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ZWGeo

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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

| Template | | | |
|----------|-----------------|---|---------------|
| | Coordinates | ~ | open |
| | [select] | | |
| | Coordinates | | |
| Y | Point | 1 | |
| Х | QuickPoint | | |
| | Sump | | enter a value |
| | | | @X |
| | | | |
| | | | |
| 10 | | | |
| | | | |
| | | | |
| Add lead | ler | | |
| Add lead | ler Settings | | |
| Add lead | ler Settings | | |

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 |

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 + |
| A 41 | 607.2802 | 174.4943 | 0.0000 | | |
| A_40 | 629.0060 | 230.0158 | 0.0000 | | |
| A_39 | 521.5839 | 193.8061 | 0.0000 | | |
| A_38 | 538.0794 | 311.2865 | 0.0000 | | |
| 4_37 | 421.8060 | 351.5195 | 0.0000 | | |
| 4_36 | 503.4790 | 240.8788 | 0.0000 | | |
| 4_35 | 275.3579 | 182.9432 | 0.0000 | | |
| 4_34 | 252.4251 | 226.3949 | 0.0000 | | |
| 4_33 | 305.1303 | 247.3160 | 0.0000 | | |
| 4_32 | 247.1948 | 316.9191 | 0.0000 | | |
| A_31 | 254.8391 | 271.4558 | 0.0000 | | |
| A_30 | 248.4018 | 353,9335 | 0.0000 | | |
| A_29 | 298.2907 | 348.7032 | 0.0000 | | |
| 4_28 A 07 | 390.4243 | 273.5024 | 0.0000 | | |
| A_27 N_26 | 408.0107 | 318.5284 | 0.0000 | | |
| 4_20 N 26 | 000.0007 | 331.4030 | 0.0000 | | |
| 4_20 _24 | 631.0223 | 260 6295 | 0.0000 | | |
| N 22 | 630 6153 | 199.0353 | 0.0000 | | |
| 1_23 1_22 | 544 1144 | 190 9898 | 0.0000 | | |
| 1 21 | 435 0829 | 197 0248 | 0.0000 | | ~ |
| Data for | nat | | | | |
| Number | | • | Number | A | ~ |
| X | | ·> | Y | - | |
| Ŷ | | | × | | |
| Ż | | × | Z | ~ | × |
| | | | | | |
| | | | | | × |
| Columna | accounter. | | | | [Space] |
| Columns | separator | | | | [opace] |
| File | | | | | |
| | | | | | |
| | C | | | | Class |
| | Save | | | | Close |

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:



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 F | ATP Palete | | | | | | |
|-------|------------|----------|---------|---------|-------|--|--|
| • | + x | | | | | | |
| ID | Znajdź | Nazwa | x | Y | Z | | |
| 3C55 | 5 (°) | ZWGEO_Pt | 446,207 | 172,375 | 0.000 | | |
| 3C10 | ្រា | ZWGEO_Pt | 370,510 | 144,209 | 0.000 | | |
| 3BE3 | 3 [1] | ZWGEO_Pt | 310,657 | 165,040 | 0.000 | | |
| 3BA/ | A ["] | 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 | [1] | ZWGEO_Pt | 400,000 | 150,000 | 25,000 |
| 2077 | [*1 | ZWIGEO PH | 200.251 | 200 000 | 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:

| ļ | ATP Palete | | | | | | | | | | |
|---|------------|--------|----------|---------|---------|--------|--------|--|--|--|--|
| Ŀ | • x | | | | | | | | | | |
| Г | ID 🔺 | Znajdź | Nazwa | Х | Y | Z | NUMER | | | | |
| | 3B71 | [*] | ZWGEO_Pt | 323,356 | 183,939 | 25,000 | Punkt1 | | | | |
| | 3BAA | [*] | ZWGEO_Pt | 359,888 | 192,734 | 0.000 | Punkt2 | | | | |
| | 3BE3 | [*] | 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.



| ŀ | • | C | | | | | | # ? |
|---|---|------|-----------|---------|---------|-------|--------------|---------|
| | | Znaj | Nazwa | Х | 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 | | |
| | | | | 820,572 | 446,304 | 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 | | | L | _ | | x |
|---|-----|-------------------|------|------|---|---|------|----|
| (| • |] ♣↓ | | | | | | |
| | ⊿ | Export | | | | | | |
| | | Column separator | | | | | | |
| | 4 | View | | | | | | |
| | | Decimal Separator | | | | | | |
| | | Decimal Precision | 3 | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | De | cimal Separator | | | | | | _ |
| | Dec | cimal Separator | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | Save | e | | Canc | el |
| | | | | | | _ | | at |

