

APEX Shortens Design Time and Enhances Efficiency by 50% Using ZW3D



INDUSTRY
Furniture

PRODUCTS
Office furniture including workstations, steel furniture, chairs, and partitions

WEBSITE
www.apexfurniture.asia

❓ CHALLENGES

- Struggled with costly subscription fees that recur annually
- Needed an integrated 3D CAD solution to streamline workflows
- Required robust design capabilities for efficiency and accuracy

💡 SOLUTION

ZW3D

✅ RESULTS

- Eliminated subscription fees thanks to ZW3D's perpetual licensing
- Enhanced efficiency by up to 50% with ZW3D's integrated solution
- Improved design efficiency and quality through versatile design features

Founded in 1997, APEX has grown into one of the largest office furniture manufacturers in Malaysia. Committed to creating better workplaces for everyday people, the company delivers functional, innovative, and ergonomic furniture tailored to modern office environments. APEX now operates four specialized factory lines: workstations, steel, chairs, and partitions. With over 25 years of experience in the industry, the company has expanded its operations globally, serving over 10 million customers in 78 countries.

As a furniture manufacturer, APEX relies heavily on 3D CAD tools for daily operations. "For steel furniture, we will start conceptual design in SketchUp for visualization. Once the design is approved, we will refine it in Inventor by adding dimensions and technical specifications," explains Mohd Yusrizal, Technical Design Manager at APEX. "Then we will proceed with a physical mockup for testing. Once it is confirmed, we will regenerate technical drawings for mass production."

A Shift to a More Budget-Friendly and Integrated CAD Solution

The rising subscription fees and limited functionality of Inventor drove APEX to search for a more cost-effective and integrated 3D CAD solution. After thorough evaluation, they were satisfied with ZW3D's performance and switched to it in 2023.



A server rack designed by APEX

"ZW3D is now fully integrated into our steel furniture designs, including smart lockers, server racks, CPU hanging holders, showroom accessories, and a wide range of steel components," says Mohd.

Unlike subscription-based CAD tools, ZW3D offers a perpetual licensing model that allows APEX to make a one-time purchase, saving them approximately RM 50,000 annually in renewal fees. "The cost savings let us invest more in product development," notes Mohd.

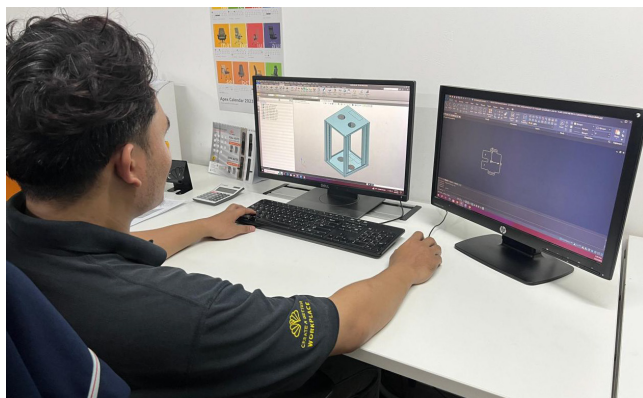
ZW3D's all-in-one integration has also streamlined their workflows. "Previously, we needed multiple tools. Now, with all designs completed in single software ZW3D, we've shortened design time and improved efficiency by around 40-50%," he adds.

Effortlessly Handling Design Tasks with Advanced CAD Functions

ZW3D offers a comprehensive suite of design tools that cover every stage of the design process, from sketching and modeling to assembly and technical drawing drafting. Its exceptional speed and performance make it ideal for tackling even the most complex projects.

Mohd highlights, “ZW3D’s Chordal Fillet function is particularly useful for creating smooth, visually appealing transitions between surfaces. It has better curvature continuity than many standard fillet tools.”

He also praises the Pattern Feature function, which significantly simplifies the creation of repetitive geometries such as honeycomb structures. “The Stagger Pattern orientation in it adds more versatility and is particularly useful for honeycomb structures where alternate rows are offset for structural efficiency and aesthetic appeal,” shares Mohd. “Previously, we manually did this in AutoCAD because creating these pattern features in Inventor is laggy. But now, we can do it in ZW3D quickly.”



An engineer edited a 3D model in ZW3D

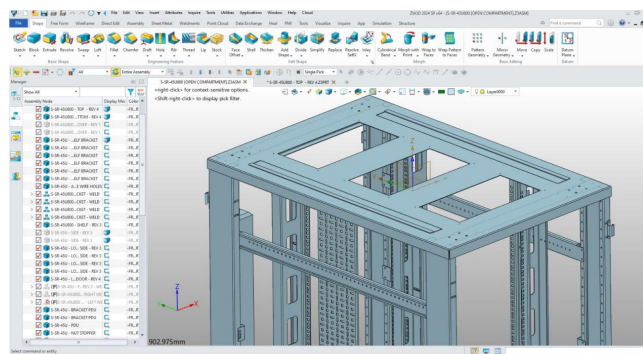
Reducing Manual Drafting and Errors Through Robust Sheet Metal Design Features

ZW3D’s sheet metal module enables quick generation of common features such as dimples and louvers to minimize manual effort. It also supports precise bending and flattening so designs can be accurately transformed into real-world products to reduce errors and rework.

“Our steel factory mainly uses ZW3D’s sheet metal module to generate 3D designs and prepare technical drawings,” shares Mohd. “In Inventor, we sometimes had alignment issues with sheet metal flattening, but in ZW3D, everything works perfectly.”

He continues, “ZW3D’s ability to control K-factor value ensures precise outputs and eliminates the need for manual adjustment in AutoCAD.”

Another standout feature is the right-click DWG/DXF export feature. “This feature allows us to quickly export surfaces to DXF for laser cutting, saving us 10–15 minutes per drawing,” notes Mohd.



A server rack designed in ZW3D

Creating a Better Workplace with ZWSOFT

“With approximately 90% of our R&D designs created using ZW3D, the software is a critical tool in our design process, ensuring innovation, efficiency, and precision,” Mohd concludes.

By streamlining workflows and reducing manual effort, ZW3D has empowered APEX to deliver high-quality, functional, and ergonomic furniture to its global customers. Looking forward, ZWSOFT remains committed to supporting APEX’s mission of creating better office environments for everyday people.

ZWSOFT

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

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