

MIMAKI ENGINEERING CO., LTD.

TKB Gotenyama Building, 5-9-41, Kitashinagawa, Shinagawa-ku, Tokyo 141-0001, Japan Phone: +81-3-5420-8671 Fax: +81-3-5420-8687

URL: http://www.mimaki.co.jp/

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Foreword

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 has never been realized by other cutting software.

Note

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New Functions of FineCut7

Cutting order specification for each color/layer (P.3-22)

You can specify the cutting order by color or layer.

Setting tools by color or layer allows you to operate several tools efficiently.

Preview of cutting procedure (P.3-31)

This function previews cutting procedure of objects. You can check cutting position, direction, and order before cutting with plotter.

Cutting by end mill (P.3-58)

Thick media or others can be cut by end mill. In FineCut, set how to cut by end mill.

Import of plot file (P.3-70)

This function loads plot files created with cutting software. You can edit plot files in Illustrator and plot them from FineCut.

Output to RasterLink (P.3-72)

When using CJV30 series or TPC, you can easily print&cut working FineCut with RasterLink.

Spline approximated output (P.4-5)

By using the spline approximation output for the Bezier curve of the object, the head moves at a regular speed even at joints, and the cutting line is smoothed. (MIMAKI CF/CF2/DC/CF3 series only)

Import/export of cutting condition (P.4-6)

You can save the condition that was set during cutting as a file.

Loading the saved file enables you to cut with the previous conditions. You can also use as a backup of cutting condition.

Number of cutting specification (P.4-8)

Specifying number of cutting enables you to cut multiple times on the same cutting line, changing the speed and pressure. Set this for cutting hard media or double weight sheets. (MIMAKI CF/CF2/DC/CF3 series only)

Arc theta correction (P.4-8)

Set the correction amount of arc theta in FineCut. (MIMAKI CF/CF2/DC/CF3 series only)

System Requirement

System and software

The following conditions are required to use FineCut7.

Item	Windows	Macintosh		
Computer	IBM PC or compatible mounting Pentium processor or compatible CPU (Except 64bit CPU)	Macintosh mounting Power PC or Intel CPU		
os	Microsoft® Windows®2000, Windows®XP, Windows Vista TM (When connected to a plotter by USB, Windows 2000 Service-Pack3 or later, Windows XP Service-Pack1 or later is required.)	Mac OS OS 9.2.2 Mac OS OS X 10.2.6 or later		
Monitor	tor 800 x 600 pixels, or higher resolution is required			
Software	oftware Adobe®Illustrator® 8.0.1, 9, 10, CS, CS2, CS3, CS4 (English Version)			
Plotter	Plotter MIMAKI CG series (CG-45 or later), MIMAKI CF-09/12 series, MIMAKI CF2 series, MIMAKI DC series, MIMAKI CF3 series, MIMAKI CJV30 series, MIMAKI TPC			
Others	Others Compliant with the operation environment of Adobe®Illustrator® used			

Plotter setting

Before using FineCut7, set the plotter used.

Plotter	Item		Setting	
CG-EX Series	ORIGIN SELECT		LOW RIGHT	
CG-FX Series,	ORIGIN SELECT		LOW RIGHT	
CG-75ML,	Register Mark Setting	MARK DETECT	1Pt	
CG-60SR, CG-SRII Series		DIST REVI	AFTER	
OO OIKII OCIICS		offset A	0.0mm	
		offset B	0.0mm	
	Ś	COPIES A (↑)	1 (sheet)	
	etting	COPIES B (←)	1 (sheet)	
	RC	DTATION	OFF	
	PR	RIORITY	HOST	
CJV30 Series,	Re	MARK DETECT	1Pt	
• Set all for each tool.	흑	OFFSET Y (←)	0.0mm	
Set all for each tool.		OFFSET X (↑)	0.0mm	
	Mark	COPIES Y (←)	1 (sheet)	
	Setting	COPIES X (↑)	1 (sheet)	
CF-09/12 Series	C۱	ND SW	Enable	
	ORIGIN		LOW-LEFT	
	CII	RCLE θ CORRECTION	Enter an angle of positive number	
CF2 Series,	CI	MD SW	Enable	
DC Series, CF3 Series	ORIGIN		LOW-LEFT (LOW-RIGHT for CF3)	
		RCLE () CORRECTION	Enter an angle of positive number	
	EXPAND		OFF	
	• [ARK DETECT Register Mark detection cannot be set unless the expand is set to OFF.	1pt	
	<n< td=""><td>IULTI-PASS>-CUT START</td><td>OFF</td></n<>	IULTI-PASS>-CUT START	OFF	

How to Read This Manual

Notations

Menu items and buttons displayed in each screen are enclosed in square brackets like [File] menu.

Symbols



• Indicates cautions or procedures you must perform.



• Describes a useful procedure.



• Indicates a page of related contents for reference.

FineCut menu

FineCut dialog is displayed as follows on Illustrator. In this manual, it is called "FineCut menu".



CHAPTER 1 Installation



This chapter describes how to install FineCut.

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Installation of FineCut

For Windows

1

Start the computer.

2

Set the CD-ROM of FineCut into the CD drive.

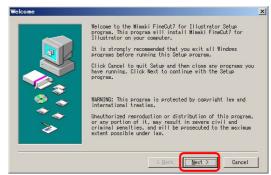
3

Click [FineCut7 for Illustrator Setup].



4

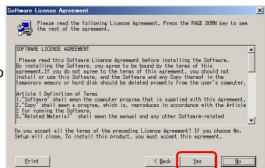
Click [Next].



5

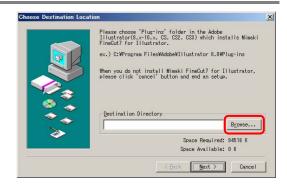
The Software License Agreement screen appears.

Read through the agreement, and click [Yes] to consent the agreement.





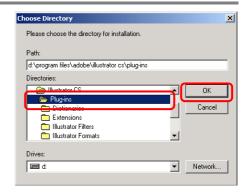
Click [Browse].





Select plug-in folder of the Illustrator used.

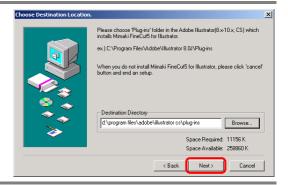
Double-click plug-in folder, and then click [OK].



8

Click [Next].

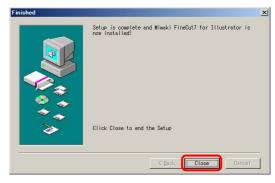
Installation starts.



9

When the screen on the right appears, click [Close].

Installation is complete.



For Macintosh



Start the computer.

2

Set the CD-ROM of FineCut into the CD drive.

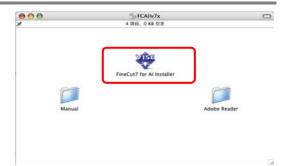
3

Double-click the FineCut CD icon.





Double-click the installer icon.



5

The software license agreement screen appears.

Read through the agreement, and click [Accept] to consent the agreement.



6

Select the type of installation, and then click [Install].

- Select [Standard Install] for the type of installation.
- To change the install location, click [Switch Disk] and select the disk.





Select the version of Illustrator used with FineCut.

Click the button to start installation.

Adobe Illustrator 8	
Adobe Illustrator 9	
Adobe Illustrator 10	
Adobe Illustrator CS	
Adobe Illustrator CS2	
Adobe Illustrator CS3	
Adobe Illustrator CS4	

8

Click [Quit].

Installation is complete.

To continue the installation, click [Continue].



USB Serial Adapter for Macintosh

To output to a serial port of the plotter from Macintosh USB port, USB-serial adapter is required. Mimaki recommends the optional USB-serial adapter (Model number: OPTSS036).

Some USB-serial adapter may not operate normally because of a problem between the adapter and the operating system of the computer. Before using other manufacturer's adapter, contact the manufacturer for problems between the adapter and OS in use.

CHAPTER 2 Basic Operations



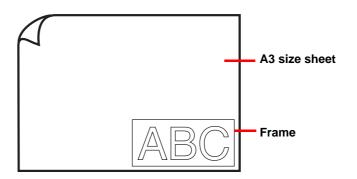
This section describes basic operations, as an example of the procedures for cutting ABC in the lower right of A3 size sheet using MIMAKI CG cutting plotter series.

Let's Cut! 2-2

Let's Cut!

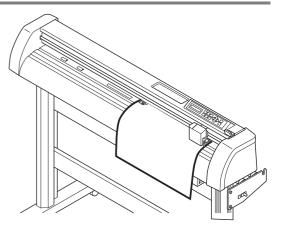
The following steps show how to cut ABC in the lower right of A3 size sheet using MIMAKI CG cutting plotter series.

Additionally shows how to cut a frame away from surroundings of ABC by 5mm.



1

Load a A3 size sheet into the plotter so that it is wider than it is tall.



(Important!)

• For the sheet loading or the plotter operation, refer to the Operation Manual attached to the plotter.



Set the plotter to REMOTE mode.



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

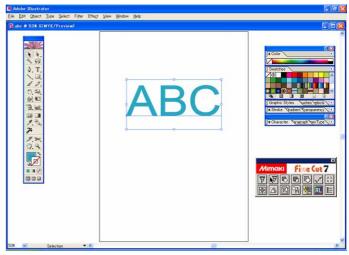


Start Illustrator and create new document.

You do not need to set A3 for the paper size.



Enter "ABC" with the lettering Tool.





• "FineCut menu" is automatically displayed. If "FineCut menu" is not displayed, select [Show FineCut Menu] (select [Mimaki FineCut] for Illustrator 10 or later) from the [Window] menu in the Illustrator.





Click [Plotter / User Setup...] button in the FineCut menu.

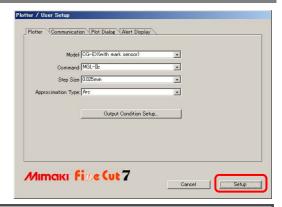
Alternatively, select [Plotter/User Setup...] from the [File]-[FineCut] menu.





Set the plotter.

After setting, click [Setup].





• Be sure to set the same values for Plotter and Communication as the settings on the plotter. If the entered values differ from the settings on the plotter, the object will not be cut normally. (P.4-5)



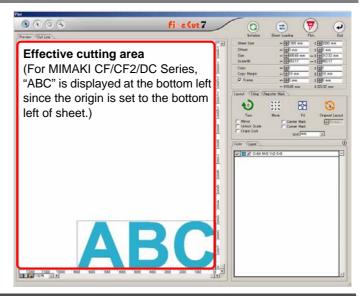
Click [Plot] button in the FineCut menu.

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





A screen shown on the right appears.





• If the
mark is displayed on the left of
Sheet Loading button, the sheet size is not loaded. Check the connection with the plotter, set the plotter to REMOTE mode, and then click Sheet Loading button to load the sheet size.



Set a frame and click (F

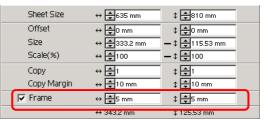


Plot button.

For cutting a rectangle frame away from surroundings of the object by 5mm.

(1)Click the check box of Frame to put a check

(2)Enter 5mm long, 5mm wide.

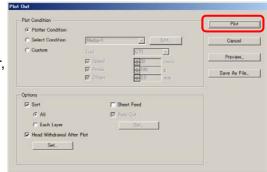




Set plotting condition, and click [Plot].

Set plotting condition. (P.4-24)

To use the preset cut conditions on the plotter, select "Plotter Condition".



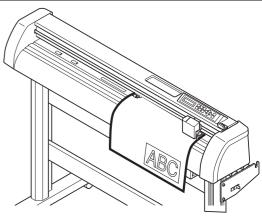
(Important!)

• Make sure to match the conditions to the media on the plotter. If the setting is unmatched, the object will not be cut normally.



It starts cutting the object.

The object is cut on the sheet origin - the bottom right (the bottom left for MIMAKI CF/CF2/DC series) of the sheet.



12

Click End button.

"Plot" screen is closed.

CHAPTER 3 Advanced operations



This section describes the convenient usage or settings of Fine-Cut.

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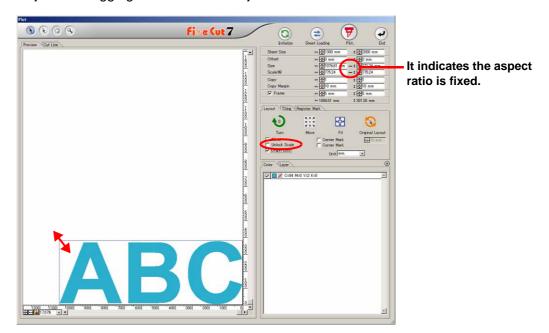
Enlarge or Reduce an Object

Enlarge or reduce an object on Plot screen. Click [Plot] button in the FineCut menu.



Enlarge or reduce an object with a fixed aspect ratio

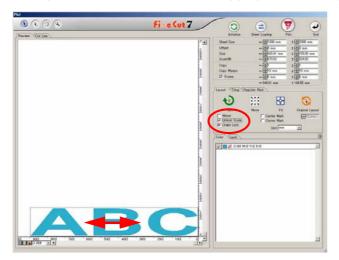
Click and uncheck [Unlock Scale] on the Layout tab. Enlarge or reduce an object as dragging a corner of the object.



Enlarge or reduce only width or length of an object

Click and check [Unlock Scale] on the Layout tab.

Enlarge or reduce an object as dragging the left or right corner or the top or bottom corner of the object.

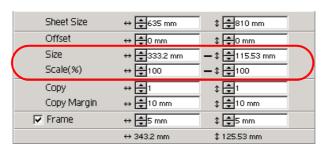






- To enlarge or reduce an object with the aspect ratio retained, check [Unlock Scale], and then drag an object as holding down the Shift key of the keyboard.
- To enlarge or reduce an object with the changed aspect ratio retained, change the width and length separately, and then uncheck [Unlock Scale].

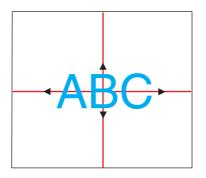
To enlarge or reduce an object more precisely, enter the values on the [Size] and the [Scale].



Put a Positioning Mark

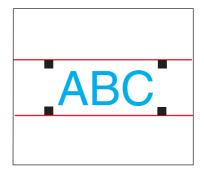
To affix cut stickers to the expected position, mark an object frame.

Center Mark



- (1) Determine the center of the sticker and draw ruled lines.
- (2) Align the center marks with the ruled lines;
 Enables the sticker to affix to the expected position.

Corner Mark



- (1) Draw ruled lines.
- (2) Align the corner marks with the ruled lines; Enables the stickers to affix horizontally.

(Important!)

