VISU IT!
Visual Information Technologies GmbH

Automotive Data Dictionary V12.3

*The Visu-IT! Automotive Data Dictionary represents a global data dictionary for all ECU labels/variables used in a company/organization. The **single source** concept of ADD eases the handling and management of data declarations over all projects. Due to the (company-wide) availability and uniqueness of these labels, ADD allows a continuous and consistent data declaration during the whole development process.*

Focus: single source of all data declarations
global, company-wide label database, specification view, no implementation details

Scope: global, project and module scope

General Information

Main objective of ADD is to centralize all data elements/definitions and to support the reuse of these data for the function development part as well as for the software development. This means that everyone is able to select a data definition from a single source, where the data is stored unique, project- as well as editor- independent. Thus it is ensured, that the data definitions are **equal** in the whole development process.

➔ *ADD avoids redundancy of data due to company wide availability and ensures uniqueness of these data.*

Continuous Data Process

With ADD, a continuous data process from the step "System" to "Software" is possible. ADD closes the interface gap between **function-** and **software development**, ensures data consistency and thus improves the quality and reduces the efforts for the system as well as for the software development.
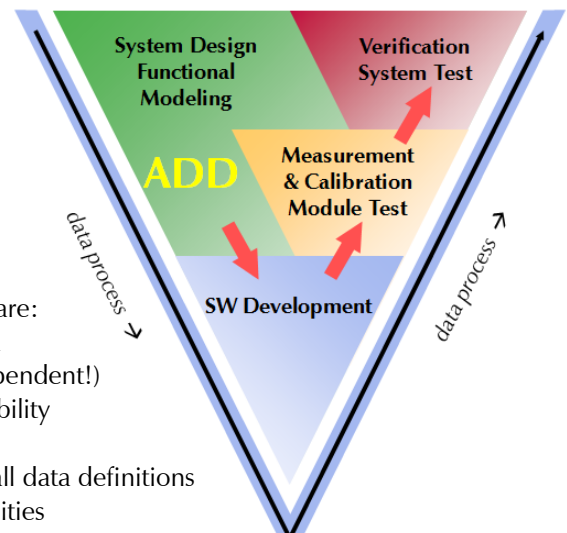
Objectives

The main objectives for a seamless data definition covered by ADD are:

* to provide a central and company-wide accessible database as a single source for data definitions (project- as well as editor-independent!)
* to ensure company(world)-wide availability and multi-user capability
* to support consistency checks during the definition
* to ensure data consistency by using versioning and lifecycle for all data definitions
* to allocate data and data flow driven search and analyze capabilities
* to provide a continuous data process from System to Software
* to improve the quality of the interface description
* to provide check operations of several hierarchy levels (modules, aggregates and projects) in a very early step of the development process

Key Features

* Management of data objects (ECU labels/variables)
  ECU variables are: Measurements, Parameters, Axes, Maps and "System constants" (cDefines)
* Version management of data objects (versions and revisions)
* Lifecycle management of data objects and datatypes (draft, fixed, obsolete, etc.)
* Grouping of data objects (container-concept) including overview-picture of container with link to the data object definitions
* Extensive Search and query functionality (for data objects, datatypes, etc.) including cross-references, etc.
* Show differences between workspace- and database entries
* User-Management including User/Role concept for the control of access authorization
* Creation of XML-format and support of other formats using style sheets (HTML for reports, MSR SW DTD...)
* Management of data object attributes like physical units, format string, conversions, data types, limits, etc.

- Variant Coding of data objects
- Dynamic interfaces via code variants
- Visual Data Modeler shows the interfaces and groupings graphically
- Consistency checks on every level: container-, composition-, configuration package- and project-level
- Object comparison on every level: data object, container-, composition-, configuration package- and project-level
- Reusable configuration packages for project
- Supplier interface handling
- Offline database (*.ddx) backward compatibility
- Data Object\Container attribute change log (history list).
- Recursive fix/version-creation of Data Objects
- Support of reusable Class objects
- Recursively create new Variant/Version/Release of Container, Compositions and DataObjects within Project Context (Project Reference tab).
- Excel export based on the all information of special Container BusAdp/CsAdp.
- Display active/non active DataObjects information within the DataObject Reference dialogue (Project Context only).
- Explicit compare for special Container BusAdp added.
- General enhancement regarding the BusAdp Signal Information gathered form BusAdp source files.
- Create an Excel output based on the content of the appropriate special Container CsAdp/BusAdp during MDX-Export automatically.
- Allow bulk change of attribute "Status" of first level Containers referenced in a Composition.
- Handle Argument and Return-Value of class (ClassPrototype) methods (SW-Services).
- Allow the usage of different DataObject Types within different DataObject versions.
- Allow grouping of Conversions; use Conversion Catalogues as filter within the DataObject Definition tab.
- CodeVariant checks and import function added in order to ensure CodeVariant consistency between In- and Outputs.
- Allow individual configuration of version check criterion for Project/Composition Checks No. 1.
- New Container attribute "Runnables" added in order to support AUTOSAR feature "Runnables" in ADD.
- Compose ADD User in Groups and use a Groups as ADD Object Responsible.

