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ZWGeo

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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

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Se	elect by area
Tu	ırn on/off fill

Load

In order to load ZWCAD faster, the application isn't active at all time. If you want to use the application during your project, please use this function to load its content into the ZWCAD. You can also run ZWCAD with ZWGeo by opening it from the desktop's icon.

Manage points

Add points

The command let user mark points by insert point entity and text containing series and number in points clicked by user. After running the command, the user will be asked to input series and start number. After that, click on the place where first point should be located, and set a symbol of this point.







Describe points

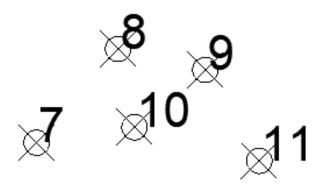
You can use this function to insert points based on a template. Run the command, and choose set of values from: Coordinates, Elevation, Point, Quick Point and Sump. You can then put a point into a drawing with chosen description. You can also add a leader to your point.

0.0000

Insert descript	ion	>
	Coordinates	V Open
	[select]	
Y X	Coordinates Elevation Point QuickPoint Sump	enter a value
	o unp	@X
Add lead	er	
	Settings	
	Draw Zamknij	-

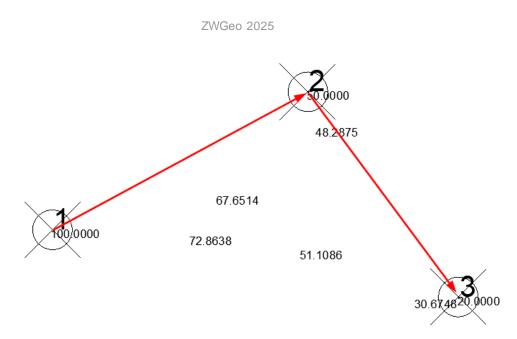
Quick point

You can use this function to conveniently insert many points, one by one. The points will have advancing numeration. You can also edit it any time by double clicking.



Interpolate

This function can be used to define a plane and calculate coordinates of points in this plane. Any points that are to be interpolated must be located within boundaries of 3 lines.



- First, choose 3 points you want to be your reference point. Make sure that they have Z value set, and its different from each other.
- Then you can draw a line between them, so a triangle is created, but this only makes it more readable. Make sure you have localization to point turned on, or you won't be able to catch your points.
- Run the command, and draw 2 lines between your points to make a triangle.
- Now you can click on any point within the figure, to create points with Z value, based on created plane.

Import points

The command inserts into drawing points defined in text files. After executing the command, application will display a window:

Points import	×
data format	
Columns order	YXZND ~
Columns separator	[Space]
Data file	
Draw	Close
Diaw	Close

In this window user may select format of files with data, columns order and separator of columns. Also user may select file with data. After clicking button [Draw], application will insert points, numbers and blocks of symbols if contained on a data file.

Export coordinates

The command will export coordinates of points into text files. After executing the command, application will display window:

A 42	501.4674 171.2757	0.0000	+
A 42 A 41	607.2802 174.4943		
A_40	629.0060 230.0158		
A_39	521.5839 193.8061	0.0000	
A_38	538.0794 311.2865		
A_37	421.8060 351.5195		
A_36	503.4790 240.8788		
A_35 A_34	275.3579 182.9432 252.4251 226.3949		
A_34 A_33	305.1303 247.3160		
A 32	247.1948 316.9191	0.0000	
A 31	254.8391 271.4558		
A_30	248.4018 353.9335		
A_29	298.2907 348.7032		
A_28	390.4243 279.5024		
A_27	458.0157 318.5284		
A_26	585.9567 331.4030		
A_25 A_24	631.8223 332.6100 640.6735 268.6395		
A_24 A 23	630.6153 199.0364		
A 22	544.1144 190.9898		
A 21	435.0829 197.0248		×
- Data fo			
Numbe X	er 🔨 ->	Number , Y	<u>∧</u>
Ŷ	~		
ż	×	×z ·	v V
14			
2			
2			×
	s separator		[Space]
	s separator		
Column	s separator		[Space]
Column	s separator		

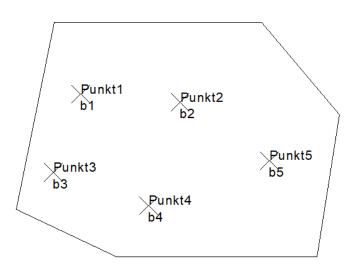
In this window, there is a list of points selected from drawing. If you want to select a new one, click point [+] and application will ask you to select points. You can remove them from this list by [-]. In this window you can also define format of a file, columns order and a separator. Also you must write or select a path to a file where points will be stored. After clicking [Save], points will be saved.

