cut out the object (ABC) retaining the layout position.

☐ Mirror
☐ Unlock Scale
☑ Origin Lock

ABC
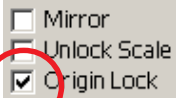
Uncheck the check box to cut out the object at the bottom right of the sheet (bottom left for Mimaki CF series) base on the origin.

☐ Mirror
☐ Unlock Scale
☐ Origin Lock

ABC
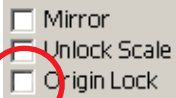
Cut an Object by Layer

If the objects exist on multiple layers on Illustrator, you can cut out the object on the specified layer.

The following example shows how to cut out ABC on layer 1.
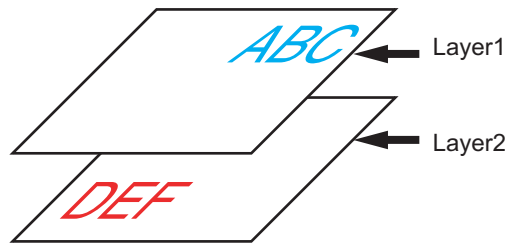
Change the Plot dialog to the layer list.

Uncheck the Layer 2 check box.
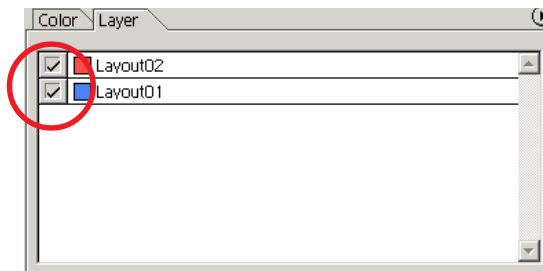
Object DEF on the layer 2 disappears from the cutting area.

Check [Origin Lock] check box to cut out the object retaining the layout position of ABC. (Refer to page 33)

Set Cut Conditions

CAUTION

This function is effective only for the MGL-IIc commands.

FineCut enables to register up to 50 sets of cut conditions for the plotter.

When plotting, you can change the cut conditions depending on the media to be used.

1 | Click Media Setup... button on the [Plotter/User Setup...] menu.

Alternatively, click Edit button in the Plot dialog. (Refer to page 78)
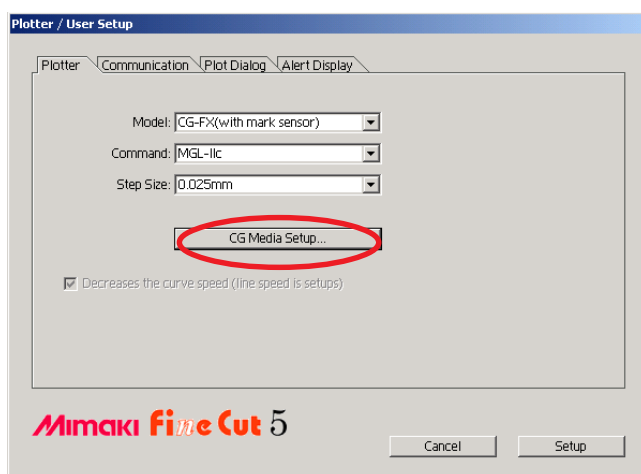
2 | The edit dialog appears.
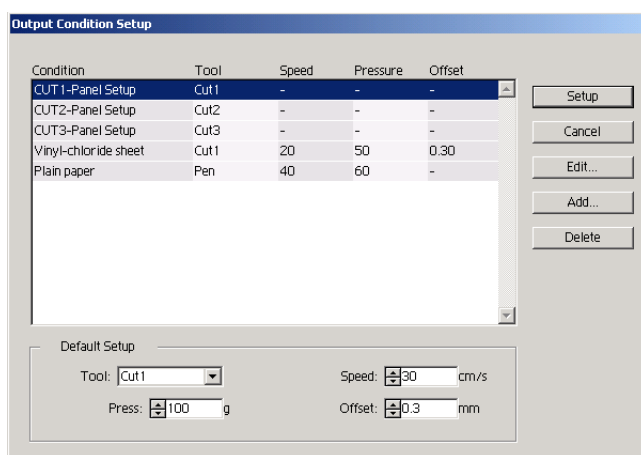
1.Change the output condition.

Select the target tool and click or double-click on Edit button.

2.Add media.

Click Add button.

3 | Check the parameters to set the values for the plotter and then enter the setup information.
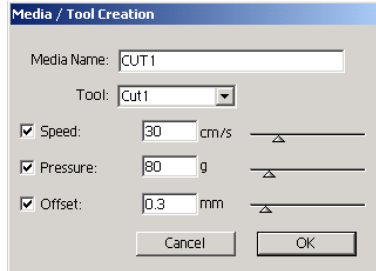
For the unchecked parameters, plotting is performed based on the plotter setting.

4 | Click OK button to add the media to the list in the Output Condition Setup dialog.
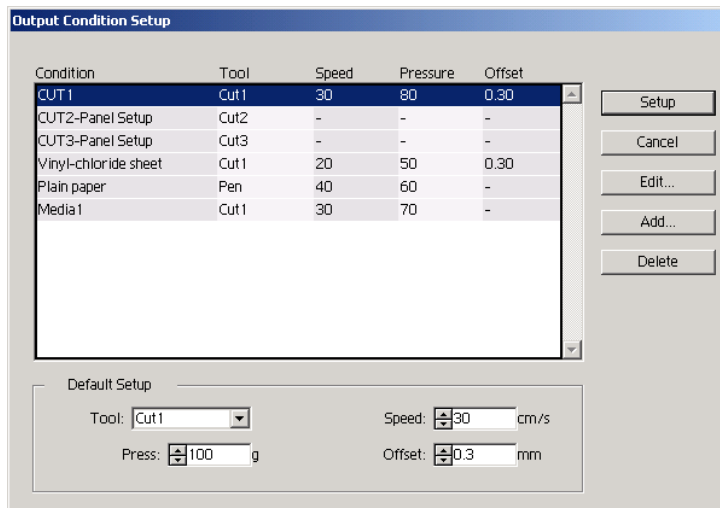
5 | Click Setup button.

⚠ CAUTION

In case any setting value exceeds the limit value on the plotter, plotting is performed based on the limit value of the plotter. For the limit values, refer to the Operating Manual.

6 | Plot the data to cut.

Click Plot button in the FineCut menu.

Alternatively, select [Plot] from the [File]-[FineCut] menu.
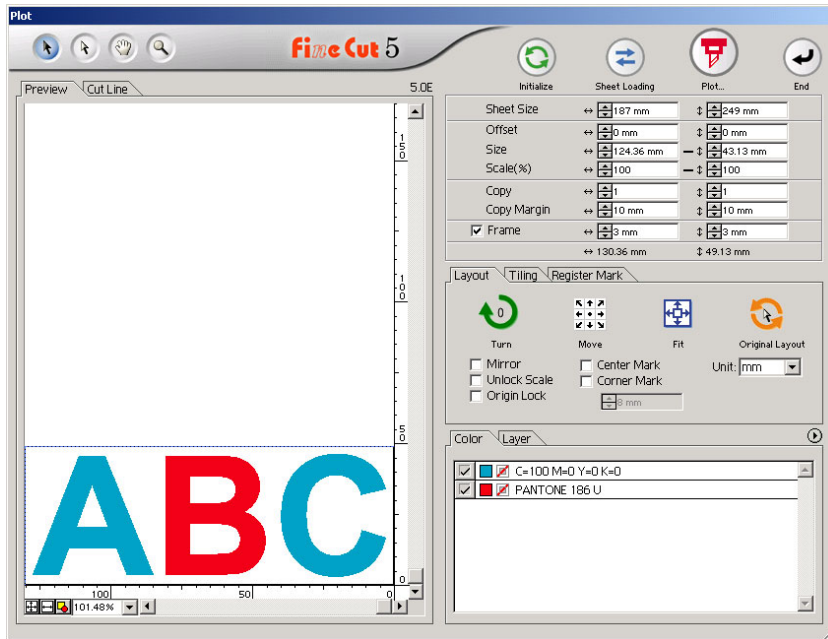
(In case setting the output condition on each color or layer -> Refer to page 39)

7 | Click 🖶 Plot button.

PlotOut dialog appears.

Check the [Select Condition] to select the output condition which has been set in the "Output Condition Setup" dialog. (Refer to page 36)
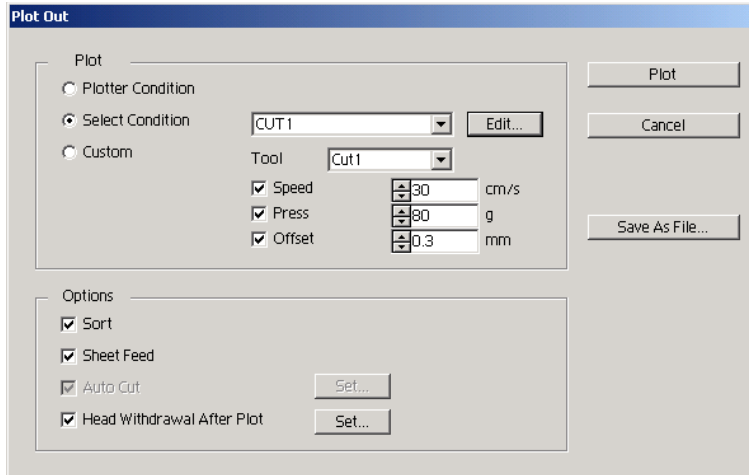
Click Edit to shift to the "Output Condition Setup" dialog to edit the output condition.

Specify the output condition in [Custom]. It enables to plot with the specified output condition without registering in the "Output Condition Setup" dialog.

8 | Click Plot button.

CAUTION

In case, plot with "Select Condition" or "Custom" setting, the setting tempavaly reflect the value of speed/pressure/offset setting in Plotter. To restore the value back in previous setting value in plotter, Push the TOOL jog key when plotter in LOCAL mode.

<Set the output condition on each color/layer>

Output condition is settable on each color list or layer list. For a fine object or small characters, create an object on each color or layer, and set the appropriate output condition (lower cutting speed, etc.) for each to perform neat cutting operation.

Cut a red "B" as changing the output condition.

1 | Click the button on the upper right of the color list (layer list).
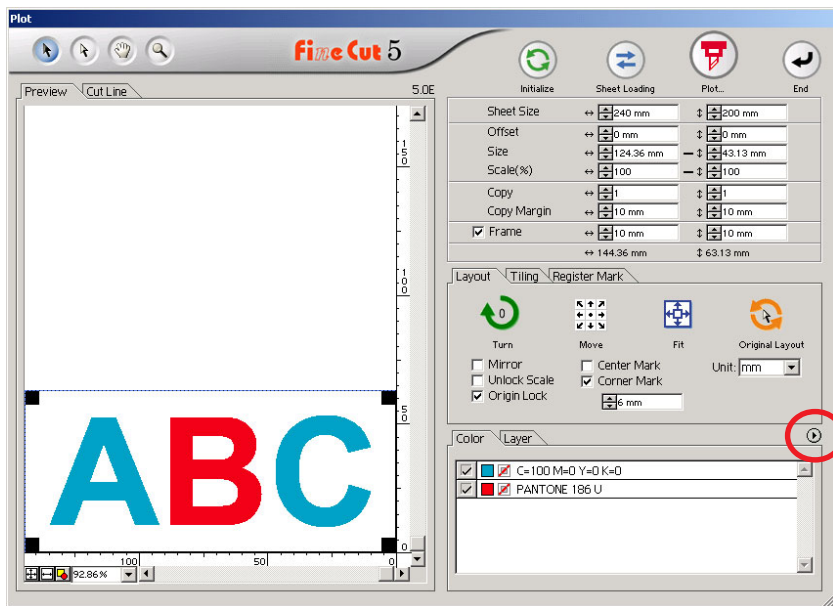
2 | Select [Specify The Plot Condition On Each Color (Layer)].
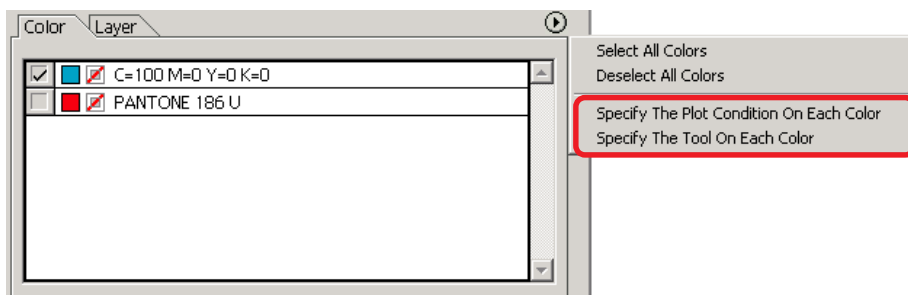
3 Display the following dialog.

