

LIGHTER SUITE 7.2.0 – RELEASE NOTES

This document describes the SW Release **LIGHTER 7.2.0** for **Laser Marking** devices.

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MODELS SUPPORTED

LIGHTER 7.2.0 is generally compatible with the following LM devices:

- AREX XXX-X64 (AREX400 PRO models)
- AREX XXX-X54 (AREX400 BASIC models)
- AREX XX00-1X42
- AREX20-MW A200-1X53
- UNIQ 1150-1X40
- VLASE XXXX-1X42
- EOX 6X02-1X40
- ULYXE 1066-1XXX

SUPPORT FOR PROFINET IO

The embedded PROFINET IO interface in 7.2.0 (N.B. SW license 93ACC1919 required) is fully qualified for the following LM devices:

- AREX XXX-X64 (AREX400 PRO models)
- AREX XXX-X54 (AREX400 BASIC models)
- AREX XX00-1X42
- AREX20-MW A200-1X53
- UNIQ 1150-1X40
- VLASE XXXX-1X42
- EOX 6X02-1X40

SUPPORT FOR MARVIS™ FUNCTIONALITIES

The MARVIS™ DPM code grading functionalities in 7.2.0 (N.B. SW license 93ACC1918 required) are fully qualified for the following LM devices:

- AREX XXX-X64 (AREX400 PRO models)
- AREX XXX-X54 (AREX400 BASIC models)
- AREX XX00-1X42
- AREX20-MW A200-1X53
- UNIQ 1150-1X40
- VLASE XXXX-1X42

and for the following MATRIX family devices :

- MATRIX 120 X1X-01X
- MATRIX 210N 2XX-X1X (DPM illuminator and YAG filter recommended)
- MATRIX 220 3XX-010 (DPM illuminator and YAG filter recommended)
- MATRIX 300N 4XX-01X (DPM illuminator and YAG filter recommended)
- MATRIX 410N XXX-X1X (DPM illuminator and YAG filter recommended)

Installed FW package is **1.6.3.50** for MATRIX 220 and **1.5.1.606** for the remaining MATRIX models.

IMPORTANT REMARKS

This software distribution includes **LIGHTER 720_RTM_609 installer *.EXE** (approx. 190 MB) and some utilities and docs.

MARVIS LICENSE

Due to some improvements in MARVIS™ license protection, **on some devices where LIGHTER 7.0.1 or 7.0.0 were manually installed as upgrades of existing versions, the existing MARVIS™ FULL / EVAL licenses may be disabled after installing LIGHTER 7.2.0. Laser machines shipped with LIGHTER 7.0.2 or newer pre-installed in factory by DATALOGIC (see laser unit's datasheet) will not be affected.** For more info, contact Technical Support with the device serial number and SW version at hand (*LaserEditor > Help > About*) before starting the upgrade. Installation of 7.2.0 on 7.0.0 / 7.0.1 devices where MARVIS™ is not used or already expired will not affect general LIGHTER functionalities. Installation of 7.2.0 on versions 6.4.0 or older will grant 30 days MARVIS™ evaluation period.

