CmEmbedded 2.30

Release Date

2018-Nov-13

Operating Systems

Linux ≥ 2.4.10 (ARM ≥ v6, PPC, x86, x86_64), Windows ≥ 7 (x86, x86_64), VxWorks 6.9 (ARM, PPC, x86), VxWorks 7.0 (ARM, PPC, x86, x86_64), QNX Neutrino 6.5 (ARM, x86), Android 5 to 8, macOS 10.12 and 10.13

Known Isssues

- Android: due to the architecture concurrent access and encrypted communication with the CmDongle are not supported.

Features

FB58413: Modified handling of the dongle communication to improve performance.

FB58255: The new CoreAPI function "CmCalculateHashMac" introduces the SipHash24 and CMAC functionality starting with Dongle Firmware v4.10.

FB26739, 58629: "CmSecureDiscWrite", "CmSecureDiscRead" and "CmExtendedDiscControl" (für Flag CM_SECURE_DISC_STATUS) are now available for RuntimeBridge.

FB58662: The RuntimeBridge support for CmProgram has been extended by the flags CM_GF_TEMPENABLEITEM, CM_GF_ENABLEITEM, and CM_GF_DISABLEITEM. CmProgram using RuntimeBridge now always return TRUE or FALSE and sets the correct ErrorCode instead of returning the ErrorCode.

FB59271: CmEmbedded version numbering has been adapted to CodeMeter versioning, The CmEmbedded minor version has been adapted.

FB57601: CMake: A problem was solved on building the CmEmbedded DLL with a generated Visual Studio 2015 Solution.

Bugfixes

FB46102: CmGetInfo(CM_GEI_ENTRYINFO2) now sets the effective PIOs in the returned BOXENTRY2 structure.

FB58092: CmDongle: A rare memory leak has been closed (follow up error of FB58093).

FB58093: CmDongle: Almost completely filled dongles could not be entirely read using file IO.

FB58510: HID: A memory leak for Linux was closed when the dongle communication was encrypted but in CmEmbedded this was deactivated.

FB58420: CmDongle: A plugged out CmDongle was still listed using CmGetBoxes, if another CmDongle was connected to the same port.

FB58069: Effective PIOs in CMBOXENTRY2 and for CmGetBoxContents2 using RuntimeBridge are now set properly. For Firm Items no longer a separate CMBOXENTRY2 structure is returned. The behavior has been adapted to the CmRuntime.

FB57488: HID: The buffer overflow on reading entirely filled dongles have been remedied.

CmEmbedded 2.20

Release Date

2018-Jun-25

Operating Systems

Linux ≥ 2.4.10 (ARM ≥ v6, PPC, x86, x86_64), Windows ≥ 7 (x86, x86_64), VxWorks 6.9 (ARM, PPC, x86), VxWorks 7.0 (ARM, PPC, x86, x86_64), QNX Neutrino 6.5 (ARM, x86), Android 5 to 8, macOS 10.12 and 10.13

Known Isssues

- Android: due to the architecture concurrent access and encrypted communication with the CmDongle are not supported

Features

- Support of macOS Version 10.12 and higher
- Support of Android Version 5 and higher

Bugfixes

FB56547: Field update: The field update issues with Big Endian architectures has been solved. Affected the previous versions 2.1a and 2.1b.

FB56134: The Runtime bridge delay under Windows was fixed.

FB55188: VxWorks: CmEmbedded usleep used the nanosleep system function instead of busy waiting implementation.

FB55317: CmEmbedded object files are now created position-independent.

FB56758: Core API: "CmGetRemoteContextBuffer" and "CmLtCreateContext" now terminate the WibuCmRaC buffer of a CmActLicense Universal Firm Code (UFC) context correctly.

CmEmbedded 2.10a

Release Date

2018-Feb-14

Operating Systems

Linux ≥ 2.4.10 (ARM ≥ v6, PPC, x86, x86_64), Windows ≥ 7 (x86, x86_64), VxWorks 6.9 (ARM, PPC, x86), VxWorks 7.0 (ARM, PPC, x86, x86_64), QNX Neutrino 6.5 (ARM, x86)

Information

License models featuring the Product Item Option (PIO) Maintenance Period cannot be implemented using CmEmbedded Version smaller and equal to 2.0 combined with CmCrypt2.
This is valid only for CmDongle Firm Code licenses but not CmActLicense Firm Code licenses (FB53844).

Features

FB52563: Supporting the new Version 2 of the SPI (Serial Peripheral Interface) protocol. This features fewer bus latencies and bigger data blocks at the field update.

Bugfixes

Fixing of an incompatibility of CmActLicense containers build with a CodeMeterEmbedded version ≤ 1.7.5. The license could not be activated if used as dedicated with a real binding value instead of a dummy value.

FB54316: Offline Field Update: Combined field updates could not be loaded (CmExecuteFieldUpdate). The size limit in CmEmbedded has been removed..

FB53789: CmAct: Loss of dynamic data if if more than one product item with the same product code is updated.

FB54185: libCmActAdapter.so/CmActAdapter.dll togeter with CmEmbedded can now import CmAct UFC licenses.

