



Functionality Overview

- Visualization of connection lists as schematic diagrams
- Available as a Windows or as a web application
- Interactive browsing in the automatically generated circuit diagram
- Integration of multimedia content
- Integration into customer systems (e.g. intranet portals, PDM/PLM systems)
- Additional benefits in customer service and maintenance through connection to diagnostic systems
- Independent of authoring system including wire list import in Excel format

E³.ConnectivityBrowser

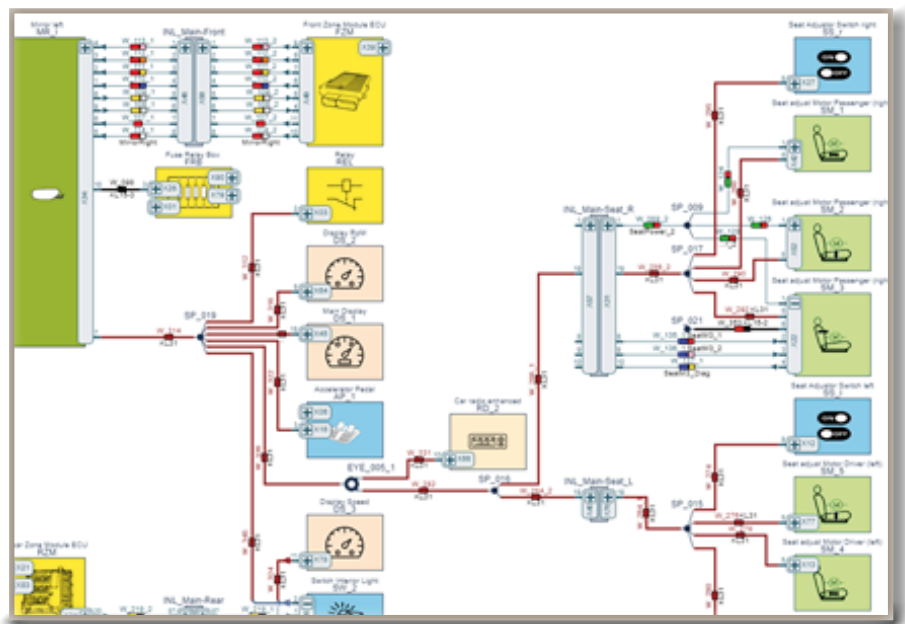
Automatic circuit diagram visualization as part of the digital twin

E³.ConnectivityBrowser is a powerful and innovative technology for the automatic visualization of digital connectivity data in schematic diagrams. Through the implementation as a Windows application and as a true cloud solution, a wide variety of tasks in the automation and automotive industry can be optimally represented. Starting from any object (e.g. a specific component or a predefined module), the connectivity is visualized in a split second with its logical or physical characteristics as a circuit diagram. The user can then interactively expand this circuit according to his interests and thus “browse” through the overall systems.

Fields of application

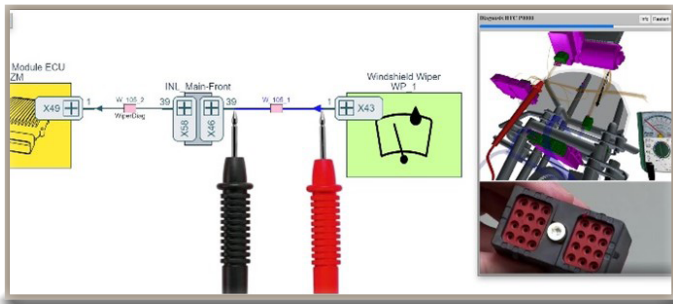
The E³.ConnectivityBrowser finds its application wherever user-specific visualizations of digital connection data models are required - in most cases, these are electrical schematic diagrams.

