

CANdb++ and CANdb++ Admin

The Distributed System's Backbone

During the development of complex networks, CANdb++ and CANdb++ Admin form 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 multi-functionality with respect to various bus systems and the integration of the database into the Vector tool chain make CANdb++ and CANdb++ Admin central tools in the development process for developers of communication networks and suppliers of components.

CANdb++ Admin offers you a design environment to draw up your communication matrices and it enables, among other things, version and variant 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++ 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

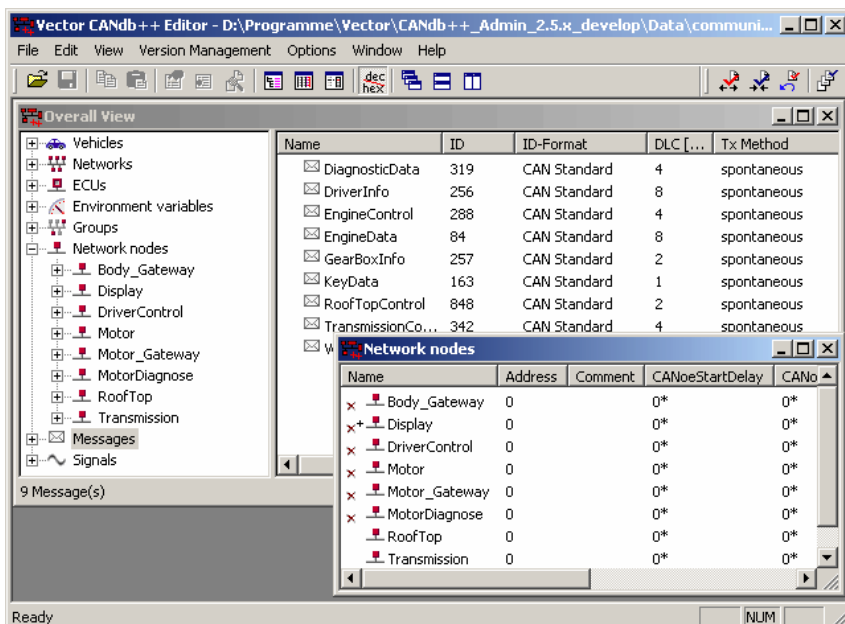
Program Variants

- > The Admin Version is perfect for system engineers. It offers special database functions and variant management. The Admin Version also contains functions for version management, report generation, and the processing of extended databases.
- > The Standard Version provides many possibilities for viewing data. In addition, e.g. additional test messages can be created and mapped. Environment variables can also be created for CANoe/DENoe. The Standard Version is delivered with Vector products.

Application Areas

Design of communication matrices

- > Definition of communication objects for various variants of networks, ECUs, and vehicles
- > Specification of send and receive relationships with the necessary attributes (send behavior, cycle time, receive timeouts)
- > Specialized, user-oriented view of the communication data



Software Interfaces

CANdb++ forms the basis for the networking of the Vector tool chain and has interfaces to the following tools: CANoe/DENoe, CANalyzer/DENalyzer, CANape, CANscope, CANstress, CANlog 3, CANister, CANextender, CANgraph, DaVinci, and CANbedded Generation Tool for configuration of the Vector software components.

- > Analysis of the networks with respect to the expected time behavior (bus load, transmission times, etc.)

Cooperation between manufacturer and supplier

- > Versioning of released data stock 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 quasi-standard for describing communication data
- > Integration of CANdb++ standard variant into the Vector tools

Data Model

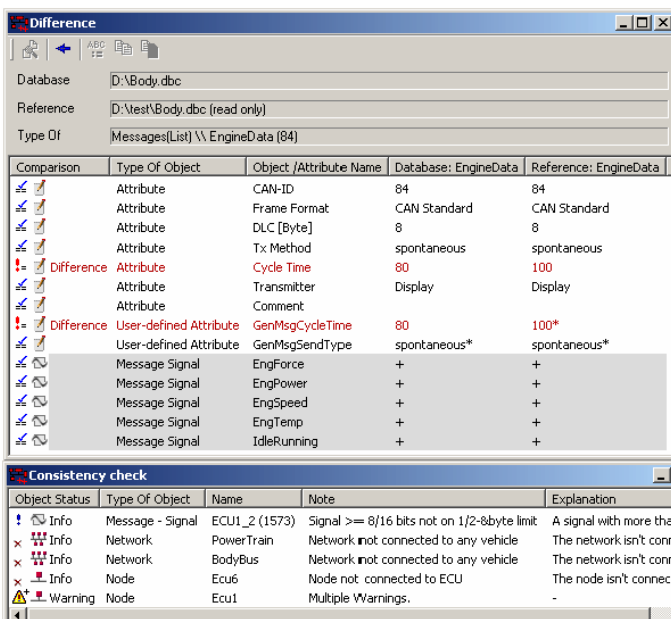
- > Definition of communication objects (e.g. messages, signals, network participants, etc.) as well as relationships between objects (send nodes of messages, reception signals of network nodes, etc.)
- > Management of several networks in a single database
- > Any number of assignment attributes, e.g.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

Consistent Data Management

CANdb++ Admin manages any number of data networks in a single database. CANdb++ central data management offers decisive advantages and provides a quick development process, and smooth interplay of the various development departments and suppliers.. CANdb++ takes this into account with the illustration of coherences in the underlying database and avoids unnecessary quantities of data through consistent data management.

Variant and Version Management

The variant management of CANdb++ Admin 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 coordinates the parallel work on a data stock 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 supports consistent teamwork.



Consistency check for comparison and merging of two data stocks