Improvements after ALTAMIRA_15_00_10.3 Firmware Update (MR13.2)

For HP Latex 3000 Printer Series

July 2019

The ALTAMIRA_15_00_10.3 (MR13.2) firmware has recently been updated. This update comes not only with improvements to information management to address image quality control tasks, but also with significant time reductions in specific operations to offer gains in efficiency and greater productivity.

Related links:
www.hp.com/go/latex/

Printers related to this article
HP Latex 3000 Printer Series

Summary of changes

Following the latest update of the firmware ALTAMIRA_15_00_10.3 (MR13.2) here are the improvements achieved so far:

1. Printhead gauge

2. Color verification and calibration (CVC)

3. Printhead check and clean scheduler

4. Cooldown and warmup improvements

5. Substrate load improvements

6. Reduced substrate

7. Result: +5pp OEE improvement

NOTE: Check the User Guide for details of how to perform the firmware update.

Printhead gauge

Changes

The printhead nozzle health status will be shown visually in the IPS.

Details

Printhead nozzle health status will be shown in the IPS if, during the last 24 hours, a drop detection has been performed – usually during a printhead check and clean, or a hard clean. After a 24-hour period has elapsed with no check and clean, or hard clean, the tool will not provide any information on nozzle health and will request that a printhead check and clean is performed.

OK   Monitor IQ   Recover   Check and clean
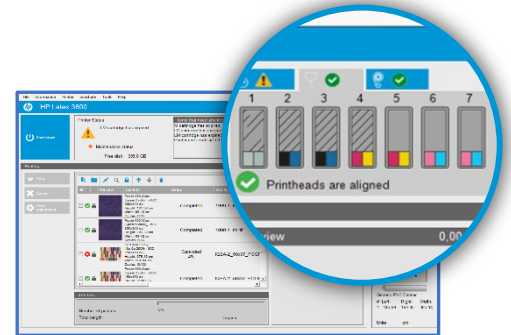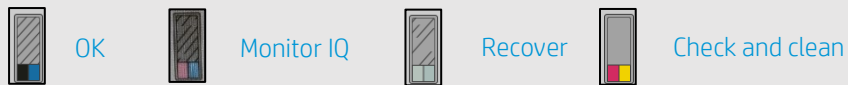
Color verification and calibration (CVC)

Changes

A verification chart is added to evaluate the need for a color calibration. Only when necessary, the color calibration is carried out automatically. CVC is an evolution of the current CLC functionality.

Details

Color calibration

Color verification

When a color calibration is triggered by the user, a verification chart is printed and measured. These measurements are evaluated and compared to a threshold to determine if a color calibration is needed:

- If it is needed, the color calibration is carried out automatically.
- Otherwise, a message appears on the front panel informing the user that the color calibration is not needed (it may optionally be forced by the user if desired).
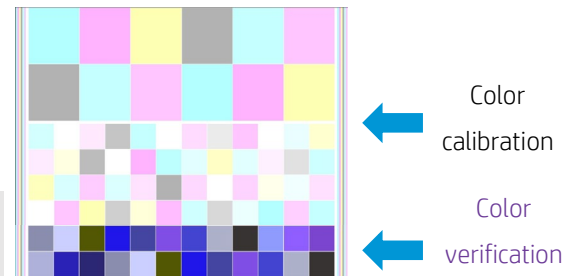
Printhead check & clean scheduler

Changes

There is a new option to enable the check and clean servicing routine to be performed automatically by the printer in a scheduled manner, outside production time, to maximize printer availability.

