No: 002
Date: June 5, 2019

Product: LVS-95XX
Type: Software Update

LVS-95XX Software 4.4.1.4002 – Release Notes

Summary:

LVS-95XX Software, Omron Microscan's proprietary 1D and 2D symbol verification software for use with all LVS-95XX products, provides an intuitive way to verify virtually any symbology to a wide variety of standards. LVS-95XX Software supports Windows® 7 Professional and Windows® 10 Pro.

Version 4.4.1.4002 was built on 03 May, 2019.

Feature	Description	Benefits
Issue resolution	Specific issues related to non-US locals and GS1 codes	• Works more reliably when using non-US locale settings. • More accurately reports GS1 code grades

Note: It is recommended to first uninstall previous versions of LVS-95XX Software before installing version 4.4.1.4002. If installing on a new PC then the database file (.mdb) must be copied from the existing PC to the new PC LVS-95xx program folder – see the user manuals for further information.

Please see the following pages for more detail about updates and improvements. A complete software version history is available from the archive tab of LVS-95XX software.

New Features, Updates, and Improvements

This new version of LVS-95XX Software includes several improvements and additions to functionality.

Planned Updates:

- None

Improvements and Fixes:

- Non-US regional settings
- GS1 QR code grading

Known Issues

The following known caveats will be fixed in a future release of the 95XX software:

- When grading QR codes using a DPM application standard, MeanLight and MeanDark measurements are reported as Rmin and Rmax.

- Decoded Chinese characters do not render correctly in reports.

- Some graded parameters do not transfer correctly to custom reports.

- MIL STD 130 structural errors reported incorrectly for PDT and REM.

- Calibration events are recorded separately from the audit trail.

LVS-95XX Software Version History

A summary of important software changes from January 2016 through April 2019 is shown below. A complete software version history is available from the archive tab of LVS-95XX Software.

Version	Release Date	Changes
4.4.1.3013	Not released	• GS1 2019 General Specification updates, including new Application Identifiers. • Micro QR code decoding • QR code data reporting in 2D Analysis Screen • Grid Nonuniformity round-off • Axial Nonuniformity round-off • GS1 Stacked Databar error reporting • MySQL memory handling when selecting all reports • OCR tip presentation for non-English languages • "Type mismatch error" during calibration caused by regional settings • Data storage when analyzing composite codes • Shortcut keys to change form tabs • Reference Data Export using SQL • Grading Data Matrix with DPM TR-29158 versus ISO/IEC 15415 (95XX no longer grades a GS1 Data Matrix code unless it has the proper header) • Text wrapping when printing multi-sector report • Verification reports include Pass/Fail indication based on minimum passing score • External trigger (CTRL+SHIFT) • Aperture setting for non-GS1 Data Matrix codes • Quiet zone reporting in 2D analysis screen • Transition Ratio measurement color coding (clarifies FPD grading, helping to understand grading of Data Matrix codes created using dots) • 1 decimal place display of data in calibration screen • Both 1D and 2D parameters included in export reference report when appropriate • "Machine not authorized" error message • Missing FNC1 reporting • Rounding when grading Symbol Contrast for Data Matrix • Stitching function automatically turns on camera as appropriate • 2D analysis of reflectance values on Analysis Screen exclude 20Z white space analysis • Full and compact Aztec codes grading and reading • Data Matrix data structure analysis • MicroPDF codes read if only one of either the stop or start pattern is valid

