



## **ZWTraffic 2025**

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## **ZWTraffic** - signs

#### Load

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

## **Vertical signs**

## **Signs library**

You can turn the Signs library function by clicking on the icon.



When you do so, a menu will appear. There are signs listed, according to category (1),

which are:

- Warning signs,
- Prohibition signs,
- Mandatory signs,
- Information signs,
- Direction signs,
- Supplemental signs,
- The rest.

Every sign you want to put on a drawing, needs a support. You can see them at 2.

After choosing a sign and its support, most often its a Stake, you can look at 3, if you need to modify some parameters.

If you want to make a new one, click insert, **4**. If the sign is already made, you can replace it, or click Add sign to add one more face to a stake.

If you have your own base of signs, you can go to 5, and load them.

### **Edit values**

This function lets the user to change value of a already made sign. After running the function, you need to choose a sign with values. In the Edit values box, you can type any number, and confirm with OK button.



## Remove sign

This function is used to remove a sign from a stake. After running the command, you must choose which sign is to be removed from a construction.



## Add a post to existing sing

You can use this function to add a new stake to already existing sign. After running the command, choose a sign then draw a reference line, confirm with Enter and decide the angle of a stake.



#### Vertical signs report

This function lets the user to make a report of vertical signs. After running the command, choose signs which shall be put into the table and confirm. Now just choose a place to put it in.

	Quantity	Symbol	State	Size	Retroreflection	RoadNr
Â	1	A-12b	Designed	Huge	l Generation	
Â	1	A-12c	Designed	Huge	l Generation	
•	1	B-2	Designed	Huge	l Generation	
C	1	C-2	Designed	Huge	Generation	
-	1	B-20	Designed	Huge	l Generation	

## **Mirror sign**

This function can be used when typing ZWTRAFFIC\_MIRROR, or clicking on the icon. The function mirrors sign on chosen stake.



#### Vertical description

This function adds a new stake and description to already made sign. After running the command, choose already made sign on a stake and confirm with enter. You can type its description. When you do so, you can put a new stake and connect it to the sign.



#### **Collective information boards**

The Collective information boards is a command used for making such boards with a few symbols and a distance. After activating the command, you can see a window with a signs to choose. You can click on + to add more signs to collective board.



After clicking on a white block, you can see a library of signs.

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777 Zbiorcza tablica in Di	formacyjna alog	×				×
				P	+	^
	D_15	D_16	D_17	D_18	D_22	
	<b>f</b>	LPG GAZ	Ç	$\boxtimes$	<b>∫</b> ⊠	
<- [	D_23	D_23a	D_24	D_25	D_25a	
Wstaw	Ŧ		á	WC	Æ	
					OK	Cancel

Next, you need to click Insert and put it in the drawing. In the command tab you can name a sign, its state, and decide if it's parallel to the road or reference by clicking O or T.



#### Modify state of sign

With this function you can quickly change state of sign. Click on the function, then on the signs, and confirm with enter. Then choose which state should be now active.



#### Change to grey

This function is used to change the colour of a sign. After running the command, choose if you need to change to grey or to colour, then select the signs and press Enter.



## Add crossing symbol

This function adds a symbol of a cross to already existing reference line. Just run the function, then choose a place and a size.



## FormatPrinter

With this function, you can align signs to each other. Run the command, then choose a sign that will be an example. After that, each face of a sign clicked will be aligned to the example.



#### **Reverse face of a sign**

With this function you can reverse face of a sign, so it would be visible from the other side. Run the command and choose a sign.



#### **Road signs**

This command can be used to insert a traffic lights symbol to the drawing.

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	Δ		<u>_</u>	<u>م</u>	$\underline{\wedge}$	A
	s_a1	s_c1	s_e1	s_e3	s_f2	s_t4 ∧
	<b>KR</b> s_b1	s_d1	∆ <mark>⊫</mark> s_e2	<u>/†∖</u> s_f1	<u>⊾</u> s_f3	/¥ s_f5
	<					>
				\ \	Vstaw Z	lamknij

After running the command, choose a symbol. After that, click Enter and put it in a drawing.

## **Copy Sign**

This function allows you to copy any sign from a drawing. After running the command, indicate the character to be copied. The program will then ask for the place to insert the sign, the angle of rotation, the reference line and finally the rotation of the face of the sign.

