

Unveiling



ZWCAD (I)

Explore its Unique Features

Comprehensive E-book

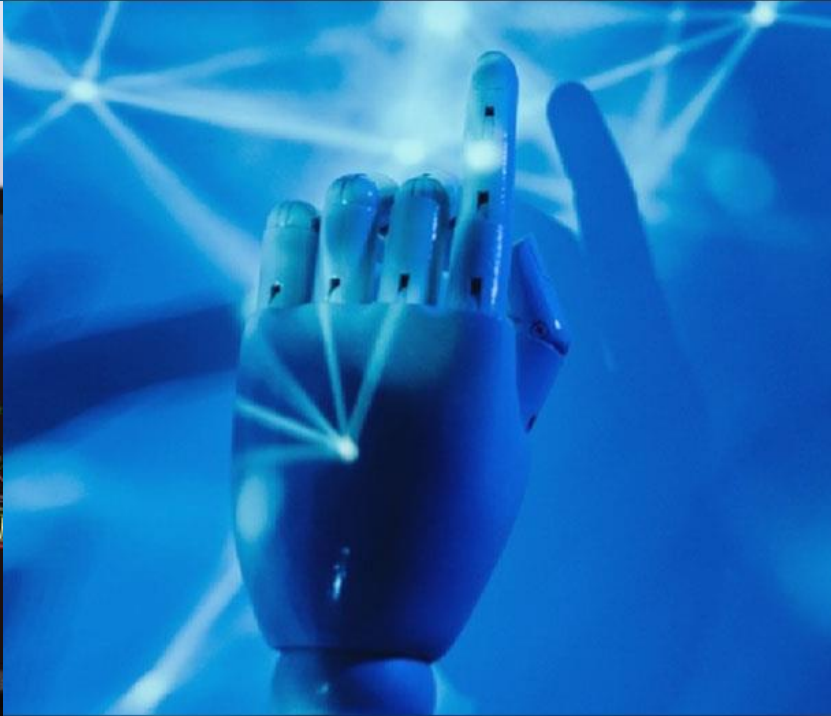
ZWSOFT

User Experience



User-Centric

User is the first priority, creating intuitive interfaces, tools, and features that enhance usability and productivity, ensuring a positive user experience.



Innovation

Remain dedicated to innovation, continuously advancing its technology and software solutions to stay at the forefront of industry trends and meet evolving customer needs.



Reliability

With a global presence and a strong network worldwide, ZWSOFT ensures accessibility, support, and collaboration opportunities for users across the globe.

Preface

Welcome to "Unveiling ZWCAD (I) : Explore its Unique Features." This book explores the remarkable advancements and practical applications of ZWCAD, a leading CAD software. Through facts, figures, personal experiences, and in-depth analysis, I aim to inspire designers and engineers by showcasing the immense potential of ZWCAD. Join me as we delve into the innovative features that will elevate the design experience and unlock new creative possibilities. Throughout this journey, we will discover exclusive functions that are not available with other CAD software, further emphasizing the distinctive advantages of ZWCAD. Let's embark on this exciting exploration together and uncover the unparalleled capabilities of ZWCAD.

Written by Abu Hamzah, a senior ZWCAD user

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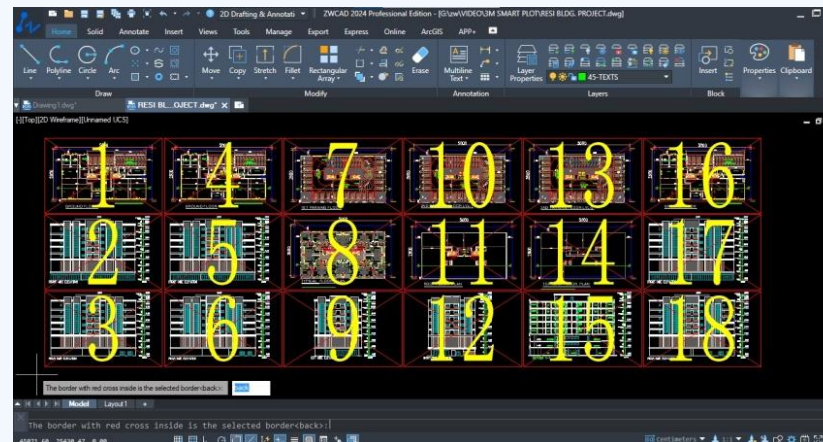
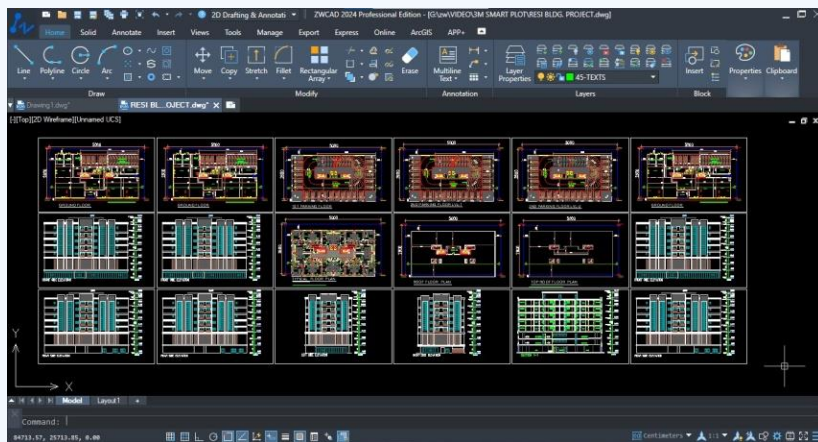
SMART PLOT

"Transforming Plotting Experience: Unleash Your Potential with ZWCAD Smart Plot"

ZWCAD Smart Plot is transforming the way CAD designers approach plotting. As a CAD designer, I have often found myself spending an exorbitant amount of time and effort when it comes to publishing DWF and PDF multiple sheets in AutoCAD.

Let me tell you why? The process of plotting multiple sheets can be tedious and time-consuming, draining valuable resources that could be better utilized in other areas of design.

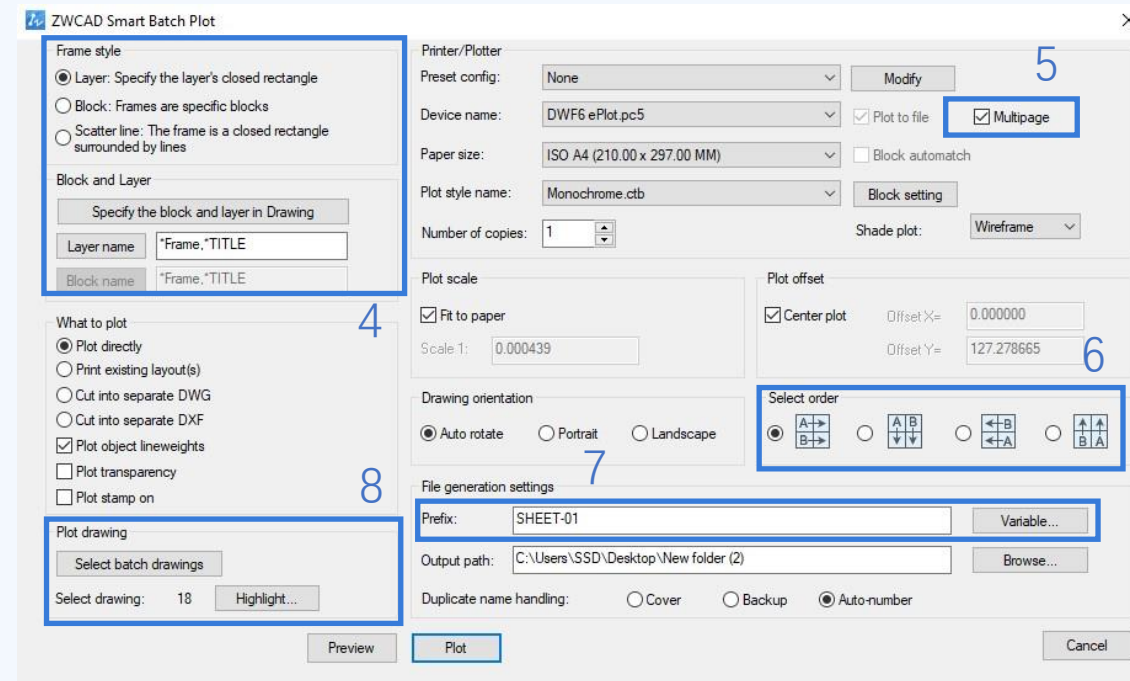
However, my experience took a turn for the better when I discovered ZWCAD Smart Plot. With just a single click, I was able to efficiently plot all my sheets into a PDF at once, and the best part is that I don't need to combine any sheets later on. In other words, I get multiple sheets into one PDF file, saving me both time and effort. Moreover, Smart Plot is not limited to just PDF or DWF; it can also generate JPG, PNG, or send the output directly to your printer plotter with a single click. When it comes to project submissions that require all the drawings in one DWF file, Smart Plot provides a faster solution, as you can see below number of 18 sheets in single DWF file I am getting at a time.



