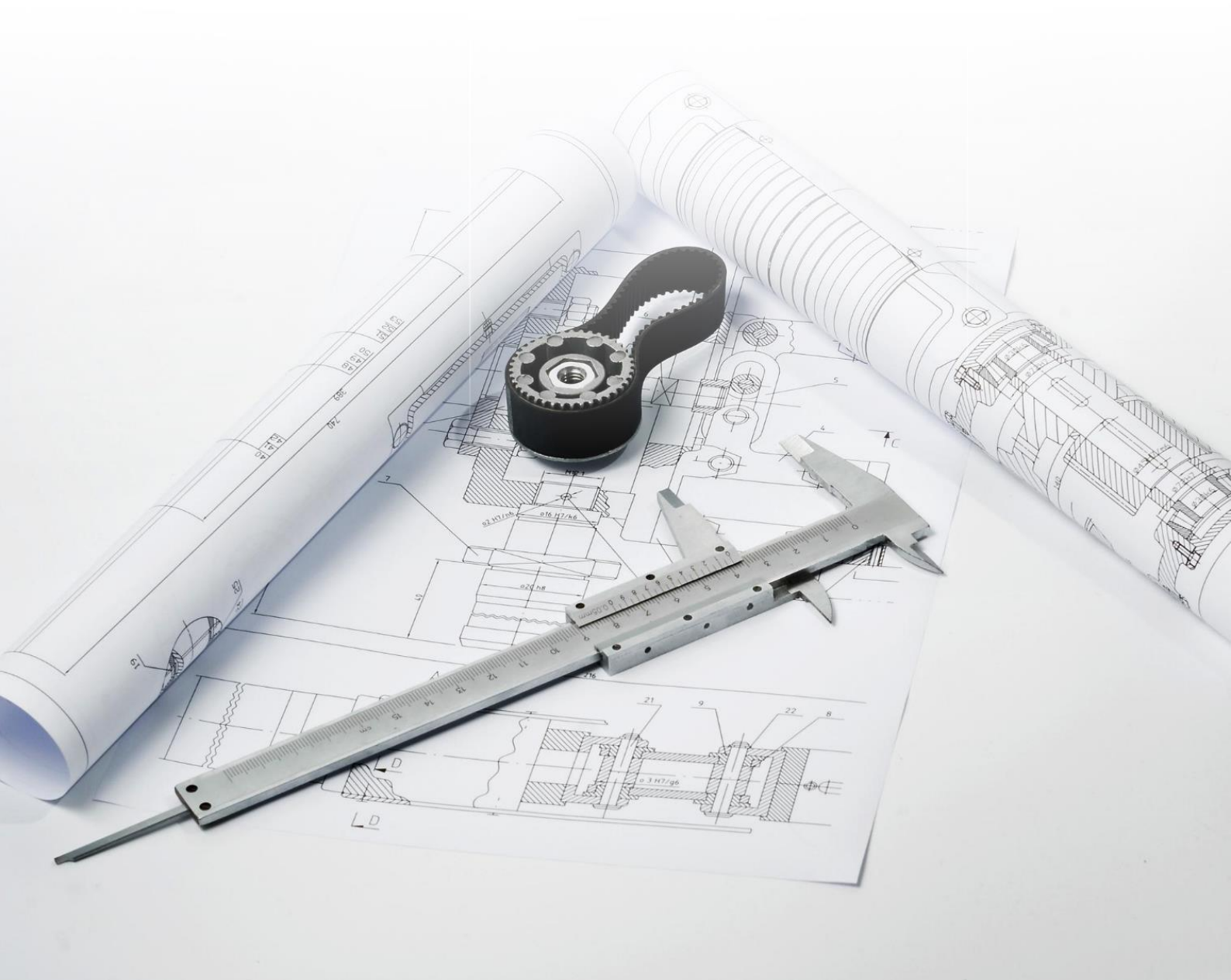


ZW Toolbox



ZWToolbox 2024

All rights reserved including the right of reproduction in whole or in part in any form. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without prior permission from Usługi Informatyczne "SZANSA" Sp. z o.o.

All signs found in the text are trademarks or registered trademarks of their respective owners. Usługi Informatyczne "SZANSA" Sp. z o.o. has made its best effort to deliver complete and reliable information within this manual.

The firm shall not be held liable for the usage, or for any potential breach of patent or copyrights included within the manual.

Usługi Informatyczne "SZANSA" Sp. z o.o. may in no way be held responsible for damage that may occur as a result of and/or when using the information found within the manual.

Usługi Informatyczne "SZANSA" Sp. z o.o.

ul. Świerkowa 25

43-305 Bielsko-Biała

NIP 937-267-27-69

www.zwcad.pl

tel. +48 33 307 01 95

Copyright © Usługi Informatyczne "SZANSA" Gabriela Ciszynska-Matuszek.



Contents

ZWToolbox	6
Blocks.....	6
Blocks panel.....	6
Create the block	7
Explode the block	7
Add to the block	8
Count blocks	9
Zoom the view to selected entities	9
Modify base point	10
Remove unused blocks.....	11
Set relative path to for XRefs.....	11
Extra explode.....	12
Modify color	12
Groups	13
Create group.....	13
Explode selected group	14
Add element to group	15
Remove entity from group	16
Find the group	17
Paste as group	18
On/Off groups.....	19
Backup save	20
Backup save.....	20
Coordinates	20
Insert points with description and automatic numbering.....	20
Polyline vertex numbering	20
Save selected coordinates into a csv file	21
Draw from the coordinates in the csv file	22
Save objects coordinates into a csv file	22
Load points from a csv file.....	23
Axis	24
Draw axis	24
Insert axis	25
Offset axis.....	26
Draw axis as an arc	26
Change settings for creating axes.....	27
Text.....	27
Change letter case	27
Convert text to polylines	28
Change content of text.....	28
Blocks.....	29

Calculate blocks	29
Save the information about the blocks and their attributes to a csv file	29
Insert blocks from a csv file	30
Quick block	31
Add to block.....	31
Remove from block	32
Measurement	32
Sum lines length	32
Sum arcs lengths.....	33
Sum all elements lengths and perimeters	33
Sum areas	34
Calculate distance between two clicked points on a curve.....	34
Symbols	34
Change circles to another signs.....	34
Create a report of points, circles and blocks	35
Draw grating	36
Scale	37
Scale drawing from inch to mm.....	37
Scale drawing from mm to inch.....	37
Alignment	37
Left.....	37
Center	38
Right	39
Top.....	39
Center	40
Bottom.....	41
Alignment of objects group	41
Edition	42
Rotate of copy	42
Array by selected points.....	43
Extended trimming.....	44
Vertical and horizontal mirror by selected point	44
Arrows	45
Draw arrows by picked points	45
Add arc	45
Remove arcs	46
Add point.....	47
Remove point	48
ZWToolbox	48
Activation	48
Manual menu load	51
ZWBlocks	52

Safety symbols.....	52
Draw Emergency safety route	52
Insert symbol "You are here"	53
Used signs report.....	54

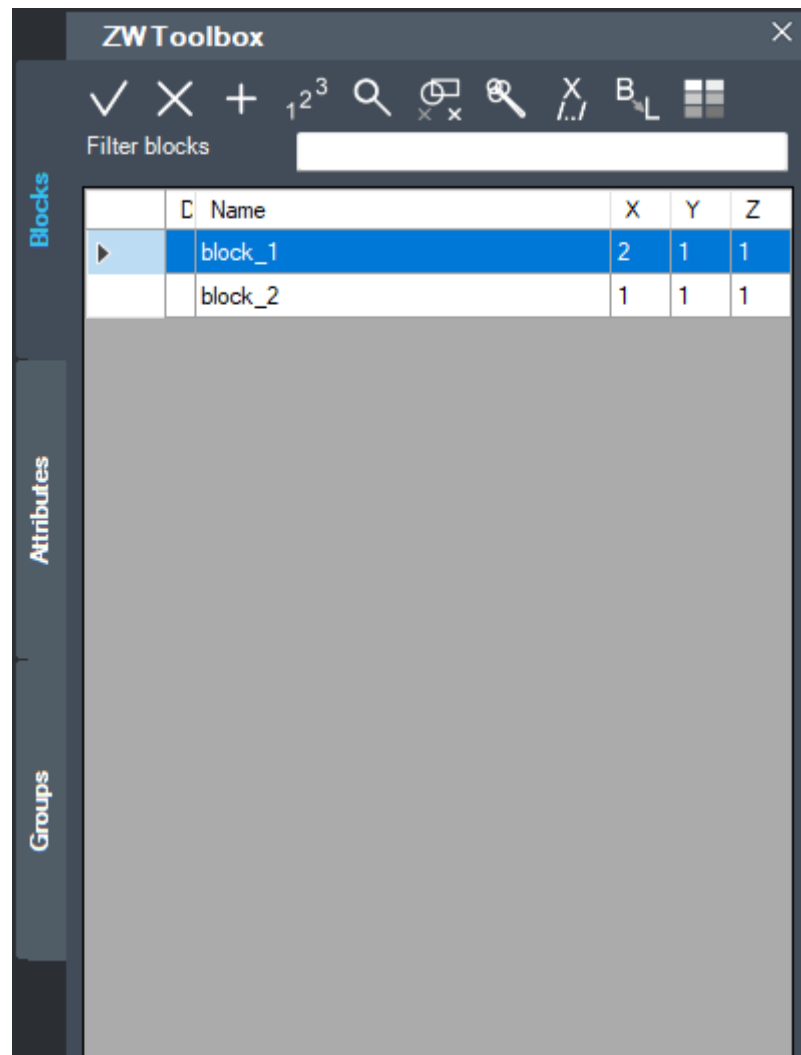
ZWToolbox

This function opens a panel, that is used to manage blocks and groups. You can switch between them in the tabs.

Blocks

Blocks panel

Blocks and attributes can be managed in this tab, as well as the scale they're in.



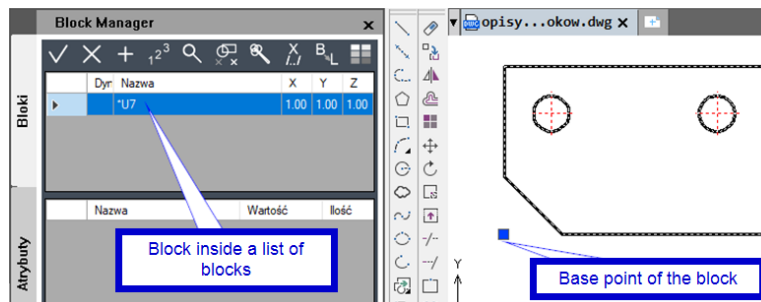
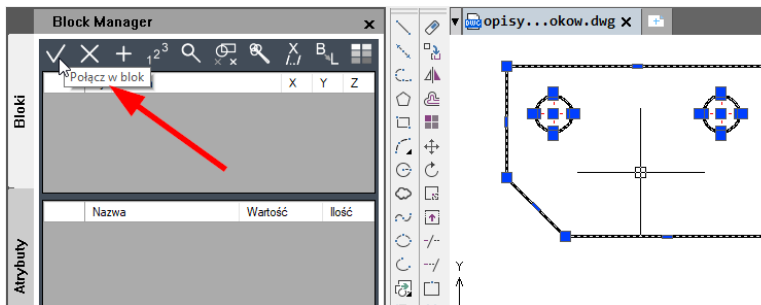
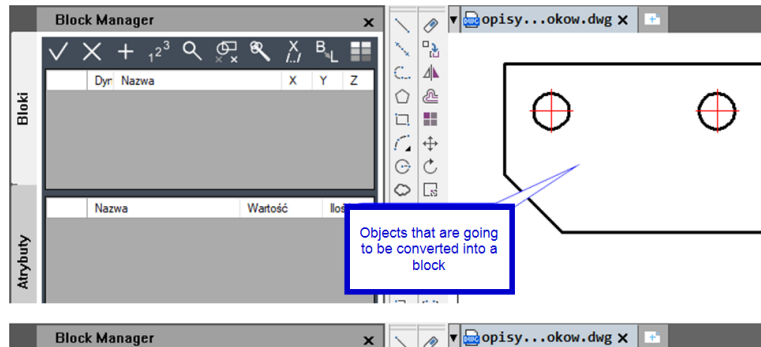
Attributes tab is divided into 3 parts from top to bottom:

- List of blocks.
- List of attributes in the selected block.
- List of values of the selected attribute with the number of occurrences. Here we can easily change the value of an attribute.

Create the block

To create a block we need to select objects. We can do this before or after selecting the function to create a block. After creating a block, a new row will appear in the table. The name of the block will be given automatically and will start with an asterisk (these are so-called anonymous blocks).

The pictures below show individual steps of creating a block in the application.



Explode the block

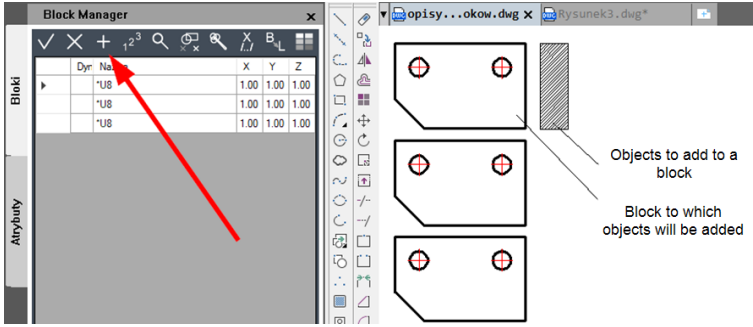
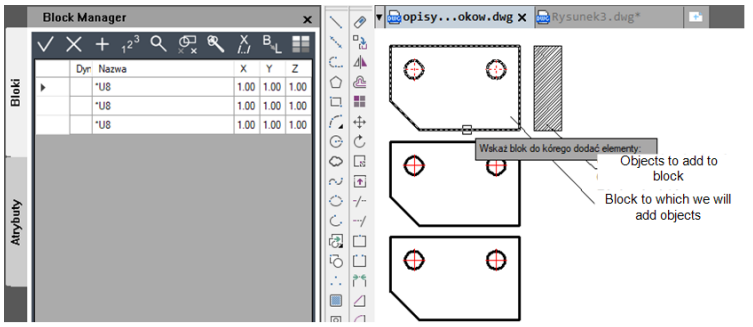
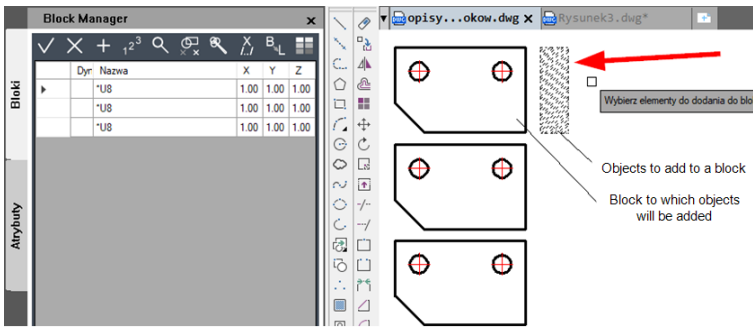
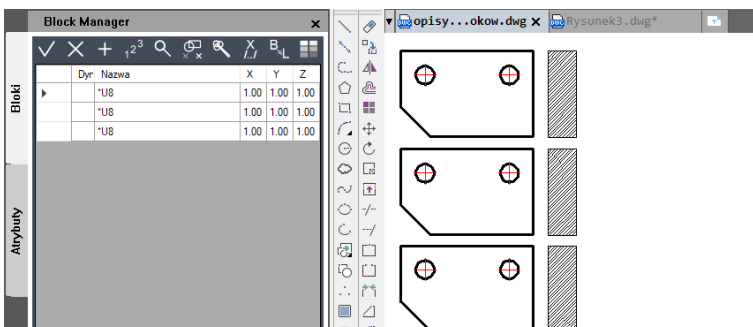
The function for exploding blocks makes the objects cease to form a whole. Standard Explode – after being exploded, the objects will be placed on the same layer as they are in the block.

Click on the required function and indicate a block or blocks to be exploded.

Add to the block

This function adds new objects to an existing block. Before using the function, select a block to which the new objects are to be added, and then select the function for adding objects to the block. The icon on the left represents this function.

The pictures below show the individual steps for adding items to the block:

<p>Initial state. Select the function to add elements to the block</p>	 <p>Objects to add to a block</p> <p>Block to which objects will be added</p>
<p>Indicate the block to which we will add objects</p>	 <p>Objects to add to block</p> <p>Block to which we will add objects</p>
<p>Select objects that are going to be added to the block</p>	 <p>Objects to add to a block</p> <p>Block to which objects will be added</p>
<p>Objects have been successfully added to the block</p>	

Count blocks

This function allows you to quantify blocks that are in the drawing.