Table of points

Function can be run by using the command ATP_START. Once the function is started, the following table will appear:

ATP F	Palete					×
•	¢					#
ID	Column	Name	X	Y	Z	

To which you can add points from drawing with this button and select objects (points in this case), just as presented below:



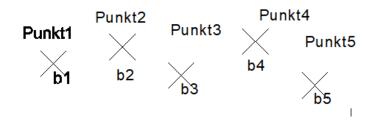
You will get the following result:

ATP Palete									
• x									
ID	Znajdź	Nazwa	X	Y	Z				
3C55	[1]	ZWGEO_Pt	446,207	172,375	0.000				
3C1C	[*]	ZWGEO_Pt	370,510	144,209	0.000				
3BE3	[*]	ZWGEO_Pt	310,657	165,040	0.000				
3BAA	[*]	ZWGEO_Pt	390,251	208,936	0.000				
3B71	[*]	ZWGEO_Pt	327,967	214,038	0.000				

This is the way how points have been added to the table. When changing properties in the table, the changes in the drawing are applied automatically.

ID	*	Znajdź	Nazwa	Х	Y	Z
3B71		["]	ZWGEO_Pt	400,000	150,000	25,000
2077		[*]	ZWIGEO PH	200 261	200 020	0.000

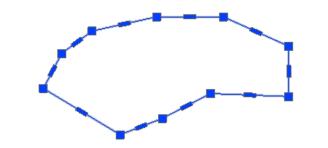
After changing coordinates of Punkt1, it will move to a different place. It is also possible to move points in the model:



Active Points Table will adjust values accordingly to their new position:

ATP Palete								
×								
ID 🔺	Znajdź	Nazwa	X	Y	Z	NUMER		
3B71	["]	ZWGEO_Pt	323,356	183,939	25,000	Punkt1		
3BAA	[1]	ZWGEO_Pt	359,888	192,734	0.000	Punkt2		
3BE3	[1]	ZWGEO_Pt	391,007	177,851	0.000	Punkt3		
3C1C	[1]	ZWGEO_Pt	430,245	195,778	0.000	Punkt4		
3C55	["]	ZWGEO_Pt	461,628	172,572	0,000	Punkt5		

Once a selected polyline is added into the table, it will display all information regarding coordinates of polyline vertexes, its area and perimeter.



>	T#1		X	Y	Z	Powierzchnia	Długość
		Polilinia				8323,573	395,411
			820,572	446,304	0.000		
			863,129	455,687	0.000		
			907,027	455,687	0.000		
			950,255	436,251	0.000		
			950,255	403,076	0.000		
			898,650	405,087	0,000		
			866,816	388,667	0,000		
			839,002	377,944	0,000		
			788,402	408,438	0,000		
			800,466	431,560	0,000		

Any changes to polyline vertexes will be automatically applied within the table. Active Points Table handles:

- points,
- group of objects,
- attribute blocks,
- polylines.

To access settings, click on this icon or type in the command ATP_SETTINGS. Following parameters can be adjusted:

•	Se	ttings				Ŀ		×	
	•	} 2↓							
	4	Export							
		Column separator							
	⊿	View							
		Decimal Separator							
		Decimal Precision	3						
	De	cimal Separator							
	Dee	cimal Separator							
			 			_			
				S	ave	1	Car	icel	
									.

Report points as table

You can use this command to make a table of points. Run the function, select points you want in your table, and confirm with Enter. Then place it in your drawing.

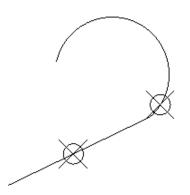
Zestaw	Zestawienie współrzędnych punktów								
Współrzędna X	Współrzędna Y	W spółrzędna Z	Numer						
322.813	185.3564	0	a1						
402.6712	245.874	0	a2						
431.9942	142.3078	0	a3						
511.8524	156.6573	0	a4						
739.0316	204.0972	100	1						
814.6298	244.8452	50	2						
859.1309	184.2594	20	3						
803.9066	129.0351	0	4						
896.6619	125.8182	0	5						
942.2353	239.4836	0	6						
975.6741	175.2768	0	7						
990.3674	192.1299	0	8						
1006.0752	188.3666	0	9						
993.3126	178.0584	0	10						
1015.8107	172.0044	0	11						

Points by distance

With this function you can insert points on a polyline. You need to run the command, and choose a polyline. Command line will prompt for a distance:

Polecenie: ZWGeo: Wskaż polilinię: Podaj odległość: (236.919 311.432 Podaj odległość: (297.137 345.415	0.0) 120
Podaj odległość:	
▦ ▦ ⊾ ◙	🛅 🗾 🖄 🔚 = 🔲 🗉 😘 🜉

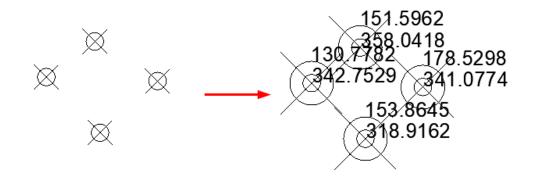
When you type the distance, a point will be made and its coordinates will be listed. You can continue inserting points or finish with Enter.