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Process flow & Interfaces

The following figure shows possible interfaces of ADD to other tools and the principal process flow:
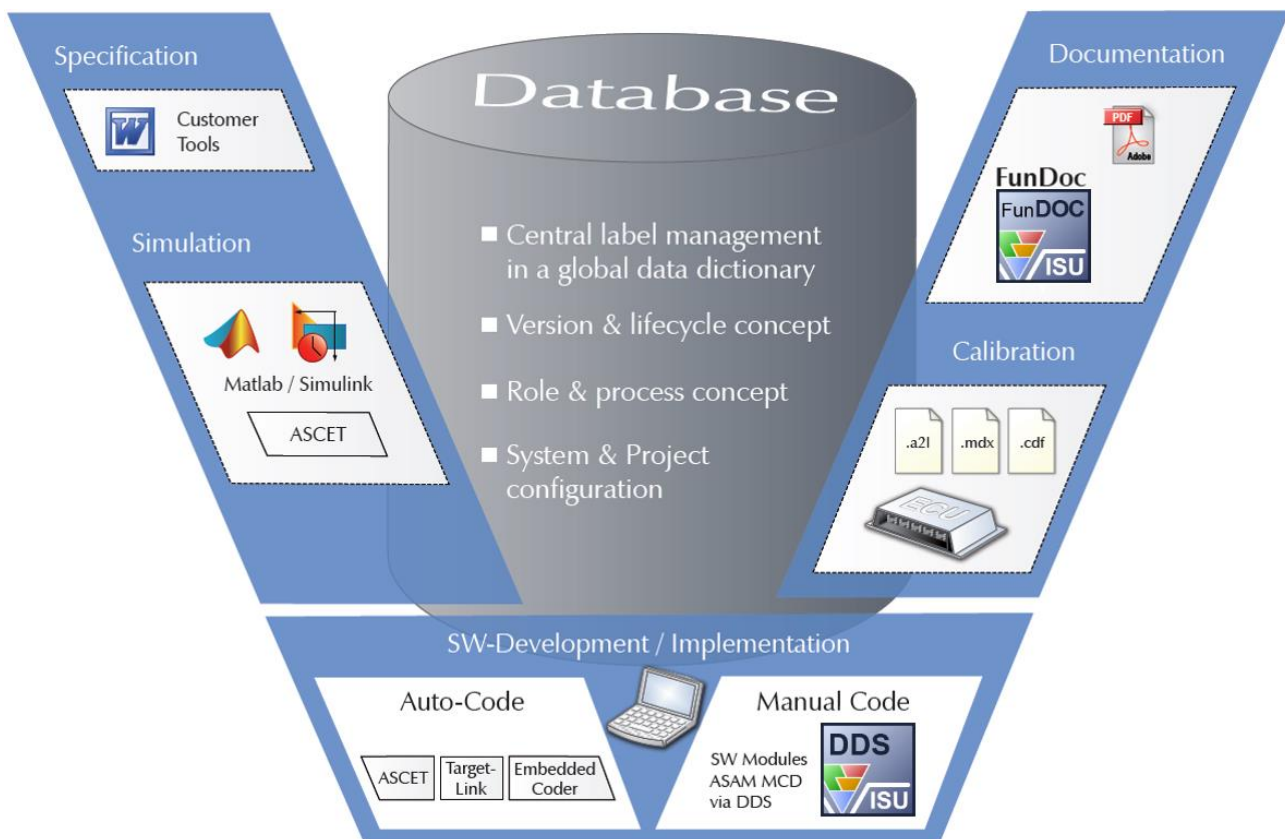
By providing a smart and flexible interface to DDS, all interfaces of DDS (like ASAP2, ELF, I3E, CVX, etc.) are implicitly also available in ADD.

System Requirements

Operating System	Windows 10, Windows 7, Windows Vista,
Environment	.NET Framework V4.6, Oracle V10.x Client or higher with Oracle Data Provider for .NET 2.0 (10.2.0.2.20), Oracle Client is only required for Oracle database connection
Processor	Pentium 3 or equivalent, 750 MHz or higher
Hard disk	100 MB (minimum) of free hard disk space
System memory	512 MB of main memory
Display resolution	1280 x 800, 16bit colours, 17 inch

Contact

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