

Data Declaration System

What's new in Version 5.3.0?

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1 Purpose and scope

This document describes the improvements and changes of DDS V5.3.0 compared to V5.2.0.

2 What's new in Version V5.3.0?

2.1 Highlights

2.1.1 New Prototype filter: "Export MDX V1.0"

There is a new DDS prototype filter which allows to export DDS data declarations into the ASAM standard format "Meta Data Exchange Format for Software Module Sharing V1.0 (MDX V1.0)".

Note: This component is not included in the standard DDS installation but is available as Add'on.

2.1.2 Smooth interface to simulation and autocoding tools

The interface to the tools Ascet and TargetLink is once again improved and extended in this version. Besides several improvements (see below) the new tool "ADDsInterface" will ease the usage by providing a convenient user interface.

Note: These components are not included in the standard DDS installation but are available as Add'ons.

2.2 New Features

2.2.1 Support of new compiler: Renesas

Improvement:

This new DDS version supports the Renesas Compiler "Hitachi SHC V9.01"

2.2.2 Deterministic order in GRL files

Topic #140:

Now, DDS provides a deterministic order of the entities inside Grl files by sorting them alphabetically by type and by name

2.2.3 COM API: Access to standard filters

Topic #88:

Now, the DDS DServer component allows to directly access and run standard DDS files like ASAP2 export, etc. via some new (COM API-)methods.

2.3 Major Improvements

2.3.1 CmpMrg: REF-Function & Proxy-Merge

Topic #D32:

When merging Grl files with proxy definitions, it is not possible to collect/merge the Ref-function references of the 'normal' definitions which are using proxy-definitions. This restriction no longer applies in the current version.

2.4 Minor Improvements / Correction of Bugs

2.4.1 Export ASAP2: "Export invisible data"

Topic #10:

Up to now, definitions which are marked as 'invisible' are not exported to ASAP2. The new DDS version provides the filter option "ExportInvisibleData" which allows to also export these "invisible" data to ASAP2.

2.4.2 Export ASAP2: Support of multiple calibration handles

Topic #138:

Now, DDS supports multiple CALIBRATION_HANDLES entries inside a CALIBRATION_METHOD definition.

2.4.3 ddContainer -> calFunction link

Improvement:

In this version, DDS tracks the "ddContainer – calFunction" link when a calFunction is generated based on a ddContainer during ImpADD.

The link will be also written into the DDX file

2.4.4 Export Data Record: "Reduced axis size"

Improvement:

Support of "reducedAxisSize" at: Data model, SEML, ExpDR, ImpCVX and ImpELF.

New ImpCVX filter option "SupportAxesWithReducedSize".

New ExpDR filter option "SupportReducedAxisSize".

2.4.5 Partitioning of @Global.grl file

Topic #119:

For better management, the 'raster-' and 'onlineUpdate-' entities are moved from the unit @Global to the new unit @Raster.

2.4.6 Export Source: Skip header file "t_tables.h"

Topic #103:

Up to now, the default header file "t_tables.h" was included for special representation models. This behaviour is changed now: no implicit inclusion of "t_tables.h"

2.4.7 Import ASAP2: Miscellaneous improvements

Improvements:

- Correction of bug: Record_Layout definitions with mixed "float-" and "long-" datatypes are now detected and processed correctly
- Topic #161(2): Improvement in order to support also enum declarations which are not defined in ascending order.
- Topic #161(3): Support of "symbolic array specifier" for structure (array-)elements
- Toleration of "Extended Limit"
- Set "External Conversion" also in "KeepExisting" Mode
- Change in mappingScheme creation -> do no longer write "-1" as axisSize

2.4.8 Export ASAP2: Miscellaneous improvements

Improvements:

- Partial export of 'symbolic array specifier' via the two filter options:
 - SASList
Export 'name with symbolic array specifier' for all referenced instrumentation data (is possible). E.g. export "myData[RED]" instead of "myData[4]"?
 - SAS4All
Export 'name with symbolic array specifier' for all data in the database (is possible). E.g. export "myData[RED]" instead of "myData[4]"?
- Topic #161(3): Support of "symbolic array specifier" for structure (array-)elements
- Topic #199: Allow format strings without length-value, like "%.4"
- Toleration of logical bits with (wrong) data type 'bit'
- Correction: Problem with the mode "KeepExternalName"
- Support of enums at axes and maps (correction of byteSize)

2.4.9 DDX Concept: Change of "LONG-NAME" and "DESCR"

The mapping into the DDX elements <LONG-NAME> and <DESCR> is slightly changed in the new DDS (and ADD) version.