After choosing the block counting function, we have two options:

- Press Enter immediately – the function will count all blocks in the drawing.
- Select a part of the drawing with a window – the function will only count blocks from the selected elements.

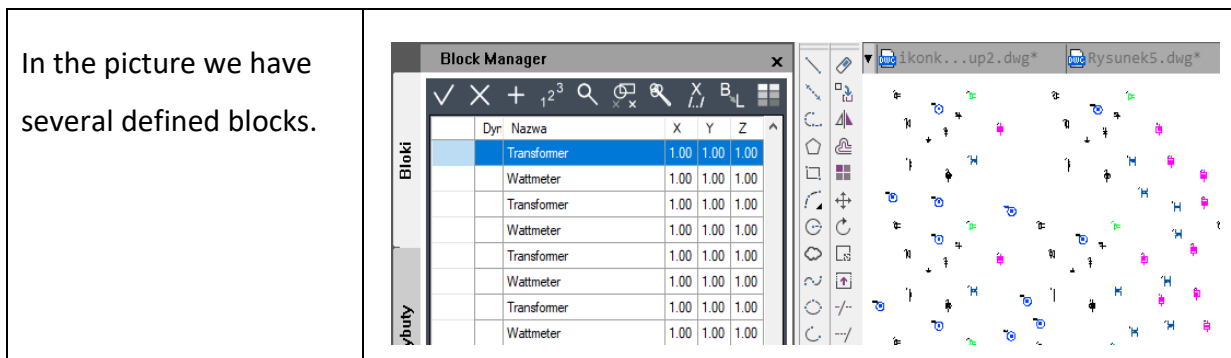
Example result of the block counting function:

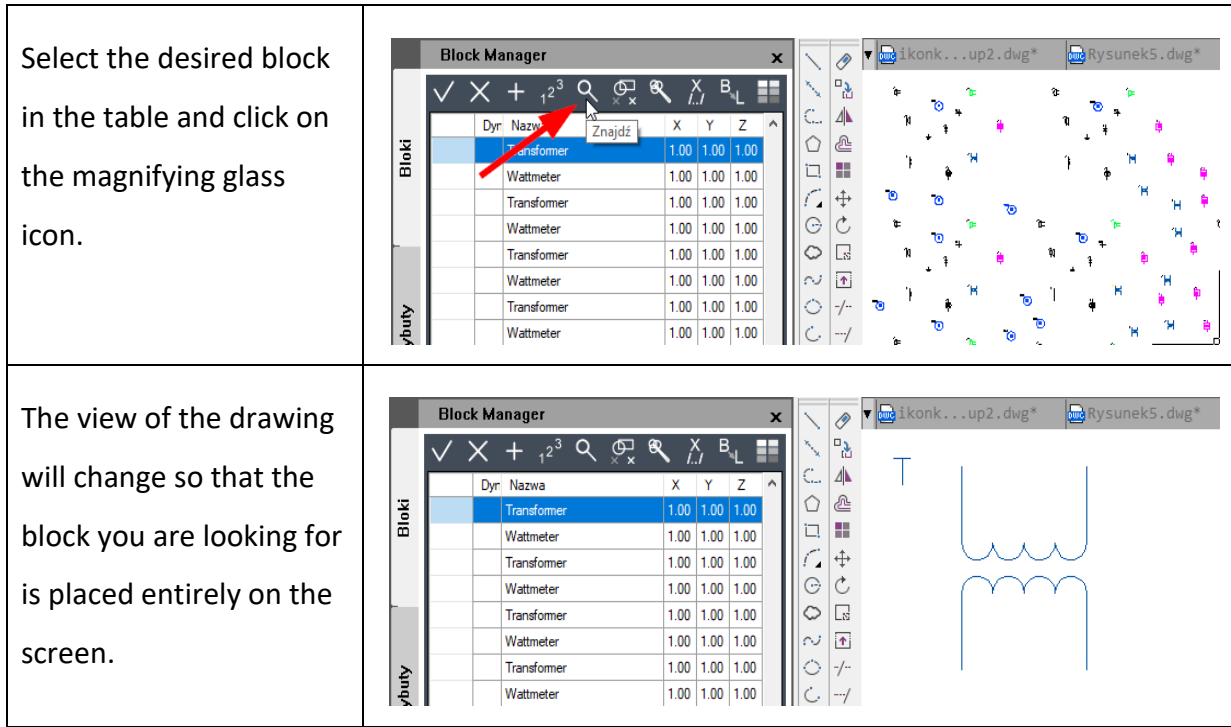
```
Wybierz obiekty:
Block.....Count
-----
Motor.....23
Wattmeter.....25
Transformer.....25
Voltmeter.....9
Inductor.....9
Bell.....9
Buzzer.....9
Cell.....9
Diode.....9
Ground.....9
Speaker.....9
-----
Polecenie:
```

Zoom the view to selected entities

With this function we can quickly locate blocks in a drawing.

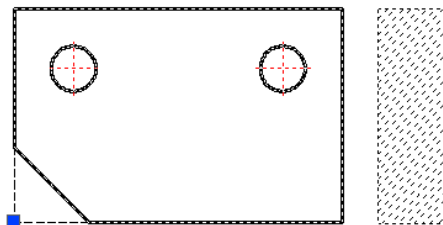
Select a block in the table and then click the magnifying glass icon. The block you are looking for will be enlarged to fill the whole screen. Individual steps to use the function are shown below.





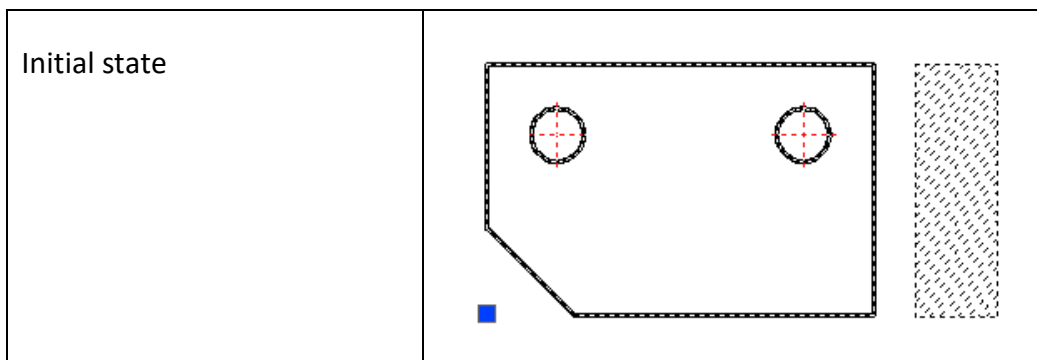
Modify base point

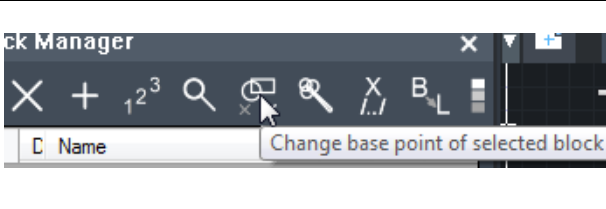
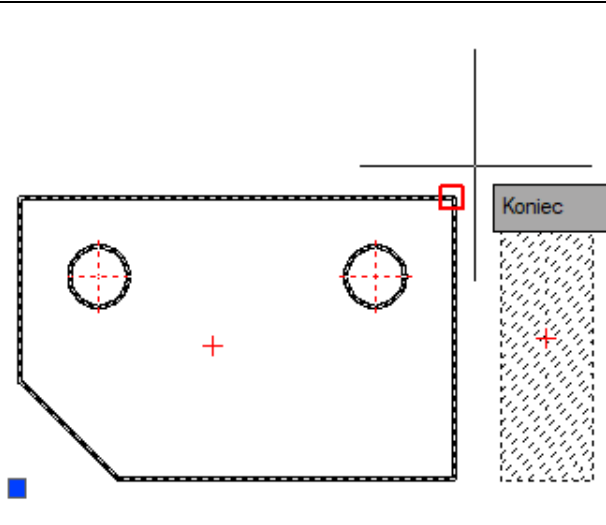
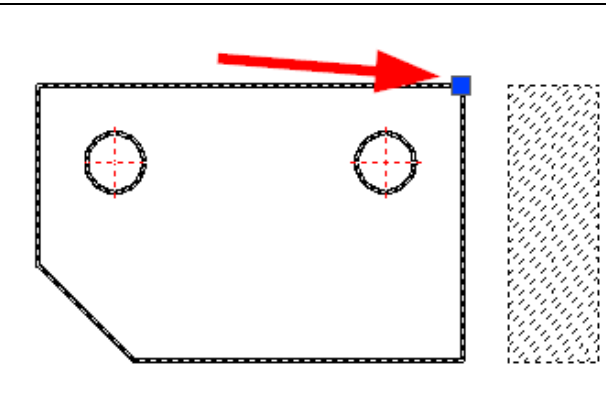
The function changes the position of the block base point. If you create a block using Block Manager function, the base point is automatically set in the lower left corner of the covering rectangle.



To change the base point of a block, select a function, indicate the block and the new base point position.

The individual steps are shown in the figures below.



<p>Select the function to change the base point, and select the block you want to change.</p>	
<p>Indicate a new base point location</p>	
<p>Block after the change.</p>	

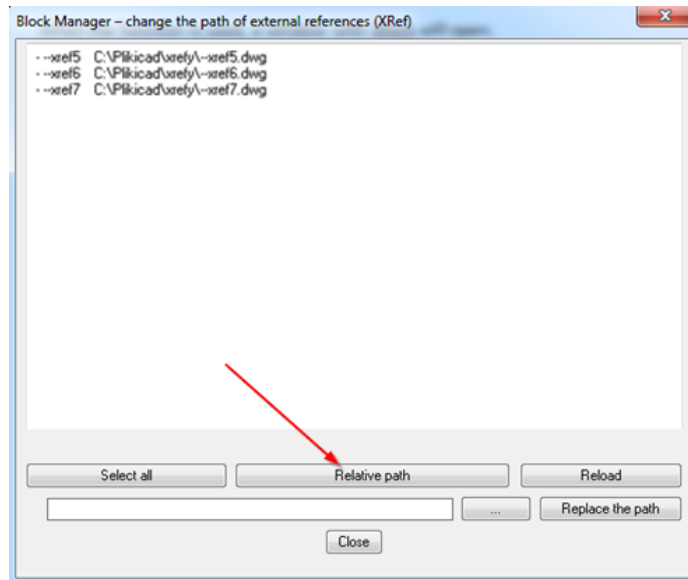
Remove unused blocks

The function allows you to delete unnecessary blocks from a drawing, which will speed up work and reduce the size of DWG file.

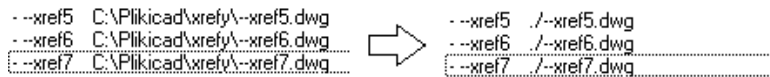
Set relative path to for XRefs

This function allows you to change the access path to external references- XRefs.

When the function is used, a window with XRefs will open.



Simply point to one or more Xref and use the Relative Path button. This will change the file path.



Extra explode

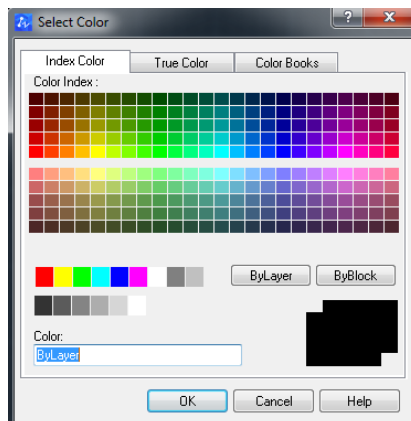
The function for exploding blocks makes the objects cease to form a whole. Explode with transfer to layer – a new layer such as the block name will be created and all objects from the exploded block will be moved there.

Click on the required function and indicate a block or blocks to be exploded.

Modify color

With this function you can change the colour of all elements inside the blocks.

Select the function, select a block and specify a new colour from the colour palette.



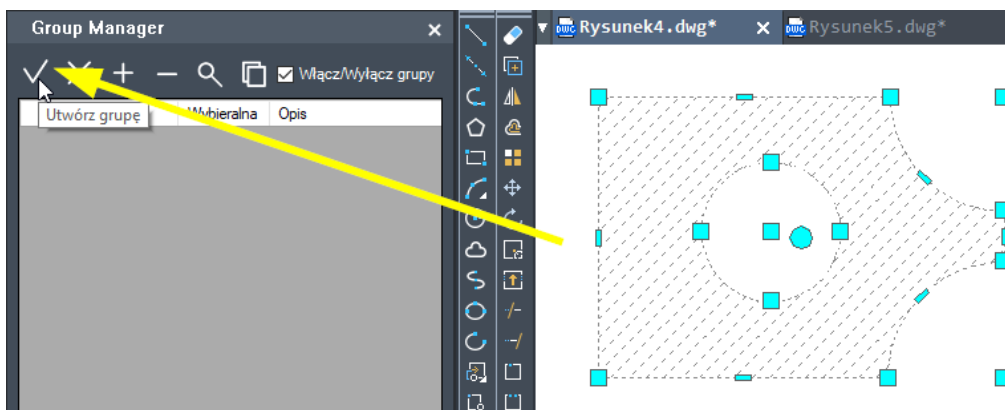
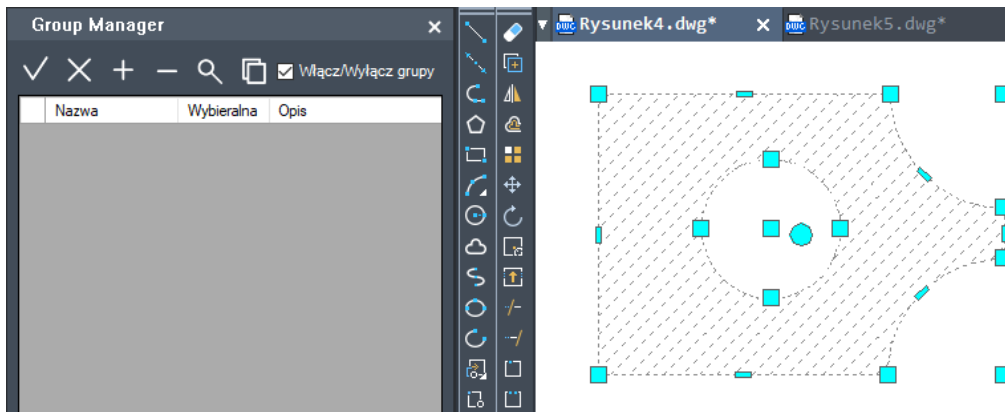
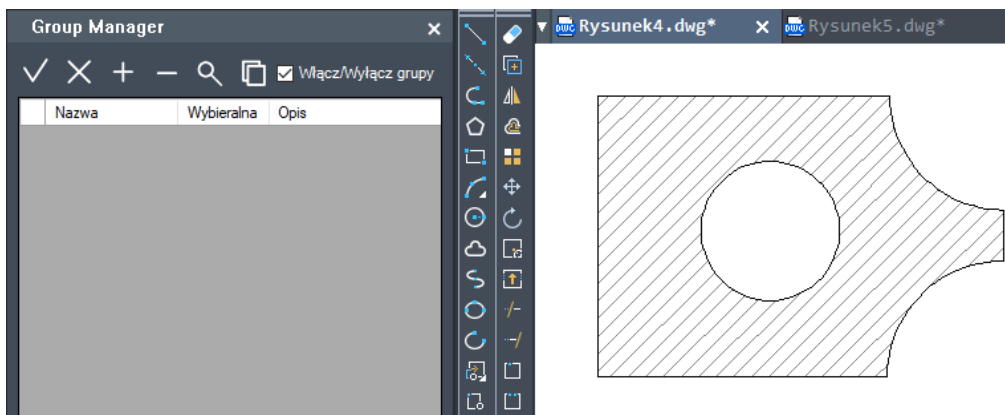
Once approved, all elements of the block will change their colour.

