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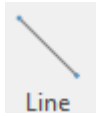
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1. Drawing

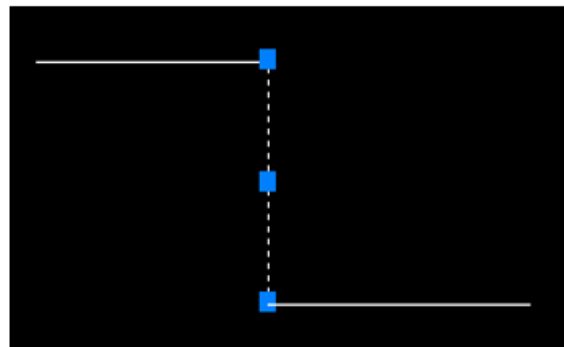
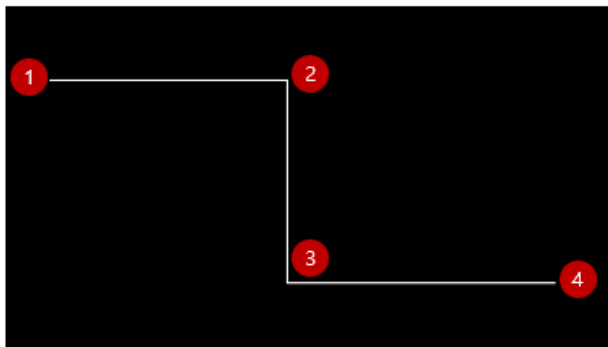
1.1. Drawing

1.1.1. Line

Command : LINE



Draw a continuous line in the drawing. Each line object can be edited separately.



> Command Window

> Specify the first point : Click ①

> Next point(Dimension) or [Done(Enter)/Undo(U)] : Click ② or Input dimension (length)

> Next point(Dimension) or [Done(Enter)/Undo(U)] : Click ③ or Input dimension (length)

> Next point(Dimension) or [Done(Enter)/Close(C)/Undo(U)] : Click ④ or Input dimension (length)

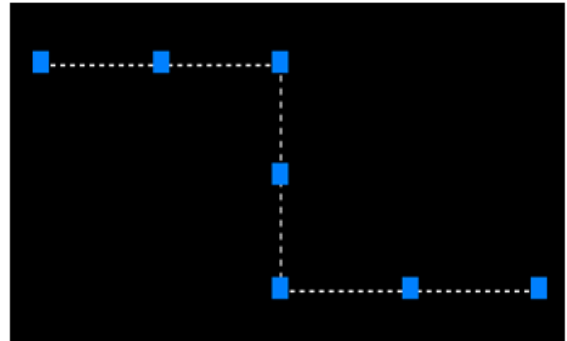
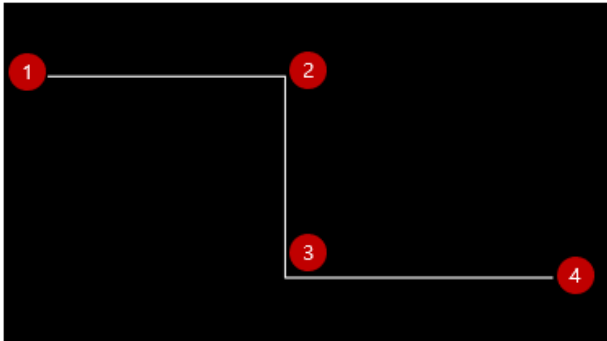
> Next point(Dimension) or [Done(Enter)/Close(C)/Undo(U)] : You can press Enter to finish drawing the line, C to draw a closed line, or U to cancel the recently specified line.

1.1.2. Polyline

Command : POLYLINE



Draw a continuous line in the drawing. Each line object cannot be edited separately.



> **Command Window**

> **Specify the first point : Click ①**

> **Next point(Dimension) or [Done(Enter)/Undo(U)] : Click ② or Input dimension (length)**

> **Next point(Dimension) or [Done(Enter)/Undo(U)] : Click ③ or Input dimension (length)**

> **Next point(Dimension) or [Done(Enter)/Close(C)/Undo(U)] : Click ④ or Input dimension (length)**

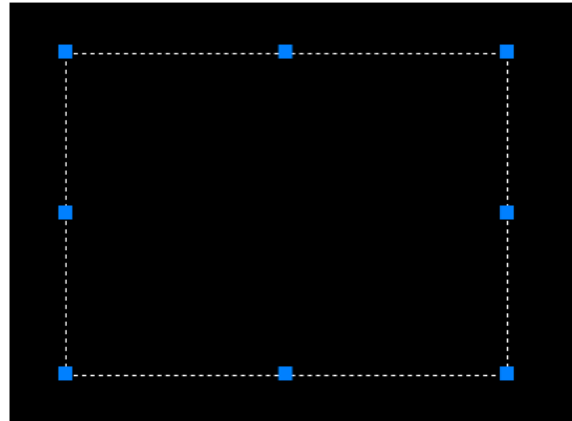
> **Next point(Dimension) or [Done(Enter)/Close(C)/Undo(U)] : You can press Enter to finish drawing the line, C to draw a closed line, or U to cancel the recently specified line.**

1.1.3. Rectangle

Rectangle : RECTANGLE



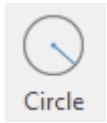
Draw a rectangle on the drawing. The object of each line cannot be edited separately.