New mapping table

ADD	DDS	DDX
<name of definition>	<name of definition>	1. <SHORT-NAME> (mandatory) with restrictions!!! 2. <LONG-NAME TI="oN"> (mandatory)
"ShortDesc" ("LongName" in non-SV edition)	"description"	<LONG-NAME TI="en"> (optional) In seldom cases: <LONG-NAME TI="de"> (optional) <LONG-NAME TI="fr"> (optional)
"LongDesc" ("Description" in non-SV edition)		<DESC TI="en"> (optional) In seldom cases: <DESC TI="de"> (optional) <DESC TI="fr"> (optional)
	"displayName"	<LONG-NAME TI="dN"> (optional)
	<u>Specialty</u> : When option "SupportSymbolicArraySpecifier" is active	<LONG-NAME TI="sN"> (optional)

2.4.10 Export DDX: Miscellaneous improvements

Improvements:

- Support of LONG-NAME at structure array member
- Support and partial export of 'symbolic array specifier' via the two filter options:
 - SASList
Export 'name with symbolic array specifier' for all referenced instrumentation data (is possible). E.g. export "myData[RED]" instead of "myData[4]"?
 - SAS4All
Export 'name with symbolic array specifier' for all data in the database (is possible). E.g. export "myData[RED]" instead of "myData[4]"?

- Support of non-instrumentation definitions
- Topic #161(3): Support of "symbolic array specifier" for structure (array-)elements
- Correction: Support of special characters at physical unit
- Default value for intel/motorola byteOrder
- Support of "Boolean" (NONE)

2.4.11 Import DDX: Miscellaneous improvements

Improvements:

- Support of LONG-NAME at structure array member
- Support of non-instrumentation definitions
- Bugfix: ROM/RAM mismatch at onlines

2.4.12 CVX Import: Miscellaneous improvements

Improvements:

- Topic #198: Correction of message L2516

2.4.13 SysConf: Miscellaneous improvements

Improvements:

- Correction of bug: SysConf does no longer write superfluous/faulty attributes when saving mappingSchemes.

2.4.14 InstrPro: Miscellaneous improvements

Improvements:

- Correction of bug: Missing array-check

2.4.15 Semantic layer: Miscellaneous improvements

Improvements:

- Correction of bug: Takeover of 'isReal' flag in "BuildConversion(...)"

2.4.16 Export Source: Miscellaneous improvements

Improvements:

- Support of "enum" at maps and exes (also the embedded ones)

2.4.17 Import ADD: Miscellaneous improvements

Improvements:

- New value/mode "Yes_IgnoreA2LConstraints" at filter option "GenerateFunctionBasedOnDDContainer"
- Use SIM data if no SW data are present

2.4.18 Export to Ascet: Miscellaneous improvements

Improvements:

- New Type of an entity will be mapped via specific rules for a module
 - Parameter mapped to Parameter

- Variables local mapped to Variable
- Variable exported mapped to SendReceiveMessage
- Variable imported mapped to ReceiveMessage
- New for each entity with the scope imported in a module, an exported entity will be created in the referenced project.
- New the information of an exported ADD container that corresponds with a module can displayed in the comment window of these module.
- New Invisible entities will be created as local entities in a process, defined by the user.
- New Replacement of exiting variable in the hierarchies of Ascet, if the state of these variables is set to invisible. Each of these variable was written as local variables in the process of the diagram.
- New Mapping modeltype of an entity via ADD informations.
- Supports Bit handling.
- Supports import of Ascet databases via a separate Tool (ADDStInterface).

2.4.19 Export to TargetLink: Miscellaneous improvement

Improvements:

- Supports included data dictionaries
- New Mapping variables via Conf-Unit via Struct-Instance and via regular expressions as VariableGroups.
- Supports variant coding in TL 2.2 and earlier version.
- New Advanced- or Basic - data dictionaries can be used as a template for the export.
- New Name building rule for Scalings via Scaling name and Unit name.
- New Units will be written into scaling objects.
- New Mapping units of a DDS database with existing units in the used data dictionary.
- New Def-files and Decl-file can be written into the module property of a Variable object.
- New Export bitfields as variable group with a component for each bitfield member. Class property for the bitfield member can be defined separately.
- Correction of bug: Phys values will be used as values of a Variable element.
- Correction of bug: Calculating of coefficients of a conversion into a scaling was fixed.

3 No longer supported filters/components

4 Questions?

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

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