Manage lines

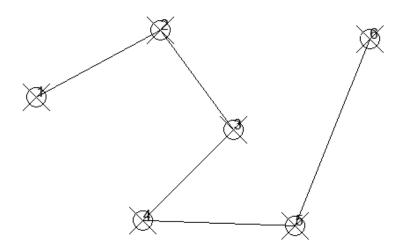
Describe objects

With this function, you can easily add values to points in your drawing. You may press S to go for setting, and then you can choose a set of values to input, for example Coordinates, Point etc.



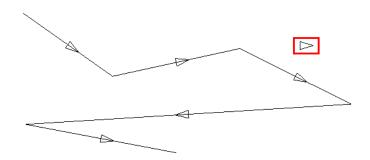
Draw by numbers

When using this function, you can draw a line through each point of your choosing. Run the command, and type points you want to be connected. You can divide points in order by a comma (,) or select more of them one by one for example 5-15.



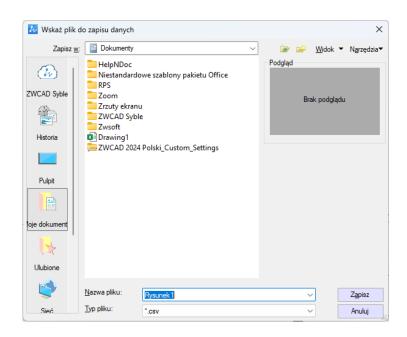
Mark middle segment of the polyline

With this function you can put a block into the middle of each section of polylines. Run the command, then click on a block that will be put in the middle of a line, and choose polylines. Confirm with Enter.



Export polyline coordinates

In order to export coordinates of polyline's points you can use this function. The program will ask for location and a file to save, in which coordinates will be saved. You can save it in .csv or .txt.



Here is how it looks after the process:

	А	В	С
1	х	Y	Z
2	1274.9220	183.3887	0.0000
3	1351.0564	129.7730	0.0000
4	1459.3602	153.3639	0.0000
5	1554.2601	106.1820	0.0000
6	1277.0666	89.0250	0.0000
7	1405.2083	64.8979	0.0000

Polyline coordinates to a table

This function makes a table with coordinates of a chosen polyline. Just select polylines you want to be labelled and confirm with Enter.

Zestawienie punktów					
Pozycja X	Pozycja Y	Pozycja Z			
1405.2083	64.8979	0			
1277.0666	89.025	0			
1554.2601	106.182	0			
1459.3602	153.3639	0			
1351.0564	129.773	0			
1274.922	183.3887	0			

Raster images

Insert all rasters from a selected folder

By this command you can export values of texts into external text file. After running the command, go to select Texts or MTexts and choose a path to text file where data will be stored.

Przeglądanie w poszukiwaniu plików lub folderóv	v ×
Wskaż katalog z plikami obrazów	
💻 Ten komputer	^
> 🔮 Dokumenty	
>	
> 🎝 Muzyka	
> 💽 Obrazy	
> 🕂 Pobrane	
s nuluis	Ň
*	-
Eolder: Ten komputer	
OK Ani	uluj

Insert multiple raster files

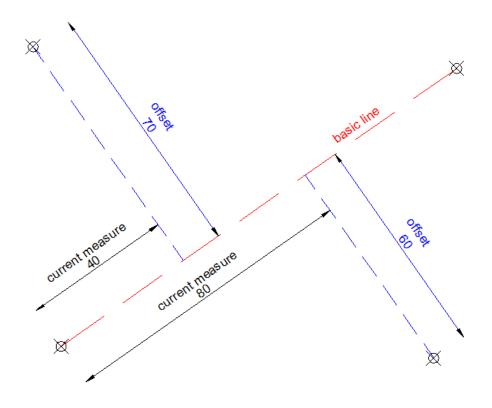
The function will let you select many raster images, and insert it automatically using positioning file.

W Select File												×
Look in	: 📙 MultiRaster			~	←	<u>نه</u>	8	-	View	•	Tools	-
History Desktop Desktop My Documents Favorites Network	Nazwa 09N3O5.tfw 09N3O5.tfw 09N3O5.tff 10N3O5.tfw 11N3O6.tfw 11N3O6.tff 12n34o56.tff 12n34o56.tff 15N3O5.tff	w :	~		C 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Prev	_		View	•	Tools	•
	<				>							
	File <u>n</u> ame:	Wipeout						``	-		<u>O</u> pen	
	File type:	11						`	/		Cancel	

Tools

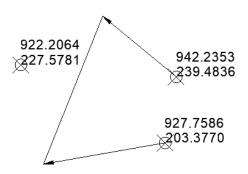
Rectangular offset

Offsets square is a function used to measure the details of a terrain. After activating the function, indicate two points on the base line. Then please specify the distance and offset. The location corresponding to the entered value will be inserted point.



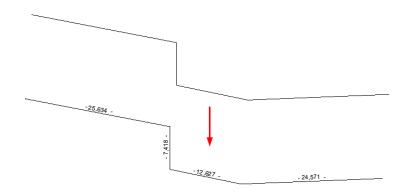
Insert coordinate description

By this command you can mark points in project by describing coordinates X and Y. The application will ask you to pick a point and insert description block in the chosen point. If you click next points, there will be leader connecting first click point with the rest of points, and description block will be always on last picked point.