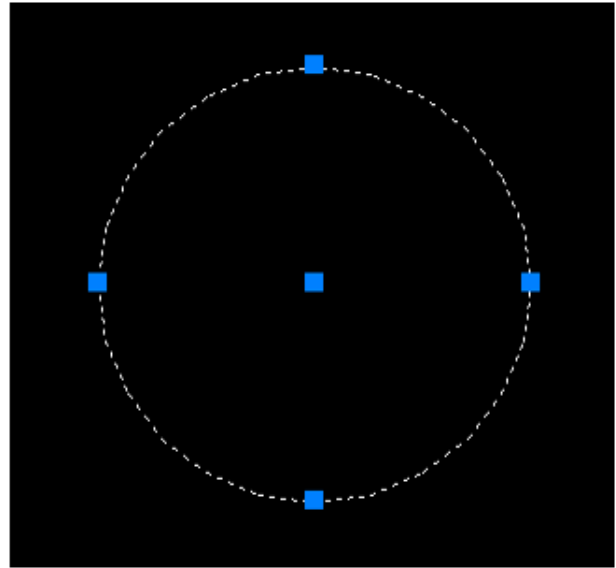
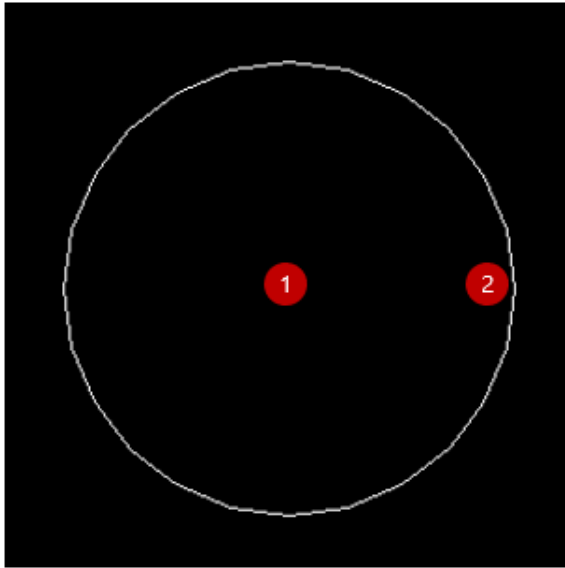
- > Command Window
- > Specify the first corner : Click ①
- > Specify the other corner point(Dimension) : Click ②

1.1.4. Circle

Command : CIRCLE



Draw a circle on the drawing.



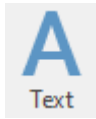
> Command Window

> Circle center : Click ①

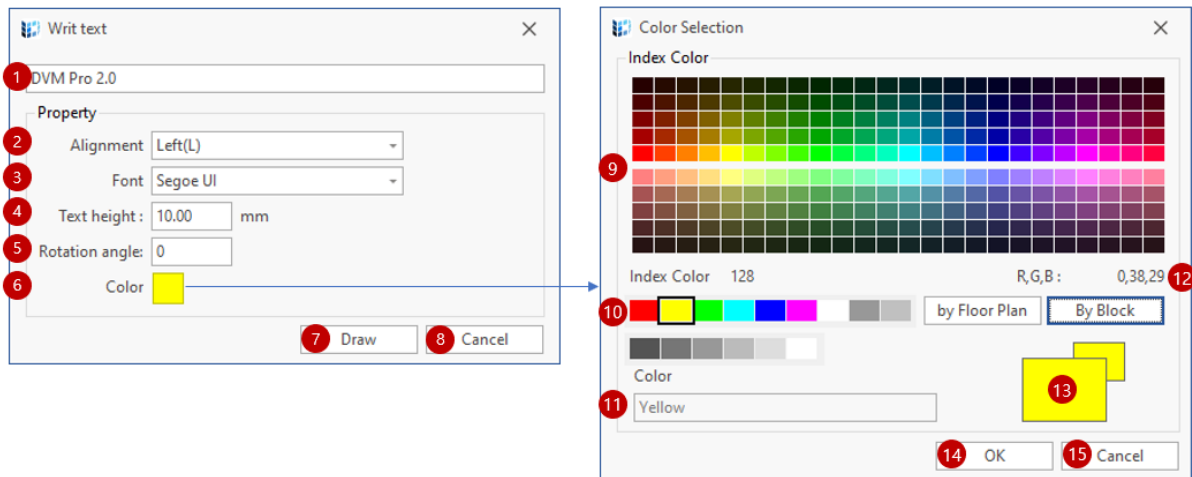
> Circle radius : Click ②

1.1.5. Text

Command : TEXT



Draw text on the drawing.



- ① Text : Set the text string to be created in the drawing.
- ② Alignment : Select the sorting criteria for the string.
- ③ Font : Select the font of the text string.
- ④ Text height : Set the height (size) of the string.
- ⑤ Rotation angle : Set the rotation angle of the string.
- ⑥ Color : It displayed the color of the text to be created, and when clicked, the color selection window is activated.
- ⑦ Draw : When the button is clicked, the text is inserted by specifying the starting point of the text in the drawing and the window is closed.
- ⑧ Cancel : When the button is clicked, the text draw function is canceled and the window is closed.
- ⑨ Index Color : A full list of colors is displayed and can be selected.
- ⑩ Common color index : Frequently used colors are displayed and can be selected.
- ⑪ Color string : The selected color is displayed as a string.
- ⑫ RGB : The RGB value of the selected color is displayed.
- ⑬ Selected Color : The selected color is displayed large.
- ⑭ OK : When the button is clicked, the object is set with the selected color and the window is

closed.

- ⑮ Cancel : When the button is clicked, the color selection function is canceled and the window is closed.



