Release Note CODESYS V3.5 SP14

14.12.2018

1 Release Notes

Key	Summary	Release Note	Component/s
CDS-60637	**LibMan:** Comments of hidden signatures are stored in __browser_cache	**[[GENERAL]]** For more details see Advisory 2018-12, which is available on the CODESYS website: https://customers.codesys.com/fileadmin/data/customers/security/2018/Advisory2018-12_CDS-60637.pdf See also Release Note of CDS-60639.	CODESYS
CDS-60639	**Compiled Libraries:** Objects with exclude from build produce strings in compiled libraries	**[[GENERAL]]** For more details see Advisory 2018-12, which is available on the CODESYS website: https://customers.codesys.com/fileadmin/data/customers/security/2018/Advisory2018-12_CDS-60637.pdf **[[COMPATIBILITY_INFORMATION-OEM]]** Objects which implement ILanguageModelProvider2 and return true for the property NeedsContextForLanguageModelProvision were so far always included in compiled libraries, independent of the value for the build property "Exclude from build". This behaviour changes from V3.5.14.0 onwards. The object will not be saved in the compiled library anymore. So if any of the information contained in the object is still required to be stored in the compiled library the "Exclude from build" option must not be used anymore for this kind of objects.	CODESYS

CDS-61649	**Compiled Libs:** Path of PrivateKeyFile should not be stored	**[[GENERAL]]** For more details see Advisory 2018-12, which is available on the CODESYS website: https://customers.codesys.com/fileadmin/data/customers/security/2018/Advisory2018-12_CDS-60637.pdf	CODESYS
CDS-62023	**Scripting:** Support setting of the initial password for the online user management	**[[GENERAL]]** A script device user (IScriptDeviceUser2) offers a new method set_user_flags(DeviceUserManagementFlags) to set user flags.	CODESYS
CDS-62220	**Compiler:** FB_init is not called for function block instances declared inside a method as VAR_INPUT	**[[COMPATIBILITY_INFORMATION-EndUser]]** In Compilerversion >= 3.5.14.0 the FB_Exit method is not called anymore for function block instances on the stack declared in VAR_INPUT sections. This is the consequence of FB_Init not having been called either.	CODESYS
CDS-62701	**Update SoftMotion** to 4.4.0.2	**[[GENERAL]]** CODESYS SoftMotion is updated to version 4.4.0.2	CODESYS
CDS-8972	**Visu:** Make radius for roundedrectangle variable	**[[COMPATIBILITY_INFORMATION-EndUser]]** To improve the look of round rectangles to what users expect from this element the optical behaviour of such newly inserted elements is changed when visualization styles >= 3.5.14.0 (by 3S-Smart Software Solutions GmbH) are used. Using these style versions newly inserted elements "Round rectangle" will now use a radius for the corners that is independent of the size of the element. With the visualization style entry "Element-RoundRect-Radius" (integral value) the radius of the round rectangles can be set. With the value -1 the previous behaviour "radius ralative to the element size" can be established.	CODESYS

		[[GENERAL]] The radius of round rectangles is configurable starting with Visu-Profile 3.5.14.0 when no targetvisu is used or a device version of at least 3.5.14.0 is used.	
CDS-14719	**OPC UA:** Support of complete access to complex types	**[[GENERAL]]** With this feature access to complex datatypes are possible now wuth the OPC UA server. This means access to arrays, structures and combinations is possible now for browsing, reading and writing. Access to the following datatypes are not supporte: - Since Pointers and Interfaces don't have an equivalence in OPC UA structures, containing pointers and interfaces cannot be encoded using OPC UA - POUs like function blocks, programs etc. cannot be added to OPC UA data types. These objects of the IEC are translated to OPC UA objects by the OPC UA Information Model for IEC 61131-3. Since data types cannot contain objects, it is not possible to add this objects to data structures. The same applies for references to POUs - Invalid references cannot be read or written	CODESYS Control
CDS-58896	**Trace:** Faulty configuration leads to disconnection	[[GENERAL]] For more details see Advisory 2018-07, which is available on the CODESYS website: https://customers.codesys.com/fileadmin/data/customers/security/2018/Advisory2018-07_CDS-58896.pdf	CODESYS Control