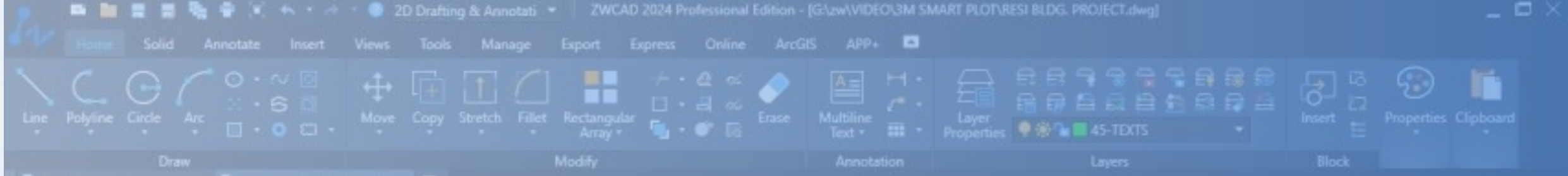
Method to use ZWCAD Smart Plot

Here is the step by step method to use ZWCAD Smart Plot:

1. Apply the 'SMARTPLOT' command or select it from the export menu.
2. A dialog box will appear to customize the batch plot setting.
3. Select the desired plotter configuration based on the requirement.
4. Choose the appropriate frame style Layer, Block, Scatter Line & specify them.
5. Tick the multipage if printing multiple DWG to PDF or DWF in one file.
6. Choose the select order to get multiple sheets in sequence order.
7. Set a prefix from a variable if producing multiple sheets separately.
8. Plot the drawing by choosing select batch drawing.
9. Click on 'Highlight' to preview the selected sheets.
10. Preview the plot to verify the settings and make any necessary adjustments, if needed.
11. Click on the 'Plot' button to initiate the plotting process.
12. Now, multiple sheets are being generated as a printer plotter or in PDF or DWF format, as selected.
13. The plot is completed; collect the printed output in the designated folder or as a hard copy as well.



"There are several major points highlighted in the figure that should not be missed when batch plotting."

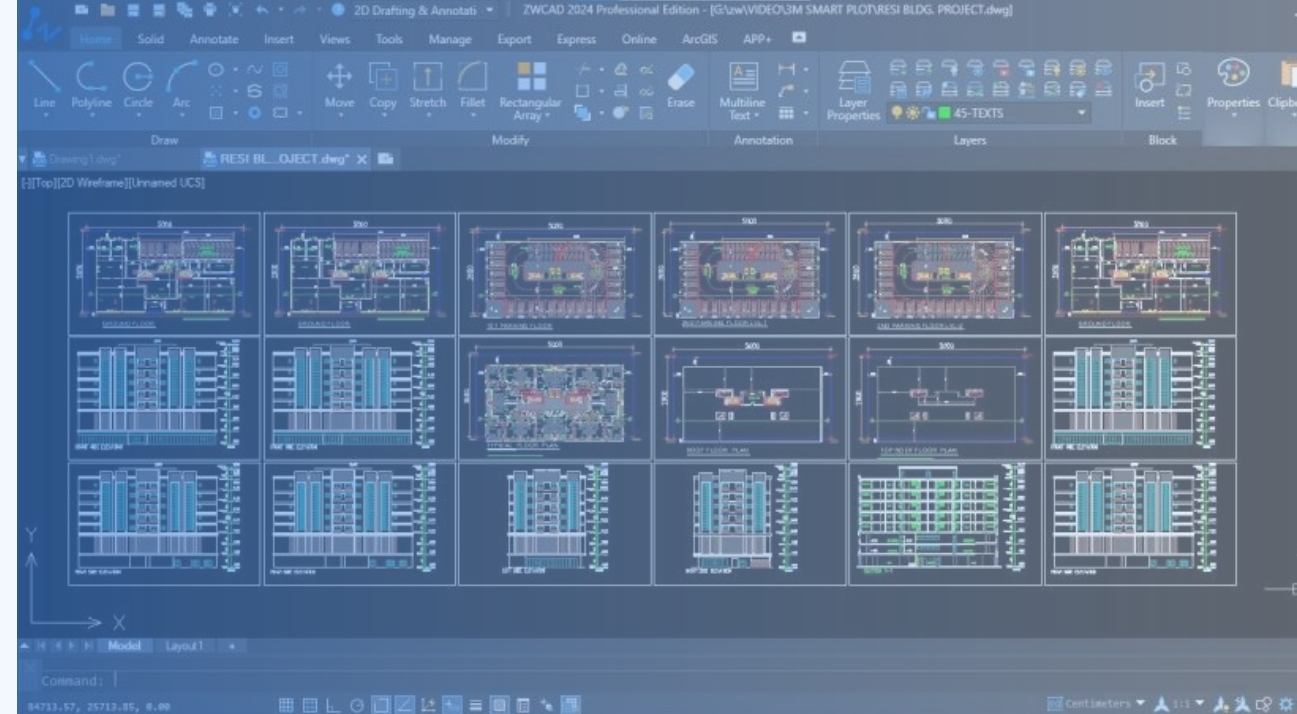


Key Features

1. **Single-click Plotting:** Plot all sheets with one click, eliminating the need for manual plotting.
2. **Select order:** Arrange multiple sheets in sequence order for output.
3. **Customizable options:** Plot with multiple options such as block, layer name, and scatter line.
4. **Recognize:** Recognizing paper size for printing and automatic prefix naming.
5. **Combine:** Combination not required for PDF & DWF formats.

Why ZWCAD Smart Plot

ZWCAD Smart Plot revolutionizes the way we approach plotting in CAD design. Gone are the days of manually plotting each sheet and waiting endlessly for the process to complete. With ZWCAD Smart Plot, you can experience a hassle-free, error-free, and streamlined workflow, making your design output process more efficient and productive. And the best part is, it saves you time and effort.



Where to use ZWCAD Smart Plot

Of course, ZWCAD Smart Plot can be utilized in various industries that heavily rely on CAD design, such as architecture, engineering, construction, and manufacturing. Whether you are a professional designer or a student, you definitely need your final design output in the form of printer plotter PDF, DWF, or any other format. And what if you get stuck with multiple sheet printing? ZWCAD Smart Plot is the only valuable tool that can enhance your productivity and save your precious time to be utilized in other parts of your design.

SMART MOUSE

"Ergonomics meets Intelligence: Exploring ZWCAD Smart Mouse for CAD Professionals"

In the dynamic world of CAD design, every second counts. As a CAD designer, I have experienced the need for seamless and efficient interaction with my design software and its processing. That's when I discovered the incredible potential of the ZWCAD Smart Mouse – a tool that has revolutionized my design process. I will show you the practical benefits of using the ZWCAD Smart Mouse to navigate through the world of CAD design effortlessly.

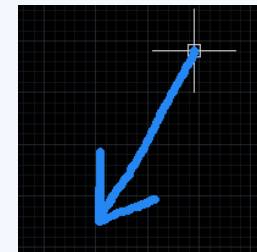
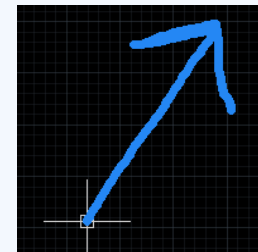
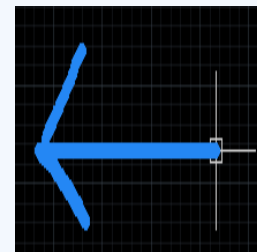
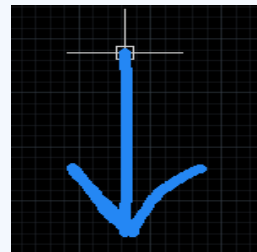
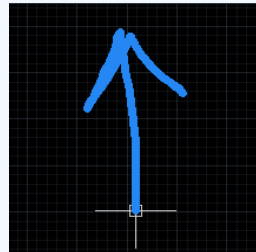
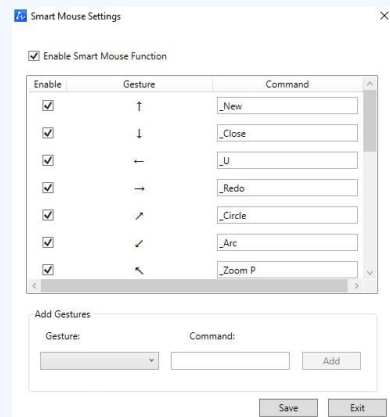
What about when you need to finalize a task without keyboard input?

The ZWCAD Smart Mouse provides the perfect solution to speed up your work. By setting up your own gestures and customizing your most frequently used commands, you can finish tasks effortlessly. It's as simple as customizing your commands once and letting the Smart Mouse handle the rest.

Let me tell you one more amazing thing: what if you find yourself in a situation where you are not in mood of keyboard input all the time?

Then the one and only ZWCAD Smart Mouse fill your need.

Let's explore how to implement it practically, as shown below.



Enhancing CAD design with my custom gesture Smart Mouse

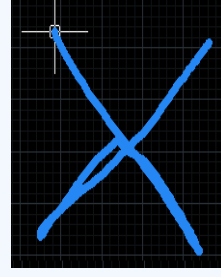
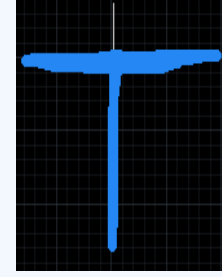
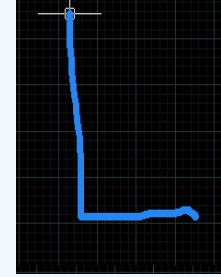
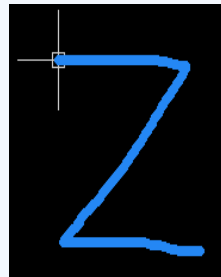
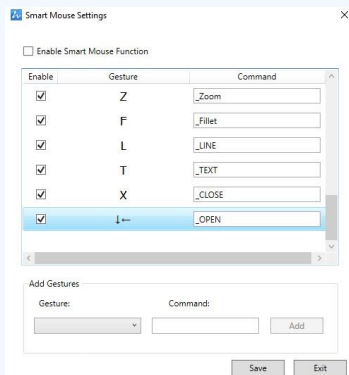
Elevate your CAD design experience by using the gesture Smart Mouse, as shown below. These are my personalized gestures that prevent me the need for constant keyboard interruptions during my work flow. You should also give it a try.