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## VMS

## Insert variable message sign

This function can be used to insert any variable message sign. After running the command, choose a sign, its base and a place on a drawing.



#### Variable message sign

After running the command, you can choose a sign and its text, and then insert it into a drawing.



## **Bike trails**

#### **Bike trail**

This function is used to make a bike trail sign. After running the function, you can insert a sign into a drawing.



## **Bike trail direction**

This function is for making directional sign for a bike trail. After running the command, fill the blanks with road number, city, direction etc. and click insert.



#### **Bike trail library**

This function is used to insert a roundabout symbol into a drawing, which will be used during creation of a board.



**E-8** 

With this function you can create a signpost to a bicycle path. Just run the function,

choose your elements and text and click on insert.



#### Bike trail road format

With this function you can add a direction symbol, which will be used during creation of a board.



**Bike trail direction text** 

With this function you can add a text which will be used during creation of a board.

# Bronów

#### E-12a

With this function you can create a signpost to a bicycle path. Just run the function, choose your elements and text and click on insert.

🖌 E-12a		×			
<b>3</b> 70	00m	æb30	00m	E-12a	Proj.
	P_Opis_Pionowe				
Symbol	F.12a				
Stan	Projektowany	_			
Wielkość	Wielkie				
Odblaskowość	l Generacja				
llość					
Dodatkowe					
Aktywny					
Kilometraż					
NrDrogi					
Szare wypełnienia	Nie				
Równolegle do	Trasy				
	W/ manual				

## **Bike trail direction symbol**

With this function you can add a bike trail symbol which will be used during creation of a board.



**Bike trail table** 

With this function you can combine other elements to make a new table. Choose which signs will be placed on a table and select its angle.

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## **Traveling boards**

## **Closed road**

Closed road function can be used to make a road out of order, which will be used during creation of a board. You can make it either by clicking on the polyline you want to change, or by clicking D and drawing it manually.



We suggest turning background colour grey, for example with SZARE command.

## Detour

With this function you can change a line into a detour road with an arrow at the end. After running the command, click on a polyline you want to change. You can also run the function and click on D to draw a new detour line that will be used later in making a table.



We suggest turning background colour grey, for example with SZARE command.

## **Road of detour**

With this function you can change a line into a detour road. After running the command, click on a polyline you want to change. You can also run the function and click on D to draw a new detour line that will be used later in making a table.



We suggest turning background colour grey, for example with SZARE command.

#### Arrow

With this function you can make an arrow which will be used during creation of a board.



We suggest turning background colour grey, for example with SZARE command.

#### Table - sign background

This function can be used to combine other elements to make a new board. First, select the elements and then choose a direction for the new table. Angle of the table will be adjusted to town names.



#### **City description**

With this function you can make a marker of a city, that will be used when making a board. Just run the function and click on a place you want to represent a city.

#### **City description**

With this function you can make a marker of a city that will be used when making a board. Click on a place you want to represent a city. Then you can name it and set an angle for the text.



#### **Description of the road**

With this function you can make a description of a road or a detour. After running the command choose a size and type a text that should be placed in the drawing.

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Tialog	×
Objazd	
102 -	
Wstaw	Zamknij

Final effect:



## **Road number**

With this command you can make a table with a road number on it. Run the function then choose a size, a colour and a text. In this example it's a highway.



Final result:



## **E tables**

#### **Direction marking**

This function is for creating a signboard. After running the command fill all the fields you want to have on your signboard and click insert. This way a sign will be inserted with a reference line and the table. You can change a colour of your table from green to blue or white, colour of the text from white to blue or black. You can also save settings, adjust text size and change it to grey. If you want to insert it as a block, without a stake and a reference line, click Insert element.

Ne Tworzenie tablic drogowskazowych X										
Kolor tablicy Zielony	Kolor Biały Do	tekstu vdaj kierunek	Wyrównanie Góra symetria ~ Dodaj miasto						⊟ Symbol Stan	P_Opis_Piono E-4 Projektowany
Strzałka lewa	Numer drogi	Numer drogi	Nazwa miejscowości	Państwo	Państwo	Odległość	Strzałka prawa	Wysokość tekstu	Wielkość Odblasko	Wielkie I Generacia
	S 52 🗸 🗸	~	Cieszyn	PL	CZ			162 ~	llość	
<b>↑</b>	~	~	Katowice				<b>1 1</b>	162 ~	Dodatkowe Aktywny	
	~	~	Kraków					162 ~	Kilometraż	
									NrDrogi	Nie
									Szare wyperni	nie
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									_	
									u	
Wyczyść	Zapamięta	aj ustawienie						Wstaw element	Wstaw	Zamknij



#### E1\_library

With this function you can add a template to a drawing, and then edit it as a block.

