

New firmware release

SKAAR_22_23_37.2

For the HP Latex R-Series printer series

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

April 2024

New versions of firmware and software for the HP Latex R Printer series are available to download. HP recommends that all printers are upgraded to the new firmware and software as soon as possible. New printers must be upgraded during installation.

This new release includes:

1. Firmware: SKAAR_22_23_37.2
2. HP Internal Print Server (IPS): 22.22.8
3. HP Internal Print Server Maintenances: IPS - 22.22.8 - RXX00 - Maintenances

This is the general availability version. It should be installed in all new and existing printers with the following instructions.

NOTE: The file "HPIPS-22.22.8-Maintenances-RXX00.exe" must only be used if maintenance does not synchronize automatically. Refer to the corresponding newsletter for further information: *Manual maintenance download and installation*.

Upgrade instructions

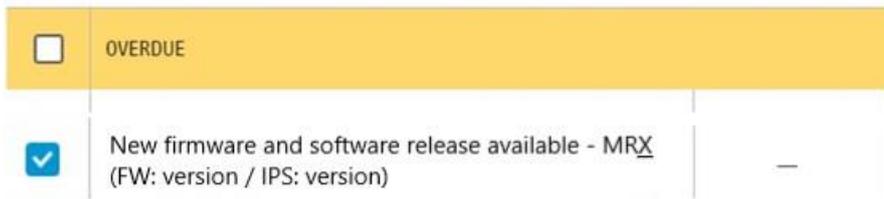
The firmware and the IPS must be installed together. No other combination is supported. The firmware update is allowed in **normal mode** only. Do not try it in diagnostic mode, or in any other mode, unless it is required by GBU.

Mandatory installation order:

1. Firmware
2. HP Internal Print Server (IPS)

Installation through the maintenance upgrade

If the installation is done from the previous 3 versions, a maintenance alert will appear in the IPS warning of the new firmware. The maintenance is localized to the languages that the printer supports.



By entering the maintenance, a list of improvements will be displayed with two buttons, **Install Firmware** and **Install IPS**. Upgrade the firmware first and then the IPS.

The maintenance menu allows users to upgrade the unit by themselves, by following the recommendations lists and using these buttons.

New firmware and software release available - MRX (FW: version / IPS: version)

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A new version of the firmware and software is available:

- Firmware: version
- IPS: version

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IMPORTANT:

- Do not proceed with the upgrade if a severe error is present.

Update System

- Rearm the unit when requested.

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IMPORTANT:

- Do not close the maintenance, it will be done automatically after you press the "Update System" button.
- During the update process, the system will not provide progress feedback for some time. Just leave the procedure to finish by itself.
- The first application boot-up can take several minutes, with only the splash screen visible.
- Reboot the computer after the System upgrade.
- In case of any issues during the upgrade, IPS and firmware files can be found in the following directory:
C:\ProgramData\HP\IPS\maintenances\ASU\resource

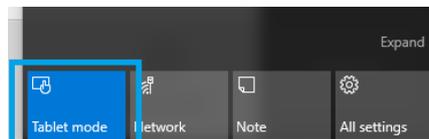
Please note the following points:

- "Do not proceed with the upgrade if a severe error is present." -> Printer HDD may become corrupted.
- "Do not close the maintenance during the firmware upgrade process and prior to reaching the final maintenance step." -> It might not be possible to enter the maintenance again, therefore only the firmware will be upgraded.
- If there are any failures during the process, installer files can be obtained from "C:\ProgramData\HP\IPS\maintenances\ASU\resource" or in the following link:
<http://hp.com/go/LatexR2000/firmware>

Manual Installation

Download and unzip the files

1. This new release is available from:
 - <http://hp.com/go/LatexR2000/firmware>
2. Download the two files that contain the upgrade files:
 - [MR7__SKAAR_22_23_37.2__IPS-22.22.8.z01](#)
 - [MR7__SKAAR_22_23_37.2__IPS-22.22.8.zip](#)
3. Extract the content using a file compressor utility (do not use the one built-in to Windows).
4. Turn off Tablet mode: Swipe in from the right side of your screen to open the action center. Turn off Tablet mode by touching the Tablet mode icon.