Click OK .

CAUTION
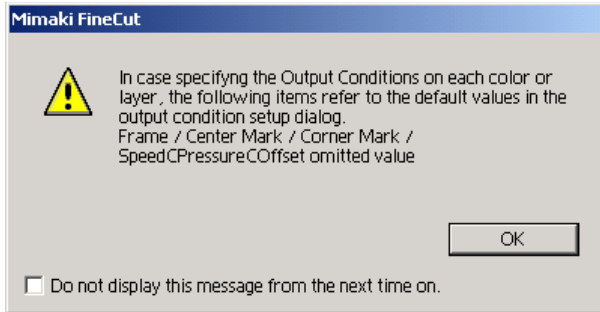
In case setting the plot condition on each color/layer, the set value on the plotter cannot be used. Make sure to check the all condition (Speed/Pressure/Offset) in the check box.
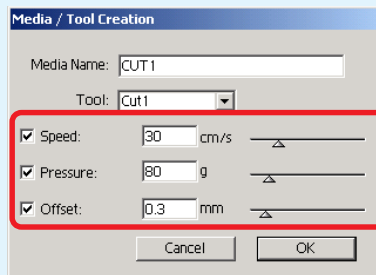
In case no check box is checked, plot operation is performed by the default setting value.
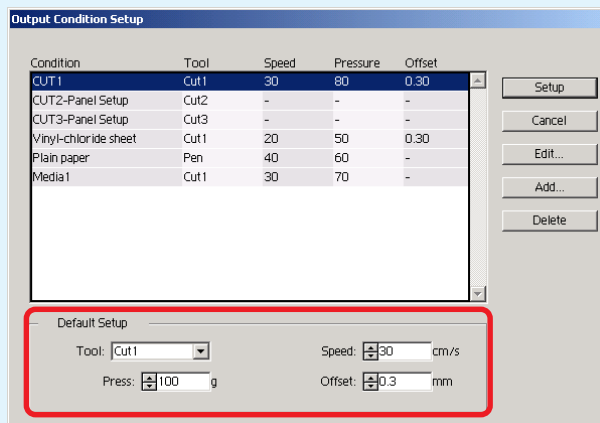
When specifying a frame, center mark, corner mark, the plot operation is performed by the default setting value as well.

4   The set output condition is displayed on the right side.

Click on the right button [▼] to set the color list output condition of "B" to the "CUT3" output condition.
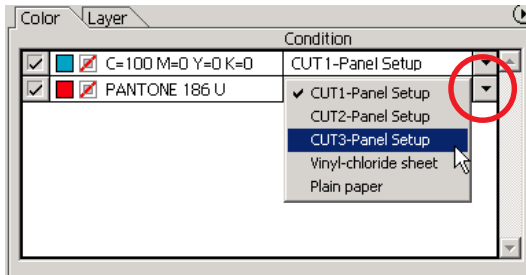
5   When changing the output condition, click on the upper right button to select the [Edit Plot Condition...].
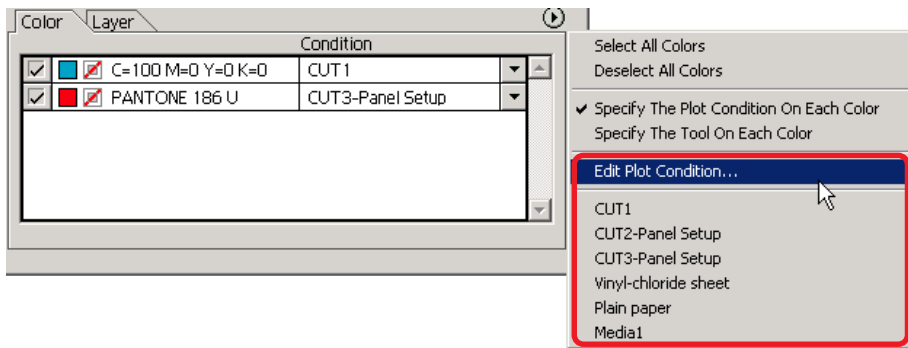
When selecting [Specify The Plot Condition On Each Color] or [Specify The Tool On Each Color], the preset output condition is displayed.
All lists settings refer to the selected output condition here.

6   Click ⑰ Plot button to display Plot Out dialog.

Click Plot .
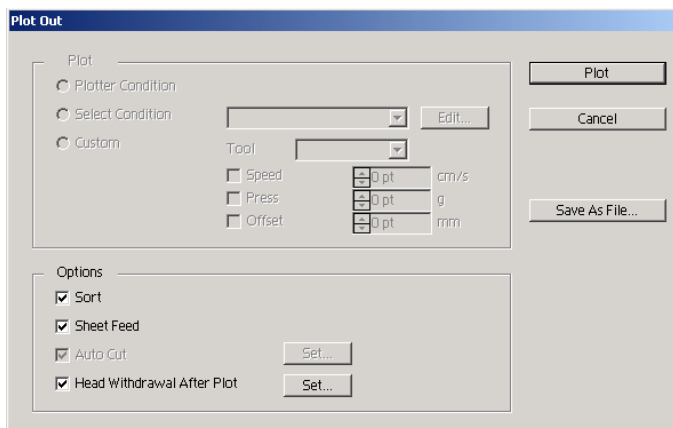
Set Head Withdraw Position and Origin

You can set up the head position after plot.
Set the head position/origin as automatically renew the origin after plot operation to prevent from cutting on the same position with the previous cut.

1 Click ![Plot button] Plot button in Plot dialog to display the Plot Out dialog.
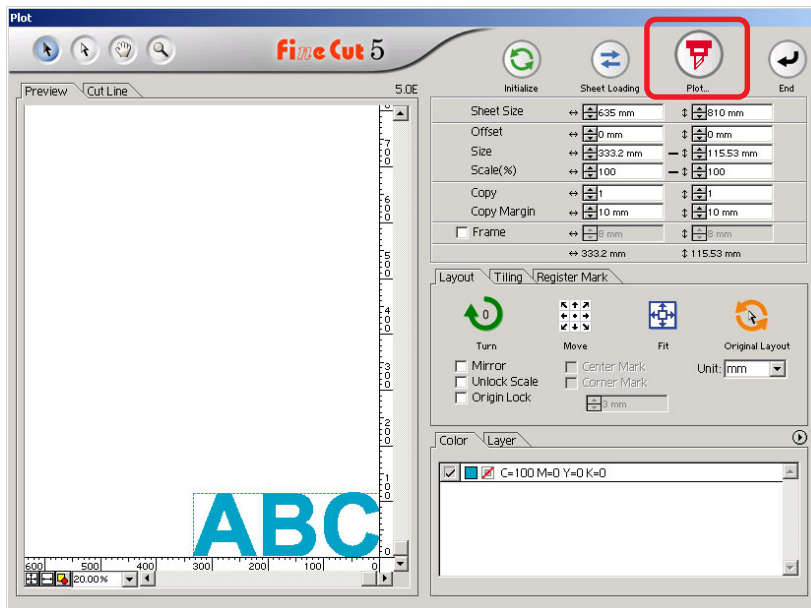
2 Check [Head Withdrawal After Plot] check box.
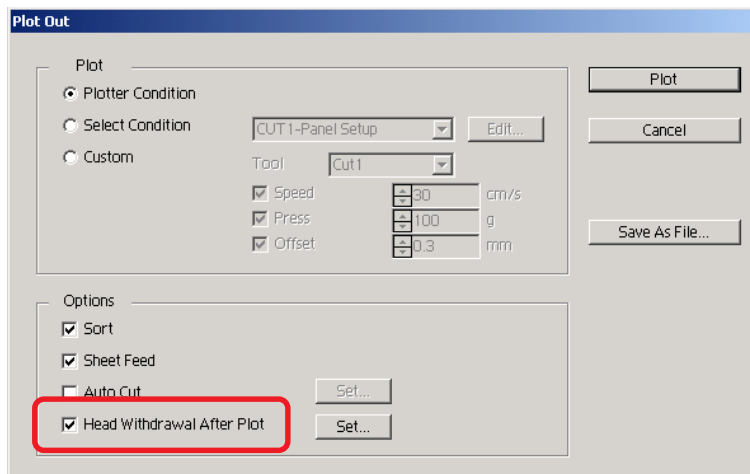
3 | When changing the head withdrawal position or set the origin to the withdrawal position, click |Set| button to display the [Head Withdrawal Position] dialog.

(On the default condition, the withdrawal position is set to the maximum data cutting length +1 cm without [Sheet Feed Origin Renewal].)
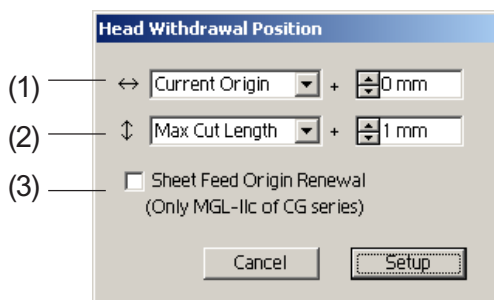
(1) Set the head withdrawal position for the horizontal direction.

Reference position selectable from either [Current Origin] or [Max Cut Length].

For example, the head is withdrawn to the position at 0 cm from Current Origin for the horizontal direction in the figure above.

(2) Set the head withdrawal position for the length direction.

Reference position selectable from either [Current Origin] or [Max Cut Length].

For example, the head is withdrawn to the position at +1 cm from the Max Cut Length along the length direction in the figure above.

(3) Set the head withdrawal position as the origin position.

(This function is effective only for the MGL-IIc commands on Mimaki CG series.)

Check this option for the useful operations like continuous output.

CAUTION

When checking "Sheet Feed Origin Renewal", [No. Copies] or [Division Cut] function on the plotter will not perform normally. Uncheck "Sheet Feed Origin Renewal" before using [No. Copies] or [Division Cut] function.

Click |Setup| to return to the Plot Out dialog in step 2.

4 | Click |Plot| button to perform plotting.
The plotter head will move to the specified position after plotting the data.

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Make a Seal

The following example shows how to cut the outline of a printed pattern to make a seal or sticker.

FineCut provides you the [Frame Extraction] function that enables to generate outlines on an object, the Register Mark Recognition function that enables to perform axial correction, and distance correction at once using Mimaki CG-EX series and Mimaki CG-FX series cutting plotter with a mark sensor.

⚠ **CAUTION**

If the entered values differ from the settings on the plotter, the object will not be output normally. (Refer to page 68)

1. Attaching a Frame

This function enables to make outlines automatically.

1 | Select the object to attach a frame.
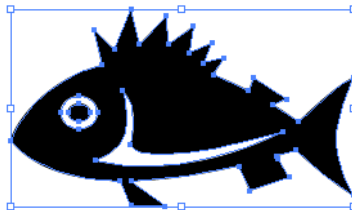
2 | Click Frame Extraction button in the FineCut menu.

Alternatively, select [Frame Extraction...] from the [File]-[FineCut] menu.

