



## SPECIAL FUNCTIONALITY IN E<sup>3</sup>.formboard

- · Any-scale harness creation
- Bundle segment diameters
- Wire lengths
- Wire segregation
- Connection tables
- · Table-driven connections
- · Branch rotation
- · Clips, convolute, heat-shrink
- · Optimized print functions
- Dynamic links to E<sup>3</sup>.cable

# E<sup>3</sup>.formboard - Preparation of documentation for manufacturing

#### Introduction

Zuken's E<sup>3</sup>.series is used for documenting and detailing electrical and fluid designs. Its flexibility supports the entire process from definition and design, through manufacturing and maintenance. Its unique object-oriented architecture ensures that all stages are fully synchronized.

E<sup>3</sup>.formboard is fully integrated with E<sup>3</sup>.cable. Together they provide a complete solution for designing cable harnesses for manufacture. Harness drawings may be scaled to any size and multiple harnesses can exist in the same project. Automatic functionality simplifies the placement, arrangement and dimensioning of the segments.

#### Supported industries

E<sup>3</sup>.formboard is ideally suited for harness manufacturers and automotive, aerospace, rail, off-highway, special purpose vehicle and machinery companies.









#### Optimized formboard creation

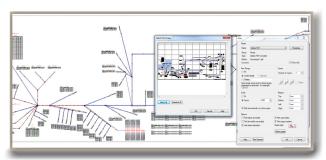


Cable bundle section view strategies

Formboard designs include connection tables, clips, heat-shrink and convolute. Wire lengths are automatically determined and a packing algorithm calculates the outside diameter of the harness segments. To fit to paper size, harness branches are rotated about any point and special print functionality allows individual sections to be reprinted.

#### Standalone formboard design

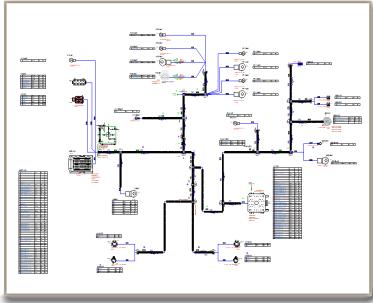
Connectors added to the harness sheet automatically include connection tables, while connect lines added between the connectors define the branches of the harness. Wires added to the pins in the connection tables are automatically routed through the shortest or pre-defined harness segments.



Configurable print options

#### Integrated schematic and formboard design

With E<sup>3</sup>.formboard's integration with E<sup>3</sup>.cable, the logical interconnection data defined in E<sup>3</sup>.cable is used directly in E<sup>3</sup>.formboard. Any changes made in either module are automatically reflected in the other.



Formboard design

### Additional E<sup>3</sup>.series options

#### E<sup>3</sup>.cable

Enhanced functionality for designing cables and cable harnesses. Different views of the design enable specific documents to be created for production, start-up and service.

#### E<sup>3</sup>.fluic

Integrated design solution for hydraulics, pneumatics, cooling and lubrication systems. Supports integrated electrical and fluid design.

#### E<sup>3</sup>.Revision Management

Document all physical and graphical changes between design iterations. Automatically produce engineering change order documentation.

#### E<sup>3</sup>.3D Routing Bridge

Transfer wire, cable and cable harness information to 3D MCAD systems. After routing, the individual wire lengths can be transferred back to E<sup>3</sup>.series.

#### E<sup>3</sup>.topology

Evaluate system harnesses early in the design flow for factors such as length, weight and cost. Enables tradeoff analysis of harnesses and sub-harnesses to optimize manufacturing performance and cost.

#### E<sup>3</sup>.redliner

Markup documents in a protected read-only copy of the design. Playback and jump to all recommended changes in the master design.

#### E<sup>3</sup>.view

View all E<sup>3</sup>.series projects and special viewer files with this free-of-charge viewer.