🐱 Wybierz znal	k do wstawieni	a:			×
	• 0 FRANCOR - CONTRACTOR - C		XXXXXXXXX Corrying		
	E-1 zjazd1	E-1 zjazd2	E-1 zjazd3	E-1_1	
	·	(C)	V M POSOUII	o en orderer orderer 7 <sup>7</sup> tall 1997	
E-1_Autostrada	E-1_Rondo	E-1a 1 w1	E-1a 1 w2	E-1a 1 w3	
a m the second				end an anna -	
				ок 2	Zamknij

#### Table - sign background

With this function you can make a new signboard. Run the command, choose elements you want to be placed on the board, confirm with enter and set the size.



#### Roundabout

With this function you can make a roundabout for later use when making a board. There are 5 sizes to choose from.



#### **ERW**

With this function you can make a road to a roundabout which will be used during creation of a board. After running the command select inner circle, then length and place for a road.



#### Main road

With this function you can make a simple main road element that will be used when making a signboard.



#### **EDNr**

This command allows to make a name of a city with a road, that will be used when making a signboard. Choose values and colours that should be put on a signboard.



#### **EDDisabled**

With this function you can make a closed road symbol that will be used when making a signboard. After running the command, you can cross any element you want to be closed.



#### Table - sign background

With this function you can make a signboard with a blue background. Run the command and choose which elements should be placed in it. Then just make an angle and your signboard will be placed.



#### Highway

With this function you can make an arrow that represents a highway, that will be used when making a signboard.



#### **Highway lane**

That function is useful for making a small arrow when making a signboard. It's a directional arrow, for example to cities or districts.



#### **Roundabout filling**

With this command you can fill any roundabout that is already made in the project. First, select the inner circle, then click on start and end of fragments you want filled.



ERz

This command creates an exit road out of a roundabout. Select the inner circle, set a length and location. The length of an exit will be saved for future usage, but you can change it anytime.



## Main road

With this function you can easily make a subordinated road, that will be used later when making a signboard.



#### EDm

With this command you can make a white table with a city name, that will be used for creating a signboard. Run the command, type a name, and place it in your drawing.



### EDlimitSign

With this function you can add a symbol of a sign into the project and use it for making a signboard.



#### **Highway exit**

This function can be used to make an arrow, which stands for leaving a highway and use it later when making a signboard.



#### Arc connector

This function is useful for creating an arch that is connecting two roads at the roundabout. Run the command, then select the roads and adjust the arc.



#### Arc

With this function you can easily modify an already made arc. After starting the command, click on an arc that is to be modified, select its size and decide if it should be a main road or a subordinated road.



#### **T6**

## T6 Main road

With this function, the user can draw a main road for use in the T6 board. To do this, run the command and draw a special polyline.



## T6 Subordinate road

With this function, the user can draw a sub-road for use in the T6 board. To do this, run the command and draw a special polyline.



#### **T6 Railway crossing**

With this function, the user can draw a railway crossing marking for use in the T6 board. To do this, run the command and draw a special polyline.



#### T6 Table

With this function, the user can combine the drawn elements into a T6 array. To do this, run the command and indicate the elements. The programme will then ask for an approach line to determine the angle of the mark.

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## Supplementary

## Lanes signement

With this function you can easily make a sign with assigned lanes. Run the function, then choose what you want to be on your sign and click insert.

4	F-10		×	I.E	F-1(	D	Proj.
		P_Opis_Piono					
Ξ					_		
	Symbol	F-10					
	Stan	Projektowany					
	Wielkość						
	Odblasko	l Generacja					
	llość						
	Dodatkowe						
	Aktywny						
	Kilometraż						
	NrDrogi						
Sza	are wypełni	Nie					
	0	Wstaw	Zamknij				

**E-4** 

With this command you can make a signpost with a direction to a city. You can fill any blanks you prefer, or just type a city name and click Insert.





## E-5

This **signboard** is for directional tables. After starting the command, choose a symbol and type name of a city or a district.

