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# Block Manager



# Block Manager

Version 2021

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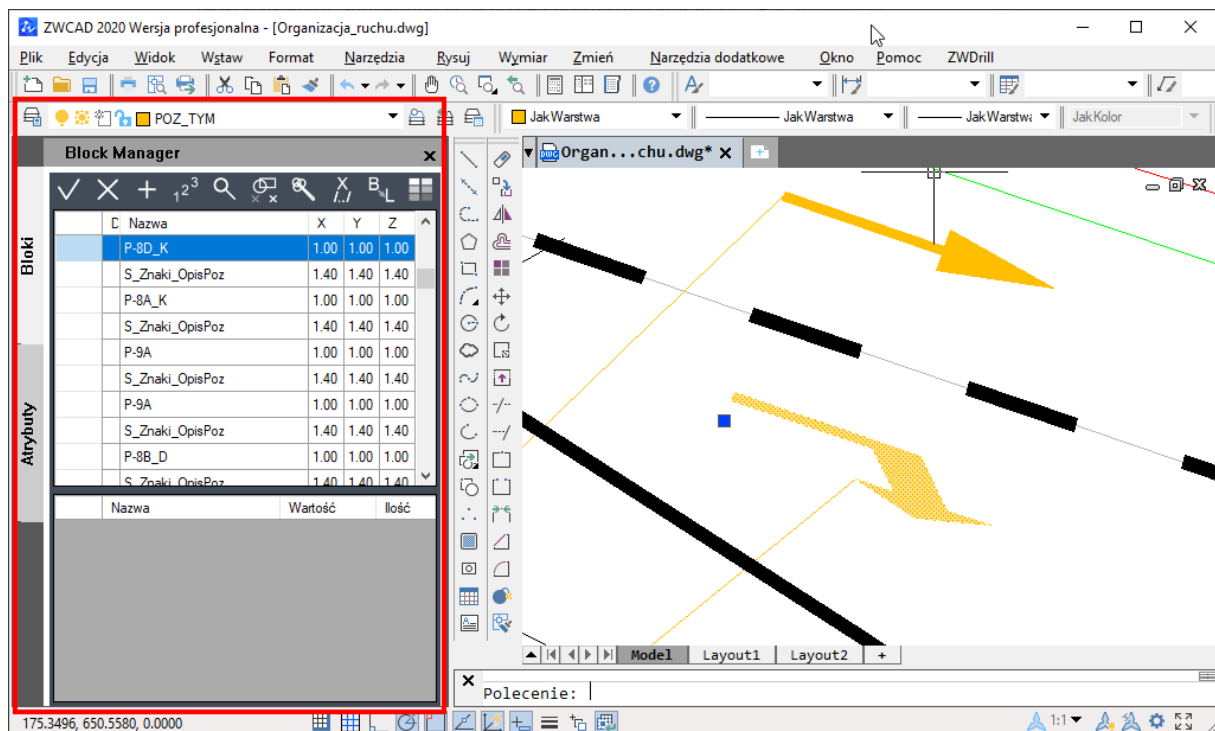
## Introduction to Block Manager

Blocks are a great tool when used with often recurring elements.

A block may contain different components, but it is usually treated as one object. If we change one block, other blocks with the same name will also change. Blocks can be saved on a disk, they can be moved between drawings and have their scale and angle of rotation changed.

We decided to improve block creation and edition by adding a special panel with additional options.

After installation of the application in ZWCAD, a panel will appear in which the blocks available in the drawing will be displayed. There are function icons can be found above the file list.

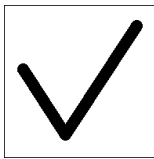


Block Manager functionality includes:

- Creating and exploding blocks,
- Adding elements to blocks,
- Changing base point position of a block,
- Searching for blocks within a drawing,
- Purging unused blocks from drawings,
- Exploding blocks and moving objects to layers with the same name as a block,
- Changing color inside the block,
- Changing the X,Y,Z scale of a block,
- Changing values of attributes,
- Changing block name,
- Quick select of blocks in a drawing,
- Block quantity report.

