

Automotive Data Dictionary

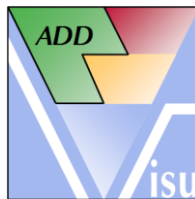
What's new in Version 3.7?

October 29th 2008

ADD Contact

email: add@visu-it.de

Internet: <http://www.visu-it.de/add>



© Copyright 2008

Visual Information Technologies GmbH

An der Schergenbreite 1

93059 Regensburg

Contents

1	<i>Purpose and scope</i>	4
2	<i>What's new in Version V3.7?</i>	4
2.1	Highlights	4
2.1.1	ADD Offline with Project Support	4
2.1.2	Project Comparison	4
2.1.3	Support of STD and FIX Axes	4
2.1.4	Code Variants	4
2.1.5	SysDef Container	4
2.1.6	Enhancements / Changes for Defines	4
2.2	New Features, Major Improvements	6
2.2.1	SuperUser Mode	6
2.2.2	Check Container (Offline Mode)	6
2.2.3	Version Check	6
2.2.4	ADD – ADDConfig.xml	6
2.2.5	ADD Offline – VITNameChecker	6
2.2.6	Data Object Defaults	6
2.2.7	Project References	7
2.3	Minor Improvements / Correction of Bugs	8
2.3.1	SW_User Enhancements	8
2.3.2	FE_User Enhancements	8
2.3.3	Access Frequency / Max Refresh	8
2.3.4	Replacement of Axis Revisions in a Map	8
2.3.5	Value Constraints for Defines	8
2.3.6	ReadOnly Attributes	8
2.3.7	Conversion Management	8
2.3.8	Data Type Wizard	8
2.3.9	Compare Container Versions	9
2.3.10	Project / Container Management	9
2.3.11	Support of Limits for Inverse Conversions	9
2.3.12	String Conversions	9
2.3.13	Action Parameter	9
2.3.14	Create Offline Configuration	10
2.3.15	ADDOffline	10
2.3.16	ADDOffline – Sync	10
2.3.17	Incomplete Data Objects	10
2.3.18	Delete References	10
2.3.19	Online – Axis References	10
2.3.20	Format String Management	10
2.3.21	Search Data Objects	10
2.3.22	Search Conversion	11
2.3.23	Show Data Object Differences	11
2.3.24	Data Object References	11
2.3.25	User Information	11
2.3.26	User / Roles Management	11

2.3.27	VITNameChecker	11
2.3.28	Add / Remove Data Objects	11
2.3.29	Remove from Container	11
2.3.30	Delete new Container	11
2.3.31	SIM / SW Data Type Changes	11
2.3.32	Initialize Limits	11
2.3.33	Simulation Fixed Icon	12
2.3.34	Check Project	12
2.3.35	Sort Order in Data Object List View	12
2.3.36	Check of Axis Count	12
2.3.37	Create New Map Release	12
2.3.38	Create New Release (SW DT)	12
2.3.39	Check of Unit	12
2.3.40	Packed Bit Check	12
2.3.41	User Name Display	12
2.3.42	Optimized for small Display Resolutions	12
2.3.43	Container Statistics	12
3	<i>No longer supported features</i>	13
3.1.1	Individual Axes	13
3.1.2	ASCII, BinPoint and Float Conversions	13
4	<i>Questions?</i>	13

1 Purpose and scope

This document describes the improvements and changes of ADD V3.7 compared to V3.6.

2 What's new in Version V3.7?

2.1 Highlights

2.1.1 ADD Offline with Project Support

A whole project can be exported to DDX and later opened and edited in the ADD Offline GUI. When a DDX file containing more than one container or with a project is loaded in ADD Offline the Project / Container Management is opened with the following features:

- Create one project (in case no project already exists)
- Create new container
- Open and modify existing container
- Create special container for NON ADD Objects (in case the container not already exists)
- Special treatment of the container for NON ADD Objects (e.g. only Classification Local possible)
- Search for Data Objects offers all data objects available in the DDX file
- Function 'Get Data Object from another container' also available in Offline Mode

2.1.2 Project Comparison

In the Project Management dialog two projects can be compared by using the context sensitive menu in the project tree at the left side (menu entries 'Select Left Side to Compare' and 'Compare to...') similar to the Container Comparison.