5. Copy the files onto the IPS PC's hard disk (it is recommended to use a dedicated folder, not the desktop).

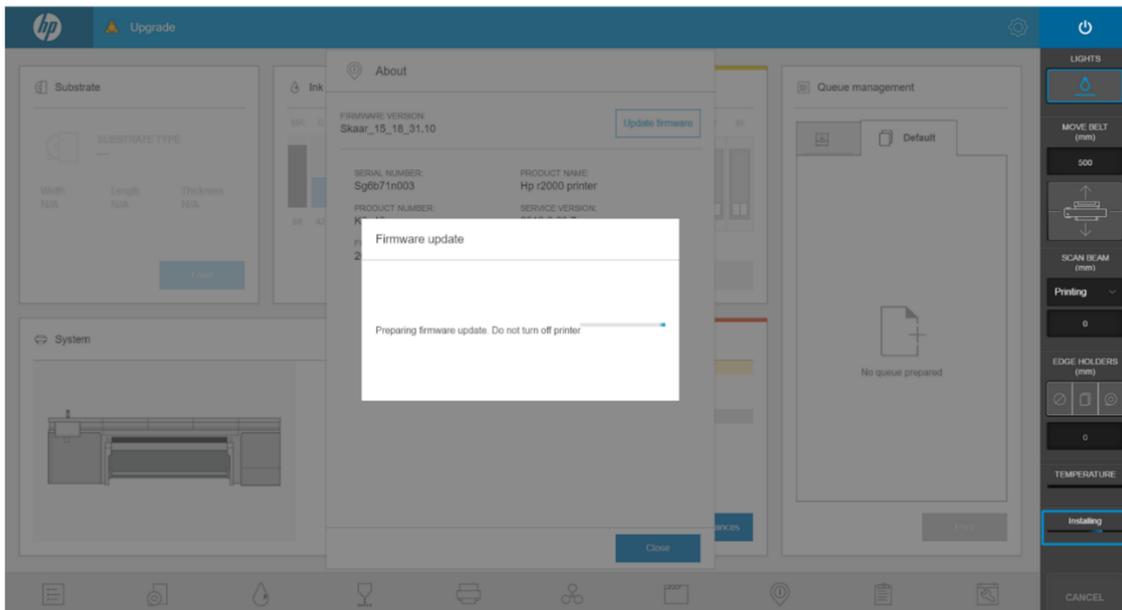
Update firmware

NOTE: The firmware update should never be done if the printer is in a **severe error** state.

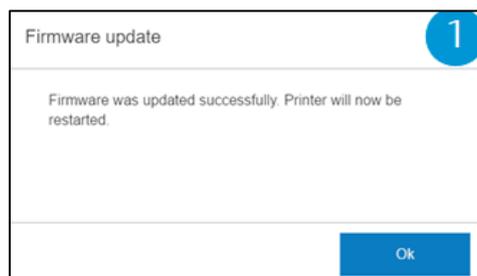
1. Tap the **Home** icon, then tap the **About** icon at the bottom right of the Internal Printer Server's main window. A window showing the details of the current firmware version installed in the printer will appear.
2. Tap **Update firmware** and browse to select the .fmw file; select it by tapping **Select**.

NOTE: If the update firmware option is not available, log in as a service user.

3. The firmware will be uploaded and installed on the printer. The status of the update can be checked on the right-hand side of the IPS main window. There are two possible statuses: **Receiving** and **Installing**.



- Upon completion, the IPS will show the following message. Tap **Ok** to continue. At this point, the printer will automatically reboot. If it does not, reboot the printer manually.



IMPORTANT: The first boot after the firmware upgrade takes more time than usual.

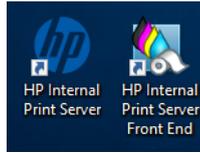
- Wait until the printer boots completely.

NOTE: In some cases, the new firmware may not install. If so, please refer to Appendix 2 to troubleshoot the issue.