> Command Window

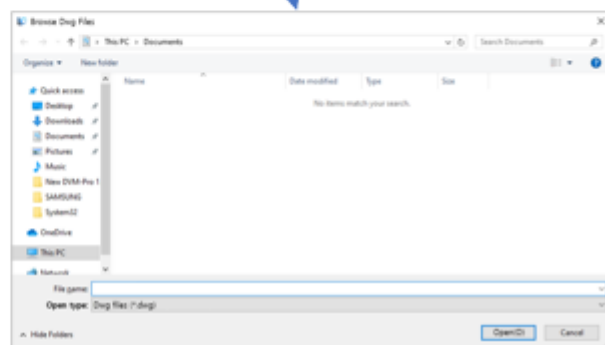
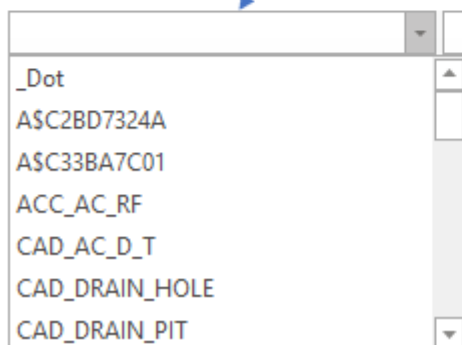
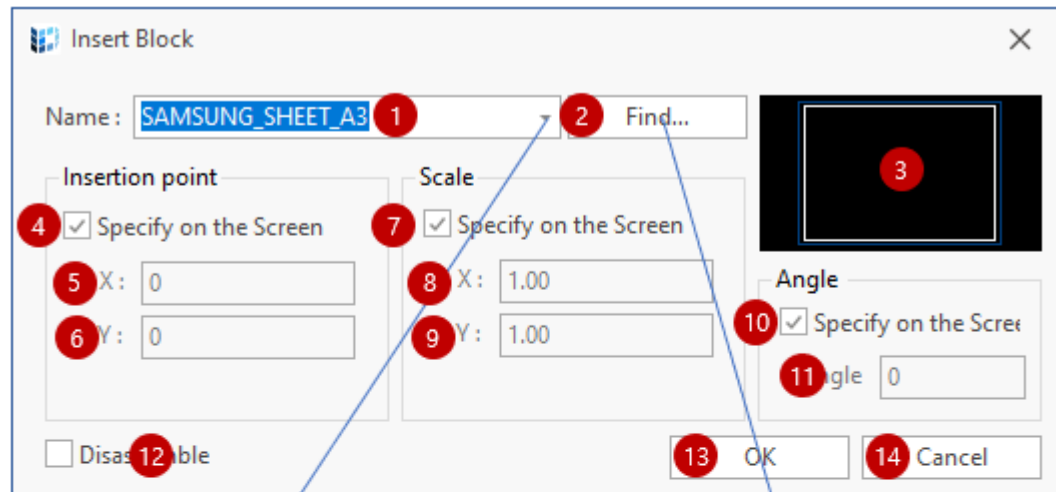
> Specify text insert point : Click ①

1.1.6. Block

Command : INSERT



Insert blocks on the drawing.



- ① Name : Basically, the name of the selected block is displayed, and clicking the arrow displays a list of the blocks inserted in the current drawing. You can select a block to insert from the block list and insert it in the drawing.
- ② Find : When the button is clicked, the file explorer window is activated and you can select the drawing to be inserted in the user's PC.
- ③ Drawing Image : When a block is selected, a thumbnail image of the selected block is displayed.
- ④ Specify on the screen : When checked, the insertion point (X, Y) text box is disabled, and the insertion point of the block is directly specified in the drawing. When unchecked, the insertion

point (X, Y) input box is activated and the block is inserted at the input insertion point.

- ⑤ Insertion Point X : When unchecked specify on the screen, it is activated and the position on the X axis where the block is to be inserted is entered as a number.
- ⑥ Insertion Point Y : When unchecked specify on the screen, it is activated and the position on the Y axis where the block is to be inserted is entered as a number.
- ⑦ Specify on the screen : When checked, the Scale (X, Y) text box is disabled and you directly specify the scale of the block in the drawing. When unchecked, the Scale (X, Y) field is activated and the block is inserted at the entered scale.
- ⑧ Scale X : When unchecked specify on the screen, it is activated and the scale on the X axis where the block is to be inserted is entered as a number.
- ⑨ Scale Y : When unchecked specify on the screen, it is activated and the scale on the Y axis where the block is to be inserted is entered as a number.
- ⑩ Specify on the Screen : When checked, the angle input box is disabled and the rotation angle of the block is directly specified in the drawing. When unchecked, the angle input box is activated and the block is inserted by rotating the input angle.
- ⑪ Angle : When unchecked specify on the screen, it is activated and the angle of the block to be inserted is entered as a number.
- ⑫ Disassemble : When checked, the block is disassembled and inserted.
- ⑬ OK : When the button is clicked, the block is insert and the window is closed.
- ⑭ Cancel : When the button is clicked, the block insertion function is canceled and the window is closed.

> Command Window

> Specify the insert point : Specify the insertion point in the drawing. (When setting is checked specify insertion point on the screen)

> X scale ration <1>: Enter the scale of the X axis. (When setting is checked specify scale on the screen)

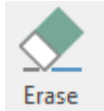
> Y scale ratio <Use X scale ratio> : Enter the scale of the Y axis. (When setting is checked specify scale on the screen)

> Specify rotation angle <0.00>: Specify the angle of rotation. (When setting is checked specify angle on the screen)

1.2. Modify

1.2.1. Erase

Command : ERASE



Select objects to be deleted from the drawing and press Enter to delete the selected objects. (However, objects with locked layers are not erased.)

> **Command Window**

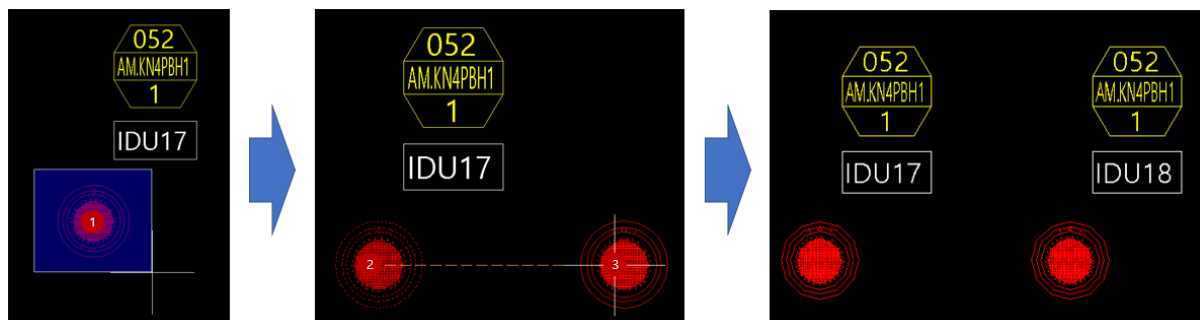
> **Select objects : Select the objects to be erased and right-click.**

1.2.2. Copy

Command : COPY



If you select the objects to be copied in the drawing, and specify the base point and then the location, the objects are copied. You can copy the object by positioning repeatedly until you press the ESC key.