≁	Okęcie	> E-6	Proj.

#### E-7 E-12

With this command you can make a signboard for a cultural or tourist object. Here is an example:



### InfoSignPost

This command is used for making a signboard for services, like mechanic, WC, restaurant etc. Run the command, choose a symbol and type a name.



#### Administration area border F-3

You can make an administration area border sign with this function. After you activate the command, fill Province, District and Town fields you want and click insert.



#### E-17a

This command makes a town sign.



#### E-18a

This command makes an end of a town sign.



#### E-21

This command makes a district sign.



#### River (F4)

This command makes a river sign. You can modify size of a board, by clicking District or town road.



## E20

After running the command you can type a name of a road junction, a distance and a colour then click Insert.

S	ymbol tan	E-5	
V	an	D : 11	
V	lielluséé	Projektowa	any
0	delsekowcóć	I Generaci	-
L L	ubidskowosc	rdeneracj	a
D	odatkowe		
A	ktywny		
ĸ	ilometraż		
N	rDrogi		
V	/staw	Z	amknij

## Additional information table

This function creates a white table with any text, for example town's name.



**F-6** 

F-5

F-5 is a function that creates a board with a prohibition sign. You can choose a sign, set the distance and click Insert to make it work.



F-6 New

With this function you can easily insert one of three template bases for making F6 sign.
Ev.			×
	-	<u>_}_</u>	
F6	F6_1	F6_Roundab	
			OK Close

#### F-6 Road

With this function you can add a road to your drawing, that can be used to make F6 board. After activating the command set size of the road and insert it to the project.



## F-6 Sign

With this command you can add a sign to the signboard. Choose one, and place it in the project. The sign can be used later to make for example F6 signboard.



#### Here's an example:



#### **F-6 Comment**

When using this command, you can set a comment to the drawing. Click on this function, then place a 5t to the drawing. You can edit it in any way you need.

## Road closed

#### **F-6 Comment frame**

This function creates a frame with white background around chosen elements.

# Road closed

#### F-6 Dist

This command creates a distance to the drawing. Click on the function and place it in your drawing. You can edit it by double clicking.



#### F-6 Table

This function can create a F6 signboard by combining other elements to make one board. Choose elements you want to be placed, confirm with Enter and choose an angle.



#### **F-6 Export**

This function allows user to save already made F6 board for further use. You should save the sign in the instal folder, for example C:\Szansa\ZWTraffic\2025\EN\Templates\Vertical traffic signs, and there, in of the folders you can save you own. When you do that you can access them in library of signs.



#### **UBR**

#### **Marks barriers**

This function is for creating barriers and fences in the project. After running the command, pick a barrier you want to be placed on a line. On the left side you can choose what kind of barrier you need and then you can click OK or you can change parameters on the right. Most of available elements require you to choose length of segments.

	Description		
U-1a	Leading post	Description	P_Description_F
U-1b	Leading post for safety barrier	Parameters	
U-2	Edge post	Description size	1.00
U-3c	Continuous leading board to t.	Preview size	0.005
U-3d	Continuous leading board to t.		
U-11a	Railing grey		
U-11a	Railing		
U-11b	barrier with handrail		
U-12a	A pavement barrier - criss-cros		
U-12a	A pavement barrier with a bar		
U-12a	A pavement barrier with a bar		
U-12b	Chain fencing		
U-12c	Blocking post		
U-14a	Steel protective barrier		
U-14b	Concrete protection barrier		
U-14c	Steel rope barrier	-	
U-14e	Protective barrier	Parameters	
11-19	Anti-glare covers		

After that click on a line you want new barrier to be placed on and set its start and end.



When the line changes into your barrier all there is left to do is choose a place to insert a symbol of the barrier.



## Threshold

With this function you can add a threshold to the drawing. Run the command then choose an element and click OK.

h					×
	_				
3 Acustic lines	Acustic line	Battened L 0.5	Insular L 1.8	U-16a L 3.70	
U-16b L 5.0	U-16c L 4.0				
				ок	Close

Then put it on the drawing. The application will ask you to set description after each of inserted segments.



#### Retroreflectors

With retroreflectors function, you can place such elements on the drawing.



#### **Berlin pillow**

With this function you can make a Berlin cushion on the drawing.



