Software Release Notes

Rev #: 1.01
SW Version: R5.3.3

Date: 26 August 2025

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Revision History

Doc. Version	SW Release	Date	Details
V1.00	R5.3.3	10 Dec 2024	First release
V1.01	R5.3.3	26 Aug 2025	Minor reference corrections

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1 Introduction

DuraFlex® software version R5.3.3 upgrades the DuraFlex system to include “Just In Time” print capability, along with some other improvements.

1.1 Typographic Conventions

Throughout this document, the following typographic conventions are used:

`Code Character`	`Courier` font is used to identify HTTP GET and POST commands with associated arguments, as well as references to source code, job states, registry settings, directory/file names, XCI commands, and XML settings.
Bold	Text that appears on-screen in the user interface is shown in **bold** font. This includes UI buttons, engine states, warning codes, and fault codes.
Yellow Highlighting	Yellow highlighting indicates sections that are new or updates in this version of the document, compared to the previous version.

1.2 Additional Documentation or Access

For additional product-related technical documents, go to your Memjet Partner Site.

If you need access, enter a case in Service Desk (*https://OEMsupport.memjet.com*), send an email to Memjet Customer Support (*customer.support@memjet.com*), or contact your Technical Account Manager.

2 New Features and Improvements

This section describes enhancements made to the software in this release.

2.1 Adds support for “just in time” Printing

With this release, DuraFlex now has the ability to support a single page in the datapath pipeline within the engine such that it is possible to develop a system that works with page data that is fed “just in time” (before a TOF arrives) to print a single page. Please see the **“DuraFlex JIT Printing Guide V1.00_24May24.pdf”** in the DuraFlex documentation for more detailed information.

Please be aware of the following IMPORTANT changes:

Hardware Parameter changes:

The Kareela hardware parameter config file hwparamstore.json file format has changed from R5.2.2 as follows.

- The fileFormatVersion has changed from 41 to 63. (NB: the intervening format versions apply to DuraBolt releases.)
- The interpage spit bars are now specified in micrometres instead of lines. This means the size and frequency of the maintenance can be designed based on measured distances rather than values that are specific to the job being printed. To convert existing settings based on a known job resolution, multiply delayLines, periodLines,and heightLines by (25400µm / job resolution in DPI) to get the new delayUm, periodUm and heightUm values.
- There is a new optional pesSettingsFactoryDefaults section. This defines a single parameter, defaultPepQueueMaxPages which is used to configure the maximum capacity of the page queue in the Print Engine Pipeline. For normal printing this can be set to values between 4 and 10. Setting it to 2 configures "just in time" printing mode.

Job submission:

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Print data must be sent to this system using JSL_R12.5.2 or later, which has been updated to support "just in time" printing.

3 Bug Fixes

The section includes corrections implemented in this release.

3.1 No Longer Need Workaround to use TRANSACTIONAL TOF Sync Mode

Using the TOF setting of TRANSACTIONAL mode used to require a workaround to set the TOF mode first to ALL_PAGES and print a job. Now, TRANSACTIONAL mode can be used directly, without the workaround.

3.2 No Longer Faults if Pause Request happens Near End of Print Job

This fixes a fault that could occur if a pause was requested too close to the end of a print job when there were not enough pages left to print to properly pause. Now, there will be no fault and the print job will continue to print the rest of the pages in the job.

3.3 Corrects Prepage Declog Calculations that could lead to a DATA_UNDERRUN

Previously, if the “First Page Prepage Gap” was computed to be an even number of lines, and the “Secondary Page Prepage Gap” was an odd number of lines, a DATA_UNDERRUN could occur. This has been fixed so no special calculations have to be made to avoid the mismatch of an even and odd number of lines.

3.4 Allows for use of Inverted TOF Sensor When Using the mediaPresentSensorEdgeGate

There was a bug in the setup of the mediaPresentSensorEdgeGate when coupled with using an Inverted TOF Sensor that meant only a non-inverted TOF sensor could be used. This has been fixed so an Inverted TOF sensor can now be used when using the mediaPresentSensorEdgeGate.

3.5 Fixes Case Where a Non-Printing Fault Would Not Cancel the Print Job

If the DuraFlex enters a fault state that is not due to a job fault or a fault while executing an algorithm, the print job remains in the PRINTING state instead of being cancelled. One example case of this would be if the IDS was disconnected during a print job. This has been fixed.

3.6 Fixes KWS when NoEjectZones are Enabled

An issue was found that caused KWS to be set incorrectly when NoEjectZones were used to limit the print width of the printhead. This could lead to unexpected dehydration. This has been fixed.

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3.7 Fixes Custom Spit Bar Margins When Right NoEjectZone is Set

Custom spit bars were not extending to the full printable zone on the right side when NoEjectZones were used. This fix allows the full printable width for the custom spit bars.

4 Known Issues

No known issues

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5 Software Installation and Upgrade

5.1 Prerequisites

CAUTION: The software upgrade will delete any existing data.