One specific example is from the supply chain where a partner has only received wire lists or KBL files without the complete documentation. Another application example is in the field of manufacturing and assembly, where the visualization of connectivity information as a circuit diagram is particularly valuable. Or the representation of CSV or Excel files of legacy systems that have been long since shut down - the range of applications for the technology of the E³.ConnectivityBrowser spans the entire field of electrical engineering.



After sales service

A key area of application for the E³.ConnectivityBrowser solution as a web / cloud implementation is the visualization of electrical connectivity in the event of a repair. Internet access provides the technician with the latest data at all times. In addition, a connection to diagnostic systems is highly effective, enabling the diagnostics system to directly access the corresponding circuit diagram visualization where the failure of a specific component is detected. In addition, the diagnostic system can also display measurements in the circuit diagram - as well as instructions on where and what to measure.



For products with a high degree of variance, another major advantage comes into play: via the product identification in the diagnosis, the exact configuration of the vehicle or device under repair is retrieved. This saves an enormous amount of time and effort in the search compared to a conventional "150% documentation".

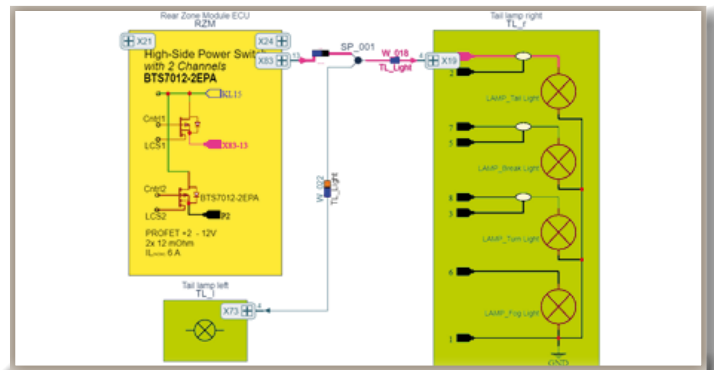
Input data

The E³.ConnectivityBrowser uses an entirely digital connectivity data model as input data - independent of the authoring system. This data can be generated from E3.Cable or is supplied in KBL format. An available converter also allows to convert the most basic wire lists from Excel or CSV into this digital data model. In addition, a converter API is available that allows company-specific integration into customer systems.

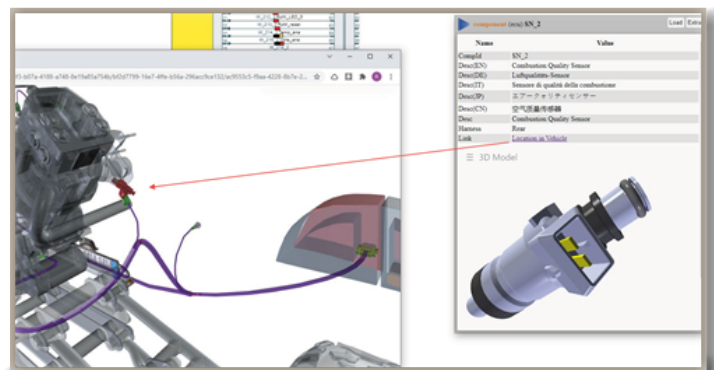
The functionality is completed by many additional features that generate significant benefits in the field.

Additional features

- Language support - including automatic translation via web services
- Integration of image, sound, video or simulation media to illustrate objects or repair instructions
- Representation of the internal wiring of components linking to the external wiring



- Visualization of the installation locations in the device or vehicle through the link to the related 3D representation



- Direct access to company-specific spare parts portals for convenient spare parts orders
- Seamless integration of service chat systems or online troubleshooting communities

Additional E³.series modules

E³.schematic

The core module of the E3.series suite enables the creation of schematic diagrams for electrical control systems

E³.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.

E³.formboard

Creates build-to-print detailed 1:1 harness designs; linked dynamically to E3.cable drawings.

E³.3D Routing Bridge

TRansfer wire, cable and cable harness information to 3D MCAD systems. After routing, the individual wire lengths can be transferred back to E3.series.