ZUKEN®

E3 series®

FEATURES / BENEFITS

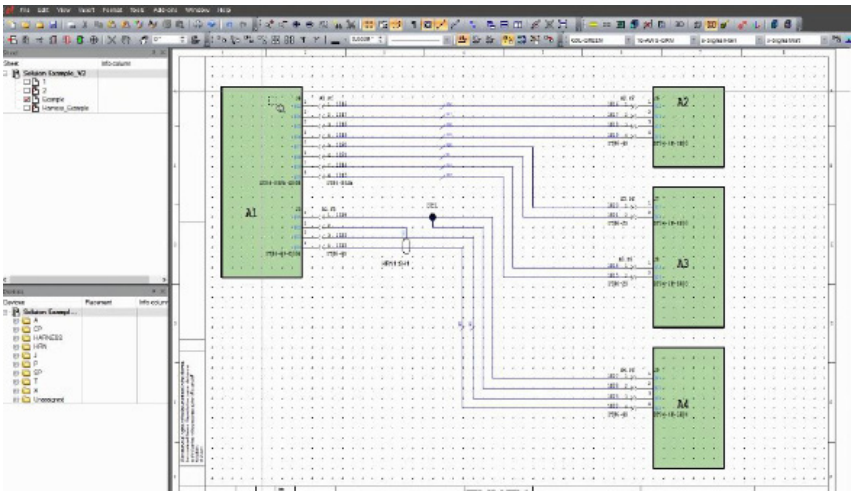
- BOM on sheet and Excel
- Automatic balloons and item numbers
- Includes related parts search and reporting
- Customizable options and attributes
- BOM table in top-down or bottom-up format
- No programming required
- Automatic and effective splice documentation
- Three types of splice tables
- Barcode for ultrasonic automated design
- Wire Run List based on harness or project
- Option to include panel wires
- Customizable attributes and placement of information
- Complete wire information, including length, strip and insertion guides
- Paste data directly from MS Excel™ into E3.series drawings

E3.Toolbox

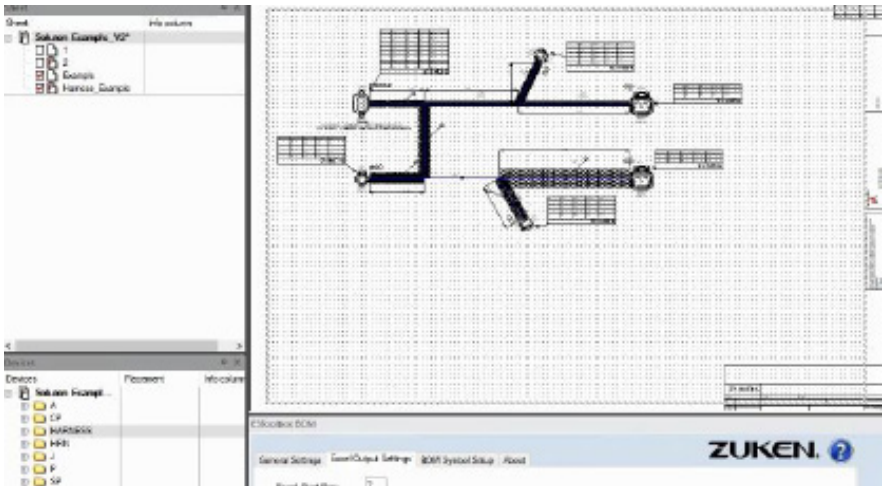
The Next Level in Productivity

Introduction

Zuken's E3.series is an essential tool for electrical designers to create quality products in the shortest time frame possible. Every aspect of the design is presented with automation capabilities to ensure quality, accuracy, and speed are unmatched across the design tool spectrum.



E3.toolbox empowers designers to maximize production value by helping create precise documentation without spending time with customization for different use cases. E3.toolbox runs inside E3.series, providing a suite of tools catering to all industries and design principles.



Bill of Materials (BOM) Toolbox

The E3.toolbox Bill of Materials provides versatility by opening up B.O.M. to easy and fast customization. The B.O.M. creation options are greatly enhanced with options for a single drawing page, an entire project, a selection of items or an assembly. The two standard output options for drawing sheet or in Microsoft Excel are simple and effective. The on-page B.O.M. is created using a customizable header and row symbols where text types can be added to display desired attributes. The Excel output can be customized to include all major attributes with a drop-down list from your library.