> **Command Window**

> **Select objects : ① Select objects and right-click.**

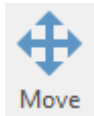
> **Specify the base point : ② Pick the base point of the objects.**

> **Specify second point : ③ Pick a copy location point.**

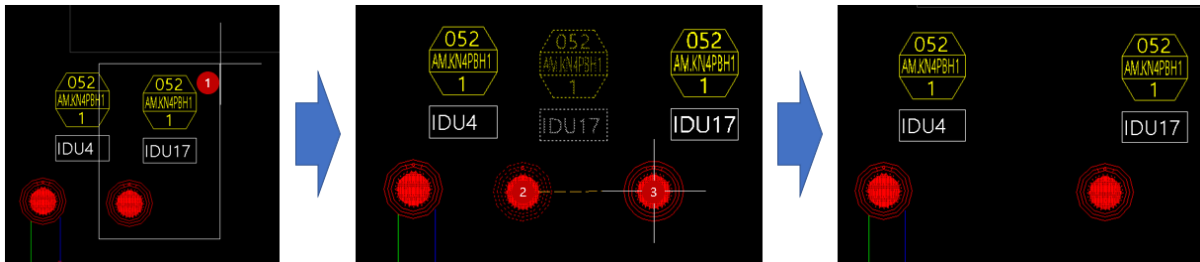
> **Specify second point : Press the ESC key to exit the copy function.**

1.2.3. Move

Command : MOVE



Select the objects to be moved in the drawing and specify the base point and then the location to move the objects.



> Command

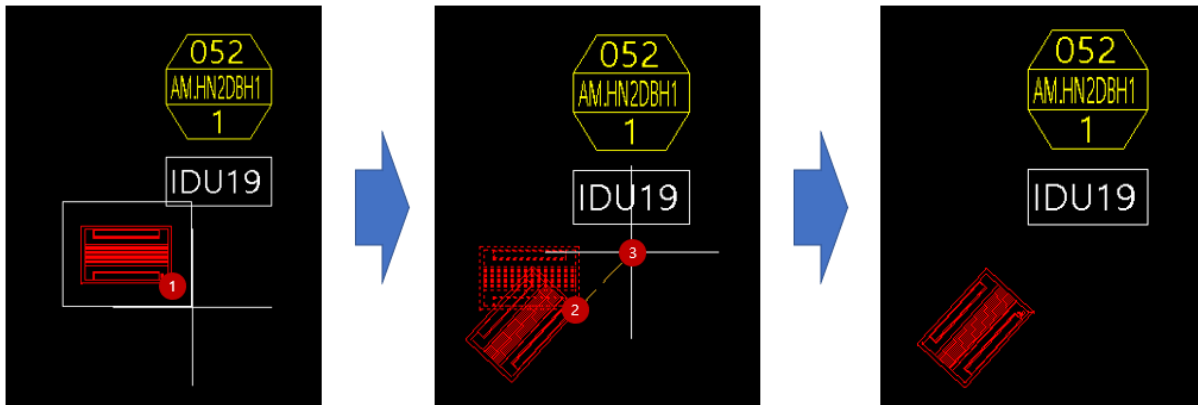
- > **Select object : ① Select objects and right-click.**
- > **Specify the base point : ② Pick the base point of the objects.**
- > **Specify the second point : ③ Pick a move point.**

1.2.4. Rotation

Command : ROTATE



Select the objects to be rotated in the drawing, specify the base point, and then specify the angular position to rotate the object.



> **Command Window**

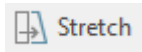
> **Select objects :** ① **Select objects and right-click.**

> **Specify the base point :** ② **Pick the base point of the objects.**

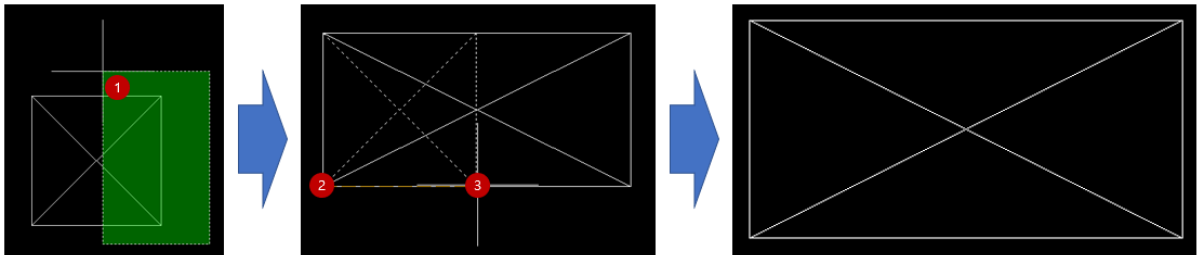
> **Specify the second point :** ③ **Pick a rotation location point.**

1.2.5. Stretch

Command : STRETCH



Select the objects to be stretched in the drawing, and specify the base point and then the stretch position to stretch the object.



> **Command Window**

> **Select objects :** ① **Select objects and right-click.**

> **Specify the base point :** ② **Pick the base point of the objects.**

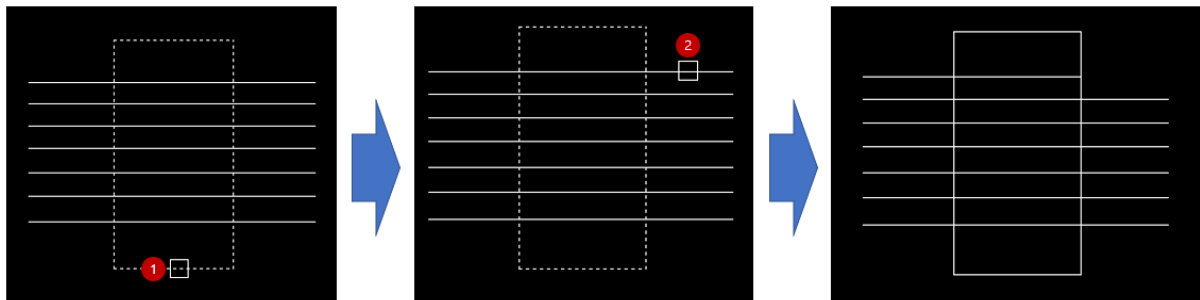
> **Specify the second point :** ③ **Pick a stretch location point.**

1.2.6. Cut

Command : TRIM



If you select the object to be cut and the object to be cut is selected, the object is cut.