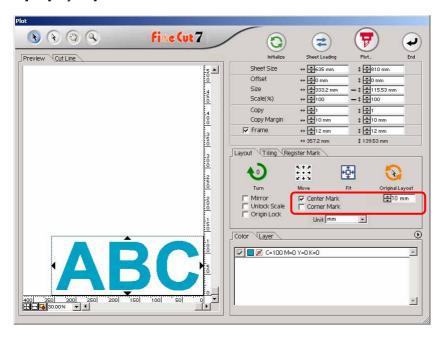
• When [CF3 (Milling)] is selected on Plotter / User Setup screen, this function cannot be used.

Set the marks on Plot screen. Click [Plot] button in the FineCut menu.



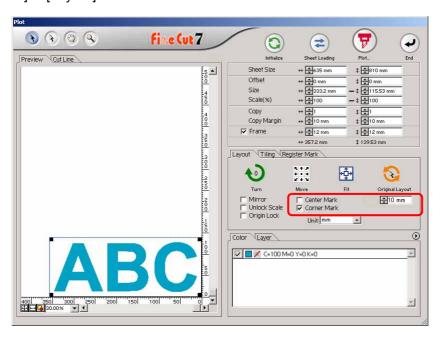
Center Mark

Check [Center Mark] in [Layout] tab. Enter the mark size.



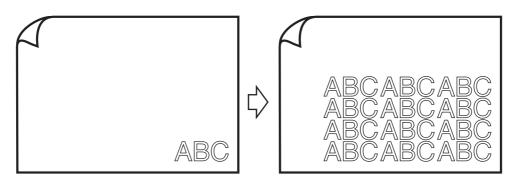
Corner Mark

Check [Corner Mark] in [Layout] tab. Enter the mark size.



Cut an Object Multiple Times (Copy)

To cut an object multiple times vertically and horizontally, use Copy. The following example shows how to cut ABC on A3 sized sheet.





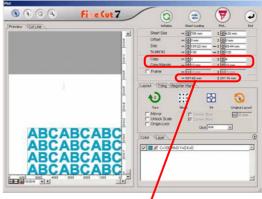
Click [Plot] button in the FineCut menu.



2

Set [Copy] and [Copy Margin].

- [Copy]
 Enter value 3 for horizontal and value 4 for vertical.
- [Copy Margin]
 Set the margin between objects (horizontally and vertically) to 10 mm.

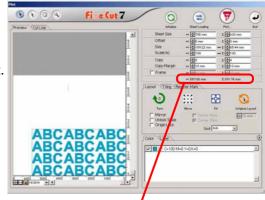


This includes all margins of the object.

3

Check [Frame] and enter 10 mm for both width and length.

The frame is put on 10 mm outside of the object.



This includes the frame size.

(Important!)

- When Frame is set, the frame is created for each object. You cannot enclose all the copied objects with a single frame.
- When [CF3 (Milling)] is selected on Plotter / User Setup screen, note the followings.
 Set [Copy Margin] to 10 mm or more.
 Frame cannot be created.



Click Plot 🕝 button.

The objects are plotted.

Divide and Cut an Object (Tiling)

To create an object larger than the sheet width (signboard, etc.), divide and cut the object with Tiling.

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

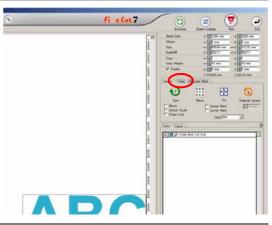


Click [Plot] button in the FineCut menu.



2

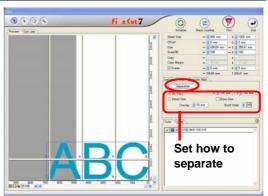
Click [Tiling] tab.



3

Set how to separate, and click [Separation].

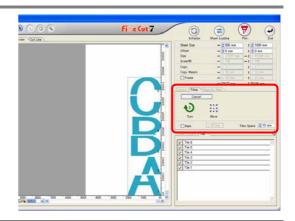
(P.4-20 for details)



4

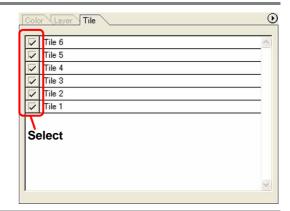
Divided objects are displayed. Set the tile position or others.

(P.4-21 for details)





Select tiles to cut from the tile list.





Click Plot 🕝 button.

The objects are plotted.

Create Shadow/Edge

Create shadow/edge of an object.



Select an object on Illustrator.



2

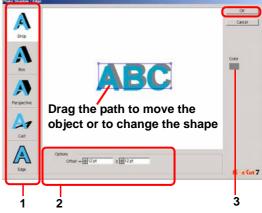
Click [Create Shadow/ Edge] button in the FineCut menu.

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



3

Select and set shadow or edge, and click [OK].



Shape	Select shadow type (4types) or edge.		
Options	Set the offset distance between the object and shadow/edge. For "Perspective", set the perspective by %. For "Edge", set the shape of the corner and the ratio. (P.3-36 "1. Attach a Frame (Cutting line)" for reference.)		
Color	Set the color of shadow. Click the color to display the following screen. Select color or input the number, and click [OK].		

(Important!)

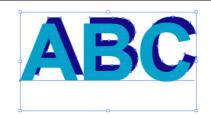
 Specify RGB colors for the shadow/edge. If the object color mode is CMYK, it may not be able to display by the specified RGB colors.
 In this case, it is converted to the representable colors of the nearest CMYK.



A shadow or an edge is created.

The example shown on the right is set as follows;

Shape: Drop Offset: 4mm each Color: Black





- If the shadow or edge has a lot of anchor points, execute Illustrator-[Object]-[Path]- [Simplify...].
- To remove the created shadow or edge, select [Remove Shadow / Edge] from the [File]-[FineCut] menu.
- If you edit the created shadow or edge on Illustrator, you may not be able to delete it.

Extract the Outline

Create the outline to cut the bitmap image. And you can specify a color for creation of the outline only in the same color area.



Select an object on Illustrator.



2

Click [Outline Extraction] button in the FineCut menu.

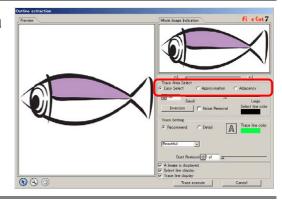
Alternatively, select [Outline Extraction] from the [File]-[FineCut] menu.



3

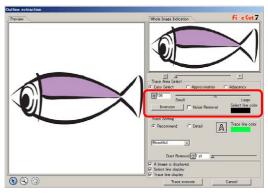
Set the selection method of the area to be extracted.

(P.4-27)



4

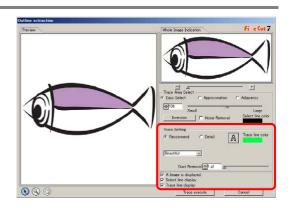
Adjust the extraction area while previewing the image.



5

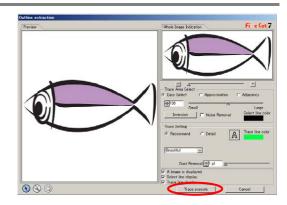
Set [Trace Setting].

((P.4-28)





Click [Trace execute] button.





- Clicking [Trace Execute], a new layer is created as [FC Trace layer 1], [FC Trace layer 2...]. Use this function to set cutting condition for each layer. (P.3-26, P.3-64)
- The data in this layer is set to non-printing, since it is used as cutting data. To print this data, enable "Print" on Illustrator "Layer option".



Outline is created on the [FC Trace Layer] of Illustrator.



Edit the Line

The outline created by Outline Extraction can be modified or changed.



Open an image created by Outline Extraction on Illustrator.

If necessary, enlarge the line to be edited with the zoom tool of Illustrator.

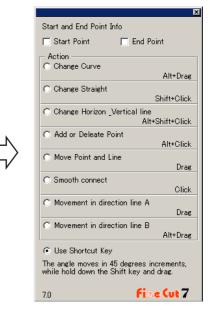


2

Click [Line Edit Tool] button on Illustrator Tool Palette.

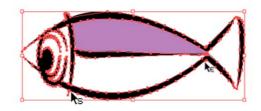
The line edit tool appears. (P.4-32)





3

Specify [Start Point] and [End Point].



Start Point	Move the cursor close to the anchor point to show "S". Click the anchor point to set the start point.
End Point	After setting the start point, move the cursor close to the anchor point to show "E". Click the anchor point to set the end point.



Select the operation.

This is an example of [Change curve].



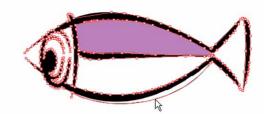


• Check [Use shortcut key] to edit with keys shown on the right of each operation. Use Alt key for Windows and Option key for Macintosh respectively.



Drag the line to curve.

The line is fixed when the mouse button is up.



Make a Precut Line around Object

When creating stickers, precut line (called "Weed line") around the object enables to tear off the sticker with ease.

This section describes how to make weed line and frame.



• Do not set the weed line on a thick sheet. The line may damage the object.



• The unit used in "Make Weed Line" screen refers to the setting of Illustrator. If changing the unit, set in the Illustrator-[File]-[Preferences]-[Units & Undo].



Select an object on Illustrator.



2

Click [Create Weed Line] button in the FineCut menu.

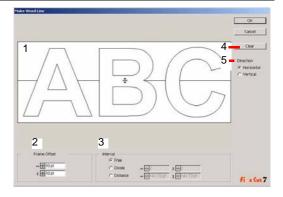
Alternatively, select [Create Weed Line] from the [File]-[FineCut] menu.



3

Set the Weed Line.

After setting, click [OK] .

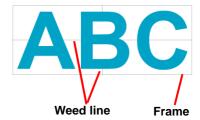


	Item	Description
1	Preview	Check the position and the number of the weed line.
2	Frame Offset	Set the distance between the object and the frame.
3	Interval	[Free] Make the line on the needed position with the needed numbers. Select the direction of the line in [Direction], and click on the preview to make the line. [Divide] Set the divide number to both horizontal and vertical directions. [Distance] Set the distance in between the objects to both horizontal and vertical directions.
4	Clear	Delete all weed lines except frames
5	Direction	Select the direction of weed line to be created. It is used when [Free] is selected on [Interval].



Weed lines are created.

The example shown on the right is set as follows; Frame Offset: 5mm each Interval-Divide: 2 each



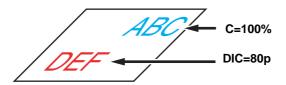


• To delete the created weed line, select [Remove Weed Line] from the [File]-[FineCut] menu.

Cut an Object on Each Color

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

This describes how to cut out the Cyan (C=100%) colored object "ABC" with the following example.





Select an object on Illustrator.



2

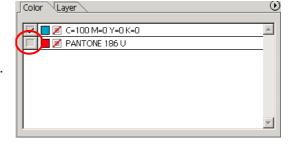
Click [Plot] button in the FineCut menu.



3

Uncheck the color set (DIC 80p) of "DEF" on the example above.

Object "DEF" disappears from the cutting area.

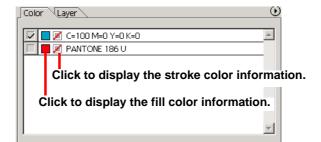




Color List

The color list displays all colors (including PANTONE and other special colors) used for the object. It also displays the colors of fill and strokes of the object.

To specify the output condition, click the button on the upper right of the list.

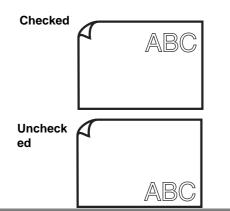




Set [Origin Lock].



- To cut out the object on the created position, check [Origin Lock].
- When unchecked, the object is cut at the bottom right of the sheet (bottom left for CF/ CF2/DC series) that is based on the origin.





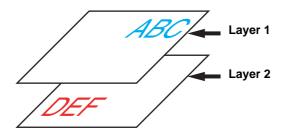
Click Plot button.

The object is cut.

Cut an Object on Each Layer

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

This describes how to cut out "ABC" on the layer 1 of the following example.





Select an object on Illustrator.



2

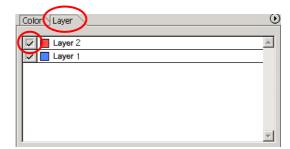
Click [Plot] button in the FineCut menu.



3

Click [Layer] and uncheck the layer of "DEF" on the example above.

Object "DEF" on the layer disappears from the cutting area.

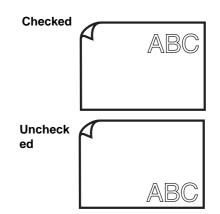




Set [Origin Lock].



- To cut out the object on the created position, check [Origin Lock].
- When unchecked, the object is cut at the bottom right of the sheet (bottom left for CF/ CF2/DC series) that is based on the origin.





Click (F) Plot button.

The object is cut.

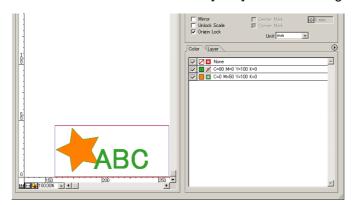
Set the Output Order/Tool on Each Color/Layer

Output order can be specified by color or layer.

The order of the several tools' operation can also be set by color or layer.

Normally, objects are output in order, from the bottom to the top of the color/ layer list.

This describes how to cut the red frame first with the tool [HLF] of the following example.





Select an object on Illustrator.

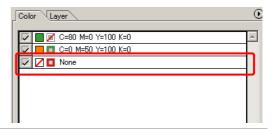


Click [Plot] button in the FineCut menu.



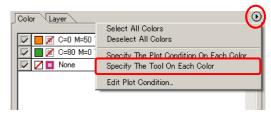
3

Drag the red in the color list to the bottom.



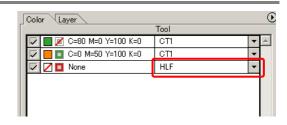


Click the upper right button of the list and select [Specify The Tool On Each Color (or Layer)].





Select [HLF] for tool.

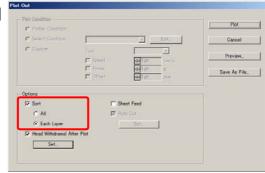




Click Plot button.



Check [Sort] on Plot Out screen, and select [Each Color (or Each Layer)].



8

Click [Plot] button.

The object is output in the specified order.

Set Output Condition

Output condition can be set by the media used.



- This function is effective only for the MGL-IIc commands.
- In case any setting value exceeds the limit value of the plotter, the object is plotted with the limit value of the plotter. For the limit values, refer to the Operation Manual of the plotter.



 Once output conditions are set for each media with the following steps, the conditions can be changed by media on Plot Out screen. (mext page).



Click [Plotter/User Setup...] button in the FineCut menu.



Click [Output Condition Setup...].

Alternatively, click [Edit] button in the Plot Out screen. (@ P.4-24)



Set conditions on Output Condition Setup screen.

Setting items differ depending on the model selected on [Model] of Plotter / User Setup screen (See step 2).