2.1.3 Support of STD and FIX Axes

STD and FIX axes can be created in addition to normal (global) axes at a map object. The Individual axes objects in the Offline Mode are no longer supported.

2.1.4 Code Variants

A new page "Code Variants" is now available at the container definition pages to allow defining simple conditions for data objects. Only system constants referenced in the container can be used for the conditions. In the project check the data objects with a not fulfilled condition are excluded.

2.1.5 SysDef Container

A special container will be created in the database (SQL script). This container is displayed as the last one in the Container Management tree. Only system constants (defines) can be added to this container. A special role (SC_Admin) is necessary to edit this container.

2.1.6 Enhancements / Changes for Defines

- Define type (FIXED, ADJUSTABLE). The type can only be changed for 1.0 draft objects.
- Floating point values possible (when not referenced as array or axis size)
- Display of the 'Internal Value' (using the attached conversion)
- Automatic adjustment for the 'Physical Value' when the Internal Value doesn't match the base type (integer).
- 'Visible' attribute removed.
- Specification of 'Limits' added.
- Display of Software Datatype removed.
- The list of available base types for defines can be defined in the Base Type Management.

- Configure a default basetype and format string for new defines in the ADDConfig.xml:

```
<Defaults>
  <DataObjectTypeDefaults>
    <DataObjectType ID="1">
      <BaseType ID="1">
      </BaseType>
      <FormatString ID ="1010" />
    </DataObjectType>
  </DataObjectTypeDefaults>
</Defaults>
```

DataObjectType with ID="1" specifies the type ID of defines. The basetype IDs are displayed in the BaseType Management Dialog and the formatstring IDs in the Format String Management.

2.2 New Features, Major Improvements

2.2.1 SuperUser Mode

The SuperUser Mode offers the following features:

- Possibility to reset the status of a data object, container or project. Especially for data objects the 'PreStatus' will not be changed. Restrictions out of this are still active.
- Change the project status to simulation fixed or fixed even when the project check reports some errors (using the button Continue).

2.2.2 Check Container (Offline Mode)

The Check Container functionality (Check menu of the Data Definition dialog) checks the data object name rules defined for all data objects in the container including all references. In case some invalid name is found a result dialog is opened offering to save the check result. All invalid names are displayed in red in the Data Definition List View or Browser and for a selected data object the Name attribute is also displayed in red at the right side. When correcting the name and saving the data object the indication of this data objects is removed.

2.2.3 Version Check

All components using the ADD online database support like the DDS ImpADD filter are performing a version check to ensure the component is using the right ADD version and is compatible to the current used database scheme.

2.2.4 ADD – ADDConfig.xml

Every time ADD is started the component uses the ADDConfig.xml file in the directory defined by the Registry entry '[HKEY_LOCAL_MACHINE\SOFTWARE\Visu-IT!\ADD\Paths] InstallDirectory'. When the Registry entry or the specified directory doesn't exist, the ADDConfig.xml from the local ADD directory (directory of the ADD binaries) is used.

2.2.5 ADD Offline – VITNameChecker

Every time ADD Offline is started the component uses the defined Registry entry '[HKEY_LOCAL_MACHINE\SOFTWARE\Visu-IT!\ADD\Paths] InstallDirectory' to copy the VITNameChecker.config file from the central ADD installation to the Offline directory. This ensures that always the current VITNameChecker configuration is applied.

2.2.6 Data Object Defaults

For data objects using special name parts the default base type, conversion and format string can be specified in the ADDConfig.xml:

```
<Defaults>
  <SimDataTypeDefaults>
    <Catalog Name="pp">
      <Entry List="st,idx,ct,swi">
        <BaseType ID="7" />
        <Conversion Type_ID="3" ID="1" />
        <FormatString ID="1010" />
      </Entry>
    </Catalog>
  </SimDataTypeDefaults>
</Defaults>
```

The basetype IDs are displayed in the BaseType Management dialog, the conversion IDs in the Conversions Management dialog and the format string IDs in the Format String Management.