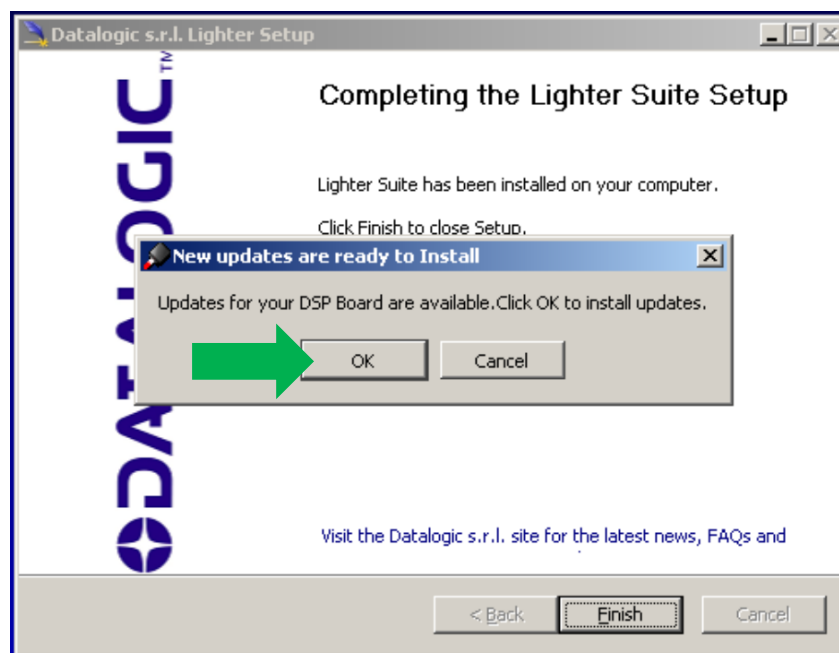
NEW FPGA FOR IMARK EMBEDDED SYSTEMS

LIGHTER 7.2.0 brings new FPGA software for the following LM families:

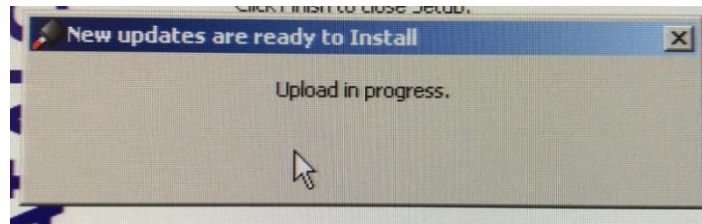
- AREX XX00-1X42
- VLASE XXXX-1X42
- EOX 6X02-1X40

This upgrade fixes some problems related to slow PCI bus communication, unresponsive mouse/keyboard, slow operative system, unstable communication with *Fiber Configurator* (for AREX) serial app.

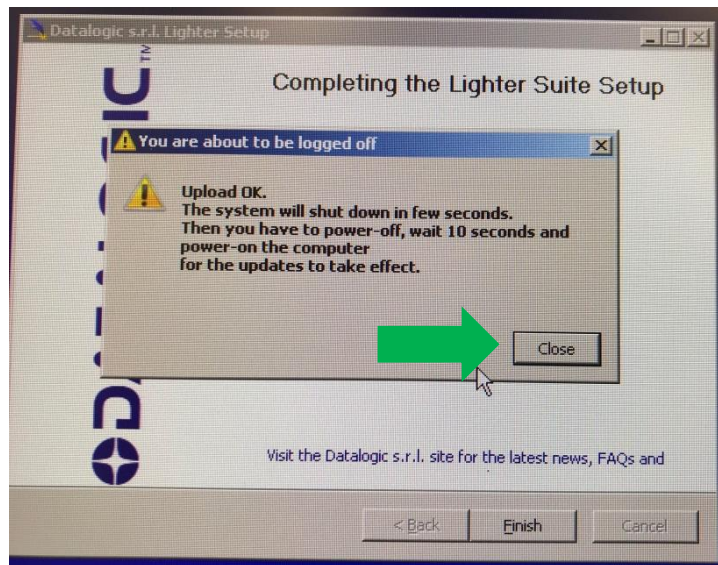
During LIGHTER upgrade, when prompted by a message box **“Updates for your DSP Board are available”**, click *OK* to install the updates:



Wait for the process to finish:

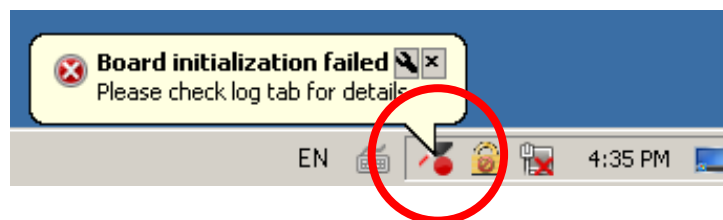


After DSP upgrade, the installer will finish normally and the PC will shut down automatically after a message box "Upload OK". Click *Close*, or wait:

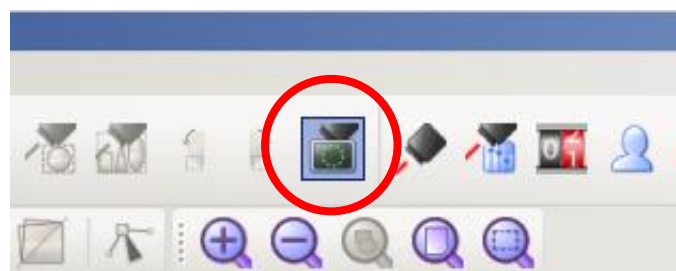


At the next restart after an upgrade to 7.2.0 (or after a recovery with a SW image containing 7.2.0) *LaserEngine* will go in "Simulation mode". Check the following clues:

- A. Red *LaserEngine* icon, even when KEY=0 and ENABLE=0.
 Popup "**Board initialization failed. Check log tab for details**".



- B. Simulator active.



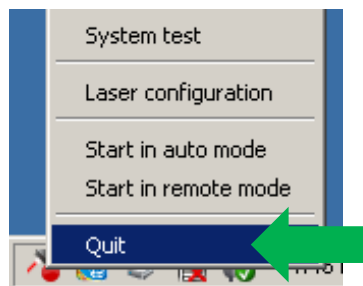
- C. Entry in *LaserEngine* log “**ERROR(LE) Platform::initDevices(): Unable to start control board, switching to simulation**”.

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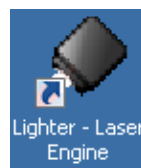
2019-04-16 16:43:11:130 DEBUG (xLaser) xLaserDevice::UpdateSettings: MOF
2019-04-16 16:43:11:130 DEBUG (xLaser) xLaserDevice::UpdateSettings: Update Axis Settings
2019-04-16 16:43:11:130 INFO (LE) Platform::initDevices(): Loading board: Evaluator
2019-04-16 16:43:11:130 DEBUG (LE) Platform::setDeviceSignals()
2019-04-16 16:43:11:130 DEBUG (xLaser) xLaserDevice::RunBoard()
2019-04-16 16:43:11:130 DEBUG (xLaser) xLaserDevice::IsHandleValid(): Device unplugged
2019-04-16 16:43:11:130 INFO (LE) Platform::startDevice(): nReturnCode 0x400000
2019-04-16 16:43:11:130 ERROR (LE) Platform::initDevices(): Unable to start control board, switching to simulation
2019-04-16 16:43:11:145 DEBUG (LE) Platform::setDeviceSignals()
2019-04-16 16:43:11:145 DEBUG (xLaser) xLaserDevice::RunBoard()
    