## Block Manager functionality

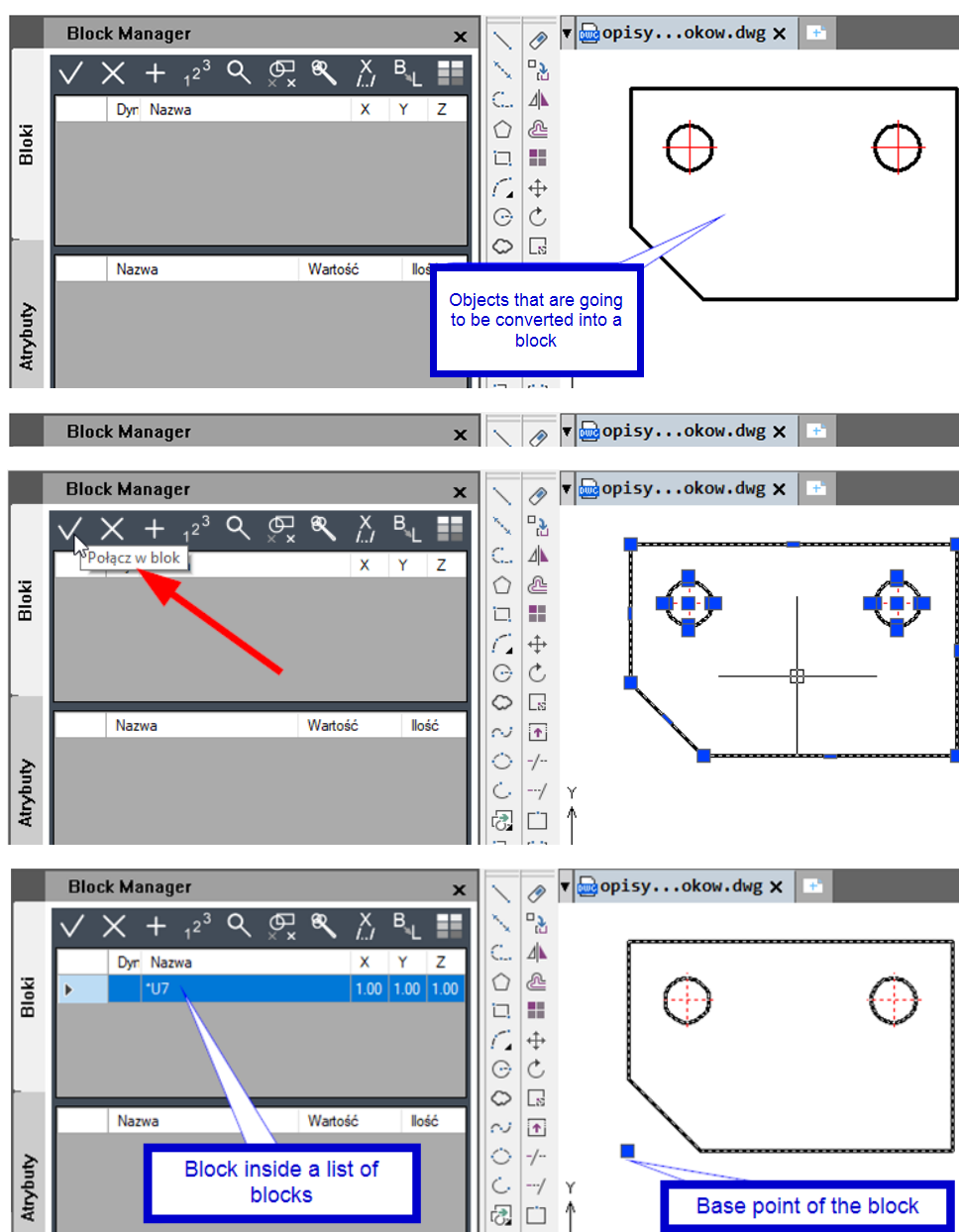
### Creating Blocks



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).

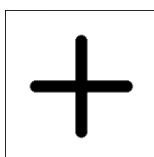
The pictures below show individual steps of creating a block in the application.





Watch a video on how to create blocks: <https://youtu.be/N9WJUD66B8s> or scan the QR code with your phone.