2.2.7 Project References

The Project References page was enhanced to inform the user about new available container versions of the currently assigned container objects. New container revisions of the current used container are displayed in red. The information in the column 'New Versions' shows an 'x' at a certain position in the mask to indicate what sort of container update is available (e.g. x.-.x means there exists a new container variant and a new container revision).

2.3 Minor Improvements / Correction of Bugs

2.3.1 SW_User Enhancements

The following enhancements for the SW_User rights are implemented:

- Change state of a project
- Create a new Variant / Release / Revision from an existing project
- Change the state of every data object or container
- Replace a data object with a different revision in a container (Take Over)
- Replace an axis in a map with a different revision
- Replace an online in an axis with a different revision

2.3.2 FE_User Enhancements

Every FE_User can create a variant or release or revision of a fixed container, also when the user is not the owner.

2.3.3 Access Frequency / Max Refresh

The error when saving a data object with the same Access Frequency / Max Refresh settings like the container defaults in a simulation fixed container is fixed.

2.3.4 Replacement of Axis Revisions in a Map

The replacement of an axis in a simulation fixed map when the axis revision references a different online revision than before is possible now.

2.3.5 Value Constraints for Defines

- The value can be 0 if the define is not referenced as array or axis size
- The value has to be greater equal 1 when the define is referenced as array size
- The value has to be greater equal 2 when the define is referenced as axis size
- Floating point values are not allowed when the define is referenced as array or axis size

These checks are done in the Data Definition dialog and in the Project Management for the project specific 'System Constants'.

2.3.6 ReadOnly Attributes

For readonly attributes the controls in the User Interface are now displayed disabled (grey).

2.3.7 Conversion Management

- Don't enable the 'Create a new Conversion' button when currently a new conversion is already created and the Search Conversion dialog is opened and closed without selecting a conversion.
- Linear Conversion: Calculate the Offset on selecting a conversion when not available in the database (might be the case for old conversions).
- Linear Conversion: Strip off trailing zeros when storing linear types and update the conversion name.

2.3.8 Data Type Wizard

The DataType Wizard is available only for Linear conversions.

- The Data Type Wizard uses now internally an increased precision (64 instead of 32 bit floating point).
- Offset Resolution Mode: The original phys values are now displayed in full precision to be able to check the Matching Rate.
- Offset Resolution Mode: Display the calculated Resolution and Offset also with all significant digits.
- Return also for 'Use Original Values' the calculated base type and format string.
- Added a check for valid floating point values (e.g. '.' used as decimal separator instead of ',').

2.3.9 Compare Container Versions

- The data objects are now sorted inside the Input, Output and Local section. The same order is used in the details view of the single data objects list below (STD and FIX axes are displayed after the map objects).
- When comparing two axis data objects a different axis size will be displayed as 'Value' difference. The difference is not reported for the map object but for the axis objects instead.
- The following attributes are now also compared: type of a define (FIXED or ADJUSTABLE), 'Limits', 'Packed Bit', 'Access Frequency' and 'Max Refresh'.