FB54199: CmActUFC licenses can be activated with LicenseCentral

CmEmbedded 2.10

Release Date

2017-Dec-20

Operating Systems

Linux ≥ 2.4.10 (ARM ≥ v6, PPC, x86, x86_64), Windows ≥ 7 (x86, x86_64), VxWorks 6.9 (ARM, PPC, x86), VxWorks 7.0 (ARM, PPC, x86, x86_64), QNX Neutrino 6.5 (ARM, x86)

Features

FB49967: Core API: The functions "CmCalculateSignature" and "CmGetPublicKey" now using 'CM_AUTH_PISK' also support the use of the Product Item Secret Key (PISK) coupled with CmDongle Universal Firm Codes.

52506: CmDongle: By default, the communication is activated in all libraries.

FB52633: CmDongle: The new CmStick/BMC is supported.

FB42577: CmDongle: Programming of Universal Firm Code licenses using the Firm Security Box (FSB) operations is supported.

FB51492: CmActLicense UFC (Universal Firm Code): LBIND license container support as with CmActLicense Firm Code licenses (without Device ID).

FB49278: CmActLicense UFC (Universal Firm Code): The "CmCrypt2" implementation supporting time options (Activation, Expiration Time, Usage and Maintenance Period), Firm Access Counter (FAC) and Unit Counter decrement are supported.
The following algorithms are supported: CM_CRYPT_AES, CM_CRYPT_AES_DIRECT and CM_CRYPT_ECIES_STD (nur CM_CRYPT_DIRECT_DEC). As key sources serve CM_CRYPT_PISK, CM_CRYPT_HIDDENDATA and CM_CRYPT_SECRETDATA. The listed features relate only to CM_CRYPT_DIRECT_ENC und CM_CRYPT_DIRECT_DEC.

FB42578: CmActLicense UFC (Universal Firm Code): CmActLicense UFC (Universal Firm Code) licenses are supported. License updates require a Firm Security Box (FSB). The Core API feature scope corresponds to the CmActLicense Firm Code license implementation.

FB49280: Kern-API: "CmCalculateSignature" is supported for CmActLicense UFC (Universal Firm Code) licenses and the following modes: CM_AUTH_DIRECT, CM_AUTH_EXTENDED, CM_AUTH_EXTENDED2 using the following key sources: CM_AUTH_PISK, CM_AUTH_HIDDENDATA, CM_AUTH_SECRETDATA.
Further features are the handling of Unit Counter and Feature Map.
Important, please note: time options, such as, Activation, Expiration Times or Usage Period are yet not checked!

FB34938: Core API: In the file 'CodeMeter.h' the 'read only' parameter is now 'const'.

Bugfixes

FB52207: CmActLicense: Crash with segmentation fault at creating a CmActLicense context file remedied. The error occurred, if a license container did not hold a Product Item, e.g. because it had been previously deleted.

FB52546: CmDongle: An "CmCrypt2" error with Release Code > 0 and/or flagged CM_CRYPT_MPREQUIRED has been been remedied.

CmEmbedded 2.0b

Info

Following the version naming of CodeMeter releases, now CmEmbedded will also follow the pattern `[Major].[Minor][Alphabetical Index]` (Example: 2.0b).

Release Date

2017-July-03

Operating Systems

Linux ≥ 2.4.10 (ARM ≥ v6, PPC, x86, x86_64), Windows ≥ 7 (x86, x86_64), VxWorks 6.9 (ARM, PPC, x86), VxWorks 7.0 (ARM, PPC, x86, x86_64), QNX Neutrino 6.5 (ARM, x86)

Features

FB49967: Core API: The functions "CmCalculateSignature" and "CmGetPublicKey" now with 'CM_AUTH_PISK' also supports the use of the Product Item Secret Key (PISK) in connection with CmDongle Universal Firm Codes.

FB49736: AxProtector: Universal Firm Code support for CmEmbedded has been introduced.

FB49480: CmEmbedded now supports Windows 64 bit operating systems.

Bugfixes

FB49650: Core API: For the function "CmCrypt2" with flag 'CM_CRYPT_RSA' a problem with CmDongle Firmware 2.04 in HID mode was remedied.

FB48993: Core API: In the function "CmCrypt2" for CmActLicense now 'CM_CRYPT_ECIES_STD' returns the correct number of bytes.

FB48985: CmActLicense: Invalid, broken licenses displayed as 'S/N 0-0', since the license metadata was not read prior to the binding check.

FB49914: CmActLicense: A "CmCrypt2" call using 'CM_CRYPT_UCIGNORE' and Unit Counter delta now no longer results in the consumption of those units.

FB49775: Linux: On disconnecting and then reconnecting a Dongle a crash occurred.

CmEmbedded 2.0 Update 1

Release Date

2017-Apr-24

Operating Systems

Linux ≥ 2.4.10 (ARM ≥ v6, PPC, x86, x86_64), Windows ≥ 7 (x86, x86_64), VxWorks 6.9 (ARM, PPC, x86), VxWorks 7.0 (ARM, PPC, x86, x86_64), QNX Neutrino 6.5 (ARM, x86)

Bugfixes

FB48657: A memory leak on updating CmDongle/CmActLicense Firm Items has been closed.

FB48662: Core API: Activate entries without any further limitations are now handled by CmAccess2 as entries without limitations.

FB48637: Core API: CmExecuteRemoteUpdate now on updating sets the same Last Error as existing in the CMFAS event structure.

