Firmware MS LaRio – Release notes

Version 4.56 – 28ᵗʰ of June 2022

- Fixed nozzle activation
- Fixed license management
- Stopped pumps when color is empty (30 seconds timeout)
- Fixed details in User Interface
- Improved and stabilized package installer
- Feature: added disable inks button on ink supply page
- Feature: more parameters are saved so that they can be restored on start
- Improved handling of head voltage parameters
- Feature: park bars if they are unused when printing start
- Feature: new RIP scrambling data mode on dual row mode
- Fixed some bug in queue management
- Feature: added new parameter to close ink valves when the machine is on idle
- Fixed bug that duplicated logs when the firmware restarted
- Other bugfixes and improvements

Version 4.54 – 27ᵗʰ of December 2021

Belt 2.60 – PrintBar 1.59 – Dryer 1.35 – Dryer 4 campi 6.58 – HCC Firmware 4.06

- New option to close the inlet valves during stanby (not printing phase)
- Visualization of the status of the printhead temperature (threshold parameter)

Version 4.48

Belt 2.60 – PrintBar 1.59 – Dryer 1.35 – Dryer 4 campi 6.58 – HCC Firmware 4.06

- Bugfix on the visualization of the mixing mode used for every job
- Pressure roll disable after reboot if "alignment mode" active
- Bugfix on the calculation of the available memory
- New diagnostic logs related to the remote panel
- Statistic button on web info page available for user Administrators
- New backup parameters name: "Parms-[Printer name or serial number]-Data"

Version 4.44 – 29ᵗʰ of April 2021

Belt 2.60 – PrintBar 1.59 – Dryer 1.35 – Dryer 4 campi 6.58 – HCC Firmware 4.06

- Notification that some printjobs do not have the printing lenght
- Improved the memory space optimization (diagnostic logs)
- Correct the System ID identification in presence of Dual 10 Gbit network board
- Status and configuration information add in the dedicated web pages

Version 4.42 – 1st of April 2021

Belt 2.60 – PrintBar 1.59 – Dryer 1.35 – Dryer 4 campi 6.58 – HCC Firmware 4.06

- License automatic update. Machine has to be connected to MS server by MS-Bridge tool.
- Heads reinit procedure improved after a communication error.
- Initialization log for electronic architecture system: ETH, USB, hybrid
- Heads temperature control improved
- Head info temperature updating under independent process
- Web page title set to the order number
- "node guarding" time reduced: this decrease the possibility to have an automation error while receiving complex jobs on a printer with more then 250 printheads.
- Automatic update of he MS technician list (MS-Bridge connection required)
- More details on the queue status on the dedicated web page ("Status")
- Encoder value and lice temperature displayed on the "Heads" web page
- Additional information on the "Info" web page: license status, maximum printing width, list of the authorized RIP softwares
- "Over heating" print heads error management: if the error appears while producing, the machine stops immediately and the head status is available in the Head diagnostic page ("Head details")

Version 4.40 – 20th of January 2021

Belt 2.60 – PrintBar 1.59 – Dryer 1.35 – Dryer 4 campi 6.58 – HCC Firmware 4.06

- Belt speed calibration procedure modified: it is now possible to start the belt also before the speed calibration setup. The maximum speed will be limited.
- Printheads serial number visualization fix (M and S series)
- Updated printer information feedback (for remote support), compatible with MS JPseries.
- Fix on systemd ID detection
- Waveform "[R] K-Choice 4", "[R] Bellagio RJM", "[R] Bellagio RCS"
- MS-Shell 6.2

Version 4.32 – 25th of November 2020

Belt 2.60 – PrintBar 1.59 – Dryer 1.35 – Dryer 4 fields 6.58 – HCC Firmware 4.06

- Review of the interface of the Job list page
- Printer memory displayed in the Info web page
- Improved the electronic initialization phase of the printheads
- Review of the interface of the (also web) head details page: status led and status label:
    ◦ grey: not configured
    ◦ green: ok
    ◦ yellow: updatin
    ◦ red: errore
    ◦ orange: not compatible (no optimization available)
- Printhead optimization code management
- Logs registration of the emergency status every minute (reduced the frequency)
- Log registration of the IP address request source
- Status port reply Jpseries compliance (System ID and printer status)
- Stat button on the Info web page (available only for administrators)

- Bug fix remote waveform installation
- New HCC Firmware: memory information added.

Version 4.30 – 27th of july 2020

Belt 2.60 – PrintBar 1.59 – Dryer 1.35 – Dryer 4 fields 6.58

- New mixing mode for dual row printbar. Mode "DBL" allow to double the quantity of ink for the selected color. It could limit the printing speed according to the printer hardware configuration.
- Added manual command to raise/press the pressure roll.
- The "Glue mode" maintains the status also after a printer software reboot.
- New "Glue on the fly" parameter in the configuration page.
- It is possible to enable the visualization of the access level for each commands of the interface)
- Modified the HTML menù from "Belt control" to "Belt data"
- While "Glue mode" is active the software does not check the status of the unwinder.
- New version of the bitstream of the printheads control board: 01_21_019. It improve the reliability on the startup.
- New advanced tools to analyze the printing quality: belt movement data acquisition and graphs.
- New command for the manual reset of the Y encoders.
- New command for the manual reset of the printjob list. It has to be activated by remote.