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.

| Zestawi | 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 | :PointsByDistance 50 2 0.0) 120 5 0.0) |
|--|--|
| 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 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 folderów | \times |
|---|----------|
| Wskaż katalog z plikami obrazów | |
| | |
| 🔜 Ten komputer | ^ |
| > 🔮 Dokumenty | |
| | |
| > h Muzyka | |
| > Corazy | |
| | |
| | ~ |
| < >> | |
| | _ |
| Eolder: Ten komputer | |
| OK Anuluj | |
| | |

Insert multiple raster files

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

| W Select File | | | | | | | | | | | | × |
|---|---|---------|---|---|---|-----|------|----------|---------------|---|--------|---|
| Look <u>i</u> n: | MultiRaster | | | ~ | ← | 6 | 8 | 1 | <u>V</u> iew | • | Tools | Ŧ |
| History History Desktop My Documents Favorites Network | Nazwa 09N3O5.tfw 09N3O5.tif 10N3O5.tfw 10N3O5.tfw 11N3O6.tff 12n34o56.tfv 12n34o56.tff 12n34o56.tfw 15N3O5.tfw 15N3O5.tif | v | ß | | C 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | Pre | view | | Tion | | | |
| | File name: | Wipeout | | | | | | | $\overline{}$ | | Open | |
| | File type: | *.* | | | | | | | ~ | | 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 Noje dokument Ulubione | HelpNDoc Niestandard RPS Zoom Zrzuty ekran ZWCAD Sybl Zwsoft Drawing1 ZWCAD 2024 | owe szablony pakietu Office u le 4 Polski_Custom_Settings | | Podgląd | rak podgla | ldu |
| S | Nazwa pliku: | Rysunek1 | | | ~ | Zapisz |
| 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.

You can also change the assignment of visibility buttins in a specially designed options panel.

| 🚱 Visibility groups | | _ | × |
|---------------------|--------|-------------------------|---|
| Views | | Layers | |
| | Add | 0 budynki Dzialki | |
| | Remove | | |
| 6. 7. 8. | Clear | | |
| | Reset | | |
| | | | |

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\2026\EN and run Aktywator_2026.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:

| Vsł | Usługi informatyczne 'SZANSA' application licences report | | | | | | | | |
|------|---|--------|---------|------------------------|------------------------|----------|-----------------------|--|--|
| | Application | Module | Version | Licence type | Licence state | Expiring | The code | | |
| | (Without Ing) | | 100 | (Margaret | (Married | | | | |
| Þ | ZW Traffic | All | 2019 | No. for south | Active | 1.44 | Second second | | |
| | ZWTraffic | Lite | 2019 | the first second | Active | 10.00 | 100.000 | | |
| | 20 Table | | | (Second | (Heren | | | | |
| | 100 10000 | Sec. | 100 | Contract of the second | Contract of the second | | | | |
| | Street. | 100 | 100 | Photo: N | No. 1 | | | | |
| | 200 Toronto | | 200 | 10000 | 10000 | | | | |
| | Contraction | | 100 | the first sector | 1004 | 1.0.00 | 1000 CT 100 CT 100 CT | | |
| | (Constants) | | 100 | (Acres) | (Hereit | | | | |
| | 10000 | | 100 | Contract of the second | Contract of | | | | |
| | (Children) | | 100 | Photo: N | (Marrow) | | | | |
| | (Section) | | 200 | (Second | (Second | | | | |
| | 1000 | | 100 | 10000 | and the second | | | | |
| Leam | 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.

| Congratulations - activation has been carried out successfully | |
|--|--|
| ОК | |

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 | |
|----|---------------------|--|
| | orodio rodaoor mo | |

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:

2:

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: | Activate |
|----------|--------------|
| . | 1 10111 0100 |

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 2026. 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\2026\EN. Confirm the file by clicking Add.

| Wczytaj/usuń dostosowania | × |
|--|---------------------------------------|
| | |
| Wczytaj konfigurację: ZWCAD ZWGEO_2024_0 ZWGis_2024_0 ZWNesting_2024_0 ZWToolbox_2024_0 ZWTraffic_2024_0 | <u>R</u> ozładuj |
| <u>N</u> azwa pliku: | <u>W</u> czytaj Ne <u>e</u> glądaj |
| | 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 set the desired elevation. Then click on lines you want to change and confirm with Enter. The Z parameter will be changed and the function will proceed to next step.