3 | Make path setting for the frame.
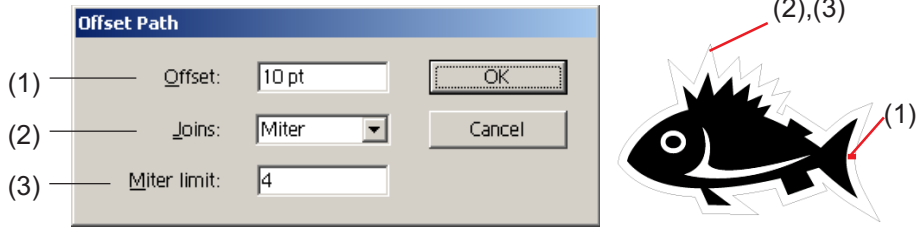
(1) Offset :   Set the distance from the object to the frame.

When entering a negative value to the offset value, enables to perform off-cut.

(2) Joins :   Set the shape of frame corners.

> If the frame shape is not natural, change the "Joins" to improve it. Generally, the more acute corner and the larger offset value, the less accuracy.

Miter	Round	Bevel
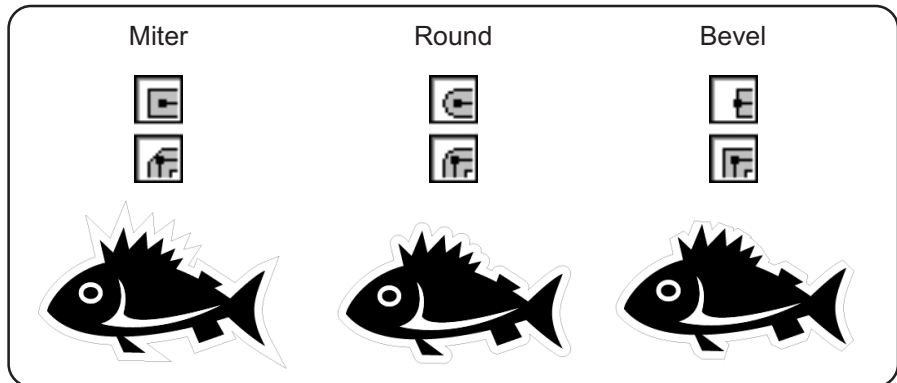
(3) Miter limit :   Set the ratio up to the two line ends crossed position.
(Effective only for the Miter shape.)

Example   1 mm   10 mm
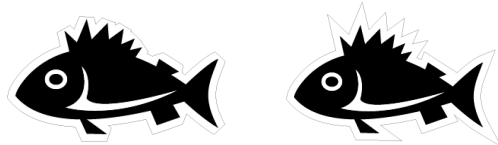
A larger value makes the corner more acute.

Click OK after a setup.

The frame is extracted and then a path is created on FC Frame Layer.

2. Create a Register Mark

1 Point the position to create a register mark. Enclose the object with the rectangle tool.
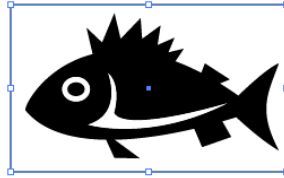
2 Click │Register Mark Creation│ button in the FineCut menu.

Alternatively, select [Register Mark Creation] from the [File]-[FineCut] menu.

3 Set the shape and size of the register mark.
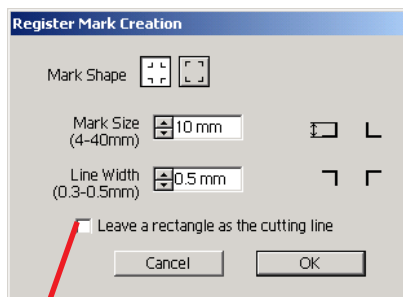
Check the check box to cut a rectangle. (The rectangle created in step 1.)

⚠ **CAUTION**

When cutting register marks continuously, set the register mark size to 8 mm.

4 | The register mark is created. Output to the printer.

CAUTION
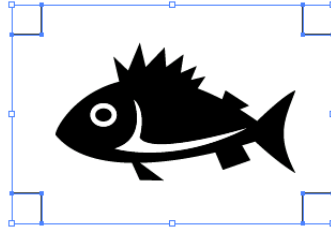
Make sure to uncheck the [FC Frame Layer] before outputting a data. In case outputting a data which has been created as checking [Frame Extraction] or [Leave a rectangle as the cutting line].
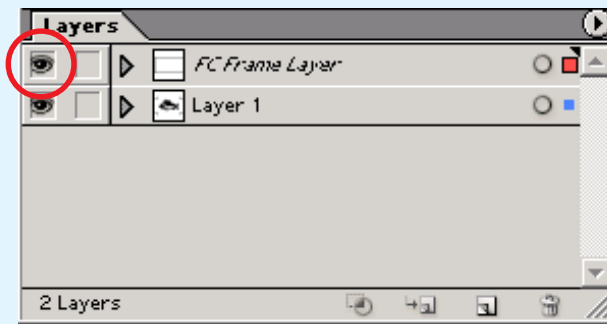
3-1. Recognize and cut Register Mark (in use of CG-EX series)

1 | Set the output result on the plotter to perform register mark detection.

For the procedure of register mark detection, refer to the Mimaki CG-EX series operation manual.

Detection of register mark (Semi-automatic mode)

TP2

TP3   TP1

Pinch roller

Moving area of the blade tip of cutter.

Mark form type1   Mark form type2
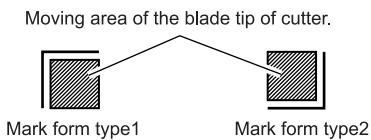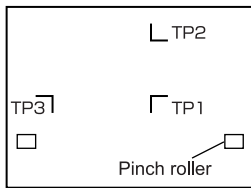
1. Place the sheet on the device and turn the sheet set lever toward you.
2. Press ◁ or ▷ key to perform the sheet detection.
3. Move the cutter blade tip with the Jog key until it rests in the area illustrated on the left.
4. Press ENTER/HOLD key.
   Register mark detection starts.
5. After the detected register marks, length (A) provided between TP1 and TP2 will be shown on the LCD. Press ENTER/HOLD key.
   The size is calibrated automatically in Fine Cut mode. No need to register the actual size with the jog key.
6. After detected the register marks, length (B) provided between TP1 and TP3 will be shown on the LCD. Press ENTER/HOLD key.
7. The origin is set.

2　Click Detect Mark button in the Plot dialog to identify the register mark.
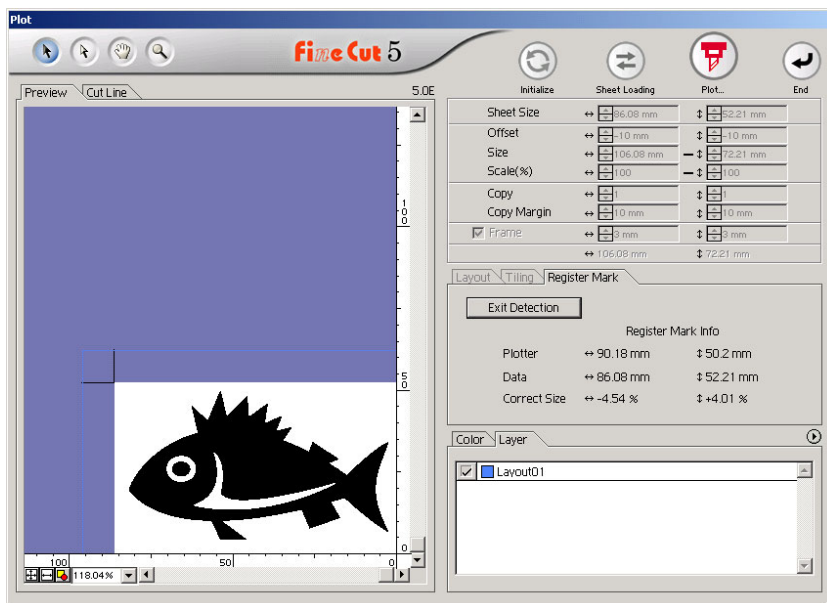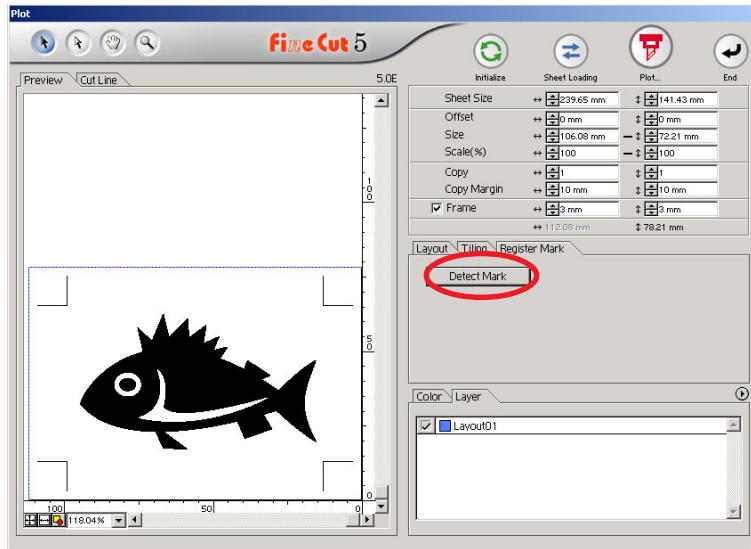
Click Exit Detection button to cancel register mark recognition.

3 Click (🔻) Plot button to display the Plot Out dialog.

```
Plot Out
┌─ Plot ──────────────────────────────────────┐     ┌──────────────┐
│  ● Plotter Condition                         │     │     Plot     │
│  ○ Select Condition  [CUT1-Panel Setup  ▼] [Edit...] └──────────────┘
│  ○ Custom                                    │     ┌──────────────┐
│              Tool    [Cut1          ▼]       │     │    Cancel    │
│         ☑ Speed      [↕ 30      ]  cm/s      │     └──────────────┘
│         ☑ Press      [↕ 100     ]  g         │
│         ☑ Offset     [↕ 0.3     ]  mm        │     ┌──────────────┐
└──────────────────────────────────────────────┘     │ Save As File...│
┌─ Options ───────────────────────────────────┐     └──────────────┘
│  ☑ Sort                                      │
│  ☑ Sheet Feed                                │
│  ☐ Auto Cut                    [ Set... ]    │
│  ☑ Head Withdrawal After Plot  [ Set... ]    │
└──────────────────────────────────────────────┘
```
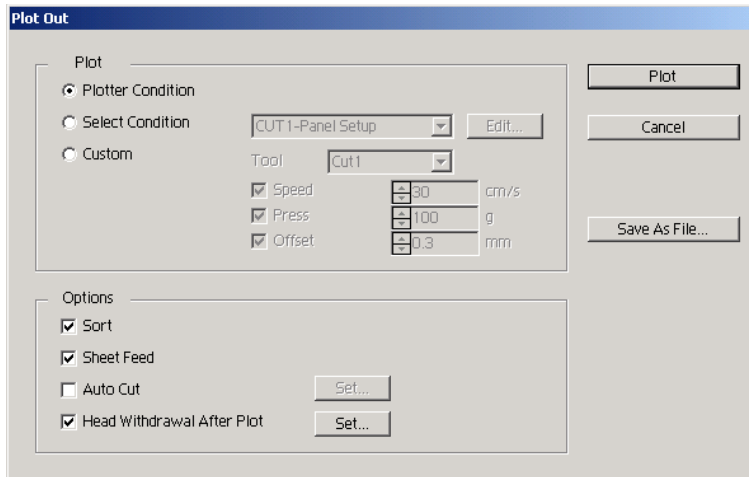
4 Click | Plot | button.

3-2. Recognize and cut a Register Mark (in use of CG-FX series)

FineCut enables to detect the register mark set on the CG-FX at high speed.

Perform two cutting patterns : continuous multiple same data cutting on a roll sheet, and continuous multiple same data cutting as exchanging a leaf sheet.

< Cut on a roll sheet continuously >

⚠️ **CAUTION**

- Only one set of the register marked data (4 register marks) is available to cut continuously. In case two or more sets of the register marked data exists in a sheet, cannot cut continuously.
- Standardize a shape of the register mark. In case a different shape of the register mark mixed, cannot detect the register mark precisely.
- Set the same size and position between the output leaf sheet size and the print position.