Details

A warning pop-up window appears 15 minutes before the scheduled time is reached, if the operator does not click "No" before the 15 minutes have elapsed, the operation will be performed as long as the printer is in an idle state. If this is not the case, the check and clean will be delayed for one hour. After three unsuccessful attempts, the printer will skip it until the next scheduled routine.
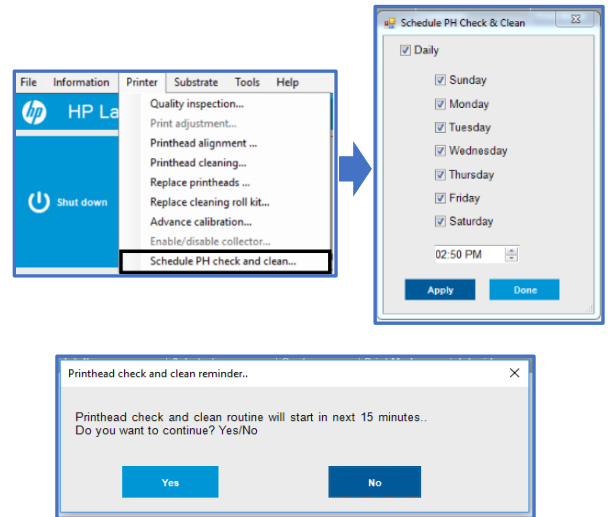
Cooldown & warmup improvements

Changes

The cooldown process can be cancelled to allow a fast transition to a new job.

A "pre-warm" can be triggered while the user prepares the files to print.
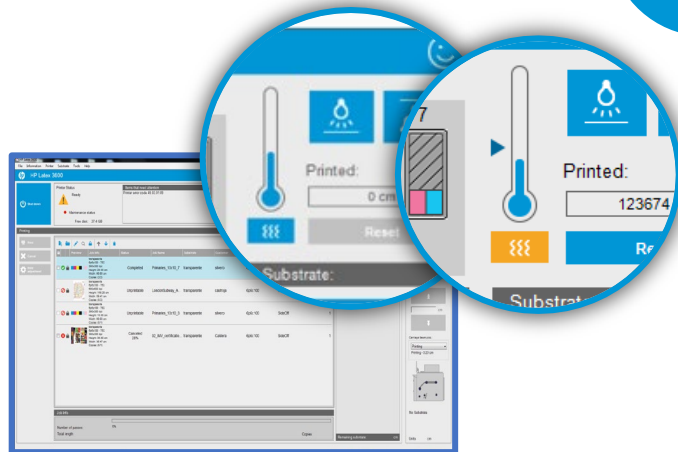
Details

The print button will be enabled on the IPS once the previous job starts the cooldown process or if it has been cancelled. At that moment, if the user decides to print a new job, the cooldown will transition directly to warmup, avoiding the whole cooldown-warmup cycle, saving up to 1.2 minutes.

Additionally, a "pre-warm" button has been added on the IPS to trigger the warmup process while the user prepares the files to print. This will heat the print zone to printing temperature and maintain it for the specified time. It can be accessed in **IPS**>**tools**>**Preferences**>**Additional Settings**>**Heating Duration**. This will help save up to 30 seconds.

Manual warmup is disabled.

Manual warmup is enabled and not activated. If the user pushes this button, the printer begins to pre-heat.

Manual warmup process is running. If the user pushes this button, the pre-heating is aborted.

Substrate-load improvements

Changes

The internal processes of the substrate load have been optimized to reduce waiting times.

Details

A new user interface has been added to help the user decide the type of load:

- "Reload (Fast)" can be used when the type, width, and position of the substrate being loaded is the same as the previous one. The printer skips certain loading processes like the substrate advance check and the substrate edges check, reducing the loading time by 55 seconds.
- "New substrate load" used for loading a different substrate. It has been improved by parallelizing tasks, with a time reduction of 25 seconds.
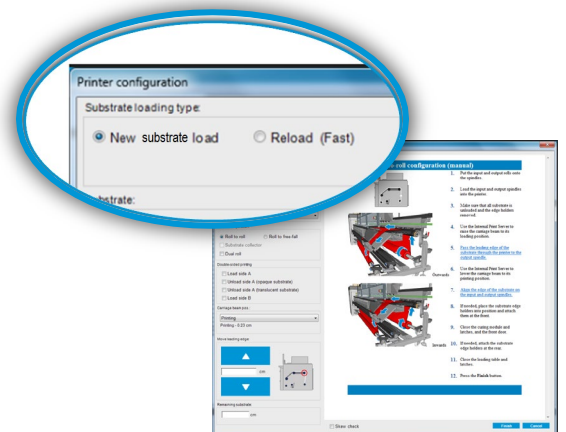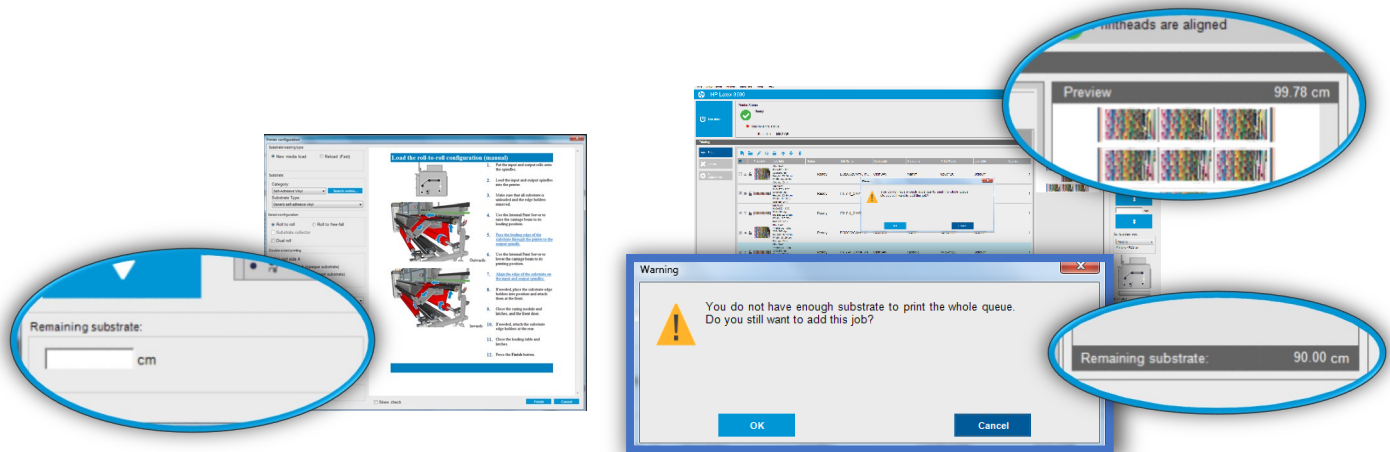
Reduced substrate waste

Changes

The internal plots have been optimized.

The printer will check that the remaining substrate is enough for a certain job by allowing the user to introduce an initial length when it is loaded.

Details

The length of the internal plot length has been reduced by 30% (1 meter). This includes the printhead alignment plot, the nozzle health plot, and the alignment verification plot.

Substrate length tracking has been enabled on the IPS. When a substrate roll is loaded, the user can manually introduce the remaining length. With this data, the IPS will send a warning when the queue that is to be printed is longer than the remaining substrate. The remaining substrate length data will be updated automatically.

Result: +5pp OEE improvement

	Previous	Reduction	New
New "Cancel cooldown" option Customers can skip the cooldown at any point and start printing a new job	3 min. 20 sec.	40%	2 min.
New "Pre-warm" button Customers can start warming up the curing while preparing the job	1 min. 20 sec.	37%	50 sec.
Regular substrate-loading time reduction through task parallelization (scan edges and substrate advance)	1 min. 50 sec.	23%	1 min. 25 sec.
Increased usage of fast substrate load through UI redesign	1 min. 25 sec.	40%	30 sec.
Substrate-waste reduction: • Length of internal plots reduced (printhead alignment plot, nozzle health plot, alignment verification plot) • Substrate-length tracking is enabled on the IPS, with notification before printing begins if there is not enough substrate for the job	3.7 meters	30%	2.7 meters