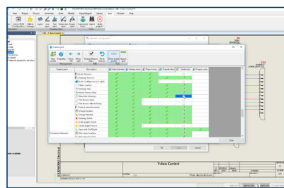# 3S SOLIDWORKS

3DEXPERIENCE®

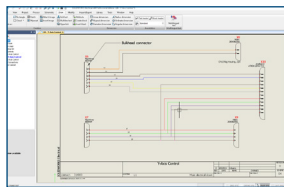# WHAT'S NEW IN SOLIDWORKS 2020—ECAD

SOLIDWORKS Electrical

1

User Rights Customization

- Customize user access to areas such as libraries, projects, project data, and drawing controls for members of your workgroup.

Benefits

Ensure data security and output consistency with the ability to customize user access.
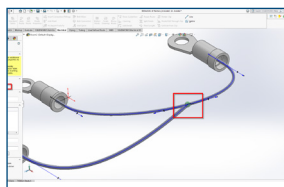

2

Expanded Documentation For Schematic and Control Panel Design

- Create Leaders and Balloon callouts on drawings along with row numbers in Reports.

Benefits

Speed up the completion of your design and documentation with improved documentation tools.

3

Electrical Splice Creation Without Components

- Create welded or soldered connections in the schematic and have these design details propagate to the 3D representation without a splice entry in the bill of materials.

Benefits

Create splice connections with or without an actual splice component to meet your design intent.
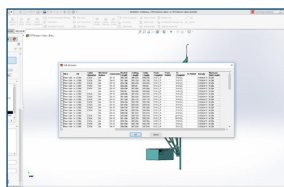
4

Calculation of Mass Properties For Wires, Cables, and Electrical Harnesses

- Determine the mass properties of your wire, cable, and electrical harness designs inside the 3D model of your overall machine, product, or vehicle.

Benefits

Gain a more realistic understanding of your product by determining the mass properties of electrical equipment and wiring.
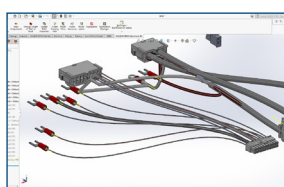
5

Incremental Design Update

- Have only changes made in the schematic, not the entire design, propagated to the 3D model and flattened drawing representation.

Benefits

Improve the speed of downstream documentation updates by propagating only design changes.

3S DASSAULT SYSTEMES

6   Improved Perforamce of Routing Wires in 3D

- Benefit from the vastly improved speed of routing wires in 3D, tested on customer test examples with thousands of components.

Benefits

Experiment more quickly with electrical route path choices inside complex equipment to refine the overall product design.

SOLIDWORKS PCB

7   PCB/Electronics Design and Data Management

- Create electronics projects and PCB design files.
- Design file check-in and check-out, and automated versioning of all electronics files.
- Create PDM data cards and "where used" for design files.
- Use a centralized PDM Vault storage of PCB design files.
- Set up workflow processes with notifications at specific milestones.
- Establish a formal release process with approvals and sign-offs.

Benefits

Better manage design data and collaborate on electronics product development with both electronics and mechanical projects and design data aligned under one data management solution.

8   SOLIDWORKS PCB-PDM Connector

- Integrate SOLIDWORKS PCB and SOLIDWORKS PDM Professional with PCB-PDM Connector.
- Synchronize PCB and PDM variables and parameters.
- Create PDM-based bills of materials.
- Integrate project and documentation check-in and check-out and archiving.
- Generate virtual data cards and "where used" for electronics parts.

Benefits

Manage PCB projects, electronics design data, properties, parameters, and documentation more effectively by standardizing electronic product data and workflows for maximum productivity and product quality.

9   Rigid-Flex PCB Design

- Design rigid-flex PCBs with support for rigid-flex stack-up definitions and board-planning mode to define regions, splits, folds, 3D-folded visualization, and DRC verification.

Benefits

Design PCB circuitry to fit geometrically complex enclosures, saving space, improving reliability, and addressing challenging mounting requirements. Rigid-flex designs can also help reduce PCB assembly time and costs.

10   Rigid-Flex ECAD-MCAD Collaboration

- Collaborate on rigid-flex designs between SOLIDWORKS PCB and SOLIDWORKS 3D CAD with the enhanced SOLIDWORKS PCB Connector.

Benefits

Eliminate manual ECAD-MCAD mock-ups with seamless, intelligent ECAD -MCAD collaboration, ensuring rigid-flex designs accurately fit and fold within the enclosure.

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