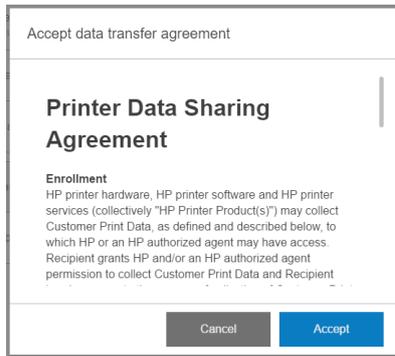
Update the HP Internal Print Server (IPS)

- Make sure the printer has booted up completely.
- Take note of the customer IPS preferences by taking some photos/screenshots of the IPS preferences. Tap  to access the preferences and check the values in the **System**, **Connectivity**, and **Queue** sections, including (among others) the hot folder configuration.
- Run the **HPIPS-22.22.8-Installer.exe**. Follow the on-screen instructions until the new software is installed. The installer will close and remove the previous IPS software. It may take some time. Tap **Close** to complete the installation.
- When the installation process is complete, reboot the IPS PC.

5. If the HP Internal Print Server software does not boot automatically, first tap **HP Internal Print Server** and then **HP Internal Print Server Front End**.



6. On the first boot, the Printer Data Sharing Agreement (PDSA) window will appear. Please click **Accept** to continue.



HP strongly suggests accepting to take advantage of the Information retriever functionalities, and for a faster and better remote support experience.

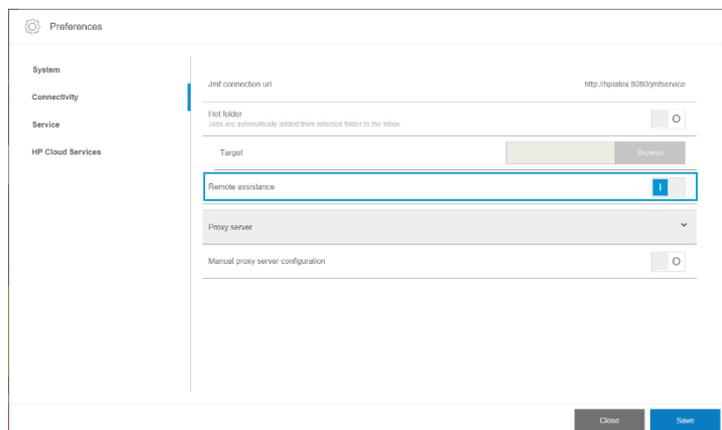
7. Re-apply all the specific customer IPS preferences captured in step 2.

NOTE: If not updated yet, a .NET installation can be performed prior to the IPS upgrade. In case, the .NET installation will take about five minutes. After the reboot the IPS will launch automatically.

NOTE: If there are any problems when you start the IPS software, refer to Appendix 4 to troubleshoot these issues.

Post-firmware update actions

Finally, you need to ensure that the **Remote assistance** option is enabled in the IPS Preferences window so that the system can send printer information to the HP servers. Note that this option will be enabled by default if the PDSA has been accepted when installing the new Internal Print Server.



New features

This firmware release includes the following new improvements with respect to the previous one.

Productivity

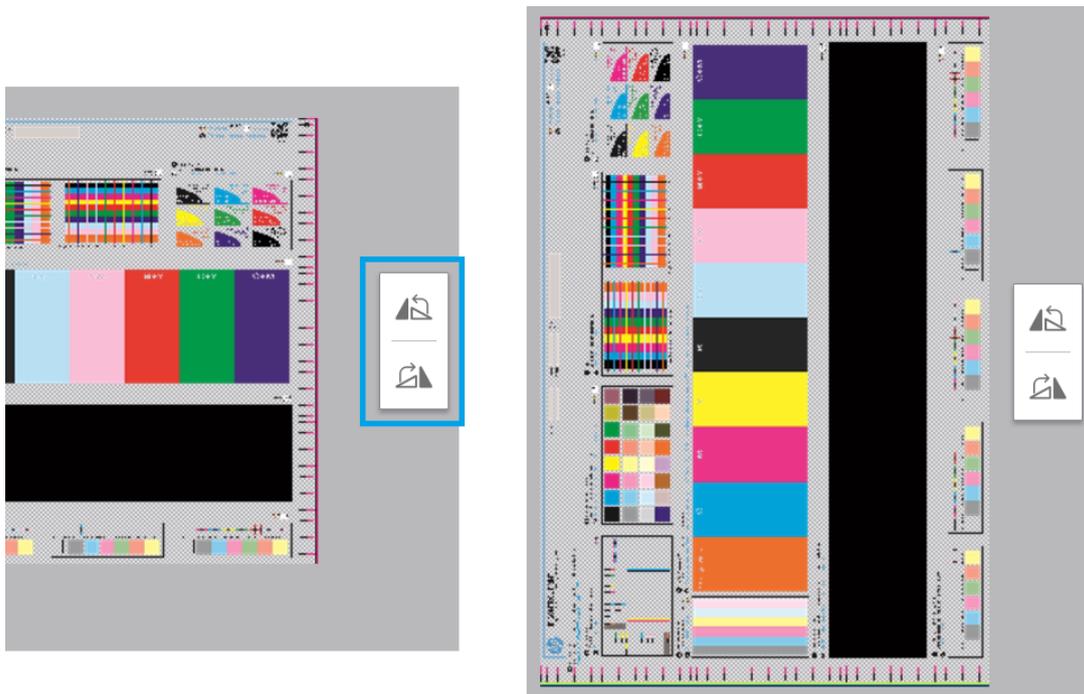
Keep loading parameters in the loading substrate