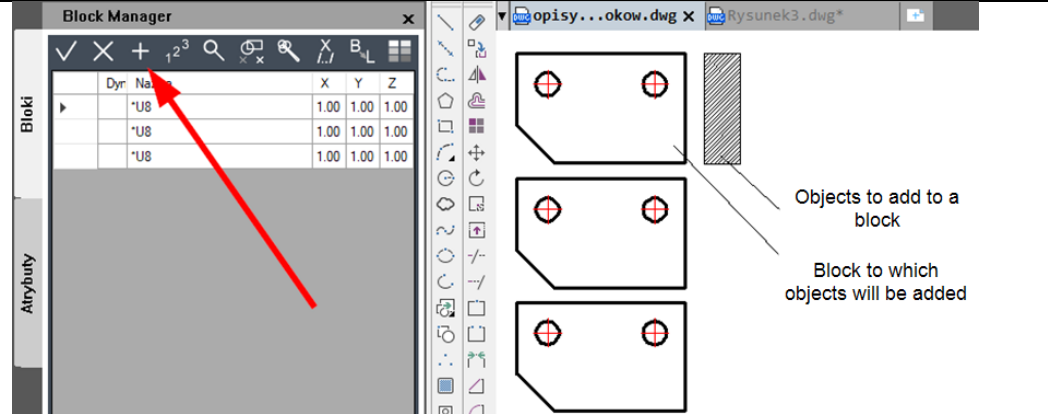
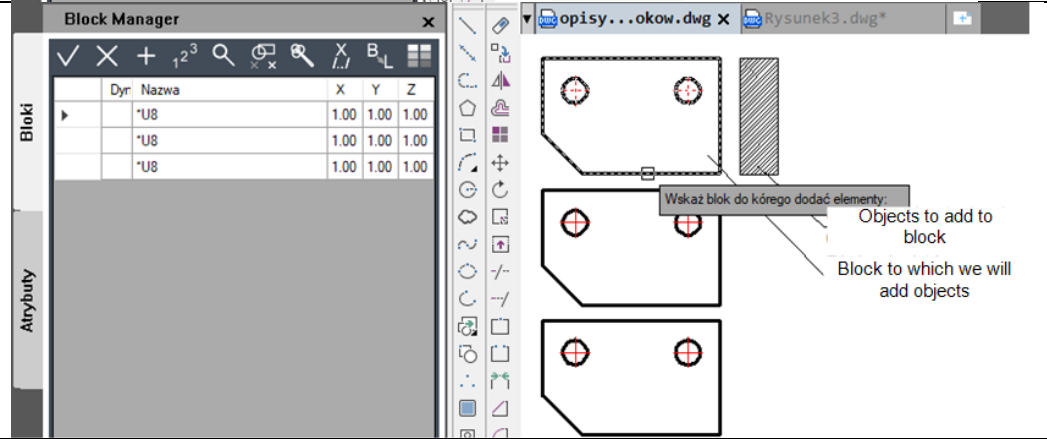
## Adding elements to an existing block

