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**Zuken News**

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**Zuken USA Extends Control Panel Design with Connected Manufacturing**

*Panel Builder 2025 for E3.series improves communications with manufacturing, reduces wire waste, and shortens design time*

**WESTFORD, MA, USA, August 14, 2024–**Zuken USA, Inc.is releasing Panel Builder 2025 as part of its well-established E3.series software suite for control panel and switchgear design. Panel Builder 2025 for E3.series provides a digital solution for customers to support manufacturing tasks such as exporting files for manufacturing equipment and supplying instructions to the operators to install the wires and cables. This digital solution replaces the traditional method of using uncontrolled electronic files and printed paper copies, eliminating installation errors. With Panel Builder 2025 for E3.series, customers can automate the creation of input data for manufacturing machines to reduce errors and material waste. The simple user interface speeds up the learning process.

“Panel Builder 2025 extends the panel design capabilities offered by E3.series directly into manufacturing. The control panel manufacturing floor offers huge savings opportunities through digital connectivity. Our customers can now replace costly manual tasks with manufacturing automation. For example, we now provide panel assembly work instructions that can boost productivity to a new level by enumerating each task in an easy-to-understand process.", comments Paul Harvell, Vice President of Engineering for Zuken USA.

### 3D control panel design

[E3.panel](https://www.zuken.com/us/product/e3series/cabinet-layout-design/) is the foundation for using Panel Builder; as such, designers can leverage the capabilities of E3.panel. Designers not experienced in working with 3D models can easily create a 3D design layout while working in 2D. The tool runs design rule checks for keep-out restrictions, crashing, and clearances for error prevention. Additionally, users can quickly build their libraries using the Component Cloud for E3.series and access free, validated, high-quality electrical components to import directly into their E3.series library. These components include nVent HOFFMAN enclosures and accessories, Rital Panels, and various electrical parts from manufacturers such as Rockwell Automation, Allen Bradley, ABB, Eaton, Omron, and Siemens, to name a few.

**Digital wiring instructions**

The Wiring Task Manager provides visually guided wire installation instructions to the shop floor through an easy-to-use interface, assisting operators in installing control panel wires. The Wiring Task Manager assists with single or multiple panel assemblies displaying manufacturing tasks to step the operators through installing each wire, eliminating errors and speeding installation time.

The shared project database remains in sync with the progress of the manufacturing tasks and provides information traceability, allowing live feedback and metrics to improve efficiency and identify training needs. This is particularly helpful when multiple operators are assembling and reporting on the same build, which helps prevent errors and eliminate rework.

The E3.panel project drives the manufacturing wiring tasks, connecting the design directly to manufacturing using a server database to create revision control. Manufacturing data remains connected and current. Using digitally connected information eliminates the need to send file copies that can easily be lost or become outdated and improves communication between design and manufacturing, preventing installation errors.

**Digital assembly instructions**

The Assembly Tasks Manager (ATM) is an application module designed to provide electrical panel layout designers with a utility for creating detailed, step-by-step assembly and build instructions for panels, cabinets, and electrical enclosures. A plug-in window allows for easy extraction from the completed E3.series project. Part-specific instructions can be stored in a database for reuse in other iterations or new designs. Redline and markup options allow precise assembly instructions to be added to images. Multimedia elements, such as videos demonstrating specific assemblies or embedded specification sheets, can be incorporated into the instructions.

All images, videos, documents, and links are collected in a revision-controlled build, which can then be released to the manufacturing floor for use on handheld tablets to step through and confirm each instruction. Hard copies are also available if required. Utilizing instructions extracted directly from the finalized design eradicates nomenclature and placement errors associated with generating documentation in separate systems. By leveraging the Panel Builder 2025 ATM module, designers can expedite search and highlight functions alongside 3D visualization directly through the E3.series tools.