In case the substrate type is modified the loading parameters will remain. Previous it was reset by the latest used for that specific substrate.

Rotate jobs in IPS

It is possible to rotate individual job on the IPS to avoid the need of re-ripping it.

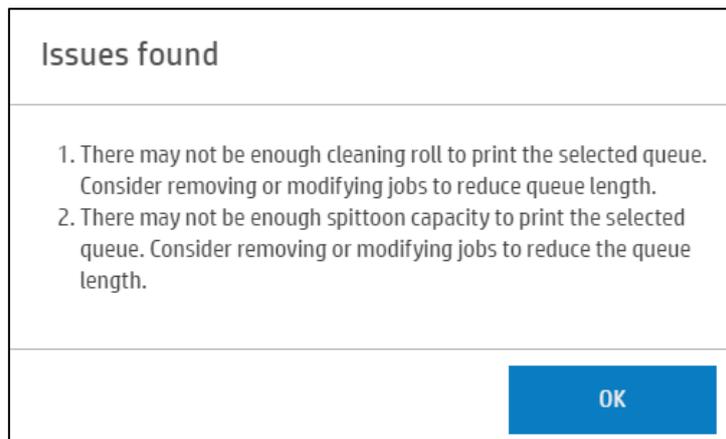
IMPORTANT: Once the job has visually rotated and it is in the queue, it will take a few moments before it can be printed (the print button will be grey until ready).



Improvements in unattended printing

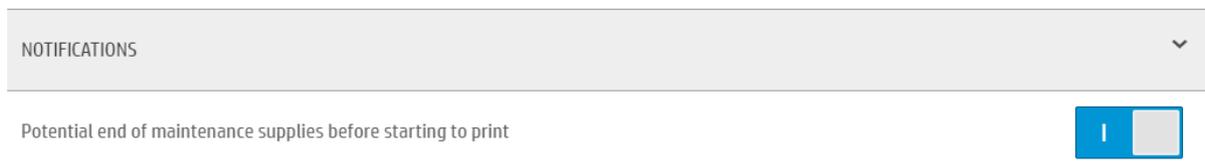
When adding a job in the jobs queue, the IPS will inform customers if there is enough web wipe roll and left Spittoon capacity to complete the selected jobs. The following error message is displayed if there is not enough cleaning roll or left Spittoon to complete the queue:





If the user wants to print anyway, the printing will automatically stop when one of these consumables reaches its life end.

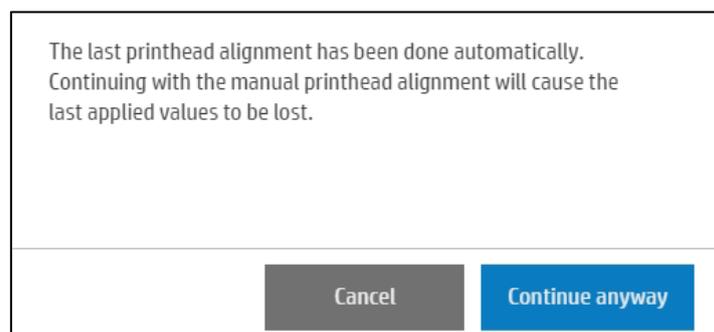
To activate this feature, go to Preferences < System < Notifications:



Printhead alignment

Warning when an automatic printhead alignment is going to be overwritten

In case the printer uses currently an automatic printhead alignment and user tries to modify a manual alignment value, a warning will be showed. This will be useful to understand if printer currently uses an automatic or manual calibration.