The picture before and after said function is used.



You can use T as for sTep in the command tab to set increase of elevation after clicking Enter. For example, if you set starting elevation to 50 and step to 5, then the first objects will be set to 50, and after clicking Enter the Z value of next objects will be set to 55, then 60 etc.

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 height will be placed.



Make sure that the polylines have their elevation set with Mark contour lines command. 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 a line or polyline, that will be a base for your profile.



You will be asked to choose X and Y scale then point of insertion in your 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.

| | int - | | \sim | |
|--|----------|--|-----------------------------|------------|
| | | 🖳 Import SHP | | - 0 × |
| | Y . | Plik danych C:\Users\mmlec\Desktop\SHF | \\Railways\gis_osm_railways | free_1.shp |
| | 1 | Układy współrzędnych | VGS84 | |
| | | Układ rysunku | VGS-84 (EPSG:4326) | ~ |
| | A.C. | Opisywanie Opisz elementy | | • Opcje |
| A Contraction of the second se | The last | Poligony 🗌 Wypełnij kreskowaniem | | Орсје |
| J. J. L. | | Opcje ogólne Importuj na warstwę | 0 | ~ |
| - old ft | | 🗌 Użyj wartości atrybutu jako 🗹 Użyj losowych kolorów dla | warstwy warstw | ~ |
| the for the second seco | | 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 | × | | | |
| ⊖ Wybierz | Wybierz | | | |
| Zaawansowane | Wybierz | | | |
| Pomoc | Anuluj Cofnij | Następny | Zakoń | cz |

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

| 💀 Wybierz | | _ | | × |
|-----------|--|---|--------|---|
| Tabela | | | ~ | |
| Atrybut | rapenka powiaty gis_osm_railways_free_1 gis_osm_natural_free_1 województwa | | | + |
| | | | | |
| | | | | |
| | | | | |
| Anuluj | | W | ybierz | |

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

| ۲ | 🖳 Zapisz dane gis | | | | - | | × | 1 |
|---|---|--|---|---------|-----|---------|---|---|
| | Wybierz układ odniesienia Wybierz wyjściowy i docelowy układ współrzędnych | | | | | * |) | |
| | Układ rysunku Układ decelowy | WGS-84 (EPSG:4326) WGS-84 (EPSG:4326) | ~ | | | | | |
| | Pomoc | Anuluj Cofnij | | Następn | y i | Zakończ | | |

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

| 🔢 Zapisz dane gis | | | _ | | X |
|---|-------------|-------------|--------|--------|---|
| Wybierz lokaliz : Określ gdzie ma | | | * |] | |
| | | | Format | .shp | ~ |
| Pomoc | Anuluj Cofi | nij Następn | y Z | akończ | |

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.

| _ | atrybut | | | | Π | |
|------------|-------------|--|---------------------------------|--------|------|---|
| ۲ | iip_przest | gis_osm_rail gis_osm_nat województwa | ways_free_1 ural_free_1 a | | | |
| | lip_identy | Utworz nov | vą 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 | ~ | | _ |
| | jpt_powier | | Liczba rzeczy | ~ | | _ |
| 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 | | - |
| | 1. L. Z. M. | | 1 | 1 | | _ |

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.



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 | | _ | | × |
|--|---|------|------------|------|---|---|-----|-------------|-------|
| Serwer https://mapy.geopor | rtal.gov.pl/wss/servic 🗸 | = | Połącz | | Serwer https://mapy.geoport | al.gov.pl/wss/servic 🗸 | - | Połącz | |
| Dane | | | | | Dane | | | | |
| S01_Sad_apela R02_Granice_o R01_Granice_r A06_Granice_o A05_Granice_o A03_Granice_g A04_Granice_p A03_Granice_p A01_Granice_w A01_Granice_p | acyjny bbwodow_spisowych ejonow_statystycznych brebow_ewidencyjnych adnostek_ewidencyjnych niast min owiatow rojewodztw anstwa | | | I | S01_Sad_apelac R02_Granice_ob R01_Granice_rej A06_Granice_ob A05_Granice_mi A04_Granice_mi A03_Granice_gn A02_Granice_go A01_Granice_wc A00_Granice_pa | cyjny wodow_spisowych jonow_statystycznych wrebow_ewidencyjnych dnostek_ewidencyjnych ast ast nin wiatow ojewodztw instwa | | | |
| Zakres współrzędny | vch | | | | Zakres współrzędnyc | sh | | | |
| 55,032 | 0 | Wska | aż na rysu | inku | 812 266 | 6,3773 | Ws | każ na rysi | unku |
| 13,7047 | 24,8676 | Wide | oczny obs | zar | 110 124,8544 | 874 705,1539 | W | doczny obs | szar |
| 48,644 | 6 | Usta | w widok n | a za | 99 874, | 9376 | Ust | taw widok n | na za |
| Układy odniesienia WGS-84 (EPSG:432 | dostępne na serwerze 26) ~ | | | | Układy odniesienia d 1992 (EPSG:2180) | lostępne na serwerze | | | |
| 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