## **Horizontal marks**

Axis

With this function you can convert a line to one of the lines on the example. After running the command, you can choose a new style and click on the line you want to change.

P-1a	Single dashed - long	
— Р-1Ь	Single dashed - short	
— — P-1c	Single dashed - isolating	
P-1d	Single dashed leading tight	
P-1e	Single dashed leading wide	
P-2a	Single continuous - tight	
Р-2Ь	Single continuous - wide	
		_

## Line

With this function you can draw a traffic lane, or other elements of the road lines. After running the command, you can choose a traffic lane, click on Draw, and start drawing.

D 1-	Circle desked Jaco	
P-1a	Single dashed - short	
— — P-1c	Single dashed - isolating	'
P-1d	Single dashed leading tight	
P-1e	Single dashed leading wide	
P-2a	Single continuous - tight	
P-2b	Single continuous - wide	
		_

## **Pedestrian's crossing**

With this function you can make a pedestrian's crossing. Run the command, and start drawing. Default crossing is made on a red background, but you can click and remove it after drawing.



## Passage for cyclists P-11

With this function you can make a passage for cyclists. Run the command, and start drawing. Default passage is made on a red background, but you can click and remove it after drawing.

	:	:	

#### BUS

With this function you can make a bus text on the road. Run the command, choose a size in command line and start put it in the drawing.



#### Pedestrian symbol P-26

This command creates pedestrian symbol in the drawing.



#### **Bike lock**

You can make a bike lock with this command. Click on the function then choose a starting point, direction and angle.



## Vertical signs as horizontal marking

With this function you can set vertical signs horizontally. Click on this command, choose a sign and place it in the drawing. You can edit its values by double clicking.



#### Sum of length

You can use this function to sum length of horizontal marks. Run the command, choose a sign and you will see its surface area in the command bar. You can also insert it to your drawing.

#### **Horizontal markings report**

The command allows to create a collection of horizontal signs in a form of a table. Once activated, a window will appear where on the right side a + will be available and it will let you add elements to the collection of elements. It is possible to either choose All or Select depending on the user's needs.

🛃 Hori	izontal mark	ing report						×
E P	_Descriptior Attributes	n_Horizontal						+
	Symbol	•	Symbol	LENGTH	AREA	STATE	AREA O	Befresh
	LENGTH	•	P.2		2.75	Designed	_	Honcar
-	AREA	•	B.43		2.75	Designed		
	STATE	•	C-14		2.75	Designed		
	AREA_OF	•				2 colgrida		
								Insert
								Save as
								Close

The parameters of signs are present on the left hand side of the dialog box, thanks to them it is possible to choose a certain group of signs e.g. according to their states. The list can be extended. If you only want to see the signs with certain parameters, it is necessary to select the desired parameters and click on Refresh. The program will display the vertical signs that present set criteria.

🚺 Horizontal mark	cing report						<b>X</b>
P_Descriptio Attributes Symbol LENGTH AREA STATE AREA_OF.	n_Horizontal • • Designed •	Symbol B-2 B-43 C-14	LENGTH	AREA 2.75 2.75 2.75	STATE Designed Designed Designed	AREA_O	+ Refresh
STATE		G	•				Insert Save as Close

Selected vertical signs can be added with detail to the drawing in form of a table by using the button Insert or to an external CSV file by means of Save as.

Symbol	Długość	Powierzchnia	Stan	Powierzchnia_na_mb
P-17	55.00	6.27	Usuw.	1.71 m2/15mb
P-10	32.00	40.00	Proj.	0.5m2/mb s
P-1a	12.00	0.49	Proj.	0.04m2/mb
P-1a	6.00	0.26	Proj.	0.04m2/mb
P-1a	49.00	1.97	Proj.	0.04m2/mb
P-4	20.58	4.94	Proj.	0.24m2/mb
P-2a	29.00	3.52	Proj.	0.12m2/mb
P-1d	24.00	14.12	Proj.	0.60m2/mb
P-1a	22.00	0.87	Proj.	0.04m2/mb

#### **Triangle subordination P-15**

With this function you can make a triangle of yield symbol on the ground.



#### **Bus stop line P-17**

Using this function you can make a bus stop line. Run the command, draw a line in place you want a bus stop line to be placed and confirm.



#### Parking spots P-18

Parking spots P-18 is a function to create advanced spaces. Choose number of stands, layout and vehicle type. After that, start drawing, then choose side and confirm.