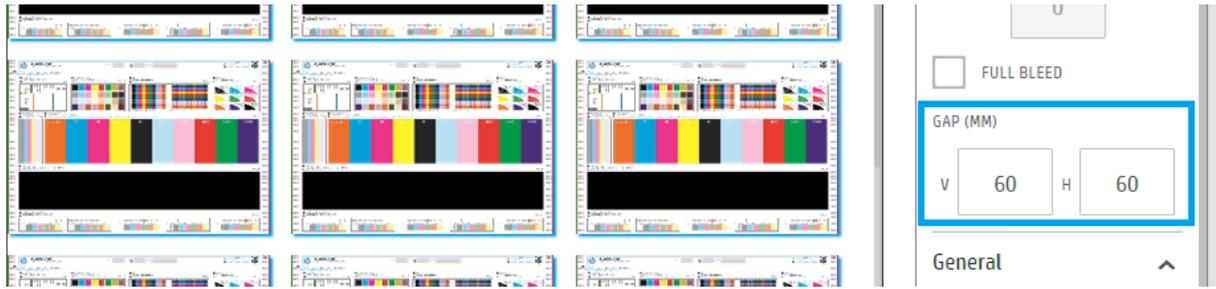


NOTE: In case user prints a manual alignment plot after performing an automatic printhead alignment, this warning will not appear as it is understood that user wants no modify the alignment values.

Queue management

Gap between copies

A new setting at queue level allows to add a vertical or horizontal gap between jobs and copies.



NOTE: This gap doesn't apply the margin left between a job and the end of the media. This gap is only applied between copies.

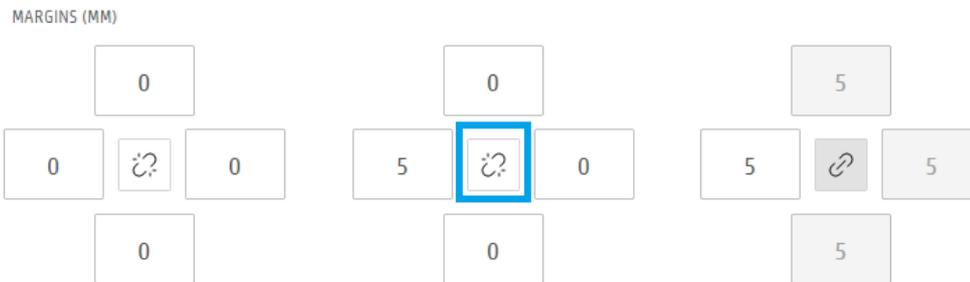
Default full-bleed margin

Via "Preferences -> Queue", it's possible to set a default value for full-bleed. Configurable between 0 and -16 mm (0.63 Inches).



Lock icon for margins

Enabling the lock allows to change all four margins in a single step at queue level:



Total length queue is showed in the user interface

New counter has been added below the queue preview, next to estimated printing time. This counter represents the total length of the jobs added to the queue. Once the print starts, both counters "Estimated printing time" and "Total length", are hidden.



Queue preview increased to 1000m

The preview of the jobs queue in queue management of the IPS has been increased up to 1000 meters (3280,84 feet).

Miscellaneous

Status beacon reports yellow with empty cartridge

The behavior has been improved. Previously when an out of ink condition was reached, the beacon remained green. This will inform user to replace the cartridge, the printer will continue printing for some time until Intermediate Tank is empty.

Rectify de-skew and improve registration clarifications

Includes some indications on the loading wizard page.

Rectify de-skew

Prevents wrinkles from forming. Throughput will be slightly affected.



Improve registration

Improves the registration of rigid substrate by reducing the skew. Throughput will be slightly affected.



Change how the overcoat and optimizer are represented

Update background color for Overcoat and Optimizer, to match patterns used in PrintBeat and mobile apps.



Supported ink cartridges are showed at the IPS

SUPPORTED INK CARTRIDGES:

HP 872,HP 882

Energy saving

Turn off the vacuum automatically after a period of inactivity

After a certain period of time, the vacuum fans will be turned off, even if the substrate is loaded. After disable the vacuum the printer will move to unloaded status. This setting can be configured at "Preferences -> System -> Energy Saving -> Set automatically vacuum off after inactivity time" with any of the following values: Off, 5 min, 15 min, 30 min and 1 hour.