> **Command Window**

> **Select objects :** ① **Select the base object for cut.**

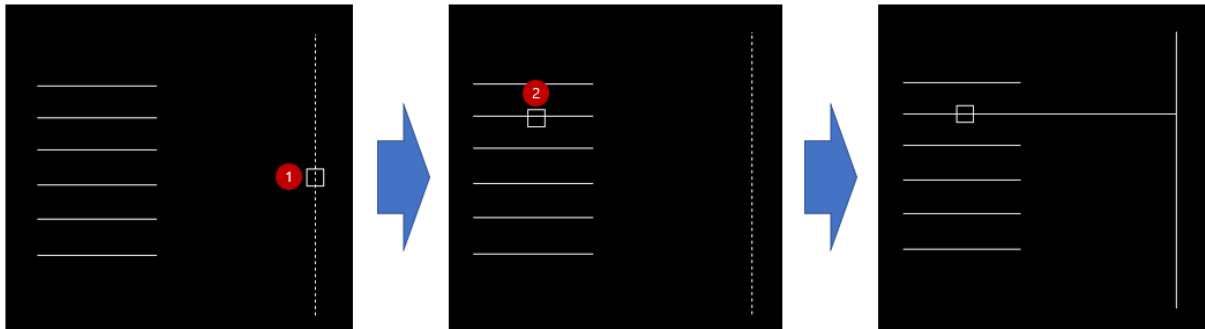
> **Select object to trim:** ② **Select the object to cut.**

1.2.7. Extend

Command : EXTEND



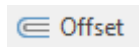
If you select an object that is the base of the objects to be extended and select the object to extend, the object is extended.



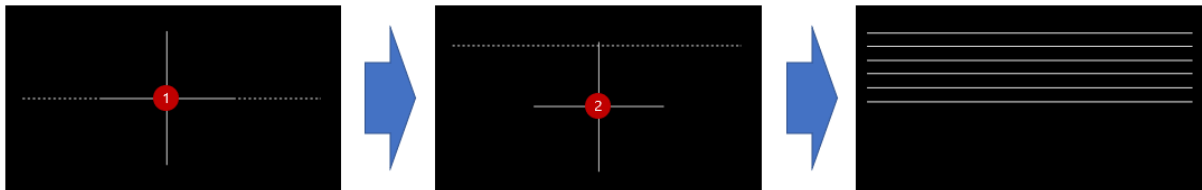
- > **Command Window**
- > **Select boundary edge...**
- > **Select objects :** ① **Select the base object for extend.**
- > **Select object to extend :** ② **Select the object to extend.**

1.2.8. Offset

명령어 : OFFSET



After pick the object to be offset, pick the direction to create the object.



> **Command Window**

> **Offset distance <0> : Enter the offset distance.(50)**

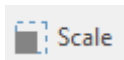
> **Select objects to offset : ① Select the object to be offset.**

> **Select point to offset : ② Specifies the direction to be offset.**

> **Number <1> : Enter the number of objects to be offset.(5)**

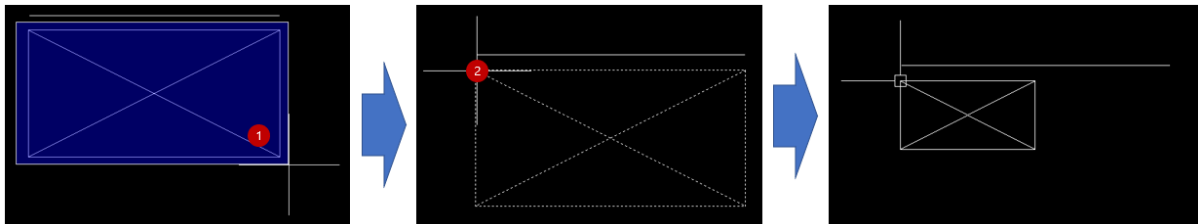
1.2.9. Scale

Command : SCALE



Select the object to be scaled and change the scale by entering a base point and a ratio.

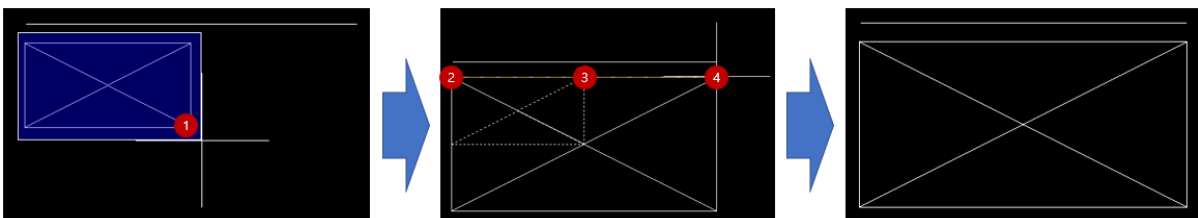
1.2.9.1. Ratio



> Command Window

- > Select objects : ① Select an object to scale.
- > Specify the base point : ② Pick a base point.
- > Specify Scale Ratio or [Reference(R)] : Input the scale. (0.5)