```

PROCEDURE TO FINISH FPGA UPGRADE

1. Right-click on *LaserEngine* icon in tray bar and **Quit LaserEngine**.



2. Re-launch *LaserEngine* (double-click) from desktop.



3. The *LaserEngine* icon should turn green (if KEY=0 and ENABLE=0) and the laser will be usable.



4. Double click on “**save-data**” batch file on desktop. A message box informs to restart or shutdown the system in order to permanently save data. Press OK.



5. **Shut down** the system in order to save the new settings



WARNING!

DO NOT turn **OFF** or **UNPLUG** the system while Windows® is shutting down.

6. WAIT until the system shuts down automatically (black screen).
7. **Power off** the system to complete installation.
8. At following restart, *LaserEngine* icon will be green steady (with KEY=0 and ENABLE=0) and the system will not be in simulation mode anymore.

NOTE ON MS VISUAL C++ REDISTRIBUTABLES

LIGHTER 7.2.0 installer will install the following SW:

- Microsoft Visual C++ 2010 x86 Redistributable Setup
File: vc100redist_x86.exe
Version: 10.0.40219.1
- Microsoft Visual C++ 2013 Redistributable Setup
File: vcredist_x86.exe
Version: 12.0.30501.0
- Microsoft Visual C++ 2017 Redistributable (x86)
File: vc_redist.x86.exe
Version: 14.16.27027.1

If newer versions of redistributables are found installed ex. on a laptop, LIGHTER Suite installer will abort. You can apply the workaround of uninstalling the newer redistributables, launch and finish LIGHTER Suite installer, and finally reinstalling your redistributables.

NOTE ON WINDOWS XP

Windows XP or Windows XP PRO on non-embedded computers are not supported.

NOTE ON WINDOWS 10

Starting Windows 10 version 1607, the USB driver SW of ULYXE 1066-1XXX may not be recognized. It is thus not recommended to install LIGHTER 7.2.0 on such OS versions. Recommended last stable version for those systems is 6.2.2_13893. Contact DATALOGIC Technical Support for inquiries or specific installers.

NEW FEATURES & IMPROVEMENTS

- PROFINET IO embedded in *LaserEngine* (N.B. SW license 93ACC1919 required).
- PROFINET IO memory maps size configurable: 64-128-254 bytes.
- Installed WinPcap 4.1.3 for Windows.
- Network adapters configuration from *LaserEngine* > *Laser Configuration* > *Network* is now read-only. IP configuration must be realized only in *Windows* > *Control Panel* > *Network and Sharing Center*. Disabled 'network-configuration.bat' file and its registry key.
- Fieldbus IMM addr. 36 bits are duplicated (MARVIS Result OK/Fail, Symbol Read OK/Fail, Symbol Grade Result OK/Fail, Symbol Match Result OK/Fail).
- Enable/Disable MARVIS™ commands no longer supported in TCP/IP and EIP.
- Removed legacy *Std Ethernet Protocol* user guide.

CHANGES AND FIXES

- (67475) EIP - Move Axis Command does not pull down Mirroring Bit and during the movement it turns the 'Start Marking' Mirroring Bit HIGH
- (80305) [AREX400] [Supervisor mode] [Lighter Suite] : The first attempt at connection between the generic PC and the laser marker fails
- (85066) [MARVIS][EIP] Command and Protocol Error inconsistencies when a layout does not exist
- (88063) [ActiveX][Scripting][Axis] Emission of a SW signal for notification of the event of 'Axis started moving'
- (88624) [EIP] / (94967) [TCP-IP] Enable/Disable MARVIS command no longer supported
- (91664) [EthernetIP] 'Stop Axis' command freezes Engine.
- (91665) [EthernetIP] Command 'Load Layout' must be sent before 'Start Marking'
- (92304) [Laser Engine] [TCP/IP] [Get Global String Value command] : If the global string doesn't exist, the value of the global counter that has the same name is returned
- (92393) [ActiveX] When connecting via Remote ActiveX Interface an external application to Laser Engine, Start Marking and Start Limits commands fail
- (92406) [MOF Wizard] The description of Speed Conversion screen is truncated and the "justify" text alignment of screen is difficult to read
- (92520) [Laser Engine] [Auto mode] [MARVIS] [Delayed mode] [Start marking] : By clicking again Start from the external CBox, a new marking event is occasionally started