Set automatically vacuum off after inactivity time

Off ^

- After 5 minutes
- After 15 minutes
- After 30 minutes
- After 1 hour

Power box fans are powered off when printer enters in low power mode

In this release the power box fans will be powered only when required. Previously were always active, even when the printer was set to Low power mode.

Turn off PSUs when shutting down the printer

This change implies that all the printer fans will stop when the printer goes to shut down status while the power switches remain connected.

Optimized the data transferred to the cloud to reduce the cloud storage requirements.

This is not visible to customer, nor service engineer.

White ink printing

White layer movement in IPS to mitigate White to Color misalignment

New feature to manually move the white ink layer in any direction to improve the alignment to color layer. This can be used in addition to *Choke*.

On the description, it explains the direction the white layer is moving taking as a reference the view on the IPS queue.

White layer offset

	Pixels to move horizontally Negative value to move the layer to the left and positive value to move the layer to the right.	
	Pixels to move vertically Negative value to move the layer down and positive value to move the layer up.	

Check below table for further clarification:

		White layer moves to
Horizontally	-	Left - Service side
	+	Right - IDS side
Vertically	-	Down - Backwards - Input
	+	Up - Forward - Output

Enable button removed from Choke white ink

The functionality is enabled in case "Pixels to shrink" is different than zero.

Choke white ink
Shrink white layer edge

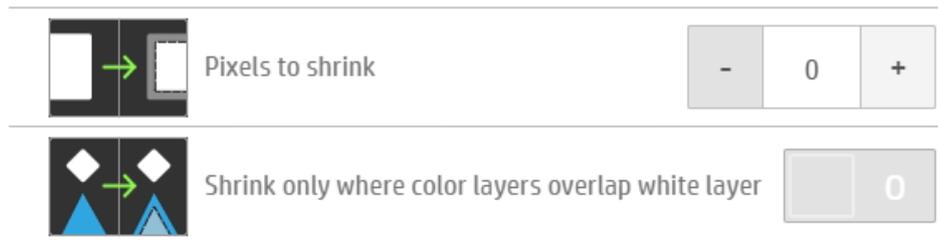
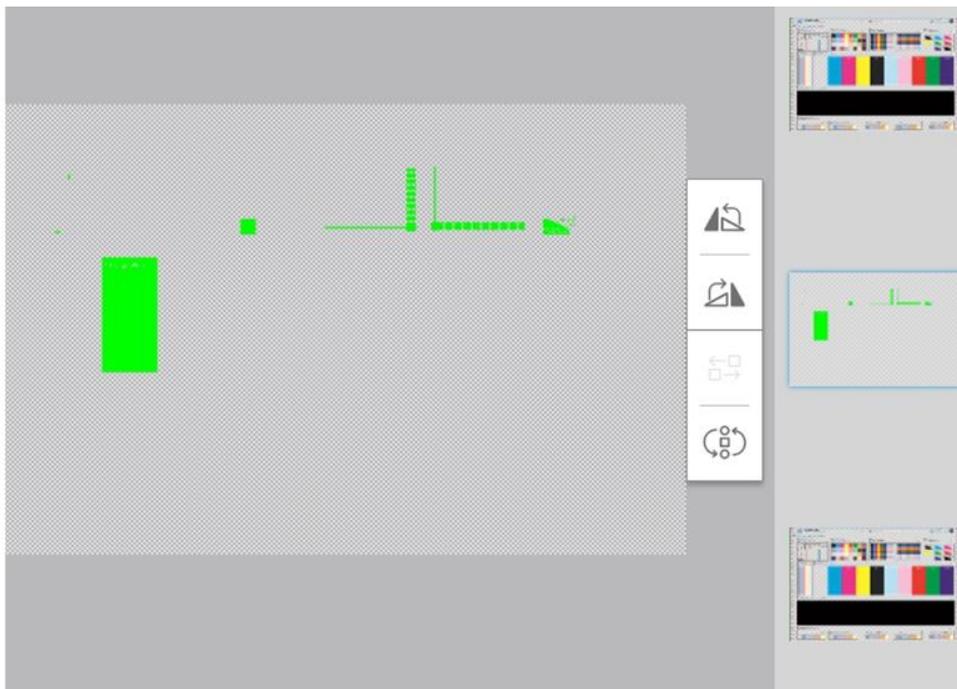


Diagram illustrating the 'Choke white ink' functionality. The first row shows a white rectangle being shrunk by a specified number of pixels, with a control for 'Pixels to shrink' (set to 0) and minus/plus buttons. The second row shows a diagram where the white layer is shrunk only where it overlaps with other color layers, with a corresponding toggle switch (set to 0).