1 | Set the output result on a plotter to perform register mark detection.

For the procedure of register mark detection, refer to the Mimaki CG-FX series operation manual.

Detection of register mark (Semi-automatic mode)

Prot direction

30mm

20mm*   20mm*

20mm

Pinch roller   *recommend

Moving area of the spot LED

Mark form type1   Mark form type2
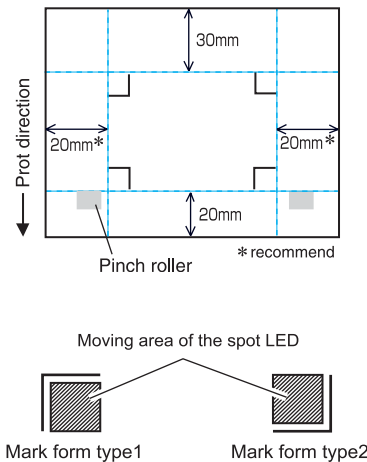
1. Enable "MARK DETECT" function on the plotter. Set the register mark information: size, shape, and so on. Select "1 pt" as detecting mark number.
2. Place the sheet on the plotter turn the sheet set lever toward you.
3. Press Jog key to detect the placed sheet.
4. Move the spot LED into the area illustrated on the left figure.
5. Press $\boxed{\frac{\text{ENTER}}{\text{HOLD}}}$ key.
6. Return to LOCAL mode after detecting the register mark.

2   Click Detect Mark button in the Plot dialog.
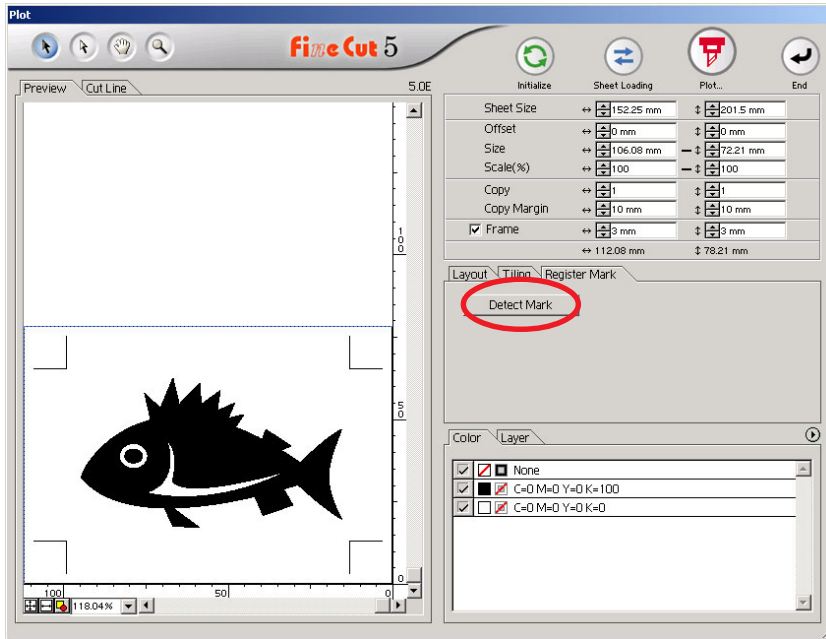
3   Set the register mark to recognize continuously.

Select "Roll Sheet" (left) icon.

Set the continuous numbers to each direction, vertical and horizontal.
In case the continuous number is indeterminacy, input the maximum numbers, "9999".

Select the first detect points of the register mark.

Select the second and the subsequent detect points of the register mark.

When detecting a larger data, set more detect points to cut more precisely.
When detecting a smaller data, set less detect points on the second and the subsequent detect points to reduce the detecting time.

Click Exit Detection button to cancel register mark recognition.

4 | Click 🖲 Plot button.

Plot Out dialog appears. (Refer to page 78)
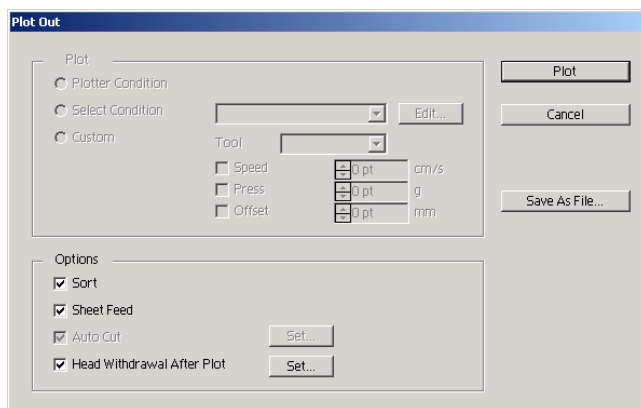
Check [Auto Cut] to enable sheet cut automatically after completing each cutting operation. Click Set to set the Auto Cut Setup information.

<table>
<tr><td>⚠️
CAUTION</td><td>Make sure to check the check box before performing auto cut. Even if setting to ON the CG-FX, no cut operation is performed until check box is checked. Setting on the check box prior to setting on the CG-FX.</td></tr>
</table>
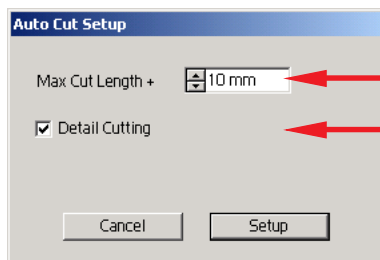
Set the maximum length from the last line to the cutting point. (See the figure A below).

Check [Detail Cutting] to cut a data at every line.

< Cut

< Cut

< Cut

Click OK .
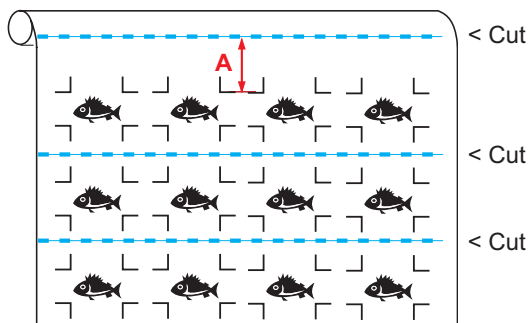
5 | Click Plot in the Plot Out dialog to start plotting.

• **In case the printed data by a take-up functioned plotter (Mimaki JV series etc.) rolled as a paper tube**

Rotate the data to 180-degree in the FineCut, and set the paper tube on the CG-FX directly: Enables to cut the data continuously. (No need for rewinding the roll)

Output to the printer

Confirm the margins on the sheet. (Refer to page 51)

Output Direction
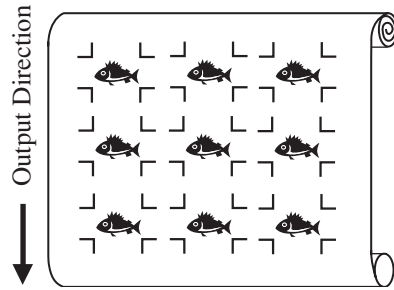
Rotate the data to 180-degree before recognizing a register mark in the FineCut.

Mimaki CG-FX series

Plot Direction
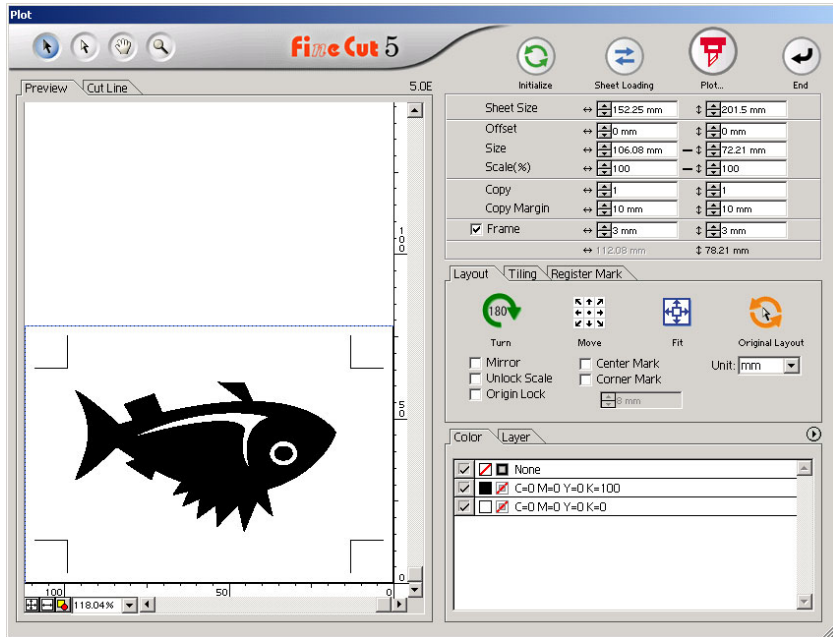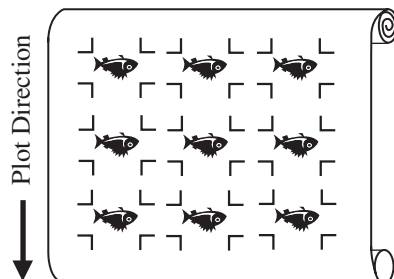
• In case the continuous printed data exist to the middle of the line

Perform cutting in twice to cut all the data.

Output to the printer

Output Direction

Mimaki CG-FX series

Plot Direction

Second Cutting data

First Cutting data
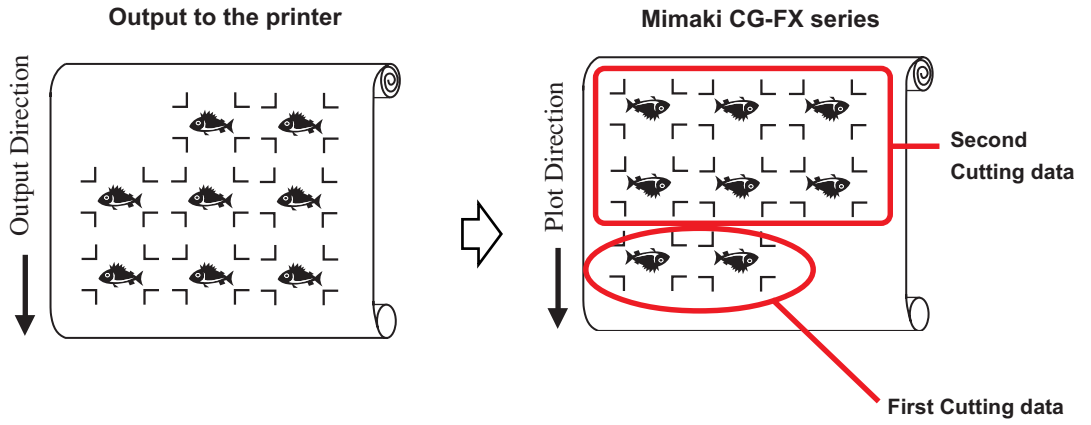
< Cutting Leaf sheet continuously >

<table>
<tr>
<td>⚠
CAUTION</td>
<td>• Only one set of the register marked data (4 register marks) is available to cut continuously. In case two or more sets of the register marked data exists in a sheet, cannot cut continuously.
• Set the same size and position between the output leaf sheet size and the print position.</td>
</tr>
</table>

1 | Set a output result on a plotter to detect register marks.

(Refer to page 51)

For the procedure of register mark detection, refer to Mimaki CG-FX series operation manual.

