



Mx-Suite™ Signal Dictionary

The Mx-Suite™ Signal Dictionary contains the logical, or essential, definitions of all signals for the system under test. To manage the complexity of mapping the Signal Dictionary to the data dictionaries of each system under test, MicroMax chose an architecture where Signal Dictionary information is necessarily abstract from the hardware, software, or model interfaces. Interface specific information for the system under test is modeled by Mx-Suite™ Connector Transforms. The Signal Dictionary works in concert with the Connector Transforms to keep complexity to a minimum, as well to enable better auto-discovery capabilities.

Detailed information on the Signal Dictionary is available in Mx-VDev's built-in help (MxVHelp).

ESSENTIAL DATA DICTIONARY INFORMATION

All signals are classified in the Signal Dictionary using the information below

<u>Classification</u>	<u>Description</u>
Data Flow	Input or output with respect to the implementation under test
Data Type	Numeric, Message, or event (as from an external interrupt)
Numeric Engineering Units	Dimensional units (e.g., inches, rpm, volts, lumens...)
Numeric Gross Scaling	Initial value, minimum value, maximum value
Numeric Type	Scalar, Vector 1D, Vector 2D
Numeric Type Interpretation	Continuous floating point, continuous fixed point, discrete
Message Length Interpretation	Fixed or Variable length, and maximum length
Message Display Format	(for visual interpretation) Hex, Ascii, or image data
Connector Type	Identifier of MIL/SIL/HIL interface (incl. CAN, LIN)

IMPORTING INFORMATION

Mx-VDev™ allows the user to import external data dictionary information from CAN Database files (.dbc), LIN Databases file (.ldf), ASAM Database files (.A2L), CSV files, and XML files.

FUTURE ENHANCEMENTS IN THE PRODUCT ROADMAP

Future extensions are planned. They include

- Allow SQL access to the Signal Dictionary
- Enhance auto-discovery and auto-harnessing of systems under tests
- Automatically scaling differences between the data dictionaries of different systems under test
- Track changes to the Signal Dictionary or data dictionaries of systems under test