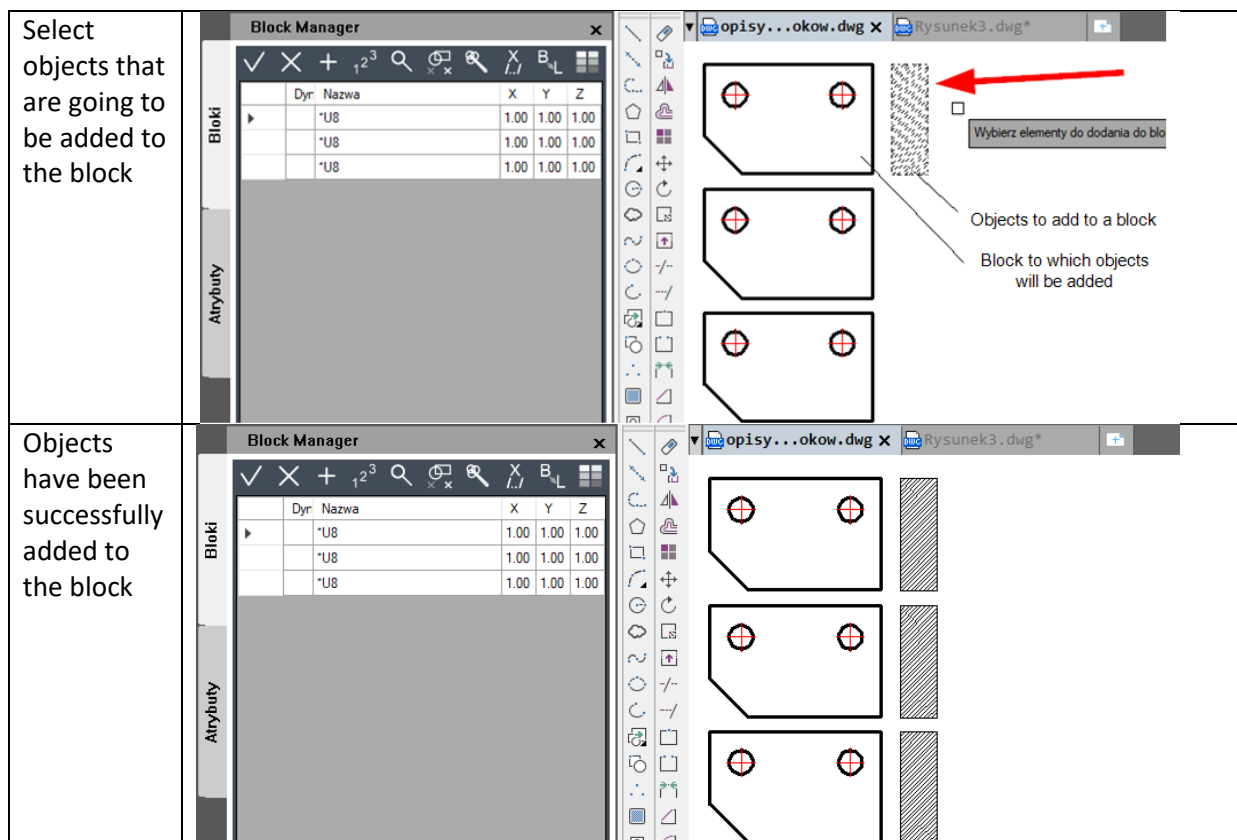


This function adds new objects to an existing block.

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.

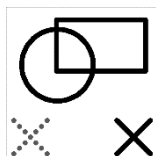
The pictures below show the individual steps for adding items to the block:

<p>Initial state.</p>  <p>Select the function to add elements to the block</p>	
<p>Indicate the block to which we will add objects</p>	



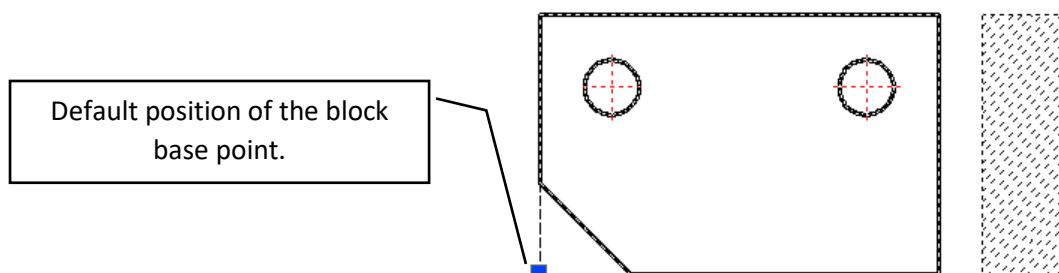
Watch the video on how to add new elements to the block by clicking here: <https://youtu.be/28egyXuto0s> or scan the QR code with your phone.

## Changing base point of a block



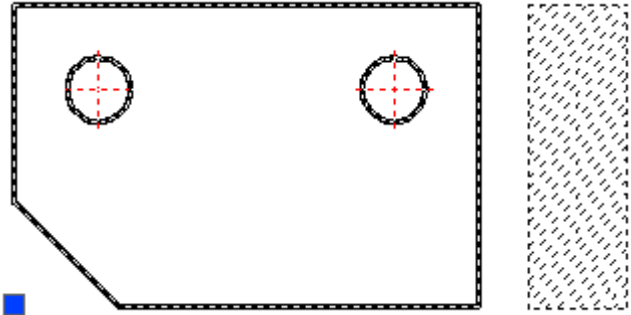

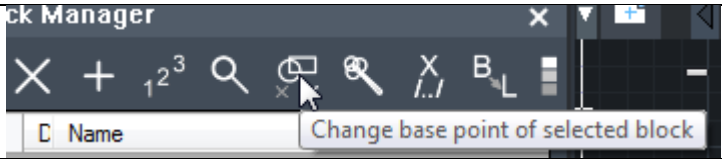
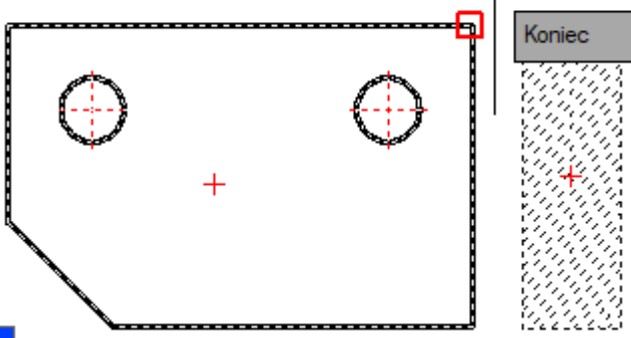
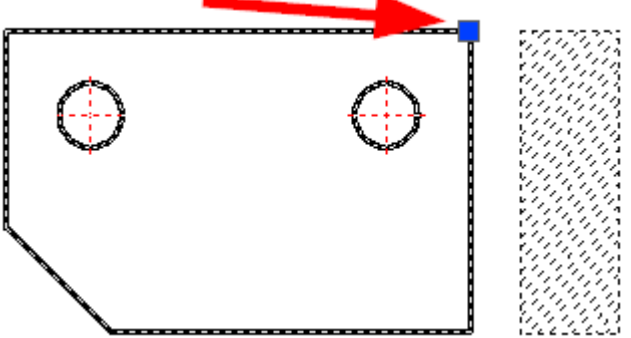
The function changes the position of the block base point.