FB48633: Core API: The call of CmProgram(CM_GF_ADD_PRODUCTITEM) resulted in a crash, if 'cbCtrl' was bigger than 'pvCtrl' buffer. This error is now internally intercepted.

FB48631: Core API: CmProgramm(CM_GF_DELETE_FIRMITEM) now returns the correct size, if the verify buffer is set.

Known Issues

FB48988: VxWorks: CmAccess2 eventually crashes, if more than 15 processes are used.

FB48993: CmActLicense: CmCrypt2 call do not work with Runtime Bridge.

CmEmbedded 2.0

Release Date

2017-Mar-31

Operating Systems

Linux ≥ 2.4.10 (ARM ≥ v6, PPC, x86, x86_64), Windows ≥ 7 (x86, x86_64), VxWorks 6.9 (ARM, PPC, x86), VxWorks 7.0 (ARM, PPC, x86, x86_64), QNX Neutrino 6.5 (ARM, x86)

News

- Concurrent access –now several instances of CmEmbedded may simultaneously access a CmContainer.
- The CmASIC next to USB may also be addressed via SPI (Serial Peripheral Interface) (FB39283).
- The Field Update may be performed via SPI or USB HID; however not via USB MSD (FB41839).
- The Universal Firm Codes (UFC) are supported for UFC already included in the CmDongle.
- The Remote Update function is planned for Version 2.1.
- Secure Disk now also works via HID.
- Support of ARMv8 64Bit (FB43403).

FB45597: Core API: CmGetSecureData LAN and Runtime Bridge are now supported.

FB32330: The build process has been switched to Cmake.

FB47968: On Systems with a current system time before 2000-01-01, licenses may not expire before their time anymore.

Known Issues

FB48662: Core API: On CmAccess2 an activated license entry (activation time reached) is handled as an entry without limitations, if no further limitations exist.

FB48657: Core API: Memory Leak on updating a CmDongle and CmActLicenses Firm Code Firm Item.

FB48637: Core API: CmExecuteRemoteUpdate in the case an error occurs does not issue the expected error codes.

FB48633: Core API: The call of CmProgram(CM_GF_ADD_PRODUCTITEM) results in a crash, if 'cbCtrl' is bigger than 'pvCtrl' buffer. Internally, this has yet to be exception handled.

FB48311: SecureDisk on VxWorks 6.9 ARM: Problem, if SecureDisk is Enabled and Write Enabled.

FB48308: Core API: CmGetInfo if successful not always sets CMERROR_NO_ERROR.

FB47612: The version of the customer Libs cannot be read using CMU.
The CmStick/MI does not work on VxWorks 6.9 in HID-only mode. The default mode Composit works.

CmEmbedded 1.7.3566

Release Date

2017-Feb-08

Operating Systems

Windows (32 and 64bit), Linux (ARM, PPC, x86 32 and 64bit), VxWorks 7.0 (i386, x86_64, PPC, ARM), VxWorks 6.9 (ARM, PPC, x86), VxWorks 6.8 (PPC, x86), Android (ARM), QNX Neutrino 6.5 (x86, ARM), Windows Embedded CE 6 (ARM, x86), Windows Embedded Compact 7 (ARM)

Bugfixes

FB42998: Core API: CmActLicense LBIND licenses now may contain also HEX character.

CmEmbedded 1.7.3557

Release Date

2016-Nov-28

Operating Systems

Windows (32- and 64-Bit), Linux (ARM, PPC, x86 32- and 64-Bit), VxWorks 7.0 (i386, x86_64, PPC, ARM), VxWorks 6.9 (ARM, PPC, x86), VxWorks 6.8 (PPC, x86), Android (ARM), QNX Neutrino 6.5 (x86, ARM), Windows Embedded CE 6 (ARM, x86), Windows Embedded Compact 7 (ARM)

News

- Hidden Data / Secure Disk
  The support of Hidden Data / Secure Disk in connection with CmDongle is introduced.
- New allocation order of licenses
  CodeMeter Embedded now acts as CodeMeter Runtime. For details see separate section in the CodeMeter Developer Guide (Allocation order of licenses).
  Please note, however, that for system reasons a "Certified Time" is not available.

Features

FB44902: Core API: CmGetSecureData API function for Hidden Data is now supported.

FB44914: Core API: CmGetPioDataKey as API function is now supported.

FB44915: Core API: CmDecryptPioData as API function is now supported.

FB45254: CmDongle: CmStick/M3 Secure Disk support in mode Mass Storage Only.

FB45242: Core API: CmCrypt2 now supports the mode CM_CRYPT_AES_ENC_CBC.

FB45263: Core API: CmCrypt2 modes CM_CRYPT_AES_ENC_CFB and CM_CRYPT_AES_DEC_CFB are no longer supported.

Bugfixes

FB42998: Core API: The implemenation which resulted in a limitation of CmGetInfo(CM_GEI_ENTRYINFO2) has been corrected.

FB42736: Core API: CmGetInfo(CM_GEI_ENTRYINFO2) now returns the matching entry for an entry handle with several entries having the same Product Code.

FB41050: Core API: A problem with an entry access to Product Code 0 has been corrected.

FB42279: Core API: CmExecuteRemoteUpdate with 'pCmFasResult = NULL' and 'cbCmFasResult = 0' now for CmActLicense licenses (*.wbb and *.WibuCmRaU) sets 'pcbCmFasResultCount = 1'.