Set items and click [Setup]. (P.4-6.)



Click [Plot] button in the FineCut menu.





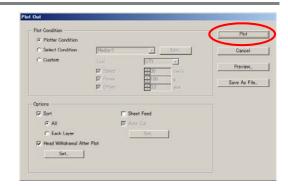


Click (F) Plot button on Plot screen.



Set the plot condition on Plot Out screen and click [Plot].

(P.4-24)





• When plotting with "Select Condition" or "Custom" setting, the setting of speed/pressure/ offset of the plotter changes. To restore the setting, set the plotter to LOCAL mode and press the [TOOL] button.

Set Output Condition on Each Color /Layer

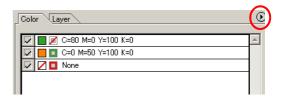
Output condition can be set on each color or layer.

For a fine object or small characters, create an object on each color or layer, and set the appropriate output condition (lowering cutting speed, etc.) for each. The objects can be cut finely.

In CF/CF2/DC/CF3 series, you can cut and make ruled line at one time by specifying tools on each color or layer.

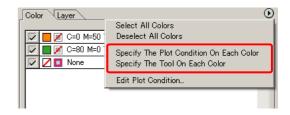


Click the button on the upper right of the color list (or layer list).





Select [Specify The Plot Condition (Tool) On Each Color (Layer)].



3

If the following screen appears, click [OK] .

When [Specify The Plot Condition On Each Layer (Color)] is selected:

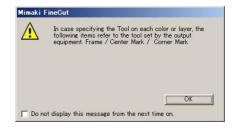


When [Specify The Tool On Each Layer (Color)] is selected:



When CF3/CJV30/TPC series is used



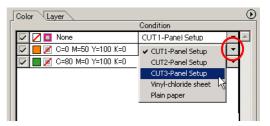




Set the output condition.

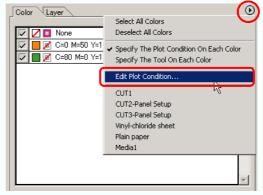
Click the button on the right of the condition, and select from the set condition.

When [Specify The Plot Condition On Each Color] is selected:

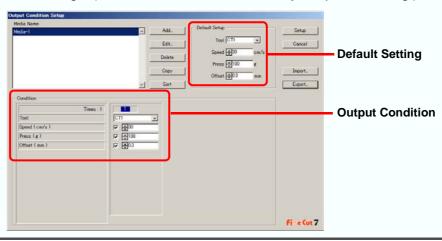


(Important!)

• To edit the output conditions, click the button on the upper right of the list, and select [Edit Plot Condition...].



- When specifying the output conditions on each color or layer, you cannot use the settting on the plotter. Make sure to set the all conditions (Speed/Press/Offset) in the FineCut.
- When items are unchecked or frame /center mark /corner mark is specified, the media is cut by the default settings. (CF3/CJV30/TPC series is cut by the plotter setting.)



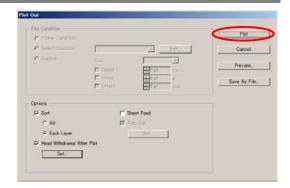




Click Plot button.



Click [Plot].



Set Head Position and Origin after Plot

You can set the head position after plot.



Select an object on Illustrator.



Click [Plot] button in the FineCut menu.



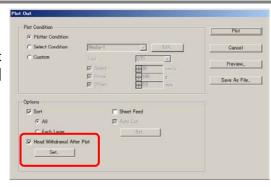
3

Click Plot button on Plot screen.



Check [Head Withdrawal After Plot].

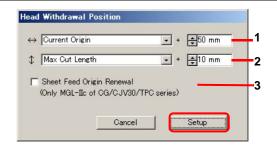
To change the head withdrawal position or to set the origin to the withdrawal position, click [Set] and go to the next step.





Change the setting on Head Withdrawal Position screen.

After setting, click [Setup].



	Item	Description
1	\leftrightarrow	Set the head withdrawal position for the horizontal direction from the reference position (Select [Current Origin] or [Max Cut Width]).
2	 	Set the head withdrawal position for the length direction from the reference position (Select [Current Origin] or [Max Cut Length]).
3	Sheet Feed Origin Renewal	Set the head withdrawal position as the origin position. (Effective only for the MGL-IIc commands on CG/ CJV30 series and TPC.) Check this to prevent from cutting on the same position with the previous cut when plotting continuously with the same sheet.



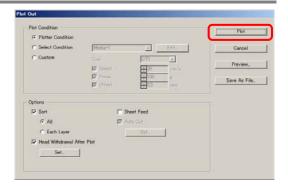
• When using [No. COPIES] or [DIVISION CUT] of the plotter, uncheck the [Sheet Feed Origin Renewal].

If it is checked, [No. COPIES] or [DIVISION CUT] will not perform normally.



Click [Plot] on Plot Out screen.

Plot starts. The plotter head moves to the specified position after plotting.



Check the Cutting Process by Preview

Before cutting objects, you can check the plot process with your plot setting by Preview.



Select an object on Illustrator.



Click [Plotter/User Setup...] button in the FineCut menu.



3

Click [Output Condition Setup...] and set the output condition.

(P.4-6)



4

Click [Plot] button in the FineCut menu.



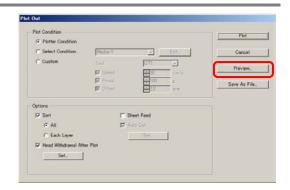
5

Click Plot button on Plot screen.

6

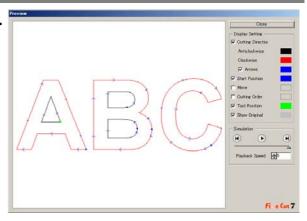
Set the plot condition in Plot Out screen, and click [Preview].

(P.4-24 for details of the setting)





Check the cutting line by the preview.





- To change the color of [Display Setting], click the color on the right of each setting.
- When copy /mark separation is set, the preview displays the object without copy /mark separation.

Item	Description
Cutting Direction	Shows black line for cutting in anticlockwise, and red line for cutting in clockwise. Checking [Arrows], cutting direction shows with arrows. • In case of open path, both directions display in black.
Start Position	Shows blue for starting point of cutting.
Move	Shows yellow for moving line raising the tool.
Cutting Order	Shows numbers for cutting order.
Tool Position	Shows green for a tool (head) position. Displaying simulation, you can check the moving of the tool.
Show Original	Shows the Illustrator object that is ready by FineCut and processed on Plot screen in the state before cutting.



Click • in [Simulation] and check the moves of cutting.

To return to the state before cutting, click ullet. To go to the state after cutting, click ullet. Slide bar shows the simulation from random position.

To set the speed of the simulation, set [Playback Speed].



If needed, go back to Step 1 to Step 6 and adjust the plot condition.



- For CF series, you can check the Cut start position on the preview.
 - To adjust it, go to [Optimize Cutting Start Position] of Plot Out screen. (💝 P.4-26)
- For CF3 (Milling), you can check the following settings on the preview. Cut start position:

To adjust it, go to [Optimize Cutting Start Position] of Plot Out screen. (P.4-26) Offset / Cutting direction:

To adjust it, go to [Options] of Plot Out screen. (P.4-25)

Position of cutting line:

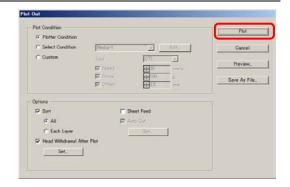
To adjust it, go to [End Mill Diameter] of Output Condition Setup screen. (P.4-10)

10

Check the preview again, and click [Close].



Click [Plot] in Plot Out screen to start cutting.



Make Stickers or Sign-panels

You can make stickers or sign-panels by cutting the outline of the printed images.

FineCut has the Frame Extraction function that generates cutting lines on an object, and the Register Mark Recognition function that performs axial correction and size adjusting at once using CG-FX series or other cutting plotter with a mark sensor.

In addition to the Register Mark Detection function, CF2/DC/CF3 series can configure the setting ON/ OFF of the size adjusting.



• Fit the communication setting of FineCut to the setting of the plotter connected. If the FineCut settings differ from the settings of the plotter, the object will not be output normally. (P.4-12)



 A register mark made by the register mark making function is created in the register mark layer. Creating one register mark, a new register mark data is created in the new layer as [FC Register Mark Layer 1], [FC Register Mark Layer 2]... Please note that FineCut recognizes only one set of register mark. When two or more register mark sets are created, set unnecessary register mark undisplayed.

Work Flow



Make object

Using Illustrator, make an object for printing.

2

Make frame (cutting line)

Using FineCut, make frame (cut line) fitting to the object.



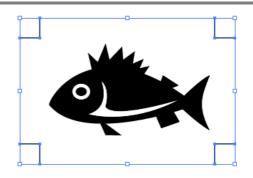
Plotter	Page
All	P.3-36

3

Make Register Mark

Using FineCut, make a Register Mark. Various kinds of Register Marks can be made depending on the plotters used.

Print the created Register Marks on the media such as stickers, corrugated cardboard, etc.



Plotter	Page
CG / CJV30 / TPC series	P.3-38
CF2 / DC / CF3 series	P.3-40



Cut the object

Set the printed media on the plotter used, and cut it. You can cut the various media such as stickers, corrugated cardboard, etc.

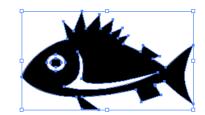
Function	Plotter	Page
Recognize and cut Register Mark	CG-EX	P.3-42
Cut continuously	CG-FX / 75ML / 60SR /SRII, CJV30 / TPC series	P.3-44
Cut with ID certification mode	CG-75ML	P.3-50
Cut the outline and base sheet at a time	CG-75ML / 60SR /SRII, CJV30 / TPC series	P.3-54
Cut with CF2 / DC / CF3 series	CF2 / DC / CF3 series	P.3-56
Cut with end mill		P.3-58

1. Attach a Frame (Cutting line)

It automatically makes cutting line with the specified offset.



Select the object to attach a frame.



2

Click [Frame Extraction] button in the FineCut menu.

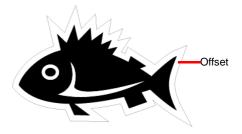
Alternatively, select [Frame Extraction...] from the [File]-[FineCut] menu.



3

Set path for the frame.





(Important!)

• For Illustrator CS3 and CS4, do not check [Preview], since the frame is not correctly created with the box checked.

Item		Description	
Offset	Set the distance from the object to the frame. For bleed, enter a negative value.		
Joins	1	ne corners. not natural, change the Joi acute corner and the larger	•
Miter	Round	Beve	I
Miter limit	(Effective only for the	e two line ends crossed Miter shape.) the corner more acute.	position.
	Example:	1mm	10mm



Click [OK].

The frame is extracted, and a path is created in [FC Frame Layer].



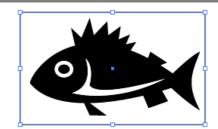
- Every time executing [Frame Extraction], a new layer is created as "FC Frame Layer 1", "FC Frame Layer 2".
 - Use it when setting print or cutting condition for each layer. (P.3-26, P.3-72)
- The data in this layer is set as non-printed, since it is used as cutting data. To print this data, enable "Print" on Illustrator "Layer option".

2-1. Make a Register Mark (CG/CJV30/TPC series)



Enclose an object with rectangle on the position for making a register mark.

Select the layer of the object to be printed, and then make a rectangle for register mark 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 or others for the register mark.

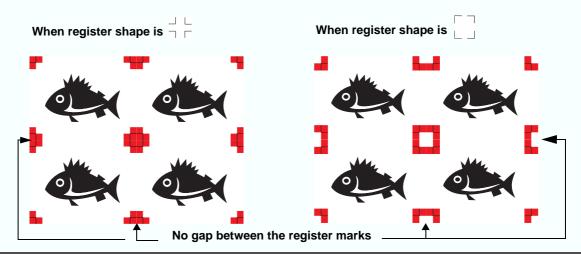
Click [OK] after setting.



Item	Description
Mark Shape	Select the shape of the register mark.
Mark Size	Set the size of the register mark.
Line Width	Set the line width of the register mark.
Leave a rectangle as the cutting line	Cuts the rectangle created in step 1.
Fill around the register mark	Fills around the register mark with red spot color. When register mark is not recognized on the media of other than white, the mark can be recognized with this function. • Recommend color to fill around is red (default) or white. To print with white, refer to the printer manual. Generally allocate red spot color to white and print.



- When register mark is not recognized filling around the mark with red or white, it will not improve with the other colors. Furthermore, some types of media or inks may not recognize the register mark even if the color around the mark is changed.
- When cutting continuously (P.3-44, P.3-50) with this function, do not gap between register marks.

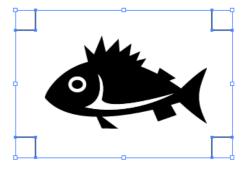


Item	Description
Add the pattern information (Only for CG-75ML)	Adds a bar-code shaped pattern information with register mark. With the pattern information and the register mark reading function, you can cut the outline of multiple different sticker at one time.



A register mark is created. Output this data to the printer.

The register mark is created in the layer of the object.

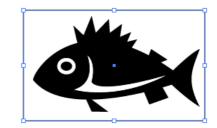


2-2. Make a Register Mark (CF2/DC/CF3 series)



Enclose an object with rectangle on the position for making a register mark.

Select the layer of the object to be printed, and then make a rectangle for register mark with the rectangle tool.



2

Click [Register Mark Creation] button in the FineCut menu.

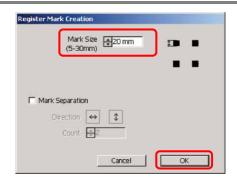
Alternatively, select [Register Mark Creation] from the [File]-[FineCut] menu.





Set the size of register mark.

Click [OK] after setting.

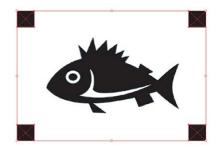


Item	Description
Mark Size	Set the size of the register mark.
Mark Separation	Cuts each separated area. Use it when an object is too large to fit in the cut area.
	• For the figure below, it is cut in 3 times of 1 to 3. (P.3-63)
	 The position of the separated mark can be moved by selecting with [Direct selection tool] of Illustrator. To change the position of the marks, align them on the same line in the separated direction (Vertical for the figure above). Marks of left and right (or above and below) make a pair. To change a mark position, move them together.



A register mark is created. Output this data to the printer.

The register mark is created in the layer of the object.



3-1. Detect and Cut Register Mark (CG-EX series)

This function supports CG-EX series plotter.



Set the printed sheet on the plotter to detect register mark.

For the procedure of register mark detection, refer to the operation manual of CG-EX series. The followings are the procedures of semi-auto.

- (1) Set the printed sheet on the plotter and turn the sheet set lever back.
- (2)Press \subseteq or \supset key to detect the sheet.
- (3) Move the tip of the cutter blade to the area shown on the right with the jog key.
- (4)Press ENTER key. Register mark detection starts.