2 | Click │Detect Mark│ button in the Plot dialog.
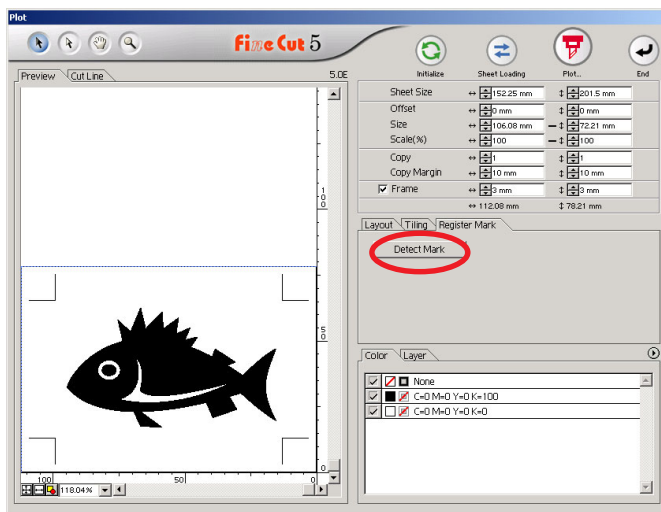
3 | Set the register mark to recognize continuously.
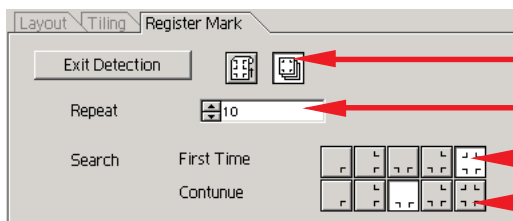
Select "Leaf Sheet" (right) icon.

Set the continuous numbers.
(numbers of repeating sheets.)

Select the first detect points of the register mark.

Select the second and the subsequent detect points of the register mark.

Click │Exit Detection│ button to cancel register mark recognition.

4 | Click 🔻 Plot button.

Plot Out dialog appears. (Refer to page 78)
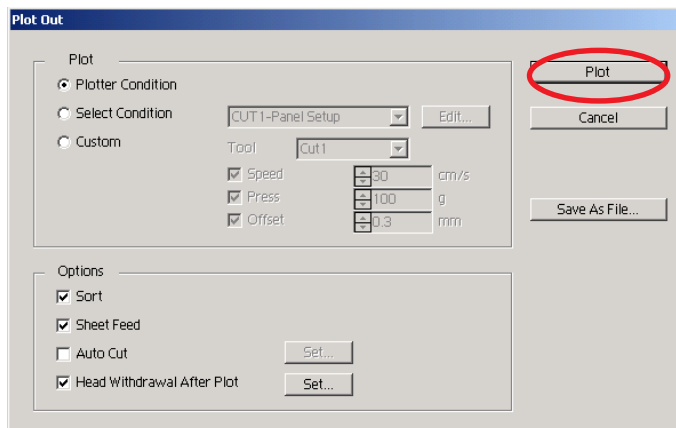
5 | Click Plot button to start plotting.

6 | The following message appears on the "CG-FX series" plotter panel after cutting the first sheet.

CHANGE SHEET

7 | Set the next sheet. Detects the register mark automatically and performs cutting.
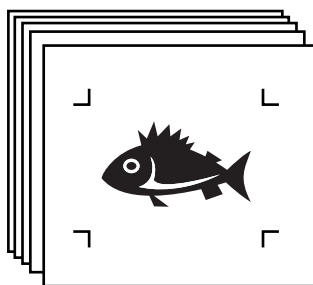
Make an effective use of sheets

Move the object to avoid waste of sheet.

The following is an example. If B is a different color from A and C, B becomes blank because of the different color. Move the object to the blank part to perform cutting.
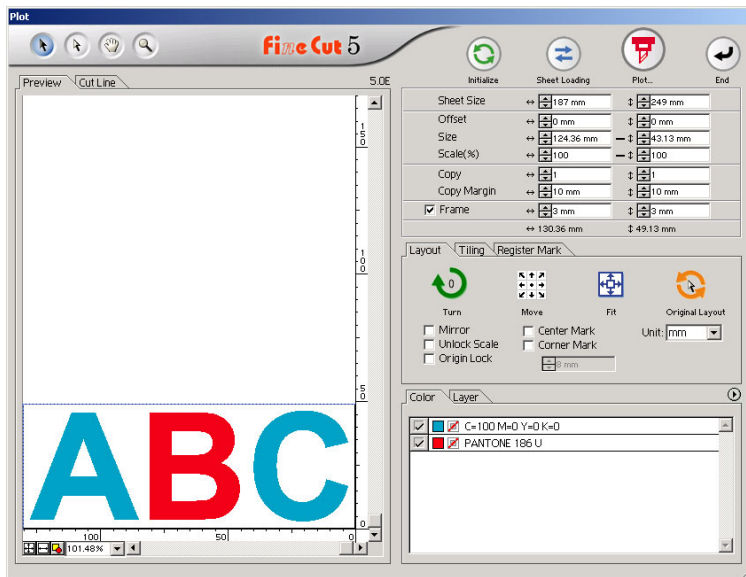
1 | Select an object to move using the direct selection tool.
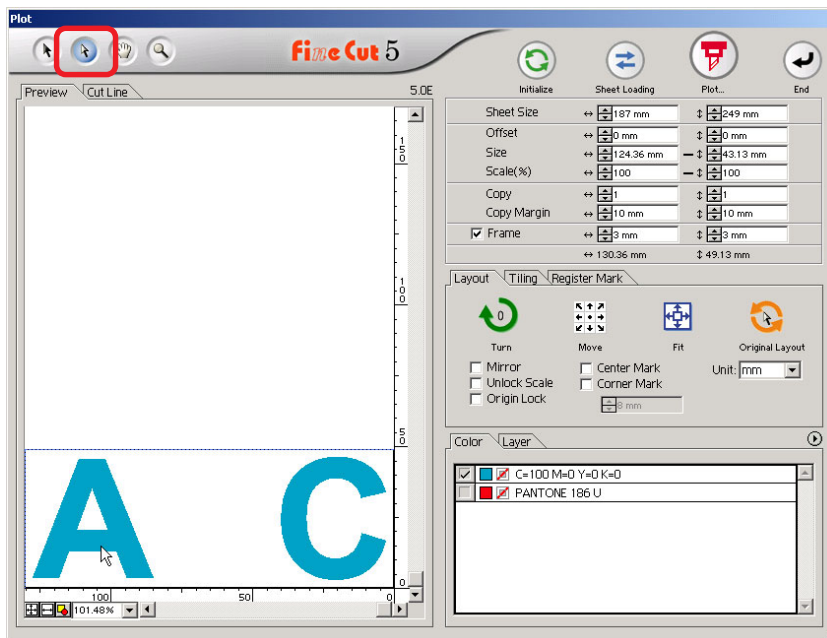
2 │ Drag the selected object to the desired position.
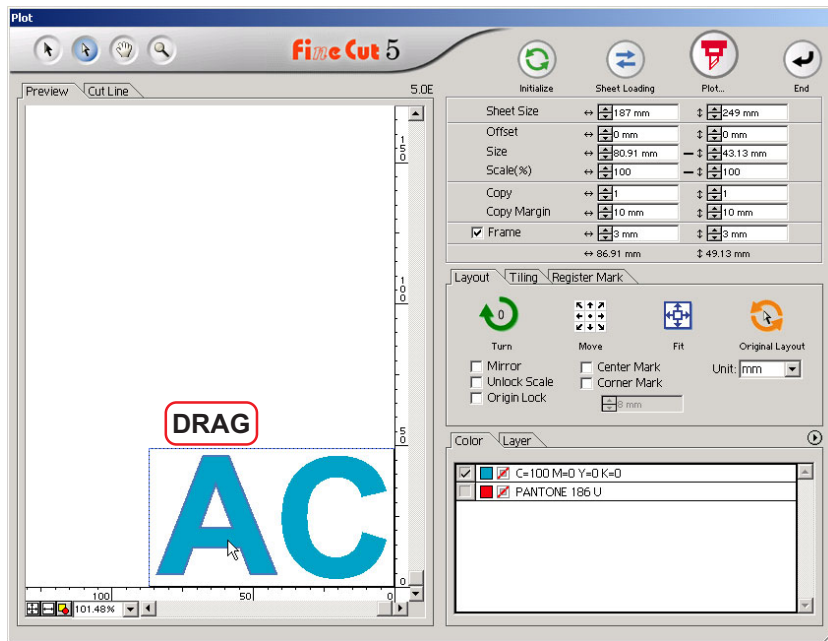
To replace the object to the original position, click ![Original Layout icon] Original Layout button.

Trapping

On the overlapping objects, a gap may be generated where the colors are overlapping.
Trapping function can prevent this problem.

1 | Select an object to be identified.

2 | Click Trapping button in the FineCut menu.

Alternatively, select [Trapping] from the [File]-[FineCut] menu.

3 | Set the trap size and overlapping order.
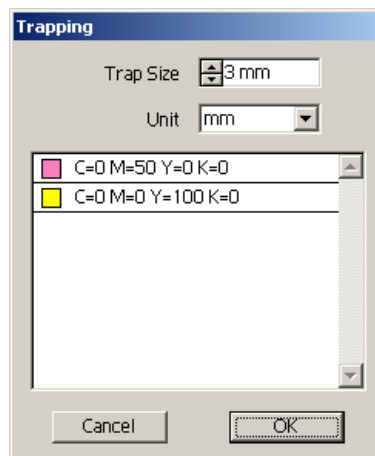
Drag the list to change the overlapping order.
Click OK after setting.

4   Overlap space are created according to the specified size.
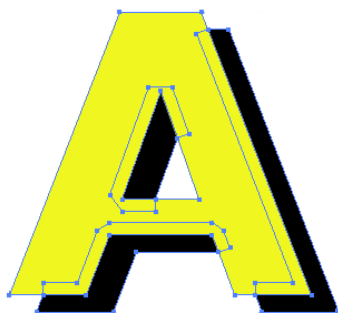
Identify the Stroke Weight and Overlap

Identify the stroke weight and overlap of objects to cut it as a figure as displayed on the monitor.

1 | Select the object to be identified.
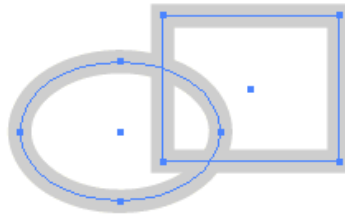
2 | Click Recognize Stroke Weight And Overlap button in the FineCut menu.

Alternatively, select [Recognize Stroke Weight And Overlap] from the [File]- [FineCut] menu.

3 | The stroke weight and overlap are identified.
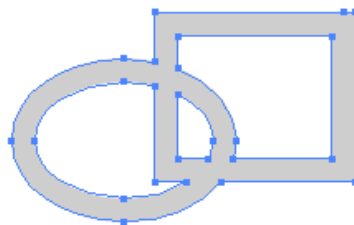
Function Description

Fill and Stroke of an Object

In the figure below, the fill of the ellipse is set and stroke are made thicker.
Cutting is performed not by the outline of stroke but the outline of fill.

Cut this
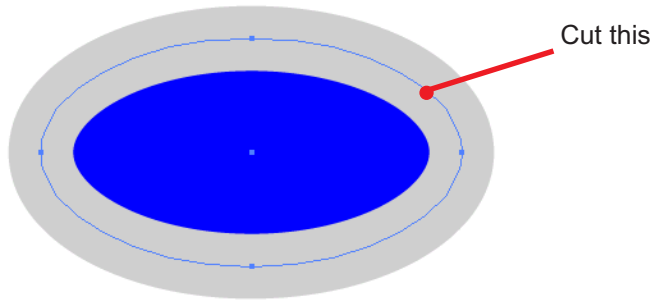
In case an object is not filled with a color, the stroke path is cut.
In this case, stroke path is cut regardless of the thickness. Check the path when selecting the object or in the Artwork mode (Outline mode) of Illustrator.

Cut this
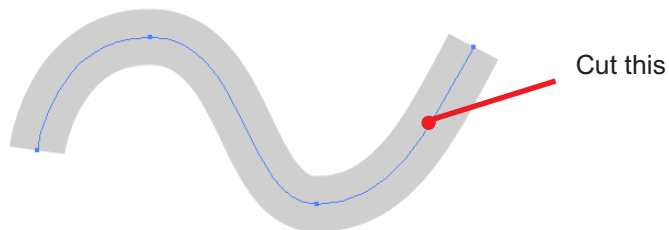
Path

A path refers to a line which is created using the drawing tool of Illustrator. The outline of a graphic object also consists of a path. The outline of a straight line or rectangle created by Illustrator is also a typical example of a path.