CDS-60870	**RETAIN-Data:** Inconsistent behaviour of RETAIN an RETAIN PERSISTENT variables	**[[COMPATIBILITY_INFORMATION-OEM]]** Be aware, that with the following setting in cfg-file the RETAIN-Data are initialized now after loading from bootproject: [CmpApp] RetainType.Applications=None So the RETAIN-data has the same values as after a download of the application!	CODESYS Control
CDS-61037	**Security features** are not activated by default	**[[GENERAL]]** For more details see Advisory 2018-10, which is available on the CODESYS website: https://customers.codesys.com/fileadmin/data/customers/security/2018/Advisory2018-10_CDS-61037.pdf Information on how to use encrypted communication and online user management can be found in the CODESYS help.	CODESYS Control
CDS-61845	**BACnet:** BACnet for VxWorks	**[[GENERAL]]** VxWorks 6.9 is added to the platforms CODESYS BACnet can be used with.	CODESYS Control
CDS-61893	**SysSocket2 (TLS):** SysSock2Accept may be blocked by client even if server socket is non blocking	**[[GENERAL]]** For more details see Advisory 2018-08, which is available on the CODESYS website: https://customers.codesys.com/fileadmin/data/customers/security/2018/Advisory2018-08_CDS-61893.pdf	CODESYS Control
CDS-61927	**SecurityManager:** Runtime preperations for security by default	**[[COMPATIBILITY_INFORMATION-OEM]]** Interface of the CmpSecurityManager has changed! We need the name of a security setting additionally to an ID and so the following interfaces in CmpSecurityManagerItf.h has changed: RTS_HANDLE CDECL SecManRegisterSettings(CMPID cmpId, RTS_UI32 ui32UsageID,	CODESYS Control

		SecuritySetting *pSettings, RTS_UI32 ui32Settings, RTS_RESULT *pResult) ==>RTS_HANDLE CDECL SecManRegisterSelectableSetting(CMPID cmpId, const char *pszKey, const char *pszDescription, const char *pszDefaultSecName, const SecuritySelectableSetting *pList, RTS_UI32 ui32Settings, RTS_RESULT *pResult) RTS_HANDLE CDECLSecManRegisterEditableSetting(CMPID cmpId, RTS_UI32 ui32UsageID, SecurityEditableSetting *pSetting, RTS_RESULT *pResult) ==>RTS_HANDLE CDECL SecManRegisterEditableSetting(CMPID cmpId, const char *pszKey, const char *pszDescription, SecurityEditableSetting setting, RTS_RESULT *pResult) RTS_RESULT CDECL SecManUnregisterSettings(RTS_HANDLE hSecuritySettings) ==>RTS_RESULT CDECL SecManUnregisterSetting(RTS_HANDLE hSecuritySettings) Functions to read the appropriate setting: const SecuritySelectableSetting * CDECL SecManGetSelectableSetting(RTS_HANDLE hSecuritySetting, RTS_RESULT *pResult) SecurityEditableSetting * CDECL SecManGetEditableSetting(RTS_HANDLE hSecuritySetting, RTS_RESULT *pResult)	

