

SEE Electrical 3D Panel

3D electrical cabinet designing and manufacturing
Design and produce electrical panels in the 3D environment!



SEE Electrical 3D Panel is a program dedicated to designing and manufacturing electrical cabinets, switchboards and panels.

By improving and unifying design and production in the digital twin process, it significantly enhances efficiency and quality.

The standalone version offers data interoperability with direct connection to SEE Electrical and through a wiring list in Excel format for use with SEE Electrical Expert and other ECAD software.

SEE Electrical 3D Panel can be purchased as an additional module by designers who are already subscribing to SEE Electrical or SEE Electrical Expert. However, a very attractive option is to subscribe to a standalone version. With standalone option a diagram designer can work simultaneously with a cabinet layout designer, and without blocking each other.

SEE Electrical 3D Panel software can be purchased in two levels – Design and Manufacturing. The Manufacturing level includes all of the design features existing in the Design level, and have additional features for manufacturing market.

In today's design and manufacturing environments, hiring skilled staff and implementing automation are critical challenges. SEE Electrical 3D Panel software offers a solution by simplifying processes and reducing design time. With intelligent snapping and collision checks, it ensures efficient component layout and minimizes errors. The software's automation features streamline design creation, wire routing, and document generation, saving time and enhancing accuracy. The software enables the automatic creation of accurate documents for each cabinet assembly step.

With SEE Electrical 3D Panel, engineers can:

- Utilize a comprehensive suite of tools tailored for the design of electrical cabinets to insert equipment and mounting plates in the 3d environment
- Access a vast library of 3D references with accurate scaling within cabinets, by leveraging content from the equipment database
- Manage components, electrical properties, wire channels, rails and busbars
- Route wires, calculate wire lengths, generate a From >> To list and manage End Fitting
- Create a drilling plan and other manufacturing outputs.

Product overview

SEE Electrical 3D Panel streamlines and unifies your cabinet design and manufacturing in a true digital twin process.

Its core functionality is electrical panel design, which enables precise dimensioning and optimized space utilization.

With a professional and intuitive interface, complemented by an extensive library of intelligent 3D parts, SEE Electrical 3D Panel enhances efficiency and productivity by providing timely access to precise documents and digital data for the production of electrical cabinets.

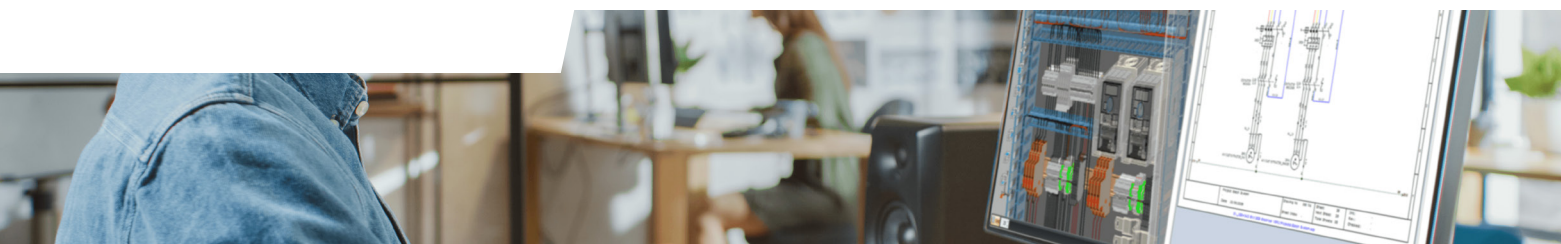
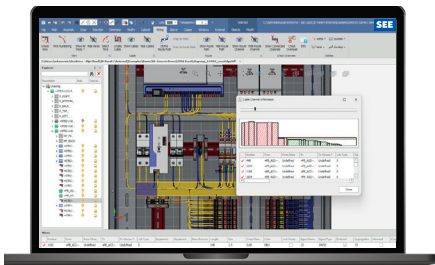
Its features support various stages in panel manufacturing, including device picking, labeling, mechanical processing, pre-assembly of terminal strips, wire prefabrication, panel mounting, and wiring.

Key features:

Cabinet layout design: You can design electrical switchboards, cabinets and automation panels using an extensive library of elements.

- **Simplicity by Design:** Enjoy an intuitive interface that simplifies the design process, making it easy to create detailed layouts effortlessly with mounting plates, wire ducts, rails, busbars, wires and components
- **Efficient Snapping System:** Utilize an intelligent snapping system for quick and precise layout, reducing design time while ensuring accuracy
- **Automated Error Prevention:** Benefit from automated collision and wire channel filling checks, minimizing errors and ensuring easy panel assembly and operation
- **Powerful Automation:** Experience streamlined design creation, wire routing, and document generation with powerful automation tools, saving time and enhancing accuracy
- **Universal Compatibility:** Seamlessly import schematic data from others systems, ensuring compatibility and facilitating smooth integration into your design process
- **Documentation Engine:** Automatically generate assembly instructions for your shop floor associates
- **Manufacturing Automation:** Fully customizable CNC & Wire Machine export compatible with most vendors
- **Digitize your manufacturing process:** Leverage the design with 3D Shop Floor Wiring and Mounting Assistant.

SEE Electrical 3D Panel facilitates 3D layout creation and manufacturing by optimizing processes in one digital-twin workflow.



Features list

Design **Manufacturing**

Efficient 3D cabinet layout editor for creating switchboard and panels with full digital management of the switchboard	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Integrated equipment catalogues with components' dimensions and 3D models (or parts) with electrical properties	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Extensive 3D symbol libraries with easy snapping and positioning on rails and on the mounting plate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Smart 3d parts creation with import of 3D models from STEP and others formats	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Wiring of components via selected wire and management of component's connections points	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Wire channels and rails management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Busbars design features with busbar type selection, positioning, stretching and bending	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Collision checking on rails with management of declared safe distances	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Import of the electrical circuit diagram data from SEE Electrical products and other CAE systems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Navigation between 3D Panel drawing and electrical diagrams with tracked changes (included only with SEE add-on)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Documentation Designer for creating documentation and templates	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Electrical and mechanical BOM report management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Export 3D projects to the SEE Electrical 3D Shop Floor mounting application	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Automatic wire routing with routing optimization and wire length calculations	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Creation of drilling plan for panel's doors and busbars	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Busbar manufacturing drawings with drilling and busbar connections	<input type="checkbox"/>	<input checked="" type="checkbox"/>
End fitting management for wires and component connection points	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Generation of list of wires From >> To with wire lengths and wire types	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wire machine export with wire cutting list	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CNC machine output	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Documentation Designer engine with dynamic templates and view creation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Control Cabinet Manufacturing 4.0.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

