

Map Symbolization



Illustrator Symbolization manual
ADOBE ILLUSTRATOR CS5

Contents

1. Preference setting of Illustrator

2. Manipulation of CAD file

- (1) Import DXF/DWG file
- (2) Change the Document color mode into a CMYK color
- (3) Ungroup the objects
- (4) Change the Artboard size and Copy tall objects
- (5) Pastes on the layer order form file.
- (6) Saves as

3. Basic symbolization

- Line symbol 1
- * The vertex is made round if needed.
- * The path is Simplified if needed.
- Line symbol 2
- Point symbol
- Polygon symbol 1
- Polygon symbol 2

4. Other symbolization

- * Adjust bridge to road
- * Align annotation along the liner features
- * Offset path
- * Using repetition command
- * Apply reflection object

5. Basic edit

- * The duplicated line with other line features should be deleted
- * The duplicated line with neat line should be deleted
- * Extend under shoot line to neat line
- * Transferring in order to avoid overlapping of symbols
- * When overlapping same color objects should be masked which is called the "hold out mask".

6. Adjoin neighbouring sheets

7. Create mask object

8. Legend and marginal information

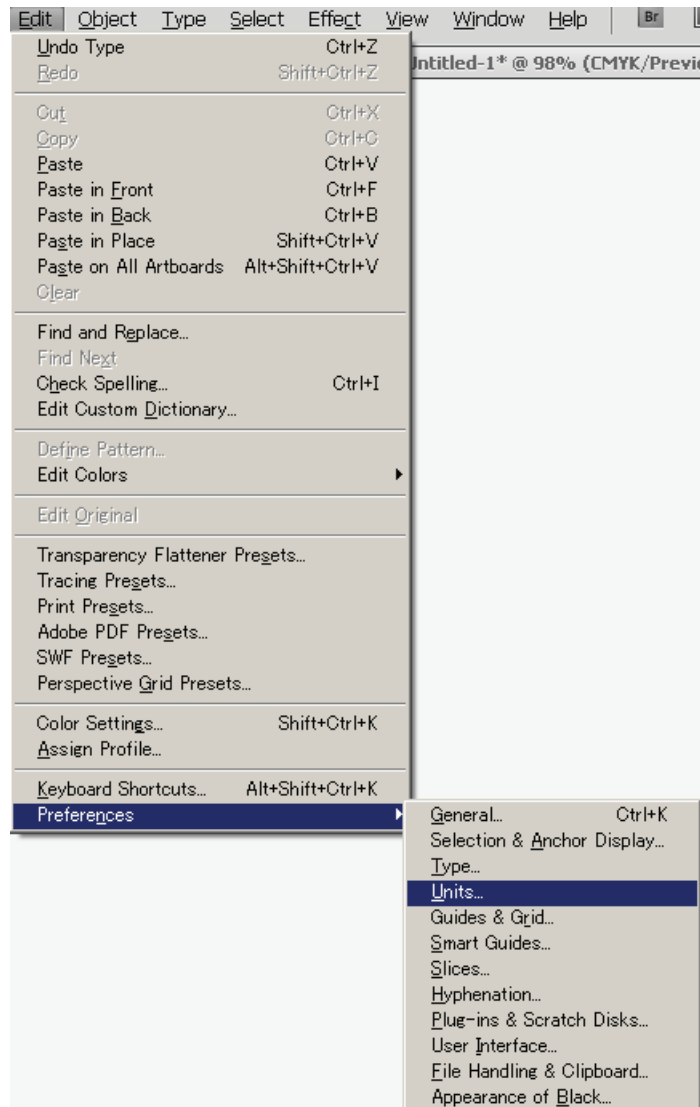
9. Perpetration for reproduction film

- * Turn on all layers
- * Unlock and show all objects
- * Expand appearance
- * Delete empty text path
- * Delete stay point
- * Check usage fonts
- * Check overprint
- * Delete guides

1 . Preference setting of Illustrator

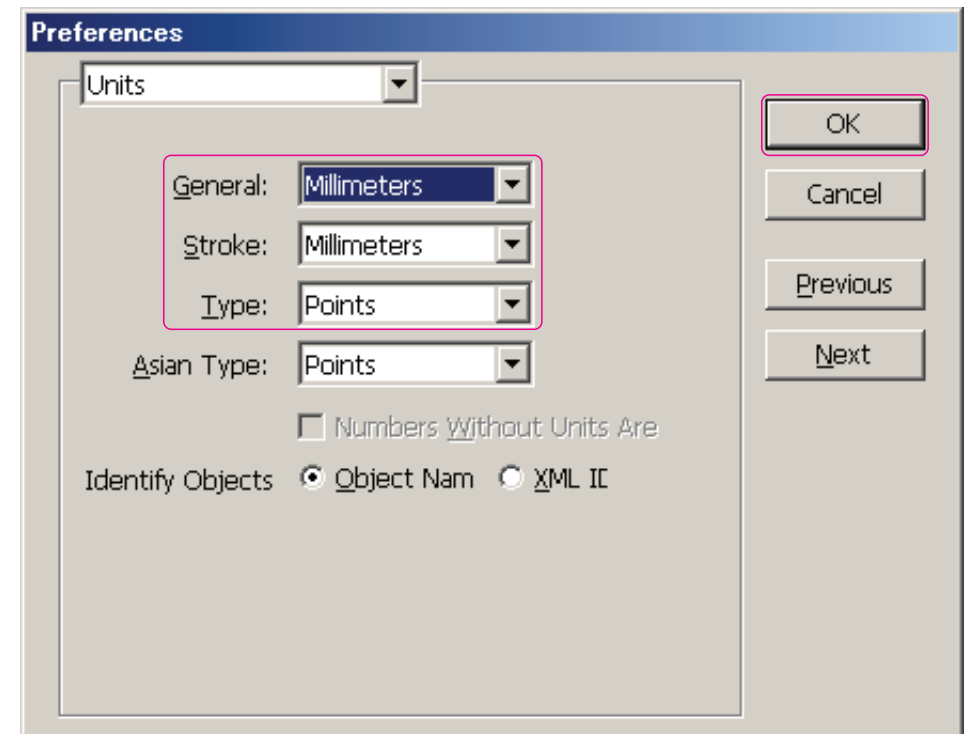
Before starting, setting using in “ preference” window

1-1 Select from Edit /Preferences/Units



1-2 Select from each pop-up menu as following then click OK.

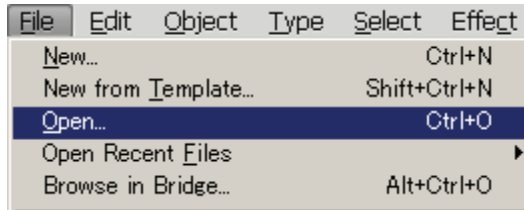
General : Millimetres , Stroke : Millimetres , Type : Points



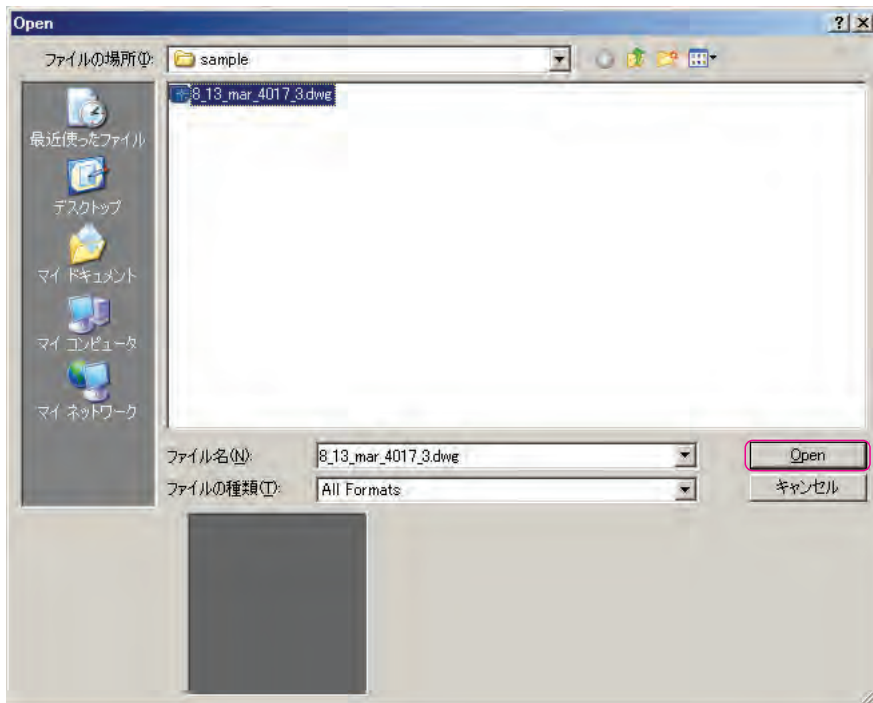
2. Manipulation of CAD file

(1) Import DXF/DWG file

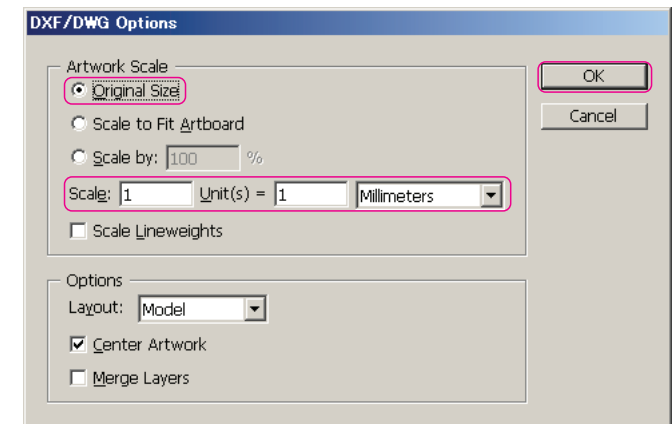
2-1 Select from File/Open



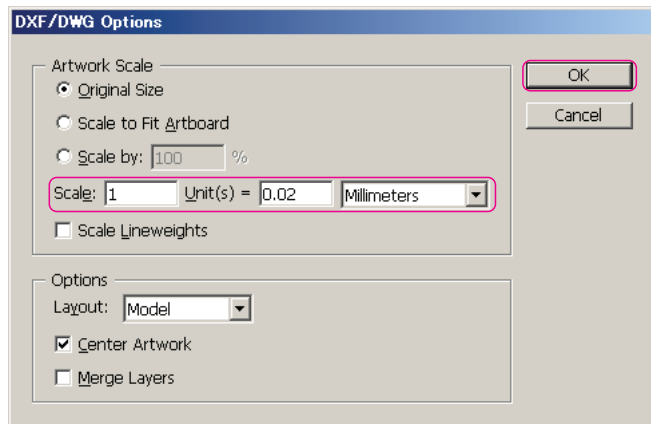
② Select target (working file) dwg file from your certain directory the click OK



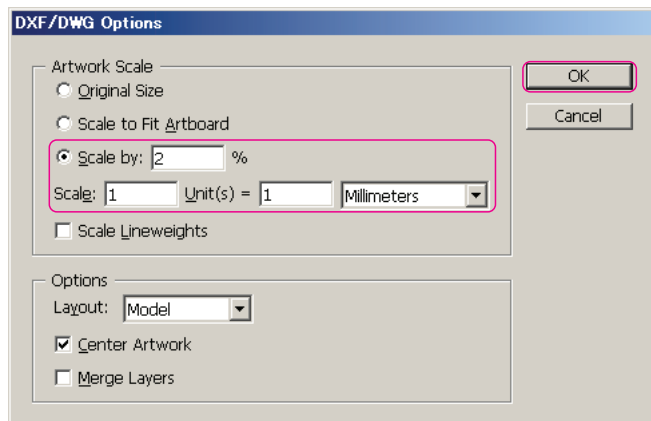
2-2 When it will open the already scaled dwg file, it put check mark "Original Size", then it should be "Scale 1, 1 Unit(s) =1 Millimetres", then click OK



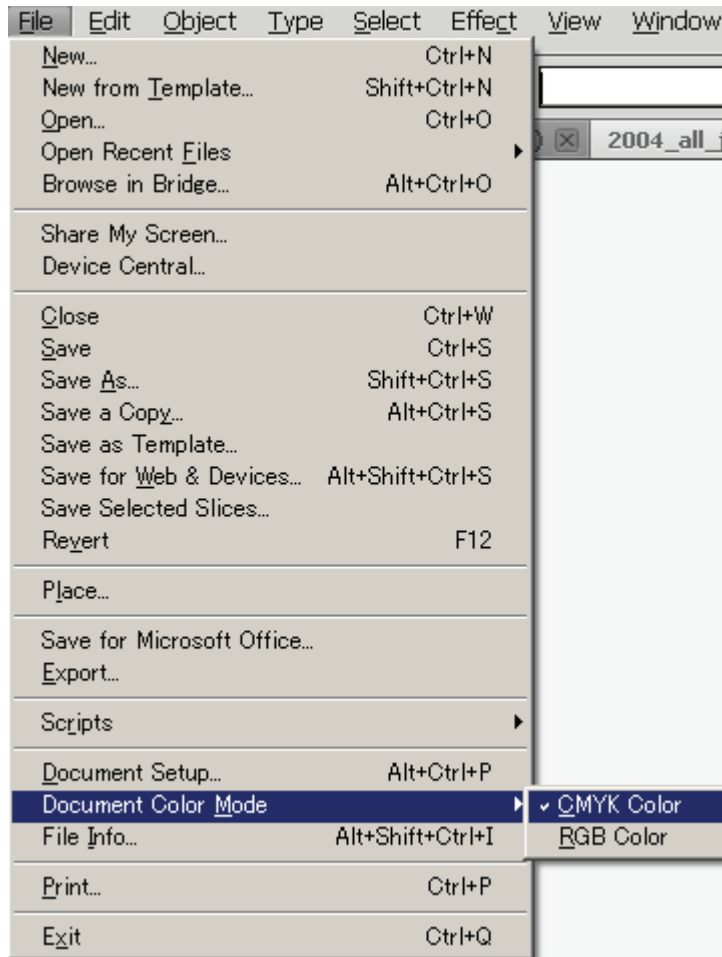
2-3 In case of the dwg file will be scaled at when opening, it put check mark "Original Size", then it should be "Scale 1, 1 Unit(s) =0.02 (scale value of 1/50,000) Millimetres", then click OK



2-3-1 Or put check mark "Scale by" and the scale value 2% (scale value of 1/50,000) is inputted. Then it should be "Scale 1, 1 Unit(s) =1 Millimetres", then click OK