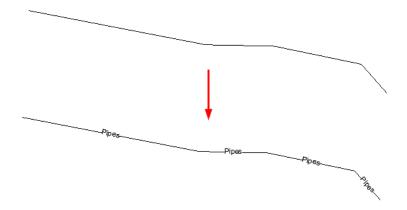
Front measure

Front measure can be used to add lengths of certain segments such as cabling or pipes.

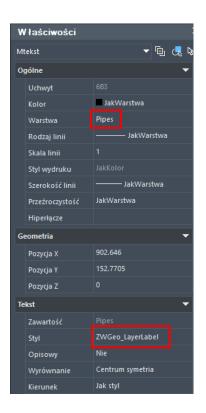


Describe conduit

After running the layer label command, you'll have to select polylines and they'll get labelled with a proper layer name in the middle of each segment:



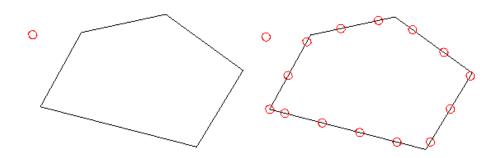
Layer label adds a description to each segment of a selected polyline as well as the name of the layer.



Mark a boundary

Draw a fence by multiple copy of selected object along selected path. To draw such fence you need to:

- 1. Draw symbol which should be copied
- 2. Draw axis of fence (lines or polylines).
- 3. Run the command.
- 4. Select a symbol to copy.
- 5. Pick a base point.
- 6. Write a distance between symbols or click two points.
- 7. Select fence objects, the same drawn on point 2.



On the picture above you can see project before and after using the command.

Insert a cross grid

The command will draw an array of crosses in range – windows selected by two opposite points. In the command bar you have to specify the distance between cross marks.

+	+	+	+	+	+	+	+	+
+	+		+					
+	+		+					
+			+					
+	+		+					
+	+	+	+	•	•			
+	+	+	+			+		
+	+	+	+	+	+	+	+	+

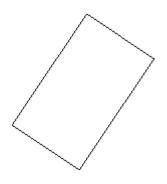
Save text in txt file

By this command you can export values of texts into external text file. After running the command, go to select Texts or MTexts and choose a path to text file where data will be stored.

🐱 Wskaż plik	do zapisu danych					×
Zapisz	w: Dokumenty		~	🐼 😅	<u>W</u> idok	N <u>a</u> rzędzia▼
CWCAD Syble CWCAD Syble Historia Pulpit Voje dokument	RPS Zoom Zrzuty ekran ZWCAD Syb Zwsoft Drawing1			Podgląd Bra	ik podgląd	u
- 🗳 -	Nazwa pliku:	Rysunek1		~	•	Z <u>a</u> pisz
Sieć	Typ pliku:	*.txt		~		Anuluj

Rectangle

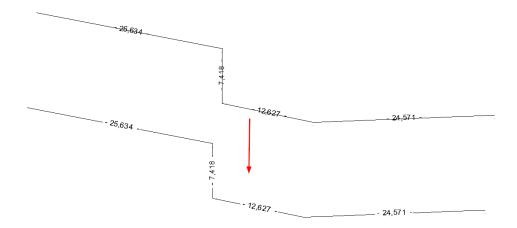
This function makes drawing rectangles at any angle. Run the command, choose an angle and height/width.



View

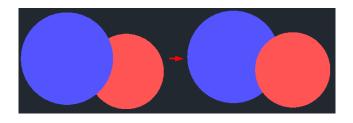
Cover elements with text

This command helps you make drawing more readable, by covering objects under MText by wipeout. All you need to do is run the command and select multiline text entity. Everything under this MText will not be visible, but it will remain there.



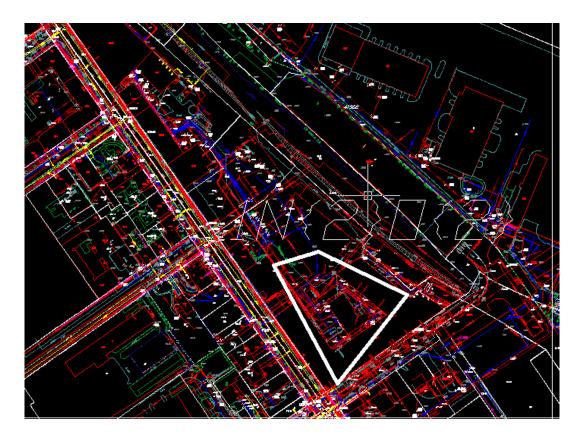
Bring forward

Just run the command and select those entities, which should be over the other ones, and then select one entity which should be at the bottom of draw order.