		• Xdim and Label Height warning flag configurable for all application standards • Ability to delete an old report on the Archive screen restricted to users who have "Allow change archive file" permission • Software installation guide and Readme.txt added to root of LVS-95XX software download • Auto-logoff inhibited if user is grading symbols but not using mouse • Warnings about minimum X dimensions when near the specification limits • Accuracy of aperture size reporting for Data Matrix codes • Inverted PDF417 and MicroPDF417 reading • Data Matrix and DPM symbol reading • 9510 1.75" field of view • Erroneous non-printable characters included in barcode data • Updated contact reference when using Japanese language • Czech language • Hungarian language • "Suomi-Svenska" removed from the translation table • Default directory cleanup after installation
4.4.0.4106	Jun 27, 2018	• Update to Japanese translation file
4.4.0.4105	Jun 20, 2018	• All LVS-95XX products support this version of the software. • Updated functionality to comply with GS1 2018 General Specification. • Improved DPM grading performance compared to v. 4.3.0 with greater ability to grade a DPM symbol • Support of new LVS-958x HD high resolution models
4.4.0.100x	June 4, 2018	• Update for modified LVS-9570 driver PCB • Record minimum passing grade when pass/fail option used • Fix incorrect Invalid AI warning shown after <GS>. • Change report label from GS1 Pass/Fail to be GS1 Data Structure Pass/Fail • Fix incorrect Extraneous FNC1 warning • Fix issue with Ctrl + Shift trigger timeout • Restore ability for LVS-9570 to use automatic sector • Allow either <GS> or <232> as separators in GS1 Data Matrix codes • Update max Xdim for Table 6 GS1 Data Matrix (per Gen Spec 18) • Add 2018 GS1 Gen Spec AIs; 714, 8013. New AI for NHRN Portugal and New GS1 identification key: Global Model Number (GMN) • Resolve Run Time error when connecting to an existing MS SQL database
4.3.1.xxxx	Jan. 7, 2018	• Add new standards for non-DPM versions of Mil-130 • Allow 9510 factory calibration via phone support
4.3.0.3006	08-Nov-2017	• Updated to comply with ISO 15416:2016 • Updated for changes to GS1 General Specification v17, dated 1 July 2017

		• Allow user to disable decimal grading without using password of the day. • Default setting that provides decimal grading as default for grading parameters. • Improvements to DPM grading • Streamlined software installation process, with fewer driver installation steps. • Removed support for Lumenera cameras used in LVS-9570 serial # 14139 and lower (Dec. 2013 and earlier), LVS-9500, LVS-9505, and LVS-9510 serial # 12906 and lower (June 2012 and earlier). • Added Traditional Chinese language (Taiwan) and character set.
4.3.0.3003	20-Oct-2017	• Extend maximum length of AIs 91 through 99 to be 90 characters. • Include decimal for Rmin, Rmax, and GT.
4.3.0.1xxx	18-Oct-2017	• Implement ISO/IEC 15416:2016(E)interpolation rule
4.2.1.3xxx	16-Sep-2017	• Automatically detect and draw blue sector box around symbol in DPM mod.
4.2.0.3xxx	08-Sep-2017	• Implement ability to read QR Codes when set for DPM.
4.2.0.3xxx	23-Aug-2017	• Fix HIBC error when code switch occurs inside $$+7 format. • Update Japanese Translation File.
4.2.0.3xxx	06-Jul-2017	• Fix error in PZN check digit calculation for 2D symbols. • Implement new clock track tracking algorithm for DPM. • Show additional lighting information. • Drop support of Lumenera cameras. • Implement more sophisticated event handler. • Improve build info displayed when double-clicking version. • Include changes from GS1 General Specifications V17. • Show HIBC structure if DPM and first character is a '+'. • Support Taiwan language and character set. • Upgrade to Visual Studio 2015 runtime. • Use dfu-programmer instead of Atmel Flip. • Use Inno Setup instead of InstallShield.
4.1.0j	23-Jan-2017	• Fix overly bright images when upgrading which only affects certain LVS-9580s.
4.1.0i	13-Jan-2017	• Fix bug related to blank passwords and ActiveDirectory. • Remove logic to detect contrast label during calibration, as it is unreliable. • Update Polish translation file.
4.1.0h	10-Jan-2017	• Fix exposure decimal places.
4.1.0g	27-Dec-2016	• Accept GS1-128 calibration card. • Avoid overflow error while minimized. • Avoid overly bright images when upgrading from older versions. • Fix problem with calibration with bright images. • Fix symbology errors on tables 7.2, 7.3, and 7.4. • Improve system responsiveness during focus calibration.
4.1.0f	07-Nov-2016	• Fix calibration not being reloaded when shortcut key used to change application standard. • Update 0410 Italian translation.
4.1.0e	04-Nov-2016	• Don't report 'D' for dome lighting on non-LVS-9580 systems. • Eliminate image jumping once image is stable. • Fix problem with reference reports and SQL Server. • Fix update problem with MySQL. • Reload calibration when changing application standards.