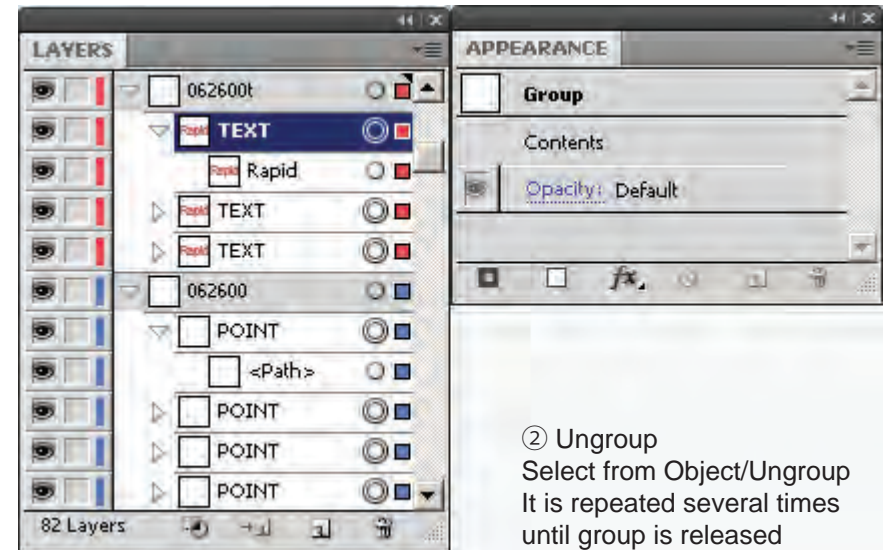


(2) Change the Document color mode into a CMYK color

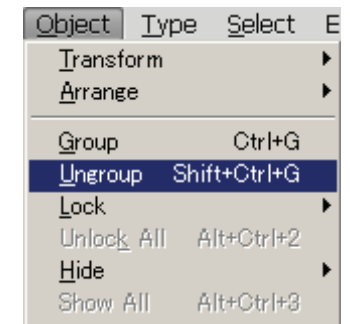
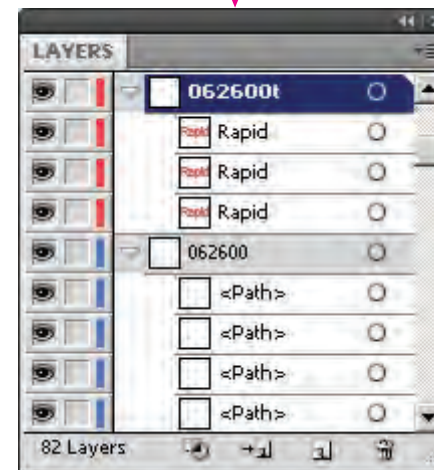


(3) Ungroup the objects

1 Select all (Ctrl+A)



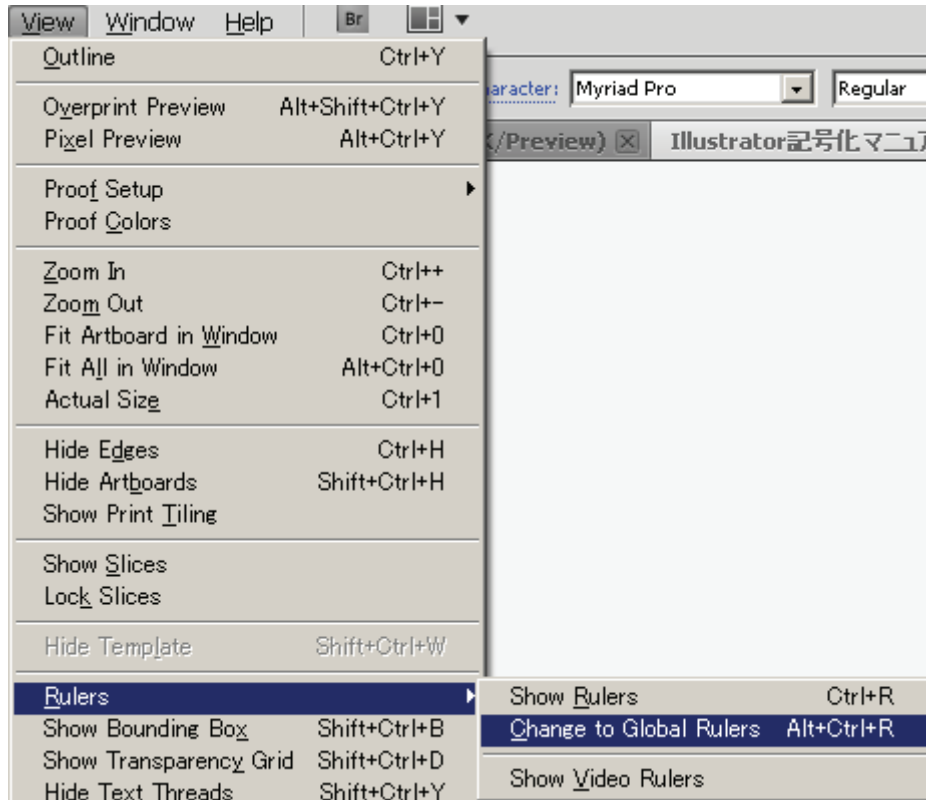
② Ungroup
Select from Object/Ungroup
It is repeated several times
until group is released



(4) Change the Artboard size and Copy tall objects

1 Change to global rulers and show rulers

Select from View/Rulers/Change to Global Rulers

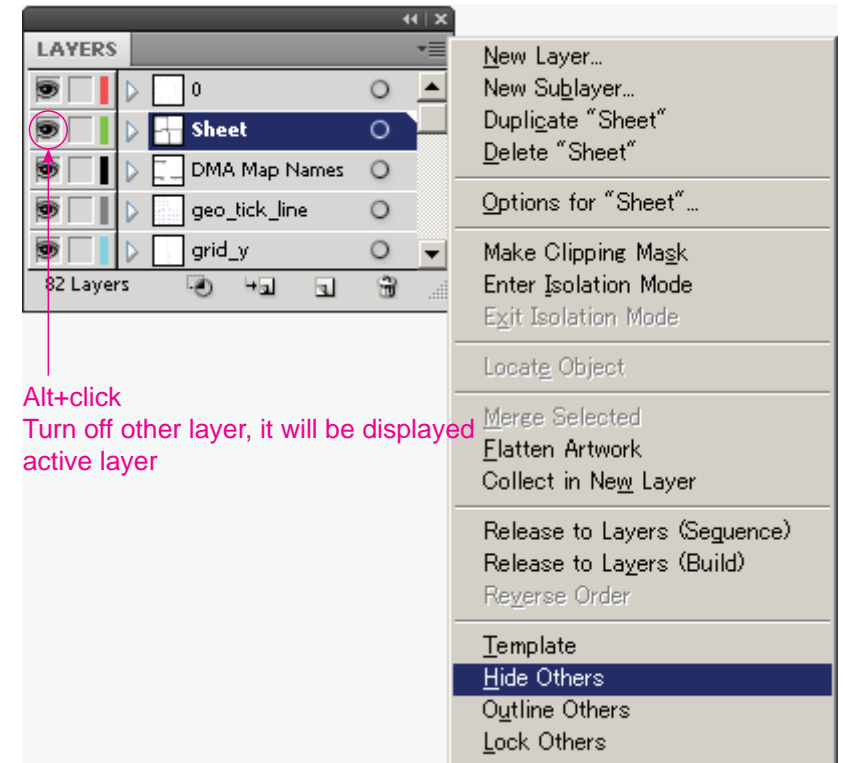


2 Turn on just a neat line layer

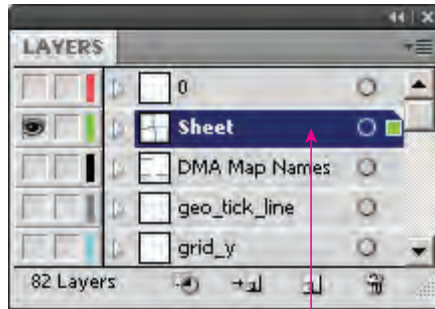
Upper right button on the LAYERS panel>

Pull down>select Hide Others, or Click (Alt+click)

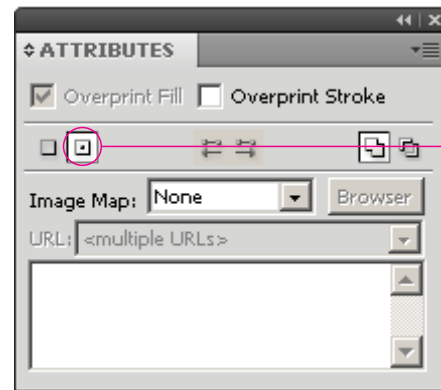
on the "eye mark"once it will be isolated a click layer



3 select object neat line.
Select all (Ctrl+A) or click on a neat line layer in LAYERS