Refer to "Recognize Stroke Weight And Overlap" to cut an object with the stroke weight recognized or with stroke and fill separated. (page 62)

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FineCut Menus

The following procedure describes on the FineCut menu.

There are two ways to select the menu.

[1] Select [Show FineCut menu] from the [Window] menu of Illustrator.
The following display appears.

[2] Select [FineCut] from the [File] menu.
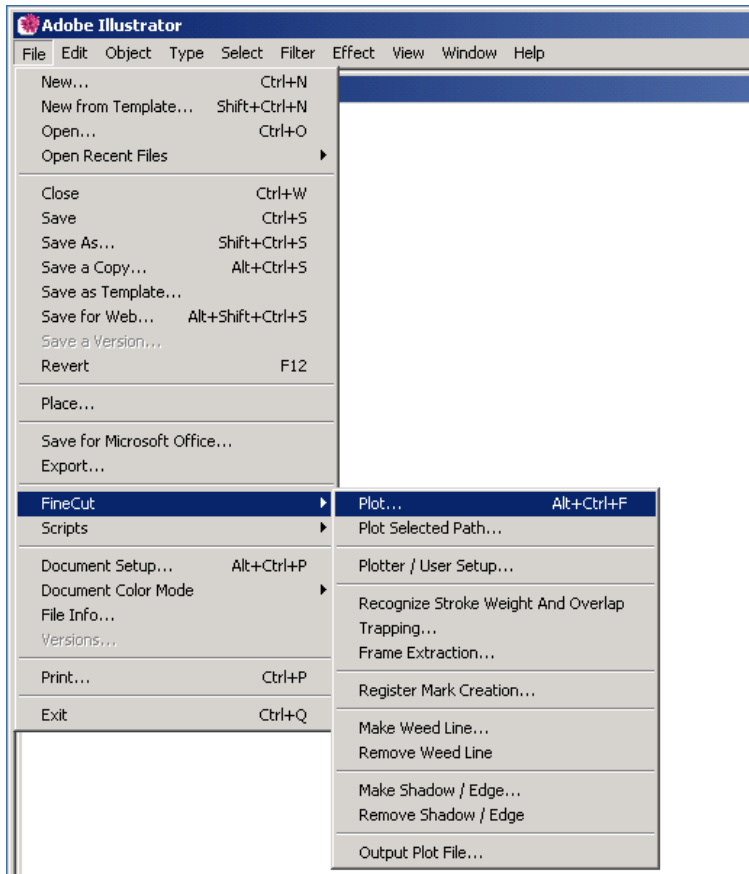
Plot... :		Displays the cutting area and sets the object layout and various options. It also sends an object to the plotter for object cutting.
Plot Selected Path... :		Plots only the selected object.
Plotter/User Setup... :		Sets the communication conditions with the plotter used. (Refer to page 66)
Recognize Stroke Weight And Overlap :		
		Recognizes the stroke weight and overlap of the selected object. (Refer to page 62)
Trapping... :		Traps the selected object. (Refer to page 60)
Frame Extraction... :		Creates a frame for the selected object. (Refer to page 44)
Register Mark Creation :		Creates a register mark to be recognized by the plotter. (Refer to page 46)
Create Weed Line :		Creates a Weed Line as the precut line around the object. (Refer to page 29)
Remove Weed Line :		Remove the created Weed Line. (Refer to page 31)
Create Shadow / Edge :		Create a Shadow /Edge on the object. (Refer to page 26)
Remove Shadow / Edge :		Remove the created Shadow /Edge on the object. (Refer to page 28)
Output Plot File :		Output the saved plot command file to a plotter. (Refer to page 80)

Plotter/User Setup

Set the communication conditions to enable communication between FineCut and the plotter.

⚠️ **CAUTION**
If the entry value differs from the setting on the plotter, the object is not output normally.

Click 🔳 | Plotter/User Setup | button in the FineCut menu.
Alternatively, select [Plotter/User Setup...] from the [File]-[FineCut] menu.
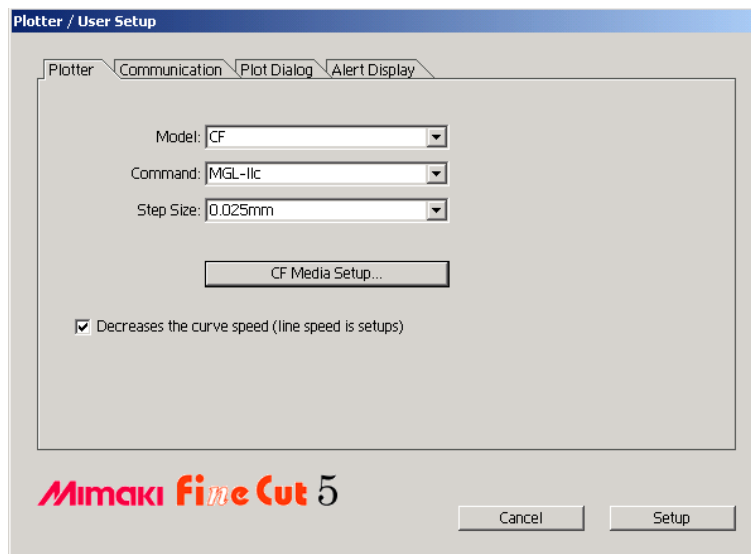
1) Plotter

Set up the plotter connected. Refer to the operation manual of the plotter for details.

Model:	Select the plotter model connected.
Command:	Select the command set by the plotter.
Step Size:	Select the step size set by the plotter.
**Media Setup:	Click this button to display the Output Condition Setup dialog . (Refer to page 67)
Decreases the curve speed:	This function is effective only on the Mimaki CF series cutting plotter. When checked, the cutting speed goes down at a curve to ensure smooth cutting.

\<Output Condition Setup\>
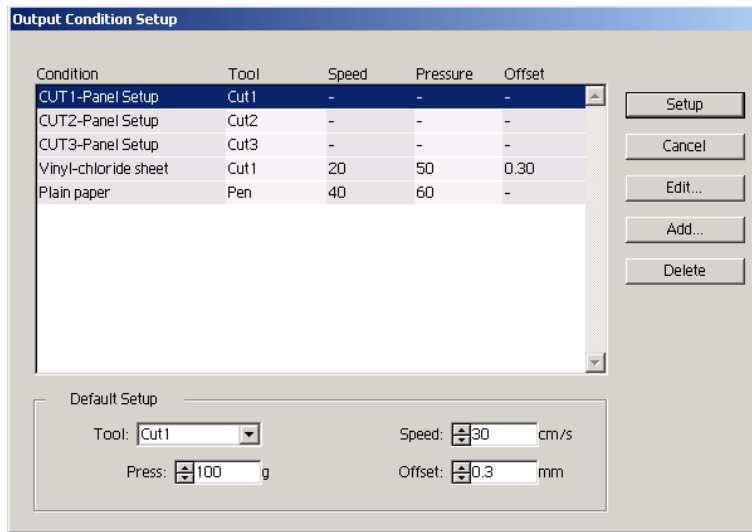
Click Media Setup button in the "Plotter" setup dialog to display the Output Condition Setup. (Refer to page 66)

Condition :   Displays the registered output condition (Speed/Pressure/Offset).
When changing the setting, select the target condition, and then click Edit . (Refer to page 36)
For adding the output condition, click Add .
(Refer to page 36)
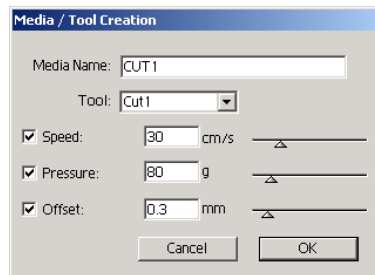
Default Setup :   If setting the output condition for each color or layer, set the output condition for a frame and mark as the default setup.
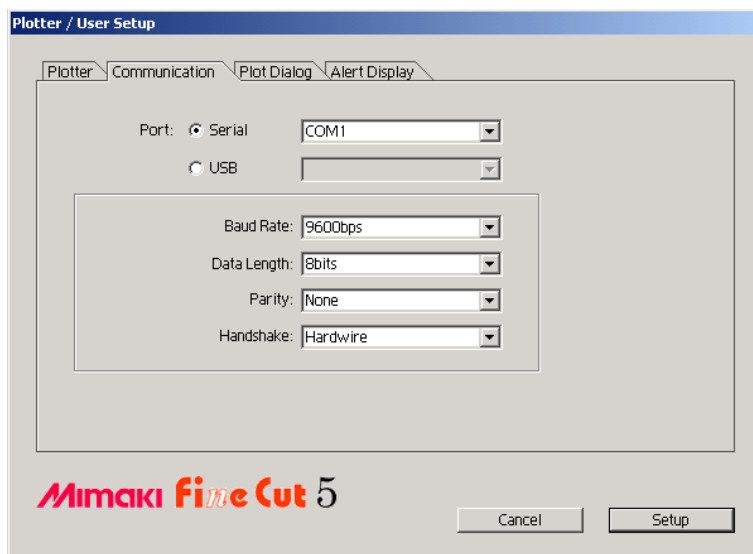
2) Communication

Select communication conditions for the interface.

Port : Select a port connected to the plotter.

* When in use of Mimaki CG-FX series, USB connection is available (in case connected to a plotter and the power is ON). Select [USB], and click on the right side of pop-up menu to confirm "CG-FX-xx".

Baud Rate : Select the transfer rate. (Serial)

Data Length : Select the number of data bits. (Serial)

Parity : Select the parity check method. (Serial)

Handshake : Select the handshake method. (Serial)
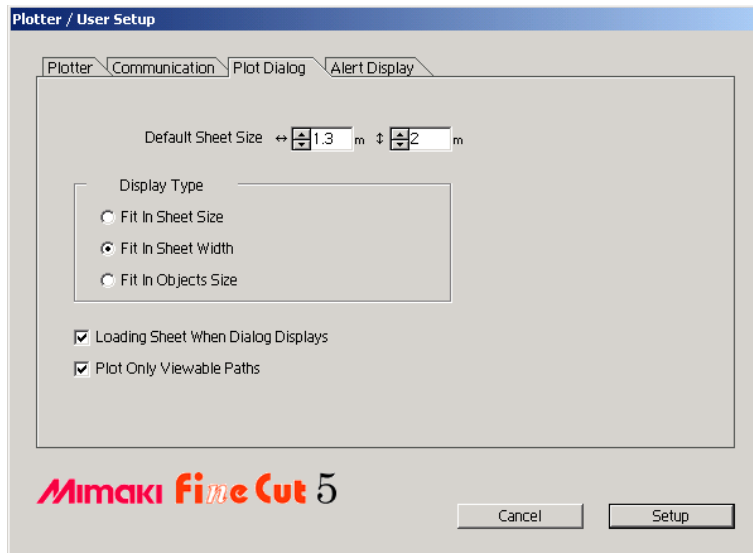
3) Plot Dialog

Default Sheet Size :	When FineCut displays the Plot dialog, it loads the sheet size from the plotter. If this load operation is not performed normally, the preview size refers to the default sheet size set on this dialog.
Display Type :	Select the display type for displaying the Plot dialog.
Loading Sheet When Dialog Displays :	When this option is checked, it loads the sheet size when the plot dialog is displayed.
Plot Only Viewable Paths :	When this option is checked, plot only viewable paths.
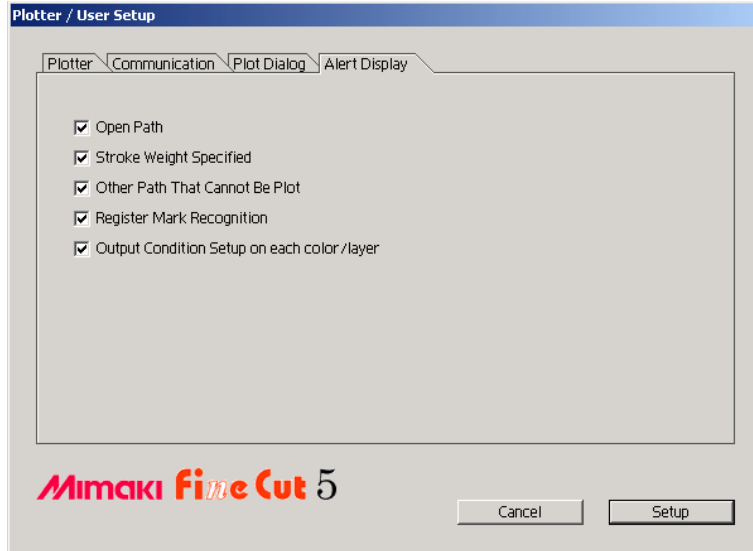
4) Alert Display

Check this option to display the following warnings.