**Drive wire processing and cabinet machining**

Panel Builder 2025 for E3.series supports direct exports to wire processing machines from Schleuniger, Komax, and nVent. Engineers can use E3.panel's advanced algorithm technology with user requirements to automatically route wires in the panel enclosure. Creating the panel design to a 1:1 scale ensures accurate measurements for the manufactured product. By cutting wires to the correct length, manual length calculation is reduced, minimizing material waste, and saving cost and time for manufacturing.

Dynamically generate drilling and cutting machine outputs from Panel Builder 2025 for E3.series to drive machines such as Rittal Secarex and nVent NC-CUT for cutting cable ducts, covers, and mounting rails. Automating this process reduces time and manual effort and reduces the risk of errors in creating machine instructions.

Customers can launch the E3.CutOut tool through the Panel Builder for E3.series plug-in to extract mounting and cut-out information from the panel design to feed drilling and milling machinery. The new release offers customizable hole chart functionality to automate the creation of a sheet detailing the panel drawing with the holes, containing hole numbers and a corresponding table with the drill specification for each hole. This sheet serves as a helpful drilling guide with hole diameter, coordinates, and engineering notes or instructions.

**Optimizing the design process**

Panel Builder 2025 for E3.series includes various features to improve the connection between the design and the manufacturing of control panels. Additional design process features and tools to improve efficiency include:

* Wire import functionality allows the designer to load a connectivity list from an Excel file directly into the E3.series project, making it easy to define devices and connections to create the panel design.
* [E3.Drawing Notes Manager](https://www.zuken.com/us/product/e3series/drawing-notes-manager/) allows designers to quickly manage and generate design notes, improving communication with manufacturing operations.
* [E3.Toolbox](https://www.zuken.com/us/product/e3series/toolbox/) simplifies outputting bill of materials and wiring list reports.

Panel Builder 2025 for E3.series will be available early this Fall in North America. To learn more, visit the [website](https://www.zuken.com/us/product/e3series/control-panel-manufacturing-software/).

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Images and captions

**Z0552-1 Wiring Task Manager**

**Caption:** The Wiring Task Manager in Panel Builder 2025 for E3.series provides detailed visual instructions for control panel wiring assembly.