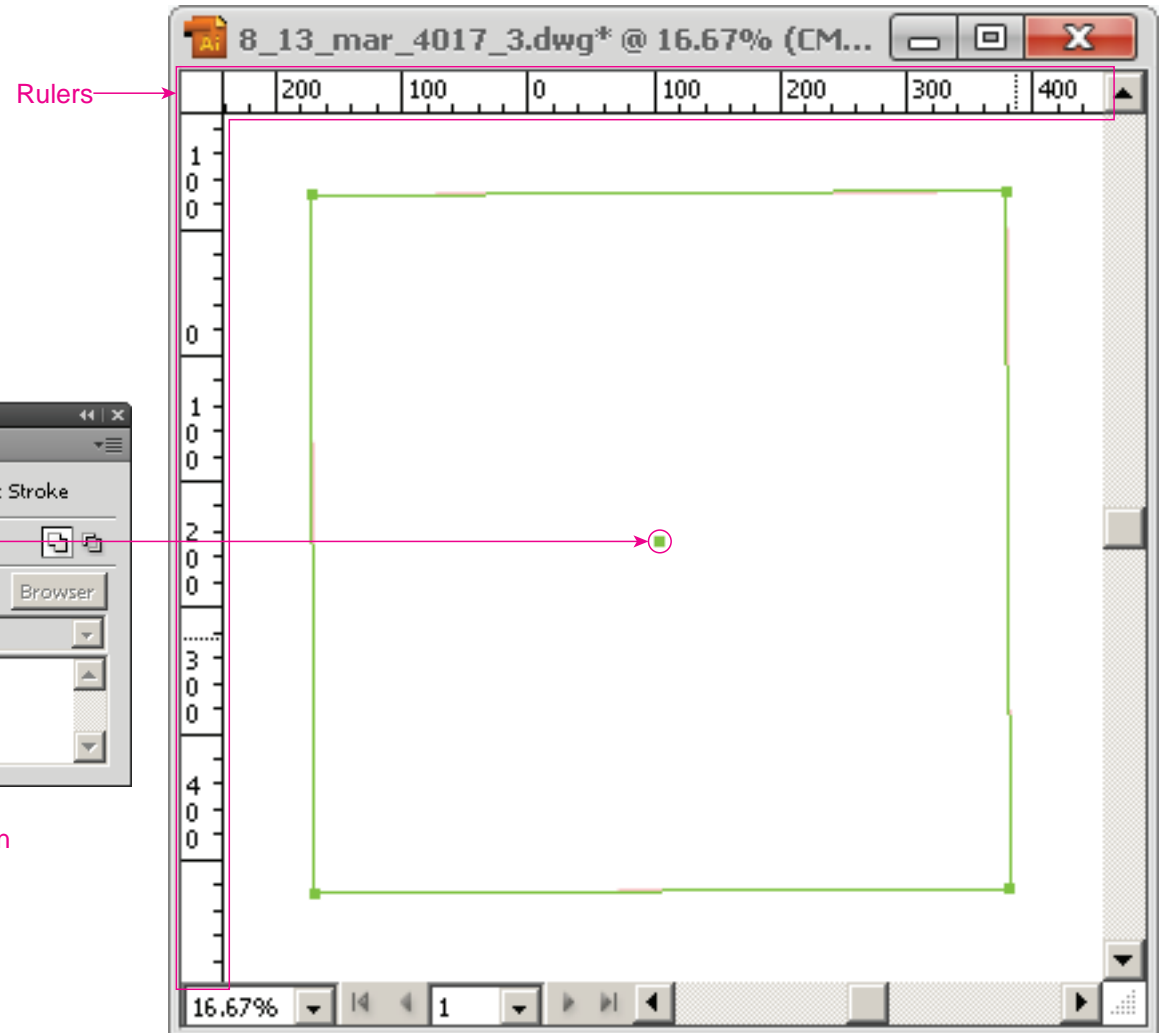


Alt+Click

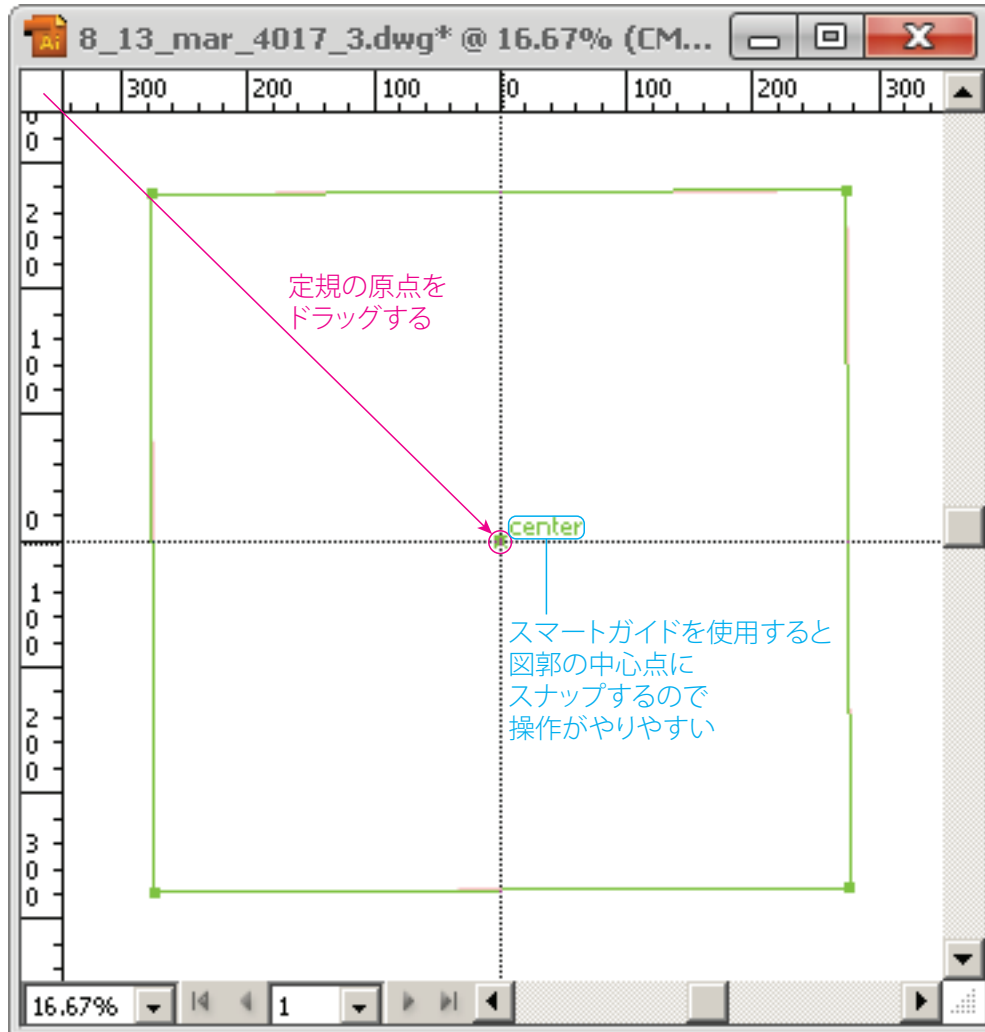


Click "Show center" button

4 When center point of neat line is not shown, it shall be shown by using attribute panel.



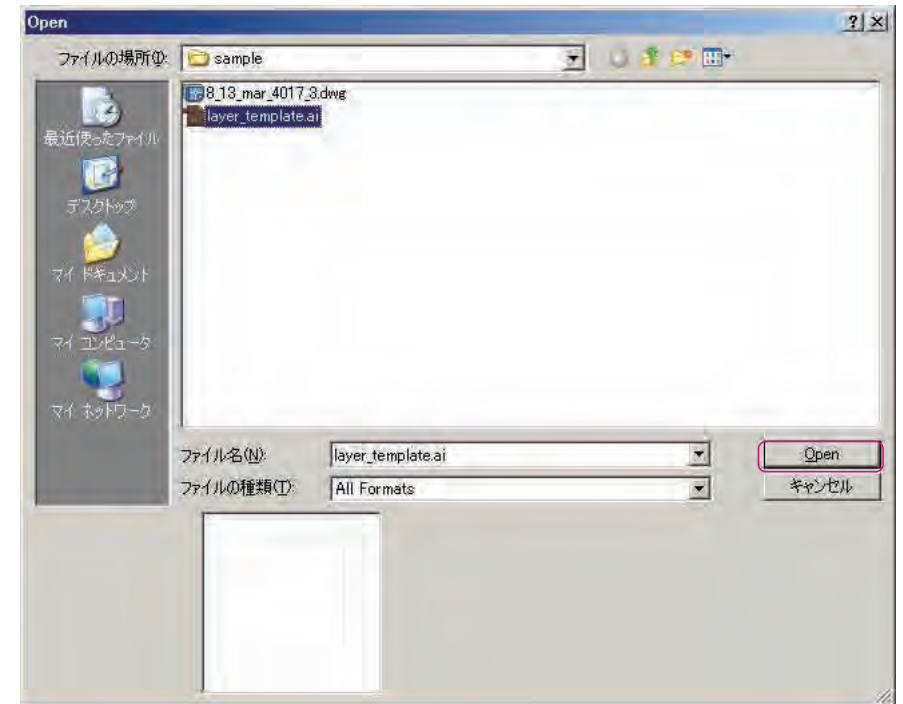
5 Show smart guide (Ctrl+U), then it is coincided with “the center of neat line” with ruler’s original point.



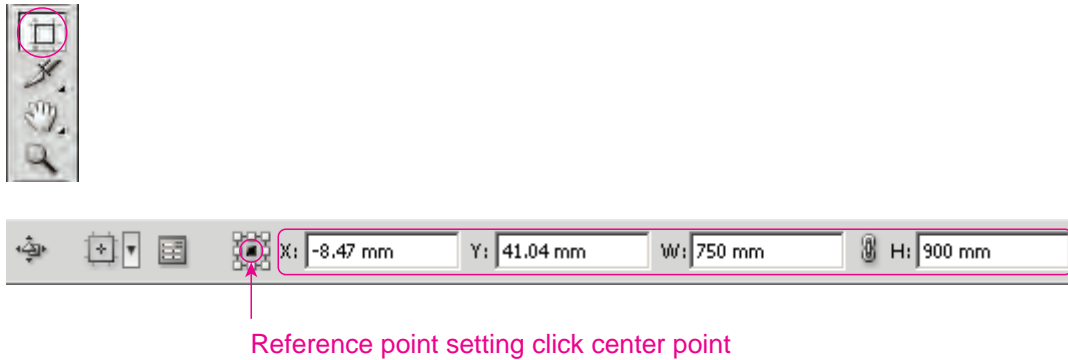
6 Layer order file

Open the Layer order from file (Layer order from file which is arranged and contained all layers by order of priority should be made before symbolization working.)

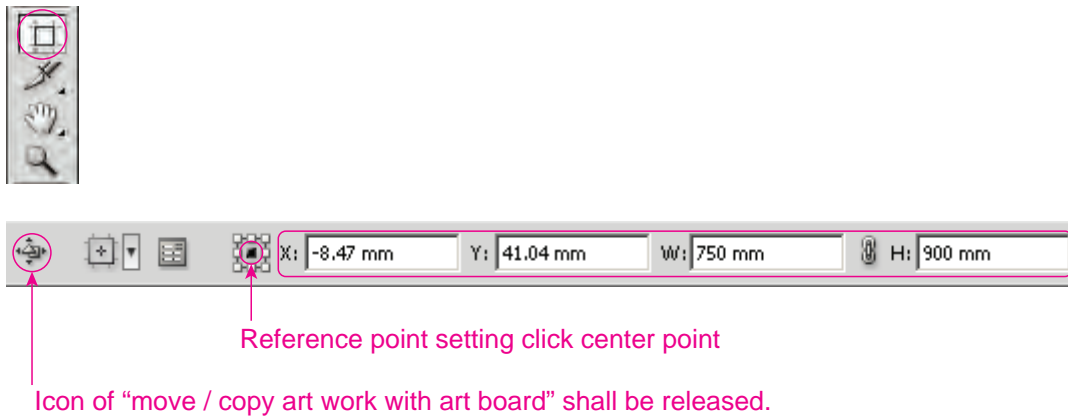
Select the file from the certain directory



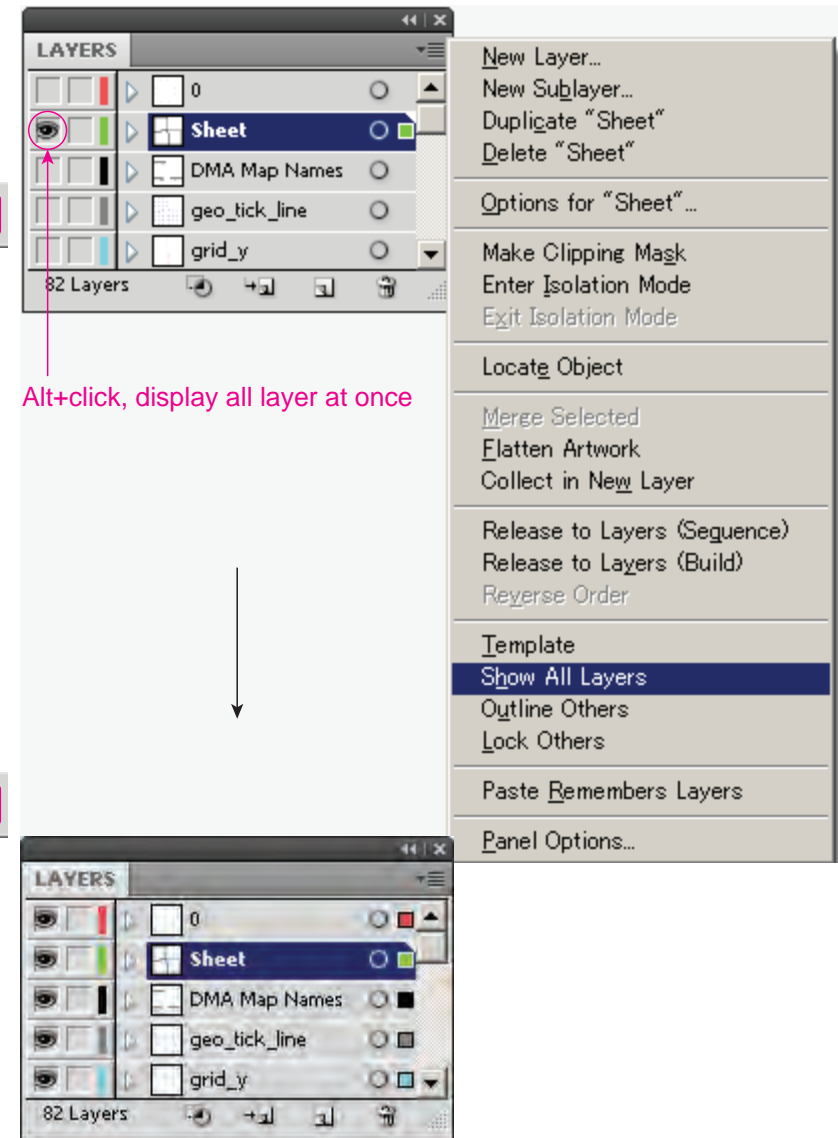
7 Click "Artboard tool" from "Tools", then take a memo of art board center point coordination in shown.



8 Now back to working file, click art board tool then enter since memorized number of center coordination value in control panel.

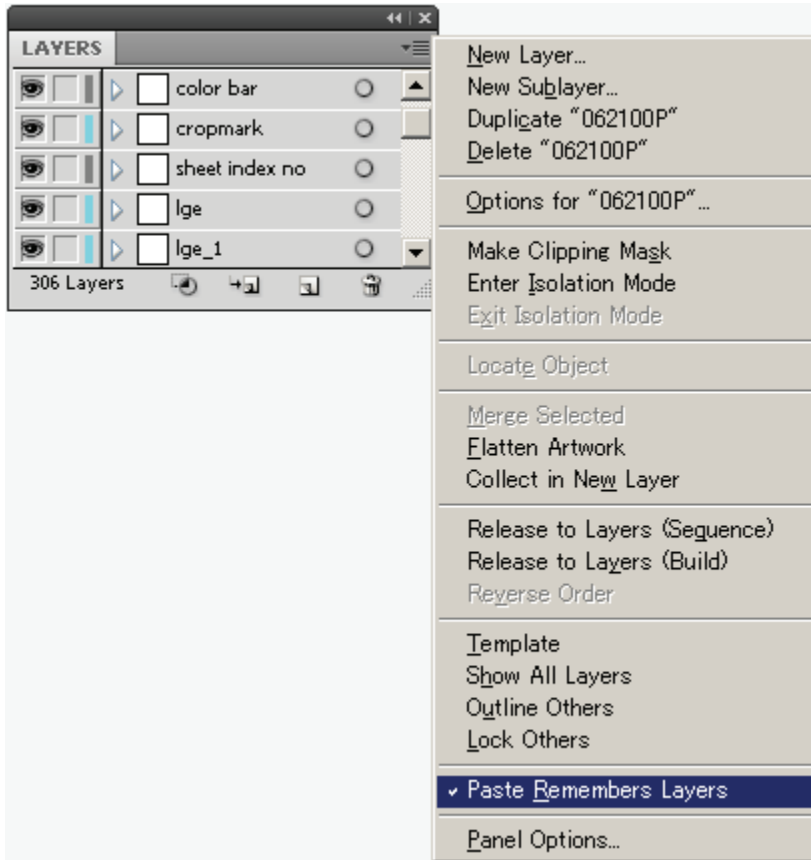


7-1 Upper right button on the LAYERS panel> Pull down>Show All Layers, or Click (Alt+click) on the "eye mark"once it will be display all layer. then Select all (Ctrl+A)→copy (Ctrl+C)

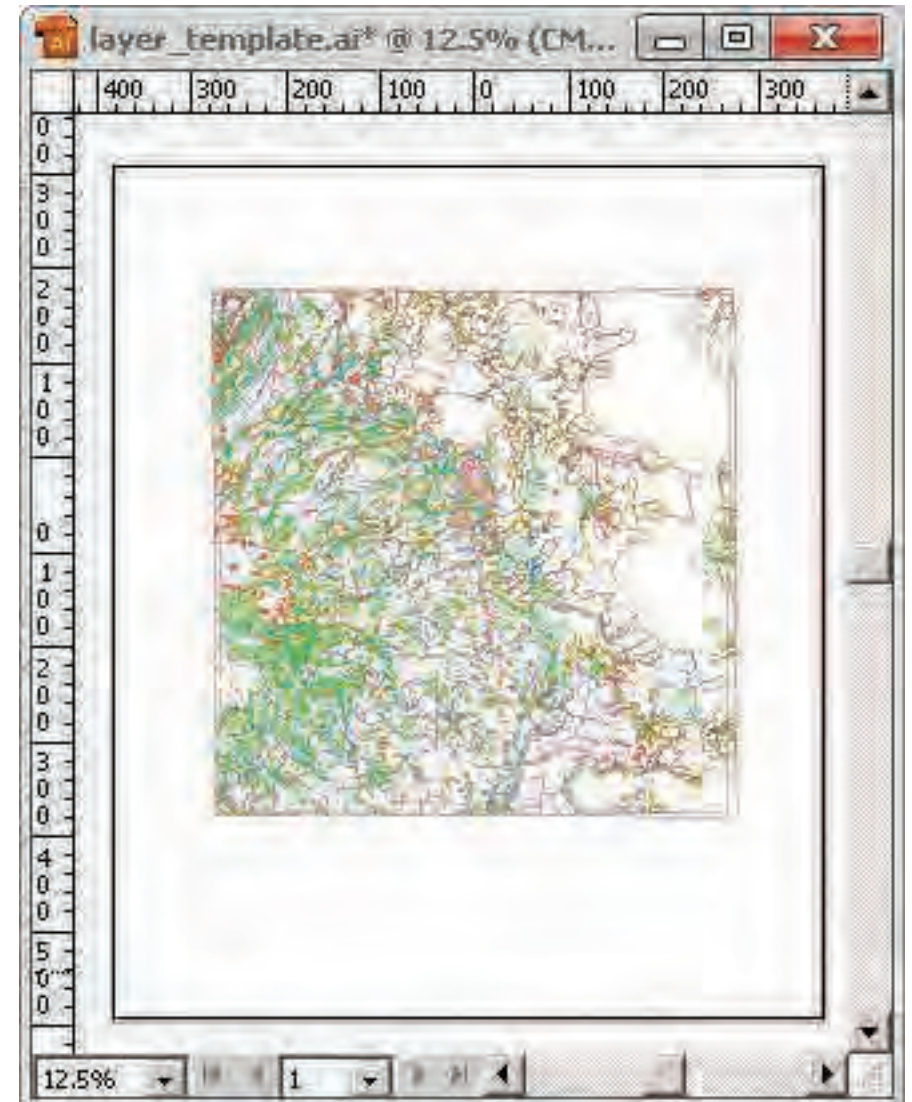


(5) Pastes on the layer order form file.