Open Path :	The path is not closed. (The start and stop points are not set to the same point.)
Stroke Weight Specified :	There is a path that the stroke weight is specified.
Other Path That Cannot Be Plot :	The object may be drawn with the Gradient Mesh tool, brush tool, or other tools of Illustrator. The object may be masked or is a raster image.
Register Mark Recognition :	Two-point correction is performed at the time of register mark recognition.

Output Condition Setup on each color/layer :

The set output conditions are different on each color or layer.

Plot Dialog

The following describes the Plot dialog.

(1)
(2)
(3)
(4)
(5)
(6)
(7) (8) (9)
(10)
(11)
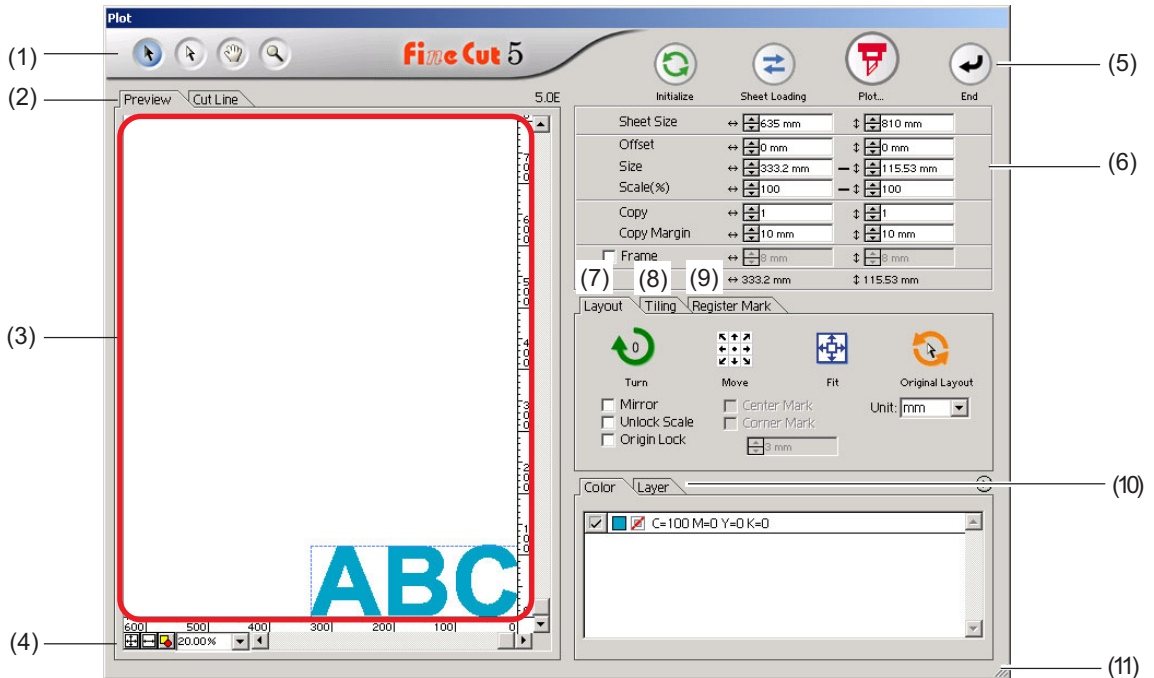
(1) Tool Box

Selection Tool: Move or resize an entire object displayed currently.
Shift the division line to tiling.

Direct Select Tool: You can select part of an object and move it.
It enables you to move an object to a blank position
on the sheet for an effective use of the sheet.
(Refer to page 58)

Move Preview Area Tool: Change the object display area.

Zoom Tool: Enlarge or reduce a window.
Click in the cut area to get the larger view. To get
the smaller view, click in the cut area as pushing
down the Alt key (Windows) or Option key
(Macintosh).

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(2) Screen Display Mode

Enable to change the display mode. Objects are displayed in color in preview mode and as paths in artwork mode.

Preview Mode :   Preview the color display.
Cutline Mode :   Display the object with the path (outline).
                       It enables to confirm a white object and cutting-line with ease.

(3) Layout Area

The white portion is the effective cutting area loaded from the sheet. In this area, the sheet width is displayed along the horizontal axis and the sheet length along the vertical axis.
If the object overflows from the cutting area, the ⚠ mark appears to the left of (🖊) Plot button. Click the ⚠ mark to display the contents of the error.

(4) Zoom Size

The Current zoom size is displayed.

⊞ Fill In Sheet Size :   Displays the entire sheet.

⊟ Fill In Sheet Width :   Displays the sheet width.

🔲 Fill In Objects Size :   Displays the enlarged object to fill the screen.

100.00% ▾ % :   Enable to change display size to select or enter percentage value.

(5) Button

🔄 **Initialize** :   Reserve the original layout as selecting with direct selection tool.

⇄ **Sheet Loading** :   Loads the sheet size set to the plotter.
                           When the ⚠ mark is displayed to the left of Sheet Loading button, the sheet size of the plotter cannot be loaded.
                           Set the plotter to the REMOTE mode as clicking Sheet Loading button to load the sheet size.

🖊 **Plot** :   Display "Plot Out" dialog. (Refer to page 78)
                           When the ⚠ mark is displayed to the left of Plot button, the object overflows from the cutting area. Move the object to fit it into the cutting area.

↩ **End** :   Closes the Plot dialog.

(5) Size input area

Sheet Size	↔ 635 mm	↕ 810 mm
Offset	↔ 0 mm	↕ 0 mm
Size	↔ 333.2 mm	— ↕ 115.53 mm
Scale(%)	↔ 100	— ↕ 100
Copy	↔ 1	↕ 1
Copy Margin	↔ 10 mm	↕ 10 mm
☑ Frame	↔ 5 mm	↕ 5 mm
	↔ 343.2 mm	↕ 125.53 mm

Sheet Size

Displays the cutting area based on the size of the sheet set in the plotter.

Click on the sheet loading button to display the loaded sheet size. Alternatively, input the sheet size (width and length of the cutting area).

Offset

The origin is set at the bottom right corner (Mimaki CG series) or the bottom left corner (Mimaki CF series) of the layout area. The default origin is positioned at 0 mm (both vertically and horizontally) of the layout area. Change the value of the origin to move the object.

Mimaki CG Series
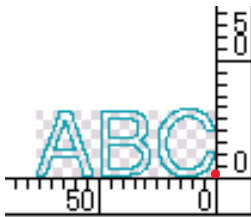
Mimaki CF Series
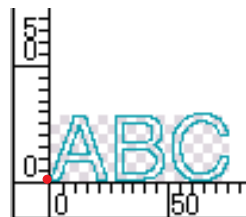
Size

Enable to change the vertical and horizontal lengths of an object.

When the values of the vertical and horizontal lengths are interlocked (the - mark is supplied to the bottom of Size), the aspect ratio is retained. Check the [Unlock Scale] check box to change the vertical and horizontal lengths separately.

Scale (Refer to page 16)

Set the magnification of the vertical and horizontal lengths. When the value of vertical and horizontal lengths are interlocked (the - mark is supplied to the bottom of Size), the aspect ratio is retained. Check the [Unlock Scale] check box to change the vertical and horizontal lengths separately.

Copy (Refer to page 20)

Enter the number of copies along the vertical and horizontal directions.

Copy Margin (Refer to page 20)

Set the margin between objects along the vertical and horizontal directions.

Frame

Cut a frame around the target object. In addition, settable the distance between the object and the frame. It enables to peel the purpose portion of the cutting sheet easily.

Marking the center and corners to align easily for affixing a cut seal. (Refer to page 18)

Total Length

Usually the width and the height of an object are displayed. When entering the number copies for the copy function, the total lengths along the vertical and horizontal directions for all the copies are displayed. If margins and frames are set, the length values of them are included.

(7) Layout Option
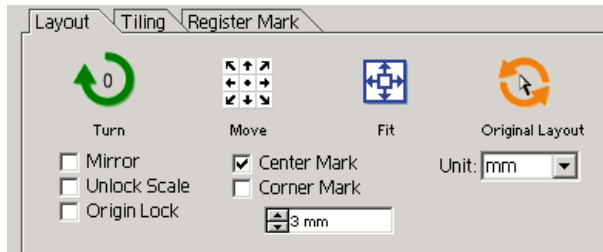
Turn : Rotates the object clockwise in unit of 90 degrees.

Move : Click on the desired direction of arrow to move the object to the target position.

Fit : Fit the object to the detected sheet width.

Original Layout : Reserve the original layout by the direct selection tool.

(Refer to page 59)

Mirror

Inverts the object in mirror image to cut it.

ABC ⇨ ЭᙠA
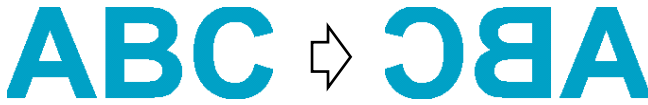
Unlock Scale (Refer to page 16)

The size of the object can be changed with variable aspect ratio.

Origin Lock (Refer to page 33)

Lock the origin to retain the object position. Unlock the origin to cut an object with the selected color (or layer) without wasting sheets.

Center Mark (Refer to page 18)

When setting a frame, puts a mark in the center of the frame in every direction.
Use the mark to put the cut seal on the desired position.

Corner Mark (Refer to page 19)

When setting a frame, puts marks on all corners of the frame.
Use the mark to put the cut seal in a horizontal position.

Unit

Set the display unit in the plot dialog.
Set the unit any of cm, mm, inch, or pt.

(8)Tiling (Refer to page 23)
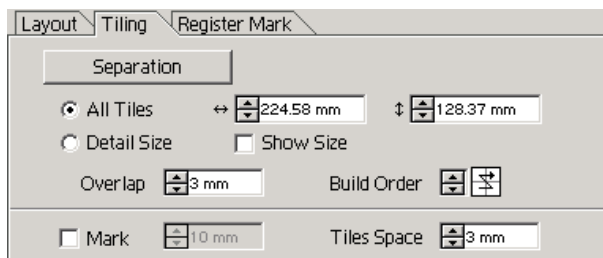
Separation

After dividing an object, click this button to separate the divided block.

All Tiles

Enter the tile size here.
Divide the object into the same size.

Detail Size

Click here to operate tiling optionally.

Shift the division line using ![selection tool icon] the selection tool. (Refer to page 71)

Show Size

Click here to display the each tile size.

Over lap

Set the tile overlapping margin.

Build Order

Select the order to glue together the cut objects.

Mark

Mark the divided object.

Match the marks to build up the object.

Tiles Space

Set the tile cutting interval.
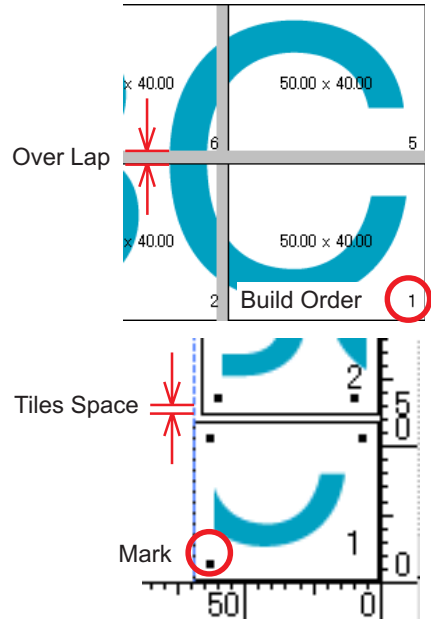
(9) Detect Mark

Detect Mark Button

This function is effective only when in use of CG (with register mark detection) plotter model. By performing register mark detection using Mimaki CG-EX series and Mimaki CG-FX series cutting plotter with mark sensor, automatic size correction is performed for the read register mark.