💤 Car park stand	s X
Stands count	0
Layout	Perpendicular/Slant $\lor$
Vehicle type	Passenger car $\lor$
Dimensions	
Angle	90 ~
Width	2.5
Length	4.5
Add description	•
Draw	Close



You can also choose different type of vehicle, for example:



You can change dimensions easily by editing default parameters.

#### Envelope P-20

With this function you can easily make a private parking space. Click on the command, then choose a starting point, direction and angle. You can type T during drawing to insert text in

that parking space, or you can type C to choose a car type.



Stop

This function inserts stop text to the drawing. There are 3 sizes to choose from.



Arrows

With this function you can put an arrow to your project. There are plenty of them to choose from, and you can adjust its size as well.



#### **Blue horizontal area**

With this function you can draw a square area on the ground with blue colour and any description.



#### Pink horizontal area

With this function you can draw a square area on the ground with pink colour and any description.



#### Add horizontal marking description

With this function you can add a description to a horizontal sign or marking. Choose a function, select a sign and a size and confirm with Enter.



#### **Bike symbol P-23**

With this function you can add a bike symbol to a project. Click on icon, choose a size and click where you want the symbol to be.



Lane and direction for cyclists P-27

You can use this function to add a bicycle road direction to your project.



**Disabled person symbol P-24** 

This function adds a disabled person symbol to the drawing.



#### Excluded surface P-21

Excluded surface is a function that fills a space with parallel lines. There are 2 types of P-

21 sign:

- P-21a (narrow)

- P-21b (wide)

After running the command, you can choose angle of the lines and type of excluded surface.



Then you should select an area you want to be lined, press D and select direction of the road and continue.



#### **Horizontal text**

This command creates a text in horizontal form. Run the function, type text, then signs name and confirm.



#### **Green horizontal area**

With this function you can draw a square area on the ground with green colour and any description.



#### Yellow horizontal area

With this function you can draw a square area on the ground with yellow colour and any description.



## Update horizontal description

If you'll have a need to change a description of a sign after it was changed, you can use this function.

## **ZWTraffic – road construction**

#### Load

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

## Road

#### Trace

This function can be used to change properties of a route, with a new kilometrage. Run the command, choose a line and type starting kilometrage (in meters). Here is an example with starting kilometrage changed to 5000. Note that previous markings of kilometrage won't disappear.



#### Klothoid

With this function, you can draw a Euler spiral. After running this function, a window will appear, in which you can modify values. The most important is to set A value, if you can't fill all the data. After clicking Calculate, the program will calculate a range in which A value should be set. If you want to calculate the length ratio, a precise value of A will be measured. When you click on Draw, you should then pick 2 lines so the klothoid will be drawn.

Parameter	Value	Parameter		Value
Bend angle - Alfa	0.0000	Dynamical criterion A1	+	_
Speed designed – Vp	0	Geometrical criterion A2	+	_
Arc radius - R	0.0000	Angle aesthetic criterion A3	+	_
Road width – B	0.0000	Angle aesthetic criterion A4	+	_
Across lean on stright – lo	0.0000	Move aside arc aesth. crit. A5	+	_
Across lean on arc – Ip	0.0000	Move aside arc aesth. crit. A6	+	_
Road classi	Main road fast	Move aside arc aesth. crit. A7	+	_
		Construction crit. Arc with wid	+	_
		Construction crit of driving co	+	_
Calculate		Construction criot. widen on a	+	_
		Convenience driving criterion	+	-
The length ratio				

#### **Basket curve**

With this function you can make an arch. After running the command, type a middle radius in command box, set the ratio, and pick 3 points on which the curve will be drawn.



Bays

You can draw a bay with this function. First, choose a polyline, then pick beginning and ending of a bay. Measurement will be shown in real time.



#### **Crossroads elements**

With this function you can draw some islands before an intersection. You can change its parameters in the right menu.



With Large and Small drop, you have to draw a line for its axis, then for the main road and the drop will be made. With Separating island and S-curve, pick a roundabout's outer line and click it. The entire structure will be made.

#### **Roundabout elements**

This function can create complicated access to a roundabout. After running the command, you can modify parameters of parallel or triangle island and draw it. Click on the outer edge of a roundabout and choose a direction. The structure will be drawn then.