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.

Initial state	
 Select the function to change the base point, and select the block you want to change.	
Indicate a new base point location	
Block after the change.	



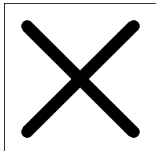
Watch the video on how to change the base point of a block by clicking here <https://youtu.be/BhBNCFC8TnQ> or by scanning the QR code with your phone.



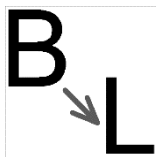
## Exploding blocks

The function for exploding blocks makes the objects **cease to form a whole**.

There are two functions for exploding blocks:



**Standard Explode** – After being exploded, the objects will be placed on the same layer as they are in the block.



**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.



Watch the video on how to explode blocks with transfer to layer like block name by clicking on <https://youtu.be/nPJCjAYKCQE> or by scanning the QR code with your phone.

## Finding blocks in a drawing



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.

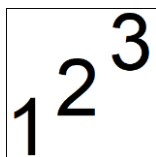
Individual steps to use the function are shown below.

<p>In the picture we have several defined blocks.</p>	
<p>Select the desired block in the table and click on the magnifying glass icon.</p>	
<p>The view of the drawing will change so that the block you are looking for is placed entirely on the screen.</p>	



Watch the video on how to search for block in the drawing by clicking here: <https://youtu.be/ZlyLsH8lf8Y> or by scanning the QR code with your phone.

## Block quantity report



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:

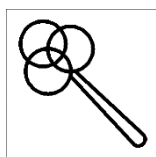
```
Wybierz obiekty:
Block.....Count
-----
Motor.....23
Wattmeter.....25
Transformer.....25
Voltmeter.....9
Inductor.....9
Bell.....9
Buzzer.....9
Cell.....9
Diode.....9
Ground.....9
Speaker.....9

Polecenie:
```



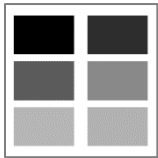
Watch the video how to Get information about the number of blocks in the drawing by clicking <https://youtu.be/IYGEZcJHAsQ> or by scanning the QR code with your phone.

## Purging unnecessary blocks from a drawing



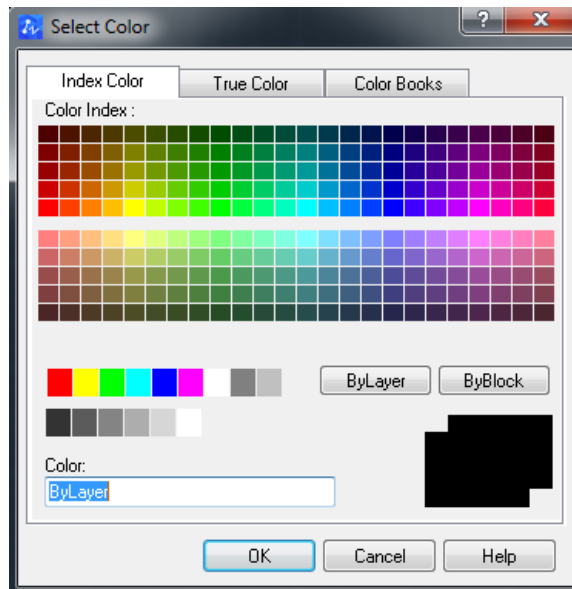
The function allows you to delete unnecessary blocks from a drawing, which will speed up work and reduce the size of DWG file.

## Changing colours within a block



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

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

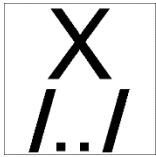


Once approved, all elements of the block will change their color.