1 From LAYERS pull down, check mark on "Paste Remembers Layers".
Then Paste in Front (Ctrl+F)



One as figure of pasted in front

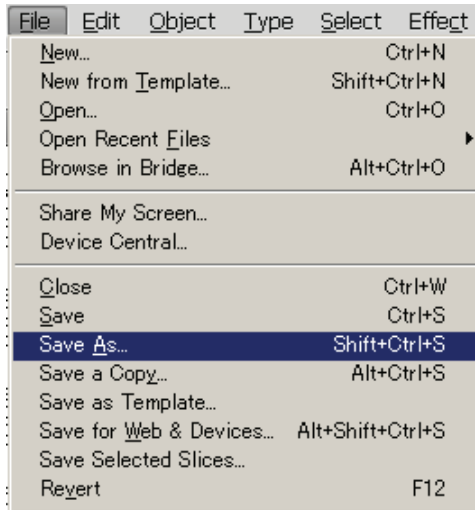


2 Delete the Layer order from file's original neat line

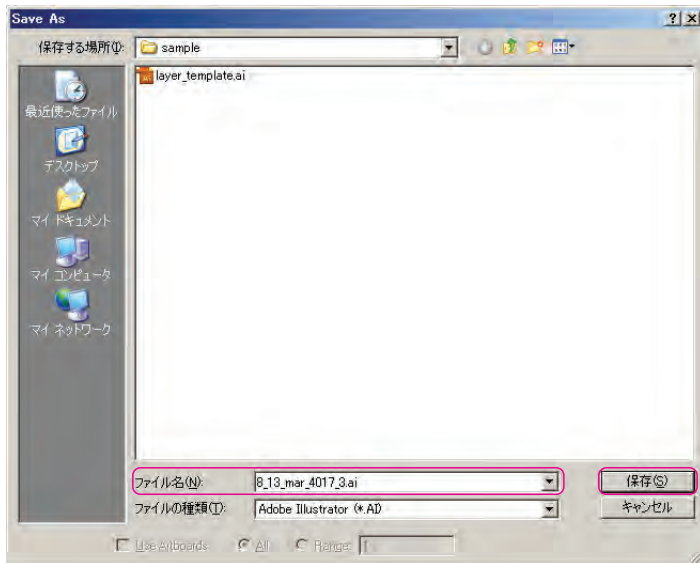


(6) Saves as

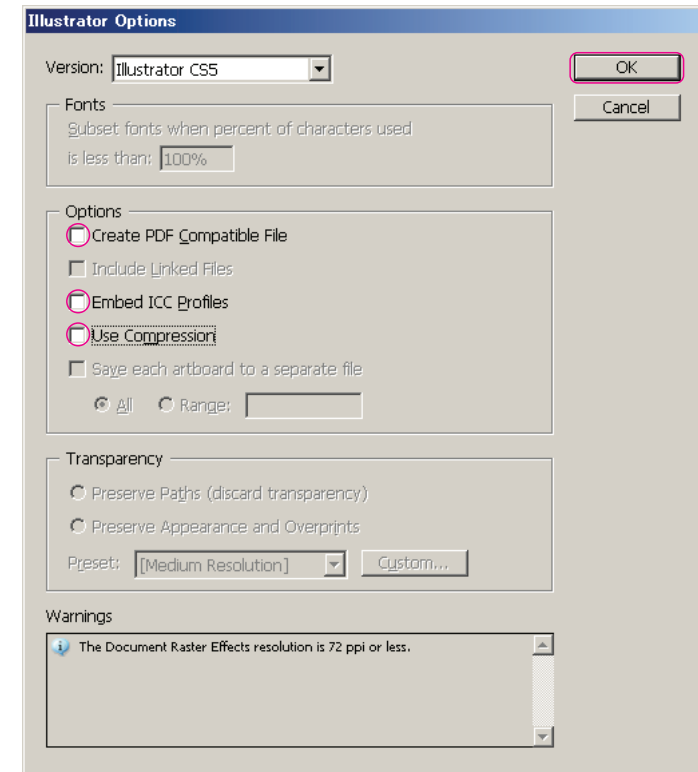
1 Select from <File/ , save As



2 Enter file name, then click "Save"



3 Uncheck mark all box in Illustrator option dialogue window "OK"

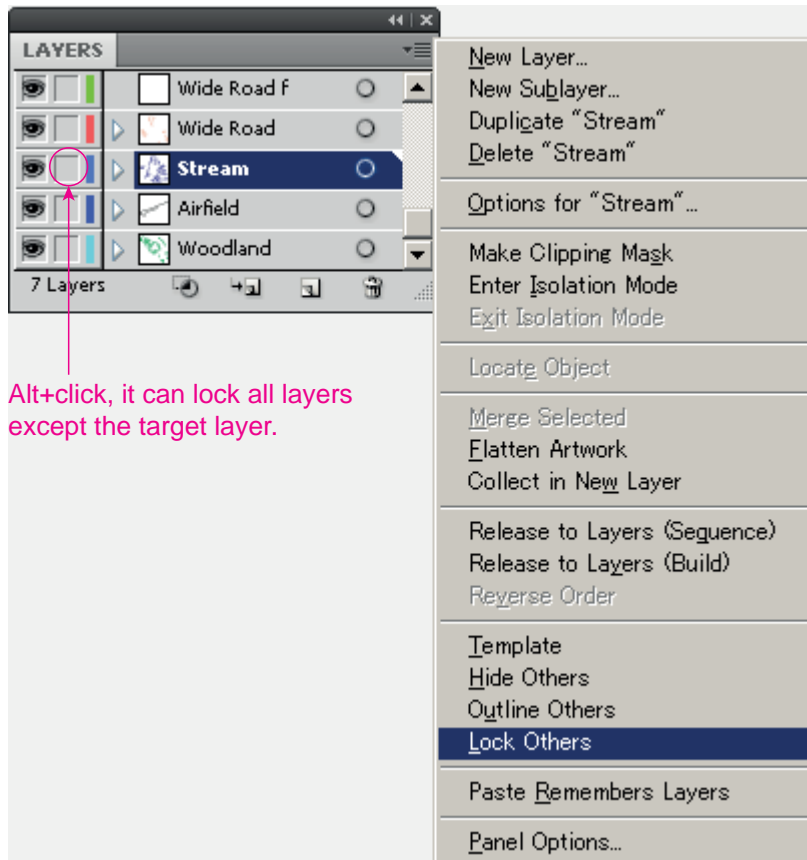


3. Basic symbolization

- line object (liner features, DATE TYPE : Line ex. : Single line road, Stream, Contour, as single line representation symbols etc.)
 - * The Path (line symbol) is made into a curve in order to improve appearance.

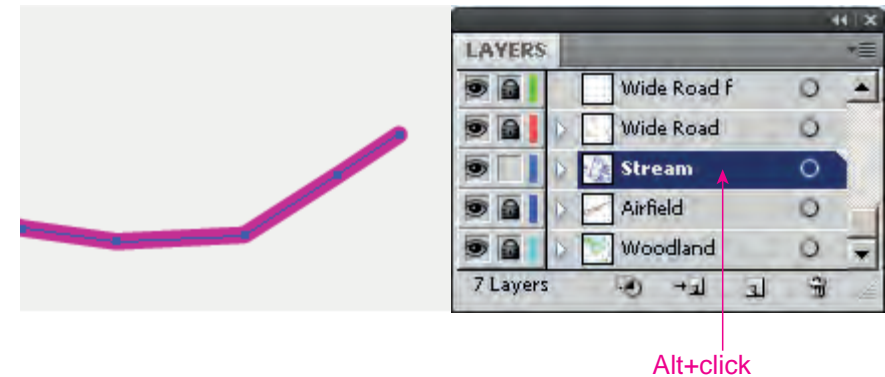
1 Locks all layers except the target layer.

LAYER panel > ▼ > lock Others, or Alt+click on "eye" mark.



2 Select all path in the target layer.

(Ctrl+A) or Alt+click on target layer in LAYER panel

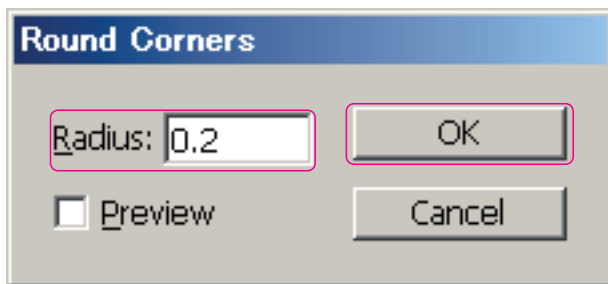
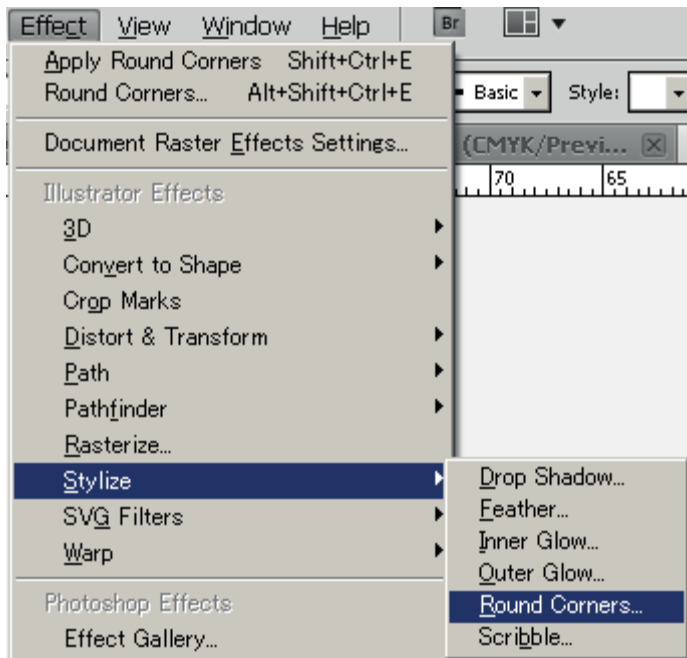


3 Round corners.

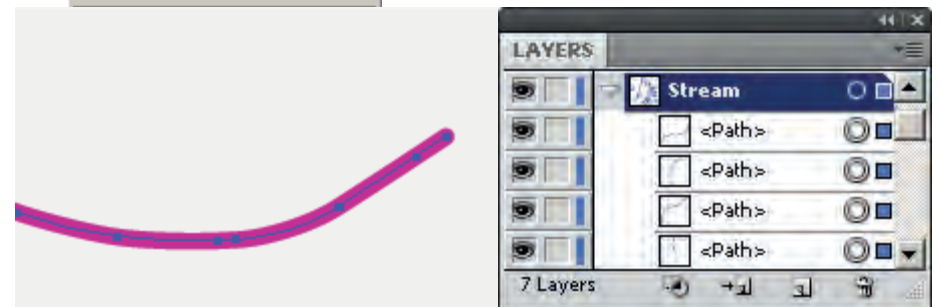
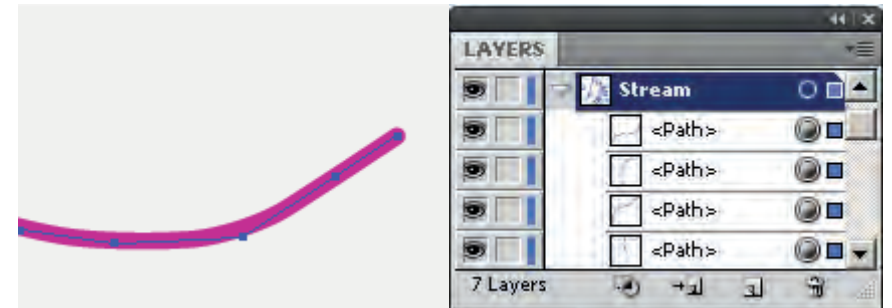
Effect/Stylize/Round Corners

Input Radius value, then click "OK"