## **Distance markings**

#### Trace kilometrage

In order to make a Trace kilometrage, activate the command. Then click on a polyline and type a starting value, then confirm the direction and set a distance between signs, default is 100 units. After that, all is left to do is to pick a starting point and an end.



And that's how it looks after zooming:



#### **Distance markings**

This function allows a user to set distance markings every 100m. After running the command, choose a road. Then select starting kilometrage, start and end of the function.



#### **Distance markings by signs**

This function can be used to mark distance of signs by the road. You need to run the command, choose a road then point at signs you wanted to be marked.



#### **Distance markings by points**

This function marks distance by inserting a reference point with precise measurement. Run the command, then choose a line. Now in each place you click, a distance mark will appear.



#### Inventory

#### Inventory

The function allows images with an assigned geolocation to be inserted into the drawing. The images will be inserted at the appropriate place in the form of a link.

For this, you will need images with coded GPS coordinates, such as:

		Właściwości: IMG_	20240516_091204.jpg	×	
-	-	Ogólne Zabezpieczen	ia Szczegóły Poprzednie wersje		
IMG 20240516 09	IMG	Właściwość Ostrość	Wartość Normalov		
1204.ipg	invic	Równowaga bieli			
		Interpretacia fotomet	Automatycznie		
		Powiekozopie oufrou			
		Womia EVIE	0210		
			0210		
		GPS			
		Szerokość geografic	zna 51; 7; 38.4457389999		
		Długość geograficzn	a 16; 3; 35.3182979999		
		Wysokość	191.02		
		Plik			
		Nazwa	IMG_20240516_09120	-	
		Typ elementu	Plik JPG	1	
		Lokalizacja pliku	C:\Użytkownicy\mmlec		
		Data utworzenia	23.12.2024 13:28		
		Data modyfikacji	14.01.2025 08:27		
		Rozmiar	4,37 MB	1	
		Atrybuty	A		
		Dostępność			
		Usuń właściwości ora:	z informacje osobiste		
			OK Anul	uj Zastosuj	

Having the relevant images, run the Inventory command and enter the location of the image or folder together with the datum. The photos will then be inserted at the appropriate coordinates.

## Trajectory

## Trajectory

This function is a simulation of a car's trajectory, made for optimalisation of certain vehicles.

After running the command, a window will appear:



You can insert a side view of your car into the project. You can also choose a vehicle to test it, and there are two ways to do so.

## By path

This way, you can check trajectory of a car by choosing a polyline, line or arc. To do so, run the command, choose a car and click By path. Now click on a line you want to check.



Trajectory of the car will be drawn.



## Check passability

After choosing a vehicle and clicking Check passability you can place your car in the drawing, and start moving it, while creating its path.



Enter finishes the job.



## **Profiles**

## Mark contour line

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.



The picture before and after said function is used.



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

## **Draw Longitudal 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.



#### **Describe 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.

## **Additional tools**

#### Name the street

With this function, it is quick and easy to insert text into a drawing at a suitable angle, e.g. a street name. To do this, simply run the command, enter the name and place it in the drawing. You can then determine the angle of rotation.



The next time you use the function, the previously used name will be remembered by default. You can also go into Settings to change the size, font etc.

## **Draws lines of slope**

If you want to draw lines of a slope, pick top and bottom edges and the lines will be drawn. You can also modify them.





#### Marks coordinates of project

You can use this function to set coordinates for any point. Just run the command, click on the point and a place where coordinates should be put.



#### **Elevation marks**

You can draw elevation marks with this command. There are few templates to choose from. You can modify size and precision of the data.

Elevation mark	ings			x
Level ⊽	Level ▼			0
Elevation2	Elevation3			
Text size	10			]
Accuracy	0	0.0		0.00
	C	Draw		Close

Elevation mark measures distance via Y axis from the beginning of the coordination system. You can click on 0 to set such a beginning.



If you change the 0 point, you'll be asked if you want to change you already done elevation marks.

#### Draw lines of slope in percentage

With this function you can draw lines of a slope. Run the command, draw a line where you want your slope to be placed. After that, click Draw or modify values of the slope.

	🜆 Spadki	×		
	Spadek Długość w poziomie Wielkość	40% 20  4		
	Rysuj	Zamknij		
<u>0,00,00%</u>	6.0%		4.0%	
40				

#### Summ length

You can use this command to sum length of objects. After choosing the function, click on an element you want to measure, then draw a line. The part within the line will be measured and displayed in command tab.