After detecting register marks, length (A) provided between TP1 and TP2 appears on the plotter.

(5)Press ENTER HOLD key.

Length (B) provided between TP1 and TP3 appears on the plotter.

The size is calibrated automatically in FineCut. No need to register the actual size with the jog key.

(6)Press HOLD key. The origin is set.

(7)Press $_{\text{REMOTE}}$ key to turn to Remote Mode.

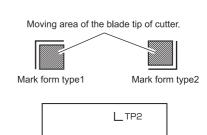
2

Select an object on Illustrator.



Click [Plot] button in the FineCut menu.





Гтет

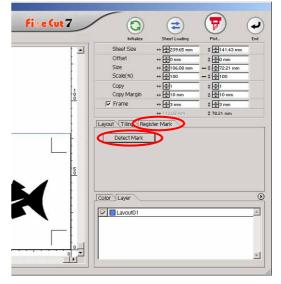
Pinch roller

TP37



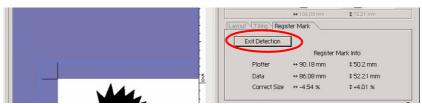
Click [Register Mark] tab and click [Detect Mark].

Register mark is detected.





• To cancel the register mark detection, click [Exit Detection].

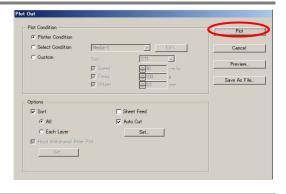


5

Click 🕝 Plot button.



Click [Plot] to start cutting.



3-2. Detect Register Mark and Cut One Image Continuously (CG-FX/ CG-75ML/ CG-60SR/ CG-SRII/ CJV30/ TPC series)

When cutting one image multiple times, the reegister marks can be detected at high speed.



- Use only one set of register mark on Illustrator. If printing the same data multiple times, use the copy function of your print software (RIP).
- Align the images to X/Y (vertical/horioantal) direction.



 When CJV30 series or TPC is used, you can print & cut by one operation working with RasterLink. (P.3-72)

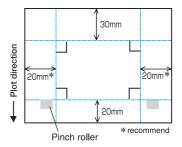


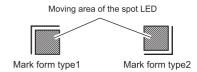
Set the printed sheet on the plotter to detect register mark.

For the procedure of register mark detection, refer to the operation manual of the plotter. The followings are the procedures of semi-auto.

- (1)Select "1 pt" on "MARK DETECT" of the plotter as the number of register mark detection. Set the size or the shape of the register mark.
- (2) Set the printed sheet on the plotter and turn the sheet set lever back.
- (3)Press the jog key to detect the sheet.
- (4)Move the spot LED to the area shown on the right with the jog key.
- (5)Press key.

 The register mark is detected and it returns to LOCAL mode.
- (6)Press REMOTE key to turn to Remote Mode.





2

Select an object on Illustrator.



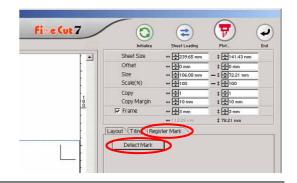
Click [Plot] button in the FineCut menu.





Click [Register Mark] tab and click [Detect Mark].

Register mark is detected.





Set the register mark to detect continuously.

To cancel the register mark detection, click [Exit Detection].



Item	Description
Roll Sheet/ Leaf Sheet	Select the sheet to cut.
Repeat	 Roll Sheet Set the data numbers to vertical and horizontal direction. Leaf Sheet Set the sheet numbers to replace. In case the number is indefinite, input the maximum numbers "9999".
Search Position	 First Time Select the first detection points of the register mark. Continue Select the second and the subsequent detection points of the register mark.



• When detecting a large data, increase the mark detection points to cut more precisely. When detecting a small data, decrease the detection points of "Continue" to reduce the detecting time.

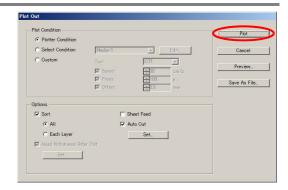




Click (F) Plot button.



Click [Plot] to start cutting.





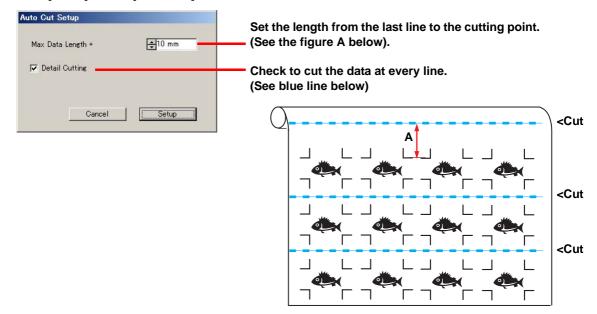
In case of Auto Cut

• Checking on [Auto Cut] in Plot Out screen enables sheet to cut automatically after each cutting.

To execute auto cut, make sure to check [Auto Cut] in this screen.

Even if ON is set on the plotter, auto cut is invalid unless [Auto Cut] is checked on Plot Out screen. Even if OFF is set on the plotter, auto cut is valid with [Auto Cut] checked on Plot Out screen.

• Click [Set...] below [Auto Cut] on the screen, and set in detail as follows.





(Following steps are only for Leaf Sheet)

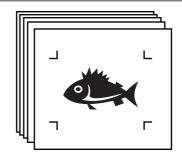
After cutting the first sheet, a message appears on the plotter .

Set the next sheet.

CHANGE SHEET



Detects the register mark automatically and cuts the data.

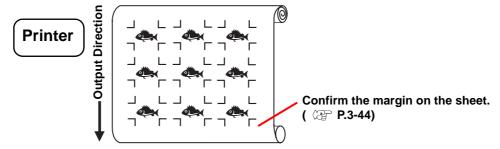




When using CG-FX, register mark is automatically detected.
 When using the other models, detect the register mark manually every time the sheet is replaced. For the details, refer to the operation manual of the plotter.

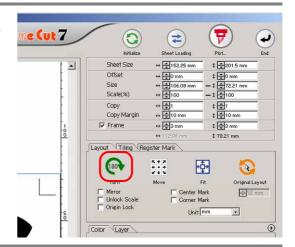
When the sheet printed by the printer with take-up function (JV series etc.) is rolled on a paper tube

Setting the 180-degree rotation in the FineCut, you can set the paper tube on the plotter without rewinding the roll sheet, and cut it.



1

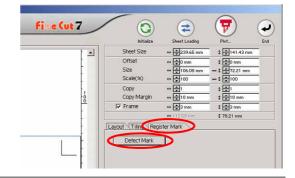
Set the rotate button to 180-degree.



2

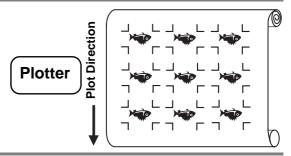
Click [Register Mark] tab and click [Detect Mark].

Register mark is detected.



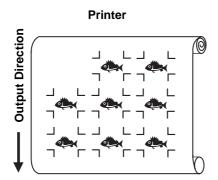
3

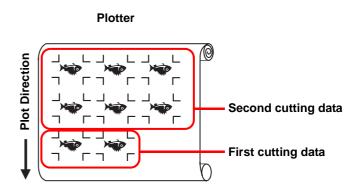
When plot is started, the object is rotated as the figure on the right and cut.



When the continuously printed data does not fill a part of the lines

Cut the data in twice to cut all the data.





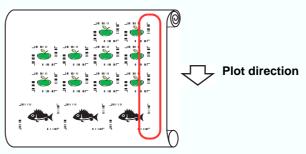
3-3. Cut Multiple Images Continuously (CG-75ML)

This function supports CG-75 ML cutting plotter.

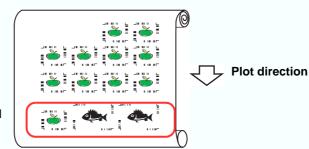
For multiple different images, the plotter automatically cuts on the accurate position with the ID pattern register mark.



- Standardize the shape, size, line width of the register mark. If a different shape of the register mark is mixed, it cannot detect the register mark precisely.
- Use only one set of register mark on Illustrator. If printing the same data multiple times, use the copy function of your print software (RIP).
- To use the ID pattern register mark, be sure to select "1pt" on "MARK DETECT" of the plotter as the number of register mark detection.
- Set the plotter origin ("ORGN SELECT") to "LOWERrightORIGIN".
- Align the register mark on the right side (origin side) for printing.



• Do not locate the different image to Y (horizontal) direction.



Not Good

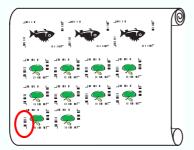


Set the printed sheet on the plotter to detect register mark.

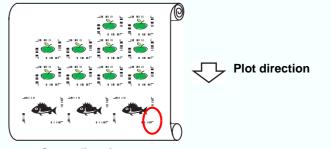
For the procedure of register mark detection, refer to the operation manual of the plotter. The followings are the procedures of semi-auto.

(Important!)

• When loading the media in a direction opposite to the print, be sure to detect the register mark at the lower left.



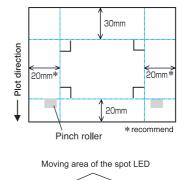
Opposite direction

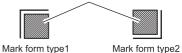


Same direction

- (1)Select "1 pt" on "MARK DETECT" of the plotter as the number of register mark detection. Set the size or the shape of the register mark.
- (2)Set the printed sheet on the plotter and turn the sheet set lever back.
- (3)Press the jog key to detect the sheet.
- (4)Move the spot LED to the area shown on the right with the jog key.
- (5)Press ENTER | key.

 The register mark is detected and it returns to LOCAL mode.
- (6)Press REMOTE key to turn to Remote Mode.





2

Select an object on Illustrator.

3

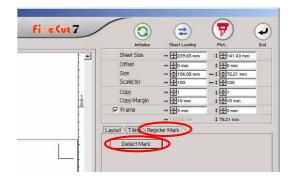
Click [Plot] button in the FineCut menu.





Click [Register Mark] tab and click [Detect Mark].

Register mark is detected.

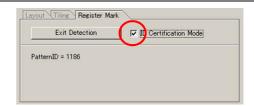




• In case of cutting with ID certification mode, rotating direction is recognized automatically.



Confirm that [ID Certification Mode] is checked.



6

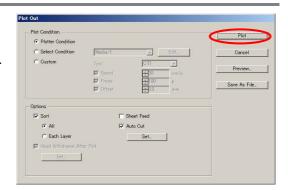


Click (F) Plot button.



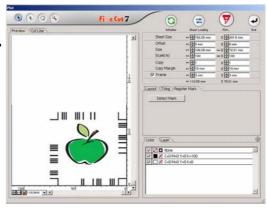
Click [Plot].

Data is sent and the plotter enters Local mode.



8

Repeat the step 2 to 6 for the other data to be cut continuously at a time.





• Sending order of data is not necessary to be same as the order of printing.



Press [REMOTE] button on the plotter.

Cutting starts.

3-4. Cut Outline and Make Cutline for the Base Sheet at a Time (CG-75ML/ CG-60SR/ CG-SRII/ CJV30 / TPC series)

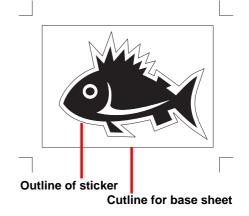
Outline of sticker and dotted line to separate base sheet (called HALF cut) can be cut at a time.

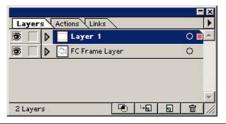


Create data with the multiple layers on the Illustrator.

Example:

FC frame layer --> Outline of sticker Layer1 --> Cutline to separate the base sheet





2

Click [Plot] button in the FineCut menu.



3

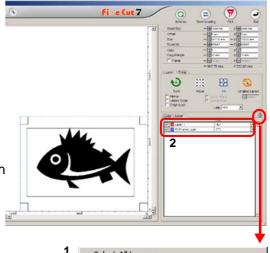
Set the cutting condition for each layer.

Example:

- (1) Select [Specify the tool on each layer]
- (2) For FC frame layer --> Select [CT1] For Layer 1 --> Select [HLF]

See the following page for details.

P.3-26 "Set Output Condition on Each Color /Layer"



Select All Layers
Deselect All Layers
Specify The Plot Condition On Each Layer
Specify The Tool On Each Layer



Adjust the protrusion of the cutter blade and cutting pressure for each tool.

- Adjustment of the protrusion of the cutter blade:
 Refer to "Cut pressure according to each tool" in the operation manual of the plotter.
- Cutting pressure of each tool:
 - [CT1] --> Pressure where cutter blade track remains on the base sheet
 - [HLF] --> Pressure to cut out the base sheet

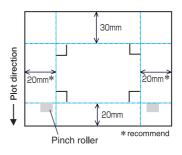


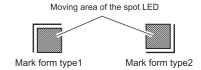
Set the printed sheet on the plotter to detect register mark.

For the procedure of register mark detection, refer to the operation manual of the plotter. The followings are the procedures of semi-auto.

- (1)Select "1 pt" on "MARK DETECT" of the plotter as the number of register mark detection. Set the size or the shape of the register mark.
- (2)Set the printed sheet on the plotter and turn the sheet set lever back.
- (3)Press the jog key to detect the sheet.
- (4)Move the spot LED to the area shown on the right with the jog key.
- (5)Press key.

 The register mark is detected and it returns to LOCAL mode.
- (6)Press REMOTE key to turn to Remote Mode.



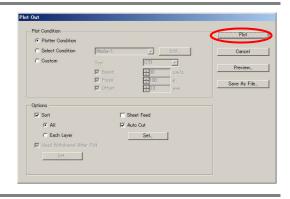




Click Plot button.

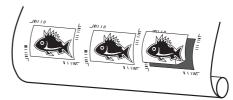


Click [Plot] to start cutting.





After cutting, separate the base sheet.



3-5. Cut Images (CF2/DC/CF3 (Except M-Head) series)

1

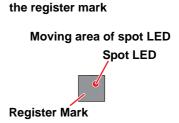
Set the printed sheet on the plotter to detect register mark.

For the procedure of register mark detection, refer to the operation manual of the plotter. The followings are the procedures of semi-auto.

- (1)Select "1 pt" on "MARK DETECT" of the plotter as the number of register mark detection. Set the size of the register mark. (Set the same size as step 3 of P.3-40)
- (2) Set the printed sheet on the plotter.
- (3)Press (END) key to detect the register mark.
- (4)Move the spot LED to the area shown on the right with the jog key.
- (5)Press END key.

 The register mark is detected and it returns to LOCAL mode.

(6)Press | REMOTE | key to turn to Remote Mode.



Make space nearly the size of

2

Select the object of step 1 on Illustrator.