2.3.10 Project / Container Management

- The position and size of the Project / Container Management is saved and restored.
- The wrong display of the container hierarchy in the container tree is fixed (e.g. V1.1.0 is based on V100.1.0).
- New Project Information dialog similar to the Container Information (Ctrl-I for the selected project).
- A container variant can now also be created based on a draft container.
- When creating a new container or project the test if the container or project already exists is now case insensitive. Otherwise identical Container IDs would be generated.
- When using the Container Compare function the container are now always reloaded completely from the database to display also the last changes.
- DDX Export: A default filename (Container ID) is displayed in the Save dialog. This default is also used in the Data Definition dialog.
- DDX Export: When opening a container from an active project the DDX export in the Data Definition dialog exports also the project specific system constants and the defined Code Variants of this project, but only one version per data object. When loading such a DDX file later in ADDOffline the Code Variants are not loaded.
- The project state can be set to 'simulation fixed' or 'fixed' when at least the checks 1 (Data Object Version Check) and 4 (Multiple Output Check) are successful. Currently as an **exception** the owner of the project and a Super User can change the state even when these checks have failed.
- The project check 2 (Input without Output), 3 (Output not used as Input) and 4 (Multiple Output Check) don't test any more for the exact version, but for all versions of one data object (e.g. version 1.0 and 1.1 will be treated as equal).
- The container state can be set to 'simulation fixed' and 'fixed' only when no 'obsolete' data object is used.
- The container state can be set to 'simulation fixed' only when all 'Output' and 'Local' data objects have a dedicated Access Frequency value of its own.
- The container state can be set to 'fixed' only when the Container Check (only consistent data object versions used) is successful.
- The 'Del'-key is only active at the container and project page when the container or project tree view is active. A confirmation message is shown always when trying to delete a container or project.

2.3.11 Support of Limits for Inverse Conversions

Limits are now handled correctly also for inverse rational conversions. The lower limit in this case is greater than the upper limit. A sorting of the limits is not done. A check for valid floating point values (e.g. '.' used as decimal separator instead of ',') is added.

2.3.12 String Conversions

Lower and Upper limits are no longer displayed for data objects with string conversions at all. Before they were displayed nevertheless for onlines with string conversion and a SW data type.

2.3.13 Action Parameter

- Keep Action Parameter position when loading from the database on startup.
- Check also the Action Parameter array size references (defines) when performing the Container check.
- Exclude Action Parameter from Sync

2.3.14 Create Offline Configuration

The function 'Create Offline Config.' in the ADD main dialog offers now two possibilities, one is to create a full Offline configuration used for ADD Offline, the other to create a reduced configuration for the Matlab Services.

2.3.15 ADDOffline

Important:

Because of the new enhancements like STD and FIX axis objects and the changes for defines existing Predefs.xml files must be updated using the function 'Create Offline Config' in ADD after the database migration.

- SuperUser: Activation is always possible, also when creating referenced data objects like axis objects.
- SuperUser: Also in the SuperUser mode in the ADD Offline editor input data objects are readonly. A hint is displayed at the bottom of the dialog.
- The Base type mapping between Predefs.xml and the container DDX file is improved now.
- Units are now mapped either per ID (when available and valid) or per name.
- Format Strings are now mapped either per ID (when available and valid) or per name.

2.3.16 ADDOffline – Sync

- The base type mapping is improved. Sometimes a valid base type was not found.
- Migrate Sync: The Sync for nearly equal string conversions is corrected.
- Migrate Sync: Data objects with undefined classification are skipped.
- When starting the Sync procedure the Init Values page at the right side is switched off. Init Values are only available in the Offline mode.
- Referenced base types, format strings and units are checked and mapped to database objects now also for the normal Sync and not only using the Migrate Sync. Before missing IDs for format strings would lead to a database corruption.

2.3.17 Incomplete Data Objects

When a new data object is created but not saved and the Data Definition dialog is about to be closed the data object must be successfully saved or deleted before the dialog is really closed.

2.3.18 Delete References

When a data objects is removed from a container the referenced data objects like axis, define or online data objects are offered to be removed also when not used elsewhere. In some cases after such an action when selecting other data objects, wrong attributes and names were displayed which required closing and reopening the container. This is fixed now.

2.3.19 Online – Axis References

For Online objects referenced by an axis the array controls are disabled now. A defined array size is not allowed in this case.

2.3.20 Format String Management

A preview of the formatting results for the selected format string is included.

2.3.21 Search Data Objects

- When opened in a project context the scope of the search can be selected (either global or project context).
- The search dialog for array or axis size references offers only defines with an integer value. Defines with an floating point value are filtered out.

2.3.22 Search Conversion

- Added a check for valid floating point values (e.g. '.' used as decimal separator instead of ',').
- The search by an 'Active Tolerance' and a percentage value (e.g. 10%) is improved.