Exit Detection Button

Cancel a register mark recognition.

When in use of Mimaki CG-FX series, detect procedure is settable according to the sheet type: roll sheet or leaf sheet. (Refer to page 52)

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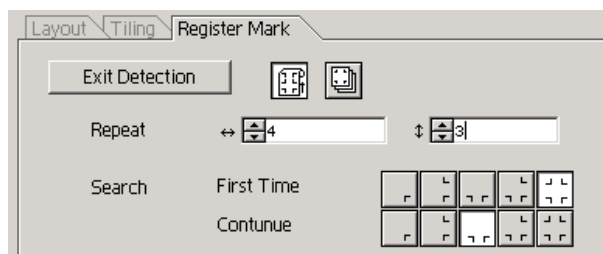
Repeat

Roll sheet : Set the continuous numbers to each direction, vertical and horizontal.

Leaf sheet : Set the numbers of repeating sheets.

Search

First Time : Select the first detect points of the register mark.

Continue : Select the second and the subsequent detect points of the register mark.

(10) Selection List (Refer to page 32)

Select color-based or layer-based object cutting pattern. The selected option is displayed in the bottom list. Execute the tiling function to display the tile list.

Only the checked objects are cut. In the color list, select the fill color and stroke color to display each object information.

Click on the button on the upper right to specify the output condition. (Refer to page 40)
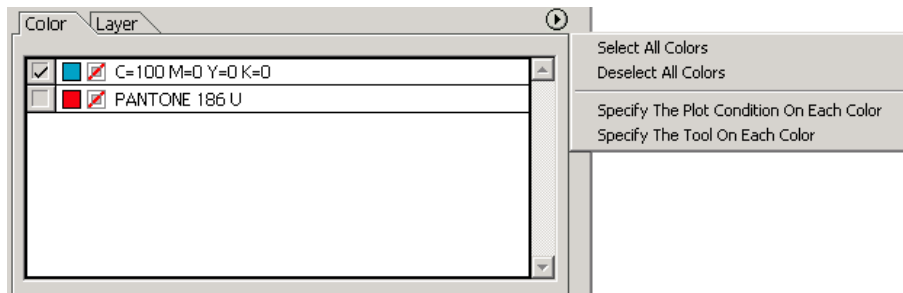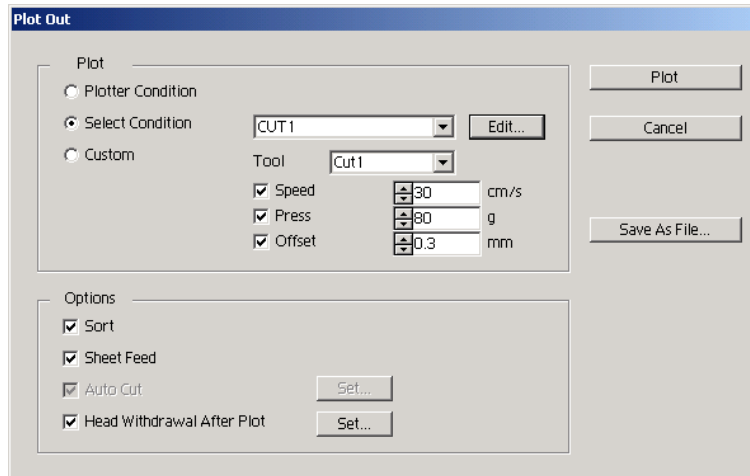
(11) Resize

When changing the dialog size, drag the dialog to a desired size while holding down the mouse button.

Plot Out Dialog

When clicking (🔲) Plot button, the Plot Out dialog appears.

1) Media

Select the output condition.

Plotter Condition :	Plots by the output condition on the plotter.
Select Condition :	Plots by the output condition on the FineCut.
	Click Edit button to add media, or set cutting conditions by media types. (Refer to page 35,67)
Custom :	Enables to specify the output condition without registering the conditions.

> ⚠️ **CAUTION**
>
> Note, if changing the output condition on each color or layer, output condition cannot be edited in the dialog.

(2) Option

Sort

Mimaki CG series performs sorting for efficient cutting with minimum useless head movement.
Mimaki CF series performs sorting for cutting from an object of the shortest circumferential length.

Sheet Feed (MGL-IIc for Mimaki CG series only)

Before cutting, confirm the performance as feeding the sheet to check whether the entire data can be cut.

> ⚠️ **CAUTION**
>
> If plotting fails, an error is displayed on the plotter. Stop plotting, reset the sheet, then restart plotting.

Auto Cut

When in use of Mimaki CG-FX series, the function is effective.

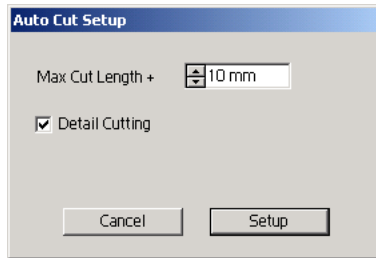When performing continuous cutting on a roll sheet, cut off the sheet automatically after completing the performance.

Click Set button to set the following information. (Refer to page 53)

Max Cut Length +

Set the maximum length from the last plotted line to the cutting point.

Detail cutting

Check the box to cut a data at every line.

Head Withdrawal After Plot

After data output, the head moves to make it easier to check data.

Click Set button to set the following information. (Refer to page 43)
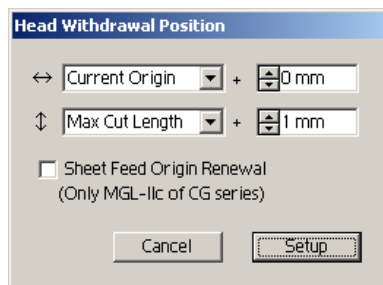
Head withdrawal position for the horizontal direction

Set the head withdrawal position for the horizontal direction.

Reference position selectable from either [Current Origin] or [Max Cut Length].

Head withdrawal position for the length direction

Set the head withdrawal position for the length direction.

Reference position selectable from either [Current Origin] or [Max Cut Length].

Head withdrawal position as the origin position

Set the head withdrawal position for the length direction.

⚠️ **CAUTION** Origin Update is effective only with MGL-IIc for Mimaki CG series.

3) SaveAs File

Select $\boxed{\text{Save As File}}$ to save the plot data as a plot file.
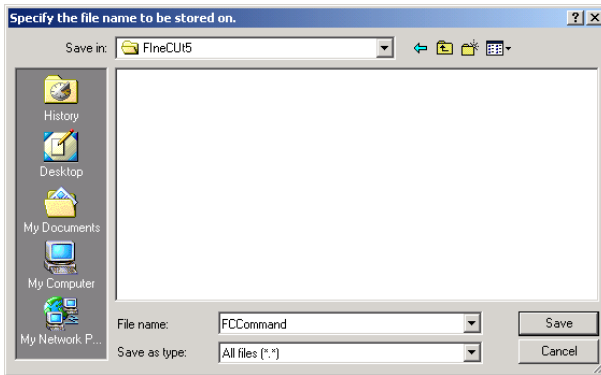
Select the folder, and then click $\boxed{\text{Save}}$ to save the file.

The saved plot file is able to output from [FineCut] in the [file] menu and select [Output Plot File].
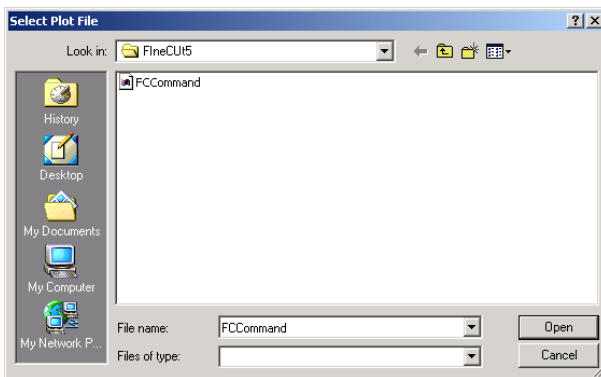
Select the file, and then click $\boxed{\text{Open}}$ to plot start.

▶ *Troubleshooting*

Cannot change the sheet size

- When the MGL-IIc commands are used, the sheet size remains unchanged even if shifting the origin on the plotter and click ⇄ Sheet Loading button. In this case, the sheet size set in the plotter is always displayed. Even if the data fits into the cutting area in the layout area, the data may cut overflowed.

- When the MGL-Ic commands are used, the effective cutting area is displayed. Therefore, even if shifting the origin on the plotter side, it can be cut normally so long as the data fits into the cutting area.

Memory runs out during stroke weight and overlap recognition and frame extraction

Stroke weight and overlap recognition and frame extraction require a large mount of memory for the complicated objects. Depending on the specifications of the machine, the target object may not be processed because of insufficient memory. In this case, depending on the object type, you may avoid insufficient memory error by splitting the object into several pieces and executing the processing multiple times, instead of selecting the entire object and executing the process at one time.

> Example 1: Select each component and execute the processing separately to recognize the stroke weight and overlap for a complicated object with a separate title, instead of selecting the entire object. In case any overlaid portion exists, select only overlaid portion to execute the process.
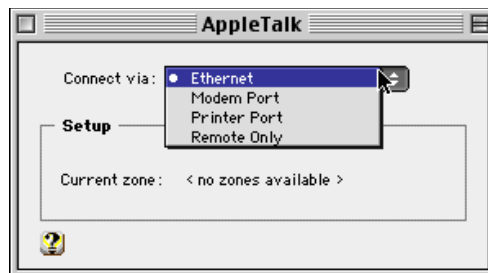>
> Example 2: Select only outer frame to perform frame extraction to extract the frame a complicated object with an outer frame. It enables to process without wasting memory rapidly.

A communication port error occurs when plotting

The following error message appears as clicking (🔨) Plot button during FineCut in use.

> **Adobe Illustrator**
>
> ❌ The communication port has already been used by other application or driver. Terminate the application or driver which uses the communication port.
>
> [OK]

- On the Windows version, a communication port error occurs if using a driver software for the tablet or other peripheral devices which occupies the serial port. This error can be canceled by using other serial port or temporarily deactivating the driver software of the peripheral device, etc.

- On the Macintosh, the plotter-command port may have already been used by AppleTalk. In this case, disable AppleTalk from the selector. Alternatively, select a plotter-unconnected port, from the AppleTalk control panel document. When the plotter is connected to the printer port, select the modem port or Ethernet.

> **AppleTalk**
>
> Connect via: • Ethernet
> Modem Port
> Printer Port
> Remote Only
>
> **Setup**
>
> Current zone: < no zones available >

Inferior plotting when executing [Frame Extraction],[Create Weed Line], or [Create Shadow/Edge] on the wrap-around text which created by the wrap-around text

If executing [Frame Extraction],[Create Weed Line], or [Create Shadow/Edge] on the wrap-around text which created by the IllustratorCS -[Object]-[Text Wrap]-[Make Text Wrap], it results in inferior plotting. Make sure to create out-line text by the [Type]-[Create Outlines] to obtain the good result.

Invalid path created in the object when creating edge

Depends on the shape of the path, invalid path may be created in the created edge.
In the case, set the smaller offset value for creating edge, or change the shape of the angle.

Cannot delete the shadow or edge created in [Create Shadow/Edge]

If editing a shadowed or edged path created in [Create Shadow/Edge], it may not be able to delete even if executing [Remove Shadow/Edge]. In the case, execute [group] of the shadowed/edged path, and then manually delete the shadow/edge.

Mimaki