

Changelog for firmware 1096 v3.02

Supported hardware

This firmware only supports the following reader variants:

- Micro Card Reader (10115-xxx-xx and 10117-xxx-xx)
- Micro2 Card Reader (12115-xxx-xx and 12117-xxx-xx)

For older products, we recommend firmware 1096 v2.40.03.

Changelog

3.02.01 (2025-03-10)

Features

- Readers can now be configured to accept Mobile ID apps from multiple projects, e.g. at the main entrance of a multi-tenant building. FW-560
- Added support for Mobile ID's new interaction mode *Convenient: Leave in Pocket*. With this mode enabled in the reader configuration, users don't need to present their phones to the reader but can leave them in their pockets. FW-648, FW-683, FW-688
- Detection of Mobile ID devices improved to achieve better reactivity. FW-657
- Added commands [VHL.GetCardType](#) and [RestrictScanCardFamilies](#). With these commands, you can use our [recommended operation mode "VHL & Autoread](#) even [without configuring readers](#). FW-650
- Via keyboard emulation, it's now possible to create characters based on keyboard shortcuts including the ``Alt`` and ``Windows`` keys. (So far, only shortcuts including `Ctrl`, `Shift`, and `AltGr` were supported.) FW-653
- Added support for Mobile ID's new interaction mode *Remote: Trigger from Distance*. With this mode enabled in the reader configuration, users trigger the reader from a distance via the press of a button, typically to open parking lot barriers or other remote-controlled gates. FW-676

- [VHL.Read](#) and [VHL.Write](#) now support MIFARE Ultralight cards (NFC Tag Type 2) with a memory size of more than 1 kilobyte. [FW-528](#)
- Answers to Reset (ATR) as returned by [VHL.GetATR](#) have been revised and now comply with the PC/SC specification. [FW-708](#), [FW-718](#)

Bug fixes

- On Micro Card Reader variants 12115-xxx-xx and 12117-xxx-xx, a failed firmware update due to an invalid digital signature, which may e.g. indicate a corrupt or manipulated firmware file, is now reported back to the host explicitly with a new error code. [FW-489](#)
- In the ISO 7816-4 VHL file, the *Data Start Position* value wasn't applied correctly. [FW-603](#)
- If the ID of a Mobile ID app was changed while the app had an active connection to the reader, the connection could be blocked for approx. 30 seconds. [FW-641](#)
- On Micro Card Reader variants 10117-xxx-xxx, the total amount of data to transfer with [VHL.ExchangeLongAPDU](#) was limited to 200 bytes. Now you can transfer any amount of data, the size of which is only dependent on the dispatcher. [FW-655](#)
- Readers crashed if the command [AR.SetMode](#), [VHL.Select](#), or [Sys.HFReset](#) was executed shortly (approx. less than 2 seconds) after connecting the reader to the computer. [FW-660](#)
- When running [VHL.ExchangeLongAPDU](#), the first response always had the *ContinueResp* parameter set to true, even if there was no more data to be transmitted. [FW-661](#)
- On Micro Card Reader variants 10115-xxx-xx and 10117-xxx-xxx, firmware uploads may have failed if support for 125 kHz cards was activated. [FW-682](#)
- If a reader was configured to read the UID or a programmed card number from a file of a MIFARE DESFire card returning random IDs, it would read the same card repeatedly. [FW-700](#)
- On Micro Card Reader variants 10117-xxx-xx and 12117-xxx-xx, it wasn't possible to access a MIFARE DESFire card that returns random IDs. As a result, the reader could neither read a programmed card number from a file nor the real UID via Autoread. [FW-701](#)
- The real UID of a MIFARE DESFire EV1 card that returns random IDs couldn't be read. [FW-702](#)
- FeliCa cards sending 16-byte instead of 8-byte responses couldn't be read using VHL or Autoread. [FW-706](#)