Method to use ZWCAD Smart Mouse

Here is the step by step method to use ZWCAD Smart Mouse:

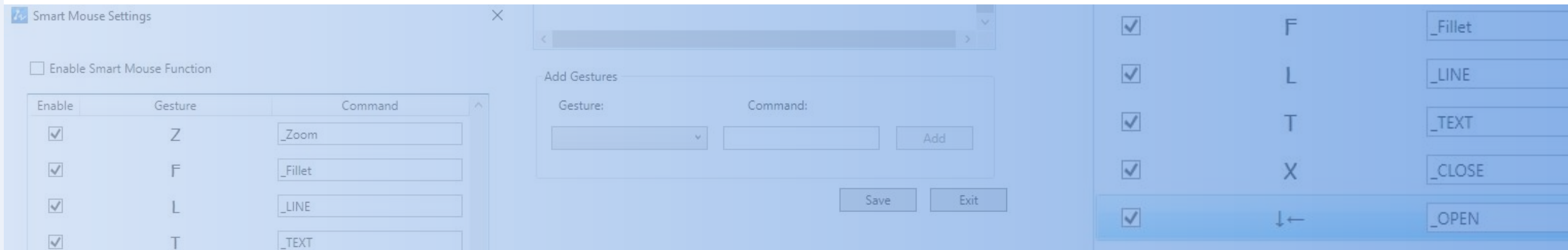
1. The 'SMARTMOUSECONFIG' command allows you to customize the gestures according to your preference.
2. Input the 'SMARTMOUSE' command to turn it on.
3. Apply it by performing hands-free right-click gestures with the mouse.

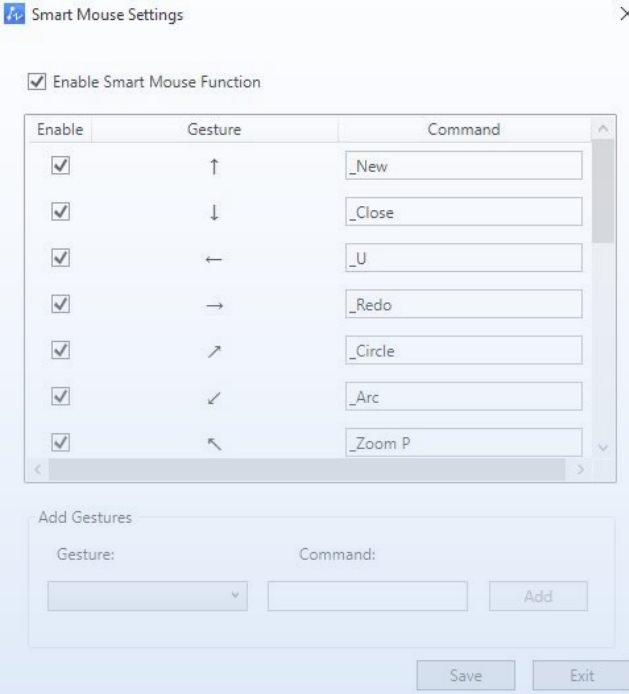
"You can access the tool option to activate the Smart Mouse and configure its setting."



Key Features

1. **Intuitive gestures:** Navigate your design effortlessly with simple swipes, improving efficiency and ease of use.
2. **Rest mode:** Pause keyboard input and control the most used commands using intuitive mouse gestures.
3. **Customization options:** Personalize your CAD experience by assigning commands to gestures, configuring commands to match your workflow.





Streamlining CAD instruction

Imagine a scenario where you're engrossed in your design, in a state of flow, and suddenly you realize that you need to execute a command or access a tool. Normally, this would require you to interrupt your workflow, search for the specific key or combination on your keyboard. However, the ZWCAD Smart Mouse is the only solution that allows you to eliminate this scenario and achieve the best possible result.

Why ZWCAD Smart Mouse

Imagine being able to effortlessly navigate through keyboard inputs using simple gestures. This allows you to quickly access the desired tools by gestures, saving you time and effort. With just a little practice, you can perform tasks seamlessly, entering a state of flow.

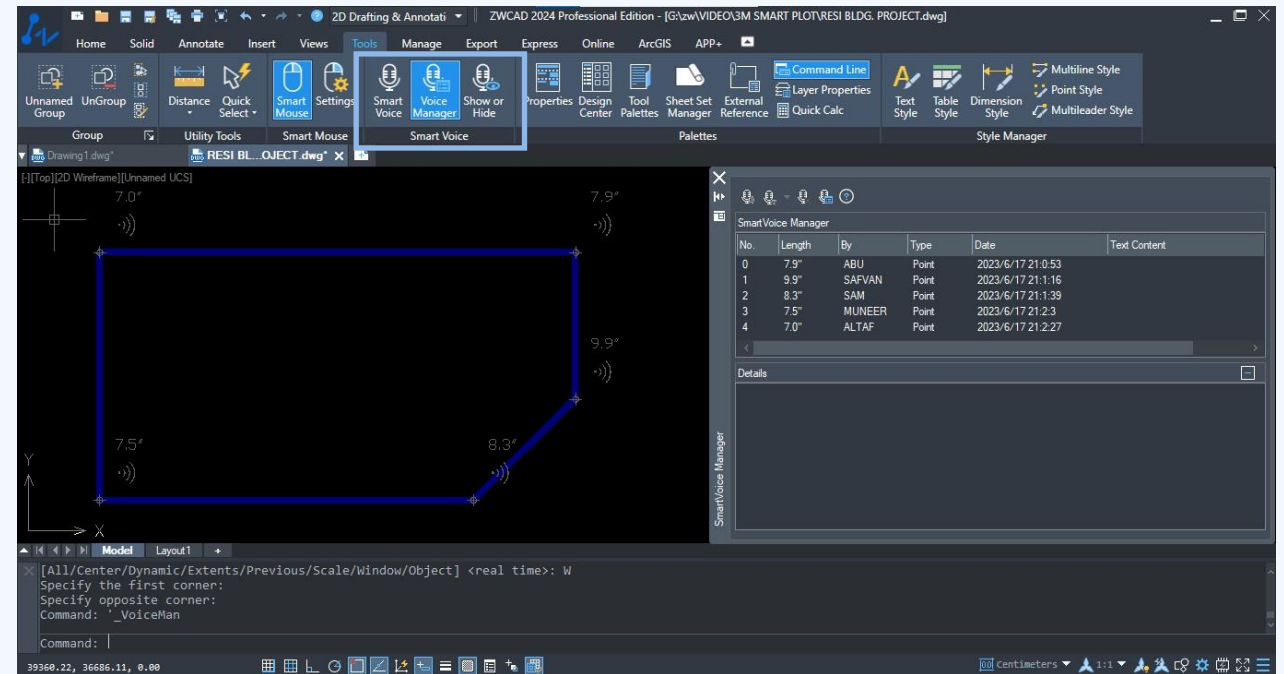
Where to use ZWCAD Smart Mouse

Effortlessly streamline your design process and navigate through gestures. Unleash your creativity by creating intricate designs with the intuitive gestures of the ZWCAD Smart Mouse. Experience enhanced productivity as you seamlessly interact with your CAD projects using this versatile tool.

SMART VOICE

"Voice-Activated CAD: A New Era in Design with ZWCAD"

Say hello to ZWCAD Smart Voice, the intelligent feature of ZWCAD that revolutionizes the design workflow. With its advanced voice recognition capabilities, it transforms the way designers interact with their projects. Forget about traditional inputs and embrace a faster, more interactive, and personalized design experience. As a user, I can attest to the game-changing benefits of ZWCAD Smart Voice. It offers seamless navigation, lightning-fast command execution, and even allows you to create voice notes as comment mark suggestions in your drawings, taking productivity to new heights and enabling intelligent interaction. See below the figure how I convince my coordinates using ZWCAD Smart Voice.

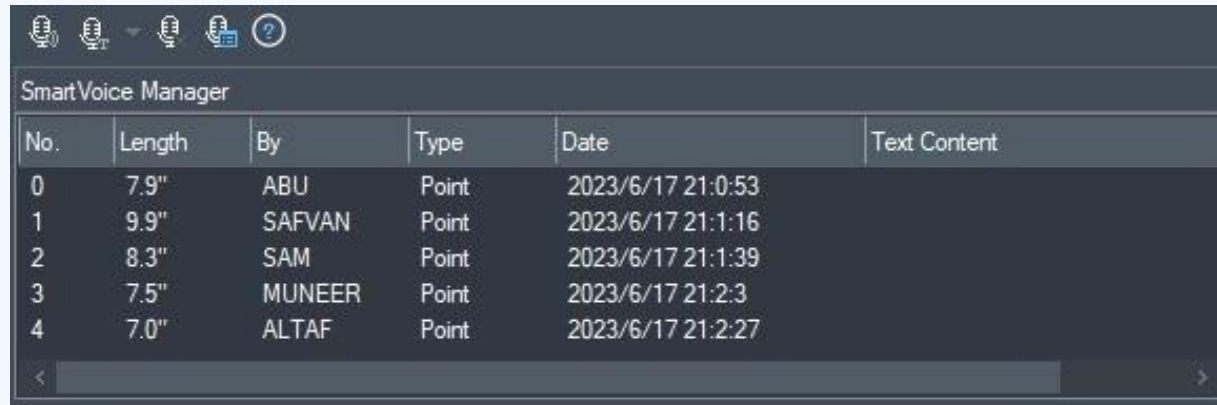
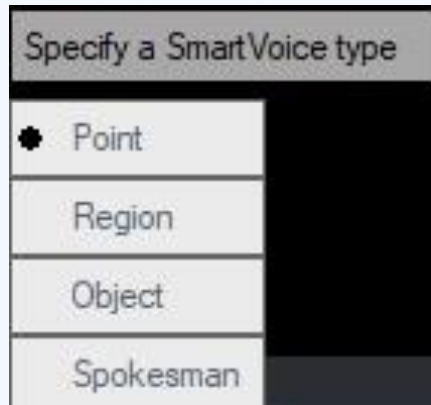