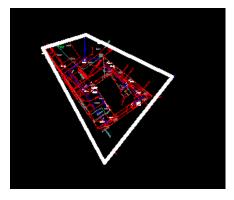


Trim Map

Maps can be cut by using a single button. Select an area outside of a closed polygon. Once the area to cut is selected (LINE, POLYLINE, ARC, CIRCLE, ELLIPSIS, IMAGE or TEXT), and there is something outside of the cut line, the effect will be similar to the one presented below:



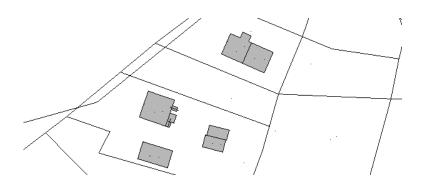
This functionality makes work much smoother and easier. Cutting maps is considered as a work improvement since at the end of the design process, almost always maps require manual cutting, as the terrain is too large and, as confirmed by many users, this part of work is the most time consuming one when working on maps.



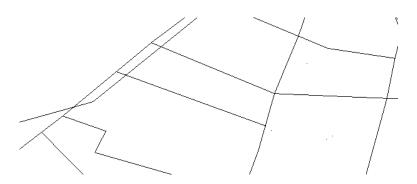
Visibility

After running the command, indicate items that will be in one of the first group of objects. After selecting the items and approving by pressing Enter, previously selected objects won't be visible. To enable it you have to run the command. In this way, the user can quickly turn on and off groups of elements in the drawing. Just make sure that objects are on a different layers.





The user can make eight groups of objects in the drawing, they are formed in an analogous manner.



The function allows you to turn off or on all previously defined object groups 1-8.

ZWGeo

Activate

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\2025\EN and run Aktywator_2025.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:

🛒 Us	ługi informatyczne '	SZANSA' appli	ication licence	es report			_ D X
	Application	Module	Version	Licence type	Licence state	Expiring	The code
	(Although the second se		100	Concerned in the second	(Margaret		
Þ	ZWTraffic	All	2019	No. for south	Active	2-2-20	State of the local distance of the local dis
	ZWTraffic	Lite	2019	the increase	Active	10.00	100000000000000000000000000000000000000
	20 Table		199	Concerned in the second	(Margaret		
	10110-000	And a	1000	Children 1	Children .		
	Cit Traditor	100	194	(Margaret	New	-	
	200 Taxable		200	10000	100000		
	Constant	100	100	Sector and	1000	1.0.00	1000 CT 000 CT 0
	(Without a		100	(Margaret	(Married	-	
	100000		100	Children 1	All the second sec		
	Other		194	(Acres)	New		
	(Market		244	(Second	(Acres)		
	10000		100	and the second	(Second		
Lean	n more				Activate	Return	Close

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

Online Offline

additional steps are required to complete the

activation.

Activation		
Online	Offline	
	Activation code	
1:	Create request file	
2:		
3:	Activate	
		Close

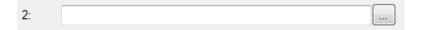
In the field **Activation code** please type in the information sent during realization of the order.

Activation code	
Activate	

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.

1:	Create request file	

The file needs to be sent in a form of an attachment to, <u>pomoc@zwcad.pl</u> 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.

3: Activ	ate
----------	-----

An information window will pop up confirming the activation.



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

Manual load

After installing the overlay, it should load automatically after running ZWCAD 2025. 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 ZWGeo.cuix or ZWGis.cuix located in C:\Szansa\ZWGeo\2025\EN. Confirm the file by clicking Add.

Wczytaj/usuń dostosowania	×
Wczytaj konfigurację: ZWCAD ZWGEO_2024_0 ZWGis_2024_0 ZWNesting_2024_0 ZWNesting_2024_0 ZWToolbox_2024_0	<u>R</u> ozładuj
ZWTraffic_2024_0	<u>W</u> czytaj
	Zamknij <u>P</u> omoc

Profile

Mark Contour Lines

With this function, you can easily change a height of a contour line. To do so, run the command and click on a line, then type its value. The Z parameter will be changed.

Wzn Dłua

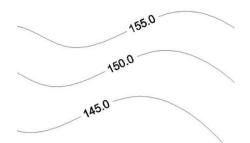


The picture before and after said function is used.

In case of problems, convert your contours to Light Polylines with a CONVERTPOLY command.

Label Contour Line

The function labels contour lines. After running the command, make a line that will go through your chosen lines. In each place that contour crosses with this function's line, a description of its hight will be placed.

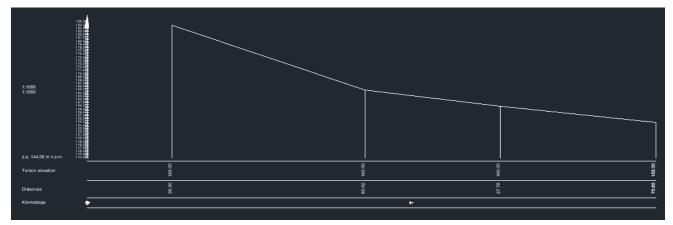


In case of problems, convert your contours to Light Polylines with a CONVERTPOLY command.