CDS-62714	**WinCE / Build:** F10 Merge the Jinja templates for HMI VC project files and run-time VC project files	**[[COMPATIBILITY_INFORMATION-OEM]]** The executable of the HMI runtime system is now called "CODESYSControl.exe" just like the PLC runtime system. Background: We are now building all runtime systems for the Windows CE platform with the same VC project. The result differs only in the features selected in the configuration of the device.	CODESYS Control
CDS-62811	Use of weak numbers for communication identifiers	**[[GENERAL]]** For more details see Advisory 2018-13, which is available on the CODESYS website: https://customers.codesys.com/fileadmin/data/customers/security/2018/Advisory2018-13_CDS-62811.pdf	CODESYS Control
CDS-62812	Insufficient verification of sender address during routing	**[[GENERAL]]** For more details see Advisory 2018-14, which is available on the CODESYS website: https://customers.codesys.com/fileadmin/data/customers/security/2018/Advisory2018-14_CDS-62812.pdf	CODESYS Control
CDS-62188	**OPC UA:** Port 4840 down on CmpBlkDrvTcp stress test	**[[GENERAL]]** For more details see Advisory 2018-11, which is available on the CODESYS website: https://customers.codesys.com/fileadmin/data/customers/security/2018/Advisory2018-11_CDS-62188.pdf	CODESYS Control, Gateway Server, OPC Server, PLC Handler
CDS-42362	**EL6751:** Support 29bit CAN frames	**[[COMPATIBILITY_INFORMATION]]** - The new EL6751 CAN Mini Driver device does only work with runtime component >= 3.5.14.0. For older runtime versions use old device description. - Network ID is not editable anymore. It will be automatically selected. - Due to a bug in EtherCAT update mechanism (RC-8401) update device	CoDeSys Control, Libraries

		on EL6751 device does not work correctly. Workaround: add new EL6751 and copy/paste children.	
CDS-59951	**PLCHandler:** Support standard V3 monitoring services	**[[GENERAL]]** With this new feature the PLCHandler is able to access data of the following IEC 61131-3 standard data types using CmpMonitoring2 services: - All integer data types (SINT, USINT, ..., LINT, ULINT, BYTE, WORD, DWORD, LWORD) - All floating point data types (REAL, LREAL) - All string data types (STRING, WSTRING) - All time data types (TIME, TIME_OF_DAY, DATE, DATE_AND_TIME, LTIME) - Boolean datatype (BOOL) - Arrays of the standard datatypes above Arrays are limited to 3 dimensions. Arrays may accessed as complete object or element by element. With complex data types such as structures, unions, function blocks only the members of the standard datatypes above are accessbile, no complete access is available The following data types should NOT be supported: - Pointers - References (including VAR_IN_OUT variables of function blocks) - Properties - Bits - Subrange types (They are not supported by the PLCHandler at all, see CDS-54108) **[[COMPATIBILITY_INFORMATION-OEM]]** BigEndian targets are not supported yet by this feature!	CODESYS, CODESYS Control

CDS-62131	**Visu, Alarms, HMI:** Viewing historic alarms cause a runtime freeze	**[[GENERAL]]** The fix will only be effective if the compiler version used in the CODESYS projects is updated to a version >= 3.5.14.0 (library is linked to compiler version). For more details see Advisory 2018-09, which is available on the CODESYS website: https://customers.codesys.com/fileadmin/data/customers/security/2018/Advisory2018-09_CDS-62131.pdf	Libraries

2 Known Limitations

RX6 platforms

No runtime and compiler tests have been carried out for RX6 platforms. Please contact your account manager for more information.

TI DSP platforms

Runtime doesn't work on TI DSP platforms and no tests have been carried out for the current version. Please contact your account manager for more information.

KNX on Linux x64

KNX doesn't work yet on 64bit Linux Platforms

3 OEM information from JIRA

To read up on implemented features and changes you can use your JIRA account. Please find some **example** filters below.

List of features and changes:

fixVersion = "V3.5 SP14"

fixVersion = "V3.5 SP14" AND issuetype = "New Feature"

List of features and changes since CODESYS V3.5 SP13:

fixVersion IN ("V3.5 SP13 Patch 4", "V3.5 SP13 Patch 3", "V3.5 SP13 Patch 2", "V3.5 SP13 Patch 1", "V3.5 SP13")

List of issues with compatibility information and known limitations:

fixVersion = "V3.5 SP14" AND (text ~ COMPATIBILITY_INFORMATION OR text ~ KNOWN_LIMITATIONS)

4 History

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