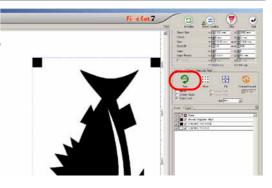
3

Click [Plot] button in the FineCut menu.



4

Click Rotation button to adjust the direction of the image on the plotter with the display of FineCut.



5

Click [Register Mark] tab and click [Detect Mark].

Register mark is detected.





Select the cutting type.

- Recognize mark and cut.(P.3-62)
- Cut continuously under [Multi Mode]. (P.3-62)
- Cut continuously under [Single Mode]. (P.3-62)
- Adjust the size. (P.3-63)
- Separate mark and cut. (P.3-63)
- Cut from the reverse. (P.3-64)



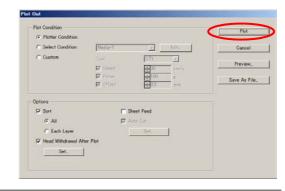


Check [FC Frame Layer] only, then click Plot button.



8

Click [Plot] to start cutting.



3-6. Cutting with End Mill

1

Set Z axis origin to a plotter.

Refer to the operation manual of the plotter for the detail.

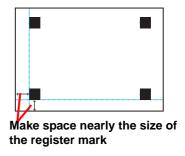
2

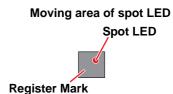
Set the printed sheet on the plotter to detect register mark.

For the procedure of register mark detection, refer to the operation manual of the plotter. The followings are the procedures of semi-auto.

- (1)Select "1 pt" on "MARK DETECT" of the plotter as the number of register mark detection. Set the size of the register mark. (Set the same size as step 3 of P.3-40)
- (2)Set the printed sheet on the plotter.
- (3)Press (END) key to detect the register mark.
- (4)Move the spot LED to the area shown on the right with the jog key.
- (5)Press (END) key.

 The register mark is detected and it returns to LOCAL mode.
- (6)Press REMOTE key to turn to Remote Mode.





3

Select the object of step 2 on Illustrator.

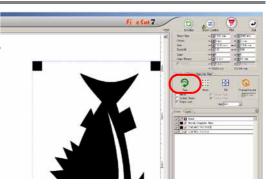


Click [Plot] button in the FineCut menu.





Click Rotation button to adjust the direction of the image on the plotter with the display of FineCut.





Click [Register Mark] tab and click [Detect Mark].

Register mark is detected.





Select the cutting type.

- Recognize mark and cut.(P.3-62)
- Cut continuously under [Multi Mode].
 (P.3-62)
- Cut continuously under [Single Mode].
 (\(\mathref{E}\) P.3-62)
- Adjust the size. (RP P.3-63)
- Separate mark and cut. (P.3-63) (Reverse Cut cannot be used)





Check [FC Frame Layer] only, then click (p) Plot button.



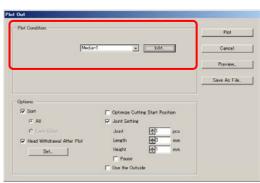


 To set the plot condition on each color /layer, select [Specify The Plot Condition On Each Color / Layer] on Plot screen and set them. (P.3-26)



Select [Plot Condition] on Plot Out screen.

Select the plot condition set in FineCut. Click [Edit...] to add a media or to set cutting condition by each media. (P.4-6)



(Important!)

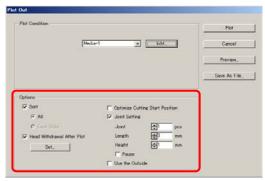
• If the plot condition is set on each color / layer, [Plot Condition] on this screen is invalid.



Set [Options].

For items except discriptions in the table below, see the following page.

₩ P.4-24

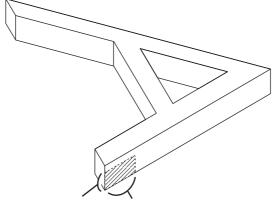


Item	Description
Optimize Cutting Start Position	Optimizes the start position of cutting to finish finely. If unchecked, cutting starts from the position that the data started to draw. • After setting, be sure to check the start position of cutting by preview. • With optimizing, the start position might be placed out of the object. If the cutting line goes over the next object, space among objects on Illustrator.
Joint Setting	Leaves a part of the cutting line, and cuts it last. It prevents the work from misaligning and makes the cutting surface fine. • Joint: Set the number of joint (places to leave). It places the parts to leave for joint on the cutting line evenly. As the places of the parts to leave varies from the joint length, check it with the preview. • Length: Set the media length to leave. • Height: Set the media thickness to leave. • Pause: Leaves the ending point and withdraws the head temporarily. Small or heavy media tends to misalign while cutting. To cut it finely, withdraw the head, fix the media with tape, and cut the ending point.



Joint Setting

- After setting [Joint Setting], test the cutting.
- If multiple cutting and [Cutting Depth] is set on Output Condition Setup screen (P.4-6), and when the cutting depth is deeper than [Height] in Plot Out screen, Joint Setting is invalid.
- If the number of cutting is set to multiple on Output Condition Setup screen, the jointed part is cut the times controlled by Joint Setting.
- Setting plural numbers on [Joint], you can cut a large shape, deflected media or the like without misaligning.
- With the deflection of media, some part of the media could be lifted. To cut such a media finely, put an extra height on [Height].



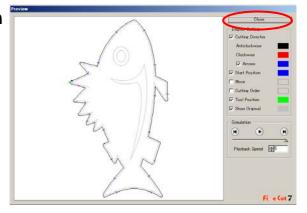
Joint Height Joint Length (Shadow area is the part to leave)

Item	Descriptio	n
Use the Outside	Cuts out inside of the object to use the to leave is set and the offset direction cutting direction is optimized to finish o	outside. If checked, the part is determined. Furthermore,
	Use inside (Unchecked)	Use outside (Checked)



Click [Preview] on Plot Out screen and check the cutting line.

After checking, click [Close]. (P.3-31)

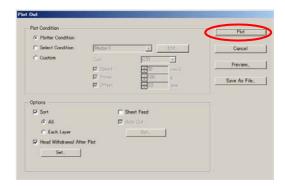




• It offsets the cutline by half of [End Mill Diameter] set on Output Condition Setup screen or set from [Edit] of Step 8 (P.4-6). Checking the cutline on Preview, adjust the end mill diameter on Ouput Condition screen.



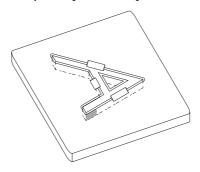
Click [Plot] to start cutting.





• When [Pause] is selected on [Joint Setting] of Plot Out screen, it stops cutting and the head is withdrawn.

Put tapes on the media to fix, and press [REMOTE] button of the plotter. It cuts the joint part.



3-7. Various Cutting

This is various cutting method that can be set from [Register Mark] tab on Plot screen of the FineCut.

Recognize register mark and cut

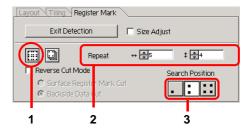
- (1) Make sure that Repeat is set as [1].
- (2) Go to P.3-57 Step 6 /P.3-59 Step 7.



Cut continuously under [Multi Mode]

Cut the images printed continuously on one sheet of media (roll media).

- (1) Select [Multi Mode].
- (2) Set the repeated number of images to vertical/horizontal direction of the media.
- (3) Select [Search Position] of the register marks (1 / 2 / 4 points).
- (4) Go to P.3-57 Step 6 /P.3-59 Step 7.





- Use only one set of register mark on Illustrator. If printing the same data multiple times, use the copy function of your print software (RIP).
- Align the images to X/Y (vertical/horioantal) direction.

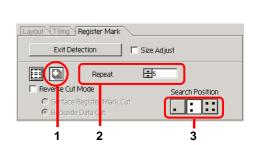
Cut continuously under [Single Mode]

Cut continuously the media on which only 1 set of register mark is arranged (leaf media).

- (1) Select [Single Mode].
- (2) On [Repeat], set the number of sheets to be cut continuously.
- (3) Select [Search Position] of the register marks (1 / 2 / 4 points).
- (4) Go to P.3-57 Step 6 /P.3-59 Step 7 and plot the first media.
- **(5)** When the plot is completed, set the next sheet to the plotter.
- (6) Press VACUUM key of the plotter and select [Resume]. When CE key is pressed, the continuous cut is stopped.
- (7) Referring to P.3-56/ P.3-58, detect the register mark.
- (8) Repeat (5) to (7) for the number of sheets.



Use only 1 set of register mark. If there are several sets of register marks in the media, it cannot be cut continuously.



Size Adjust

When the size of the actual data and the printed media are different due to the media type or printing environment, the frame can be cut aligning with the printed media.





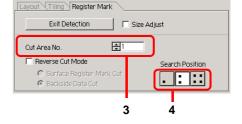
• When cutting fixed-shape items like paper packs, uncheck [Size Adjust]. If checked, the size could be misaligned.

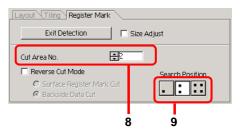
Mark Separation

The large data that cannot be cut in one time can be cut in several times.



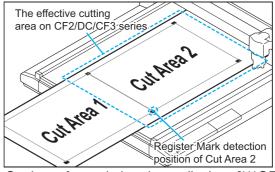
- When making the register mark, select [Mark Separation]. (P.3-41)
 If [Mark Separation] is not selected, the data cannot be cut separately.
- (1) On the Illustrator, select the data separated by [Mark Separation], and click [Plot] button of [FineCut] Menu.
- (2) Click [Register Mark] tab and then click [Detect Mark].
- (3) Make sure that the [Cut Area No.] is [1].
- (4) Select [Search Position] (1 / 2 / 4 points).
- (5) Go to P.3-57 Step 7 /P.3-59 Step 8 and cut.
- (6) When cutting is completed, move the media.(See below)
- (7) Referring to P.3-57/ P.3-59, detect the register mark of Cut Area [2].
- (8) Change the cut area to [2].
- (9) Select [Search Position] (1/2/4 points).
- (10) Go to P.3-57 Step 7 /P.3-59 Step 8 and cut.
- (11) Repeat (6) to (10) for the each divided register mark.







 When moving the media, place the all register marks in the cutting area in the effective cutting area of the plotter.



• When Mark Separation Cut is performed, the plotter displays [***OFF SCALE***], but it does not pose any problem to the operation.

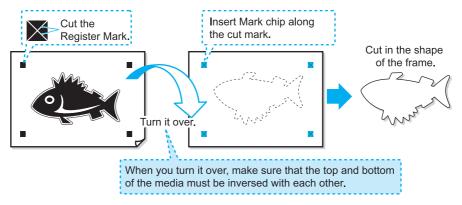
Reverse Cut Mode

Images can be cut from the back, not from the printed (front) face.

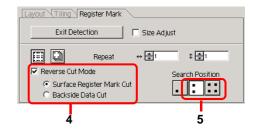
Use this function when the media (such as cardboard) is not finished fine by cutting from the front surface.



- When using Reverse Cut Mode, set the register mark size adjusting to the mark chip used. If the register mark is too small, you may not be able to insert the mark chip.
- Use the media of 3 mm or more thickness.



- (1) Turn the printed face up, set the media to the plotter, then detect the register mark.
- (2) Select the data to cut on Illustrator, and click [Plot] button in the FineCut menu.
- (3) Click [Register Mark] tab and click [Detect Mark].
- (4) Check [Reverse Cut Mode], and select [Surface Register Mark Cut].
- (5) Select [Search Position] (2 / 4 points).
- **(6)** Go to P.3-57 Step 7 /P.3-59 Step 8 and start plotting. The detected register mark is cut.

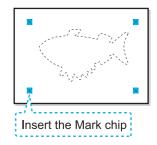


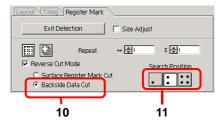
(Important!)

- Before selecting [Surface Register Mark Cut], make sure that there is no mark chip on the position of the register mark. If the register mark is cut when there is mark chip, it is very dangerous as the mark chip could come off by the cutter.
- When [Surface Register Mark Cut] is selected, Search position [(1 point) is invalid.

- (7) Turn back the media, and set it to the plotter.
- (8) Insert the mark chip using the cut mark.
 Use the mark chip in place of the register mark.
- (9) Detect register mark with the plotter.
- (10) Select [Backside Data Cut].

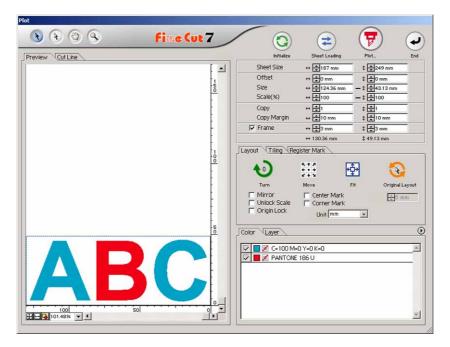
 The read data is displayed upside down.
- (11) Select [Search Position] (1 / 2 / 4 points).
- (12) Go to P.3-57 Step 7 /P.3-59 Step 8 and start plotting.





Make Effective Use of Sheet

For example, when cutting ABC with different colors each by color, if A and C are cut, the space of B becomes blank as B has different color. Move the cutting object to the blank part to cut without wasting blank.



- 1
- Select an object on Illustrator.
- 2

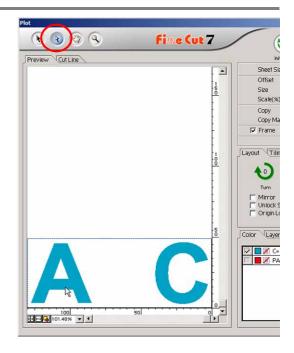
Click [Plot] button in the FineCut menu.



3

Select an object to move using the Direct selection tool.

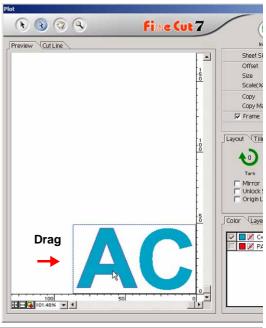
Select "A" for the example shown on the right.





Drag the selected object to the desired position.

To replace the object to the original position, click Original Layout button.



Trapping

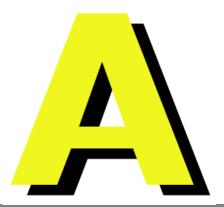
On the overlapping objects, a gap may be generated where the colors are overlapping. Trapping can prevent the gap.



• When trapping complicated figure, error or Illustrator crash may occur and the data may be broken. Save the data first, and then trap.



Select an object on Illustrator.



2

Click [Trapping] button in the Fine-Cut menu.

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



3

Set the trap size and overlapping order.

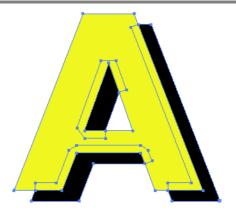
Click [OK] after setting.