Draw Profile

To draw a longitudal profile, run the command and select contour lines. Then, draw a line you want to be a profile, and insert it to the drawing.

In case of problems, convert your contours to Light Polylines with a CONVERTPOLY command.



ZWGis

Import/Export

Import SHP

With this tool you can import .shp file to the drawing. Run the command, choose a file and click Import. You can also label with one category of the file or fill with hatch.

	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	Import SHP – $\Box$ X
	Plik danych <u>C:\Users\mmlec\Desktop\SHP\Railways\gis_osm_railways_free_1.shp</u>
- Re-	Układy współrzędnych Układ pliku shp Układ rysunku WGS-84 (EPSG:4326)
	Układ rysunku WGS-84 (EPSG:4326) Opisywanie Opisz elementy Opcje
Land Ha	Poligony Dypelnij kreskowaniem Opcje
For St.	Opcje ogólne Importuj na warstwę 0 ~
	Użyj wartości atrybutu jako warstwy Użyj losowych kolorów dla warstw
You have a second secon	Importuj Anuluj
	-

# **Export SHP**

With this function you can export elements of the project with set values. Run the command so the window will pop out:

🖶 Zapisz dane gis		_	. 🗆	×
Wybierz eleme Wybierz obiekty			[	*
⊖ Wszystkie				
🔾 Warstwa	Ŧ			
⊖ Wybierz	Wybierz			
<ul> <li>Zaawansowane</li> </ul>	Wybierz			
Pomoc	Anuluj Cofnij	Następny	Zako	

You can choose to export all, one layer, selected elements or one table.

🖳 Wybierz		_		×
Tabela Atrybut	Tabelka powiaty gis_osm_natural_free_1 gis_osm_natural_free_1 województwa		~	•
Anuluj		W	/ybierz	

In next window you should choose a reference systems to save to.

🖷 Zapisz dane gis				-		×	
Wybierz układ odu Wybierz wyjściowy	<b>niesienia</b> i docelowy układ współrzędnych				[*		
Układ rysunku Układ decelowy	WGS-84 (EPSG:4326) WGS-84 (EPSG:4326)	~					
Pomoc	Anuluj Cofnij		Następn	у	Zakończ		

With last window, all there is to do is choose a location of the file to be saved in.

💀 Zapisz dane gis				_		×
<b>Wybierz lokali</b> z Określ gdzie ma	z <b>ację</b> I zostać zapisany plik				(*	
			]	Forma	t .shp	~
Pomoc	Anuluj	Cofnij	Następny		Zakończ	

# Data

# Gis data panel

With this command you can turn on the Gis data panel on.



# Data: Table edit

You can use this function to create or edit a table, that is used to label objects in your drawing.

Wybi	erz tabelę	powiaty			$\sim$	10
	atrybut	Tabelka powiaty gis_osm_rai	lways_free_1			Γ
•	iip_przest	gis_osm_na województv	tural_free_1			
	iip_identy		wą tabelę *			
	jpt_sjr_ko		Tekst	$\sim$		
	jpt_kod_je		Tekst	$\sim$		
	jpt_nazwa_		Tekst	$\sim$		
	jpt_nazw01		Tekst	$\sim$		
	jpt_organ_		Tekst	$\sim$		
	jpt_orga01		Tekst	$\sim$		
	jpt_jor_id		Liczba rzeczy	$\sim$		
	wazny_do		Data	$\sim$		_
	jpt_wazna_		Tekst	$\sim$		_
	wersja_do		Data	$\sim$		
	jpt_powier		Liczba rzeczy	$\sim$		
	jpt_kj_iip		Tekst	$\sim$		
	jpt_kj_i01		Tekst	$\sim$		
	jpt_kj_i02		Tekst	$\sim$		_
	jpt_kod_01		Tekst	$\sim$		
	id_bufora_		Liczba rzeczy	$\sim$		
_	GL 1. 2004			11		

# Data: Add data

This function allows you to add a point or polyline to a table. After running the command, just point at proper table and object.

🖳 Wybierz tabelę		-	$\times$
Wybierz tabelę	powiaty		$\sim$
Anuluj	powiaty gis_osm_railways_free_1		 

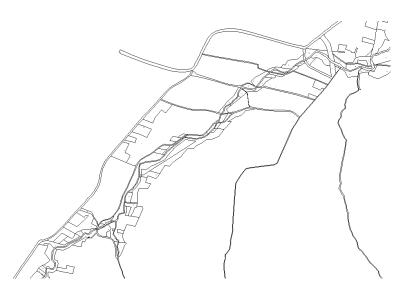
#### Data: Remove data

You can use this command to remove any element off the table. Run the function, then select proper elements and confirm with Enter.

# GML

#### **GML Import**

This function can import a GML file into a drawing.



## **GML Export**

This function can be used to export a piece of a drawing into GML file. You need to start the command, and then select needed elements, then press Enter.