Customization and standardization are achieved without any custom programming requirements reducing overhead and turnaround times. Alternate part numbers for devices, connectors, and assembly parts improve decision making during the purchasing and assembly phases. The productivity factor is further boosted with the options for combining or separating assemblies and assembly parts.

The B.O.M. can be created top-down or bottom-up with various options to control the output type required. For example, users can choose whether to count up pins on connectors that are unused. Item No. balloons are created automatically to assist with compatibility with different drawing styles and standards.

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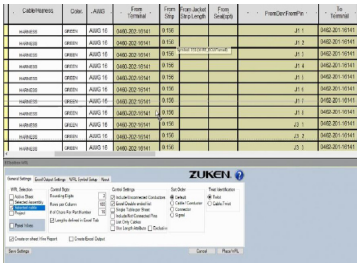
Bills Of Materials

Item No.	Part Number	Description	Quantity
01	1/2 INCH COR	1/2 INCH CORRUGATED TUBE	0.00 FT
02	012VEGS	DRO TUB (BF) 1/2"ID FLAME RETARD CORRUGA	0.00 FT
03	038NPBS	PAC TUB (BF) 3/8" I.D BLK SP	0.00 FT
04	100VEGS	DRO TUB (BF) 1"ID FLAME RETARD CORRUGATE	0.00 FT
05	120-125-16R	GLN TUB (BF)KYNAR RED .50 ID NON SPLIT	0.00 FT
06	120-126-12-BL	GLN TUB (BF) KYNAR LT BLUE .33 ID	0.00 FT
07	0411-204-160	CONTACT REMOVAL TOOL-SIZE 16	1.00 EA
08	0411-336-160	HAND TOOLS SZ 16 PROBE TOOL EXTRACTION	1.00 EA
09	0462-201-161	TERM,SOC #16 20-16	4.00
10	0462-209-161	TERM,SOC #16 16-14	19.00
11	DT06-2S	2 SOCKET PLUG , GRAY	2.00
12	DT06-4S	CONN,DEU,DT 4 P SLD	3.00
13	DT06-08SA	CONN,DEU,DT 8 P A	1.00
16	NYLON 1 INCH	1 INCH NYLON CABLE PROTECTION	0.00 FT
17	114017	DEU ACC (BF) SEALING PLUG 12 & 16	1.00 EA



Wire Run List (WRL)

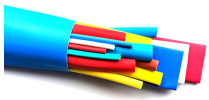
The E3.toolbox WRL tool enables clear communication of the engineering directives for the manufacturing and assembly teams. The wire run list (WRL) consists of detailed information for wires in a harness, project, sheet or sub-assembly. The result is a comprehensive manufacturing aid with options for Including or excluding panel wires, unconnected wires, additional wire lengths and much more

The wire run list is presented in the form of a Microsoft Excel file and/or a table on the drawing with the click of a button. The attributes and information are controlled without any additional programming requirements resulting in increased efficiency. The graphical representation is standardized with the E3.series library management tools to provide consistency across projects and teams.

The crucial details required for wiring and assembly like wire seals, cavity parts, twist and shield information are tracked automatically. The reporting options are fully customizable to ensure standardization is achieved across projects and teams.

Splices

Splices are simple, yet uniquely complicated parts of any harness assembly. Documenting a splice incorrectly or inadvertently can very quickly snowball into an expensive mistake. The E3.toolbox splice tool provides improved documentation options to improve quality and manufacturability of wire harnesses. The complete and accurate description of design intent is the primary goal of every design team. The three widely used industry standards of documenting a splice are included E3.toolbox Splices to help achieve standardization across projects.



The documentation options include

- General (standard table)
  - A simple and effective table with basic connectivity information.
  - Customizable list of wire and connectivity details
- Wire direction table (identifies the direction of wires)
  - A detailed table with directional data in addition to the connectivity information
  - Customizable list of wire and connectivity details
- Spider splice (displays each wire with fanout)
  - A graphical representation of incoming and outgoing connections.
  - Includes details such as number of connection and their target destinations
  - Customizable list of wire and connectivity details

ExcelPaste

Microsoft® Excel™ is an extremely popular application across the engineering spectrum. It is commonplace for the excel spreadsheets to be used for calculations, data management and even storing electrical connectivity details.

ExcelPaste is the latest addition to the E3.toolbox suite. The engineering team can continue using Excel and boosting productivity with the ability to directly paste information into an E3.series drawing page.

- Simple and easy to use
- Use default Excel settings
- Change the scale, font, color and other formatting options to