- (92985) [Laser Engine] [Auto mode] [MARVIS] [Delayed mode] [Sequence document] : Exiting and re-entering from Auto mode, the external start isn't accepted
- (93308) [Installer] [ActiveX registration] If Engine is set to "Start in Remote Mode", ActiveX registration will fail and installer will freeze, requiring kill from Task Manager

- (93503) [ActiveX] MARVIS™ signal 'sigReaderResult' missing from the type library
- (96377) [Installer] Remove insertion of the registry key containing the path of the "network-configuration.bat"
- (96382) [Lighter] The network-configuration.bat file shall not be created, used and updated anymore
- (97322) [Laser Engine] [TCP/IP] [Command error message] : By setting the value of a global counter that doesn't exist, the 0007 error is returned instead of the 0006 error
- (99657) [Profinet] [MARVIS] In 'Manual mode', an 'Interlock Error' causes Laser Engine to crash as soon as a marking operation is performed
- (99659) [Profinet][MARVIS] In 'Auto Mode', an 'Interlock Error' after a mark causes the next MARVIS acquisition to report 'Unknown Code Type'
- (100555) [Laser Engine window] [Reader error] Following an 'Interlock error', in the Laser Engine window a 'Reader error' appears

KNOWN ISSUES

- (46973) EDITOR: AIMING BEAM rest position with CLONES property doesn't work correctly
- (47430) ENGINE: by REMOTE MODE and in WAIT FOR START state, if I press EXTERNAL START, the system begins the marking.
- (48420) ENGINE: in MoF mode, when set some values of DISTANCE parameter, the system doesn't work correctly (or even crashes)
- (48652) EDITOR - Datamatrix with Contour + Pocketing + Angle is not filled correctly
- (48980) EDITOR: 'Send marking on selection' command disables the objects after mark all enabled objects, in addition to selected object.
- (49232) VLASE-20IR - Lighter 6.2.3 15944 - "Bad marking error" in MOF for scale X > 101.8
- (49236) Lighter 6.3.1 16272 - Material DB changes not transferred to XLPs in Engine
- (49417) Lighter 6.3.1 16272 - DXF rescaled after importing
- (61766) When 'Set I/O port' command is sent to turn on only OUTPUT 1 (or only OUTPUT 12), also OUTPUT 12 (or OUTPUT 1) is turned on at the same time
- (62750) ENGINE: When the wrong 'Move and rotate document' command is sent, no command can be sent
- (63634) If the photocell doesn't have the reflector in front (and no signal goes back to it from reflector), by pressing and releasing the Stop from the Command Box, the marking doesn't stop and starts again
- (65815) [ULYXE] ENGINE: no status refresh after pressing STOP button with external CBOX
- (67437) Disconnection is caused from Supervisor to Laser Marker when Supervisor requests to open a XLP file not present in LaserEngine
- (70599) Ulyxe USB driver digital signature not recognized on some Win10 PCs (starting Windows 10 version 1607).
- (71759) import filter AI (Adobe Illustrator) & PDF does not respect scale

- (76937) [AREX400] [Laser Editor] [Layer] [Limits] : The projection of limits is interrupted by moving an object and an 'Overrun Error' is shown
- (77433) [Lighter][Std-RS232] NULL config.txt file blocks the execution of the Std-RS232 script (*Result of expression 'value' [undefined] is not an object*)
- (79730) [Axis] [Laser Engine] [AREX-20MW] Script Axis.move() function call generates a delayed Axis movement
- (79741) [LaserEditor][PRJ import] Wobble parameter is applied incorrectly when importing Smartist 4.1 files
- (80013) [MARVIS][QualityGradeTraning] In QGT, if the symbol contains references to local/global variables or time strings, code match will fail because the variables are not updated.
- (80607) [Laser Engine] [Laser Configuration] [MARVIS] [Images] : The default Image saving path in some INZ files is incorrectly :
C:\ProgramData\Datalogic\Lighter\Data\ReaderConfig\Images"
- (81322) [Rotor axis] Some vectorial graphics with holes are marked with extra lines on a rotor device when Sector Size >0.
- (87390) [VLasell] [Lighter Suite] [Driver PCI] : After upgrade to 712, the installation of the new driver ends after the Laser Engine is started.