Η

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.

| 🖳 Wybierz układ | _ | | × |
|--|-----------------------------|------------|--------|
| Image: Wybierz układ 1965 strefa 3 (EPS0) 1965 strefa 5 (EPS0) 1965 strefa 5 (EPS0) 2000 strefa 5 (EPS0) 2000 strefa 6 (EPS0) 2000 strefa 8 (EPS0) 2000 strefa 8 (EPS0) 1992 (EPSG:2180) 1942 3° 15'E (EPS0) 1942 3° 18'E (EPS0) 1942 3° 18'E (EPS0) 1942 3° 21'E (EPS0) 1942 6° 15'E (EPS0) 1942 6° 21'E (EPS0) | | 7) | × |
| WGS-84 (EPSG:43) | 26) PSG:3263 PSG:3263 | (3) (4) | |
| ? Wybierz | rola:3263 | Anu | luj .: |

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 | _ | o x |
|-------------------|------------------------------|--------------------------|-------------------|
| | Wybierz atrybut | | ~ |
| | Wybierz styl | osm_id code fclass | |
| | Wybierz wysokość opisu | name 0,0025 | |
| | Wyrównanie tekstu | Centrum symeria | ~ |
| | 🔽 Użyj zasłony tekstu | | |
| | Liniowe | | |
| | 🖂 Wstaw równolegle | | |
| | Położenie | Środek | \sim |
| | Vstaw wielokrotnie w odstępa | ch co: <u>10</u> | D |
| | Anuluj | | Opisz |
| | | | |
| | Szkoła Podstawo | wanr2im.Flo | oriana Adamskiego |
| ∠⊃ Hala sporto | owa | | |
| | Cmentarz | parafialny | |

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 | MOSiR 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.

| | | | | | U | |
|---------|----------------|---------|---------|----|----------|-----|
| abela | gis_osm_pois_a | _free_1 | | | | ~ |
| Atrybu | .t | Porówna | Wartość | Wy | Operator | |
| ./ name | ~ | = ~ | ALDI | | ` | 기 나 |
| | | | | | | - 1 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |
| | | | | | | l |
| | | | | | | l |
| | | | | | | l |

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.



Selection

Select inside polyline

This function allows all objects that are inside the selected polyline but not adjacent to it to be selected.



Here is the effect of the command after choosing the selected polyline.



Select crossing polyline

This function allows all objects that are inside the selected polyline but also adjacent to it to be selected.



Here is the effect of the command after choosing the selected polyline.



Select inside by point

This function allows all objects that are inside some enclosed area but are not adjacent to the boundary to be selected.



When a point inside the enclosed area is selected, the function will select all objects that are entirely within it and are not in contact with the boundary.



Select inside and crossing by point

This function allows all objects that are inside some enclosed area or crossing the boundary to be selected.



When a point inside the enclosed area is selected, the function will select all objects that are entirely within it and are in contact with the boundary.



ZWMaps

PRPOG

Horizontal fundamental geodesic network

This function allows you to insert a warp mark. Run the command, enter the number and select the insertion point.



Horizontal base geodesic network

This function allows you to insert a warp mark. Run the command, enter the number and select the insertion point.



Fundamental height geodesic network

This function allows you to insert a warp mark. Run the command, enter the number and select the insertion point.



Vertical geodesic network

This function allows you to insert a warp mark. Run the command, enter the number and select the insertion point.



Fundamental gravimetric geodesic network

This function allows you to insert a warp mark. Run the command, enter the number and select the insertion point.