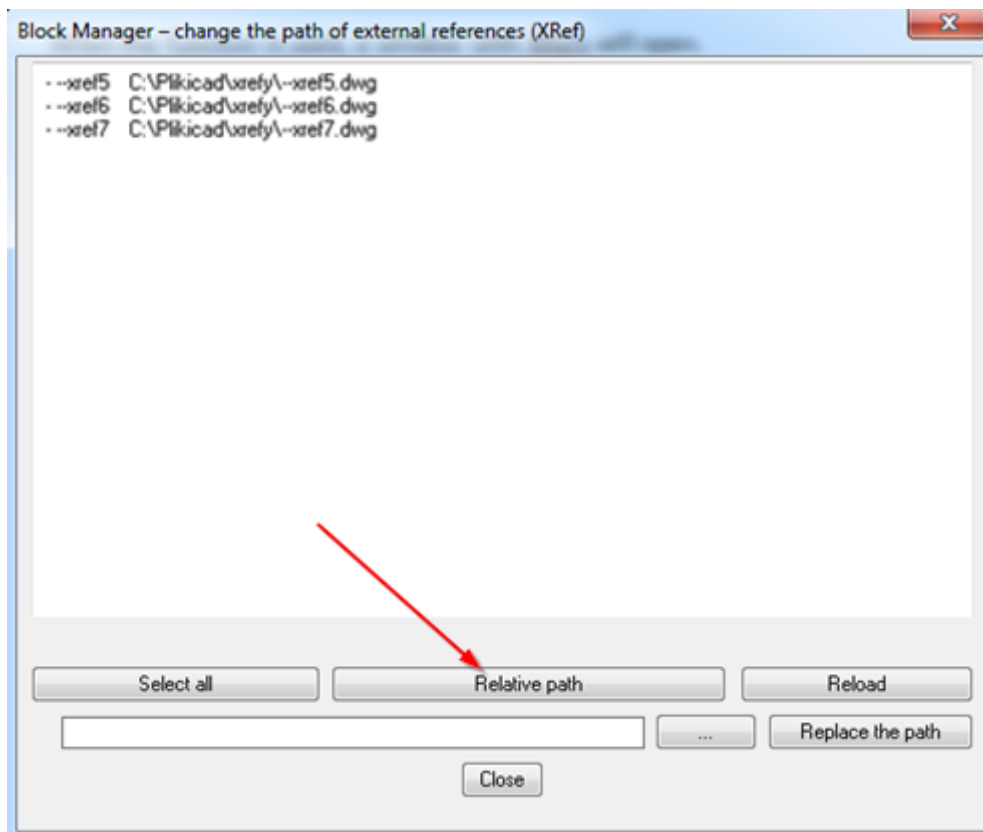
Watch the video how to change colors within a block by clicking here <https://youtu.be/zgaBwuQ9oBA> or by scanning the QR code with your phone.

## Changing xref paths



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.

Below is a sample file structure before and after the change.

--xref5	C:\Plikicad\xrefy\--xref5.dwg	➔	--xref5	./--xref5.dwg
--xref6	C:\Plikicad\xrefy\--xref6.dwg		--xref6	./--xref6.dwg
--xref7	C:\Plikicad\xrefy\--xref7.dwg		--xref7	./--xref7.dwg

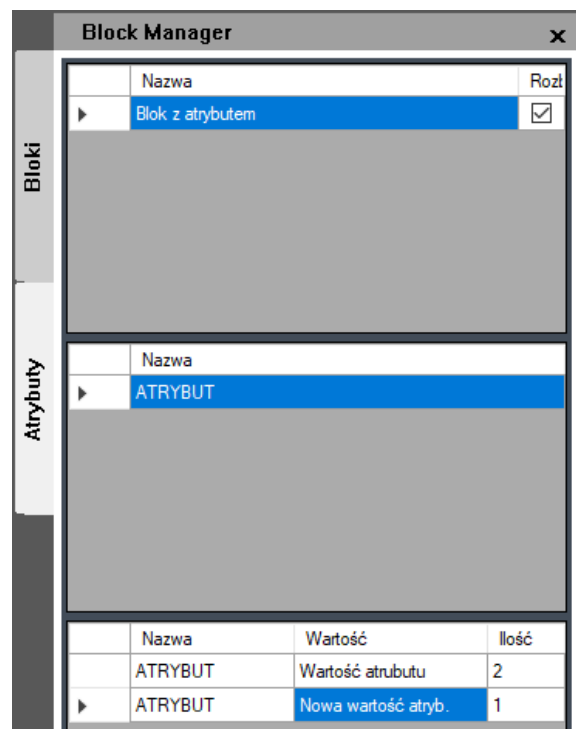
## Attribute edition panel

Block Manager panel is divided into two tabs:

- Blocks.
- Attributes.