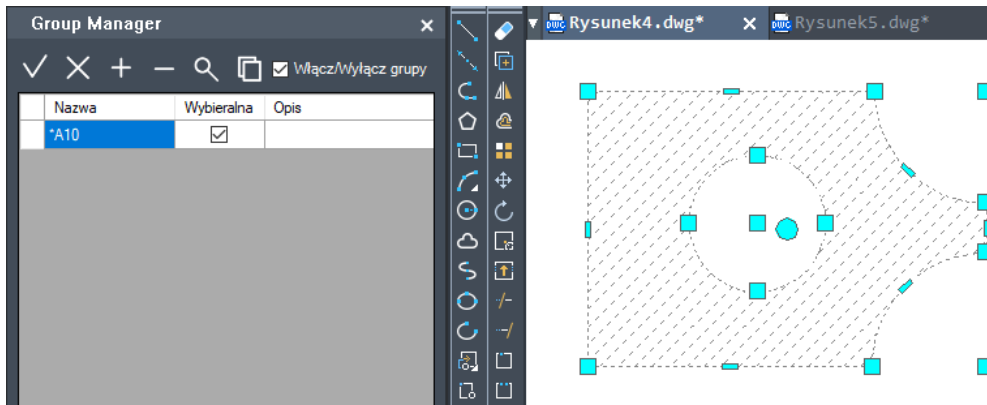
Groups

Create group

Once a group is created, a new field will appear in the table. The name of a group will be added automatically and it will begin with a star (these are called anonymous groups). The button in the second column decides whether a group will be selected as one object or as a whole. The third column is a description of a group, which by default is set to be empty.

On the drawings below you can see the steps of creating a group in Group Manager.

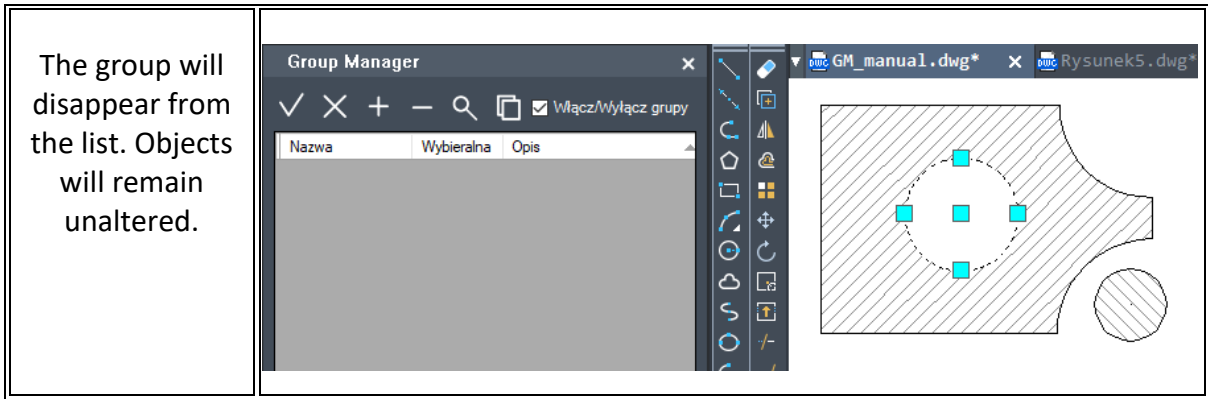




Explode selected group

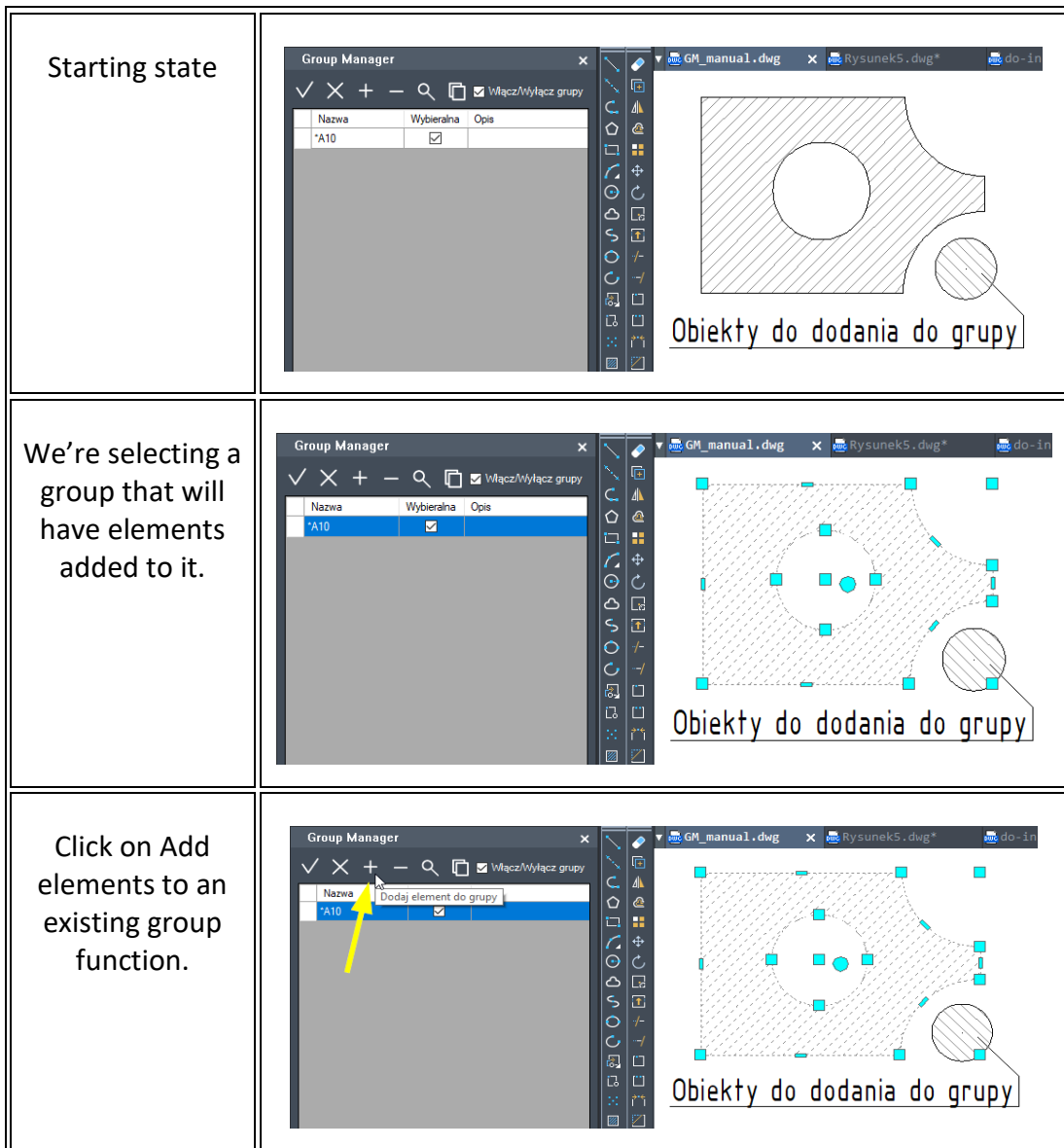
Exploding groups allows users to select single elements rather than a whole group. After exploding a group, some elements which are whole will remain unchanged. Instruction on how to explode groups can be found on the screenshots below:

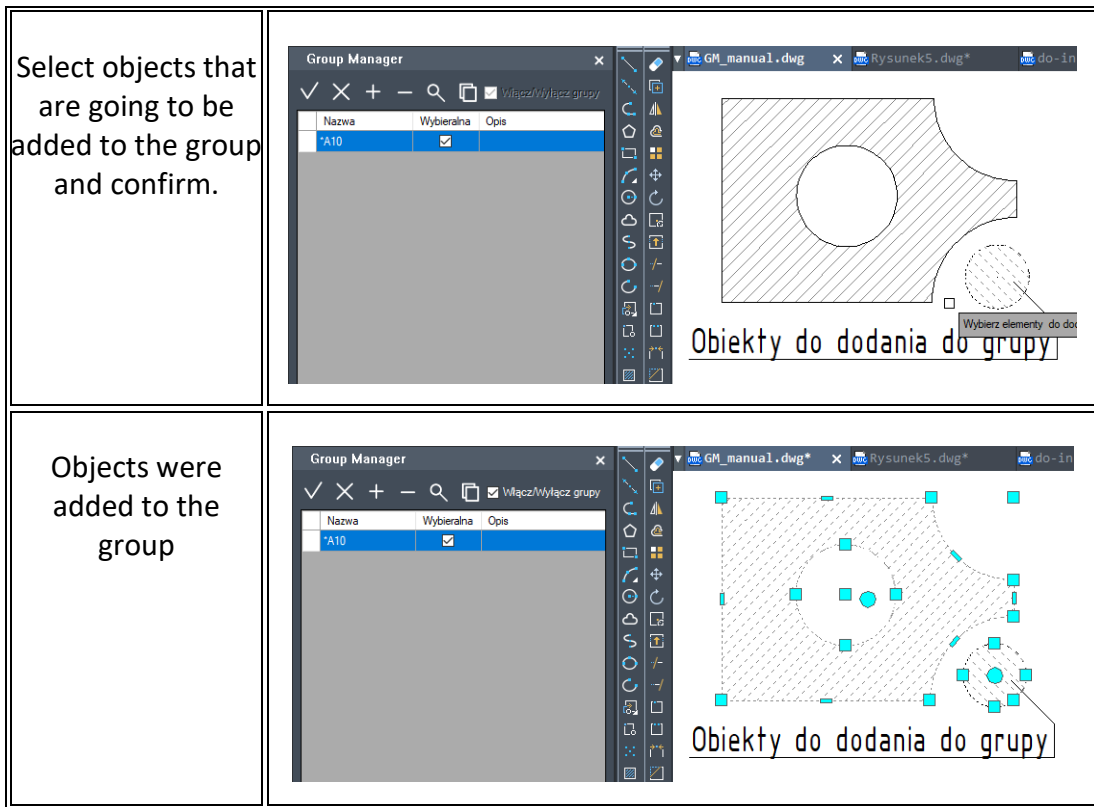
<p>Starting state. One group is created with the following name: *A13</p>	
<p>Select the group which will be exploded</p>	
<p>Click on the button representing the explode function</p>	



Add element to group

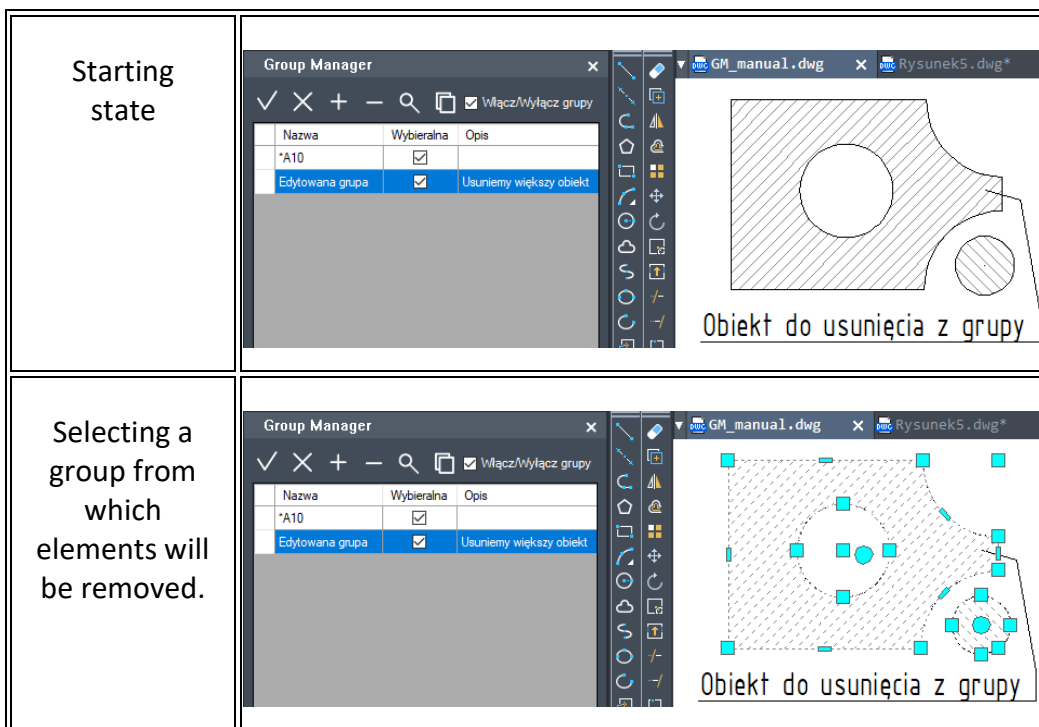
This function adds new objects to an existing group. Before using this function, it is necessary to select a group to which new elements will be added and then select the function to add elements to an existing group. On the drawings below, you can see the steps of adding elements to an existing group.

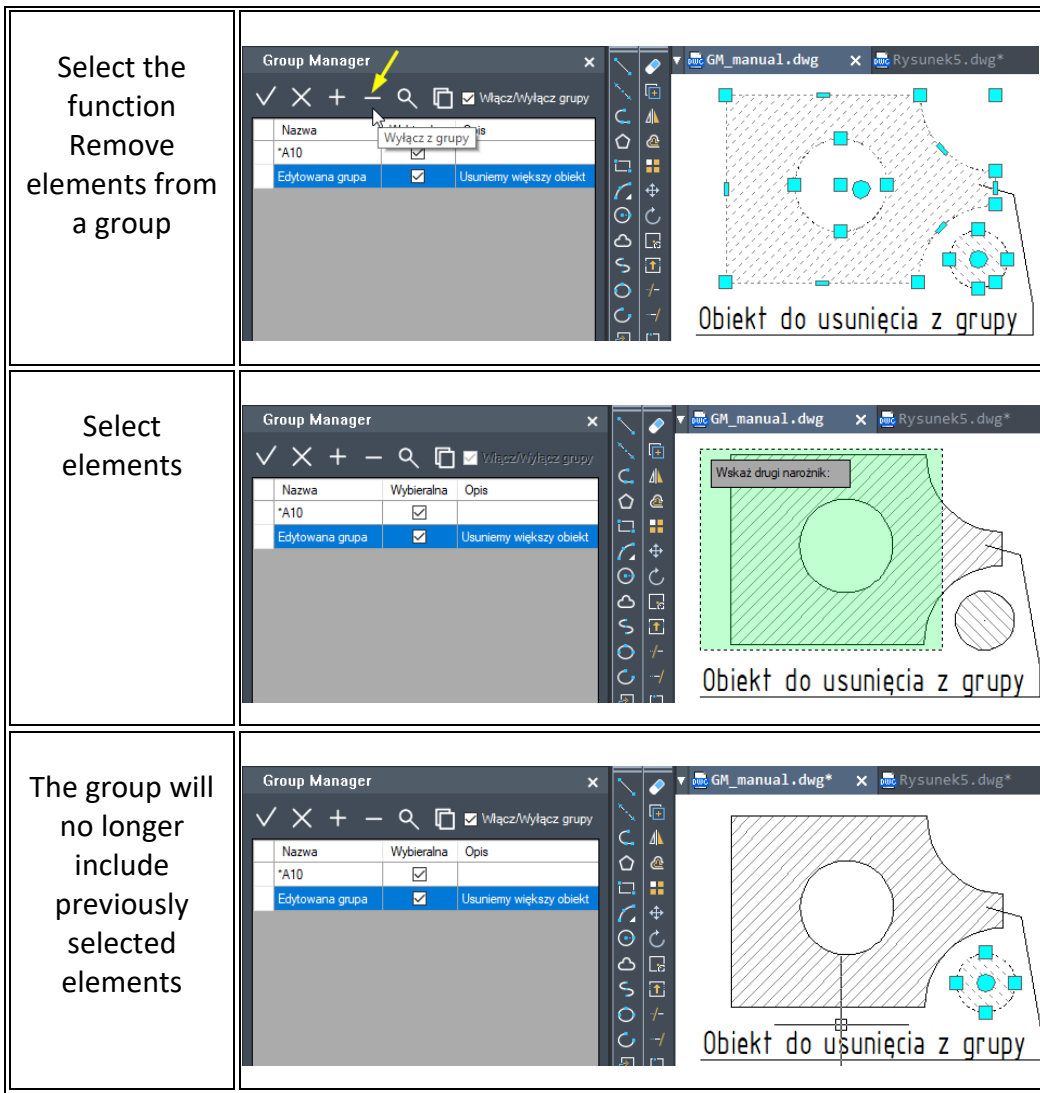




Remove entity from group

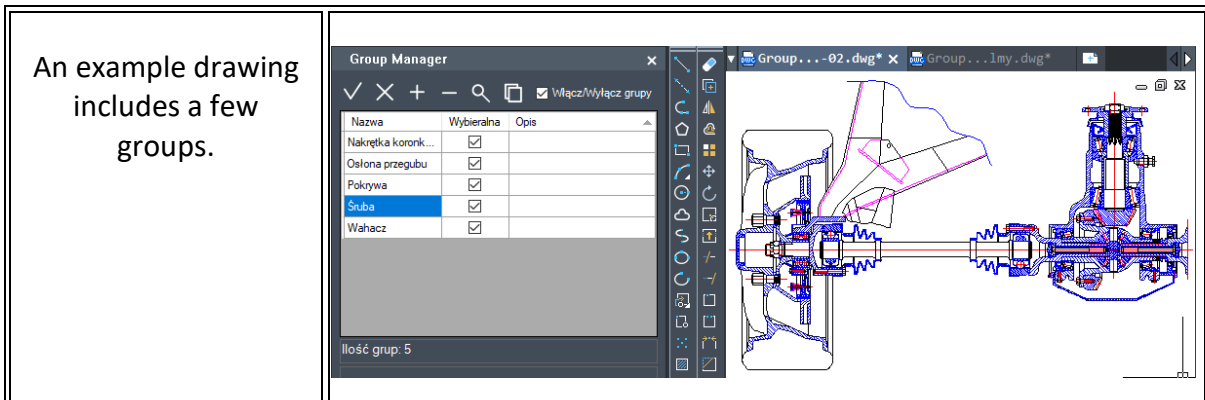
This function removes selected objects from an existing group. In order to remove elements from a group, firstly select a group, click on Remove elements from a group function and select elements that are going to be removed. The steps to remove elements from a group are presented below:

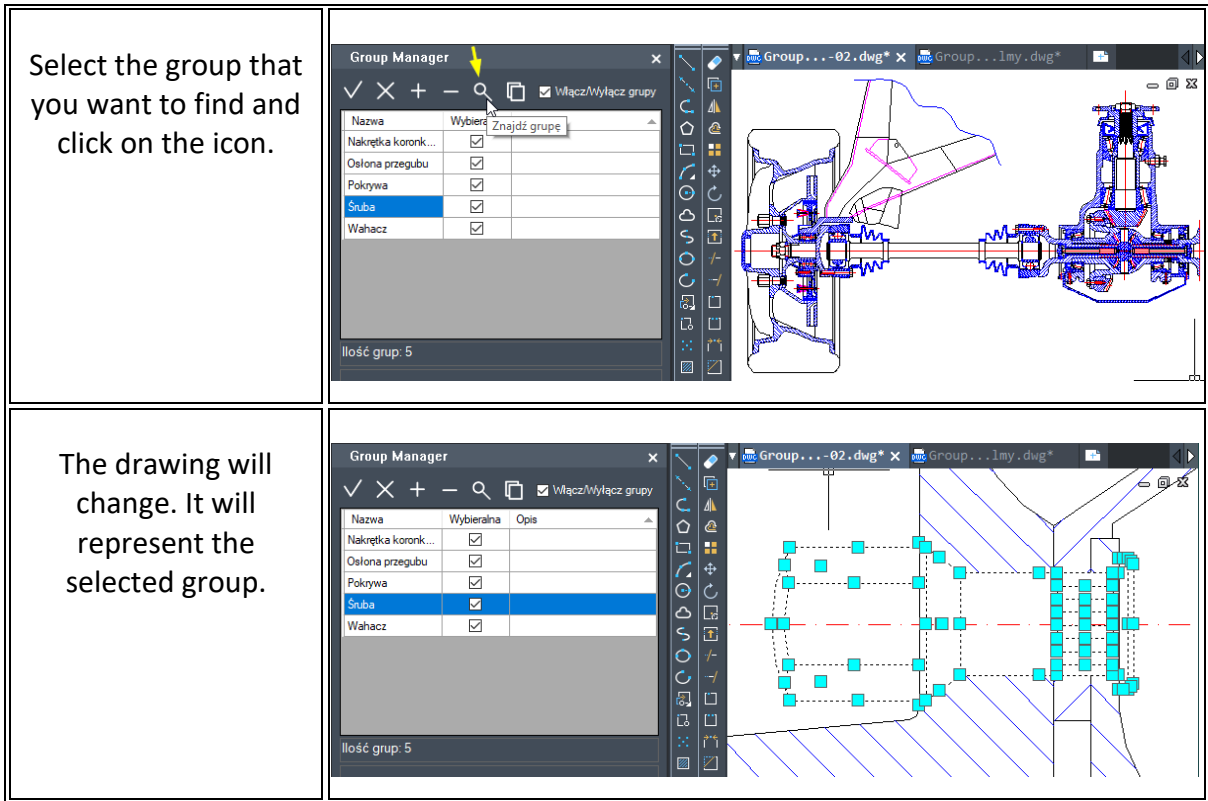




Find the group

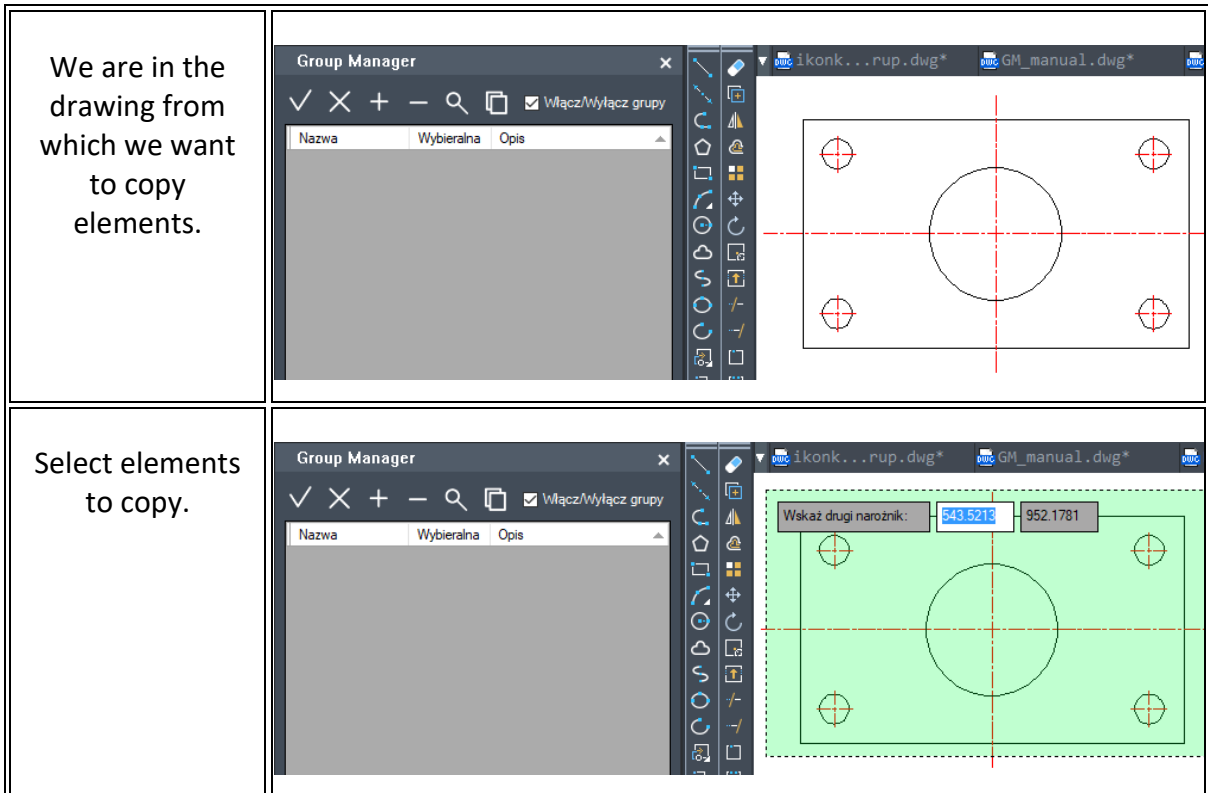
Using this function we can quickly find groups within a drawing. Select a group in the table and then click on the magnifying glass icon. The selected group will be magnified so that it is presented on the whole drawing. To find out how to do it, please look at the screenshots below:

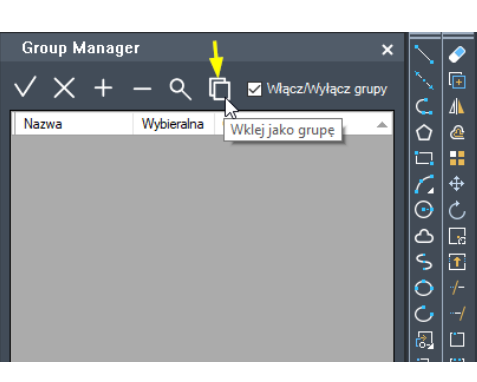
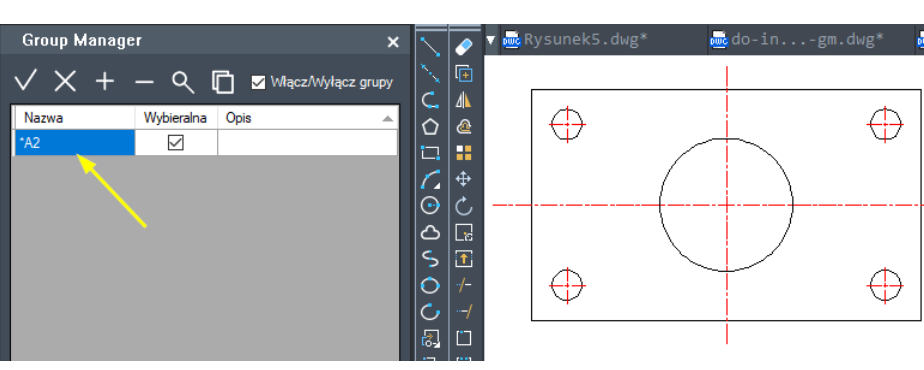




Paste as group

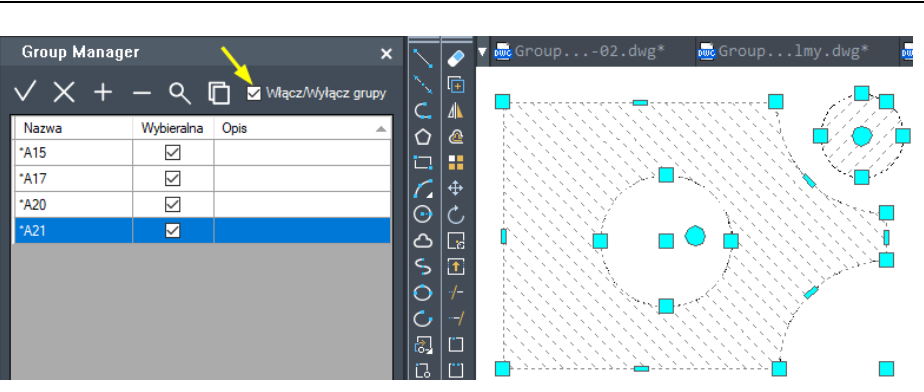
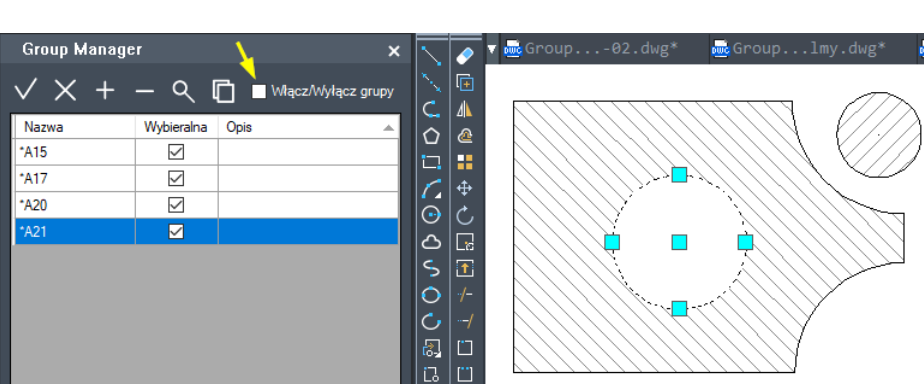
This function allows users to paste drawing objects into a drawing and to create a group from them. Such functionality is useful when copying objects from one CAD Project to another. To see how to use this function, please look at screenshots below:



<p>Go back to another drawing and click on this icon.</p>	
<p>Specify a location where those elements will be added. Once they are added, a group will be created.</p>	

On/Off groups

We can choose whether groups will be selected as a whole or as separate entities. To see what checking the box does, please refer to the screenshots below:

<p>Selecting as a group is turned on (this setting is turned on by default). By clicking on a single element, whole group will be selected.</p>	
<p>Selecting as a group is turned off. We can select elements separately.</p>	

Backup save

Backup save

This feature allows you to save a file with an automatic backup (the backup is formatted as follows “name_year-month-day_hour.minute.second”).

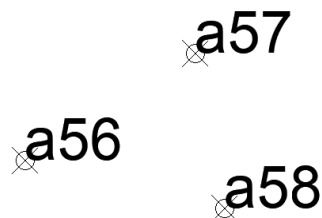


Coordinates

Insert points with description and automatic numbering

You will have to enter a name of a series and the first number. Next points selected by you will have text included with a description which includes the name of a series and a number of the next point.

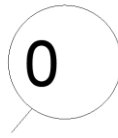
1. After running the command, you have to choose a data point in the command bar.
2. Enter the series number and enter the start number:
3. Insert a point in the drawing:
4. The program allows you to automatically insert points by indicating the location.



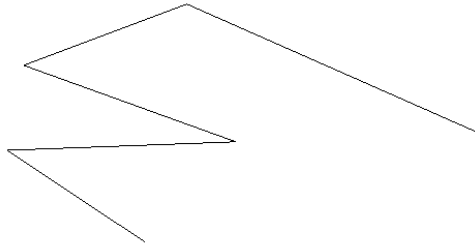
Polyline vertex numbering

This function is used to automatically number polyline vertices from a selected starting number, e.g. a2. It is possible to create a block in which next numbers will be added. An example of usage is presented below:

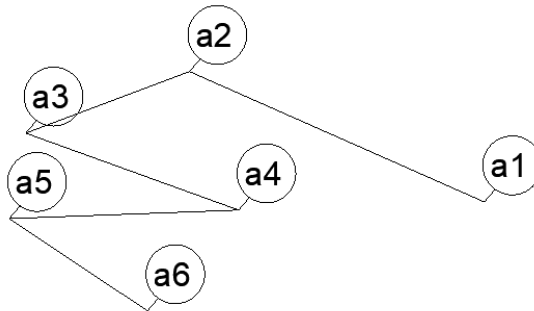
1. Select a block with an attribute which will appear on vertices of the numbered polyline, for example:



- Now select a polyline to describe vertices, for example:



- In the command bar name the series, e.g. a
- Enter the starting number (it is set to 1 by default), in this example we will use 2.
Confirm with enter and the result will be presented below:



Save selected coordinates into a csv file

Firstly, you will be asked to select points. Once all the wanted points are chosen, you will have to select a file path where you want the points to be saved. The format of coordinates stored in the file will be following: ;X;Y;Z:

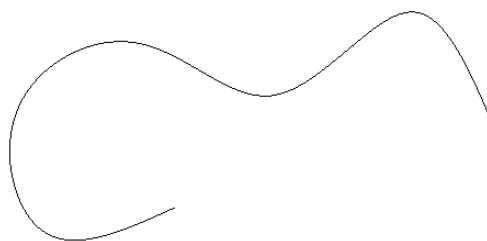
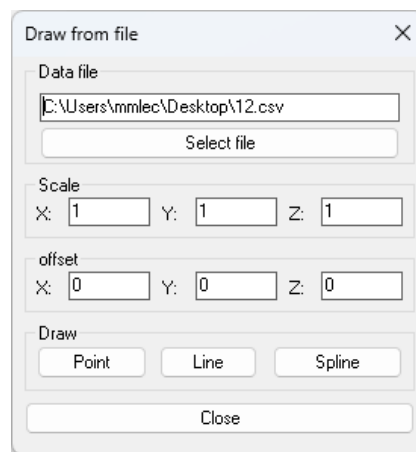
- coordinates will be separated by semicolon (;),
- decimal places will be separated by commas (,).

- After running the command, you need to choose the points on the drawing and confirm by pressing Enter.
- A window will appear which lets you name and save the file.
- Previously saved data will be displayed in a new file.

	A	B	C
1	7429765.6	5549120.5	0.0000
2	7429767.3	5549118.8	0.0000
3	7429767.1	5549117.4	0.0000
4	7429764.8	5549117.0	0.0000
5	7429766.8	5549117.9	0.0000
6	7429767.5	5549117.2	0.0000
7	7429769.3	5549119.0	0.0000
8	7429762.0	5549120.1	0.0000

Draw from the coordinates in the csv file

This function allows you to insert points into the drawing with coordinates from a text file, connect the lines (with a straight line) or by using a spline.