Follow the instructions in this section to install or upgrade the DuraFlex system software.

Perform the following tasks before a new software installation or upgrade:

- Create a DPCA LiveUSB drive according to the instructions in the *DuraFlex Installation and Commissioning Guide*.
- Record the Datapath PCA serial number from the label on the electrical enclosure.
- Save any configuration file or logs, e.g. `hwparamstore.json`, etc.
- Save a copy of the `PrinterKeyStore` file. For details on this process, please see Section 6.6 of the *DuraFlex Installation and Commissioning Guide*.
- Save any custom ICC profiles or dither profiles.

5.2 Installation/Upgrade Procedure

To install or upgrade software:

1. Set up the system network.
2. Power off DuraFlex.
3. Insert the DPCA LiveUSB drive into the USB port on the printing system.

Figure 1 – Connect LiveUSB Drive via USB Port

4. Power on the DuraFlex system.
5. Log in to DuraFlex using PuTTY with username `duraflex` from the Client PC.

Note: Alternatively, you can also use Windows 10 SSH if that is available.

No password is required. When the login is successful, the PuTTY terminal should respond with a shell prompt: `[duraflex@servername ~]$`

6. In the PuTTY terminal, enter the command below to install the new software on DuraFlex:

```
dtpDpcaSwInstaller
```

7. Wait for the PuTTY terminal to display the following response indicating the upgrade is complete:

```
Installation Complete
Press Return to quit
```

8. While the DPCA LiveUSB drive is still inserted, press **Enter**.

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9. Wait until the print unit boots from the DPCA LiveUSB drive again and obtains an IP address.
10. Ping the IP address of the print unit. Verify that the print unit successfully responds.
11. Power off the print unit.
12. Remove the DPCA LiveUSB drive.
13. Power on the print unit and wait until the print unit boots up.
14. Edit the `hwparamstore.json` file to configure the DuraFlex print unit:
    a. From the Client PC, use PuTTY to log in to DuraFlex.
    b. In the PuTTY terminal, use the text editor to open the file:

    ```
    sudo vi /opt/memjet/kareela/data/hwparamstore.json
    ```

    c. Refer to the *DuraFlex Installation and Commissioning Guide*, specifically Section 6, Configure the Printing System, to make necessary changes.
    d. Save and close the file.
15. Copy the `PrinterKeyStore` file back onto the printer. See Section 6.6 of the *DuraFlex Installation and Commissioning Guide*.

5.3 Set RIP Mode

Starting from software release R4.2.x, the print unit will initially boot in Technictl mode. Therefore, it is required to set the RIP mode to internal or external.

1. Log in to DuraFlex using PuTTY with the credentials (`duraflex` for both username and password).

   When the login is successful, the PuTTY terminal should respond with a shell prompt:
   `[duraflex@servername ~]$`

Note:	Alternatively, use Windows 10 SSH if that is available. For example, `ssh duraflex@192.168.100.200`

2. Change directory to the `hwparamstore.json` file location:

   ```
   cd /opt/memjet/kareela/data
   ```

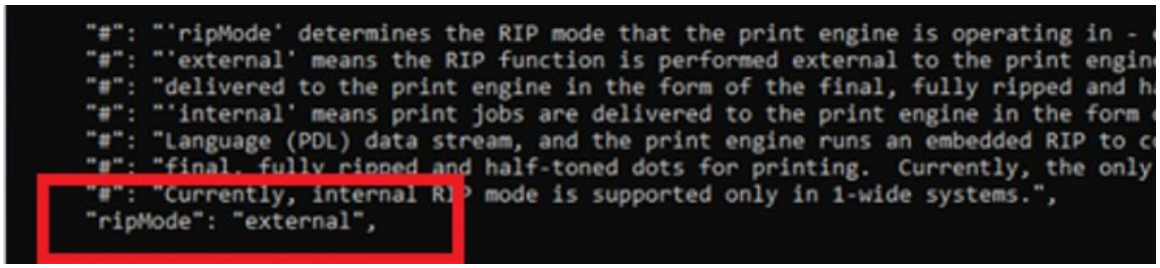
3. Open and edit the `hwparamstore.json` file:
   a. Run the command to open the text editor:

   ```
   sudo vi hwparamstore.json
   ```

   b. Change the value of the `ripMode` variable to match the desired RIP mode.

   For example, if changing the RIP mode to the external RIP mode, set the `ripMode` variable to "`external`"; as shown in *Figure 8*.

Figure 2 – Set RIP Mode in the JSON File



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Similarly, if the internal RIP mode is intended, set the `ripMode` variable to "`internal`".

c. Save the `hwparamstore.json` and exit from the `vi` text editor.

4. Use the PuTTY terminal to enable the same RIP mode that you have set in `hwparamstore.json`.

   a. Disable the current RIP mode:

      ```
      dtpStop
      ```

   b. Power cycle DuraFlex.
   c. Enable the internal or external RIP mode:

      ```
      dtpUseInternalRip or dtpUseExternalRip
      ```


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