FB41292: Core API: The number of updates with non-Universal Firm Code licenses using CmExecuteRemoteUpdate is no longer limited.

FB30723: Core API: CmExecuteRemoteUpdate accepts RAU files with leading whitespaces.

FB32177: Core API: CmExecuteRemoteUpdate checks CRC of dongle update topics of a RAU file.

FB44962: Core API: Unit Counter check on license allocation. CmAccess2 on an entry with used up units (Unit Counter = 0) now fails and reports CMERROR_UNITCOUNTERZERO (32).

FB44984: Core API: On an CM_ACCESS_LOCAL_LAN access the local error code is supreme to the LAN error code, if the CodeMeter server is not reachable.

FB45124: Core API: CmAccess2 allows setting the CM_ACCESS_FORCE flag, if an entry with used up units shall be used outside a Usage Period, i.e. before its activation or after expiration.

FB45132: Core API: CmSecureDiskWrite now fails, if the Secure Disk is write-protected or the access is completely deactivated.

FB44971: Core API: CmAccess2 now evaluates entries referring PIO limitations (Unit Counter, Usage Period etc.).

FB44985: Core API: On license allocation CmAccess2 checks Usage Period, Activation Times, Maintenance Periods and Expiration Times.

*F*FB45286: CodeMeter Security: CodeMeter Security has been updated to Version 1.0.2.4.

FB45553: Core API: CmSetSystemTime now fails with CMERROR_INVALID_PARAMETER, if invalid values are defined in the CMTIME structure, e.g. 'musYear' < 1900 or 'musMonth' > 12.

FB45573: CmActLicense: An error on checking the PlugIn name has been corrected. The PlugIn name on license generation now must exactly match the name of the Binding Extension.

FB 45622: CmCard: An error with the repair mechanism of the 'codemter.io' file of a CmCard on Windows has been corrected.

EmbeddedDriver 1.7.3445

Release Date

2015-Dec-14

Operating Systems

Windows (32- and 64-bit), Linux (ARM, PPC, x86 32- and 64-bit), VxWorks 7.0 (i386, x86_64, PPC, ARM), VxWorks 6.9 (ARM, PPC, x86), VxWorks 6.8 (PPC, x86), Android (ARM), QNX Neutrino 6.5 (x86, ARM), Windows Embedded CE 6 (ARM, x86), Windows Embedded Compact 7 (ARM)

Features

FB17017: Basis Component: CmExecuteRemoteUpdate: Add Product- and Update Product Item RemoteUpdate sequences are no longer limited to 220 bytes.

Bugfixes

FB39401: VxWorks: Basic Security has been increased to Version 1.0.2.1. CodeMeter Security has been increased to Version 1.0.2.0.

FB5693: Basic Security: The script 'set_wibu_security_keys' now can also be called from within a VIP directory.

FB35844: QNX: The connection to the USB driver is kept open only as long as needed.

FB36904: CmDongle: A memory leak in VxWorks HID implementation has been remedied.

FB36919: CmDongle: The page fault on disconnection a CmStick (HID or MSD) for VxWorks 6.9 and 7.0 has been remedied.

FB38223: CmActLicense: The dynamic CmActLicense adapter library does no longer export the WIBU internal POSIX funtions. These are not required and may be used in wrong ways.

FB38575: Core API: Now CmExecuteRemoteUpdate now issues CMERROR_UPDATE_FAILED, if several updates fail.

FB39362: Core API: Now CmCrypt2 issues CMERROR_INVALID_HANDLE, if an invalid handle is transferred.

EmbeddedDriver 1.7.3391

Release Date

2015-Apr-02

Operating Systems

Windows (32- and 64-Bit), Linux (ARM, PPC, x86 32- and 64-Bit), VxWorks 7.0 (i386, x86_64, PPC, ARM), VxWorks 6.9 (ARM, PPC, x86), VxWorks 6.8 (PPC, x86), Android (ARM), QNX Neutrino 6.5 (x86, ARM), Windows Embedded CE 6 (ARM, x86), Windows Embedded Compact 7 (ARM)

Features

FB30895: VxWorks loader: distinguish between versions when decrypting ELF section for AES CBC mode handling.

FB30821: CmDongle: new flag ENABLE_HID_SUPPORT in cm_config.h for manual activation/deactivation of HID module.

FB31718: version of CmEmbedded Bibliothek can be determined with cmu --file -v.

FB34322: Windows: Object files of static library (WibuCmCompact.lib) are no longer build with flag /GL.

FB29486: CoreAPI: CmGetInfo(CM_GEI_BOXSTATUS) additionally shows CM_BOXSTATUS_STATE_LOCKED and CM_BOXSTATUS_DISABLED in CmAct LIF.

Bugfixes

FB29000: CmAct: Context of broken CmAct license could not be created.

FB33220: CoreAPI: No entry found when calling CmGetInfo(CM_GEI_ENTRYINFO2) although correct bits are set in feature code

FB32101: CmLAN: existing connection is no longer closed when CmAccess2 fails.

FB34054: VxWorks: execution of the WIBU-SYSTEMS extension of RTP loader only if state of previous operation is OK

FB33995: VxWorks 7 loader: fixed defective section address calculation in RTP header.

FB33295: VxWorks: ExEngine: fixed defective address calculation in ExEngine lib. Execution of 2nd protected RTP has been blocked.