Version 4.24 – 26th of september 2019

Belt 2.60 – PrintBar 1.58 – Dryer 1.35 – Dryer 4 fields 6.58

- Filters added in the Debug HTML page.
- Automatic update of the machine time thanks to the connection with MS-Bridge.
- New boards communication diagnostic: if the main software does not receive correctly the information from the driving boards it generates the #228 error, also during the print out.
- Minor bug fix: queue management.
- Bug fix: white media calculation.
- Bug fix: software crash. The modification of the color selction list during the data generation of an internal test produced the crash.
- Support of the new RIP command: 'I'. With this command the RIP can send the job preview to the LaRio. The image is shown in the Job detail page.

Version 4.22 – 24th of july 2019

Belt 2.60 – PrintBar 1.58 – Dryer 1.35 – Dryer 4 fields 6.58

- New "link" parameter between LaRio and: Generic device and Inline coating system. If activated, the LaRio stop according to the status of the devices.
- Integration of the Generic device according to the standard signals specification: "Ready", "Fault".
- It is possible to set a customized label for the Generic device.
- Support of the license system.
- New XML tag: "queue". It gives detailed information on the live queue on the machine.
- New parameter to define the ID number to assign to the first print job. It simplify the

communication between LaRio and company database IT system.

- Bug fix: visualization of the parking icons.
- Bug fix: speed limitation using DRM rows printing mode.
- Now the "Test draw dual" is printed in double row "Standard" mode. This set helps to identify the missing nozzles on the print heads.
- Support of new data mode from the RIP. It is possible to sent to the print a greyscale job: the dithering and the curve application has been done by the printer software (the RIP must send the curves).
- Bug fix: the Play button remains inhibited while the print heads initialization (version 4.20).
- Bug fix: saving parameters. During the first switch on of the machine could happen a parameters corruption.

Version 4.10 – 10th of April 2019

Belt 2.60 – PrintBar 1.58 – Dryer 1.35 – Dryer 4 fields 6.58

- Support of the new Kyocera printhead series (since march 2019).
- Bug fix: consumption calculation for the dis activated print bars.
- Visualization of the status of the external devices.
- New "link" parameter between dryer and LaRio. If activated, the LaRio stop according to the status of the dryer.
- Support of the Generic device integration.
- Play button disable while print heads initialization.
- Improvement on the performance of the queue management. Faster application of the measure settings with log queue.
- Supporto of the water-soluble glue application system.
- New commands to move the jobs up and down the queue.
- New parameter to enable the setting of the job length by the RIP.
- New waveform MS-JK "Digistar Bravo V2"
- New XML tag: "IsTest". It idicates if the job is a machine internal test.

Version 4.02 – 14th december 2018

Belt 2.59 – PrintBar 1.58 – Dryer 1.35 – Dryer 4 fields 6.58

- Integration of the inline coating system.
  - Visualization of the status
  - Visualization of the lock of the pressure roll
  - Inhibition of the Play button due to the margin sensors
- Now it is possible to select the print head row to print (available on the printing bars with 2 rows): row 1, row 2 or togheter
- Now it is possible to modify the Nozzle activation parameter during the print out. The setting will be apply starting from the next received job.
- Visualization of the Nozzle activation setting for each print bar (in the Job detail page).
- Indication of the consumption over the threshold. It is possible to set the threshold in the Settings page (milliliters).
- Identification of the origin of the emergency status.
- New page of machine configuration.
- The management of the electrostatic bars has been modified.
- Integration of the new specification support of the external devices. Main signals: ready, fault, emergency, pause of the line, run of the line.

- Glue application mode indicated in the main page.
- New queue status message: "job too short", "job too big", "memory full".
- Visualization of the rows configuration for the job, in the job detail on the web view.
- Parameters restore from the machine interface. The parameters backup has to be present in the root of the usb key connected to the PrintEngine.
- New waveforms.
- New "Nozzle activation" parameters: count and pulses.
- Modification of the dryer Ready signal management.
- New XML tag: "UUID". Unique job identification sent by the RIP.
- New XML tag: "status".
- Visualization of the message "Stop from printbar". It happens while a safety print head device is pressed, and it prevent the run of the belt.
- New parameter to set the time between every refresh of the wiper tank water (Settings page).
- Bug fix: set of the power of the electrostatic bars.
- Bug fix: restore of the parameter backup.
- Bug fix: visualization of the dryer emergency status message.

Version 3.54 – 20th december 2017

Belt 2.53 – PrintBar 1.58 – Dryer 1.35 – Dryer 4 fields 6.54
- New parameter to select the type of the energy system of the dryer. This could activate the security procedure to empty the chambers before switch on the burners (gas).
- Bug fix: visualization of the cleaning icons.
- Improved the communication diagnostic with the heads driving boards.
- Bugfix: setting of the number of meters to print for one job.

Version 3.48 – 11th october 2017

Belt 2.53 – PrintBar 1.58 – Dryer 1.35 – Dryer 4 campi 6.52
- The parameter restore now include the Media list (dryer configurations).
- The cleanings are now available only at the end of wiper movement.
- New printing mode for the dual row bar: NFA.
- User list updated..
- Waveform list updated.

Version 3.46 – 18th august 2017

Belt 2.53 – PrintBar 1.58 – Dryer 1.35 – Dryer 4 campi 6.52
- New "Left/right compensation" parameter. It has to be enable only in presence of the mechanical modifications dedicated to the hardware reset of the capping tanks.