Method to use ZWCAD Smart Voice

Here is the step by step method to use ZWCAD Smart Voice:

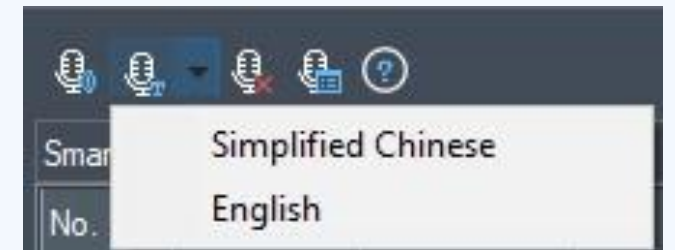
1. Activate the Smart Voice feature by using the 'SMARTVOICE' command.
2. Customize the settings to specify the Smart Voice type: Point, Region, Object, Spokesman 'as shown in the figure'.
3. A voice icon will appear over the designated area.
4. Speak clearly and audibly into the microphone connected to your computer to record a voice note.
5. ZWCAD will interpret your voice note within the area of your drawing.
6. To access Smart Voice Manager type 'VOICEMAN' 'as shown in the figure'.
7. To Show/Hide voice icon type 'VOICESHOW'.

"Smart Voice have its own voice conversion feature as shown in the figure that can be access from Smart Voice Manager."



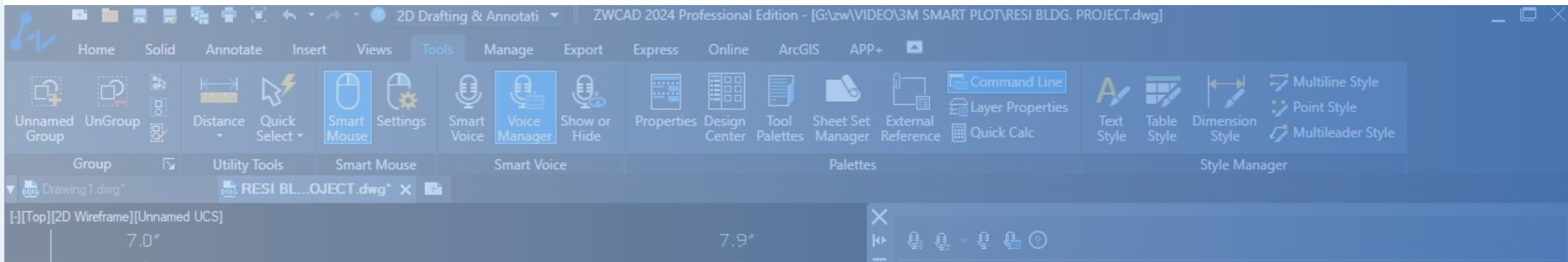
A screenshot of the 'SmartVoice Manager' interface. It shows a table with the following columns: No., Length, By, Type, Date, and Text Content. The table contains five rows of data.

No.	Length	By	Type	Date	Text Content
0	7.9"	ABU	Point	2023/6/17 21:0:53	
1	9.9"	SAFVAN	Point	2023/6/17 21:1:16	
2	8.3"	SAM	Point	2023/6/17 21:1:39	
3	7.5"	MUNEER	Point	2023/6/17 21:2:3	
4	7.0"	ALTAF	Point	2023/6/17 21:2:27	



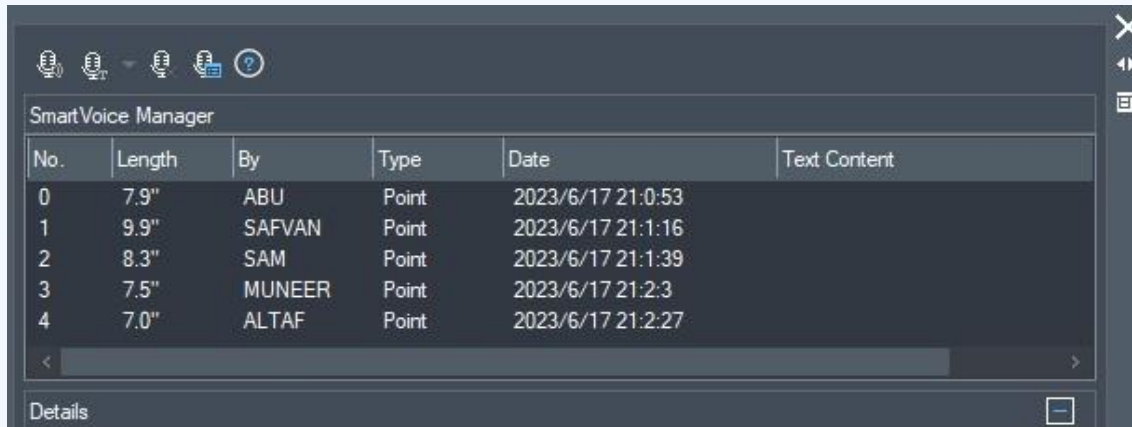
Key Features

1. **Smooth conversation:** Streamlined workflows and improved the smoothness of conversations with voice notes.
2. **Natural expression:** Facilitates seamless expression and provide natural convention over the area of concern in the drawing.
3. **Improved Accessibility:** Enables hands-free and sketch-free operation without affecting your drawing.
4. **Voice translation:** Provides smart voice capabilities for real-time and accurate translations of spoken words and phrases across different language.

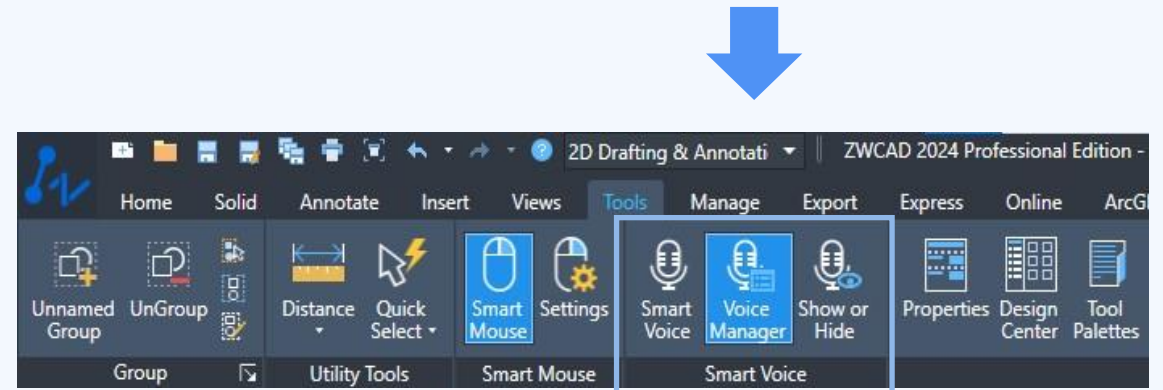


My ultimate choice for effortlessly placing notes with a Spokesman

One of my favorite ways to convey a message is by utilizing a spokesperson. When I need to persuade others about the significance of a particular drawing, I particularly gravitate towards employing a spokesperson who holds a prominent position. If any comments or suggestions arise, I firmly opt for the fourth option of a smart voice for the drawing's spokesperson, as it is the most suitable and compelling choice for me. The below figure shows, Smart Voice Manager and the list of recorded voice, and the tool tab to access Voice Manager.

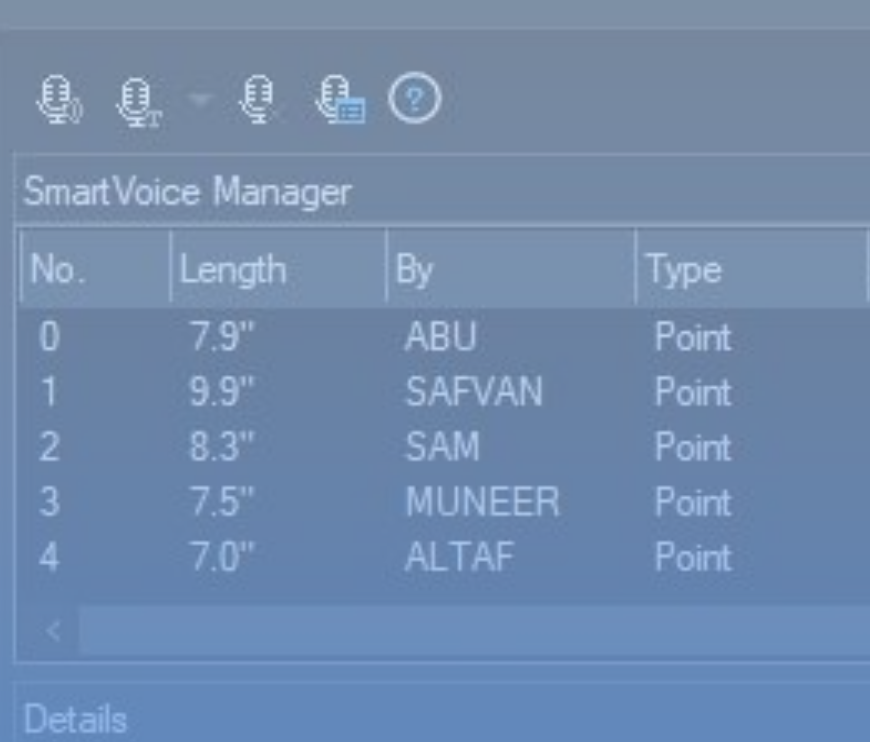


No.	Length	By	Type	Date	Text Content
0	7.9"	ABU	Point	2023/6/17 21:0:53	
1	9.9"	SAFVAN	Point	2023/6/17 21:1:16	
2	8.3"	SAM	Point	2023/6/17 21:1:39	
3	7.5"	MUNEER	Point	2023/6/17 21:2:3	
4	7.0"	ALTAF	Point	2023/6/17 21:2:27	



Control your voice notes with Smart Voice Manager

Discover the power of Smart Voice Manager, the solution for voice note control and organization. Say goodbye to manual reminders, as this innovative tool allows you to easily find the total number of voice notes, their length, insertion type, and creation dates as shown in the figure.