Gravimetric base geodesic network

This function allows you to insert a warp mark. Run the command, enter the number and select the insertion point.



Fundamental magnetic geodesic network

This function allows you to insert a warp mark. Run the command, enter the number and select the insertion point.



Base magnetic geodesic network

This function allows you to insert a warp mark. Run the command, enter the number and select the insertion point.



Detailed horizontal geodesic control network

This function allows you to insert a warp mark. Run the command, enter the number and select the insertion point.



Detailed height geodesic control network

This function allows you to insert a warp mark. Run the command, enter the number and select the insertion point.



PRG

Country border

With this function, you can easily change a polyline to mark a national border. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Voivodeship border

With this function, you can easily change a polyline to mark the boundary of a voivodeship. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



District border

With this function, you can easily change a polyline to mark a district boundary. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Commune border

With this function, you can easily change a polyline to mark a commune boundary. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Permanently stabilized state point of the state border

This function allows you to insert a boundary point marker. Run the command, enter the number and select the insertion point.



Permanently stabilized intermediate point of the state border

This function enables the insertion of an intermediate state border point marker. Run the command, enter the number and select the insertion point.

A2

Land and building records

Cadastral unit

With this function, it is easy to change a polyline to a cadastral unit. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Cadastral precinct

With this function, it is easy to change a polyline to a cadastral precinct. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Cadastral parcel

With this function, it is easy to change a polyline to a cadastral precinct. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Border point

This function allows you to insert a boundary point marker. Run the command, select the type and indicate the insertion point.



Land use outline

With this function, you can easily change a polyline to a land use contour marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Classification outline

With this function, you can easily change a polyline to a classification outline marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Building

With this function, you can easily change a polyline to a building designation. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Above ground storey

With this function, a polyline can be easily changed to a ground floor designation. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Underground storey

With this function, you can easily change the polyline to mark the underground storey. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Connector

With this function, it is easy to change a polyline to a connector marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Overhang

With this function, you can easily change a polyline to an overhang marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Building passage

With this function, you can easily change a polyline to mark a building crossing. Simply select the command and point to the object, or select D for Draw from the command line to manually create the marking.



Different type of block

With this function, you can easily change a polyline to mark a different type of block. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Terrace

With this function you can easily change a polyline to a terrace marking. Simply select the command and point to the object or select D for Draw from the command line to manually create the marking.



Porch

With this function, you can easily change a polyline to mark a veranda or porch. Simply select the command and point to the object or select D for Draw from the command line to manually create the marking.



Vestibule

With this function, it is easy to change a polyline to a windfall marking. Simply select the command and point to the object or select R for Draw from the command line to manually create the marking.



Stairs

With this function you can easily change a polyline to a staircase marking. Simply select the command and point to the object or select D for Draw from the command line to manually create the marking.

Pillar

With this function, you can easily change a polyline to a support marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw one of the support shapes manually.



Ramp

With this function, you can easily change a polyline to a ramp marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Entrance to the underground

With this function, you can easily change a polyline to mark an underground entrance. Simply select the command and point to the object or select D as Draw from the command line to manually create the marking.

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Ramp for disabled people

With this function, a polyline can be easily changed to mark a ramp for the disabled. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Geodetic record of land utilities networks Water pipe

With this function, it is easy to change the polyline to a water pipe designation. Simply select the command, enter the diameter of the pipe and indicate the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Water supply technical device

With this function, you can easily change a polyline to mark a water supply technical facility. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a line, point or polygon manually or enter a description.



Valve

With this function, you can easily insert the designation of a gate or valve. Simply select the command and indicate the position on the drawing.



Hydrophore plant

With this function, it is easy to change the polyline to the hydro plant marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Hydrant

With this function, you can easily insert a hydrant marking. Simply select the command and indicate the location on the drawing.



Street spring

With this function, it is easy to insert the designation of a street spring. Simply select the command and indicate the location on the drawing.



Ordinary well

With this function, you can easily insert a well marking. Simply select the command and indicate the location on the drawing.



Deep well

With this function, it is easy to insert a deep well marking. Simply select the command and indicate the location on the drawing.



Sewage pipe

With this function, you can easily change a polyline to mark a sewer pipe. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Sewage technical device

With this function, you can easily change the polyline to the designation of a sewer technical device. Simply select the command, enter the diameter and indicate the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Valve

With this function, you can easily insert the designation of a gate or valve. Simply select the command and indicate the position on the drawing.