FB34439: CmLAN: QNX, ARM: insufficient error handling when ECONNREFUSED or ECONNABORTED called at connection socket.

FB32247: CmAct: memory leak during loading of CmAct license updates.

FB31575: CmAct: crash with CmAct license containers containing up to 30-40 product items or product items with with huge product item options like text, EPD, etc.

Known issues

FB34755: CoreAPI Issue: CmSecureDiscWrite fails running VxWorks 7 caused by a kernel bug in VxWorks. Nevertheless the data is written in spite of the error.

EmbeddedDriver 1.7

Release Date

2014-Aug-13

Operating Systems

Windows (32- and 64-Bit), Linux (ARM, PPC, x86 32- and 64-Bit), VxWorks 7.0 (i386, x86_64, PPC, ARM), VxWorks 6.9 (ARM, PPC, x86), VxWorks 6.8 (PPC, x86), Android (ARM), QNX Neutrino 6.5 (x86, ARM), Windows Embedded CE 6 (ARM, x86), Windows Embedded Compact 7 (ARM)

News

The support of Windows CE / Embedded has been completely switched to CmEmbedded. Moreover, AxProtector protected applications also access the CmContainer using a statically linked CmEmbedded driver (FB16786).

The CmEmbedded driver now supports also the HID communication mode for all supported Embedded platforms (FB20065).

Features

FB16708: Basis Component: The Core API function 'GetRemoteContextBuffer' now works also via Runtime-Bridge for CmDongle and CmActLicense.
Moreover, the functions 'CmGetInfo(CM_GEI_CMACTVERSION)' and 'CmActLicenseControl(CM_GF_ACT_REQUEST)' via LAN are supported.

FB24753: Basis Component: The Core API supports the feature of reading, writing and controlling of Secure Disk partitions of a CmContainer. Supported is exclusively the structure CM_SECURE_DISC_STATUS.

FB25705: Basis Component: For Linux and Android the exclusive file I/O interface for the communication between driver and CmStick or CmCard is supported.

FB25477: Basis Component: With immediate effect 'codemtr.io' files up to a size of 64 kb are supported.

FB26298: Basis Component: The driver library 'WibuCmCompact.dll' now has the same ordinals as the CodeMeter driver file.

FB26327: Basis Component: Encrypting processes using 'CmCrypt' now change the Unit Counter.

FB23532, 23533: Basis Component: The Core API functions 'CmCalculateSignature' and 'CmValidateSignature' have been extended by the new flag CM_AUTH_EXTENDED2.

FB26648: CmActLicense Module: The flag CM_AUTH_EXTENDED2 in the Core API function 'CmCalculateSignature' is now also available for CmActLicense.

FB25930: LAN Module: The creation of a CmActLicense context file is also supported via LAN even if the installation package does not contain the licensing system CmActLicense.

FB25314: LAN Module: The Core API functions 'CmCalculateSignature' and 'CmGetPublicKey' are now supported by the LAN interface in CmEmbedded.

FB26011: LAN Module: The Core API function 'CmGetPublicKey' is now also available for the LAN Module.

FB26008: LAN Module: The Core API function 'CmExecuteRemoteUpdate' now can also import update files (*.LIF and *.LAF files) even if the CmActLicense Module is deactivated or not installed.

FB25252: VxWorks Loader Component: Using CodeMeter CF & CFast cards under Vxworks are now supported via USB Card Reader or SATA Adapter.

FB28703: VxWorks Loader Component: For VxWorks 7.0 the packages 'Basic Security' and 'CodeMeter Security' have been implemented.

FB29091, 30112: VxWorks Loader Component: The VIP, DKM and RTP Loader for VxWorks Versions 6.8/6.9 and 7 now support only the new 'WibuCert' format.

FB22464: VxWorks Loader Component: In the VxWorks Loaders the exclusive digest chain mode has been introduced.

Bugfixes

FB25019: CmDongle Module: On using the function 'CmGetRemoteContextBuffer' eventually fluctuation errors occurred with regard to buffer sizes.

FB28994: CmActLicense Module: On changing the binding values the box status was not correctly set to 'broken' (Flag CM_ACTSTATUS_BROKEN at CmGetInfo(CM_GEI_BOXSTATUS).

FB28885: CmActLicense Module: The serial number generation of a *.LIF file was changes and extended so that *.LIF files with a different 'CmAct ID' will not be assigned the same serial number.

FB28034: CmActLicense Module: The init vektor for encrypting the client public key was not correctly completed in the debug version.

FB29752: LAN Module: The CmLAN module on Windows was eventually not correctly initialized.

FB28734: VxWorks Loader Component: The Loader cancelled the loading process due to a file pointer error.

FB29341: VxWorks Loader Component: The calculation of the section address was corrected, if in the load segment of the real-time process project (RTP) the virtual basic address is greater than 0.

CompactDriver 1.6

Release Date

2012-Jul-25

Operating Systems

Windows (32- and 64-bit), Linux (ARM, PPC, x86 32- and 64-bit), VxWorks 6.9 (ARM, PPC, x86), VxWorks 6.8 (PPC, x86), Android (ARM), QNX Neutrino 6.5 (x86, ARM), Windows CE 5 (ARM, x86), Windows Embedded CE 6 (ARM, x86), Windows Embedded Compact 7 (ARM)

Features

FB24154: Basis Component: The CodeMeter feature 'Enabling' is now supported. The Core API now supports the functions CmProgram(CM_GF_ENABLE_ITEM; CM_GF_DISABLEITEM; CM_GF_TEMPENABLEITEM) and related structures exist.