- USB readers stopped responding when they were registered several times, i.e. in the BIOS and in the actual operating system. This is e.g. the case if the boot sequence has been changed in the BIOS so that USB sticks are booted first. FW-727
- In rare cases, a reboot occurred when [VHL.ExchangeAPDU](#) was executed on a card whose recognized type doesn't support this command. FW-721
- The missing ISO 14443 Type B parameter *ProtocolType* was added to the [Iso14b.Attrib](#) command. FW-634
- On Micro card reader variants 10117-xxx-xx and 12117-xxx-xx, [VHL.IsSelected](#), [VHL.GetSnr](#), and [VHL.GetATR](#) didn't work with FeliCa cards. FW-719
- APDUs couldn't be sent to SmartMX cards with LEGIC advant emulation. Now, this is possible using the *AssumedCardType* parameter of the [VHL.ExchangeAPDU](#) and [VHL.ExchangeLongAPDU](#) commands. FW-722, FW-725

3.01.01 (2024-06-20)

Bug fixes

- If both BALTECH Mobile ID and Tungsten Business Connect (previously: Kofax Business Connect) were activated, the reader failed to read either of them or any cards and could no longer be factory-reset. FW-622, FW-629

3.01.00 (2024-05-17)

This version also includes all features and bugfixes of the stable version v3.00 up to and including v3.00.03.

Features

- Added support for [BALTECH Mobile ID](#). With Mobile ID, you can use smartphones to interact with BALTECH readers as an alternative to physical ID cards. FW-393, FW-542, FW-546, FW-547, FW-548, FW-549, TS-551, FW-552, FW-553, FW-543, FW-579, FW-580, FW-585, FW-586, FW-587, FW-602, FW-620, FW-609
- Activated various power-saving measures to significantly reduce the reader's power consumption. These measures have no impact on the reader's behavior. The specific savings depend on the card type used. FW-535, FW-558, FW-511, FW-517, FW-532, FW-510

- On readers operating in Autoread, you can now disable individual maintenance functions cards, e.g. LicenseCards or ConfigCards, or maintenance functions via the NFC interface. To do so, you can use the new configuration value [MaintenanceFunctionFilter](#). FW-465
- Using the new [Lic.ReadLicCard](#) command, you can now read and evaluate LicenseCards, even if the reader doesn't operate in Autoread mode. FW-448
- When a LicenseCard is presented, but that license type is not supported by the reader hardware or firmware, the reader now emits a [specific signal pattern](#). FW-506
- On ISO 15693-based cards, you can now read block numbers above 256 using VHL and low-level commands. FW-555
- Added support for an expert Autoread configuration component that is available upon request. FW-536, FW-563
- Added support for configuration files in BEC2 format that are exported from ConfigEditor without a reader connected to the PC. Note: This export functionality is only available in certain custom ToolSuite versions. FW-471, FW-513
- When the block size of an ISO 15693 card is changed using a static [VHL file](#), this changed block size is no longer implicitly applied when subsequently accessing the card using a different static or dynamic VHL file. In addition, you can now change the block size when creating a dynamic VHL file with [VHL.Setup](#). FW-452

Bug fixes

- On Micro Card reader variants 12115-xxx-xx and 12117-xxx-xx, firmware uploads failed occasionally. FW-505
- Presenting a Cotag card for 10 seconds or more could cause the card to be read several times. FW-476
- Several [boot statuses](#) were incorrectly categorized as hardware errors, although they actually only require a firmware upload or reader reboot. FW-599
- [Programmed card numbers](#) couldn't be read from processor cards (e.g. NXP SmartMX) with DESFire emulation using Autoread. FW-621

- Updated LEGIC SM-4200 firmware to OS v4.4.0.0. This has improved read reliability, especially when used in metal environments with cards that have their antennas placed close to the edge. [FW-428](#), [FW-477](#)
- Bluetooth Peripheral Advertisement was enabled on readers configured to read the UIDs of all supported card types. Now it's disabled by default and needs to be explicitly enabled via the reader configuration. [FW-469](#)
- Aborting a [VHL.ExchangeAPDU](#) for ISO 14443-4 Type A inter-industry cards resulted in an undefined state when the command was executed in [continuous mode](#). [FW-425](#)
- The [Iso15.GetUIDList](#) low-level command no longer worked. [FW-588](#)