Change how the white layer is previewed

White job preview is showed in bright green gradient (white) over transparent (non-white):



Robustness

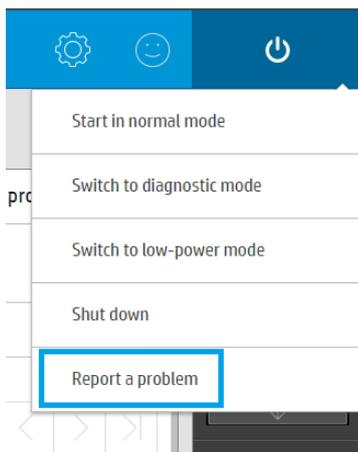
Disable the firmware upgrade when a severe error is present

If the printer has a severe system error, the firmware and IPS upgrade buttons are disabled from the About window and in the upgrade maintenance. Previously the firmware upgrade was allowed even with an active severe error, which can lead to severe printer issues.

Diagnosability

New button to create a diagnostic package

The button "Report a problem" creates a diagnostic package as getLogs.exe does. This allows to save the result in an external USB device or in the internal IPS Hard Drive, the IPS will ask to select the specific folder. This diagnostic package is used to better understand printer issues and help solve them.



NOTE: This button doesn't create an incidence, it just creates the diagnostic package.

Improved the message returned at "HP Cloud Services"

The messages provided when there is a problem with the cloud service are clearer now, this section is available through "Preferences > HP Cloud Services".

Internet connectivity: Ensure that the printer is connected to the Internet and try again. If the problem persists, contact your HP support representative.

Server not available: HP Server not available. Wait a few minutes and try again. If the problem persists, contact your HP support representative.

System error 0090-0093-0081 related to job cancellation visibility has change from silent to advisory

Additionally, the parameters defining the circumstances in which the error occurred have been more effectively constrained.

Improvements on the upgrade process for the IPS

These improvements make the process more robust:

- Installer provides feedback since the update file is launched
- Installer is able to close all the required processes
- Timeout added to close any background script which can block the installer process

Fixes (from the previous version to the current one)

Bug fixes and improvements in this firmware release include:

- Improved a condition where the printer can hang after cancel a job.
- Alignment compensation fixed. The alignment compensation functionality now takes into account the Carriage height offset applied in the substrate preset.
- Improved the accuracy for the estimated printing time. The estimated time was not accurate when a color printmode was used and the white printhead were installed.
- When a mandatory white Intermediate Tank refill is required but the ink supply is empty, the ongoing job will be cancelled. This will avoid performing recovering actions in the Intermediate Tank as it not going to empty completely.
- Fixed a situation where the printer can become hang when pressing the "Test Print" button during the new printmode creation workflow.
- Improved behavior after a crash detection. After a crash detector activation while printing, after performing the recovery actions, printer could continue printing under certain circumstances. This behavior has been fixed and printer will remain in idle status.
- Added fixes to reduce the "No valid printer detected" after an IPS software upgrade.
- Data transfer agreement scroll is now on top. Previously the scroll was always down when the window was showed.
- Improvements have been made to mitigate the occurrence of system error 0090-0000-0006, which previously halted the printer shortly after initiating the printing process. Take in consideration that the code 0090-0000-0006 refers to a generic system error and could be caused by other factors.
- The "FW update" and "IPS update" buttons in About window are now enabled when FW and IPS have incompatible versions.

Limitations

- In the Internal Print Server (IPS), the queue management preview might show a random bug where the image glitches for one second moving a little to one side and goes back to normal. This happens randomly and not very often. The issue doesn't affect the behavior of the application. It can happen in the main view of the IPS or in the Queue management window.