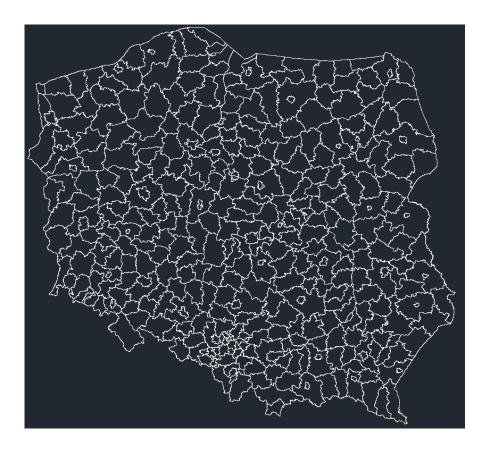
🕢 Gdzie zapisać plik	GML			×
$\leftarrow \rightarrow \checkmark \uparrow$	🛄 > Pulpit >	~ C	Przeszukaj: Pulpit	م
Organizuj 👻 No	owy folder			□ - ()
> Maciej — osc				R
	★ GML	SHP	WFS	Grafiki JG
Muzyka	Moje pliki	Zrzuty ekran		
Polskie <u>N</u> azwa pliku: Zapisz jako typ:	Pliki GML (*.xml)			~
<ul> <li>Ukryj foldery</li> </ul>			Zapisz	Anuluj

# WFS Import

You can use this function to insert WFS data from a server directly into your drawing. In order to do so, you need to copy an address of a service to the top box and connect.

🖳 WFS		-		×	🖳 WFS		_		$\times$
Serwer https://mapy.geoport	al.gov.pl/wss/servic 🗸	=	Połącz		Serwer https://mapy.geoporta	l.gov.pl/wss/servic 🗸	=	Połącz	
Dane					Dane				
A06_Granice_ob	woodow_spisowych jonow_statystycznych rebow_ewidencyjnych dnostek_ewidencyjnych ast nin wiatow ojewodztw				A06_Granice_obre	vodow_spisowych now_statystycznych ebow_ewidencyjnych nostek_ewidencyjnych st n viatow ewodztw			
Zakres współrzędnyc	h				Zakres współrzędnych	1			
55,0320		Wska	aż na rysu	nku	812 266,	3773	Wsk	aż na rysu	nku
13,7047	24,8676	Wide	oczny obsz	zar	110 124,8544	874 705,1539	Wid	oczny obs	zar
48,6446	;	Ustav	v widok na	za	99 874,9	376	Usta	w widok n	a za
Układy odniesienia d	ostępne na serwerze				Układy odniesienia do	stępne na serwerze			
WGS-84 (EPSG:432	6) 🗸				1992 (EPSG:2180)	~			
Wstaw	)		Zamknij		Wstaw			Zamknij	

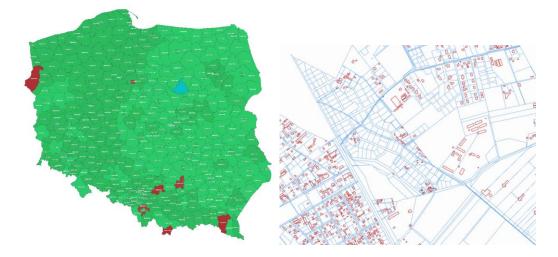
Here is the effect of importing WFS map with Polish borders.



# WMS

# WMS_Import

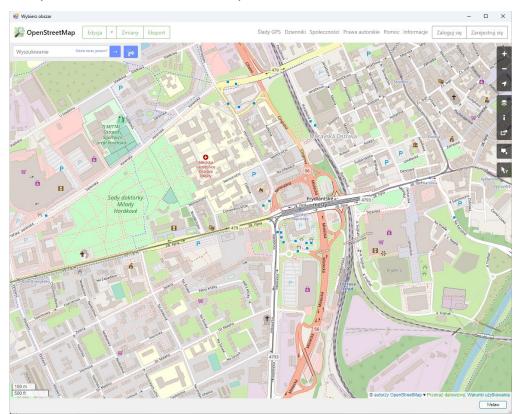
With this function you can import WMS map from Polish servers. You can choose a server and decide which features are to be imported.



# OSM

# **OpenStreetMap**

This function enables you to insert a map as a raster image from any place using OpenStreetMaps. After running the command, open a map you want to be placed and click Insert. You may have to choose a reference system as well.



Η

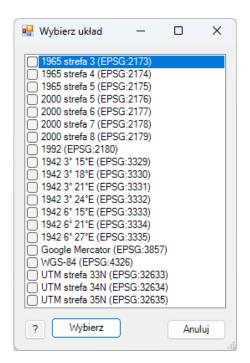
Н

With this function you can easily set up points or blocks in the drawing, or copy them to fill an area. After running the command, choose a point or a block to be copied, then start inserting them. You can also type A as Area in command tab to fill a rectangular area with your objects. You can also type D as Density to control distance between elements.

# **Reference systems**

### Set reference systems

You can set a reference system in your drawing with this command. The window will pop out, in which you can choose the system you need.



# **Transform drawing**

With this function you can convert reference system in your drawing into another geodetic reference system. After executing the command and choosing a new system, a copy of it will be saved with date and time, and the current drawing will be converted into the new reference system.