- (87885) [AREX3] [Lighter Suite] [Driver PCI] : After upgrade to 712, the initialization of the control board isn't successful the first time
- (88046) [Lighter Suite] [iMark platform] [Start marking signal] : By releasing the external Stop command from the Cbox, a start event will be notified in the System test window
- (88238) [ActiveX] When connected via ActiveX to Laser Engine with an external application, it is impossible to reconnect after a physical disconnection of the cable unless you exit and re-enter 'Remote Mode'
- (88426) If INCREASING MOTOR STEPS is set in Axis configuration, the DIRECTION of generic movement must be reversed compare to DECREASING MOTOR STEPS
- (88789) [Ulyxe DSP] [Laser Engine window] [Statistics tab] : By turning the KEY of the Cbox from 1 to 0, the Marking OK event is notified
- (90181) [Profinet] Freeze Engine Arex 3 in Laser Warning/WarmUp condition
- (90299) [MARVIS] [MATRIX 220] [Ext illuminator] If "Internal Lighting = Disabled", external illuminator is not activated [ref. #85956]
- (91762): [TcpServer] If an object is BLOCKED, the command 'Move and Rotate Document' does not move the document starting from its origin
- (92779) [Product with iMarkI] After changing the correction parameters in Laser Configuration, the limits don't work the first time they are started
- (92781) [Product with iMarkI] After changing the parameters in Laser Configuration, the Laser Test doesn't work the first time it is started
- (93586) [AREX400] [Axes] If the board is started with DISABLE_Z HIGH, the axis won't move when DISABLE_Z is removed.
- (94342) [EIP] [PNIO] Bits "MARVIS Status" not activated (address 38 Input Memory Map)

- (94407) [Laser Editor] [Import Script button] By opening the script, the .png files, in the .zip folder, aren't imported (manual import will work)
- (94853)(95214)(98579)(99676) WinSAT Windows scheduled task can produce errors/disconnections in TCP-IP / PNIO / EIP and should be disabled manually.
- (95226) [Profinet] Entering/exiting repeatedly from 'Remote mode' occasionally crashes Engine. *LaserEngine.exe* process must be killed with Windows Task Manager.
- (95622) [EthernetIP] Engine stuck / cannot mark when "Reader Error" condition
- (95695) [Profinet] Protocol error 2 occurred with "Stop axis command " when "Reset axis" command is performing
- (95520) [Editor] IMPORTED type objects cannot be cloned
- (95676) [Profinet] Multiple 'Stop Axis' commands fail after axis movement (stuck Engine). After 'Stop Axis', a command 'Reset Axis' is recommended.
- (95819) [EthernetIP] [Profinet] "Stop auto focus" command fails (while "start autofocus" command is executing)
- (95906) Impossible to create new Global String (or generally write in the Data folder) in Windows 10 where the application LaserEngine is not launched "as administrator"
- (95935) [Supervisor] In REMOTE MODE, match/grade messages in Status Bar of Remote Engine are not shown
- (95944) [EthernetIP] [Profinet] Reset Z Axis fails in LaserEngine GUI visualization if system is already in home
- (95948) Occasional crash Engine after manual 'Quit' command. *LaserEngine.exe* process must be killed with Windows Task Manager
- (96306) [Ulyxe DSP] [Lighter Suite] [Limits on selection] By selecting a second object, with the limits of a first object projected, the limits of the second object aren't projected
- (96461) Stuck engine after "Stop system" command (while "Command executing" is executing)
- (96595) [Profinet] [Ethernet] MARVIS "Validation" window not updated in Remote Mode
- (96885) [Lighter Suite] [Remote mode] : By connecting with the Hercules client in TCP, with the PLC already connected to the laser marker in PNIO, Laser Engine crashes
- (97133) [ProfiNet] [Axis Movement bit] : By performing a movement of the X axis, the bit relative to the R Axis Movement (in the Input area) changes from 0 to 1
- (97146) [ProfiNet] [Command Executing bit] [Start Marking bit] : With the laser marker in Interlock error, sending the Start Marking command, the Command Executing and Start marking bits change from 0 to 1 and it is no longer possible to send other commands