SmartVoice Manager

No.	Length	By	Type
0	7.9"	ABU	Point
1	9.9"	SAFVAN	Point
2	8.3"	SAM	Point
3	7.5"	MUNEER	Point
4	7.0"	ALTAF	Point

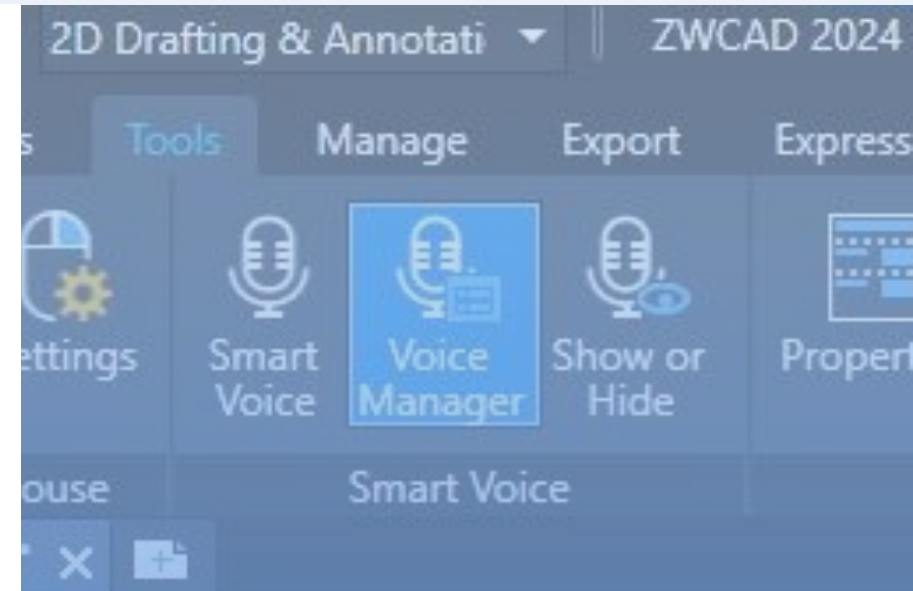
Details

Why ZWCAD Smart Voice

"ZWCAD Smart Voice excels in scenarios such as conceptual design, where rapid exploration of multiple concepts is required. It also facilitates collaboration and presentation, enabling real-time modifications and enhancing client engagement. Moreover, ZWCAD Smart Voice is valuable in situations that demand hands-free operation, such as construction sites, and for convincing authorities and gaining smooth drawing approval.

Where to use ZWCAD Smart Voice

The most prominent thing about ZWCAD Smart Voice is that it allows multiple personalities to record voice notes over the drawing. This means that the receiver can easily understand who is leading the mark suggestion by hearing the person's name on the recording. Additionally, its voice translation function enables users to access their marks in their own language.

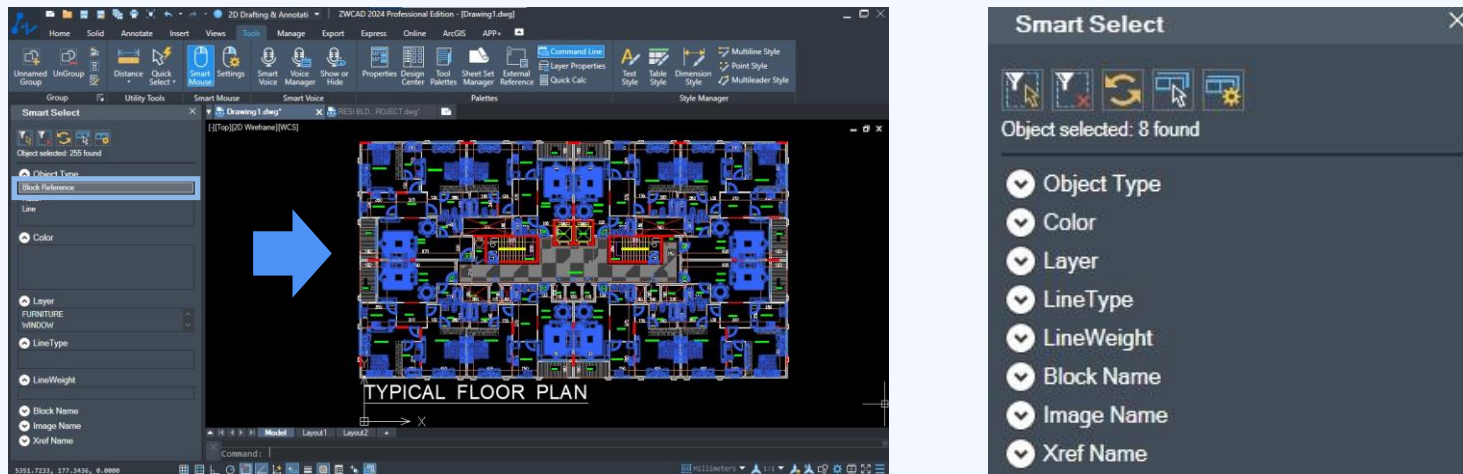


SMART SELECT

"Enhanced selection: Power selection mode with ZWCAD"

ZWCAD Smart Select is a powerful and innovative feature in ZWCAD, making it the most productive tool. It provides a highly efficient and inspiring way to select and manipulate objects within drawings. With Smart Select, users can easily and accurately select specific objects or groups of objects based on various criteria as shown in figure such as color, layer, type, or property. This intelligent selection tool streamlines the drawing process, saving time and effort while maintaining precision and control. Whether you're working on complex designs or simple sketches, ZWCAD Smart Select enhances productivity and inspires creativity by simplifying object selection in a highly effective and intuitive manner.

Let me tell you one more thing that I personally like: I can select only the options that I use frequently from the settings. Now, let's look at a real-world example of how quickly I can select any particular object from the drawing for example let me select entire block in this floor plan at a time as shown in figure.

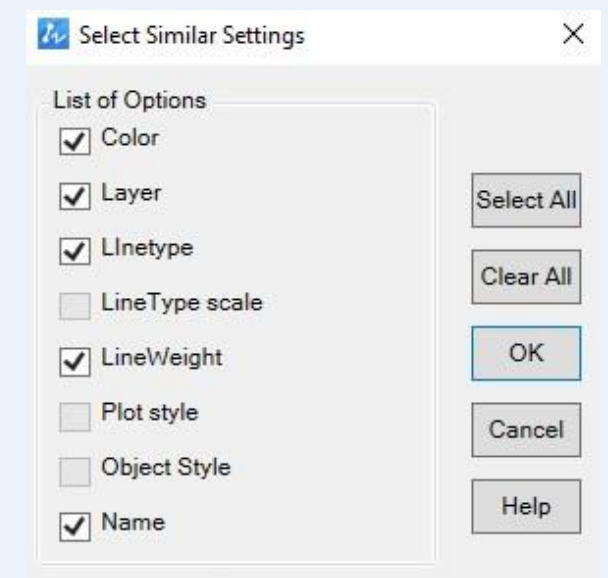
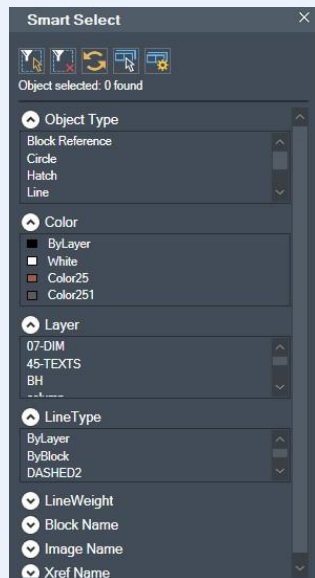


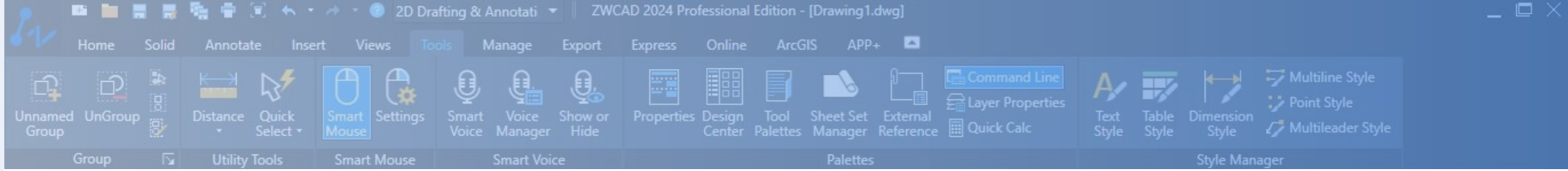
Method to use ZWCAD Smart Select

Here is the step by step method to use ZWCAD Smart Select:

1. Activate the Smart Select tool by typing 'SMARTSELECT' in the command line.
2. A dialog box will open, 'as shown in the figure' with a list of options to select from.
3. In the Smart Select dialog box, choose the desired selection method from the available options, such as Line, Layer, Color, Block, etc.
4. As you make the selection, ZWCAD will automatically detect and highlight the objects with selected numbers found at a time.
5. Once you have made your desired selection, you can manipulate the selected objects according to your requirements.

