

# CANdb++ Admin.J1939

The Design Environment for J1939 Networks

During the development of complex J1939 networks, CANdb++ Admin.J1939 forms the backbone of all work processes from design of communications to the administration and use of communication data, e.g. for simulation, configuration of the ECU software, and for detailed ECU tests.

### Features and Advantages

The functionality tailor-made for J1939 bus systems and the integration of the database into the Vector tool chain for J1939 makes CANdb++ Admin.J1939 the central tool for developers of communication networks and suppliers of components.

CANdb++ Admin.J1939 offers you a design environment to draw up your communication matrices and it enables, among other things, variant and version management, documentation, and timing analysis for estimating the run-time behavior of your networks. In addition, the CANdb++ data model and its functionality can be customized to suit your requirements.

CANdb++ Admin.J1939 enables comfortable and quick access as well as the definition and manipulation of this data.

### Functions

- > Support for various views (e.g. network, ECU, signal, etc.) during the display and processing of data
- > Integration of model and code generators
- > Automatic change description (history), version comparison (difference display), and version merge

- > Import and export opportunities (DBC, XML, CSV format) for transmitting communication data to suppliers and project partners
- > Ensure the integrity of communication through comprehensive consistency tests

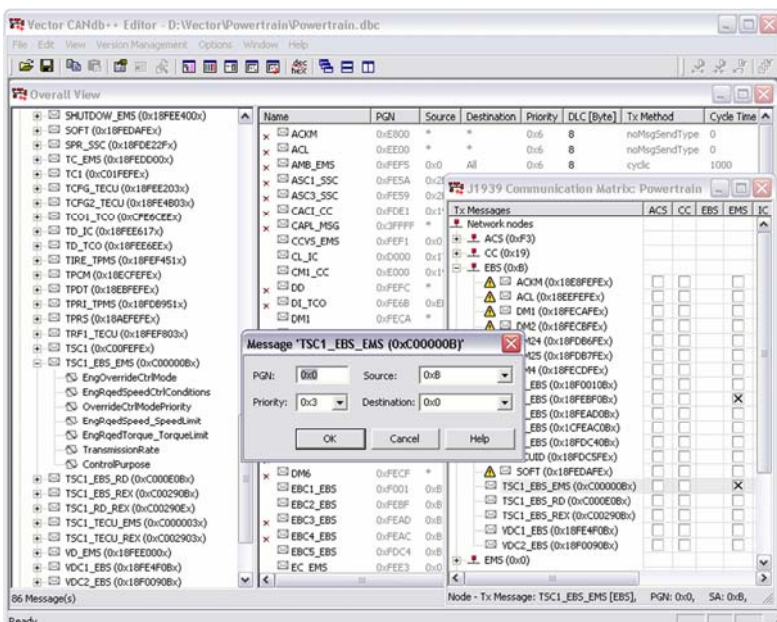
### Program Variants

- > The Admin Version is perfect for system engineers. It offers special functions
  - > for version management
  - > for timing analysis
  - > for the design of several networks in a single database
- > The Standard Version provides many possibilities for viewing data. In addition, e.g. extra test messages can be created and mapped. The Standard Version is delivered with CANalyzer/CANoe.J1939.

### Application Areas

Design of communication matrices

- > Definition of communication objects for various variants of networks, ECUs, and vehicles
- > Analysis of the networks with respect to the expected time behavior (bus load, transmission times, etc.)
- > Specialized, user-oriented views of the communication data
- > Specification of send and receive relationships with the necessary attributes (send behavior, cycle time, receive timeouts)



Definition of CAN messages with J1939 specific parameters

**Software Interfaces**

CANdb++ Admin.J1939 forms the basis for the networking of the Vector tool chain for J1939 and has interfaces to the following tools: CANoe.J1939, CANalyzer.J1939, CANape, CANscope, CANstress, CANlog, Multilog, CANister, CANextender, CANgraph, and CANbedded Generation Tool for configuration of the Vector software components for J1939.

Cooperation between manufacturer and supplier

- > Versioning of released data sets in a version management system
- > Export of partial data (for a network, an ECU, or a vehicle) in various formats for transfer to suppliers
- > Creation of meaningful reports

Use of data in the development process for distributed systems

- > Complete support of the Vector DBC format as a de facto standard for describing communication data
- > Integration of CANdb++ standard variant into the Vector tools for J1939

**Data Model**

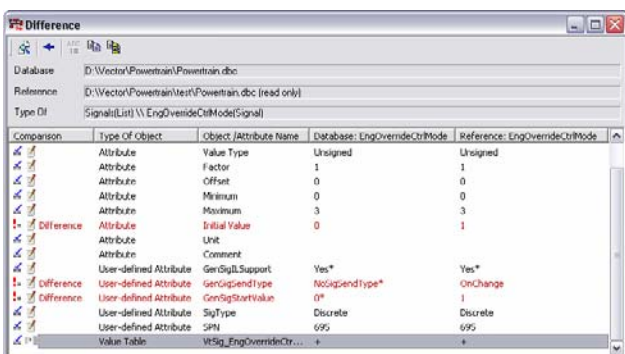
- > Definition of communication objects (e.g. messages, signals, network participants, etc.) as well as relationships between objects (send nodes of messages, reception signals of network nodes, etc.)
- > Management of several networks in a single database
- > Any number of assignment attributes, e.g. vehicle, serial deadline, timeouts, etc. can be defined by the user

**Consistent Data Management**

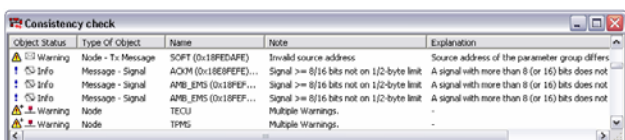
CANdb++ Admin.J1939 manages any number of communication objects for a project, a vehicle platform or an OEM in a single database. The central data management offers you decisive advantages towards a quick development process with a smooth cooperation of the various development departments and suppliers.

**Variant and Version Management**

The variant management of CANdb++ Admin.J1939 takes into consideration the parallel variety of models and components, e.g. the manufacturer-specific categorization of vehicles according to line, motor equipment, vehicle body, country identification, etc. The version management accommodates the continuing temporal development of individual components or complete databases. CANdb++ Admin.J1939 coordinates the parallel work on a data set through the interface to an external version management system. The individual versions can be compared via difference views and merged with one another. Therefore CANdb++ Admin .J1939 supports consistent teamwork.



Difference view to compare and merge two sets of data



Consistency check of the networking data