Sewage well

With this function, you can easily change the polyline to mark a sewer manhole. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Sewage grate

With this function, it is easy to change a polyline to a drain marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Linear drainage

With this function, it is easy to change a polyline to a linear drain marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually.

Cesspool

With this function, it is easy to change the polyline to mark the settling tank. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw a line or point manually or enter a description.



Home sewage treatment plant

With this function, you can easily change the polyline to mark a domestic wastewater treatment plant. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw it manually or enter a description.



Sewer outlet

With this function, it is easy to insert a sewer outlet marking. Simply select the command and indicate the location on the drawing.



Pumping station

With this function, it is easy to change the polyline to the pumping station marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Electrical cable

With this function, it is easy to change a polyline to mark a power cable. Simply select the command, then the conductor type and indicate the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Electrical technical device

With this function, it is easy to change a polyline to mark an electrical technical device. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a line, point or polygon manually or enter a description.



Electrical cabinet or container

With this function, you can easily change the polyline to mark a power cabinet or container. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a line, point or polygon manually or enter a description.



Transformer station

With this function, you can easily insert a transformer station marking. Simply select the command and indicate the location on the drawing.



Lantern

With this function, you can easily insert a lantern marking. Simply select the command, enter the number of light sources and indicate the location on the drawing.



Lightning pole

With this function, it is easy to insert a lighting mast marking. Simply select the command, enter the number of light sources and indicate the location on the drawing.



Wind turbine

With this function, a polyline can be easily changed to a wind turbine designation. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a line or point manually or enter a description.



Electric vehicle charging station

With this function, you can easily insert the marking of the electric vehicle charging station. Simply select the command and indicate the location on the drawing.



Gas pipe

With this function, a polyline can be easily changed to a gas line marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Gas technical device

With this function, a polyline can be easily changed to the designation of a gas technical device. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a line, point or polygon manually or enter a description.



Valve

With this function, you can easily insert the designation of a gate or valve. Simply select the command and indicate the position on the drawing.



Gas cabinet or container

With this function, you can easily change a polyline to mark a gas cabinet or container. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a point or polygon manually or enter a description.



Gas station

With this function, you can easily change the polyline to the gas station marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a line or point manually or enter a description.



Gas tank

With this function, you can easily change the polyline to the gas tank marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Heat pipe

With this function, you can easily change the polyline to the heat pipe marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.

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Heat technical device

With this function, a polyline can be easily changed to the marking of a heating technical device. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a line, point or polygon manually or enter a description.



Valve

With this function, you can easily insert the marking of a gate or valve. Simply select the command and indicate the position on the drawing.



Telecommunication cable

With this function, a polyline can be easily changed to a telecommunications cable marking. Simply select the command and the type of conductor and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Telecommunication technical device

With this function, you can easily change a polyline to mark a telecommunications technical device. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a line, point or polygon manually or enter a description.



Telecommunication cabinet or container

With this function, you can easily change a polyline to mark a telecommunications cabinet or container. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a point or polygon manually or enter a description.



Telecommunication tower

With this function, you can easily change a polyline to mark a telecommunications tower. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a line or point manually or enter a description.



Telecommunication pole

With this function, you can easily insert a telecommunications pole marking. Simply select the command and indicate the location on the drawing.



Special cable

With this function, a polyline can easily be changed to a special cable marking. Simply select the command and the diameter of the conductor and point to the object. Alternatively, you can use the prompts in the command line to draw the line manually or enter a description.



Special network's technical device

With this function, you can easily change the polyline to mark a technical device of a special network. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to insert a point, draw the outline manually or enter a description.



Unidentified wire

With this function, you can easily change the polyline to mark an unidentified wire. Simply select the command and the diameter of the conductor and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Unidentified network's technical device

With this function, you can easily change a polyline to mark a technical device of an unidentified network. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to insert a point, draw the outline manually or enter a description.



Technological channel

With this function, it is easy to change the polyline to a technological channel marking. Simply select the command and the diameter of the duct and indicate the object. Alternatively, you can use the prompts in the command line to draw the line manually or enter a description.



Cable protective casing

With this function, it is easy to change the polyline to the cable protective casing marking. Simply select the command, enter the diameter and indicate the object. Alternatively, you can use the prompts in the command line to draw the line manually.



Underground chamber

With this function, you can easily insert the marking of an underground chamber. Simply select the command and point to a location on the drawing.