Save objects coordinates into a csv file

After running the command, ZWTtoolbox will ask you to select objects with descriptions that need to be exported. Then, you have to select the destination path in which the file will be saved. It is possible to save the coordinates of objects such as: line, polyline and point. The correct filename extension in which the file should be saved is .csv. The format in which the coordinates are stored is as follows: Description;X;Y;Z

- coordinates will be separated by semicolon (;),
- decimal places will be separated by commas (,),
- description will be added to elements which were inserted by using the function.

Example of a line of data:

d5;83,1082;1271,6697;0

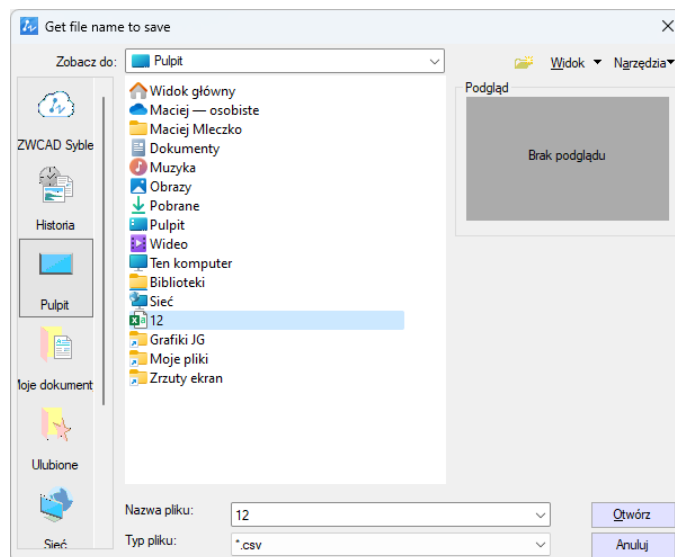
1. After running the command, ZWToolbox will ask you to select the objects.
2. Confirm with Enter and then find a location on your disk, enter the name of the file and click save.
3. The coordinates of chosen objects will be visible in the new file.

	A	B	C	D
1	35/36	7429766.6	5549118.1	0.0000
2	35/35	7429766.8	5549118.6	0.0000
3	35/34	7429767.9	5549118.5	0.0000
4	35/33	7429768.9	5549117.2	0.0000
5	35/32	7429769.2	5549118.2	0.0000
6	35/31	7429770.2	5549118.2	0.0000
7	35/30	7429769.9	5549120.1	0.0000
8	35/29	7429768.8	5549121.3	0.0000
9	35/28	7429767.9	5549121.6	0.0000
10	35/27	7429766.9	5549120.8	0.0000
11	35/23	7429766.3	5549116.8	0.0000

Load points from a csv file

After running the command, you need to select a file which contains the coordinates of points. The file needs to be in the .csv format.

1. Run the command and select the file which contains the coordinates.



The points must be saved in a .csv file, with 4 columns. First column contains names of the points, and the next ones stand for XYZ coordinates.

	A	B	C	D
1	35/61	280.0082	175.8990	0.0000
2	35/60	280.7975	143.1453	0.0000
3	35/59	303.2909	116.3110	0.0000
4	35/58	339.9908	92.6336	0.0000
5	35/57	370.3768	62.2477	0.0000
6	35/56	419.7046	49.6198	0.0000
7	35/55	471.4001	55.1445	0.0000
8	35/54	503.3646	68.9563	0.0000
9	35/53	532.1720	72.9025	0.0000
10	35/52	599.6524	56.3283	0.0000
11	35/51	620.5674	99.7368	0.0000
12	35/50	620.9621	151.0377	0.0000
13	35/49	595.3116	188.5269	0.0000
14	35/48	563.7418	203.1279	0.0000
15	35/47	452.4583	222.4644	0.0000

- The points will be loaded into a drawing.

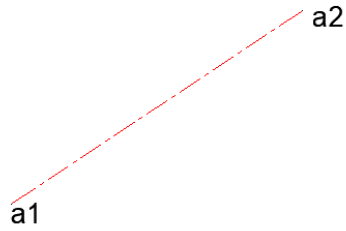


Axis

Draw axis

This function draws an axis between two points on a layer that was previously determined in the settings.

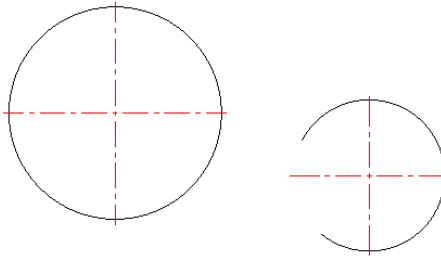
- After clicking on the command, select two points on the drawing where you want the axis to be inserted.
- Once the two points have been selected, an axis will appear on the predetermined layer.



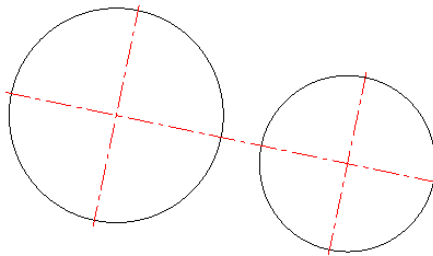
Insert axis

Once you click on the command, you will be asked to choose any number of arcs and circles.

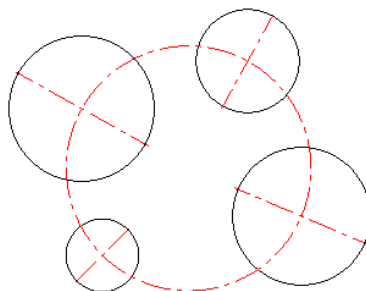
- When clicking on an arc, a circle or an ellipse, an axis will be automatically added on a layer determined in the settings window.



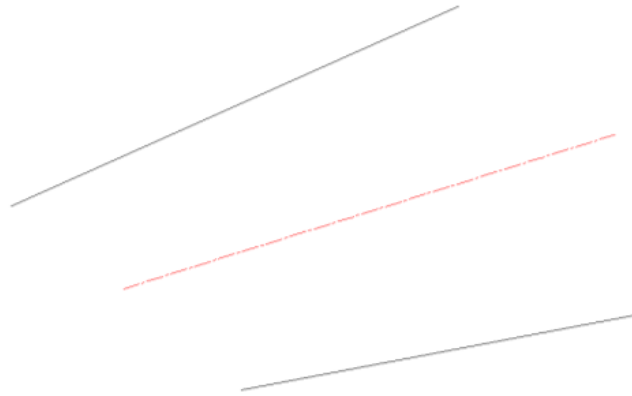
- By selecting two arcs or circles you will add an axis similar to the one on the picture below:



- If you choose more than one arc or circle, an axis will appear similar to the one pictured below:

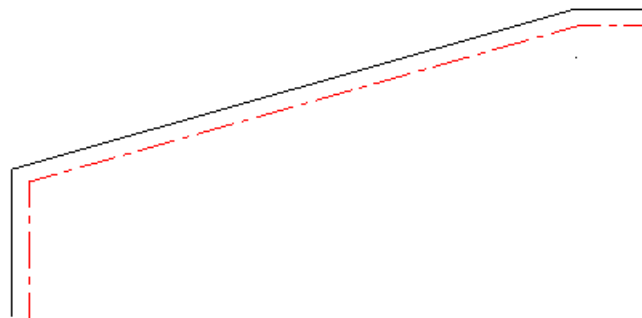


- By selecting two lines you will insert a symmetry axis between those lines. The length of the axis can be determined if the user selects two points (they will be shown on the axis).



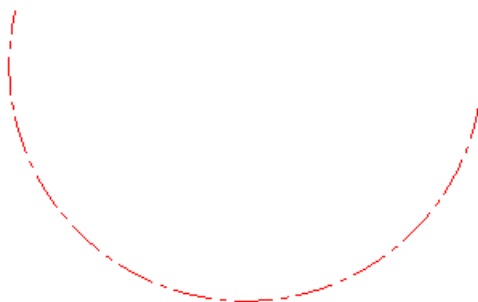
Offset axis

You will be asked to select an object to offset, then the direction of an offset by clicking a selected point. Lastly, you need to set a certain distance to offset.



Draw axis as an arc

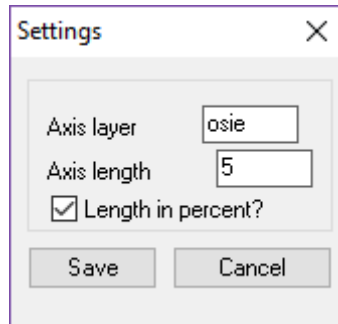
This function will let you draw an axis in a shape of an arc. The function will ask you to enter the following in the given order: center point of an arc, the starting point of an arc which will simultaneously define the radius and the end of an arc.



Drawing an axis as an arc is useful in situations such as designing an outline of a screw-thread.

Change settings for creating axes

This function lets you determine the layer on which the created axis will be placed and by how much they should extend outside of the object. The length of the extension can be determined numerically or in percentages by selecting the option as shown on the picture below:



Text

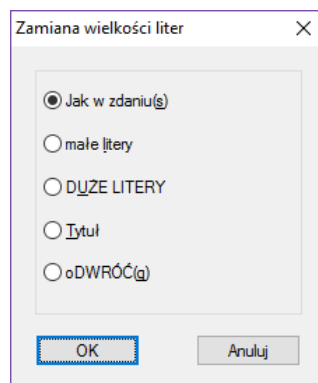
Change letter case

This function lets you change the size of the letters. This does not mean that the font will change but instead the letters can be made big and small, various possibilities of the letter size are included in this function.

1. First of all, you have to select a text object on the drawing field.

ZWToolbox 2024

1. A window will appear which will let you to change the size of the letters.



2. Once the option has been picked, you have to confirm it by clicking OK. The program will adjust the letter size of the chosen text.

zwtOOLBOX 2024

Convert text to polylines

Allows for the selected text to be converted into a group of polylines.

1. Select the text which is to be converted and confirm by pressing Enter.

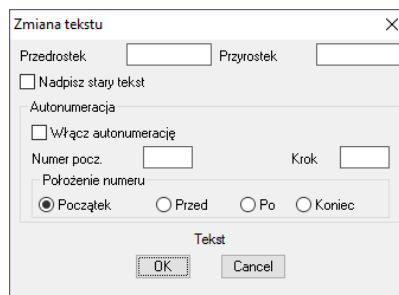
ZWToolbox 2024

2. Afterwards, contours of selected letters will appear and those are called polylines.

ZWToolbox 2024

Change content of text

This function enables you to change the existing text by using the options shown below:



Depending on how you want to modify the text, you can use a prefix or a suffix. You can also add auto-numbering to the text (but you have to remember that only numerical values can be entered) You can also add a starting number, and an initial step which determines the number by which the values need to increase. To confirm the settings we have to press the button OK and choose the text which needs changing.

Blocks

Calculate blocks

This function counts the number of selected blocks.

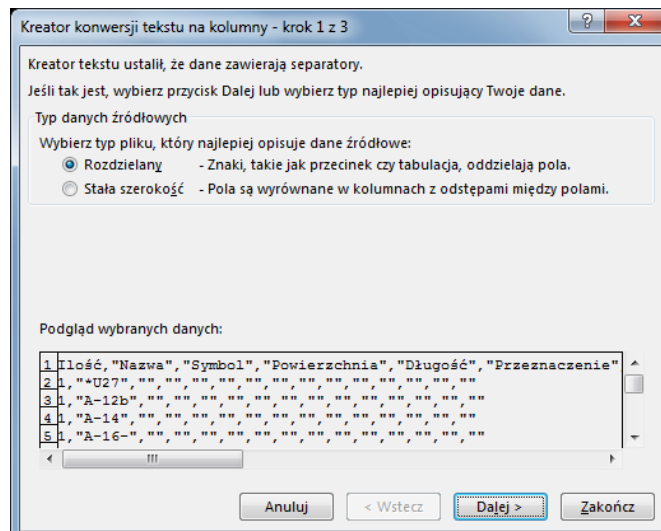
1. After activating the command in the toolbar, 3 options become available.
2. Information about counting the amount of blocks needs to be entered:
 - Layer – counts the number of blocks on a selected layer
 - Selection Set – counts the number of a selected block
 - All – counts the number of all the blocks inside the drawing
3. After you enter all the information, number of blocks included in the drawing will be displayed in the command line.

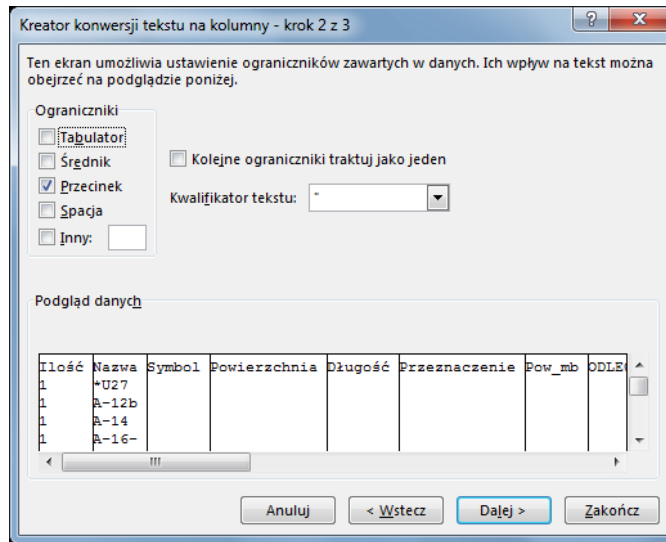
Save the information about the blocks and their attributes to a csv file

This function is used to save information and parameters of the blocks. By using the command *eattext*, all of the parameters of one block will be saved (in Excel) in one cell, divided by commas:

```
"Ilość", "Nazwa", "A/B", "Skala X", "Skala Y", "Współrzędna X", "Współrzędna Y", "Obrót"
"1", "SAP", "1/1", "0.7349", "0.7349", "2110", "1455", "0"
"1", "SAP", "1/2", "0.7349", "0.7349", "2322.4221", "1651.4741", "0"
"1", "SAP", "1/3", "0.7349", "0.7349", "2583.7374", "1864.2293", "0"
"1", "SAP", "1/4", "0.7349", "0.7349", "2606.2347", "1400.665", "0"
"1", "SAP", "1/5", "0.7349", "0.7349", "2971.3839", "1308.99", "0"
"1", "SAP", "1/6", "0.7349", "0.7349", "3083.8706", "1680.8793", "0"
```

In order to divide certain parameters into different columns, for instance the reasoning might be a process which requires only a selected amount of information, please choose the first column and move onto the tab called *Data*, secondly click on the option *text as columns*. A window will appear, please press *Next*





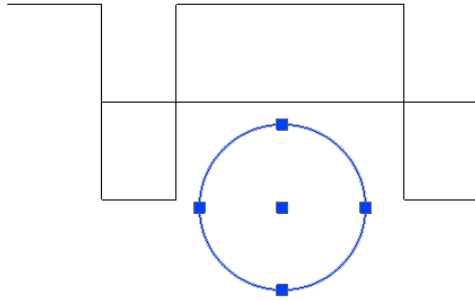
Please click Next, and Finish. On the right side of the window, as a form of restriction, Tabulators are turned on. Please turn them off by clicking on them and please turn off Comma as well. A window will appear showing a preview of the document.

Insert blocks from a csv file

It is possible to add blocks with attributes which are defined in the current drawing. The block will be added according to the parameters define in the *.csv file. An example of a file with parameters is shown below. The sequence of columns can be changed however the titles: Name, Scale and coordinates cannot be changed. Remaining titles are treated as name of attributes, of which values are displayed in the lines below.

