

What's new?

# **Automotive Data Dictionary**

What's new in Version 8.1.R0?

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## 1 **Purpose and scope**

This document describes the improvements and changes of ADD V8.1.R0 compared to V7.3.R0

# 2 What's new in Version V8.1.R0?

### 2.1 Highlights

#### 2.1.1 GUI Improvements

In the ADD version 8.1 the following GUI improvements are implemented:

- Open several container in parallel (Data Definition window). Display the container names for these windows in the Windows task bar.
  - Remove the Help buttons. Help can be called always by pressing F1.
  - Improved Container / Composition / Project management:
    - Removed additional field with name and version of selected definition (get more space for definition pages).
    - Added a splitter control between the trees and the definition pages at the right side to adjust the width of the tree controls.
    - Removed the Close button (this window is the main ADD window).
- Enhanced the toolbars by a few additional buttons (e.g. call Information dialog, Search Data Object, Get Data Object of Another Container)
- Additional Shortcuts:
  - o Ctrl+Click: Select / deselect several check boxes (e.g. User-Rights, Search Data Object types)
  - Ctrl+U: User Information
  - Ctrl+L: Lock / Unlock
  - o Ctrl+N: Create new container / composition / project
  - Del: Delete selected object
  - Ctrl+W: Switch Folder / Normal View
  - Return: Select specific container / composition / project version in tree when pressed in version overview at the right side in container / composition / project management (visible when simple name node is selected in the trees at the left side)
  - Ctrl+A: Select multiple objects (e.g. in List Views at the left side of the Data Object Definition)
  - $\circ$  Ctrl+n, n = [1-9]: Directly select the dialog pages at the right side for a selected container / composition / project or a data object
  - o Ctrl+O: Open selected container
  - Ctrl+S: Call Apply
  - Ctrl+Z: Undo (Dataobject Definition)
  - F5: Reload data in container / composition / project management and Data Object Definition
  - o F6: Switch between container / composition / project tree or List View and Browser
  - F7: Call VITNameBuilder
  - F8: Call VITNameChecker
  - F10: Check container / composition / project
- Log Window, Description and Remark text boxes: Show scrollbars only when more lines of text available
- Get Data Object of Another Container / Import Project Configuration: The tree for the container / project selection is replaced by combo boxes e.g. the available container by name, second the available versions for the selected container name. Typing in the container name combo box reduces the list of names.
- Data Object list views:
  - The type and state is now displayed in own columns.
  - Sorting is possible for each column separately (the fixed sorting first by type, second by name is no longer active).



#### 2.1.2 System Constants Expressions

The value of a System Constant (SC) can be defined now by an expression. This offers the opportunity to define one SC depending on one or more other SCs. The basic set of operators like in the C programming language is available (e.g. "+", "-", "\*", "/", "==", "<",...). The referenced "basic" SCs must fulfill some pre conditions (reduced set of base types, 1:1 conversion, no expression itself).

#### 2.1.3 Bus Signal Mapping

ADD offers a new special container type "Bus Adapter". An import possibility of CAN or Flexray definition files is possible for this container type. Later a mapping between bus signals and ADD data objects can be defined. On project level a further configuration and export is offered.

### 2.2 New Features, Major Improvements

#### 2.2.1 Categories for System Constants in SysDefConf

Category folder can now be created in the Browser of the SysDefConf container. System Constants (SCs) with the assigned category are displayed as child nodes under the Category node (similar to directories and files in the file system). Multi Selection in the List View mode can be used to assign multiple SCs at once to a Category.

#### 2.2.2 Data Variants

- Data Objects of type "Axis" can now be coded as Data Variants also.
- A data object can be added to the Project Data Variant page without immediately assigning a variant selector. The selector can be assigned later on.

#### 2.2.3 MDX Export

The MDX 1.1 export format is available for the CsAdp (Code Sharing Adapter) in addition to the DDX export.

#### 2.2.4 **Optional Features**

#### 2.2.4.1 Write-Only Data Objects

A new data object type "OnlineWriteOnly" is added. Data Objects of this type act like Onlines but offer the possibility to be configured as to be used only in the ETK RAM to save RAM in the ECU.



### **2.3** Minor Improvements / Correction of Bugs

#### 2.3.1 ADD Adapter and ADD Online

The ADD Adapter installation doesn't influence the normal ADD or DDS import any more. The registration in the Windows GAC is no longer necessary.

#### 2.3.2 Offline Mode

#### 2.3.2.1 Container Description

The container description is version specific since version 7.3. The DDX Export and Import handles this now correctly.