1.2.9.2. Reference

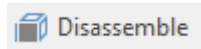


> Command Window

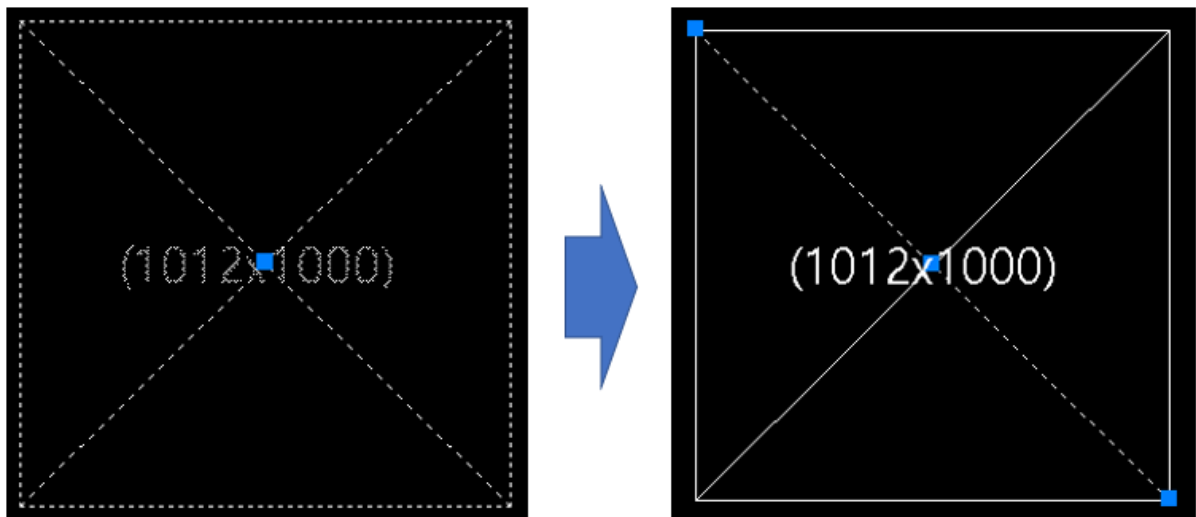
- > Select objects : ① Select an object to scale.
- > Specifiy the base point : ② Pick a base point.
- > Specify Scale Ratio or [Reference(R)] : Enter R.
- > Specify reference length : ② Pick the start point of the reference length.
- > Specify the second point : ③ Pick the end point of the reference length.
- > Specify new length : ④ Pick the end point of the new length.

1.2.10. Disassemble

Command : EXPLODE



Explodes objects (blocks, polylines, ...) inserted in the drawing.



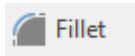
> **Command Window**

> **Select objects :** Select the objects to be exploded in the drawing.

> **Exploded the number of 1 object.**

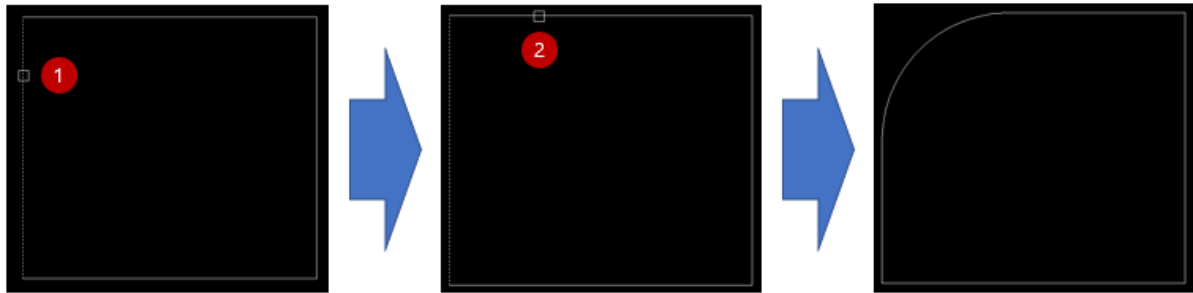
1.2.11. Fillet

Command : FILLET



Fillet at the point where the two segments meet.

1.2.11.1. Two Lines



> Command Window

> Current Settings : Radius = 0

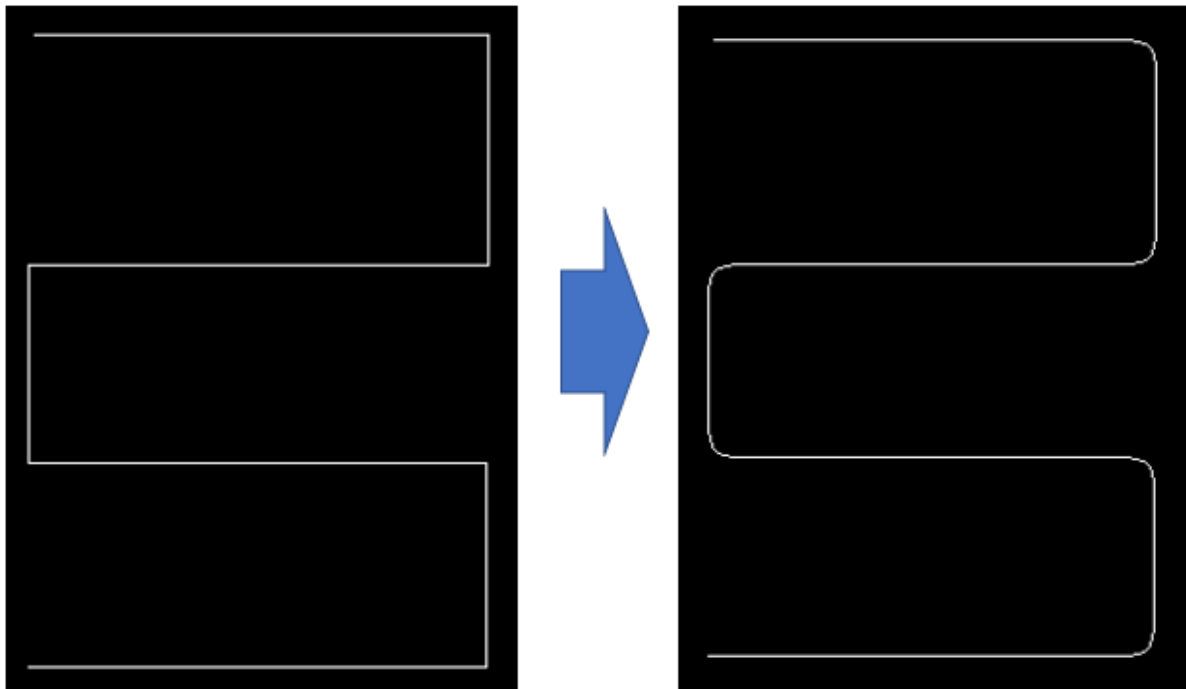
> Select first object or [Polyline(P)/radius(R)] : Input R.