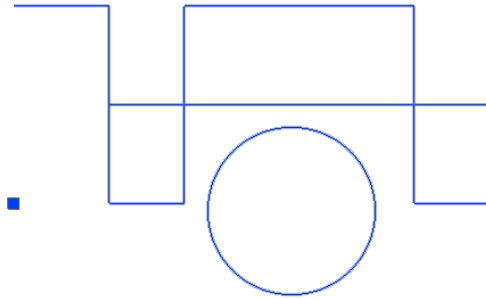
	A	B	C	D	E	F	G	H	I
1	ilość,"Nazwa"	"NPR"	"WSR"	"Skala X"	"Skala Y"	"Współrzędna X"	"Współrzędna Y"	"Współrzędna Z"	
2	1,"DIN"	"0.7000"	"0.7000"	"12.2151"	"61.9837"	"0"			
3	1,"DIN"	"0.7000"	"0.7000"	"15.9897"	"59.0883"	"0"			
4	1,"DIN"	"0.7000"	"0.7000"	"19.6487"	"64.7804"	"0"			
5	1,"DIN"	"0.7000"	"0.7000"	"20.6438"	"61.3189"	"0"			
6	1,"DIN"	"0.7000"	"0.7000"	"27.6999"	"62.67"	"0"			
7	1,"DIN"	"0.7000"	"0.7000"	"29.999"	"71.2043"	"0"			
8	1,"DIN"	"0.7000"	"0.7000"	"38.7537"	"46.6019"	"0"			
9	1,"DIN"	"0.7000"	"0.7000"	"62.3155"	"34.2319"	"0"			
10	1,"DIN"	"0.7000"	"0.7000"	"64.7954"	"35.4517"	"0"			
11	1,"DIN"	"0.7000"	"0.7000"	"67.7689"	"40.6049"	"0"			
12	1,"DIN"	"0.7000"	"0.7000"	"71.734"	"43.4757"	"0"			
13	1,"DIN"	"0.7000"	"0.7000"	"0.0213"	"28.522"	"0"			

An example after the blocks have been imported



3. Select block.

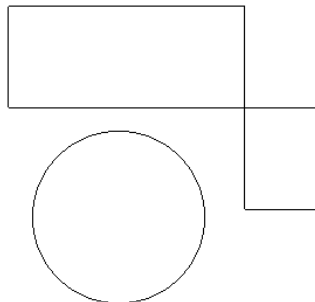
After completing the instructions above, the selected elements will merge into one object with the previously created block.



Remove from block

This function allows you to delete chosen elements from a created block.

1. Press Remove From Block.
2. Choose the elements which are to be deleted from the block.



Measurement

Sum lines length

This function tells the program to sum up the total length of selected lines on the command line.

1. Please select the lines on the area of the drawing and confirm by pressing “Enter”.
The function does not work on polylines. If you would like to count the length of polylines please use the function Counting the length of the line between the indicated points.
2. Once you confirm the action, the command bar will show the total length of chosen lines.

```
Polecenie: _LINESUM
Wskaż linie lub polilinie:
Wskaż drugi narożnik:
znaleziono 2
Wskaż linie lub polilinie:
Długość całkowita=39.9129.
Polecenie:
```

142.3750, 322.8365, 0.0000

Sum arcs lengths

The program will sum up the total length of all selected arcs and will display them on the command bar.

1. Please indicate the arcs that you would like to sum up and press Enter.
2. Once the action is confirmed, the command bar will show the total length of selected arcs.

```
Polecenie: _ARCSUM
Wskaż łuki:
Wskaż drugi narożnik:
znaleziono 3
Wskaż łuki:
Całkowita długość: 17.2923
Polecenie: |
```

135.5679, 356.1104, 0.0000

Sum all elements lengths and perimeters

This function can be used to sum up the length and circumference of selected objects.

1. Once the command has been clicked on, you have to choose the objects which are to be summed up and confirm with “Enter”.
2. As soon as you confirm the action, the command bar will display the total length and circumference of chosen objects.

```
Wybierz obiekty:
Wskaż drugi narożnik:
znaleziono 10
Wybierz obiekty:
Selected 10.0000 Objects
Sum of objects length = 56.1072
Polecenie:
```

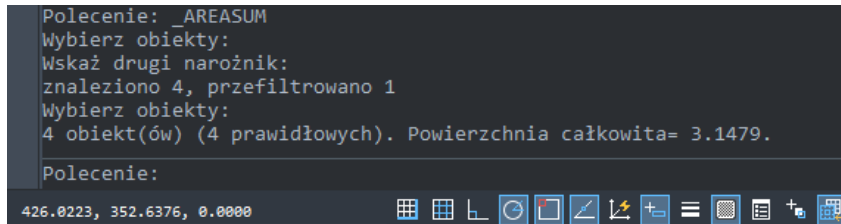
430.8508, 351.3638, 0.0000

Sum areas

This function will sum up the surface area of selected objects.

1. Once the command is clicked on, you need to choose the surface area of objects which is to be summed up. Confirm with Enter.
2. As soon as the action is confirmed by pressing Enter. The total surface area of chosen objects is displayed.

```
Polecenie: _AREASUM
Wybierz obiekty:
Wskaż drugi narożnik:
znaleziono 4, przefiltrowano 1
Wybierz obiekty:
4 obiekt(ów) (4 prawidłowych). Powierzchnia całkowita= 3.1479.
Polecenie:
```

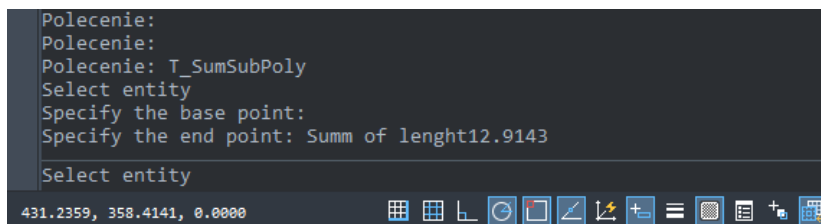


Calculate distance between two clicked points on a curve

This function lets you sum up the length of a line between indicated points. This can be used on lines, polylines and splines.

1. Once you run the command, you need to choose a line.
2. Afterwards, select two points on the chosen line to calculate the length of the line.
3. As soon as you click on the second point, command bar will display the length of the line between the chosen points.

```
Polecenie:
Polecenie:
Polecenie: T_SumSubPoly
Select entity
Specify the base point:
Specify the end point: Summ of lenght12.9143
Select entity
```



Symbols

Change circles to another signs

This function transform circles into objects such as: points, crosses, circles of a selected size, stars and blocks. In order to change an object, you need to enter the diameter of circles which are going to be changed. The type of a mark that it will be changed to and its colour. By doing this all of the circles of a given diameter will be changed to a set mark.

Create a report of points, circles and blocks

This function will ask you to select points, circles and blocks. Afterwards, you will be asked to choose a sorting criteria: do the selected elements in the collection have to be sorted by using the coordinates of X,Y,Z, by the size of the circles or the scale of the blocks. The collection is inserted into the drawing, alongside numbers next to each element. Those are then added to each point, circle and block. An example of such drawing before using this function is as follows:



1. Once you run the command, please select the points and circles.
2. You then need to set a sorting criteria.

```

Polecenie:
Polecenie: T_ZestPt
Wybierz obiekty:
Wskaż drugi narożnik:
znaleziono 3, przefiltrowano 7
Wybierz obiekty:
Sort criterion:X/Y/Z/Fi:<X>
435.0277, 348.1349, 0.0000

```

3. Choose a point for the report.



Draw grating

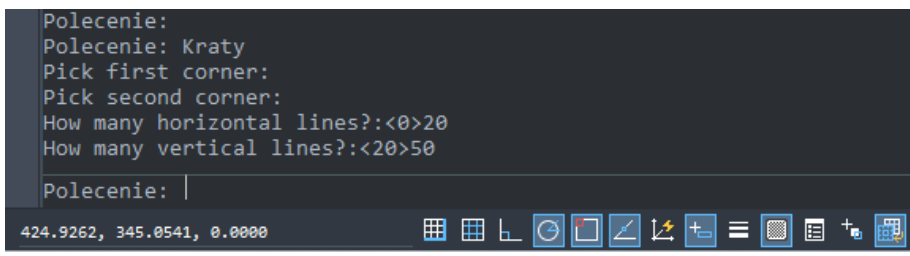
This function allows the user to draw vertical and horizontal lines on a selected area. After running this command, the application will ask you to indicate the scope of the drawing grid and then it will ask you for the amount of horizontal and vertical lines.

1. Please specify two corners of the area where you want gratings to be done.

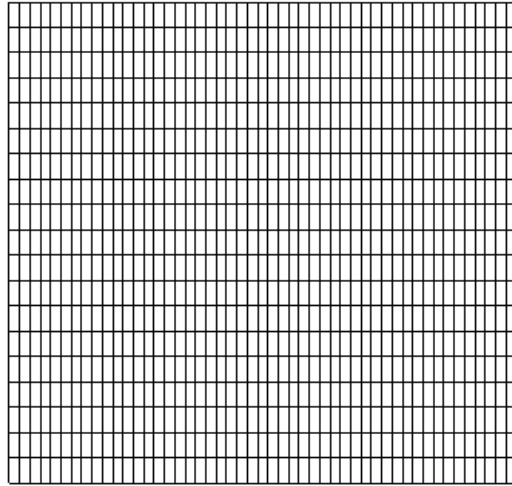


Pick second corner: 13.3440 -12.7374

2. You have to specify the number of rows and number of columns.



3. The effect is as follows:



Scale

Scale drawing from inch to mm

If a picture is drawn in the metric scale of inches, and you have to convert it to millimetres, you can use this function in order to do so. This picture will be increased 25.4 times.

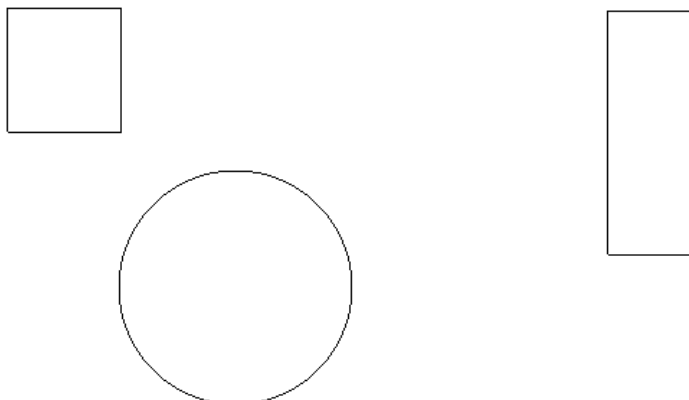
Scale drawing from mm to inch

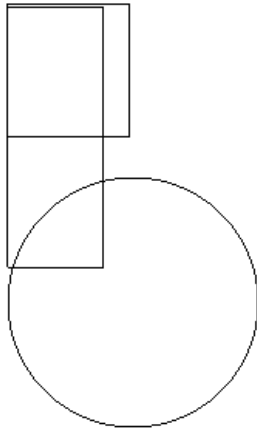
If a drawing is in millimetres and you need to convert it to inches, you can do this by pressing the correct icon. The example shows the picture reduced 25.4 times.

Alignment

Left

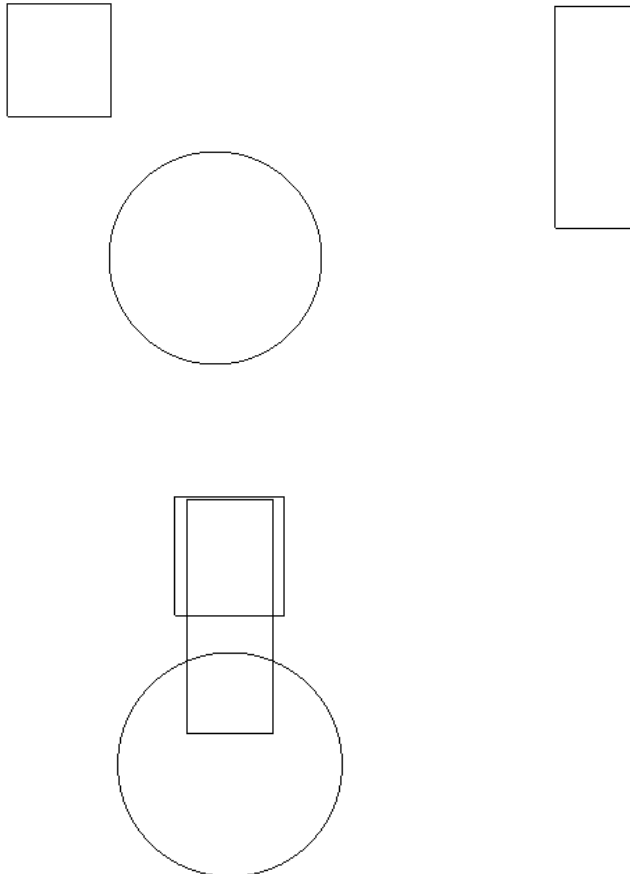
After choosing a group of objects and activating the function, they will be aligned to the furthest left edge of the indicated objects.





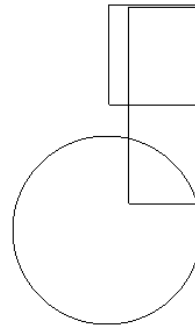
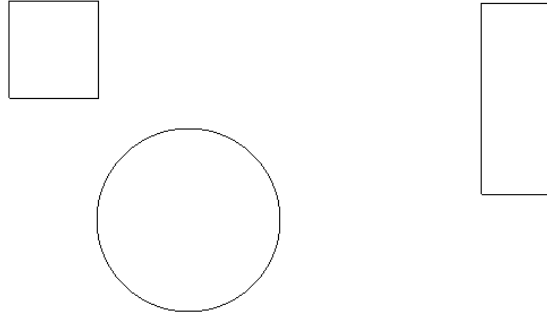
Center

You have to choose a group of objects and after pressing Enter they will be aligned to measure the level of the indicated objects. The point is marked as the center of the X axis from the furthest left and right edges of objects.



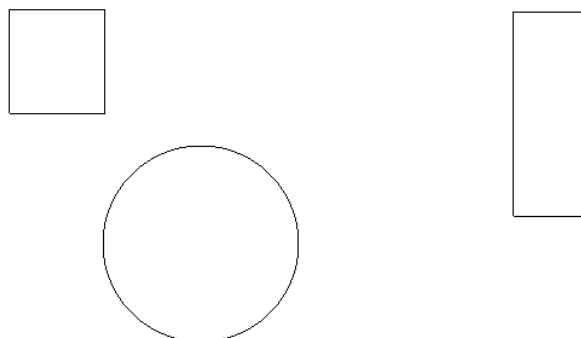
Right

In order to align objects to the right, choose objects and confirm by pressing Enter. They will be aligned to the furthest right edge of the indicated objects.

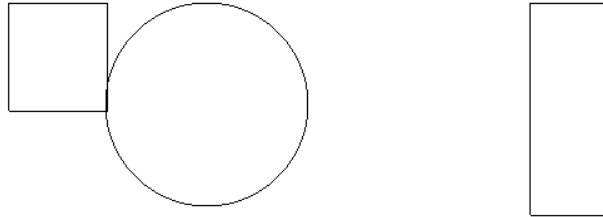


Top

The elements will be aligned to the most furthest upper edge out of the chosen objects, just like on the example. User could choose the group of objects and after confirmation by Enter, the objects will be aligned to the the extreme upper edge among indicated objects. You have to specify the alignment parameters: orientation, alignment direction.

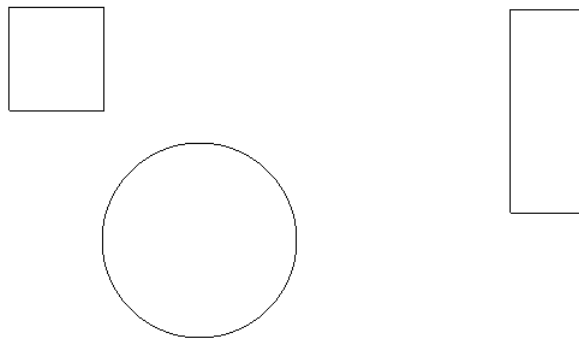


Then please select the objects.

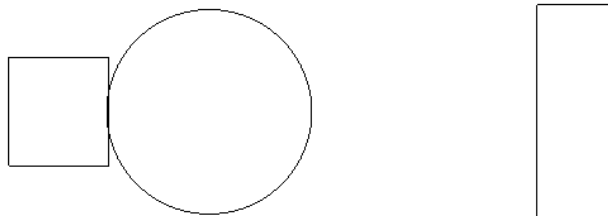


Center

Chosen elements can be aligned in the middle of the vertical line. The point is designated as a centre of an axis Y with the furthest extended lower and upper edge of the objects.

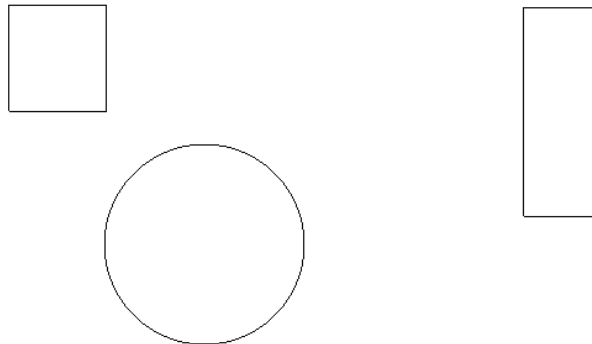


Elements will change their location.