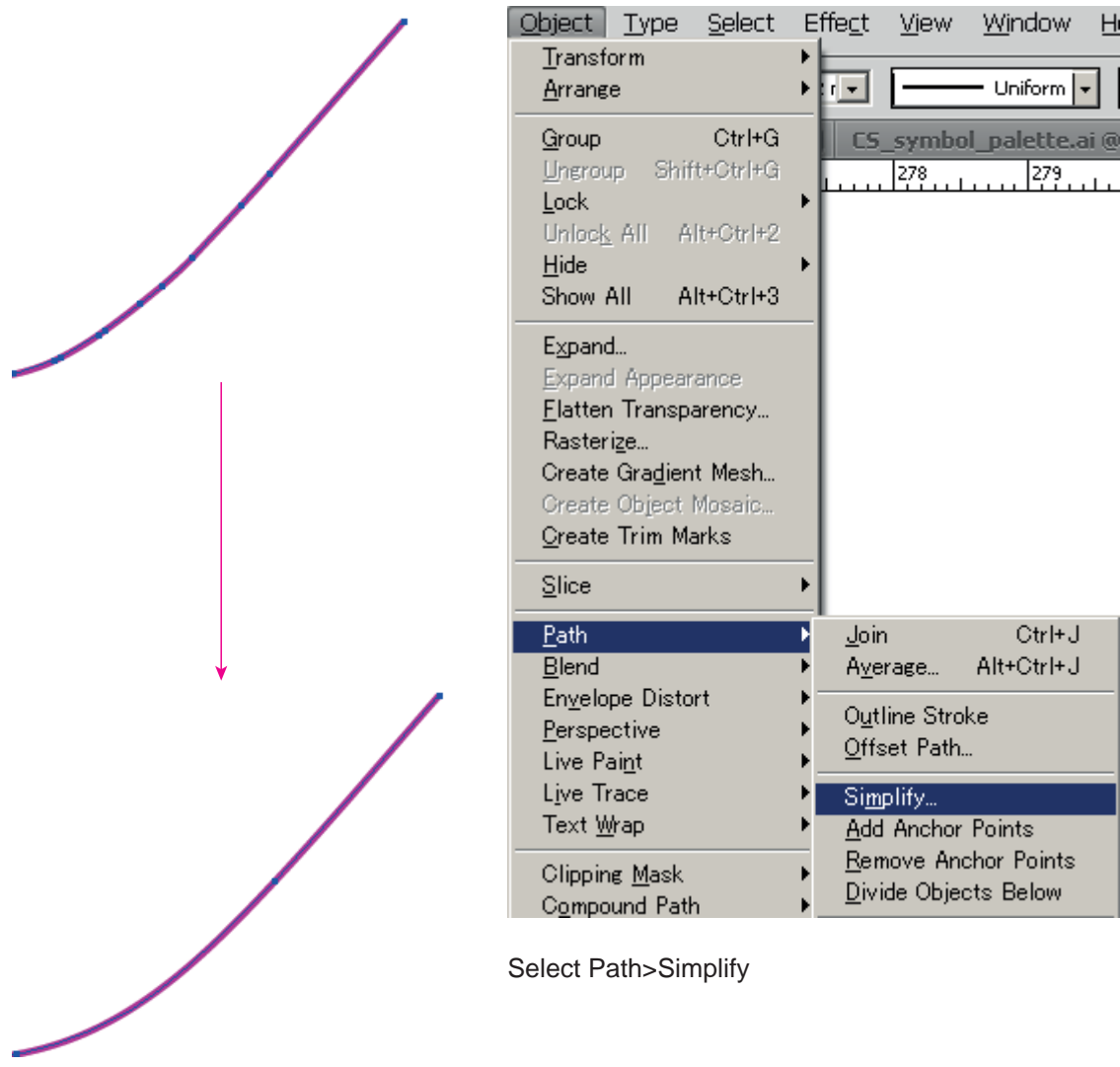
(A radius value is specified according to a situation.)



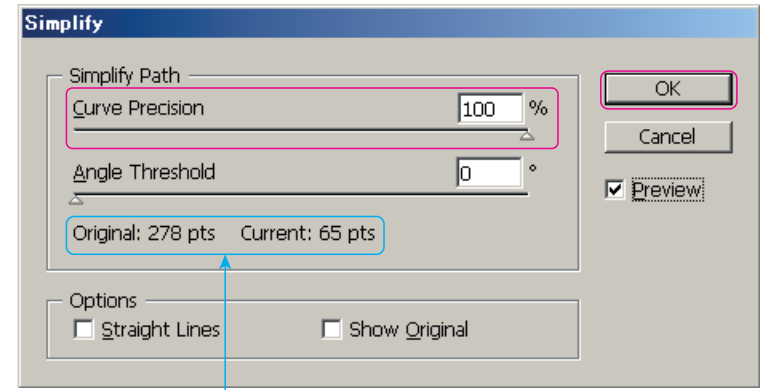
4 Finally expand appearance



*Path is simplified if needed.
The anchor point of path will be reduced and data might be made light.



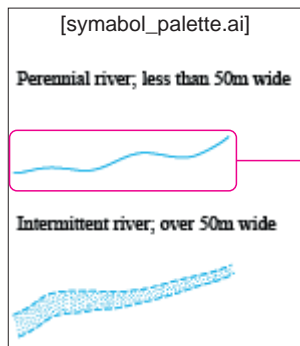
“Curve Precision” value should be set 100%, then “OK”.



The number of points is becoming fewer.

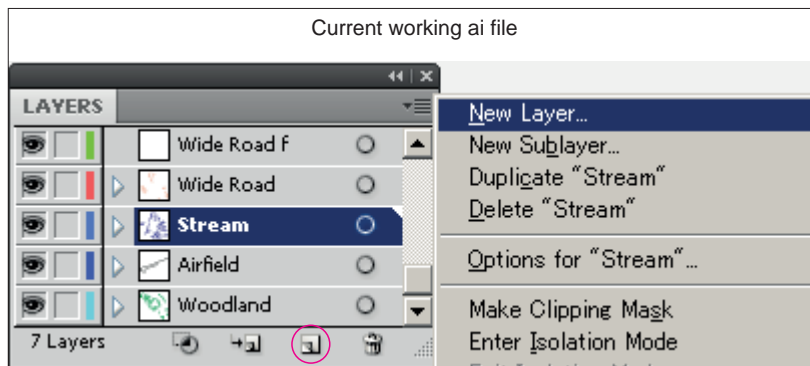
Path's Anchor points will be reduced with almost kept the previous path shape.

(1) Copy target map symbol from “the symbol_palette file“ which is file of collected map symbols should be created before working, this is same as the Layer order file, and then Past in to the temporary layer.

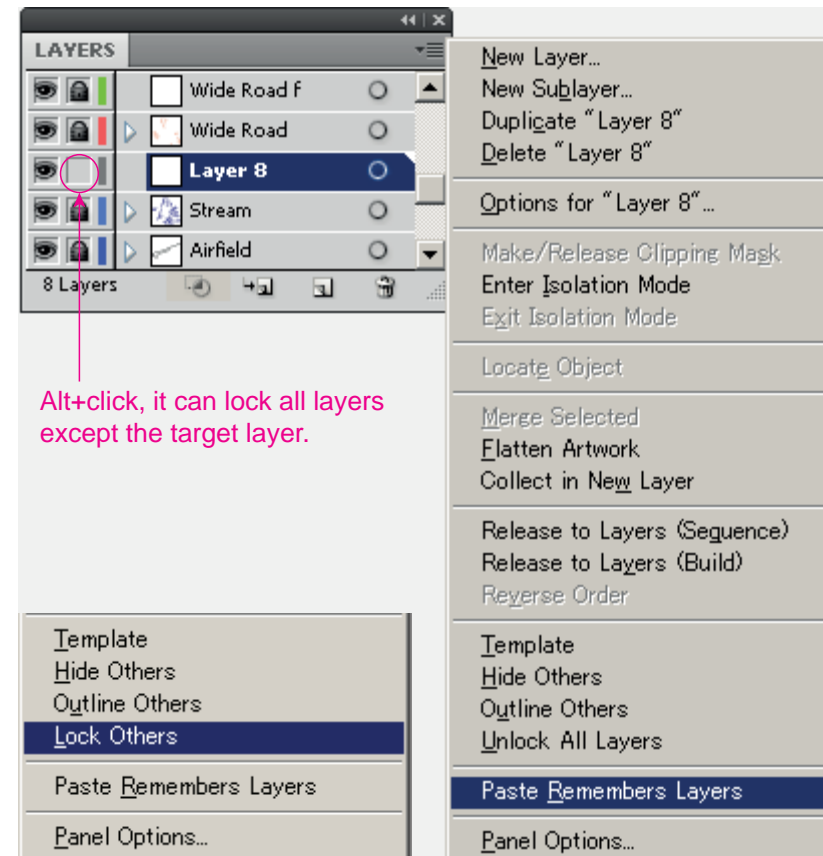


1 Copy the target map symbols

2 Make new layer of the temporary layer.
LAYERS panel / ▼ / New Layer, or Click “Create New Layer” button



3 Lock all layers except temporary layer.
LAYERS panel / ▼ / lock Others, or Alt+click
Release check mark for “Paste Remembers Layers” then Past (Ctrl+V)

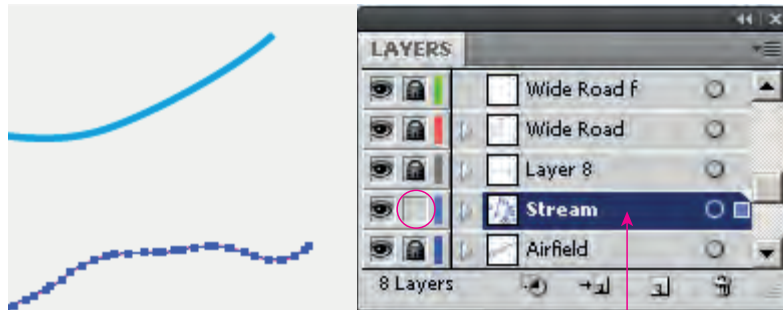


(2) Color, line width, dash line intervals attributes can be change applied by using "Eye dropper tool"

1 Select all path in the target layer.

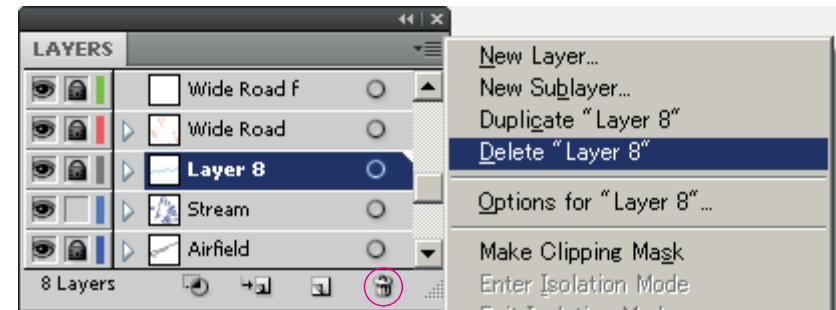
Lock all layers except target layer

(Ctrl+A) or Alt+click on target layer in LAYER panel



Alt+Click

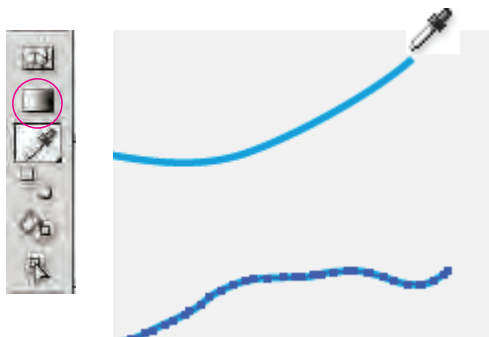
(3) After changing, the temporary layer shall be delete.



LAYERS panel / ▼ / Delete, or Click "Delete Selection" button

2 Select target symbol line, then lick copied symbol from "the symbol_palette file "by using "Eye dropper tool"

The plane line can be come to same as copied symbol

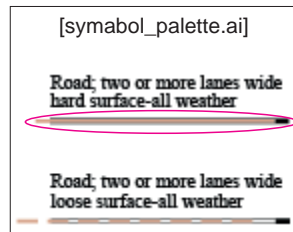


●Liner symbol 2 (DATE TYPE : Line ex. : double line Road)

*The Path (line symbol) is made into a curve in order to improve appearance.

* The Path (line symbol) is simplified a curve in order to reduce the anchor point what for the data might be made light.

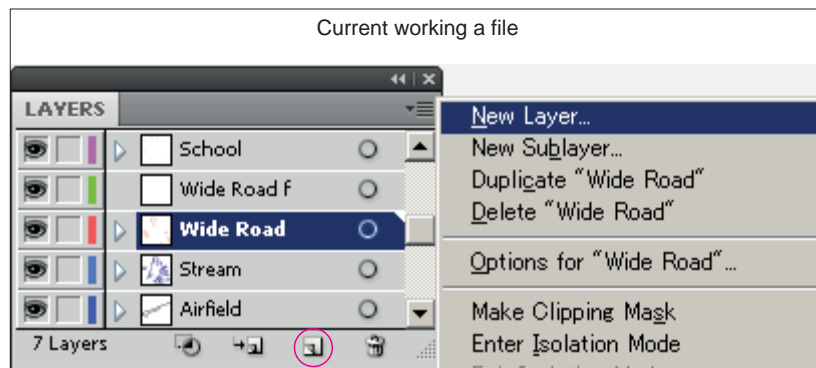
(1) Copy target map symbol from “the symbol_palette file “which is file of collected map symbols should be created before working, this is same as the Layer order file, and then Past in to the temporary layer.



1 Copy 2 kind of paths (Ctrl+C)

2 Make new layer of the temporary layer.

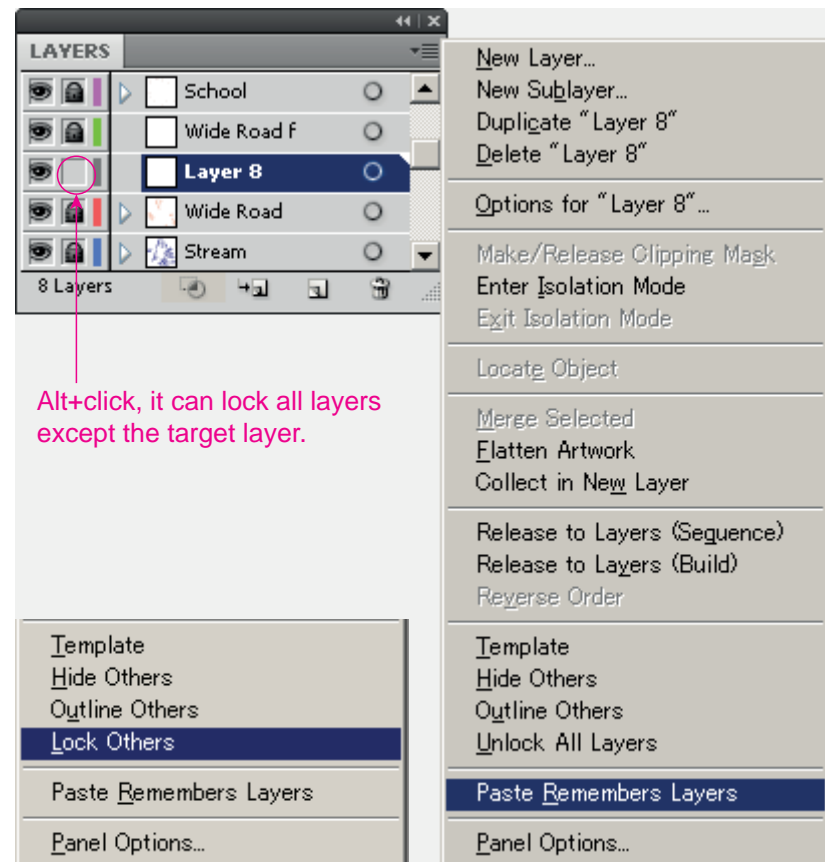
LAYERS panel / ▼ / New Layer, or Click “Create New Layer” button



3 Lock all layers except temporary layer.

LAYERS panel / ▼ / lock Others, or Alt+click

Release check mark for “Paste Remembers Layers” then Past (Ctrl+V)



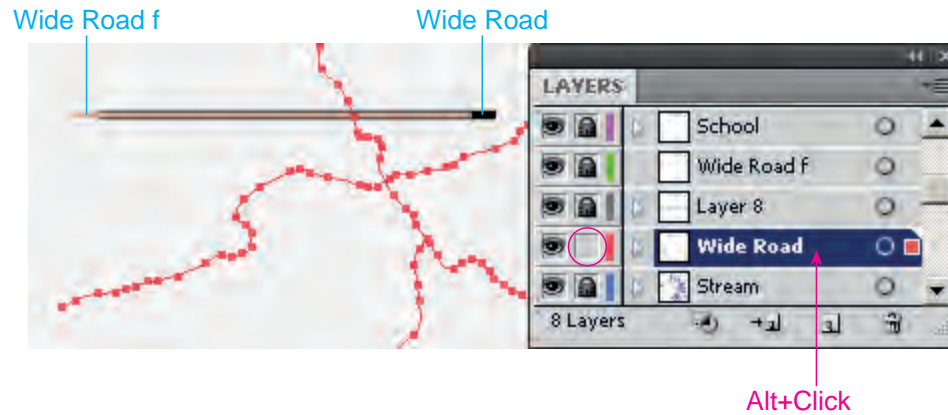
Alt+click, it can lock all layers except the target layer.