FB24065: Basis Component: The Core API now supports the CmCrypt algorithms CM_CRYPT_AES_DEC_CFB and CM_CRYPT_AES_DEC_CBC.

FB24433: Basis Component: The Core API now supports the CmCrypt algorithm CM_CRYPT_STREAM.

FB21370: Basis Component: The Core API now supports the functions CmGetInfo(CM_GEI_BOXCONTROL) and CmProgram(CM_GF_SET_BOXCONTROL).

FB14379: Basis Component: CmCompact now supports VxWorks 6.8 and 6.9 ARM Unterstützung.

FB20235: Basis Component: CmCard/CF support for Windows CE 5 (x86, ARM) is now included.

FB23922: Basis Component: For CmCompact now the new API function 'CmSetSystemTime' is available. If time-limited license options, e.g. Expiration Time or Usage Period, are to be considered, previous to calling API functions, e.g. CmCrypt2, the current time must be set using the API function CmSetSystemTime.

FB21476: Module Runtime Bridge: The module is now available also for Linux.

FB24831: Module CmDongle: The SCSI passthrough communication for WinCE 5,6,7 with CmCard/SD and CF using a USB Card Reader is supported.

FB22489: Module CmDongle: The function CmCalculateSignature for CmDongle is now available.

FB22644: Module CmDongle: The function CmGetPublicKey(CM_AUTH_HIDDENDATA + CM_AUTH_SECRETDATA) for CmDongle is now available (Entry Access only).

FB22767: Module CmDongle: The function CmCryptEcies is now available.

FB22806: Module CmDongle: The functions CmCrypt2 (CM_CRYPT_DIRECT_DEC and CM_CRYPT_ECIES_STD) are now available.

FB23005: Module CmActLicense: The function CmExecuteRemoteUpdate now returns FALSE, if a license cannot be imported.

FB19946: Module CmActLicense: CmCompact including CmLAN now works for iOS.

FB22490: Module CmActLicense: The function CmCalculateSignature (CM_AUTH_HIDDENDATA, CM_AUTH_SECRETDATA combined with CM_AUTH_DIRECT, CM_AUTH_EXTENDED or CM_AUTH_SERIAL) is now available.

Bugfixes

FB22097: Basis Component: On access to a Firm Item or a Entry Access with serial number (Mask-Serial) now the correct entry is found.

FB24434: Basis Component: Not implemented CmCrypt2 commands now return the error CMERROR_FUNCTION_NOT_IMPLEMENTED.

FB23765: Basis Component: A false interpretation of the FirmUpdateCounter resulted in a wrong decline of an update as "too old".

FB24793: Module Runtime Bridge: All CmCrypt2 commands covering indirect encryption could not be used with the module Runtime Bridge.

FB22501: Module LAN: Connection sockets are now closed when using VxWorks, also if the function 'getsockopt' fails. If CodeMeter License Server does not return a valid handle, e.g. license does not exist or local license only, the connection or the connection socket will be closed.

FB22502: Module LAN: On a CmAccess2 via LAN – as it is the case with the module Runtime Bridge – non-blocking sockets are used. If an addressed server does not exist, only a maximum of 5s is waited (previously ~70s TCP Timeout).

FB21994: Module CmActLicense: On loading License Information Files (LIF) in Version 1.5 were always flagged as CM_ACTSTATUS_BROKEN.

FB23581: Module CmActLicense: The behavior in the case of corrupt or missing dynamic data has been improved.

FB23870: Module CmActLicense: The exception handling on saving dynamic data has been improved.

FB23544/FB23679: Module CmActLicense: If on a license update the storage space for dynamic data was insufficient, eventually error occurred.

FB23578: Module CmActLicense: In the case of special known faults on part of the independent software vendor when implementing the adapter for dynamic data, licenses can still be loaded but are not usable since their status is set to CMACT_STATUS_INVALID.

FB24148: Module CmActLicense: If Product Items were read using CmGetInfo(CM_GEI_ENTRYDATA), the result were the same Product Item Texts although they had been programmed differently.

CompactDriver 1.5

Release Date

2012-Nov-16

Operating Systems

Windows, Linux, VxWorks 6.9 (PPC and x86)

Features

FB18790: Basis Component: The API function 'CmCalculateDigest' is now available to calculate extracts from binary data.

FB18683: Basis Component: The header file 'CodeMeter.h' was renamed to 'CodeMeterCompact.h'. This avoids conflicts with CodeMeter License Server.

FB18684: Basis Component: New names for the CmCompact driver libraries:
- Windows WibuCmCompact.dll/.lib (import library), WibuCmCompactLib.lib (static variant).

FB16266: Basis Component: The function 'CmExecuteRemoteUpdate' now is able to process up to 10 updates or programming sequences for each update file (WibuCmRaU).

FB16706: LAN Module: The function 'CmExecuteRemoteUpdate' is now also available for network communication.

