

# Solid Edge Wiring and Harness Design

## Providing an electromechanical design automation solution for interconnected products

### Benefits

- Speeds design of electrical content in products
- Provides electromechanical digital mockup and eliminates the need for costly prototypes
- Delivers advanced design automation that reduces manual tasks and improves efficiency

### Summary

In today's increasingly interconnected environment, multidisciplinary design has become an imperative. Every year there is an increase in the quantity of electronics in machines and devices. Being able to accurately document and design an entire product has become a real challenge.

Previous design methodologies using nonintelligent drawing tools and spreadsheets can no longer be used to keep track of all the details in a design. Companies need a smart electrical design environment, which can be used to validate and provide automation as a design proceeds. For manufacturers to meet market demands and maintain the level of quality their customers expect, they need to determine how best to integrate mechanical and electrical design domains.

Two Solid Edge® software modules do just that: Solid Edge Wiring Design and Solid Edge Harness Design. These modules enable engineers to collaborate

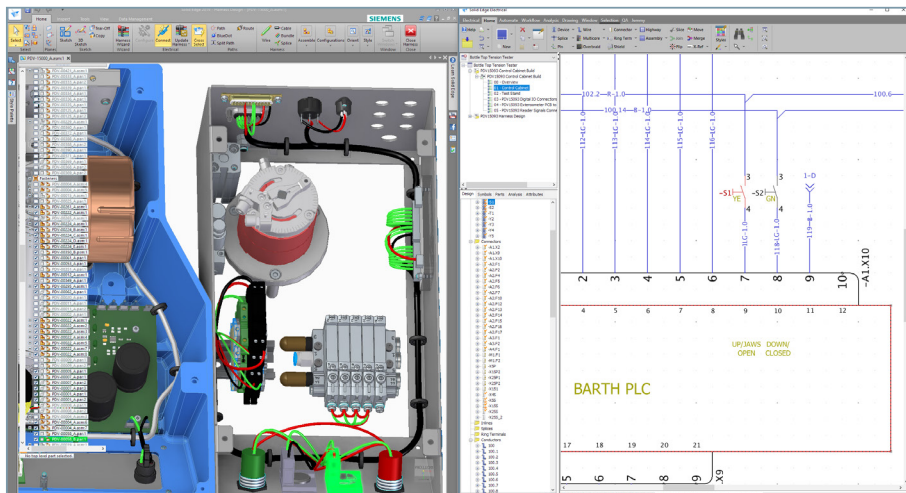
seamlessly between electrical and 3D mechanical design. The Solid Edge electrical design modules are available individually or as a bundled solution. Based on technology from Mentor, a Siemens business, Solid Edge Wiring Design and Solid Edge Harness Design enable engineers to create electrical systems and collaborate directly with the mechanical design to optimize the overall product design. Engineers can accommodate space reservation, clash detection and hazard avoidance in the mechanical domain, too.

When used with Solid Edge Electrical Routing, this unique solution offers a feature-rich environment, such as cross-probing between the electrical and mechanical domains, and allows engineers and their teams to quickly reach design goals and bring innovative products to market.

### Solid Edge Wiring Design

Designing the wiring of electrical systems is made easy with an electrically-aware schematic tool. Solid Edge Wiring Design comes with built-in verification and design rule checks to confirm correct-by-construction design, and an intelligent parts library to accelerate the design process with automatic part selection. The connected mode available in Solid Edge Electrical Routing allows dynamic computer-aided design (CAD)/mechanical computer-aided design (MCAD) collaboration with cross probing and dynamic updating between mechanical and electrical domains.

# Solid Edge Wiring and Harness Design



## Solid Edge Harness Design

Solid Edge Harness Design is a design application for in-house production or build-to-print purposes. You can design harnesses in a standalone mode, or they can be derived from the schematic in Solid Edge Wiring Design. Solid Edge Harness Design is fully integrated with Solid Edge 3D design tools, providing a real-world 3D experience that facilitates electronic computer-aided design (ECAD)/MCAD collaboration. Connector face views and tables make it easy for designers to determine how wires terminate, and the intelligent parts library drives the automatic selection of terminals, seals and wires.

## Symbols and parts

Solid Edge Wiring Design and Solid Edge Harness Design contain robust part and model repositories, which support the automation of parts selection and the automatic selection of terminal plugs and seals for each connector. The International Electrotechnical Commission (IEC) and American National Standards Institute (ANSI) symbol and parts libraries are also supported.

## Reporting

Solid Edge Wiring Design and Solid Edge Harness Design come with a standard set of reports for designs. These reports can be saved and viewed in a web browser. Both products also offer the ability to configure and build reports with either an application programming interface (API) or an easy user interface. Reports can be based on any number of objects, attributes, properties or even calculations.

## Single-vendor solution

A single-vendor solution enables an intimate integration, which is not possible with third-party and add-on products; for example, supporting a direct connection and cross probing. By enabling data to flow seamlessly between the 2D wiring, 2D harness and 3D MCAD domains, teams can understand and trace the impact of design decisions across domains. In addition, wiring and harness design tools are integrated with Teamcenter® software, enabling configuration management and revisions to designs.

Solid Edge Wiring and Harness Design combined with the Solid Edge mechanical design environment enables companies to bring products to market faster without sacrificing quality.

Solid Edge Electrical Design clients are supported in the following environments:

- Windows 10 Enterprise or Professional (64-bit only) version 1709 or later (recommended)
- Windows 8.1 Pro or Enterprise (64-bit only)
- Windows 7 Enterprise, Ultimate or Professional (64-bit only) with Service Pack 1

Solid Edge Electrical Design servers are supported in the following environments:

- Windows server 2016 (recommended)
- Windows server 2012 R2
- Windows server 2008 R2 with Service Pack 1

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