(2) First, transfer attribute from "Wide Road" to target layer's objects by using "Eye dropper tool"

1 Select all path in the target layer.

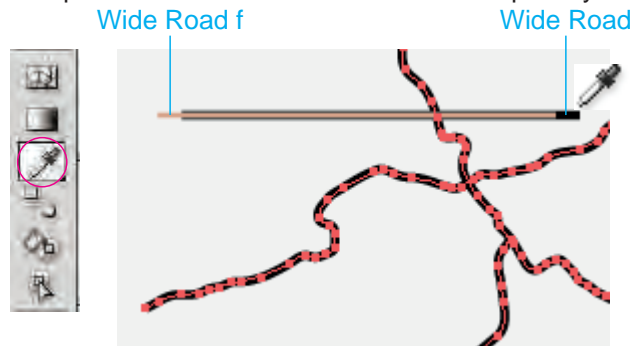
Lock all layers except target layer

(Ctrl+A) or Alt+click on target layer in LAYER panel



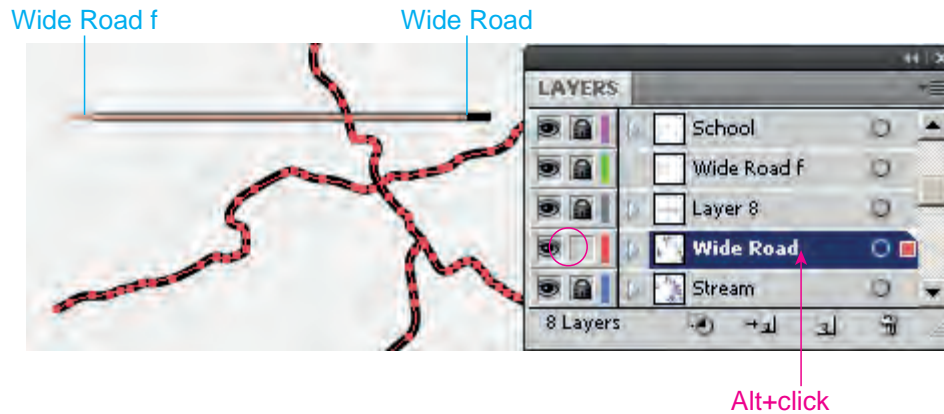
2 Select target symbol line, then click copied symbol "the symbol_palette file " by using "Eye dropper tool"

The plane line can be come to same as copied symbol

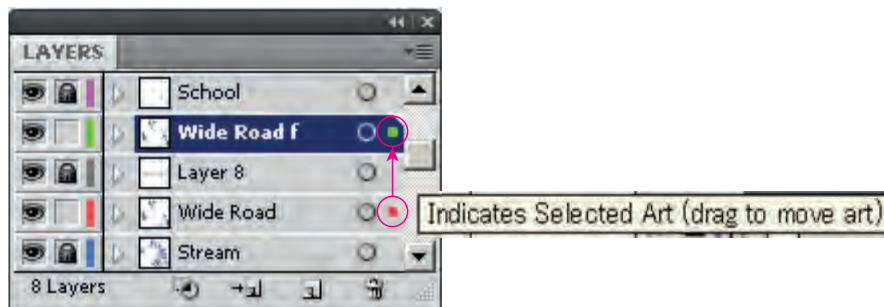


(3) Copy from "Wide Road" layer, Past in "Wide Road f" layer

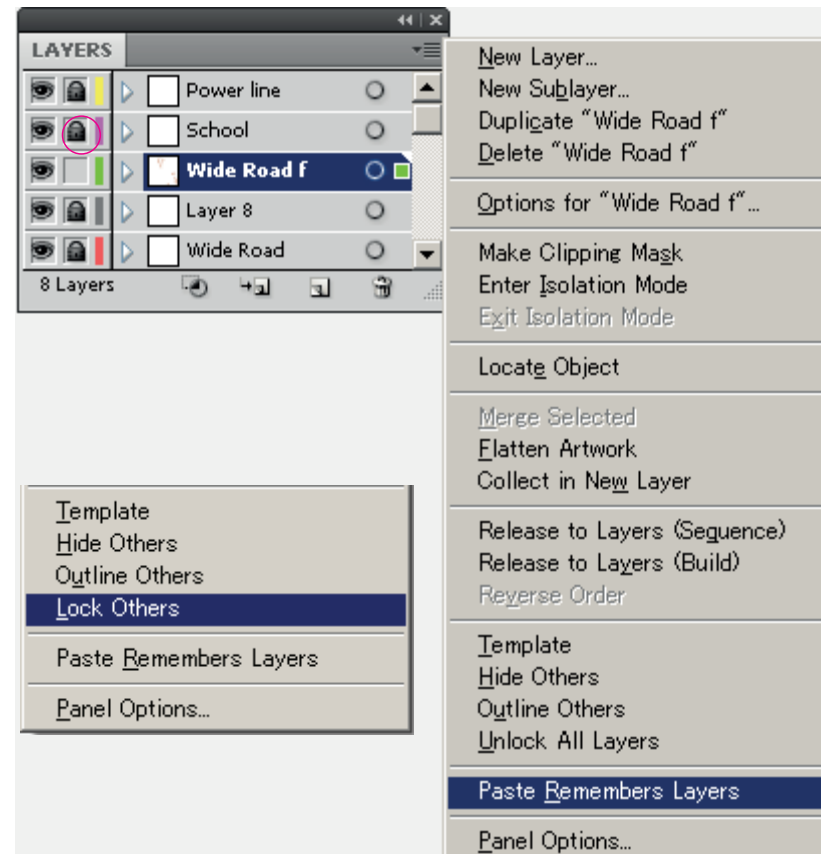
1 Select all path in "Wide Road" layer.
Lock all layers except "Wide Road" then select all (Ctrl+A)
or Alt+click on target layer of "Wide Road" in LAYER panel
then copy (Ctrl+C)



1-2 Another or, Select all path in "Wide Road" layer.
Lock all layers except "Wide Road" then select all (Ctrl+A)
or Alt+click on target layer of "Wide Road" in LAYER panel
then copy (Ctrl+C). move "indicates Selected Art" to "Wide Road f" layer



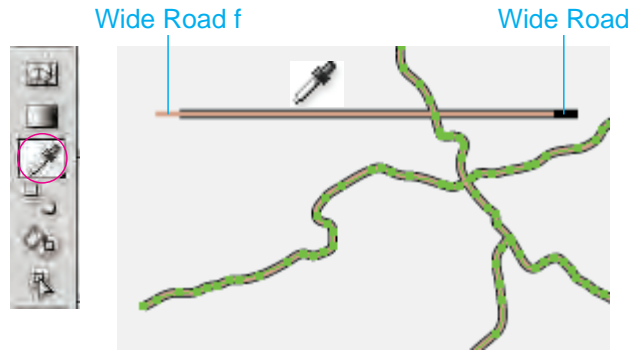
2 Lock all layers except "Wide Road f" then select all (Ctrl+A)
LAYERS panel / ▼ / lock Others, or Alt+click
Release check mark for "Paste Remembers Layers" then Past (Ctrl+V)
Then "Past in front" in "Wide Road f"



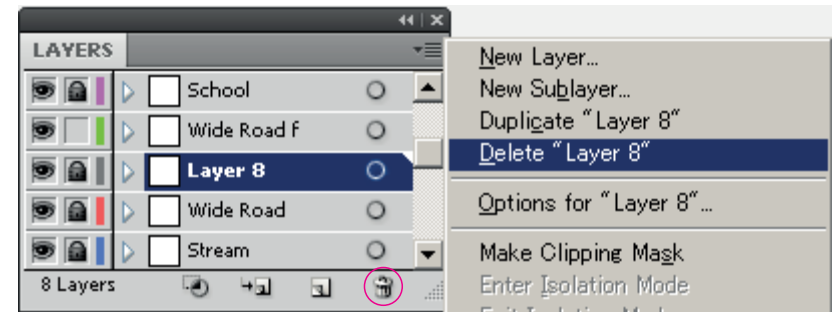
(4) transfer attribute from "Wide Road f" to target layer's objects by using "Eye dropper tool"

1 Select target symbol line, then click copied symbol by using "Eye dropper tool"

The plane line can be come to same as copied symbol



(5) Temporary layer shall be delete.



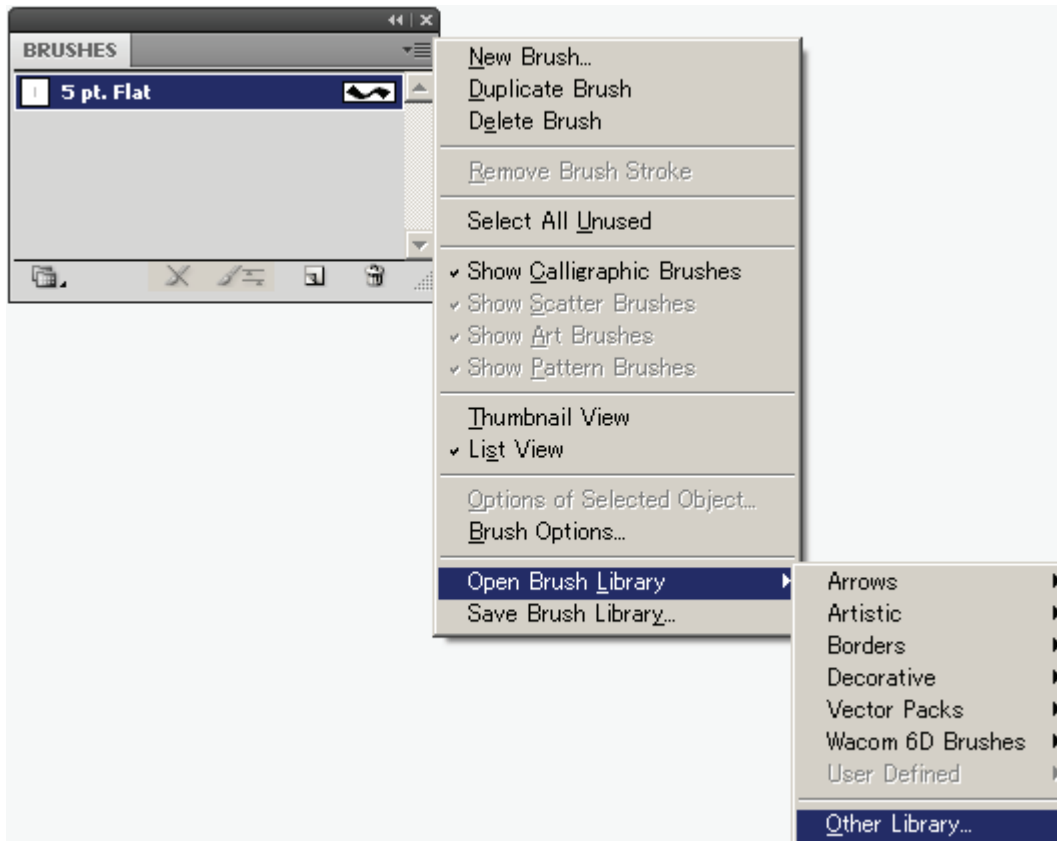
LAYER panel > ▼ > Delete "Temporary layer"
or click "Delete Selection" button

●Point symbol (DATE TYPE : Point ex.:School)

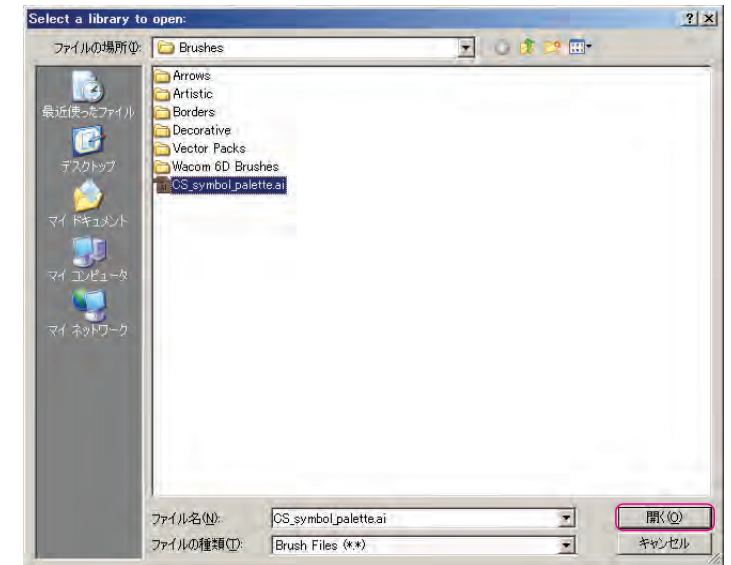
(1) In “BRUSHES” panel, import the usage brush library in “symbol_palette” A file which has been containing registered “brush”.