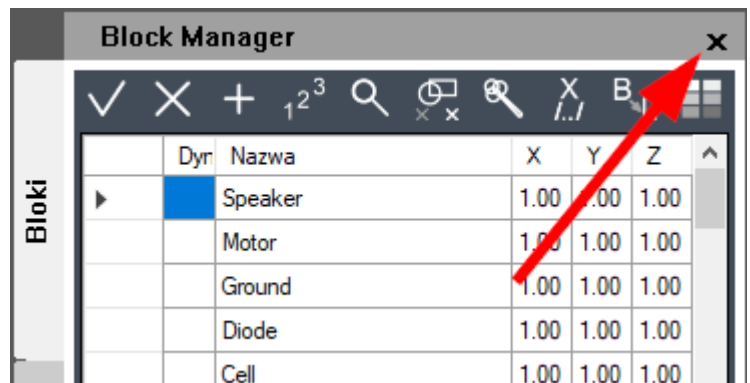
„Attributes” tab is divided into 3 parts from top to bottom:

- 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.

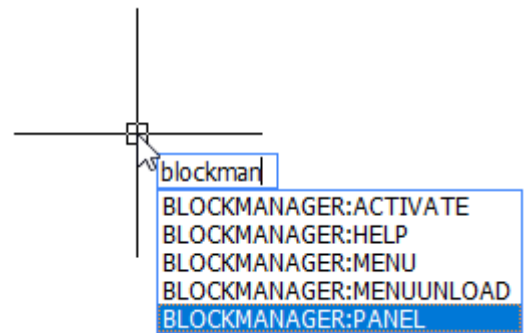


## Deactivating Block Manager

If you want to temporarily disable Block Manager, just close the panel by clicking on the cross in the right top corner of Block Manager panel.



To restart the panel, enter the command:  
BLOCKMANAGER:PANEL.



# Block Manager Installation

## Downloading the program

Block Manager can be downloaded from here:

[https://cad.szansa.net.pl/?dir=Block\\_Manager\\_2021](https://cad.szansa.net.pl/?dir=Block_Manager_2021)

The application requires ZWCAD 2021, which can be downloaded from here:

- 32 bit: [https://www.zwcad.pl/links/ZWCAD\\_32bit\\_EN.php](https://www.zwcad.pl/links/ZWCAD_32bit_EN.php)
- 64 bit: [https://www.zwcad.pl/links/ZWCAD\\_64bit\\_EN.php](https://www.zwcad.pl/links/ZWCAD_64bit_EN.php)

IF ZWCAD is already installed, there is no need to reinstall it.

## Installation process

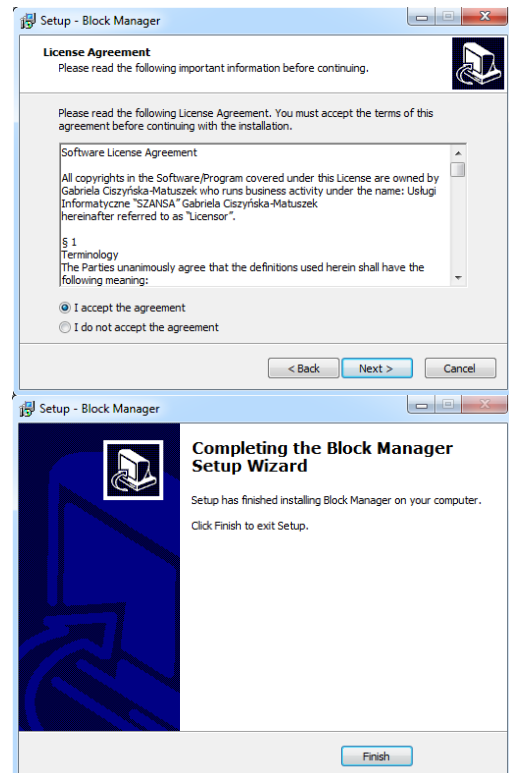
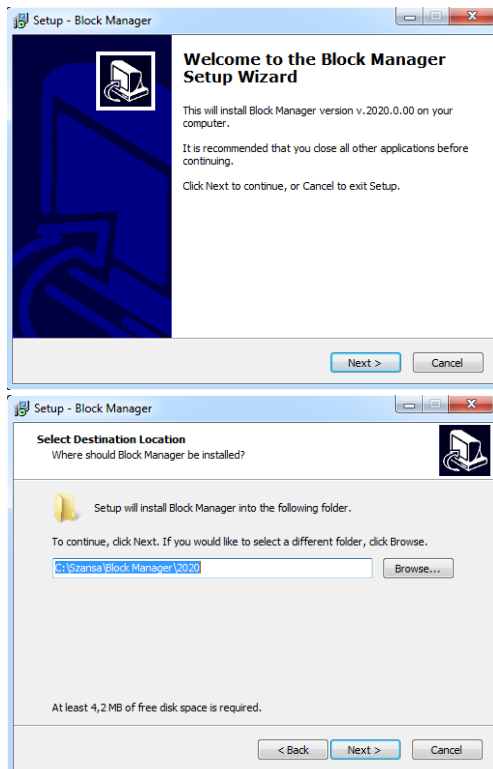
The installation must be carried out by an account with administrator rights.