• Drag the list to change the overlapping order.





Overlap space is created in the specified size.



Recognize Stroke Weight and Overlap

To cut objects in the same shape as displayed on the monitor, recognize the stroke weight and overlap of objects.



Select an object on Illustrator.



2

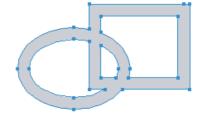
Click [Recognize Stroke Weight And Overlap] button in the FineCut menu.

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



3

The stroke weight and overlap are recognized.



Import / Output Plot File

Import Plot File

Plot files created with cutting software can be imported to Illustrator. You can edit the imported plot files on Illustrator and plot them from FineCut.



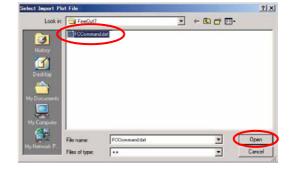
Click [Import Plot File...] button in the FineCut menu.

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



2

Select a file to import, and click [Open].





• The plot commands that can be imported are MGL-IC, MGL-IIC, and HP-GL.



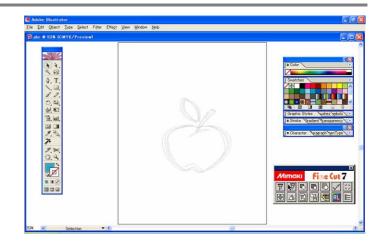
Select the step size for the file to import.

Click [OK] after selecting.





The imported file is displayed.



(Important!)

 The image may be rotated and displayed depending on the application that the plot file is created.

Output Plot File

Plot files created with cutting software can be output to the plotter.



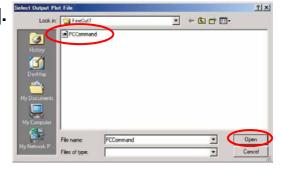
Click [Output Plot File] button in the FineCut menu.

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



2

Select a file to plot, and click [Open].



Output to RasterLink

When using CJV30 series or TPC, you can easily print & cut linking FineCut with RasterLink. (It supports RasterLink Pro IV or later)



Start RasterLink.

If there is no hot folder, create it on RasterLink.

If outputting from Macintosh, set the hot folder.

For details, see the RasterLink Reference Guide or the Installation Guide.

2

Click [Plotter/User Setup...] button in the FineCut menu.

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



3

Select CJV30 series or TPC on [Model].





• When a model other than CJV series or TPC is selected, an error appears when [Output to RasterLink] is clicked on the next step.



Click [Output to RasterLink] button in the FineCut menu.

Alternatively, select [Output to RasterLink] from the [File]-[FineCut] menu.



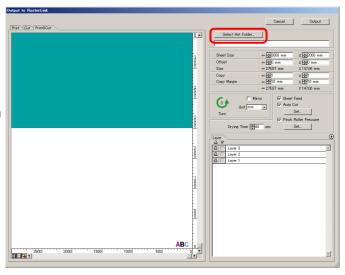


 When a model other than CJV series or TPC is selected in the [Plotter/User Setup...], an error is displayed.



On Output to RasterLink screen, click [Select Hot Folder...].

Select the hot folder of RasterLink. If there is no hot folder, create it on RasterLink.

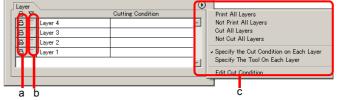




The folder created from the [Create a new folder] button of the folder reference screen does
not work as hot folder. Create hot folder on RasterLink.



Select and set the layers to print or cut.



	Item	Description
а	Printer icon	Click to put a mark on the printing layer.
b	Cutting icon	Click to put a mark on the cutting layer.
С	Setting by layer	Click



- When both the print and the cut are marked on the Layer screen shown above, the plotter prints, and then cuts the object. If the printing layer has a register mark created with the register mark creation of FineCut, it reads the register mark position after printing, and cuts on the more accurate position.
- When only cutting is marked on the layer screen, include the register mark in the cutting layer to cut with the register mark loaded.
- If not setting [Specify the Cut Condition on Each Layer] or [Specify The Tool On Each Layer], it plots with the setting of the plotter.
- Data is placed with the margin of 0.5mm around.

(Important!)

- When cutting with the register mark loaded, set [1Pt] on [MARK DETECT] of CJV30 or TPC as the number of register mark detection. (P.3-44)
- When creating the register mark on the register mark creation of FineCut, uncheck [Leave a rectangle as the cutting line]. If checked, the plotter cuts with a part of the rectangle missed.
 (P.3-38)
- When printing type2 register mark (), space between copies for at least register mark size. (P.3-38)
- Create only one set of register mark on Illustrator. Creating plural marks causes error.
- When different settings are made for each layer, RasterLinkProIV Ver.1.1 or before cuts with the condition shown on the top of the set layer list.
 RasterLinkProV or later will cut with each layer setting.



Set the other items.

(P.4-29)



Click [Output], then set EPS.

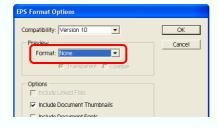
Click [OK] to send the data to RasterLink.

EPS setting varies from the Illustrator version used. The display shown on the right is for Illustrator 10.



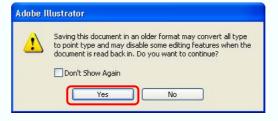
(Important!)

• For the Format of the Preview, select [None]. If the item other than [None] is selected, an error may occur.



(Important!)

• For Illustrator CS, a message below appears after clicking [OK] button. Since it is no problem, select [Yes].





Execute printing & cutting on RasterLink.

For details, see the RasterLink Reference Guide.

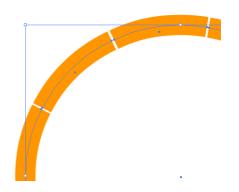
Join paths

Joins corner points of an open path (the start and the end point is not connected).

When reading DXF data into Illustrator, some paths that look connected are separated into several lines. If cutting this, pen-up occurs on every line. With CF3 (milling), it cannot cut considering the endmill diameter. Joining paths solves these problems.



Select the all paths to be joined on Illustrator.



2

Click [Join Path] button in the FineCut menu.

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



3

Set the distance between corner points to be joined.

Click [OK] after setting.

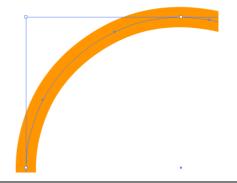




• When the distance between corner points is longer than the set value, it is not joined. Checking the paths on Illustrator, set the value to join the paths.



The paths are joined.



CHAPTER 4 Description of Functions

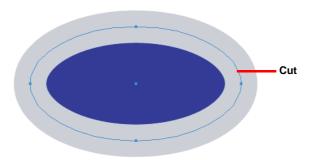


This section describes the functions of FineCut.

Fill and Stroke of an Object 4-2	Plot Out Screen	4-24
FineCut Menu 4-3	Outline Extraction Screen	4-27
How to Display FineCut Menu4-3		
Menu4-4	Line Edit Tool Screen	4-32
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Fill and Stroke of an Object

In the figure below, the fill of the ellipse is set and stroke are made thicker. It cuts not the outline of stroke, but the outline of fill (middle of the line).



In case an object is not filled with a color, it cuts the stroke path.

It cuts stroke path, regardless of the thickness. Check the path when selecting the object or in the Artwork mode (Outline mode) of Illustrator.



Path is...

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 path.



• To cut an object with the stroke weight recognized or to cut with stroke and fill separated, see the following page.

(P.3-69 "Recognize Stroke Weight and Overlap")

FineCut Menu

How to Display FineCut Menu

Display and select the FineCut menu from the following menus on Illustrator.

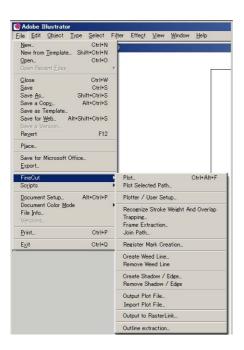
From [Window] menu of Illustrator

Click [Show FineCut menu] to display the screen below. Click the button on the screen to start each menu.



From [File] menu of Illustrator

Click [FineCut] and click each menu.



Menu

Button	Menu	Description
চ	Plot	Sets the layout or options of object to plot. (P.4-15)
V	Plot Selected Path	Plots only the selected object.
	Recognize Stroke Weight and Overlap	Recognizes the stroke weight and overlap of the selected object. (P.3-69)
	Trapping	Traps the selected object. (RP P.3-68)
	Frame Extraction	Creates a frame for the selected object. (P.3-36)
Pr4	Join Path	Joins corner points of open path (the start and the end point is not connected). (P.3-75)
JL	Register Mark Creation	Creates a register mark. (P.3-38 for CG/CJV30/TPC series, P.3-40 for CF2/DC/CF3 series)
lacktriangle	Create Weed Line	Creates a precut line (weed line) around the object to tear off the sticker with ease. (P.3-16)
	Remove Weed Line (in the File menu only)	Removes the created weed line.
\triangle	Create Shadow/ Edge	Creates a shadow /edge on the object. (P.3-10)
	Remove Shadow/ Edge (in the File menu only)	Removes the created shadow /edge on the object.
	Output Plot File	Outputs created plot file to the plotter. (🖙 P.3-71)
戽	Import Plot File	Imports saved plot file. (@ P.3-70)
	Outline Tool	Creates the outline to cut a bitmap image. (P.3-12)
RL	Output to RasterLink	Sends the set file to RasterLink when using CJV30/ TPC series. (P.3-72)
	Plotter/User Setup	Sets the plotter used, communication condition to the plotter or others. (P.4-5)

Plotter/User Setup

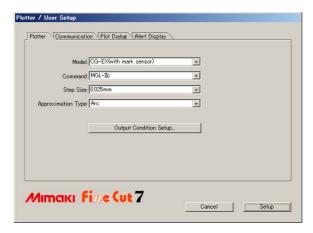
Set the model or communication conditions to enable communication between FineCut and the plotter. Click [Plotter/User Setup] button in the FineCut menu.



• If the settings set in this screen differs from the settings on the plotter, it cannot output objects normally. Be sure to set the same values as the plotter settings.

Plotter

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



Item	Description
Model	Select the plotter model connected.
Command	Select the command set on the plotter.
Step Size	Select the step size set on the plotter.
Approximation Type	Select the approximation type when cutting bezier curve of the object.
Output Condition Setup	Set media or tools. (@ next page)



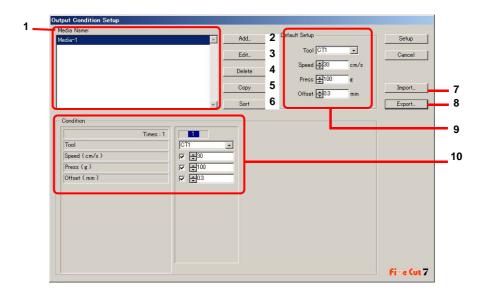
- If you changed [Approximation Type], adjust the cut conditions again.
 An excessive pressure by some media could damage the cutter.
- When [CF3 (Milling)] is selected on [Model], you can select [Spline] only on [Approximation Type].

Output Condition Setup

Common to all models



• When CF3/CJV30/TPC series is selected, [Default Setup] is not displayed.

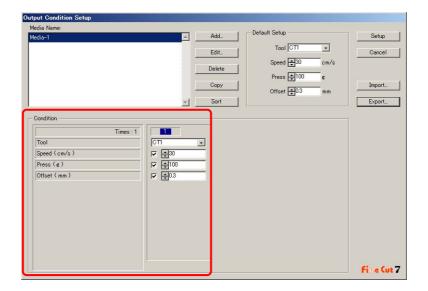


	Item	Description
1	Media Name	Displays created media names (output condition).
2	Add	Add the media name.
3	Edit	Change the media name. Select media from [Media Name], and click [Edit].
4	Delete	Delete the media name. Select media from [Media Name], and click [Delete].
5	Сору	Copy the media name. Select media from [Media Name], and click [Copy].
6	Sort	Sort the media name in ascending order.
7	Import	Import saved media name (output condition) files. To plot with the same condition in different environment, click [Import] and load the saved file.
8	Export	Save the all media names (output condition) to a file.
9	Default Setup	When output condition is set by color/layer (P.3-26), set output conditions (Tool/ Speed/ Press/ Offset) for frame or mark that cannot be set by color/ layer.
10	Condition	Display /change the output condition. Select media from [Media Name] to display the output condition. Displayed items varies depending on the selected model. (rext page)

When CG/CJV30/TPC series is selected



- When setting output condition for each color/layer, default setting (for CG series) or the plotter setting (for CJV30/TPC series) is valid for unchecked items on the screen below.
- For the details of each item, refer to the operation manual of the plotter.

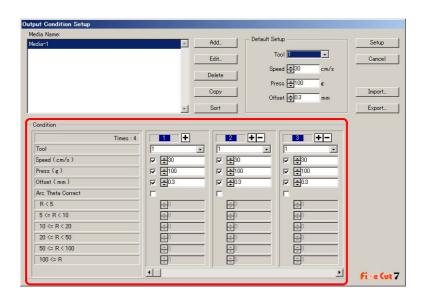


Item	Description
Times	Displays the number of cutting. (CG/CJV30/TPC series always displays "1".)
Tool	Select the tool to be used. (CJV30/ TPC series does not have CT4/ CT5/PIN.)
Speed	Set cutting speed per second.
Press	Set the cutting pressure.
Offset	Set the length from the center of cutter holder to the blade edge. (It differs depending on the blade type set on the plotter.)

When CF/CF2/DC/CF3 (except milling) is selected



- When setting output condition for each color/layer, default setting (for CF/CF2/DC series) or the plotter setting (for CF3 (except milling) series) is valid for unchecked items on the screen below.
- For the details of each item, refer to the operation manual of the plotter.

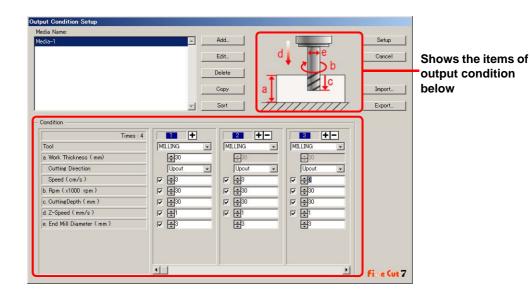


Item	Description
Times	Display or set the number of cutting. To cut hard or thick media, set cutting times/speed/pressure multiple times for a single cut line. Click to increase the number of cutting. Set the output condition for each cutting. Click to decrease the number of cutting.
Tool	Select the tool to be used. Select the tool number or the tool name set on the plotter. • If the unset tool is selected, an error displays on the plotter. Select the correct tool.
Speed	Set cutting speed per second.
Press	Set the pressure to cut.
Offset	Set the length from the center of cutter holder to the blade edge.
Arc Theta Correct	Adjust the misalignment of origin /end point of the cutting arc.
* F	Move to previous / next page. It displays when the number of cutting is more than 4 times.