## Visibility

## Visibility

This command allows you to insert a drive-through, in accordance with the Decree of the Minister of Infrastructure od Poland dated 24.06.2022 on technical and construction regulations for public roads.

After starting the function, a visibility window will appear, where you can select the relevant regulation:



The window on the right is fully editable, the object inserted into the drawing with the Wstaw button will depend on the values entered there.

Се	cha	Wartość
Ξ	Parametry	
	Czas decyzji [s]	5.00
	Opóźnienie przy hamow	3.70
	Pochylenie	0.00
	Prędkość na drodze z pi	30.00
Ξ	Parametry	
	L1	5.00
	L2	153.00
Pr	ędkość na drodze z pie	rwszeństwem przejazdu [k
		Vstaw Zamknij

In the bar at the top, you can enter content for searching. There are also two additional categories, one for favorites and second for recently used. If you right-click on any paragraph, you can add it to the favorites folder, while the recently used folder gives you quick access to previously selected lines.



#### Visibility field before crossroads

After running the command, you can choose a starting point and then the direction by left clicking.



You can edit values of the vehicle in Properties panel.

ZWTraffic, visibility field		
Speed on a dual carriageway	50	
Speed on a priority road	90	
Elevation/Decline (negative value)	8%	
Car length	4.75	
S Stopping distance	37	
L Visibility along the priority road	39.9	

## **Extras**

#### **Select singly**

This function is responsible for displaying grouped objects. Signs and other objects in ZWTraffic are inserted as a group. You can either display objects grouped, with only one grip or as separate elements. Separate elements are easier to move or modify, but it's easier to miss something. This can be switched with this function.



GROUPDISPLAYMODE command is responsible for displaying groups.

#### Settings

You can define your own settings in the application, just click on Settings.

ZWTraffic Settings	×
Parameter	Value
Layers	
Vertical	
Designed	
All	
Sign face	0
Stand	0
Description	0
Leader	0
Existing	
All	
Sign face	0
Stand	0
Description	0
Leader	0
- Moved	
All	
Sign face	0
Stand	0
Description	0
Leader	0
	Course Church
	Save Close

You can choose on which layers symbols will be placed. You can create new layers this way for any groups of signs. Base value is set to 0.

Parameter	Value	
Leader	0	
Temporary		-
All		
Stand	0	
Description	0	
Leader	0	
Remove		
All		
Stand	0	
Description	0	
Leader	0	
Path analisys	0	
Sizes		
Sign face size	1.000000	
Sign shield size	1.000000	
Description size	1.000000	
Drawig scale	1:1000	1
Make group from created elements	Yes	

The default scale is set to 1:1000, but that can be changed, as well as for example state of signs. Every setting is saved to the file in directory: C:\Szansa\ZWTraffic\2025\EN\Configuration. There is a States.ini file, in which you can edit.

## Activation

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

## Activation must be completed on an account with administrative privileges.

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

## C:\Szansa\Aktywator\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:

式 Usł	ugi informatyczne '	SZANSA' appli	cation licenc	es report			
	Application	Module	Version	Licence type	Licence state	Expiring	The code
	(Million Street		100	(Margaret	(Margaret	-	
Þ	ZW Traffic	All	2019	No. An example	Active		Second second
	ZWTraffic	Lite	2019	the first second	Active	10.00	The second second second
	The locality		100	(Martine )	(Margaret	-	
	ALC: NOT THE OWNER.	See.	100	Children and	10000	-	
	CO hadde	100	100	and the second s	Pierre .	-	
	20 Tanata		200	10000	(Margaret	-	
	Contraction of the local sectors of the local secto		100	Tell an end	1000	1.000	1000 CT
	Contraction in the		1998	(Margaret	100000	-	
	000000		100	Children and	Children and	-	
	Other		100	(Acres)	New	-	
	20030		200	10000	(All the second	-	
	10000		100	and the second	all states and		
<u>Leam</u>	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
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:

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.

Activate

An information window will pop up confirming the activation.

3:



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

#### Manual menu load

After installing the overlay, it should load automatically after running ZWCAD 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 ZWTraffic.cuix located in C:\Szansa\ZWTraffic\2025\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
	Zamknij <u>P</u> omoc