FB16707: LAN-Module: The API function 'CmProgram' now includes and supports the following functions:
- CM_GF_ADD_FIRMITEM
- CM_GF_UPDATE_FIRMITEM
- CM_GF_DELETE_FIRMITEM
- CM_GF_ADD_PRODUCTITEM
- CM_GF_UPDATE_PRODUCTITEM
- CM_GF_DELETE_PRODUCTITEM

FB20548: VxWorks Loader Component: The loader supports Virtual Image Projects (VIP), Downloadable Kernel Modules (DKM) and Real Time Processes.

FB20604: VxWorks Loader Component: The loader for Virtual Image Projects (VIP), Downloadable Kernel Modules (DKM) and Real Time Processes (RTP) now supports Wibu certificates for integrity protection and the use of certificate chains.

FB17585: VxWorks Loader Component: The VxWorks Loader extension is now able to start/load binaries which have been signed only (AxProtector option '-ci').

Bugfixes

FB18673: Basis Component: Exceeded writing beyond the CMBOXENTRY2 buffer is now intercepted.

FB18665: Basis Component: If the API function 'CmGetBoxes' is initialized using the parameter 'pcmBoxInfo=NULL' and 'cbBoxInfo=0', now the correct number of connected CmContainer is returned.

FB19030: Basis Component: The error occurring with unaligned word access using XScale processors has been fixed.

FB20019: CmDongle Module: Context files (WibuCmRaC) created with CmCompact can now be processed with the CodeMeter License Central.

FB18774: CmDongle Module: The incomplete check for detecting CmDongles on Windows Embedded CE 6.0 has been fixed.

FB20295: CmActLicense Module: License updates which contain a Unit Counter can now be executed.

FB19115: CmActLicense Module: The number of CmActLicenses read from the license directory is limited to the number the CmCompact driver is able to manage.

FB20195: CmActLicense Module: In the sample implementation for Linux now the missing write permissions of the counter file (400 -> 600) are set.

CompactDriver 1.4

Release Date

2012-April-5

Operating Systems

Windows, Linux, VxWorks 6.8 (PPC and x86)

News

Linux now supports CmCard/CF (FB18097).
VxWorks 6.8 now supports CmCard/SD (FB14622).

Features

A communication redirect is available together with the Network support (CmLAN) module for the Windows platform. This allows the simultaneous use of CmCompact and CodeMeter Runtime Kit, i.e. CodeMeter Runtime Server, on the same host.
In this case, the CmCompact principally acts as WibuCm32.dll library. Does CodeMeter License Server (CodeMeter.exe) runs on this machine its is used and calls are redirected. If no CodeMeter License Server runs, communication is direct using CmDongles or accesses to CmActLicense licenses (FB15378).

VxWorks Loader for RTPs and DKMs now supports up to 5 CmDongle and CmActLicense licenses (FB17382).

CmCompact Driver no longer requires a deactivated dosfs file cache.
'INCLUDE_DOSFS_CACHE' can be re-activated in the Vxworks Kernel (FB18045).

Bugfixes

FB18202: The error handling on "CmGetRemoteContext" has been corrected and improved. On case of a buffer too small the correct error code 'CMERROR_BUFFER_OVERFLOW' displays and the required size is returned.

FB18151: The writing of incorrect 'Product Item References' into the dynamic data of CmActLicense licenses has been fixed.

FB17498: A potential entry cache overflow is now intercepted.

CompactDriver 1.3

Release Date

2012-Mar-08

Operating Systems

VxWorks 6.8 (PPC and x86)

News

Remote programming of CmActLicense extended
Starting with Version 1.3 remote programming (CmFAS) of CmActLicense covers the following additional options:

- Import of empty license container using `CmExecuteRemoteUpdate`
- Function `CmGetRemoteContextBuffer` available for CmActLicenses available. This allows to create updates for a license while keeping the serial number.
- Remote context files can now be created for empty license container and for intact or no longer valid licenses (FB 17407).

Core API Function `CmReserveFirmItem` now is also network-ready (LAN)
Creating temporary Firm Item placeholders for the subsequent programming of Firm and Product Items in a CmContainer now works also in the LAN environment (FB 16709).

CompactDriver 1.2

Release Date

2011-Dec-22

Operating Systems

Windows, Linux, VxWorks 6.8 (PPC and x86)

News

CmLAN
Starting with version 1.2 *CmCompactDriver* supports network functionality. It acts as a client and communicates with a CodeMeter server starting with version 4.31 or newer. The entire network code is based on IPv4. The following API functions support CmLAN:

- `CmAccess2(CM_ACCESS_LAN)`
- `CmRelease`
- `CmGetBoxes`
- `CmGetBoxContents2`
- `CmCrypt2(CM_CRYPT_DIRECT_ENC)`
- `CmCrypt2(CM_CRYPT_DIRECT_DEC)`
- `CmGetInto(CM_GEI_VERSION)`
- `CmGetInfo(CM_GEI_BOXINFO)`
- `CmGetInfo(CM_GEI_CHIPINFO)`
- `CmGetInfo(CM_GEI_BOXTIME)`
- `CmGetInfo(CM_GEI_BOXSTATUS)`
- `CmGetInfo(CM_GEI_ENTRYINFO2)`
- `CmGetInfo(CM_GEI_ENTRYDATA)`
- `CmGetInfo(CM_GEI_INTERNALENTRYINFO)`
- `CmGetInfo(CM_GEI_SIGNEDLIST)`
- `CmGetVersion()`

CmFAS for CmStick

Remote activation for CmSticks now covers:

- creating a remote context file (*.WibuCmRaC) using CmGetRemoteContextBuffer
- importing an update based on the context file using CmExecuteRemoteUpdate.