When CF3 (Milling) is selected



- For the unchecked item, default setting is valid.
- For the details of each item, refer to the operation manual of the plotter.



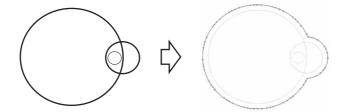
Item		Description
Times		Display or set the number of cutting. To cut hard or thick media, set cutting times/speed/pressure multiple times for a single cut line. Click to increase the number of cutting. Set the output condition for each cutting. Click to decrease the number of cutting.
	Tool	Displays [MILLING].
а	Work Thickness	Set the thickness of work (media) (50mm maximum). You can set only on the first column of the cutting condition setting field.
	Cutting Direction	Select cutting direction. Changing cutting direction, the finish of the cut fase may improve. Cut for test with the target media first, and check the finish. • Up-Cut Cuts the left side of end mill direction as work. • Down-Cut Cuts the right side of end mill direction as work. End mill Up-Cut Down-Cut
	Speed	Set the speed of end mill to move in the direction of travel.

	Item	Description
b	Rpm	Set the spin times of end mill. Set the number to time 1000rpm, the base number.
С	Cutting Depth	Set the origin position of Z axis (Length from surface of work to the edge of end mill).
d	Z-Speed	Set the speed of end mill to go into the work.
е	End Mill Diameter	Set the end mill diameter. Offset value is set half of the set value on this screen. If offset is not necessary, uncheck the box of the first column of the cutting condition setting field.
	T F	Move to previous / next page. It displays when the number of cutting is more than 4 times.

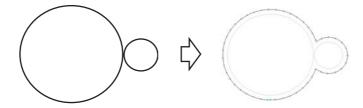
Offset

When CF3 (Milling) is selected and [End Mill Diameter] is set , the object is offset and cut as follows depending on the object on Illustrator and the setting of FineCut.

- If paths are crossed, periphery is offset.
- The path in the crossed path is not cut.



• If offset objects are touched each other, the objects are united.



• If copy function is used, set [Copy Margin] wide (more than 10mm), not to go one object over the next object.



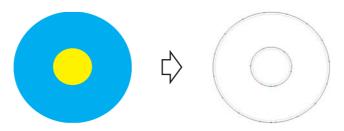
• If one part goes over the other part when offsetting inward, the part over the other part is not cut.



· Open path is not offset.

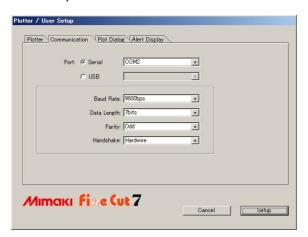


• If output condition is set on each color /layer, each color /layer is offset.



Communication

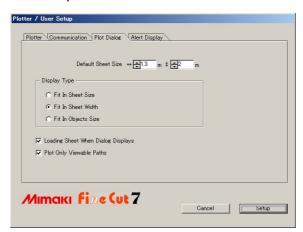
Set communication conditions for the plotter connected.



Item	Description
Port	Select a port connected to the plotter. When using CG-FX / CG-75ML / CG-60SR / CG-SRII / CJV30 / TPC / CF3 series, you can select USB connection. Connect computer to the plotter and turn the power ON. Then select [USB] on this screen, and select the name of connected device.
Baud Rate	(When [Serial] is selected on [Port]) Select the transfer rate.
Data Length	(When [Serial] is selected on [Port]) Select the number of data bits.
Parity	(When [Serial] is selected on [Port]) Select the parity check method.
Handshake	(When [Serial] is selected on [Port]) Select the handshake method.

Plot Dialog

Set the display of Plot screen and Output to RasterLink screen.



Item	Description
Default Sheet Size	If the sheet is not loaded properly, or [Loading Sheet When Dialog Displays] is unchecked, the preview screen is displayed with the size set here.
Display Type	Select the display type of Plot screen or Output to RasterLink screen.
Loading Sheet When Dialog Displays	The sheet size is automatically loaded and previewed on Plot screen.
Plot Only Viewable Paths	Plots only displayed paths. Undisplayed paths are not plotted.

Alert Display

Select the state to display warnings from the following options.

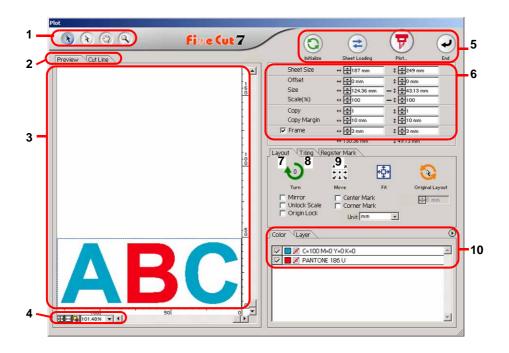


Item	Description
Open Path	The path is not closed. (The start and the end points are not set to the same point.)
Stroke Weight Specified	There is a path that the stroke weight is specified.
Other Path That Cannot Be Plot	The object may be drawn with the Gradient Mesh tool of Illustrator, or the object is a raster image.
Register Mark Recognition	Two-points are corrected at the time of register mark recognition.
Output Condition Setup on each color/layer	The output conditions are set on each color or layer.

Plot Screen

Set for plotting.

To display this screen, click [Plot] button in the FineCut menu.



1 Tool Box

Move or enlarge/reduce the object.

Button	Item	Description
A	Selection Tool	Move a whole object displayed. Or move the division line of tiling.
1	Direct Selection Tool	Select and move the part of an object. Moving the object to a blank position of the sheet, you can use sheet without waste. (P.3-66)
(*)	Move Preview Area Tool	Change the object display area.
9	Zoom Tool	Enlarge or reduce the layout area. Click on the cutting area (white area) to enlarge the view. To reduce the view, click on the layout area as pressing down the [Alt] key (Windows) or [Option] key (Macintosh).

2 Screen Display Mode

Click the tab to switch the display mode.

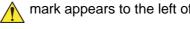
Item	Description
Preview Mode	Displays the object with colors.
Cutline Mode	Displays the object with paths (outline). It is effective to confirm a white object or cutting-line.

3 Layout Area

The white area is the effective cutting area loaded from the sheet.

It displays the sheet width along the horizontal axis and the sheet length along the vertical axis.

When the object is larger than 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

Change the zoom size displayed on the layout area.

Button	Item	Description
—	Fit In Sheet Size	Displays the entire sheet.
□	Fit In Sheet Width	Enlarges the sheet width to full screen.
4	Fit In Objects Size	Enlarges the entire object to full screen.
100.00%	%	Change the display size by selecting or entering number. (0.2 to 6400 %)

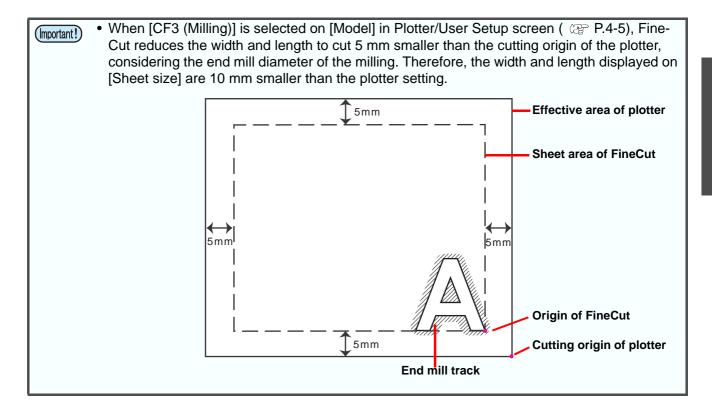
5 Execution Button

Button	Item	Description
	Initialize	Initialize the layout of the changed object.
2	Sheet Loading	Load the sheet size set on the plotter. When the mark appears on the left of this button, the sheet size of the plotter cannot be loaded. Set the plotter to the REMOTE mode and click this button.
7	Plot	Display Plot Out screen. (P.4-24) When the mark appears on the left of this button, the object is larger than the cutting area. Move the object or change the size of the object to fit into the cutting area.
•	End	Close the Plot screen.

6 Size input area

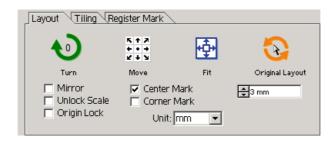


Item	Description
Sheet Size	Click Sheet loading button to display the loaded sheet size. Alternatively, enter the sheet size (width and length of the cutting area).



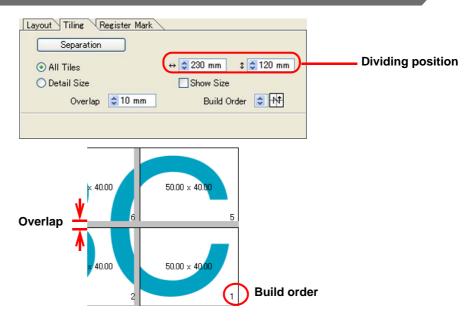
Item	Description
Offset	Change the origin position. The origin is set at the bottom right corner (CG/CJV30/TPC/CF3 series) or the bottom left corner (CF/CF2/DC series) of the layout area. The default origin is at 0 mm (both vertically and horizontally) of the layout area.
	CG/CJV30/TPC/CF3 series CF/CF2/DC series
	ABC 0 ABC 0 150 150 150 150 150 150 150 150 150 1
Size	Change the vertical and horizontal lengths of an object. When the " - " mark is shown between [vertical] and [horizontal] length column, the aspect ratio is retained after changing either length. To change the vertical and horizontal lengths separately, check the [Unlock Scale] on the [Layout] screen below.
Scale (@ P.3-2)	Set the magnification of the vertical and horizontal lengths. When the " - " mark is shown between [vertical] and [horizontal] column, the aspect ratio is retained after changing either value. To change the vertical and horizontal magnification separately, check the [Unlock Scale].
Copy (🖙 P.3-6)	Enter the number of copies along the vertical and horizontal directions.
Copy Margin (🖙 P.3-6)	Set the margin between objects along the vertical and horizontal directions.
Frame	Make and cut a frame around the target object. In addition, set the distance between the object and the frame. It enables to peel the unnecessary part of the sticker easily. • With the center mark and corner mark (P.3-5), you can easily align and affix a cut sticker.
Total Length	Displays the width and the height of an object. When multiple numbers are entered on [Copy], it displays with the length of all copies. If margin or frame is set, those lengths are also included.

7 Layout



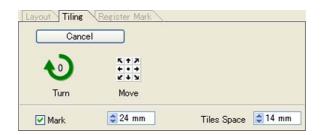
Button	Item	Description
€ 0	Turn	Rotate the object clockwise in unit of 90 degrees. Degrees (0, 90, 180, 270) are displayed in the arrow mark.
K + X	Move	Click the desired direction of arrow to move the object.
	Fit	Fit the object to the sheet size.
A.	Original Layout	Reset to the original layout that is changed by Direct selection tool.
	Mirror	Reverse the object in mirror image and cut it. ABC \(\rightarrow \) ABC \(\rightarrow \)
Unlock	Scale (🕾 P.3-2)	When changing the size of the object, change the aspect ratio.
Origin	Lock (@ P.3-18)	Fix the object position on the object created place. If unlocked, it cuts on the bottom right or the bottom left of the sheet. When cutting specified color or layer only, you can use sheet without waste.
Center Mark (@ P.3-5)		When setting [frame] on the size input area, put marks in the center of the frame in every direction. You can affix a cut sticker on the desired position with the marks.
Corner Mark (@ P.3-5)		When setting [frame] on the size input area, put marks on all corners of the frame. You can affix a cut sticker in a horizontal position with the marks.
	Unit	Set the display unit in the Plot screen. Select from cm, mm, inch, or pt.

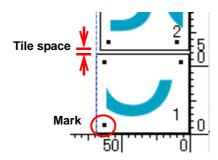
8 Tiling (@ P.3-8)



Item	Description
Separation	After setting the following items, click this button to separate the blocks.
All Tiles	Divide the object into the same size.
Dividing position	Set the dividing position.
Detail Size	Divide on the desired position. Move the division line using Selection tool.
Over lap	Set the overlapping margin of the divided objects.
Show Size	Display each size of divided objects.
Build Order	Select the order to paste the cut objects together.

Layout of divided tiles
Click [Separation] to display the setting screen.



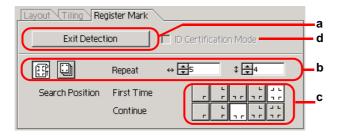


Item	Description
Cancel	Cancel the division.
Turn	Rotate the divided objects.
Move	Move divided objects within the sheet.
Mark (Except CF3 (Milling))	Mark the divided objects. Select or input the mark size on the size column. Paste the divided objects together on the marks.
Tiles Space	When cutting continuously, set the space between divided objects.

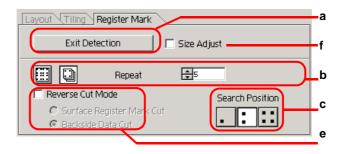
Register Mark

This function is effective only when ["model name" (with mark sensor)] is selected in the [Model] of [Plotter/User Setup] screen.

CG-EX / FX / 75ML / 60SR / SRII, CJV30 / TPCseries



CF2 / DC / CF3 series

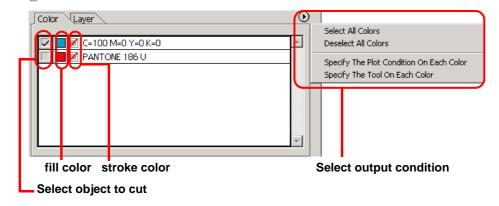


	Item	Description
а	[Detect Mark]/[Exit Detection] button	Correct the angle and the size of the detected register mark. Click [Exit Detection] to cancel the detection.
b	Setting of continuous cutting	Select the roll sheet (multi-mode) or the leaf sheet (single mode), and set the number of continuous cutting. (P.3-62)
С	Search Position	Select the search position of the register mark. For CG/CJV30 series or TPC, select the first detecting position on upper boxes, and select the second or subsequent detecting position on lower boxes.
d	ID Certification Mode	Check this when cutting with ID certification mode by CG-75ML. (P.3-50)
е	Reverse Cut Mode (except CF3 (Milling))	Cut from the back, not from the printed face . (💝 P.3-64)
f	Size Adjust	When the size of the actual data and the printed media are different, cut the frame aligning with the printed media. (P.3-63)
	Mark Separation (⊯ P.3-63)	When [mark separation] is executed, the following screen appears. Select cut area No. and search the position to cut. Layout Tiling Register Mark Select Cut Area No.
		Cut Area No. Reverse Cut Mode Search Position Backside Data Cut Search Position

10 Selection List

Select [color] or [layer] tab to display the information of colors or layers. When tiling is executed, it displays the tile list.

