E-engine™: Automatic, Scenario-Specific Schematic Generation for Smart Vehicle Services

The complexity of modern automotive electronic systems has exploded, creating a major problem for vehicle service operations. Technicians and mechanics must wade through hundreds of pages of incomprehensible, sometimes out-of-date, documentation, attempting to apply complex schematics to unfamiliar repair scenarios. This is a significant challenge for automotive and aerospace manufacturers where the effective service of their products is a key differentiator. The initial documentation production, applying document revisions, and providing the flexibility to handle vehicle variations all require a considerable investment.

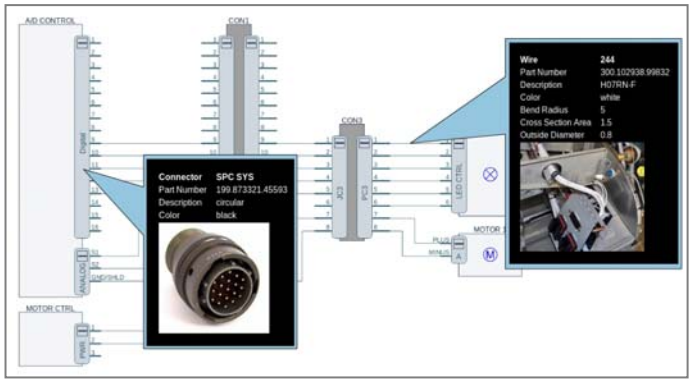
Concept Engineering's E-engine solves these issues by providing a documentation solution that automatically renders schematics specifically to individual repair scenarios. The schematics are generated from a database that is converted directly from original CAD drawings, saving authoring effort, eliminating a source of errors, and allowing for easy revisions.

- Easy to Understand: Visual, clear, compact schematics, rendered dynamically for specific repair scenarios for safe and fast issue resolution
- Easy to Use: Smart, interactive, web-based documentation, for easy installation, efficient updates, and variation handling
- Easy to Produce: Database created directly from CAD design data for fast, error-free, easily-maintained documentation

E-engine is based on Concept Engineering's unique schematic visualization and rendering technology, developed for complex semiconductor electronic design automation. The technology allows for repair scenarios to automatically drive visualizations of a vehicle's electronics, wiring harness, connectivity and other key information, allowing the problem sources to be rapidly identified.

Easy to Understand: Visual, clear, compact dynamically rendered schematics.

Concept Engineering's schematics are renowned for their clear, crisp visual depiction of complex electronic components. Used in many products for semiconductor CAD, the graphics have been carefully designed to provide relevant information in as readable a manner as possible. The internal rendering engine provides the unique capability for the schematics to automatically redraw themselves based upon the technician's requirements, allowing for a rapid focus on problem areas to identify and repair issues. E-engine is a diagnosis power tool that greatly accelerates the service process.

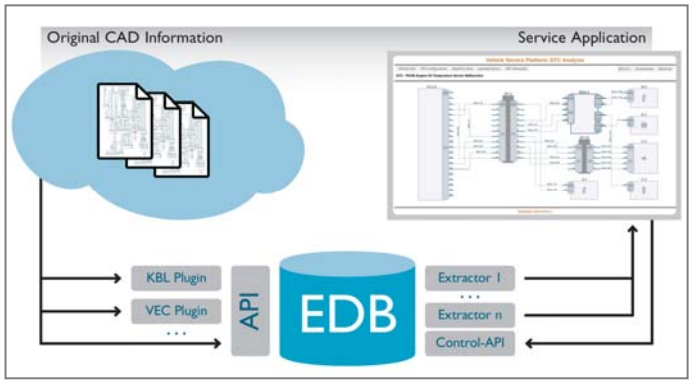


Easy to Use: Smart, interactive, web-based documentation.

E-engine is available for Windows, Linux platforms and online through web browsers, providing access from a range of computer and mobile devices, with no installation headaches. In addition, maintenance of the documentation is vastly improved on the online system, which ensures that technicians will always be working with the latest schematics. Manufacturers can be sure that no outdated versions of the drawings are being used to repair their vehicles. In addition, the myriad of vehicle variations can be easily handled, allowing service manuals to be relevant to the particular vehicle (VIN) and problem at hand.

Easy to Produce: Database created directly from CAD design data.

Documentation authoring is a necessary headache for automotive and aerospace manufacturers, who must apply a significant level of resources to provide service center information. A direct translation from the designers' CAD systems to the E-engine EDB database ensures the fast production of accurate, error-free documents that may be updated immediately when any change is necessary. E-engine revolutionizes the entire process of authoring, delivering, and maintaining service documentation to service centers worldwide.



Company Contact
Concept Engineering GmbH · Bötzinger Str. 29 · 79111 Freiburg · Germany
Tel: +49-761- 47094-0 · Fax: +49-761- 47094-29 · Email: info@concept.de · http://www.concept.de