During the installation of Block Manager, ZWCAD cannot be turned on.



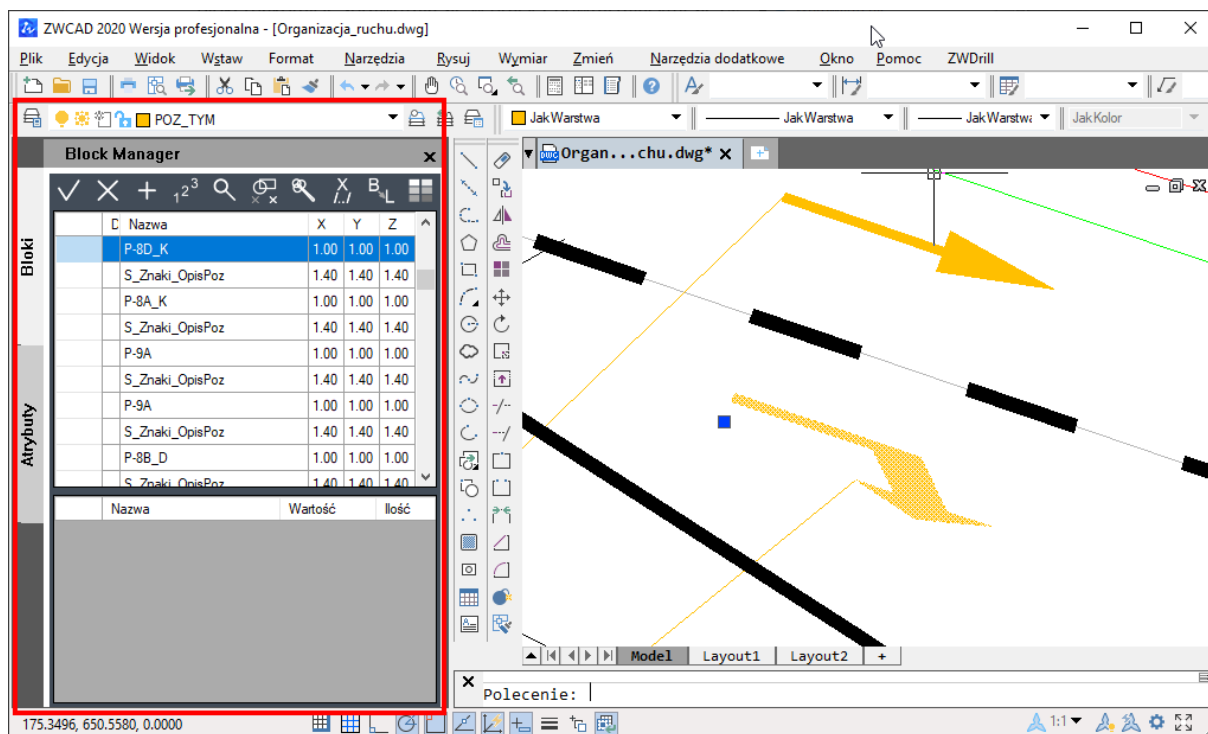
Start the installer by double clicking on the .exe file.

Click on „Next” in the following dialog boxes.





Now, when you start ZWCAD, you will see a block management panel (the list of blocks varies depending on the drawing).



## Block Manager 2021 System and Hardware Requirements

Block Manager requires one of the programs listed below to work:

- ZWCAD 2021 Professional,
- ZWCAD Architecture 2021,
- ZWCAD Mechanical 2021.

System Requirements:

<b>Operating System</b>	Windows® Vista 32 & 64 bit, Windows® 7 32 & 64 bit, Windows® 8 32 & 64 bit Windows® 10 32 * 64 bit
<b>Processor</b>	Minimum 2GHz
	Multi-core processor recommended
<b>RAM</b>	Minimum 500MB for ZWCAD
	2000MB or more recommended for ZWCAD
<b>Hard Drive</b>	Minimum 00MB
<b>Monitor</b>	Minimum resolution 1024x768
	Recommended resolution 1280x1024 or more
<b>Indicating devices</b>	Mouse and Keyboard
<b>Additional devices</b>	CD/DVD driver or internet connection to download the installer
<b>Activation of Block Manager and ZWCAD</b>	Internet connection, connectivity to port 8888 and 11024