**A picture containing multimedia software, screenshot, graphics software, software

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**Z0552-2**

**Caption:** Streamline manufacturing by importing design-driven data directly into manufacturing machines.

A picture containing text, home appliance, machine, kitchen appliance

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**Z0552-3**

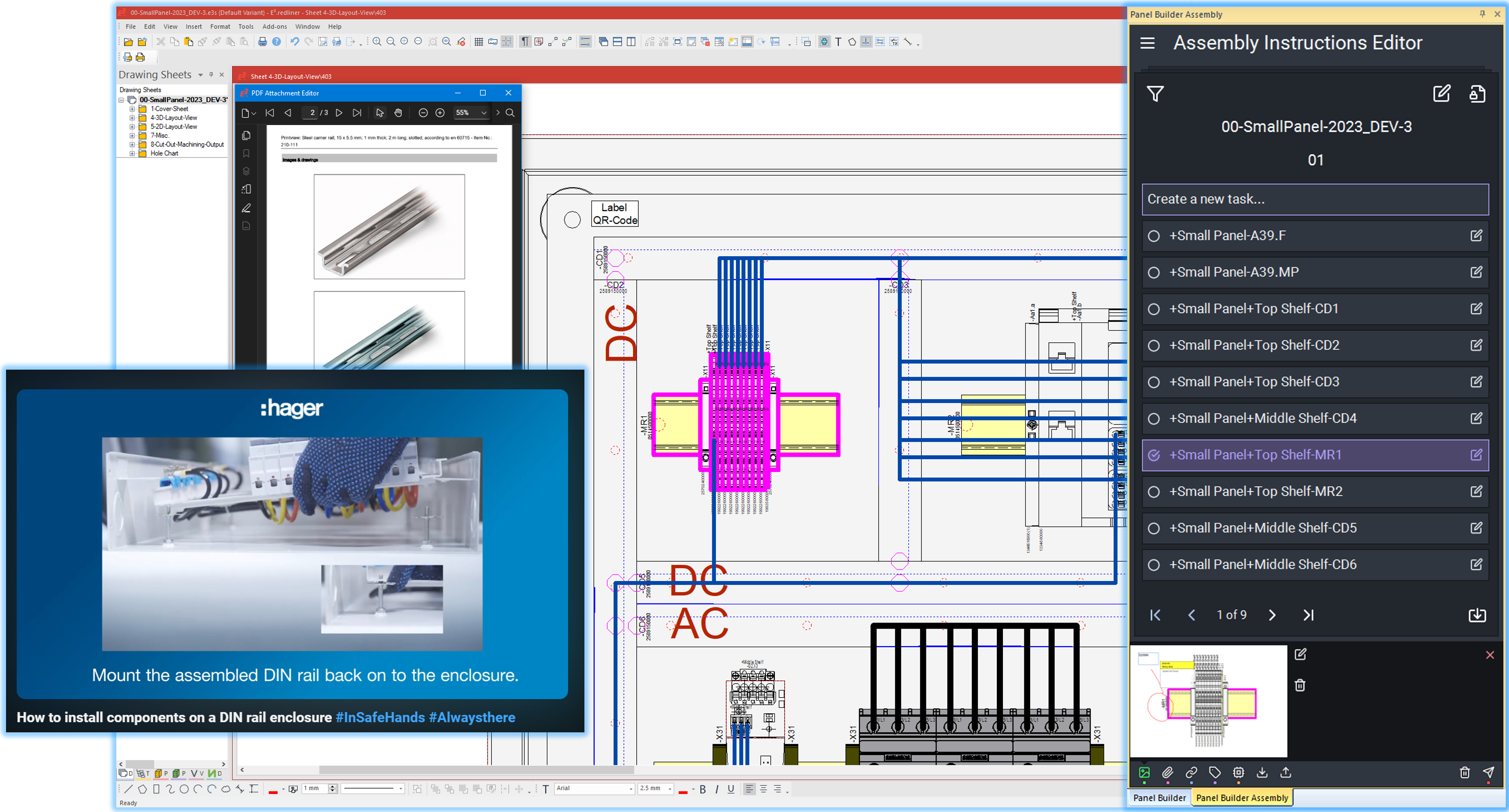
**Caption:** Using the Wire List Import tool, users can quickly populate a project with devices and connectivity information.

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**Z0552-4 Assembly Tasks Manager**

**Caption:** The Assembly Task Manager in Panel Builder 2025 for E3.series provides step-by-step instructions for complete panel, cabinet, or enclosure assembly through a common plug-in interface.



**Press Kit**

Text and images are available for {{download}}.

**About E3.series**

E3.series is the leading electrical design solution for cabinet, cable, wire harness, fluid, and power distribution design across all product categories. It enables multiple designers to seamlessly work on a project, automatically keeping data in sync with the help of its object-oriented design and intelligent central parts library. The tool suite also helps users eliminate errors and omissions with active and passive design rule checks. E3.series bridges the gap between automated assembly and manufacturing processes to allow a digital-first workflow from design to manufacture, helping users get closer to a true digital twin.

**About Zuken**

Zuken is a global software company delivering electrical and electronic design solutions. Founded in 1976, Zuken has a consistent track record of technology innovation and financial stability in the electronic and electrical design automation (EDA) industry. With its CR-8000 and E3.series product families, Zuken provides a robust lineup of system-level 2D/3D electrical and electronic toolsets complemented by comprehensive design data and configuration management capabilities.

Most recently, Zuken has embraced the digital transformation and, more specifically, digital engineering as the way forward with its entry into the Model-Based Systems Engineering (MBSE) industry. Today, Zuken delivers world-class design solutions, combining MBSE products and services with a mature, proven electrical and electronic design suite to address the needs of a broad range of industries across the globe. For more information about the company and its products, visit [www.zuken.com](http://www.zuken.com/),  [www.zuken.com/blog](http://www.zuken.com/blog), or [www.linkedin.com/company/zuken](http://www.linkedin.com/company/zuken)

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