# Mark coordinate

You can use Mark coordinate function to insert a point into your drawing from another reference system. The system will ask for a system and then for coordinates to insert.



Here is an example of inserted point, labelled in two reference systems:

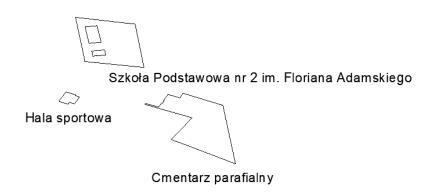


# Tools

### Label

Label function is for inserting a description of a point that is available for it. After running the command, select the objects and choose the attribute.

🖶 Opisywanie		-		×
Wybierz atrybut	osm_id			~
Wybierz styl	code fclass			
Wybierz wysokość opisu	name 0,0025			
Wyrównanie tekstu	Centrum sy	meria		$\sim$
<ul> <li>Użyj zasłony tekstu</li> <li>Liniowe</li> <li>Wstaw równolegle</li> </ul>				
Położenie	Środek			~
Vstaw wielokrotnie w odstępa	ich co:	į	100	
Anuluj		C	Opis	z



# Report

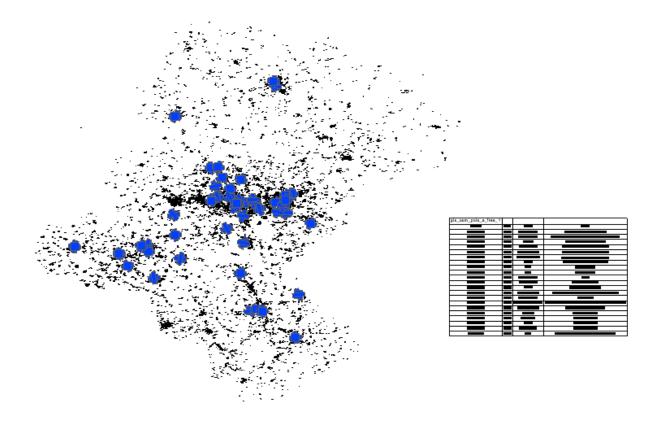
The Report command creates an editable table in a drawing. You need to select the elements you want to be placed and confirm with Enter.

gis_osm_pois_a_free_1			
osm_id	code	fclass	name
770396316	2083	kindergarten	Przedszkole Miejskie nr 27
747454371	2083	kindergarten	Przedszkole Akademia Kolorowych Podróży
700129963	2082	school	Szkoła Podstawowa nr 17
549207655	2744	theme_park	Centrum Rozrywki Sosnowiec
549207655	2251	sports_centre	Centrum Rozrywki Sosnowiec
469455864	2541	car_dealership	Skoda Auto Śliwka Sosnowiec
427792938	2950	to wer	Dawna wieża transformatora
398213757	2204	park	Park Sielecki
398213756	2204	park	Park Sielecki
248842594	2501	supermarket	ALDI
193684679	2404	guesthouse	Pensjonat Sielec
193684541	2402	m otel	Okrąglak Residence
189308365	2251	sports_centre	Centrum wspinaczkowe Sport Poziom 450
180841320	2501	supermarket	Biedronka
180816934	2012	community_centre	Sosnowieckie Centrum Organizacji Pozarządowych
133017945	2251	sports_centre	M OSiR Kąpielisko Sielec
133002047	2256	sta diu m	Stadion Zimowy
133002039	2721	attra ction	Zamek Sielecki
133002039	2731	castle	Zamek Sielecki
133002039	2014	arts_centre	Zamek Sielecki
70083988	2504	mall	Centrum Handlowe Plejada Sosnowiec

# Select

You can use the Select function in order to select elements from one group. Just turn on the command and select a group from your table. All of the objects in this group will be selected.

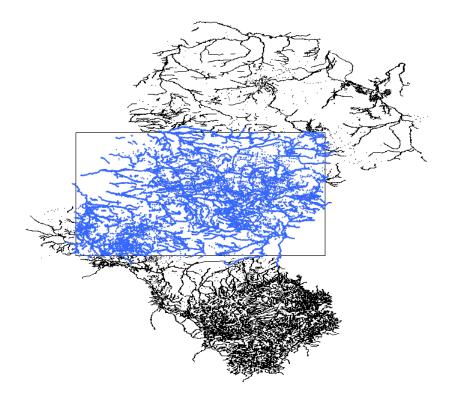
🖳 Wyb	ierz				-	- 0	×
Tabela		gis_osm_pois_a_	_free_1				~
	Atrybut		Porówna	a Wartość	Wy	Operator	
1	name	~	= ~	ALDI		·	7 ±
							-
Anu	luj					Wybierz	] .



In this example, all ALDI buildings in the area were selected:

# Select by area

You can use this function to select points or lines inside an area. Run the command, select the rectangular frame and all the objects inside will be selected.



# Turn on/off fill

You can turn filling of objects on or off with this command.