1 Open the brush library.

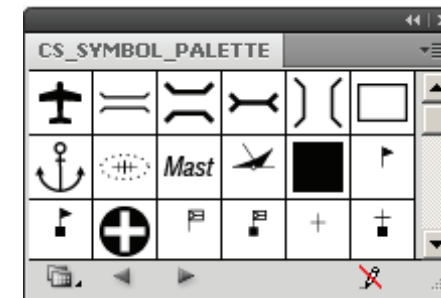
BRUSHES panel > Open Brush Library > Other Library



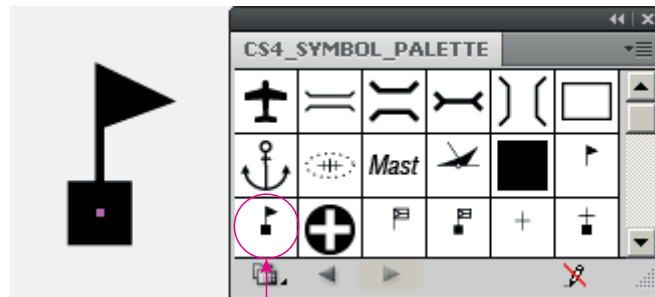
2 Select target file, click “Open”.



ファイルを開いた状態



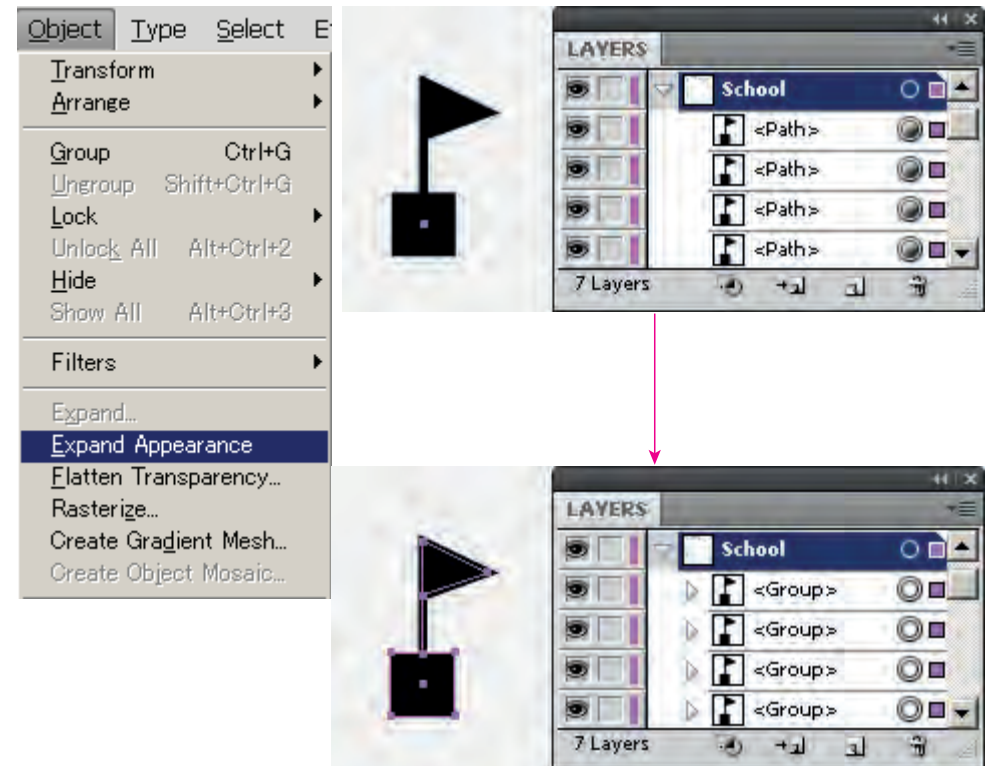
(2) Apply brush to the point



クリック

Click target brush in BRUSHES panel.

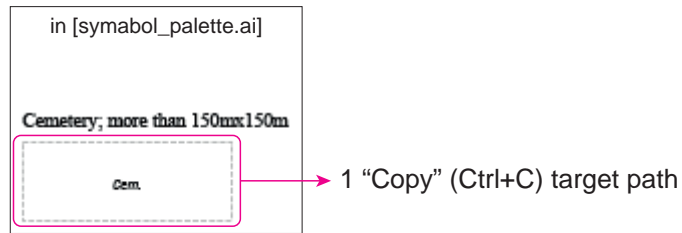
(3) "Expand appearance" to brush



After applied brush, it shall be done "expand appearance" command.

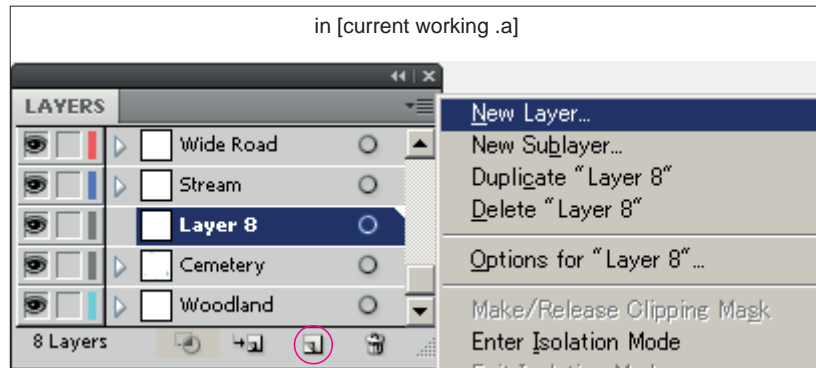
• Polygon symbol 1 (DATE TYPE : Polygon ex. : Cemetery)

(1) "Copy" target symbol from such as symbol_palette file (all in one file of usage symbols) then "Paste" in temporary layer.



2 Make temporary layer

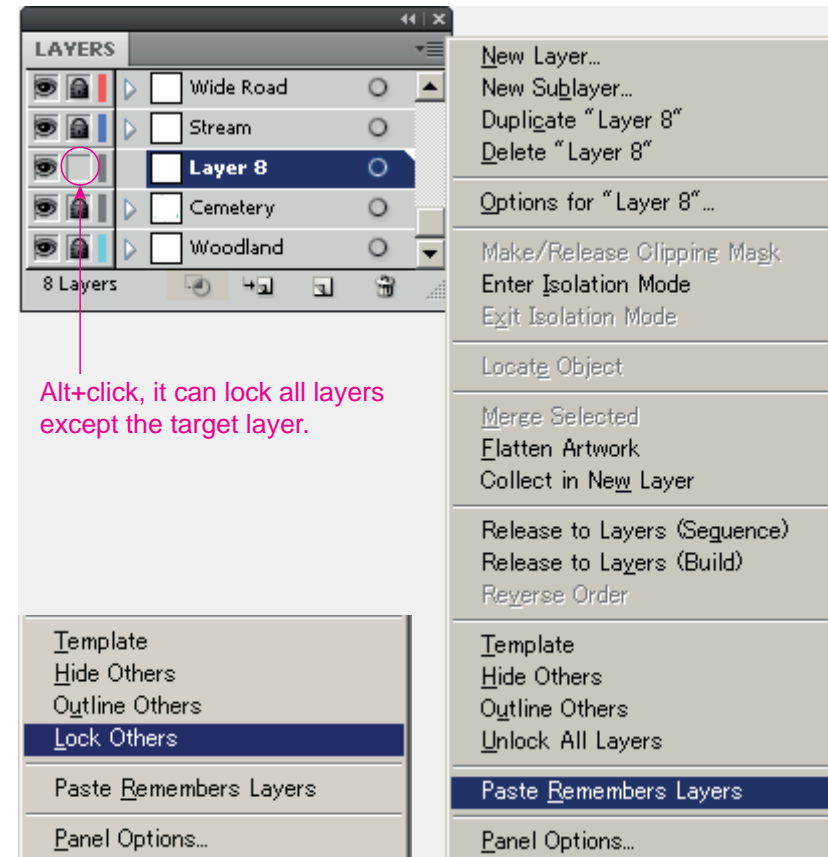
"LAYERS" panel > ▼ > New Layer, or click "Create New Layer" button



3 Lock all layers except temporary layer.

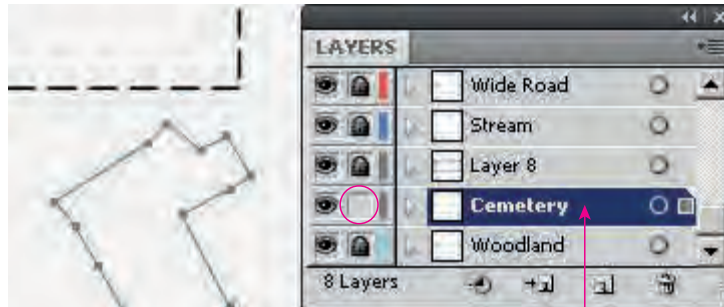
LAYERS panel / ▼ / lock Others, or Alt+click

Release check mark for "Paste Remembers Layers" then Past (Ctrl+V)



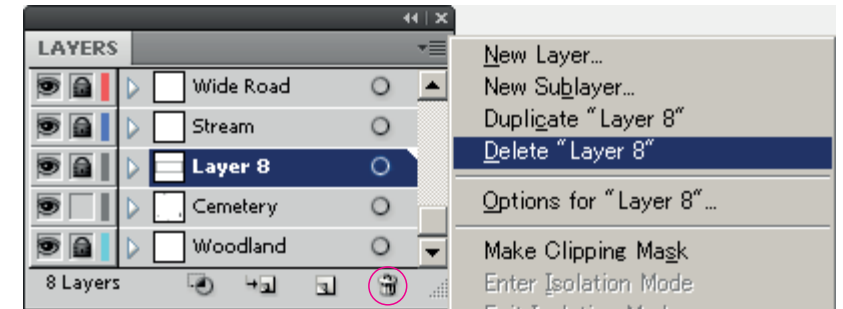
(2) Color, line weight, dashed line interval etc. of attributes can be transferred by using "Eye dropper tool"

- 1 Select all objects in the target layer.
Lock all layers except target layer
(Ctrl+A) or Alt+click on target layer in LAYER panel



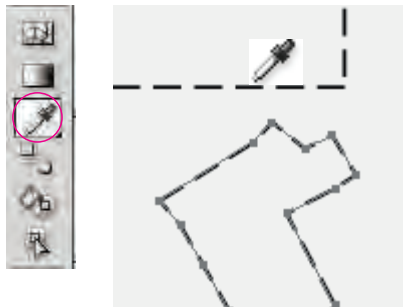
Alt+Click

(3) After changing, the temporary layer shall be delete.

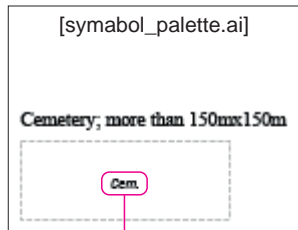


LAYERS panel / ▼ / Delete, or Click "Delete Selection" button

- 2 Select target symbol line, then lick copied symbol from "the symbol_palette file "by using "Eye dropper tool"
The plane line can be come to same as copied symbol

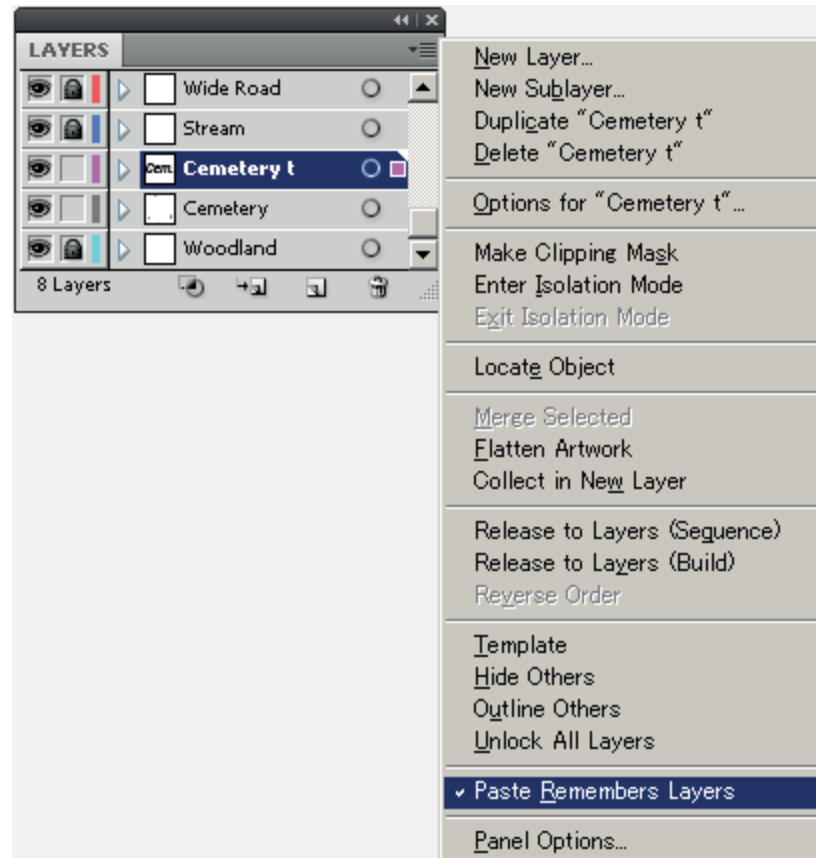


(4) The annotation should be pasted in remembered layer, place on appropriate position.