Currently updates support the following options: Add, Update, Delete Firm, and Product Item.

The API function `CmExecuteRemoteUpdate` executes only on update per *.WibuCmRaU file. If the size of all Product Item Options, e.g. text, license quantity, secret data etc., in an update exceeds 255 bytes, you have to use separate single update cycles.

New Core API Functions

- `CmGetRemoteContextBuffer for CmSticks`
- `CmExecuteRemoteUpdate covering the flags CMFAS_CTL_CMD_UPDATE, CMFAS_CTL_CMD_UPDATE_EXISTING, CMFAS_CTL_OPT_ABORT_ON_ERROR (for CmSticks)`
- `CmGetInfo(CM_GEI_SIGNEDLIST) for CmSticks`

CompactDriver 1.1

Release Date

2011-Sep-30

Operating Systems

Windows, Mac OS X, Linux, VxWorks 6.8 (PPC and x86)

News

SMP Capability
Multithreaded calls by all Core API functions on all supported platforms are possible.
Multiple Process calls (SMP) by all Core API Functions on VxWorks.

CmFAS for CmActLicense
The import and license replacement of CmLicenseAct license is now supported usingCmExecuteRemoteUpdate.

Loading of protected RTPs on VxWorks 6.8
Using a CmActLicense license now features the loading and starting of encrypted or signed real-time process applications..
The CmCompact package now ships the code of the modified VxWorks 6.8 RTP Loader.

New Core API Functions

- `CmProgram(CM_GF_ADD_FIRMITEM)`
- `CmProgram(CM_GF_UPDATE_FIRMITEM)`
- `CmProgram(CM_GF_DELETE_FIRMITEM)`
- `CmProgram(CM_GF_ADD_PRODUCTITEM)`
- `CmProgram(CM_GF_UPDATE_PRODUCTITEM)`
- `CmProgram(CM_GF_DELETE_PRODUCTITEM)`
- `CmReserveFirmItem()`
- `CmExecuteRemoteUpdate(CMFAS_CTL_CMD_UPDATE)` CmAct only

CompactDriver 1.0

Release Date

2011-Jun-30

Operating Systems

Windows, Mac OS X, Linux, VxWorks 6.8 (PPC and x86), Windows CE Embedded 6 (ARMv4 + x86)

News

USB and CmActLicense Support

Depending on the *CmCompactDriver* configuration the following Wibu-Systems hardware and software-based licensing variants are supported:

- CmStick (USB token without flash)
- CmStick/M (USB token with flash)
- CmStick/T (USB token with real time clock)
- CmStick/I (USB token with internal USB interface)
- CodeMeterAct (software based license, CmAct)

CmCompactDriver uses the CmActLicense Binding Extension to bind a given CmActLicense license unique to one target. In the case of CodeMeter Compact Driver, this Extension is a static part of the driver. You must complete the Extension by implement the adapter.

Loading of protected DKMs on VxWorks 6.8
Using a CmActLicense license now features the loading of an encrypted or signed Downloadable Kernel Module (DKM) and its code execution.
The CmCompact package now ships the code of the modified VxWorks 6.8 DKM Loader.

Core API Functions

- `CmAccess2`(SubSystem)
- `CmAccess2`(local Box-Access with defined box serial number)
- `CmAccess2`(local Entry-Access with defined Firm Code/Product Code)
- `CmAccess2`(local FirmItem-Access with defined Firm Code)
- `CmRelease`()
- `CmGetLastErrorCode`()
- `CmSetLastErrorCode`()
- `CmGetLastErrorText`()
- `CmGetBoxes(CM_GB_ALLPORTS)`
- `CmGetBoxes(CM_GB_USB)`
- `CmGetBoxes(CM_GB_ACT)`
- `CmGetBoxContents2(CM_GBC_ALLENTRIES)`
- `CmGetBoxContents2(CM_GBC_FI)`
- `CmGetBoxContents2(CM_GBC_BOX)`
- `CmGetInto(CM_GEI_VERSION)`
- `CmGetInfo(CM_GEI_BOXINFO)`
- `CmGetInfo(CM_GEI_CHIPINFO)`
- `CmGetInfo(CM_GEI_BOXTIME)`
- `CmGetInfo(CM_GEI_BOXSTATUS)`
- `CmGetInfo(CM_GEI_ENTRYINFO2)`
- `CmGetInfo(CM_GEI_ENTRYDATA)`
- `CmGetInfo(CM_GEI_INTERNALENTRYINFO)`
- `CmCrypt2(CM_CRYPT_DIRECT_ENC)`
- `CmCrypt2(CM_CRYPT_DIRECT_DEC)`
- `CmCrypt2(CM_CRYPT_AES_ENC_CBC_DIRECT)`
- `CmCrypt2(CM_CRYPT_AES_DEC_CBC_DIRECT)`
- `CmConvertTime()`
- `CmMakeTime()`
- `CmConvertString()`
- `CmGetVersion()`
- `CmStaticLibOnInit()`
- `CmStaticLibOnExit()`

- `CmProgram(CM_GF_UPDATE_PRODUCTITEM)`
- `CmValidateSignature()`