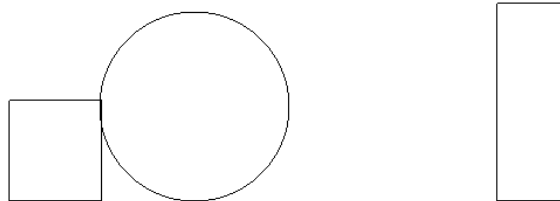


Bottom

Elements will be aligned to the furthest bottom edge amongst the indicated objects.

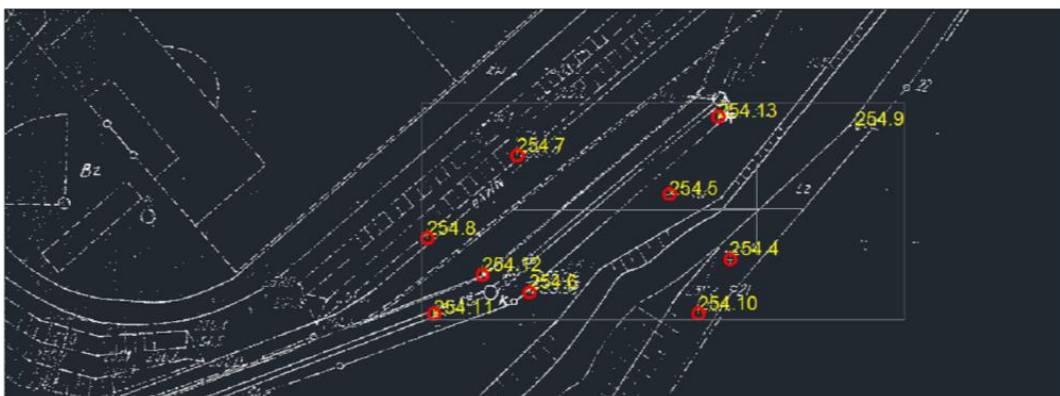


Objects will change their location.

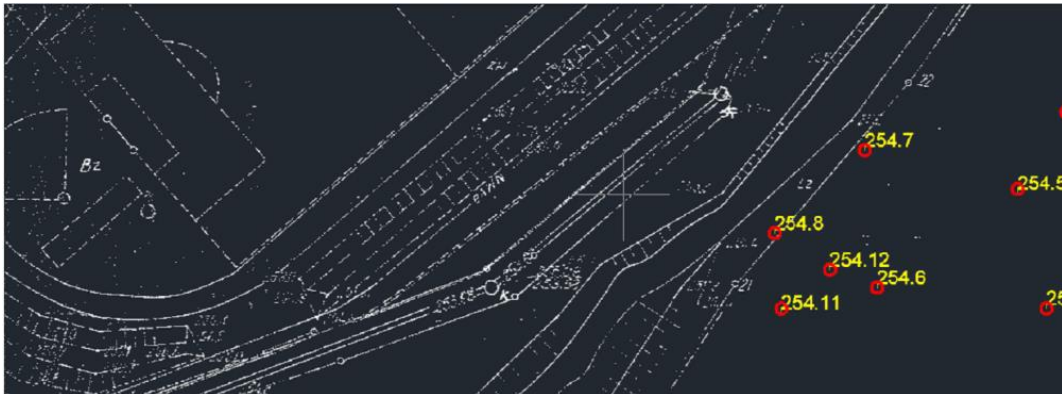


Alignment of objects group

This function allows to align the group of objects to a chosen point. Firstly, the user should indicate a certain point, and then point to which the objects are to be moved/adjusted. If the chosen point of outer contour will be for ex. the end or center, all the indicated objects will be moved to that point.



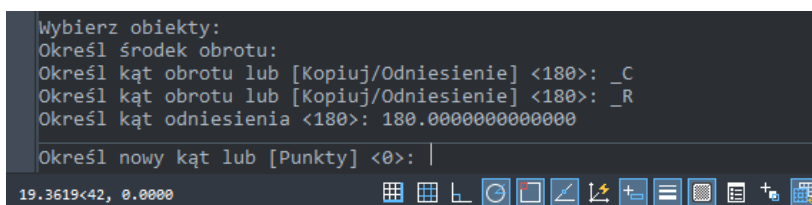
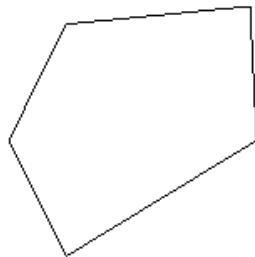
If the chosen point of outer contour will be Close, all the objects will be aligned in the direction of the X or Y to a certain point.



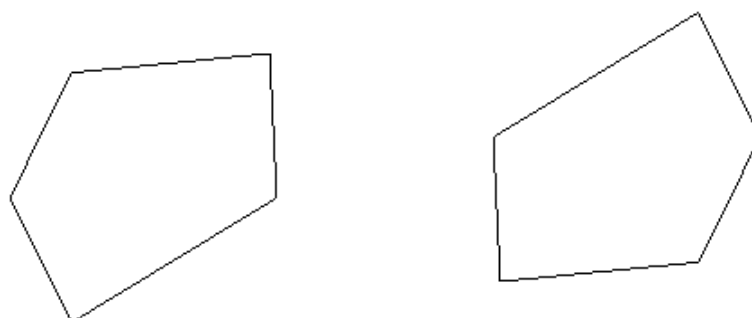
Edition

Rotate of copy

This function is similar to the standard ZWCAD command Rotate. It will ask the user to select objects, center point, reference and rotation angle.



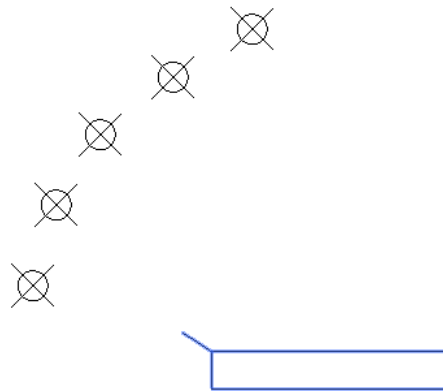
Rotation will be done on a copy of a selected object.



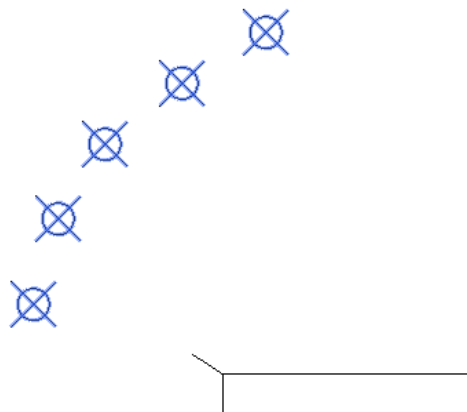
Array by selected points

This function will ask the user to select elements to copy and select point objects.

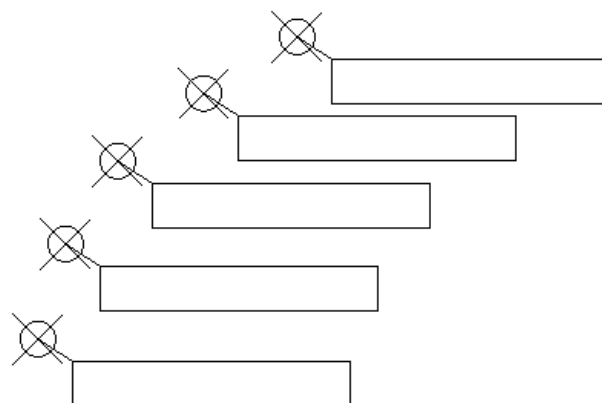
1. Specify the base point of the copied item.



2. In each selected point, a copy of items will be inserted.



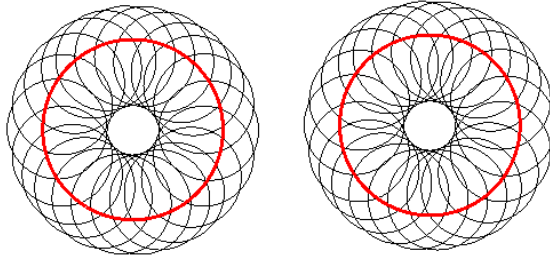
The results of the operation is presented on the picture below:



Extended trimming

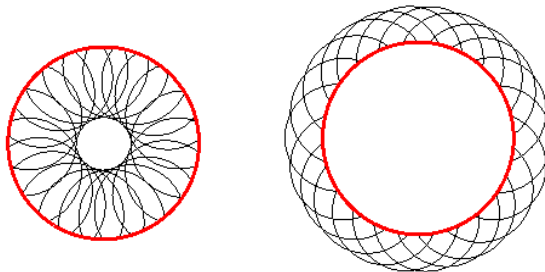
This function trims all the elements which cut through a chosen object

1. The first step is the indication of the element which is to be cut. Afterwards, you need to choose a side of the element on which the elements have to be cut.



2. The results are presented below:

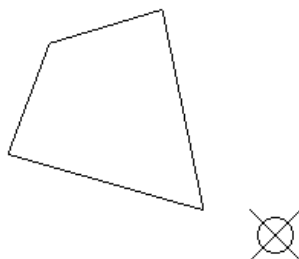
- On the object on the right side of the drawing area, the lines are cut inside of the selected outline.
- On the object on the left side of the drawing area, the lines are cut on the outer side of the selected outline.



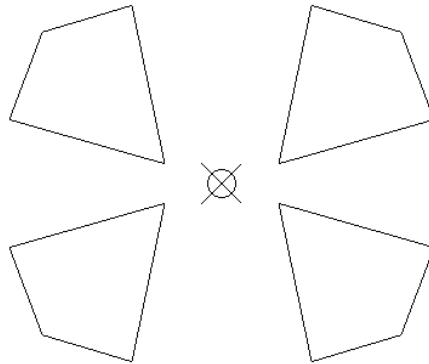
Vertical and horizontal mirror by selected point

Function will make a mirror image of each selected object by X and Y axis.

1. After activating the command, you have to identify the item that you want to copy and then a base point as the center point of the reflection element.



2. You will get 3 copies.

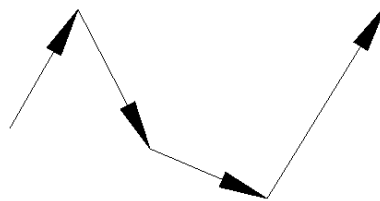


Arrows

Draw arrows by picked points

The arrows are drawn between the points that the user chooses.

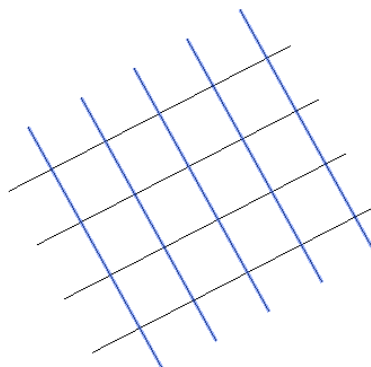
1. The first step after activating the command is choosing the starting point of an arrow which is to be inserted.
2. Following that, choosing different points will allow you to connect them with arrows.



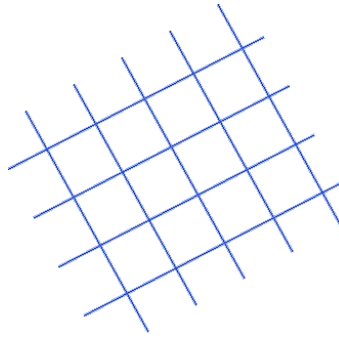
Add arc

The function automatically allows us to add an arc to the indicated leaders.

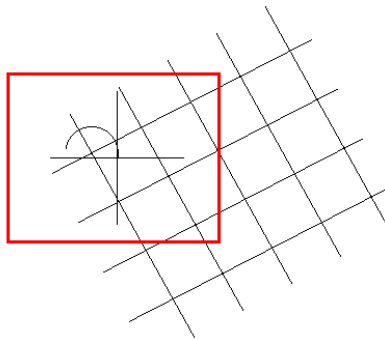
1. After activating the function, indicate the elements on which you want to insert the arcs:



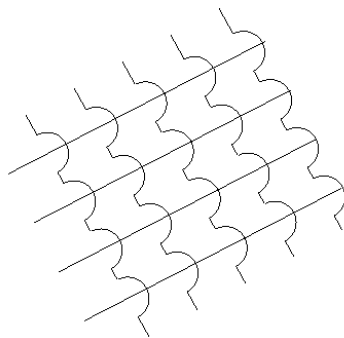
2. Then select the crossing element:



3. Next - under the cursor - you will see a preview of the arc:



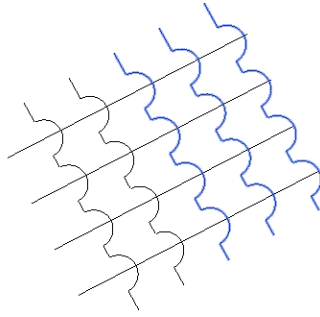
4. When you specify the size and direction will be inserted into all previously marked leaders:



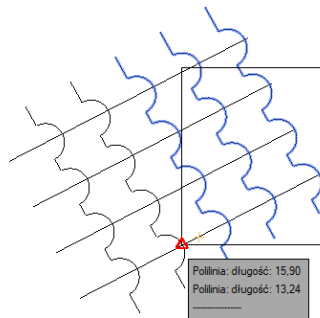
Remove arcs

We can easily remove the arc with the points that were created on the selected elements.

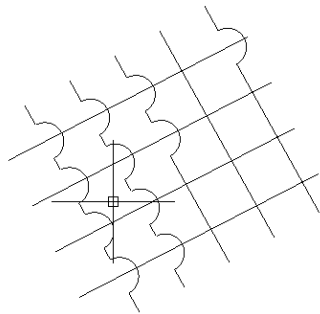
1. To do this, after activating the function, specify the elements on which you want to remove the arcs and additional points:



2. Click the base point and select the area you want to remove.



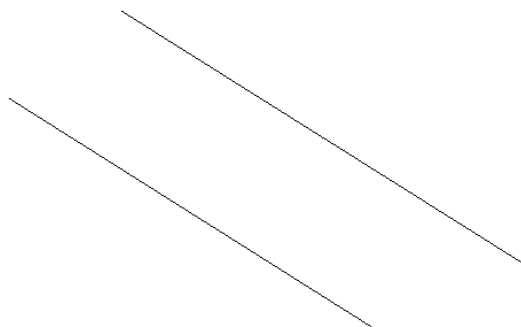
3. The selected items will return to their original shape:



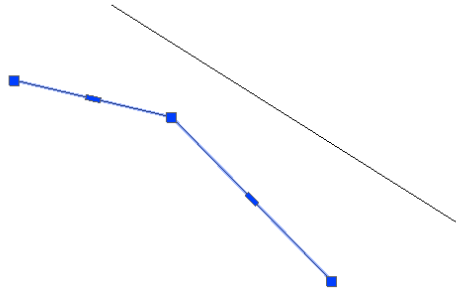
Add point

The command allows you to add a point to an existing leader.

1. After activating the command you need to specify to which element you want add a point:

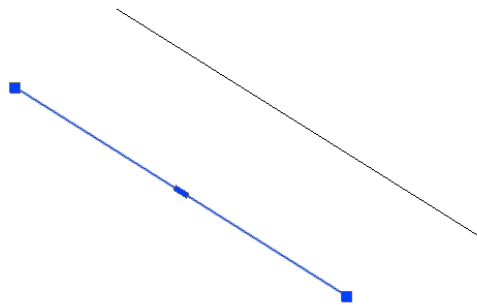


2. Next, you should specify this point in the drawing:



Remove point

Similarly to the preceding function, we can easily remove the indicated point and return to the original state. When you start the function, you need to specify the point you want to remove.



ZWToolbox

Activation

A trial period that lasts for 30 days with full functionality is available after installation of the application.