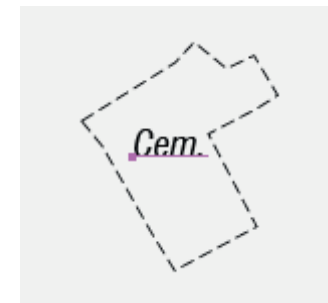
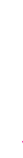


1 Copy the target annotation

2 Mark check on "Paste Remembers Layers"
LAYERS panel / ▼ / Paste Remembers Layer
"Past" (Ctrl+V)



3 After pasting, the annotation should be placed on appropriate position.

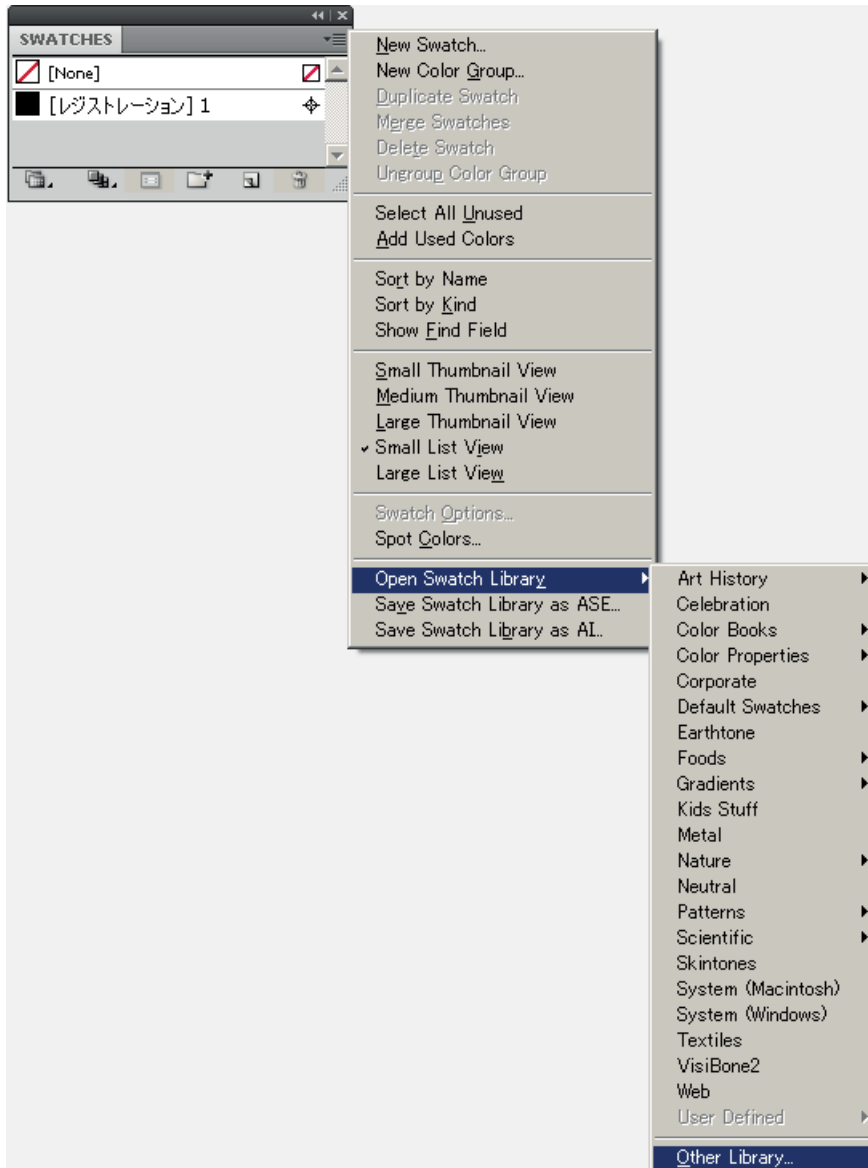


●Polygon symbol 2 (DATE TYPE : Polygon ex. : Woodland)

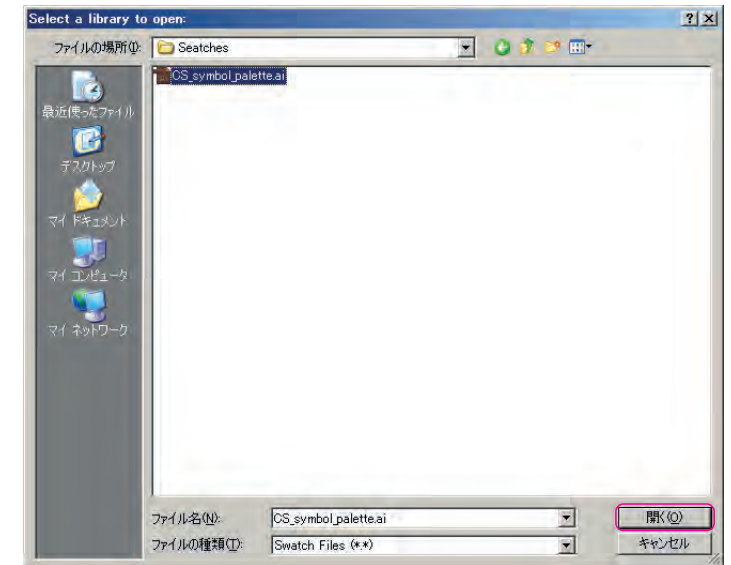
(1) In “SWATCHES” panel, import the usage swatch library in “symbol_palette“ A file which has been containing registered “swatch”.

1 “Open” the swatch library.

SWATCHES panel > Open Swatch Library > Other Library



2 Select target file, click “Open”.

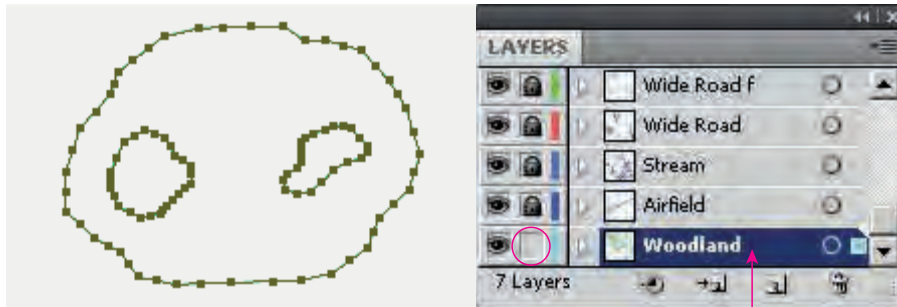


Status of imported swatch



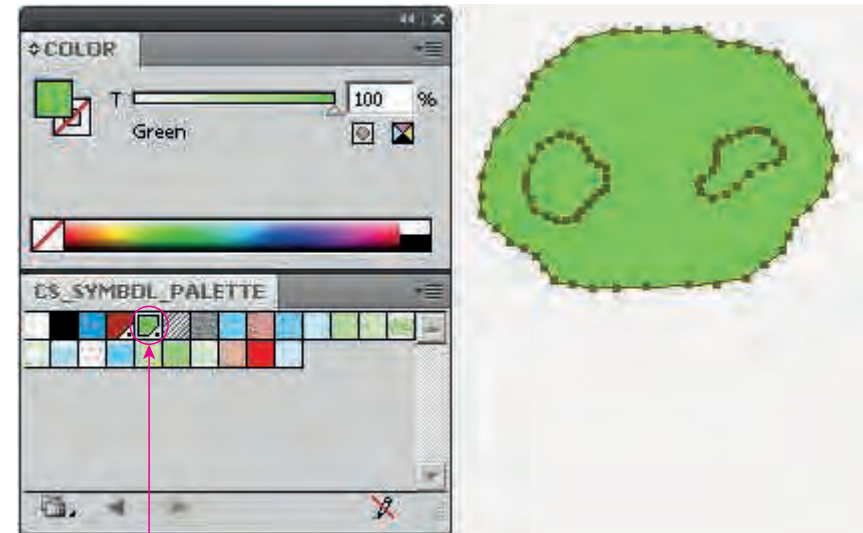
(2) Apply filling color to objects with COLOR panel, SWTCH panel

1 Select all objects in the target layer.
Lock all layers except target layer
(Ctrl+A) or Alt+click on target layer in LAYER panel



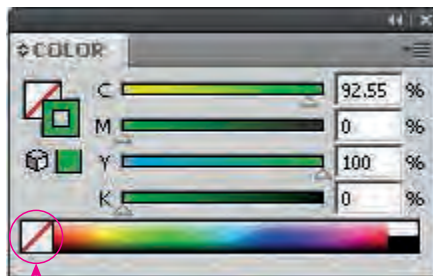
Alt+Click

3 Choose target color in SWATCHES panel



Click

2 Click "None" button which is left side of "YMCK Spectrum",
click bring to front " Fill (X)" button in COLOR panel.

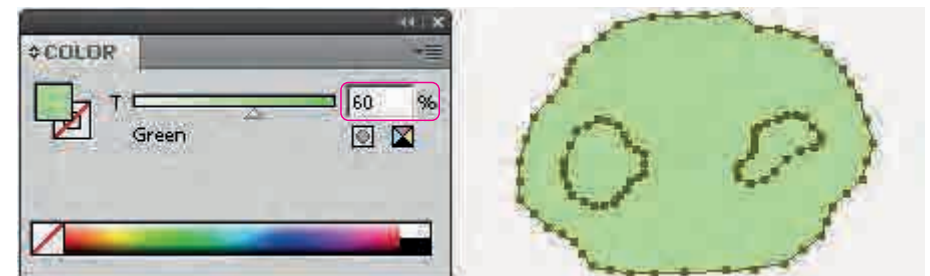


Click button for None of "Stork's fill"

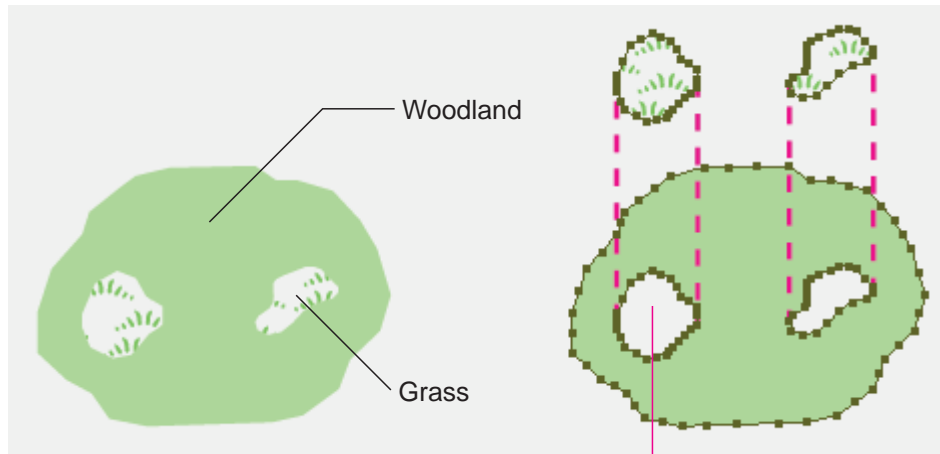


Click Fill(X) button for active fill

4 Enter specified screen color value in %



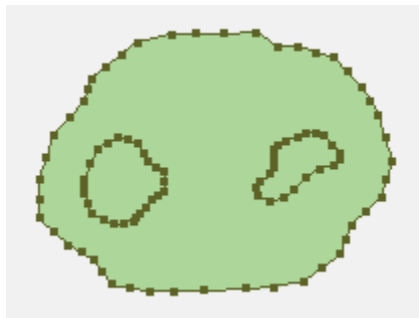
(3) Make Compound Path



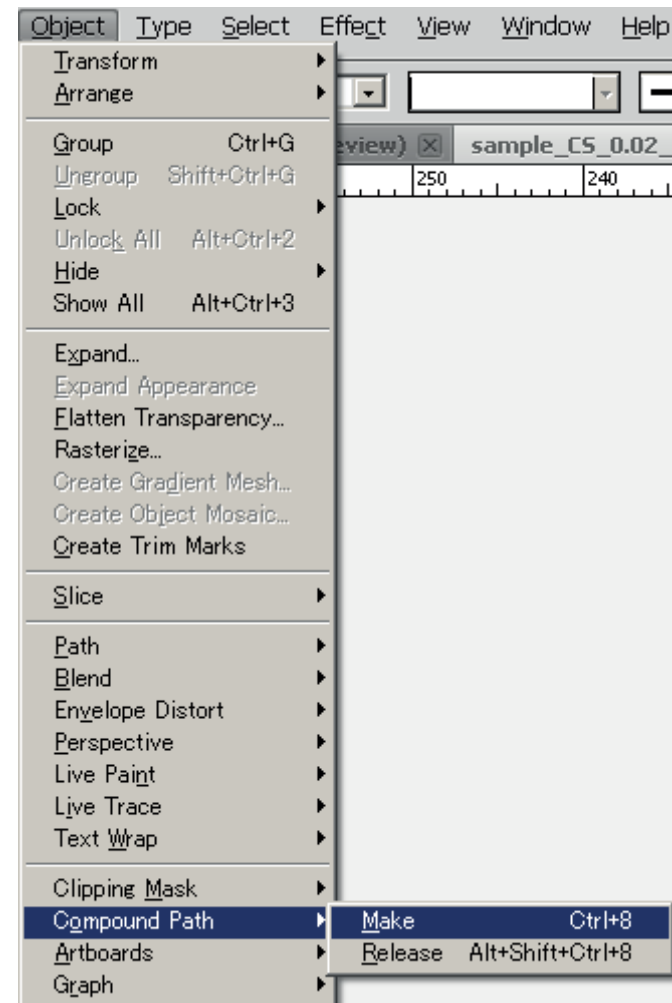
To make doughnut shape is the polygon has been hollowing inside.

1 Make Compound Path.

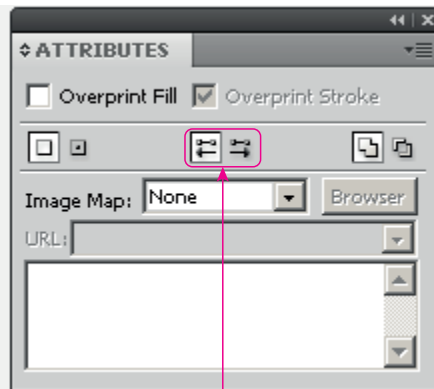
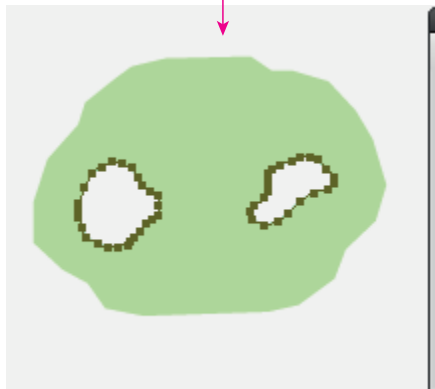
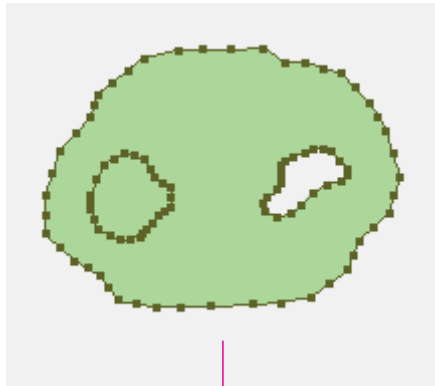
Select outer polygon object and enclosed inner polygon on outer one with hold shift key



2 Object > Compound Path > Make



3 In case of failed inner polygon is as solid filling, retouch with using ATTRIBUTE panel



Click on either one

Select the inner failed polygon with "Direct selection tool"
then choose either "On or OFF" button in "Reverse Path Direction"