		• Update manuals.
4.1.0d	20-Oct-2016	• Don't allow Data Matrix when set for MIL-STD-130N Linear (1D). • Fix stitching with LVS-9510/ LVS-9580/ LVS-9585. • Update CompactLvsDB to include Microscan in search.
4.1.0c	18-Oct-2016	• Fix comma vs. period for GS1SpecificationTables. • Fix MicroPDF vs. Interleaved 2 of 5 misread. • Record structure information in database so it can be recalled and reprinted. • Try to read QR Code when set for DPM.
4.1.0b	11-Oct-2016	• Grade tilted DPM but issue warning if applicable. • Implement non-integral exposure.
4.1.0a	05-Oct-2016	• Avoid error when review report earlier than the latest report. • Don't accept Defects symbol in calibration mode. • Fix calibration not working in Manual grading mode. • Plot Micro QRCode format cells properly. • Show LVS-9585 as a choice on optional features. • Show green crosshair on LVS-9580 while moving. • Show yellow border while trigger is held.
4.1.0	27-Sep-2016	• Fix problems when interrupting processing. • Fix problems when switching cameras. • Instead of beeping, delay operations where possible.
4.0.0n	23-Sep-2016	• Implement GS1 Table 7.
4.0.0m	19-Sep-2016	• Finish DPM2 implementation. • Fix HIBC link character. • Implement new background/multithread model for slower operations. • Remember AutoPrint setting and don't reset when changing tabs.
4.0.0L	02-Sep-2016	• Placeholder for unreleased version.
4.0.0k	26-Aug-2016	• Changes to Speedup creation of users from Active Directory. • Fix HIBC issue - Unrecognized data identifier.
4.0.0j	07-Jun-2016	• Fixed issue with SQL dB, file access error 75 for Windows users without admin rights.
4.0.0h	25-Apr-2016	• Add 2D symbologies to GS1 table 4. • Add 2D symbologies to GS1 table 7. • Added AI (394) Percentage discount of a coupon. • Added AI (8012) Software version. • Added AI (8111) Loyalty points of a coupon. • Change GS1-128 Table 11 aperture to 5. • Clean up and sort translation files. • Fix Active Directory bug when there are no users in the LVS All Users group. • Fix problem misidentifying older LVS-9580 units. • Fixed incorrect error about missing leader bars in Data Matrix codes. • Fixed missing AI (30) in AI report. • Remove obsolete manuals. • Try more persistently to read UPC/EAN codes with a wrong check digit. • Use data identifiers for MIL-STD-130N.
4.0.0g	10-Mar-2016	• Fix ConfirmEngineType to catch Microsoft SQL 2014.

		• Fix MySQL MaxValue is reserved keyword; add delimiters when engine type is MySQL. • Fix SQL Stmt. error in ActiveDirectoryIntegration. Use UPPER for MySQL and MSSQL. • Fix error in ExportReferenceCommand by using MSSQL Database. • Improve Microscan logo.
4.0.0g	10-Mar-2016	• Include rebranded manuals. • Restore internal designations of Atmel-based LVS-9570 units. • Revert translation files pending redesign.
4.0.0f	04-Feb-2016	• Bump revision letter.
4.0.0e	02-Feb-2016	• Include proper AIs in report for composite symbols. • Include separate structure reports for 1D and 2D if applicable. • Preserve ActiveDirectory settings when copying database.
4.0.0d	27-Jan-2016	• Change default exposure for LVS-9580 from 40 to 70 ms. • Support new red/white lighting for LVS-9580 camera.
4.0.0c	24-Jan-2016	• Add ActiveDirectory Log file and form setting to enable. • Add progress bar when creating operators from Active Directory. • Correct bug in Active Directory CreateUsersFromAD. • Fix HTML characters in "Manufactured By" field. • Rename old registry values.
4.0.0b	18-Jan-2016	• Add ActiveDirectory Log file and form setting to enable. • Add progress bar with creating operators from Active Directory. • Correct bug in Active Directory CreateUsersFromAD. • Correct bug in new Data Matrix locator algorithm.
4.0.0a	13-Jan-2016	• Improve Data Matrix locator algorithm.
4.0.0	06-Jan-2016	• Rebrand as Microscan. • Set modulation to 0 for scan lines which fail edge determination.