Manhole to a chamber or sewer

With this function, you can easily insert a manhole marking into a chamber or sewer. Simply select the command and point to a polyline on the drawing, or select any of the shapes available on the command line.



Overhead wire pole

With this function, it is easy to insert overhead wire markings. Simply select the command and indicate a location on the drawing. The markings are parametric blocks in which the visibility can be changed to different variants and then easily edited.



Traction pole

With this function, you can easily insert a traction pole marking. Simply select the command and indicate the location on the drawing.



Cable support

With this function, you can easily insert a cable support marking. Simply select the command and indicate the location on the drawing.




Underground building

With this function, you can easily change a polyline to mark an underground structure. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the line manually or enter a description.



Database of topographic objects Building in construction

With this function, you can easily change a polyline to a building in construction marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the outline manually.



Building

With this function, you can easily change a polyline to a building marking. Simply select the command, the building location and indicate the object. Alternatively, you can use the prompts in the command line to draw the outline manually and insert a description in which the type of building and the top floor must be indicated.



Overground storey

With this function, it is easy to change the polyline to mark the above-ground storey. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually and insert a description in which the top storey must be indicated.



Underground storey

With this function, you can easily change the polyline to mark the underground storey. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a description.



Connector

With this function, it is easy to change a polyline to a connector marking. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually and insert a description in which the storeys must be indicated.



Overhang

With this function, you can easily change a polyline to an overhang marking. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually and insert a description in which the storeys must be indicated.



Drive through the building

With this function, it is easy to change a polyline to mark a building crossing. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the outline manually.



Different type of block

With this function, you can easily change a polyline to mark another type of block. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually and insert a description in which to indicate the storeys.



Terrace

With this function, you can easily change the polyline to a terrace marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the outline manually.



Porch

With this function, you can easily change a polyline to mark a porch. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the outline manually.



Vestibule

With this function, it's easy to change a polyline to a vestibule marking. Simply select the command and point to the object, or select R as Draw from the command line to manually create the marking.





Stairs

With this function, you can easily change the polyline to mark the staircase. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually. You still only need to indicate the direction of the staircase.



Support associated with a building

With this function, you can easily change a polyline to a support marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually in one of the available shapes.



Ramp

With this function, you can easily change a polyline to a ramp marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually and insert a description.



Entrance to the underground

With this function, you can easily change the polyline to mark the underground entrance. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the outline manually.



Ramp for disabled people

With this function, a polyline can be easily changed to mark a disabled ramp. Simply select the command and indicate the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a description.



Cooling tower

With this function, you can easily change the polyline to mark the cooling tower. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually.



Industrial chimney

With this function, you can easily change the polyline to mark an industrial chimney. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the object manually.



Water tower

With this function, you can easily change the polyline to mark the water tower. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a description.



Fire tower

With this function, you can easily change the polyline to mark a fire tower. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a description.

Mine shaft tower

With this function, you can easily change the polyline to mark the mine shaft tower. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a description.



Observation tower

With this function, you can easily change the polyline to mark the observation tower. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a description.



Tank or silo

With this function, you can easily change the polyline to mark a tank or silo. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a description.



Shed

With this function, you can easily change the polyline to mark the shed. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually in one of the available shapes.



Dumpster

With this function, it is easy to change a polyline to mark a dumpster. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a description.



Figure, cross

With this function, you can easily insert a crosshair marking. Simply select the command and point to a location on the drawing.



Fountain

With this function, you can easily change the polyline to mark the fountain. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the object manually in one of the available shapes.

Statue

With this function, you can easily change a polyline to mark a monument. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the object manually or insert it as a point.



Monumental ruin

With this function, you can easily change a polyline to mark a monumental ruin. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the object manually or insert a description.



Retaining wall

With this function, you can easily change a polyline to a retaining wall marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the object manually.



Support

With this function, you can easily change a polyline to a support marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually in one of the available shapes.



Different building

With this function, you can easily change a polyline to mark different building. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually in one of the available shapes.



Permanent fence

With this function, you can easily change a polyline to mark a permanent fence. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually.



Gate

With this function, you can easily change a polyline to a gate marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the object manually.



Wicket

With this function, you can easily change a polyline to a wicket marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the object manually.



Roadway

With this function, you can easily change a polyline to a roadway marking. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the polyline manually or insert a description.



Curb

With this function, you can easily change a polyline to a curb marking. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the polyline manually or insert a description.