"Select similar setting as shown in the figure allow you to customize the listed options."



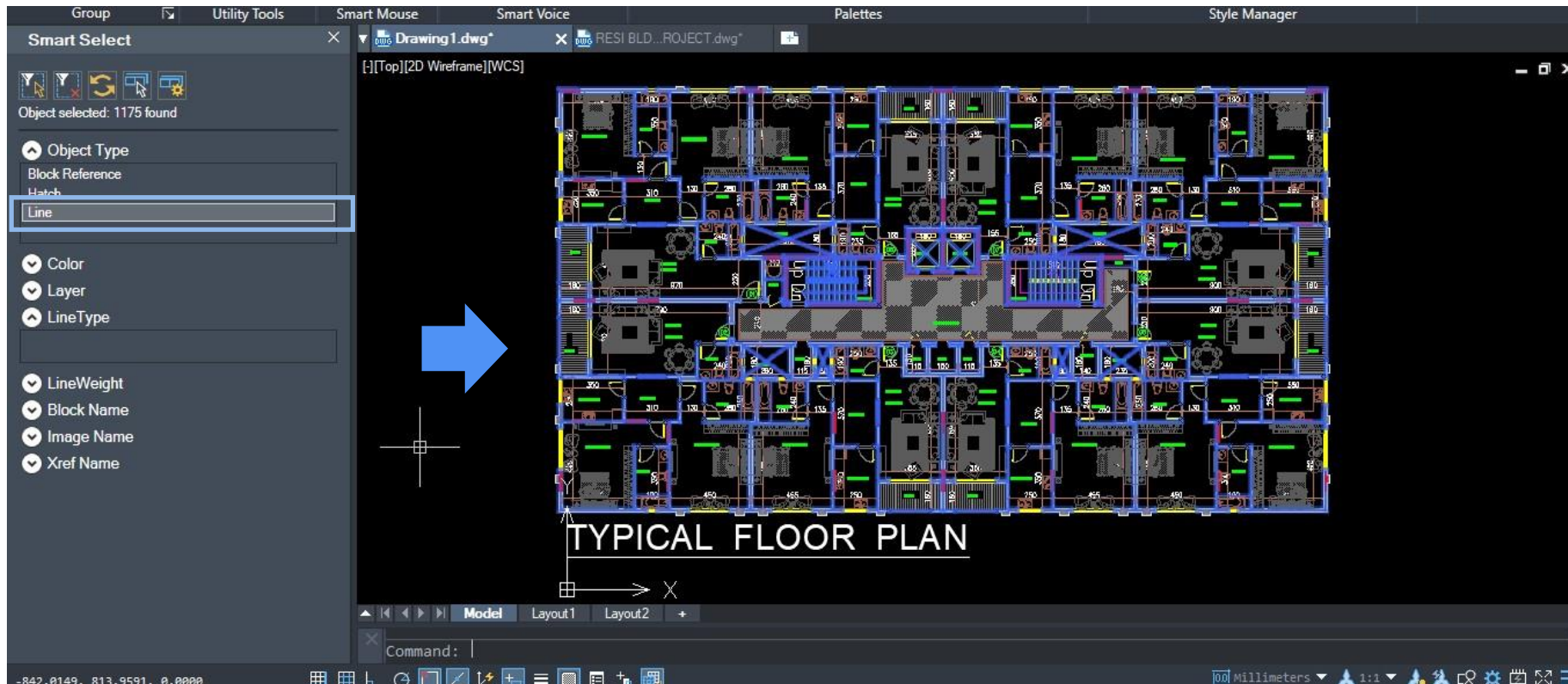


Key Features

1. **Compound select:** Smart Select enables precise object selection based on compound conditions.
2. **Filter select:** Intelligent selection based on criteria such as layer, color, block, line type, etc., with filtering options.
3. **Multi mode:** Offers flexible multiple selection methods and quick selection sets.
4. **Quick manipulation:** Provides real-time previews, manipulation capabilities, property changes, layer management, object searching, customization.

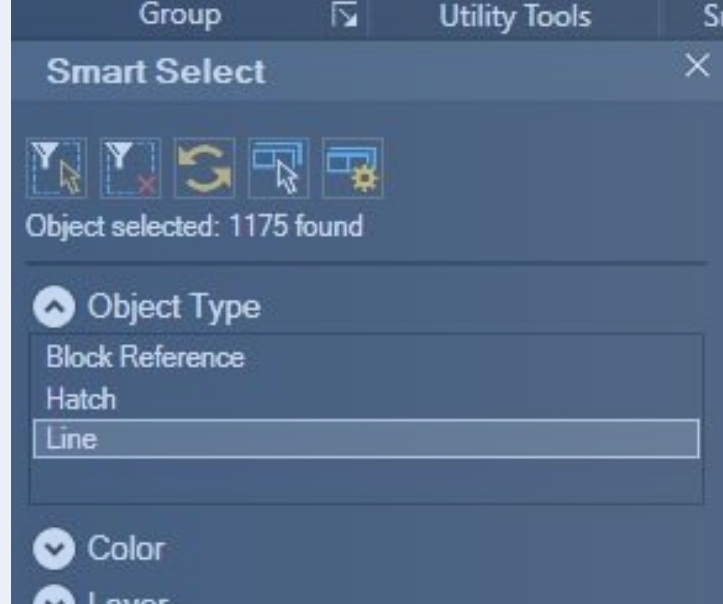
Smart Select enhancing my residential building design process

ZWCAD Smart Select has been instrumental in my experience designing residential buildings. It simplifies the selection and counting the elements by specific layer and color, which has been extremely helpful. This powerful feature not only saves time and improves accuracy but also empowers me to explore my creativity more effectively. As you can see below figure how I have just click object type line in Smart Select and the entire line as much as we have in this floor plan got selected at a time with total number of object selection also.



Why ZWCAD Smart Select

ZWCAD Smart Select transforms object selection by offering a fast, precise, error free, select similar and compound selection based on customized criteria. It streamlines workflows, and quick object manipulation in zero waiting time.



Where to use ZWCAD Smart Select

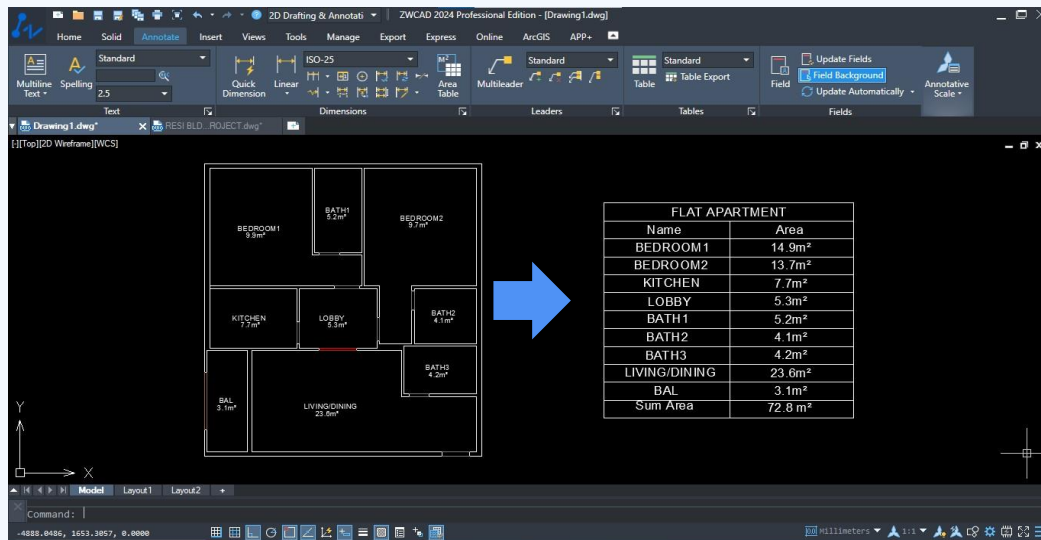
Sure, ZWCAD Smart Select is a versatile feature that significantly improves the efficiency of design selections and editing operations in CAD. By enabling quick and accurate object selection and offering a range of editing functions, it streamlines workflows and empowers designers to work with greater speed and precision. Whether you need to select, modify, or manipulate objects within your CAD drawings, ZWCAD Smart Select is an indispensable tool that enhances productivity and simplifies the design process.

AREA TABLE

"Now the Time to Automate Area Statement with ZWCAD Area Table"

ZWCAD Area Table is transforming the way designers approach area statement control, providing the highest precision and error-free results. Gone are the days when users had to manually place area statements, create separate tables, and enter data sheets for each poly line. Fortunately, I discovered the smartest and fastest way to control area statements using ZWCAD's smart Area Table.

ZWCAD's smart Area Table revolutionizes this process, offering designers a streamlined and efficient workflow. Say goodbye to manual calculations and tedious data entry. Now, let me demonstrate how I can quickly place area statements for the entire building's apartments with 100% efficiency in just single click, I can also export the data to an Excel sheet. As you see below Apartment area calculation with table and excel sheet.