> Specify Fillet Radius <0> : Input the fillet radius. (1000)

> Select first object or [Polyline(P)/radius(R)] : ① Select the first object.

> Select second object : ② Select the second object.

1.2.11.2. Polyline



- > **Command Window**
- > **Current Settings : Radius = 0**
- > **Select first object or [Polyline(P)/radius(R)] : Input R.**
- > **Specify Fillet Radius <0> : Input the fillet radius. (1000)**
- > **Select first object or [Polyline(P)/radius(R)] : Input P**
- > **Select polyline : Select the polyline.**

1.3. Clipboard

1.3.1. Copy

Command : COPYCLIP



Copies selected objects in the drawing to the clipboard.

1.3.2. Cut

Command : CUTCLIP



Cuts the selected objects in the drawing to the clipboard.

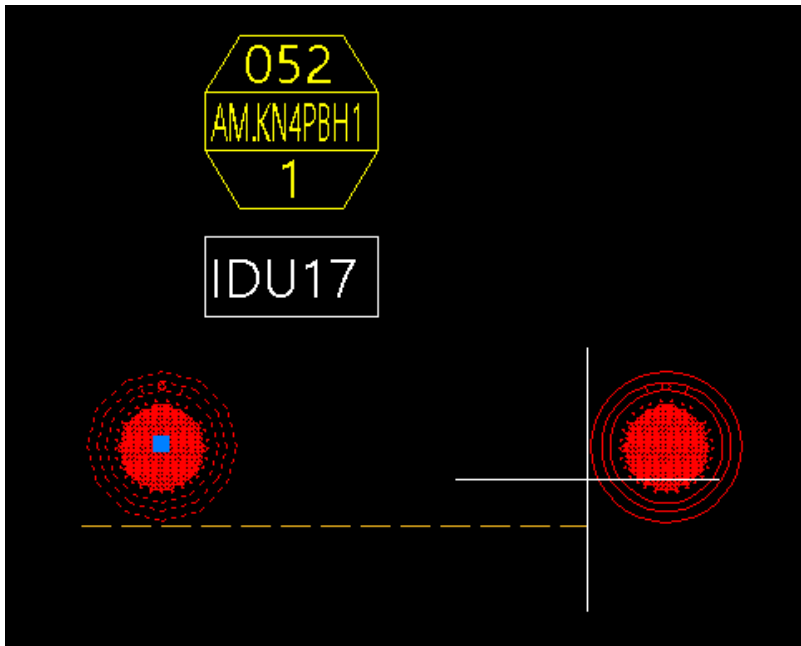
1.3.3. Paste

Command : PASTECLIP

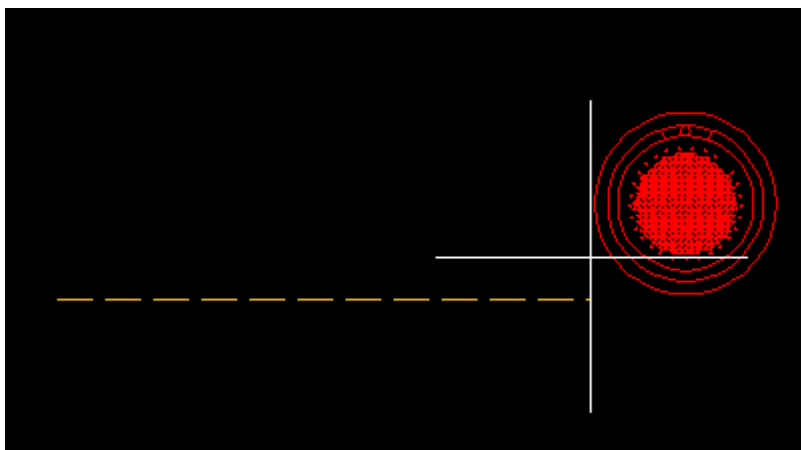


Pastes the copied or cut object on the clipboard into the drawing.

1.3.3.1. Paste the copied information



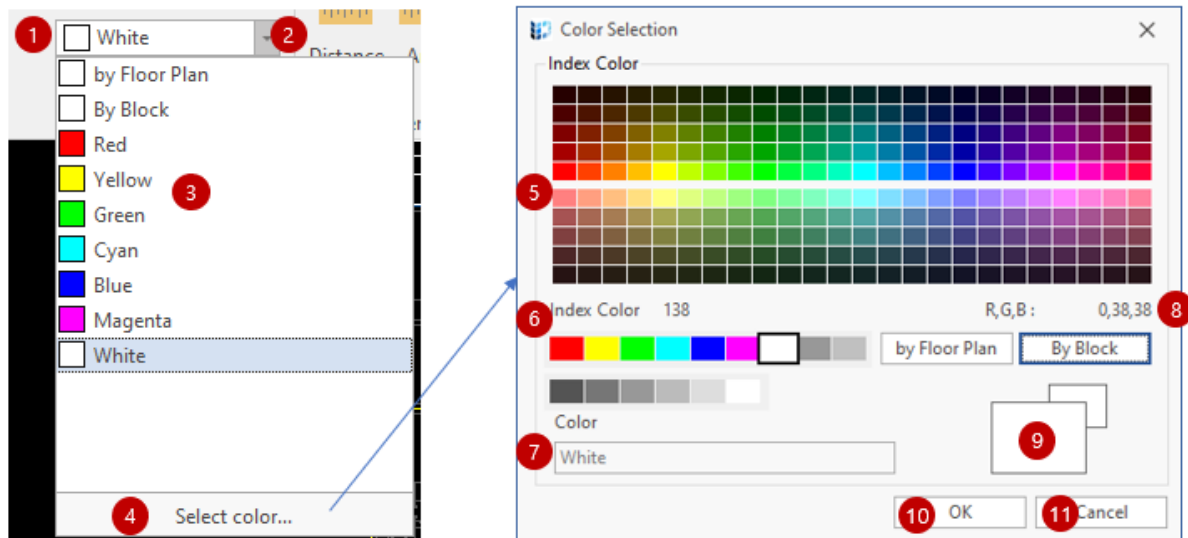
1.3.3.2. Paste the cut information



1.4. Set

1.4.1. Set current color

Set the current color to be applied when using the drawing (line, polyline, rectangle, circle, ...) tool.