[Activation must be completed on an account with administrative privileges.](#)

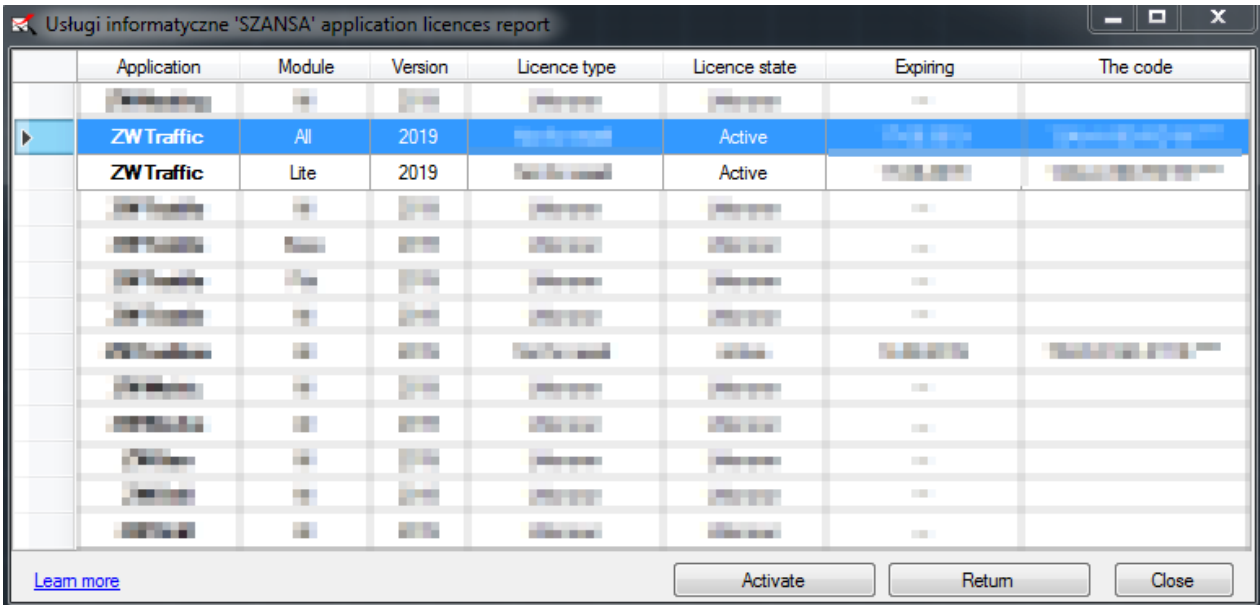
Once the trial period of 30 days runs out, a licence will be needed in order to use the program. After receiving the payment, an e-mail with an activation code will be sent. Activation is available directly in ZWCAD or by using the function Activation from menu of the application. It is also possible to activate the program from its installation folder. By default located in:

C:\Szansa\Aktywator\2024\EN and run Aktywator_2024.exe.

In operating systems such as Windows Vista, Windows 7, Windows 8 and Windows 10 it

is necessary to right click on ZWCAD icon and select Run as Administrator.

Full licence code is only visible on the licence certificate that is sent out during completion of the order due to security reasons. Once Activator has been launched, the following window will be displayed:



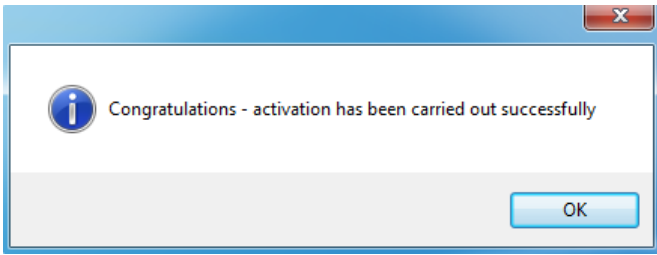
Please click on **Activate**.

A choice between activating the application online or offline will be present.

Online activation

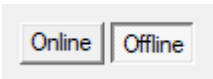
In the field **Activation code** please type in the information sent during realization of the order, afterwards click on **Activate**.

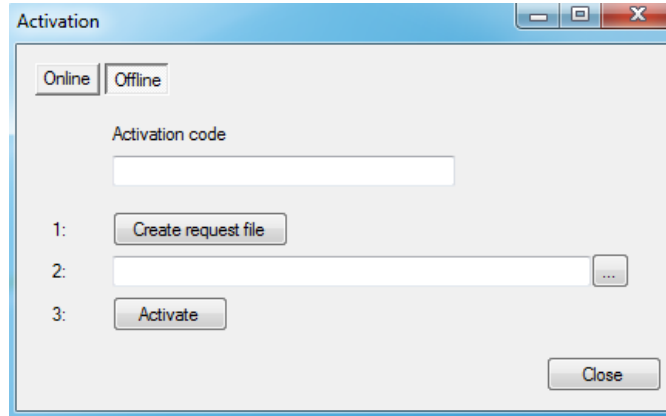
An information window will pop up confirming the activation.



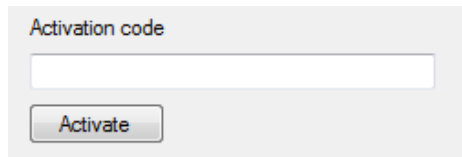
Once ZWCAD is launched, all functions of the program should be loaded and available.

Offline activation

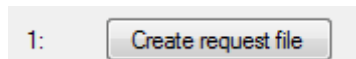
In the **Offline** tab  additional steps are required to complete the activation.



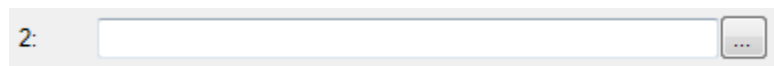
In the field **Activation code** please type in the information sent during realization of the order.




Afterwards it is necessary to click on Create a request file, it will create an additional file which needs to be saved on the desktop or in any other directory of the computer.



The file needs to be sent in a form of an attachment to, pomoc@zwcad.pl and a reply will consist of response file which then needs to be loaded in the activator:

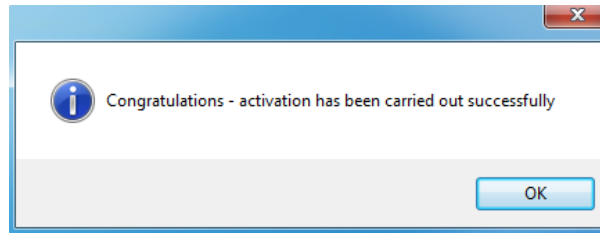


Response file needs to be saved on the computer and its localization needs to be determined by clicking on the following icon .

Once the response file is loaded, click on **Activate**.



An information window will pop up confirming the activation.

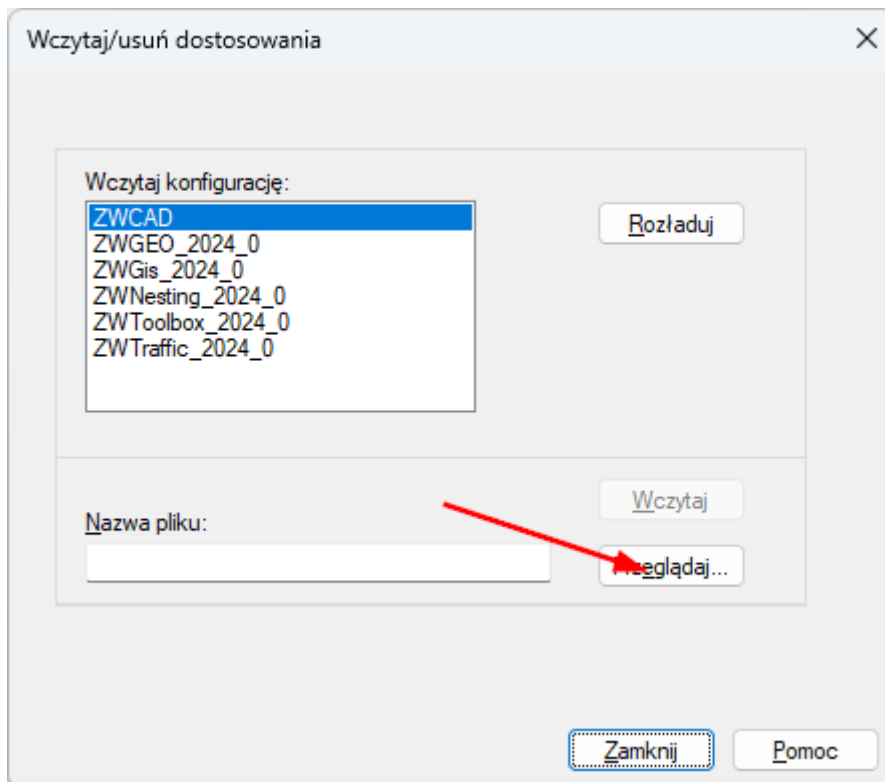


Once ZWCAD is launched, all functions of the program should be loaded and available.

Manual menu load

After installing the overlay, it should load automatically after running ZWCAD 2024. The functions should be available and the toolbar with the icons should be displayed. If after running ZWCAD the overlay does not appear, please follow these steps:

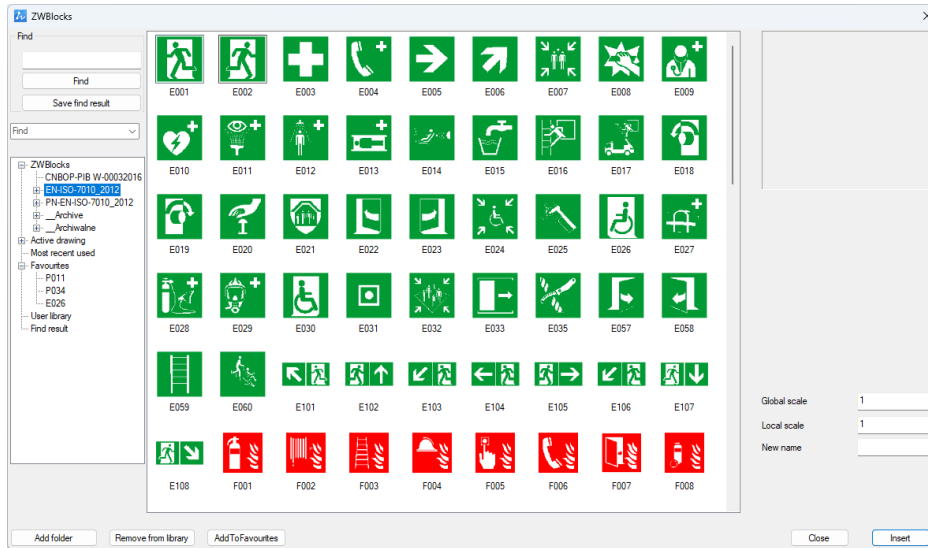
- Run the command `_menuload`.
- Press the button and select the file `ZWToolbox.cuix` located in `C:\Szansa\ZWToolbox\2024\EN`. Confirm the file by clicking Add.



ZWBlocks

Safety symbols

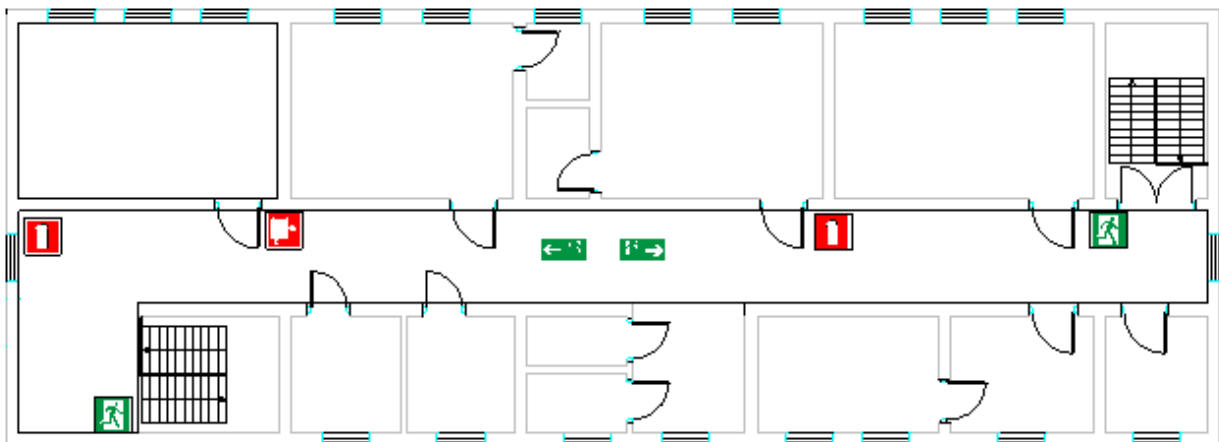
With this command you can insert safety symbols to the project.



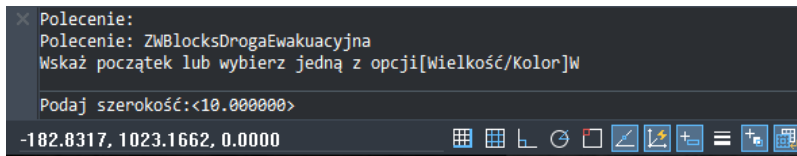
You can choose any of the categories on the left, and after choosing a symbol in the main window, you can insert it by clicking Insert. You can also mark a sign as favourite, so it can also be found in Favourites category.

Draw Emergency safety route

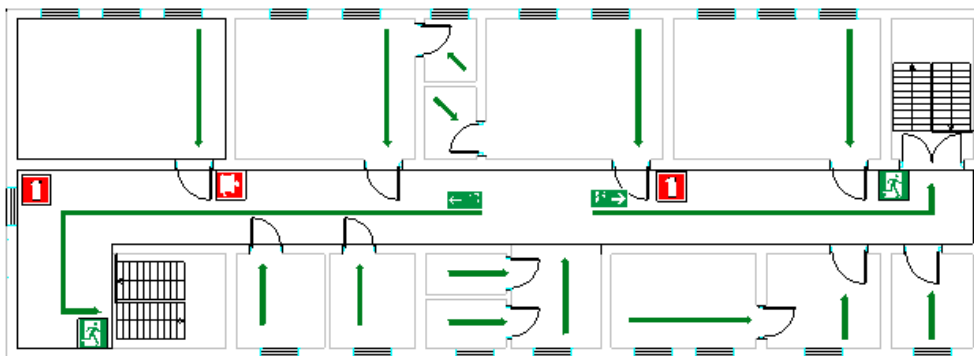
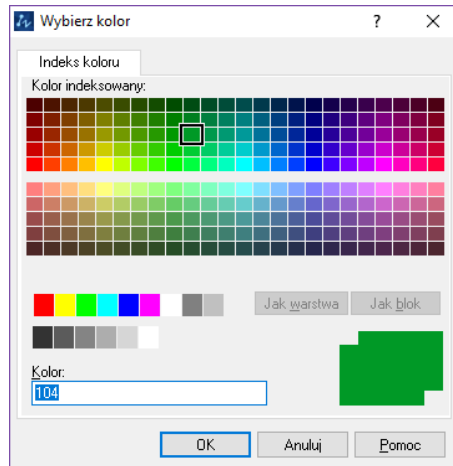
This function creates directional arrows for evacuation paths. After running the command, the user will be asked to point direction for evacuation route. Default arrow is green, with 10 units of width, but it can be changed in properties.



In order to change width of the arrow, click S, and type a new value, confirm with Enter.

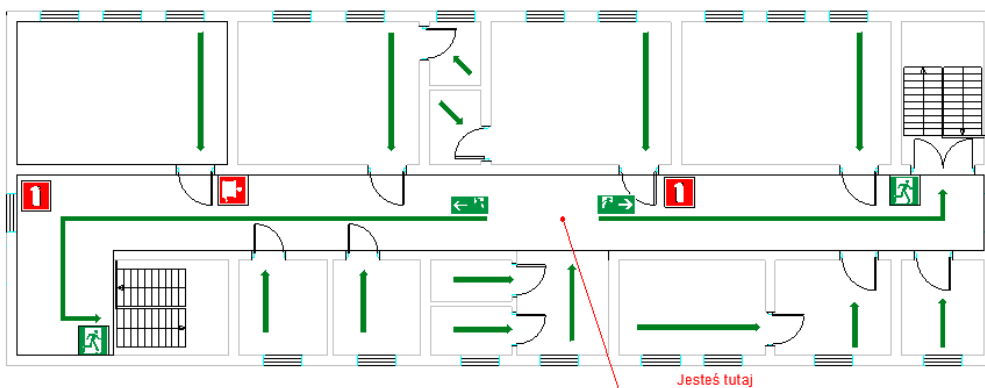


In order to change colour, type C and choose a new colour, confirm with Enter



Insert symbol "You are here"






You can use this command to insert symbol, with location of person watching the plan, which is red dot with a line. At the end of the line, "You are here" appears.



You can also change size and colour of the function, similarly to Emergency safe route.

Used signs report

You can make a table with all signs in the project, or with chosen ones only. Start the command, select what signs you want and click Enter. Then specify a place where the table should be placed.

	Nazwa	Opis	Ilość
	E006	Kierunek drogi ewakuacyjnej w prawo / wzdłuż	1
	E005	Kierunek drogi ewakuacyjnej w lewo / wzdłuż	1
	E002	Wyjście ewakuacyjne (prawostronne)	2
	Gaśnica		2
	Hydrant wewnętrzny		1