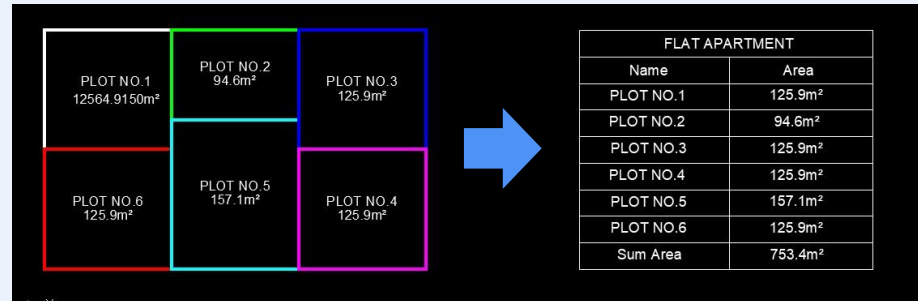
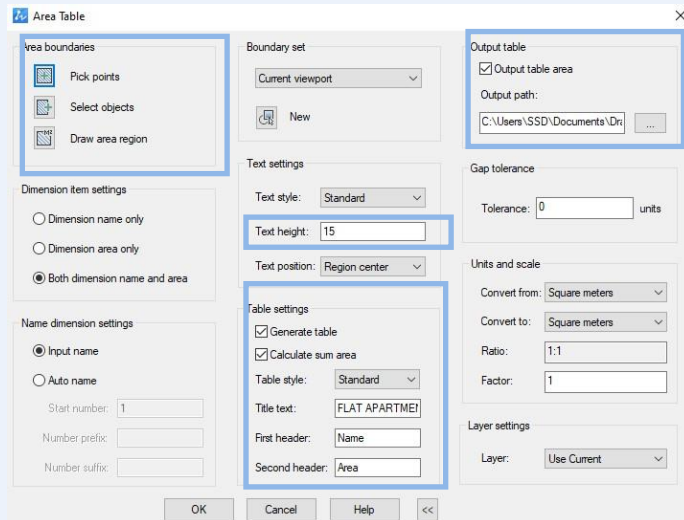


Method to use ZWCAD Area Table

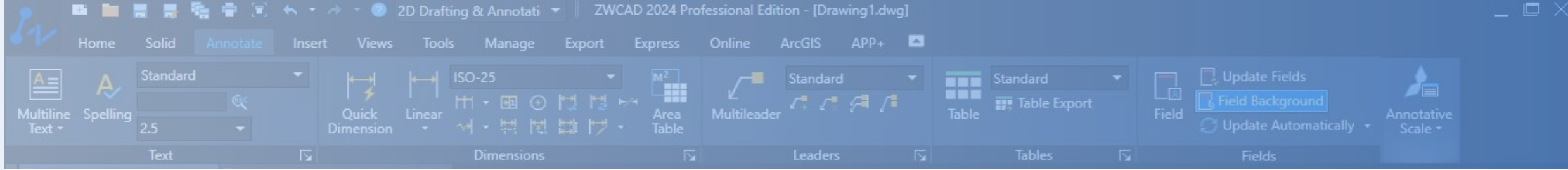
Here is the step by step method to use ZWCAD Area Table:

1. Type 'AREATABLE' in the command line to activate the Area Table.
2. Check the desired results in the dialog box 'as shown in the figure' (e.g. text height, table settings, output data, unit scale).
3. Provide a table name and specify the folder path for saving the Excel data.
4. Customize the settings and generate the table by selecting pick points, objects, or drawing an area region on the screen.
5. For pick points, click inside closed poly lines, enter the area name, and repeat the process for other poly lines.
6. The table will display the areas with names and saved the final results in the Excel sheet automatically 'as shown in the figure'.

"The output data sheet and table can be converted from one unit to another."

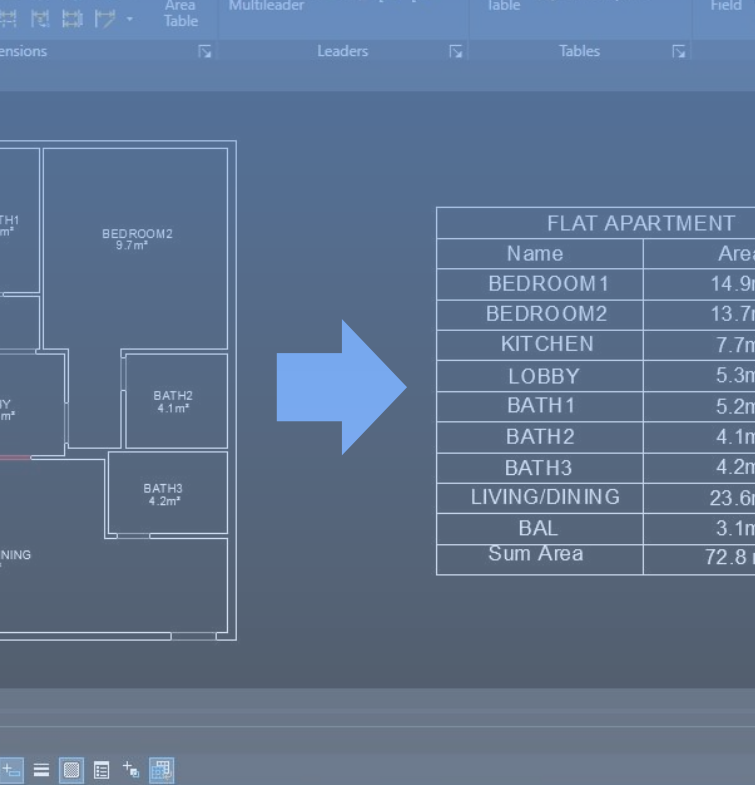


FLAT APARTMENT	
Name	Area
PLOT NO.1	125.9m ²
PLOT NO.2	94.6m ²
PLOT NO.3	125.9m ²
PLOT NO.4	125.9m ²
PLOT NO.5	157.1m ²
PLOT NO.6	125.9m ²
Sum Area	753.4m ²



Key Features

1. **Automated calculation:** Intelligent area calculation that is error-free with its auto-calculation feature.
2. **Create Table:** Auto-generated table to display the calculated values.
3. **Data export:** Quick exportation of data from the final calculation result.
4. **Multiple options:** Allows you to control the area using various methods such as pick points, selection, drawing, and assigning area names.



Why ZWCAD Area Table

ZWCAD Area Table is the best and most efficient way to control area calculations without any hassle or errors. It eliminates the need for manual intervention in your design and its calculations. In my case, it's all about saving time and effort while achieving accurate results. When it comes to calculating the area of my building, Area Table allows me to feel confident, as it provides error-free and secure results. It also enables me to export the data in the form of an Excel sheet and includes a title with the area statement. Area Table is not limited to auto calculation; it also allows you to create tables and generate Excel sheets based on the calculated results.

Where to use ZWCAD Area Table

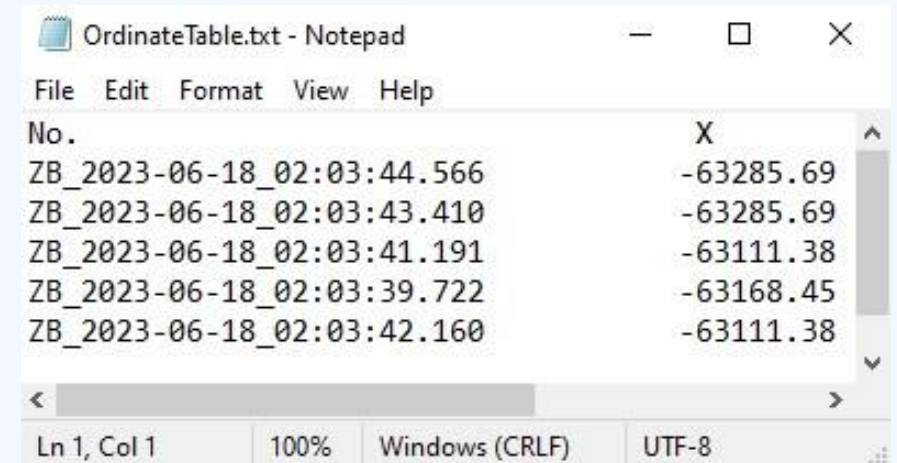
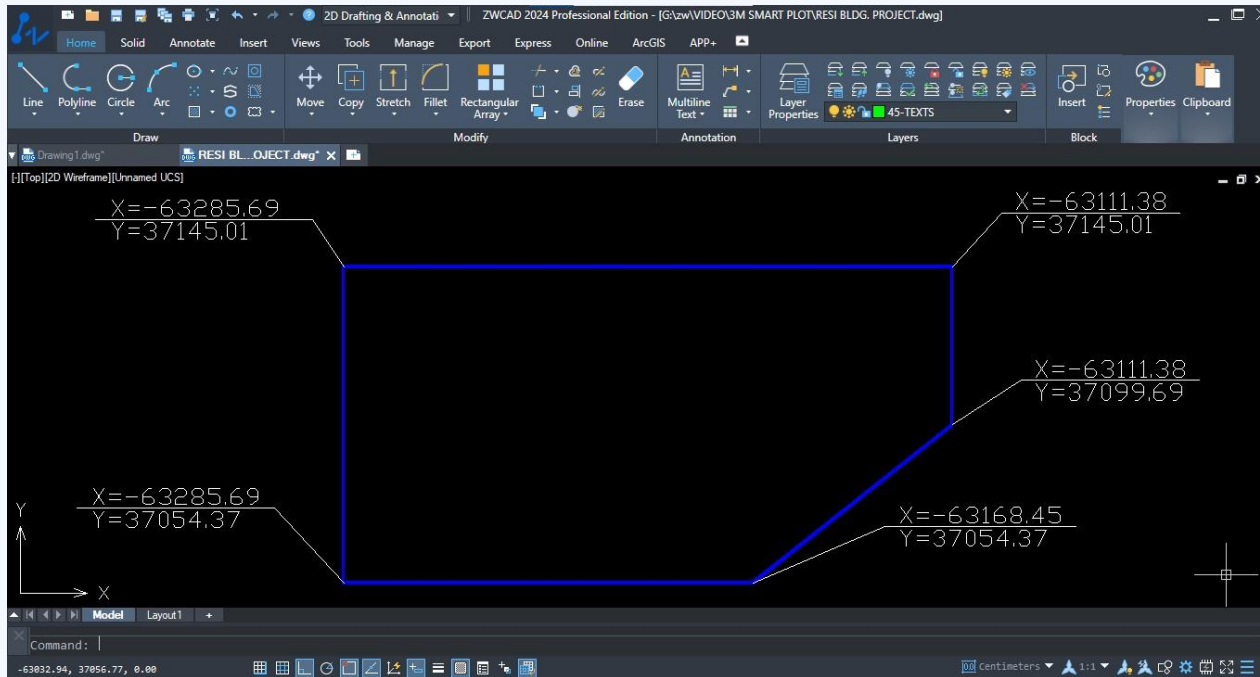
There is no limit to the utilization of the Area Table. You can apply it in many ways in your design flow to control your area statement. I found it useful in my building design for space management and apartment control. As it provides complete statement with table and data sheet that fit to use in calculation and quotation.