#### 2.3.3 Composition Check

The Check 2 (Multi Output Check) is no longer mandatory for a status change. Reason is that Code Variants are often not correctly initialized (wrong System Constant values) at Composition level. This is done later at Project level.

#### 2.3.4 ADD Database Compatibility

A more restrictive version check is implemented to be able to prevent read or write access of an older ADD version to a current database (starting with ADD version 8.1).

#### 2.3.5 Access Frequency / Max Refresh

A double click on a displayed container default value for a data object sets now the value data object specific when saved with Apply. Additionally when the status of a data object is changed ADD offers to take over the current container specific values as data object values, to leave the values or to cancel the operation.

#### 2.3.6 Code Variants

- The operator precedence is now correctly evaluated (e.g. AND before OR).
- The equal operator is changed to "==" like in the C programming language.
- The bitwise operator "&" works now like in the C programming language, that is, it is not tested any longer for all bits in the given mask. To archive this, the following condition is necessary "(value & mask) == mask".

#### 2.3.7 Data Object Limits

- The limits for Online data objects are now only adjustable for classification "Local". "Input" and "Output" data objects of type Online have always "full range" limits.
- The limits for Online data objects are now handled as "data object specific" and no longer as "container specific".
- The limit controls are displayed beneath the Container specific Information control group because the limits are in general no longer "container specific".

#### 2.3.8 SimFixed Composition / Project

It is no longer possible to change the composition or project state to "SimFixed", select a different property page and e.g. add a "Draft" container and save afterwards. The different property page are now read only after the state change.

#### 2.3.9 Change Responsible

A Composition can be assigned to a different user also (necessary user roles: Admin or FE\_Admin and SD\_User). Only the composition itself is changed, the referenced container or composition versions are not modified.



In the Search Data Object dialog additionally an own data object can be assigned to a different user. A user selection dialog is display to specify the new responsible user.

#### 2.3.10 Show References

- When selecting a container reference in the Result list of the Show References dialog a double click (or the Details button) opens now the displayed container version with the complete content and preselects the data object. Editing the data object or the other container content is possible also (like opened in the Container Management).
- When a data object reference is selected in the Result list the new button "Show references..." at the right side opens a new Reference dialog to show the references of the selected data object instead.
- Additionally the two new options "Code Variant" and "SC Condition" are added to show also references of these types.

#### 2.3.11 Search Data Object

In the result list of the Search Data Object dialog an additional column "Bit Carrier" is displayed to show the bit base or bit carrier data object of a logical bit definition.

#### 2.3.12 VITNameChecker Configuration

Two additional options can be configured now in the VITNameChecker.config file:

<Settings>

```
<SearchTypingDelay>1000</SearchTypingDelay>
```

```
<AllowUnderScore4AlphaNumeric>0</AllowUnderScore4AlphaNumeric>
```

</Settings>

The first one specifies the maximum time delay between two keystrokes in [ms] to recognize the characters typed in as part of one word to search for in the catalog lists.

The second option allows the underscore sign '\_' as a valid character for the "alphanumeric" element type.

#### 2.3.13 Optional Features

#### 2.3.13.1 Init Values for Onlines

Optionally also for data objects of type "Online" Init values are available.

#### 2.3.13.2 Definition of Status Bits

Optionally it is possible to use Bit Base data objects with defined bits also with classification "Input" or "Output". In this case when defining a new bit to a carrier data object e.g. in "Output" the "Input" carrier objects in another container where updated wrong. This is fixed now.

#### 2.3.13.3 Visible "undefined" State

The Visible state "undefined" can now be configured to "not usable any more" by a configuration option.

#### 2.3.13.4 Status Change

When the status of a data object is changed ADD offers optionally the possibility to set the inherited SIM data type as SW data type.

#### 2.3.13.5 Volatile

The optionally displayed data object attribute "Volatile" is renamed to "C-Volatile". Additionally a new attribute "nv-RAM" is added.



#### 2.3.13.6 Prevent Creation of Conversions with the Same Name

When creating a new conversion with a different base type (special creation mode) the name must nevertheless be unique. This is now ensured.

#### 2.3.13.7 String Conversion

Existing and already used String Conversions can be extended by new String Conversion table entries at the end. Deletion or modification of already existing table entries is not possible. The handling and checks are improved now.



# 4 No longer supported features

### 4.1 Individual Axes

The simple individual axis flag in the Offline Mode is no longer supported (superseded by STD and FIX axis objects).

# 5 **Questions**?

If you have any questions about this release, please contact the Visu-IT! ADD Hotline:

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