- (97183) [ProfiNet] [Axis Movement bit] : Forcing an Interlock error during the movement of the X axis, the bit relative to the X Axis Movement (in the Input area) remains at 1
- (97205) [ProfiNet] [Ready to mark bit] : With the laser marker in WAIT FOR START state, the Ready to mark bit (in the Input area) changes from 0 to 1 instead of remaining at 0

- (97349) [LaserEngine][Home Search] Homing fails with "Invalid Home Search" for a specific Customer configuration
- (98142) [EthernetIP] "Stop axis" fails the second time it is sent
- (98182) [Editor] Rectangular Datamatrix is physically 12x36 cells, but labeled incorrectly (12x32) in field "Size"
- (98318) [Laser Engine] [Ring document] [Limits] : With the MARVIS enabled (but not used), the movement of the R axis to project the limits of a document isn't realized
- (98463) [LaserEngine] [TCP/IP-EIP-PNIO] [Open Document From Device] [Preview] : Reopening the same document, after changing the content via TCP, the preview isn't updated
- (99721) [Profinet] command "Stop X axis " fails, when X axis is moving
- (99722) [Profinet] [EthernetIP] [AREX400 PRO] If *Laser Configuration* is opened, the LAN configuration is changed to the first connected one (non-connected are ignored).
- (100235) [Profinet] Executing a Start Marking command when Laser Engine is in 'Error' state, blocks the Laser Engine in EXECUTING status (with also the Start Marking mirroring bit=1)
- (100251) [Profinet] "Stop system" command fails (stop marking)
- (100270) [Lighter Suite] [Remote mode] [TCP-IP]: By connecting with the Hercules client within 5 s, Laser Engine crashes occasionally
- (100323) [Profinet] "Safe Laser Off" external command succeeds but leaves 'Start Marking' mirroring bit high.
- (100427) [Laser Engine] [TCP/IP] [CBox error] [Start Marking command] : The command returns an ACK instead of a NACK
- (100585) [AREX400 PRO] The modification of the reference LAN for PNIO from the *Laser Configuration* is not effective if the LAN is not connected.
- (101750) [Profinet][Engine] After generating an Interlock Error during the execution of a XLP with MARVIS verification, LaserEngine keeps HIGH the executing bit and the Mirroring bit of the Start Marking command.
- (101752) [Engine][Profinet] External Start Marking crashes LaserEngine when connected via PNIO and Engine is in Auto Mode
- (101760) [Engine][Profinet][Marvis] After generating a Reader Error with Engine in Auto Mode, the following marking does not make an acquisition and reports 'Unknown Code Type', while the 'Reader Error' state persists

TOOLS & DOCUMENTATION

The relevant support files and documentation are installed together with the LIGHTER SUITE applications (*Barcode Reference, EtherNet IP User Guide, Laser Dashboard Script Manual, Project Editor User Guide, StdRS232 Protocol manual, LIGHTER TCP Server Manual, LIGHTER Suite User Guide, Profinet IO User Guide*) in "C:\Program Files ... \Lighter\7.2\Docs".

LIGHTER 7.2.0 installer will be published on DATALOGIC website.

RELEASE HISTORY

- **LIGHTER 7.2.0**

First suite with embedded PROFINET IO. Suite for AREX XX00-1X42, AREX20-MW A200-1X53, UNIQ 1150-1X40, VLASE XXXX-1X42, EOX 6X02-1X40, ULYXE 1066-1XXX, AREX XXX-XX4.

- **LIGHTER 7.1.3**

First suite with MARVIS™ support for MATRIX 220. Suite for AREX XX00-1X42, AREX20-MW A200-1X53, UNIQ 1150-1X40, VLASE XXXX-1X42, EOX 6X02-1X40, ULYXE 1066-1XXX, AREX XXX-XX4.

- **LIGHTER 7.1.2**

Suite for AREX XX00-1X42, AREX20-MW A200-1X53, UNIQ 1150-1X40, VLASE XXXX-1X42, EOX 6X02-1X40, ULYXE 1066-1XXX, AREX XXX-XX4.

- **LIGHTER 7.1.1**

Suite for AREX400 models only (AREX XXX-X64, AREX XXX-X54).

- **LIGHTER 7.1.0**

Suite for AREX400 models only (AREX XXX-X64, AREX XXX-X54).

- **LIGHTER 7.0.2**

Suite for AREX XX00-1X42, AREX20-MW A200-1X53, UNIQ 1150-1X40, VLASE XXXX-1X42, EOX 6X02-1X40, ULYXE 1066-1XXX.

- **LIGHTER 7.0.1**

Suite for AREX XX00-1X42, AREX20-MW A200-1X53, UNIQ 1150-1X40, VLASE XXXX-1X42, EOX 6X02-1X40, ULYXE 1066-1XXX.

- **LIGHTER 7.0.0**

First suite with MARVIS™ DPM code grading functionalities, for AREX XX00-1X42, AREX20-MW A200-1X53, UNIQ 1150-1X40, VLASE 1X09-1X42.