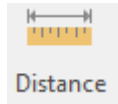


- ① Current color : The current color and color name are displayed.
- ② View color list : Activates the color list window.
- ③ Color list : A list of colors that can be set is displayed.
- ④ Select color : Activates the color selection window.
- ⑤ Index color : A full list of colors is displayed and can be selected.
- ⑥ Common color index : Frequently used colors are displayed and can be selected.
- ⑦ Color string : The selected color is displayed as a string.
- ⑧ RGB : The RGB value of the selected color is displayed.
- ⑨ Selected color : The selected color is displayed large.
- ⑩ OK : When the button is clicked, the object is set with the selected color and the window is closed.
- ⑪ Cancel : Cancels the color selection function when clicking the button and closes the window.

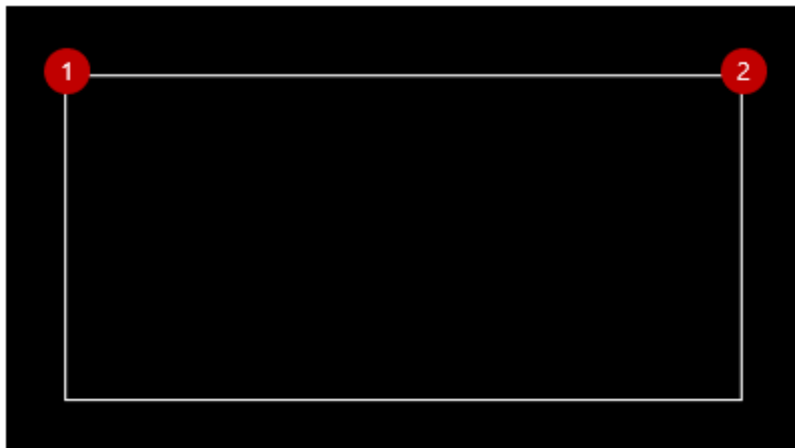
1.5. Measurement

1.5.1. Distance

Command : DIST



Enter two points to measure the distance.



> Command Window

> Specify the first point : ① Pick a start point for distance measurements.

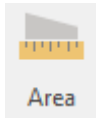
> Specify the second point : ② Pick a end point for distance measurements.

> Distance = 3746.902753, Angle in XY Plane = 0

> Delta X = 3746.902753, Delta Y = 0.000000

1.5.2. Area

Command : AREA



Enter two points or a point on a polygon to measure the area.

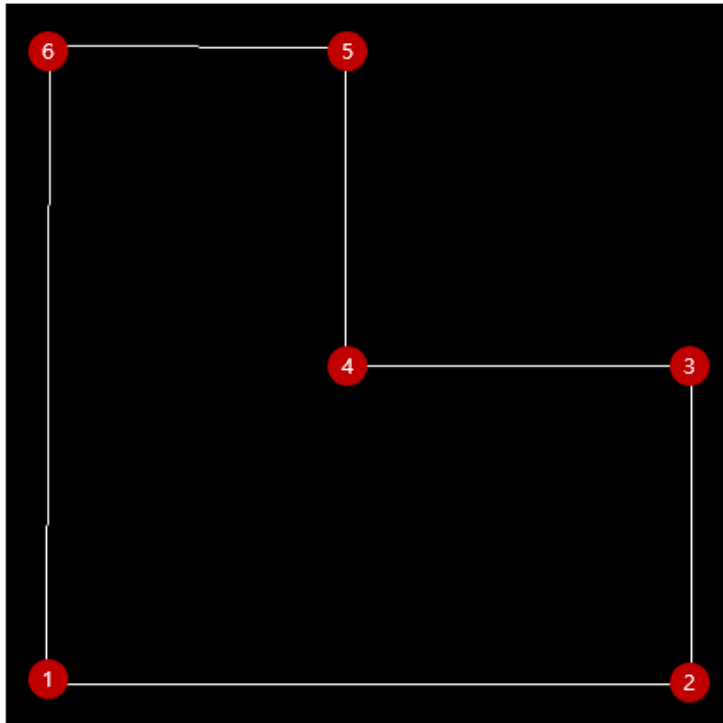
1.5.2.1. Two Point



> Command Window

- > Specify the first corner or [Polygon(P)] : ① Pick the first corner point for area measurement.
- > Specify the other corner point : ② Pick an opposite corner point for area measurement.
- > Area = 6759653.450494, Circumference = 11101.934084

1.5.2.2. Polygon



> Command

> Specify the first corner or [Polygon(P)] : Input P

> Specify the first corner : ① Pick the first corner point for area measurement.

> Next point(Dimension) or [Done(Enter)/Undo(U)] : ② Pick the next corner point.

> Next point(Dimension) or [Done(Enter)/Undo(U)] : ③ Pick the next corner point.

> Next point(Dimension) or [Done(Enter)/Undo(U)] : ④ Pick the next corner point.

> Next point(Dimension) or [Done(Enter)/Undo(U)] : ⑤ Pick the next corner point.

> Next point(Dimension) or [Done(Enter)/Undo(U)] : ⑥ Pick the next corner point.

> Next point(Dimension) or [Done(Enter)/Undo(U)] : Input Enter Key

Area = 5502490.249883, Circumference = 10974.807595