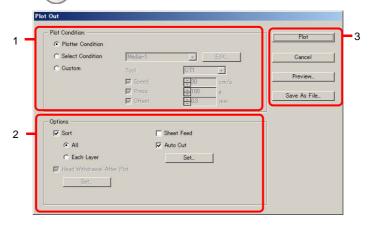
- Cuts only the objects that are checked at the check box on the left.
- In the color list, click the fill color or stroke color to display each information.
- Click the button on the upper right to specify the output condition.



Plot Out Screen

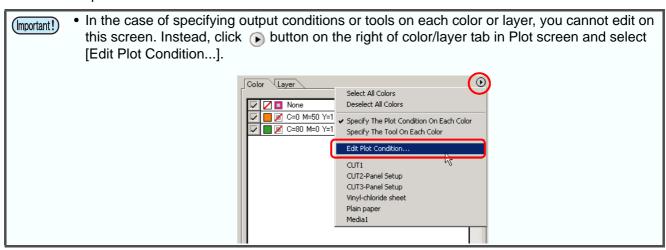
Set for output

To display this screen, click Plot button in the Plot screen.



1 Plot Condition

Select the output condition.



Item	Description
Plotter Condition (except CF3 (Milling))	Plot with the output condition set on the plotter.
Select Condition	Select the plot condition set on FineCut. Click [Edit] button to add media, or to set cutting conditions by media types. (P.4-6)
Custom (except CF3 (Milling))	Set plot condition on this screen. Refer to the following page for details. (P.4-6 "Output Condition Setup")

2 Options

Set options. Settings differ from models to another you selected (P.4-5 "Plotter/User Setup").

CG/CJV30/TPC series



CF/CF2/DC/CF3 series



CF3 (Milling)



Item	Description
Sort-All	Validate the settings of the plotter.
Sort-Each Color/Layer/Tile	Plot in the order of color/layer/tile settings. In the case of specifying output conditions or tools on each color or layer, it sorts for each color and layer and cuts from the bottom of the list. • CG / CJV30 / TPC series Sorts to minimize the extra head movement for efficient cutting. • CF/CF2/DC/CF3 series Sorts to minimize the extra head movement, and to cut the inside objects first.
Head Withdrawal After Plot	Move the head to the set position after cutting object. (P.3-29 "Set Head Position and Origin after Plot") • This function cannot be used [Auto Cut] is checked.
Sheet Feed (MGL-IIc for CG series only)	Before cutting data, feed the sheet and confirm whether the entire data can be cut. • If plotting fails, an error appears on the plotter. In this case, stop plotting, reset the sheet, then restart plotting.
	Sort-All Sort-Each Color/Layer/Tile Head Withdrawal After Plot Sheet Feed

	Item	Description
е	Auto Cut (CG-FX series / CG-75ML / CJV30 series / TPC only)	When cutting roll sheet continuously, it cuts off the sheet automatically after cutting. (P.3-46 "In case of Auto Cut").
f	Optimize Cutting Start Position	Optimizes the start position of cutting to finish finely. If unchecked, cutting starts from the position that the data started to draw. • When CF3 (milling) is used, be sure to check the start position of cutting by preview after setting. • With optimizing, the start position might be placed out of the object. If the cutting line goes over the next object, space among objects on Illustrator.
g	Joint Setting	Leaves a part of the cutting line, and cuts it last. It prevents the work from misaligning and makes the cutting surface fine. [Joint]: Set the number of joint (places to leave). [Length/ Height]: Set the length and height to leave. [Pause]: Select to withdraw the head and to fix the media with tape.
h	Use the Outside	Cuts out inside of the object to use the outside. If checked, offset direction and cutting direction are optimized.

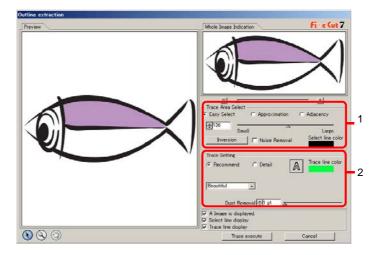
3 Buttons

Item	Description
Plot	Starts plotting as the set conditions.
Cancel	Cancels plotting.
Preview	Previews the plotting with the set condition. Confirm the plotting by preview and adjust the settings. (P.3-31 "Check the Cutting Process by Preview") • Before starting plotting, be sure to check the cutline by preview.
Save as file	Save the plot data in a plot file. Select the folder and click [Save]. Specify the file name to be stored on. Save in FineCut? File name: My Documents My Network P. Save as type: All files (*.1)

Outline Extraction Screen

Create outline to cut bitmap images.

To display this screen, click [Outline Extract] button in the FineCut menu.



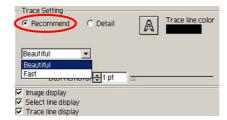
1 Trace Area Select



ltem	Description
Easy Select	Select the trace area based on luminance of image. (Range: 2-255)
Approximation	Select an approximate color of the color specified on the preview screen from the whole image.
Adjacency	Select the same color area as connected to the location specified on the preview screen.
Entry column/Slider	Set the range of the selected trace area.
	For [Approximation] or [Adjacency], decreasing the slider value enables to extract more accurate.
Select line color	Select color of the line shown on the preview.
[Inversion]	Inverses the select area.
Noise Removal	Makes a smooth line, reducing uneven outline.

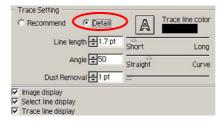
2 Trace Setting

Recommended setting



Item	Description
Beautiful	Creates detail outlines.
Fast	Extracting time is fast but the details of the outline is rough.

Detail setting



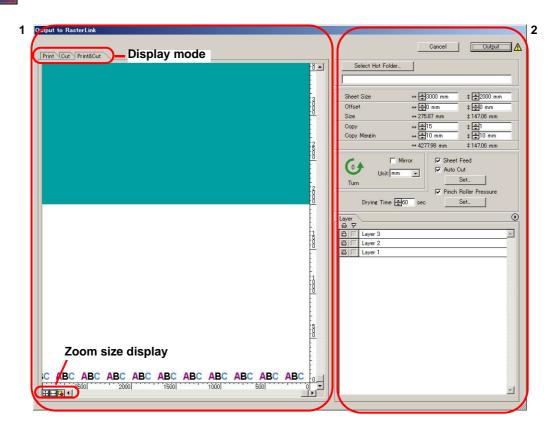
ltem	Description
Line length	Specify a length for one line. The shorter the line becomes, the more elaborate in detail.
Angle	Specify an angle for the top shape of line. The angle increases by angle becoming small, and the curvilinear increases by angle becoming large.

Common setting

Item	Description
A	Extracts only the outline.
Trace line color	Select trace line color displaying on the preview.
Dust Removal	Delete the line that is shorter part than the specified length. Remove the extra lines created by scanning.
Image display	Displays the image to be traced. You can confirm the outlines to be extracted or compare the image and the traced image.
Select line display	Displays the selected line area to be traced.
Trace line display	Displays the traced line.

Output to RasterLink Screen

When using CJV30 series or TPC, set to output print data and cutting data to RasterLink. Click [Output to RasterLink] button in the FineCut menu.



1 Preview

Displays image of an object.

	Item	Description
		Display mode
	Print	Displays printed image.
	Cut	Displays cut image with black line.
	Print&Cut	Displays cut image on the printed image by layers with black line.
Zoom size display		
1	Fit In Sheet Size	Displays the entire sheet.
	Fit In Sheet Width	Displays the sheet width.
G	Fit In Objects Size	Displays the enlarged object to fill the screen.



• Display type of this screen can be set on "Plotter/User Setup" screen. (🕾 P.4-13)

2 Setting

Item	Description
Cancel	Cancel the setting.
Output	Set EPS and output a data to RasterLink.
<u> mark</u>	Appears if an image gets out of the sheet by the object size or the copy setting.
Select Hot Folder	Select the hot folder of RasterLink.
	The folder created from the [Create a new folder] button of the folder reference screen does not work as hot folder. Create hot folder from RasterLink.
Sheet Size	Enter an effective sheet size (width and length) set on the plotter. Effective size can be checked on RasterLink.
Offset	Set an offset (horizontal/ vertical direction) from the origin on the lower right of the sheet.
Size	Displays the object width.
Сору	Enter the number of copies of one object along the horizontal/ vertical direction.
Copy Margin	Enter the margin between the copied objects along the horizontal/vertical direction.
Turn	Click to turn the object by 90 degrees anticlockwise.
Mirror	Reverses the right and left of the object image and cut it.
Unit	Set the display unit in this screen.
Sheet Feed	Before plotting, feed the sheet to check whether the entire data can be plotted.
Auto Cut	When cutting a roll sheet continuously, cut off a sheet automatically after completing the plotting. [Set] button becomes effective with this item checked. On the screen below, set the margin length from maximum data length (the length from the final line to the cutting position) and cutting a data at every line. (P.3-46 "In case of Auto Cut")
Pinch Roller Pressure	Set the pinch roller pressure. [Set] button becomes effective with this item checked. On the screen below, set the pinch roller pressure when printing or cutting (ends or inner position).

Item	Description
Drying Time	Set a drying time of media after printing.
Layer	Select/Set the layer to print or plot. Conting Condition



- When both the print and the cut are marked on the Layer screen shown above, the plotter prints, and then cuts the object. If the printing layer has a register mark created with the register mark creation of FineCut, it reads the register mark position after printing, and cuts on the more accurate position.
- When only cutting is marked on the layer screen, include the register mark in the cutting layer to cut with the register mark loaded.
- If not setting [Specify the Cut Condition on Each Layer] or [Specify The Tool On Each Layer], it plots with the setting of the plotter.
- Data is placed with the margin of 0.5mm around.

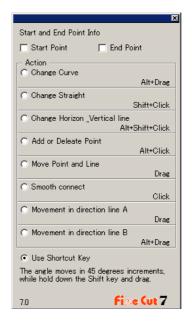


- When cutting with the register mark loaded, set [1Pt] on [MARK DETECT] of CJV30 or TPC as the number of register mark detection. (P.3-44)
- When creating the register mark on the register mark creation of FineCut, uncheck [Leave a rectangle as the cutting line]. If checked, the plotter cuts with a part of the rectangle missed.
 (P.3-38)
- When printing type2 register mark (), space between copies for at least register mark size.
- Create only one set of register mark on Illustrator. Creating plural marks causes error.
- When different settings are made for each layer, RasterLinkProIV Ver.1.1 or before cuts with the condition shown on the top of the set layer list in the layer screen.
 RasterLinkProV or later will cut with each layer setting.

Line Edit Tool Screen

Specify Start Point and End Point, then edit the multiple lines altogether. It is also possible to edit the lines one by one.

Click [Line Edit] button in the Illustrator tool palette.



Item	Description
Start and End Point Info	Set the Start Point and End Point.
	Curve the line between the Start Point and End Point. Select the Start Point and End Point, then drag the line.
Change Curve	Drag
Change Straight	Straighten the line between the Start Point and End Point. Select the Start Point and End Point, then click along the line.

Item	Description
Change Horizon_Vertical line	Click along the line to make it horizontal or vertical. The line can be measured as horizontal or vertical by an angle of the clicked line.
	To add an anchor point, click the position to add on the line. To
Add or Delete Point	delete the anchor point, click the anchor point.
Move Point and Line	Move the line while holding the shape between Start Point and End Point.
Smooth connect	Set the control point at identical tilt and smooth the joint of the line.

Item	Description
Movement in direction line A	Move the control point to change the curvilinear shape. At a time, move the control point in opposite side to smooth the joint of the line.
Movement in direction line B	Move only the selected control point to change the curvilinear shape.

CHAPTER 5 Troubleshooting



This section describes the troubles and the solutions.

Troubleshooting	5-2
Sheet size cannot be changed	. 5-2
Memory runs out	. 5-2
Communication port error or Error No.1 occurs	. 5-2
Improperly plotted on the wrap-around text	. 5-3
Invalid path created in the object when creating edge	. 5-3
Shadow or edge cannot be deleted	. 5-3
The inside path is not cut when cutting the path that is app	olied
"Effect" of Illustrator with CF3 (Milling)	. 5-3
An error occurs during outputting to RasterLink	. 5-3

Troubleshooting

Sheet size cannot be changed

When the MGL-IIc commands are used

The sheet size does not change even if shifting the origin on the plotter and click (button.



Sheet Loading

FineCut always display the sheet size set on the plotter. In this case, the data may be cut overflowed even if the data fits into the cutting area in the layout area.

When the MGL-Ic commands are used

FineCut displays the effective cutting area. Therefore, even if shifting the origin on the plotter, it can cut normally when the data fits into the cutting area.

Memory runs out

Stroke weight and overlap recognition/ Frame extraction/ Trapping/ Outline extraction requires large amount of memory for complicated objects. Depending on the specifications of the machine, the target object may not be processed for an insufficient memory.

In this case, divide the object into several objects, and execute the process for each divided object, instead of selecting the entire object and executing the process at one time. Some types of object can avoid the insufficient memory error in this way.

For Outline extraction, lowering the resolution to avoid insufficient memory error.

Example 1

To recognize the stroke weight and overlap for a complicated object with the title and the object separated, select each component and execute the processing separately, instead of selecting the entire object. If some parts are overlaid, select only overlaid parts and execute the process.

Example 2

To extract a complicated object with an outer frame, select only outer frame and execute the frame extraction. It enables to process rapidly without wasting memory.

Communication port error or Error No.1 occurs

When the following error messages appear as clicking



Plot button, follow the direction below.





- For Windows, communication port error or Error No.1 may occur if using a driver software for the tablet, printer diver, or other peripheral devices which uses the serial port. In this case, change the setting to use the other port.
- For Macintosh, the plotter-connected port may have already been used by AppleTalk. In this case, disable AppleTalk from the selector, or 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.

Improperly plotted on the wrap-around text

If executing Frame Extraction/ Create Weed Line/ Create Shadow/Edge on the wrap-around text which created by the IllustratorCS/CS2/CS3/CS4 -[Object]-[Text Wrap]-[Make Text Wrap], it plots improperly. To plot properly, execute them after creating out-line text by the [Type]-[Create Outlines].

Invalid path created in the object when creating edge

Invalid path may be created in the created edge of some shapes of path.

In this case, set the smaller offset value for creating edge, or change the shape of the angle.

Shadow or edge cannot be deleted

If editing a shadowed or edged path created in [Create Shadow/Edge] of FineCut, it may not be able to delete even if executing [Remove Shadow/Edge].

In this case, execute ungroup of the shadowed/ edged path, and then manually delete the shadow/edge.

The inside path is not cut when cutting the path that is applied "Effect" of Illustrator with CF3 (Milling)

When cutting the path that is applied "Effect" of Illustrator with CF3 (Milling), the inside path may not be cut. Apply "Filter" instead of "Effect" to cut properly.

An error occurs during outputting to RasterLink

Select [None] for the preview format on the screen below. Data may be correctly output.