ENHANCED ORDINATE DIMENSION

"ZWCAD the power of enhanced ordinate dimensioning"

Enhanced Ordinate Dimension in ZWCAD is a time-saving feature for annotating coordinates in CAD drawings. It automates the process of dimensioning points, reducing errors, and saving valuable time. With its customizable options, it allows for a personalized and professional presentation. As an experienced user, I have found it to be an indispensable tool, improving accuracy and efficiency in my projects when I use it to place coordinates for my plot. As you can see below option with batch dimension I can simple get the entire coordinates at a time with TXT output.

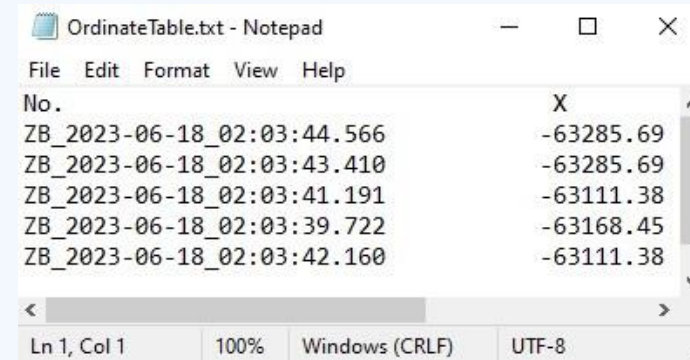
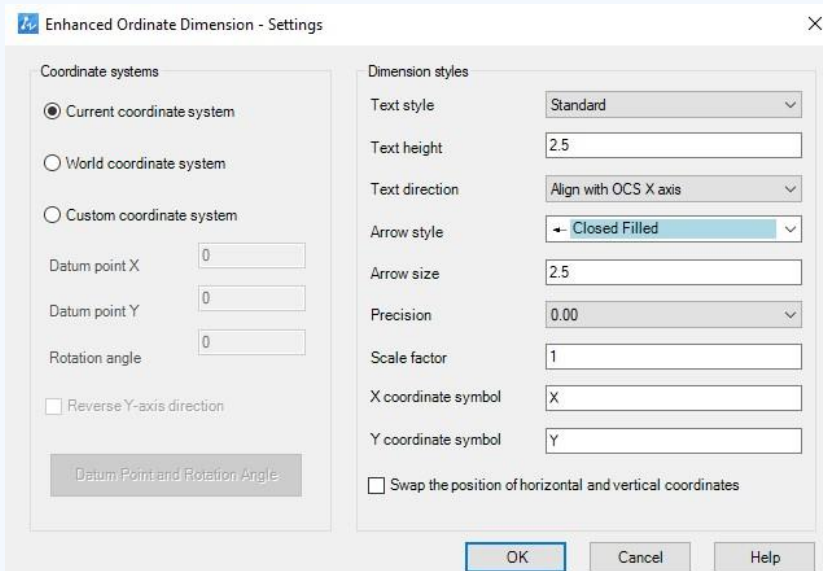


Method to use ZWCAD Enhanced Ordinate Dimension

Here is the step by step method to use ZWCAD Enhanced Ordinate Dimension:

1. Apply the tool by typing 'EXDIMORDINATE' in the command line.
2. Customize options by pressing 'O' 'as shown in the figure' choose coordinate systems: 'Current', 'World', or 'System', and dimension styles.
3. Specify the origin coordinates point by clicking on it or press 'B' for batch dimension.
4. Press 'U' to update the coordinates if coordinates point have been relocated.
5. Press 'E' to save the coordinates as an output TXT file, 'as shown in the figure'.

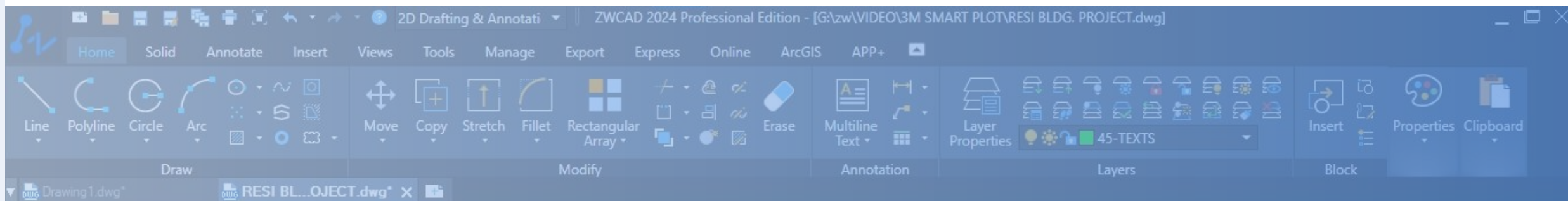
"Not to explode ordinate dimension i.e. coordinate updates and data export will not be applied if ordinates dimension exploded."



select coordinate point to dimension or [Option/Batch dimension/Update/Export to TXT file]: |

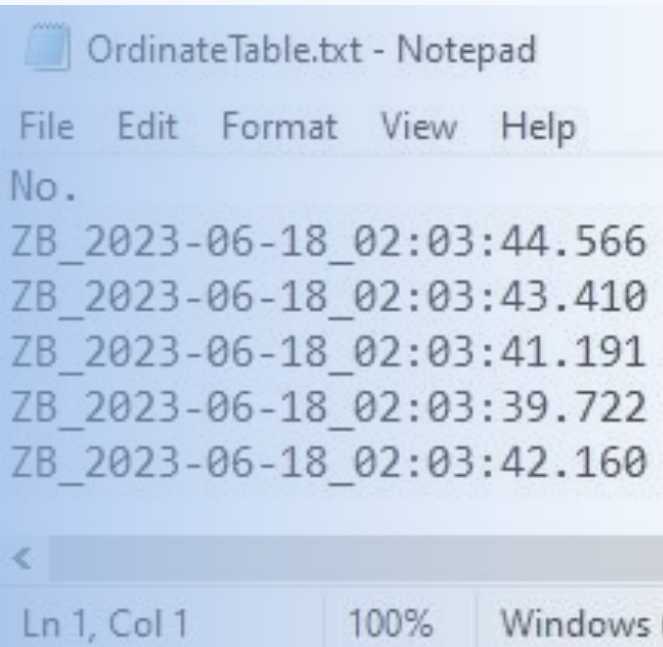
Key Features

1. **One time dimension:** It allows users to create multiple dimensions in one time.
2. **Automation:** Enhanced Ordinate Dimension automates the dimensioning process, saving time and reducing errors.
3. **Customization:** Users can customize dimension lines, text styles, and arrows for a personalized presentation.
4. **Accuracy:** This feature ensures precise measurements, enhancing the overall accuracy of CAD drawings and their coordinates.
5. **Regeneration:** ZWCAD corrects the coordinates if the point is relocated.
6. **Data Export:** It allows the export of coordinate data into TXT output.



Why ZWCAD Enhanced Ordinate Dimension

ZWCAD's Enhanced Ordinate Dimension offers time-saving automation, customization, improved accuracy, an efficient workflow, and enhanced clarity for annotating coordinates in CAD drawings. When manually placing coordinate points, there is a high possibility of errors and time consumption. That's why it's advantageous to use ZWCAD's enhanced ordinate dimensioning, just like I do for plotting coordinates.



Where to use ZWCAD Enhanced Ordinate Dimension

Enhanced Ordinate Dimension in ZWCAD can be used in architecture, construction, mechanical engineering, electrical design, and civil engineering projects for precise annotation of coordinates in CAD drawings. In my experience, I have observed that professionals in the structural field often rely on this tool for grid column layout coordinates, while surveying has become more convenient with its powerful features.

THANK YOU!

Through this e-book, we have gained knowledge about the unique features of ZWCAD. It's time to immerse yourself in the world of ZWCAD, where the design process becomes seamless, and efficiency is greatly enhanced.

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ZWSOFT has been delivering reliable all-in-one CAx solutions since 1998. With over 20 years of experience, our products has been chosen and trusted by over 1.4 million customers in more than 90 countries worldwide.