Pavement

With this function, you can easily change a polyline to a pavement marking. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the polyline manually or insert a description.



Bike lane

With this function, you can easily change a polyline to mark a bike lane. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the polyline manually or insert a description.



Paved area

With this function, you can easily change a polyline to mark a paved area. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the polyline manually or insert a description.



Roadside ditch

With this function, you can easily change a polyline to mark a roadside ditch. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the polyline manually or insert a description.



Stairs in the communication route

With this function, you can easily change the polyline to mark the staircase. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually and specify the direction.



Bridge

With this function, you can easily change the polyline to mark a bridge. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually.



Culvert

With this function, you can easily change a polyline to a culvert marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw a line or polygon manually.



Overpass

With this function, you can easily change a polyline to mark a viaduct. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually.



Wharf

With this function, it is easy to change a polyline to mark a flyover. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually.



Protective barrier

With this function, a polyline can be easily changed to a barrier marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually.



Ramp

Acoustic screen

With this function, a polyline can be easily changed to a acoustic screen marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the object manually.



Track

With this function, you can easily change a polyline to a track marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually.



Platform

With this function, you can easily change a polyline to a platform marking. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the polyline manually or insert a description.



Ramp

With this function, you can easily change a polyline to a ramp marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually and insert a description.



Cableway

With this function, you can easily change a polyline to a cableway marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the polyline manually or insert a description.



Different communication object

With this function, you can easily change a polyline to mark a different communication object. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw objects manually or insert a description.



Forest area

With this function, it is easy to change a polyline to a forest area designation. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the objects manually.



Tree or bush cover

With this function, it is easy to change a polyline into a tree and shrub designation. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the objects manually.



Graveyard

With this function, you can easily change a polyline to mark a cemetery. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the outline manually.

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Lawn

With this function, you can easily change a polyline to a lawn marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the outline manually.



Deciduous tree

With this function, you can easily insert a tree marking. Simply select the command and point to a location on the drawing.



Conifer

With this function, you can easily insert a tree marking. Simply select the command and point to a location on the drawing.



Different land development facility

With this function, you can easily change a polyline to mark different land use object. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw objects manually or insert a description.



Outdoor pool

With this function, you can easily change a polyline to mark an outdoor swimming pool. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a description.



Different sport facillity

With this function, you can easily change a polyline to mark a sports ground. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually.



Sports square

With this function, you can easily change a polyline to mark a sports ground. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a symbol.



Playground

With this function, you can easily change a polyline to mark a playground. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a symbol.



Ski lift

With this function, you can easily change a polyline to a ski lift marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the outline manually.



Flowing water

With this function, it is easy to change a polyline to a flowing water marking. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually and insert a description.



Flood embankment

With this function, you can easily create a flood embankment. To do so, start the command, then indicate both slope boundaries.



Still water

With this function, you can easily change a polyline to a standing water marker. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually and insert a description.





Drainage ditch

With this function, you can easily change the polyline to mark a drainage ditch. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the line or outline manually and insert a description.



Weir

With this function, you can easily change the polyline to a weir designation. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw objects manually or insert a description.



Floodgate

With this function, a polyline can be easily changed to a floodgate marking. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw objects manually or insert a description.



Causeway

With this function, you can easily create a causeway marking. To do so, start the command, then indicate both slope boundaries.



Dam

With this function, a polyline can be easily changed to a dam marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the outline manually.



Spur

With this function, you can easily change a polyline to a spur marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the outline manually.

Different object related to water

With this function, you can easily change a polyline to a spur marking. Simply select the command and point to the object. Alternatively, you can use the prompts on the command line to draw the outline manually.



Pier

With this function, you can easily change a polyline to mark a pier. Simply select the command and point to the object. Alternatively, you can use the prompts in the command line to draw the outline manually or insert a description.



Reinforced slope

With this function, you can easily create a reinforced slope. To do so, start the command, then indicate both slope boundaries.

Unreinforced slope

With this function, you can easily create an unreinforced slope. To do so, start the command, then indicate both slope boundaries.



Natural picket

With this function you can easily insert a picket mark. Simply select the command, enter the number and indicate the location on the drawing.

<u>,</u>A2

<u>,</u>A1

Artificial picket

With this function you can easily insert a picket mark. Simply select the command, enter the number and indicate the location on the drawing.



<u>A</u>1