2.3.23 Show Data Object Differences

The compare function for referenced data objects displays now the details also when only one reference is valid. Before the details were only available when both compared data objects had a valid reference to another object.

2.3.24 Data Object References

A new checkbox 'Show all Versions / Revisions' is added to the References dialog to display only the references of the current selected data object version or for all available versions.

2.3.25 User Information

The displayed role list is now alphabetically sorted.

2.3.26 User / Roles Management

- Rename an existing user possible.
- Improved creating users and editing existing users.
- The All Users list view contains a new column 'Customer' to be able to distinguish between users from different customers using one database.

2.3.27 VITNameChecker

XML comments are now allowed in the VITNameCheckerConfig.xml file.

2.3.28 Add / Remove Data Objects

It is no longer possible to add / delete data objects to / from a 'simulation fixed' or 'fixed' container or a container revision.

2.3.29 Remove from Container

A data object which is defined as Output in one container and is used as Local in another container can be removed nevertheless from the container. In case the data object is only defined once as Output but used as Input also removing from the Output container is not possible.

2.3.30 Delete new Container

When an error occurred while creating a new container revision and the revision was deleted by the user, the original container which was the base of the revision was deleted instead. Now the container revision will not be added to the tree in case of a not successful creation.

2.3.31 SIM / SW Data Type Changes

When editing a data object and different data type parts like base type, unit, conversion or format string are selected, sometimes when selecting a different data object using the same data type as before also this data object has the changed data type. When the container is closed and opened again, the data types are displayed correctly. This is fixed now.

2.3.32 Initialize Limits

When an existing data object was added to a container using the Search functions no limits were set. Now in this case the default limits are applied, or in case an existing data object is replaced with a different revision, the current limits are used and adjusted if necessary (e.g. different base type).

2.3.33 Simulation Fixed Icon

A different icon for the simulation fixed state is used to get a greater difference to the fixed state.

2.3.34 Check Project

The Check Project results dialog is improved to get a better overview of the results.

2.3.35 Sort Order in Data Object List View

The list view in the Data Object Definition dialog is sorted per default by type and name. When clicking on different columns the type is always taken into account first and then the selected column.

2.3.36 Check of Axis Count

Data objects of type map can only have one axis when the name type field specifies 'T' for sub type table or curve.

2.3.37 Create New Map Release

Precondition: SW-Admin

When creating a new map release (local menu entry 'Create New Table / Map Release') all referenced axis objects are removed from the map, thus allowing to change the map type from embedded to global and back by selecting / creating global axis objects or embedded axis objects.

The usage of this function allows also to change the axis of a 'simulation fixed' or 'fixed' curve or map.

2.3.38 Create New Release (SW DT)

Precondition: SW-Admin

When a new release is created the Software Data Type can be changed as long as the data object is in draft state and no revision (revision number is 0).

2.3.39 Check of Unit

The unit attribute is checked as a mandatory attribute for new data objects or when saving existing data objects.

2.3.40 Packed Bit Check

It is no longer possible to select 'not visible' for a data object with base type 'Boolean' and 'Packed Bit' attribute. A message will be shown when trying to save such a data object.

2.3.41 User Name Display

In the Container / Project Information dialog or the Container / Project differences the user name is displayed with the login name and the full name.

2.3.42 Optimized for small Display Resolutions

The Data Object Definition dialog is slightly improved for the minimum screen resolution of 1024x768 pixels.

2.3.43 Container Statistics

The new menu entry 'Show Container Statistics' in the Tools menu of the Dataobject Definition dialog opens a dialog with some special metrics for the contained data objects.

3 No longer supported features

3.1.1 Individual Axes

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

3.1.2 ASCII, BinPoint and Float Conversions

These three conversion types are no longer supported and available.

4 Questions?

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

ADD Hotline

Tel.: +49 (0)941 – 49082-16
email: add-hotline@visu-it.de

ADD Contact

Tel.: +49 (0)9947 – 9040004
email: add@visu-it.de

ADD Product page

Internet: <http://www.visu-it.de/add>