Software Release Notes

Rev #: 1.00
SW Version: R4.2.3

Date: 30 April 2021

Revision History

Doc. Version	SW Release	Date	Details
V1.00	R4.2.3	30-Apr-21	Initial release

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1 Introduction

DuraFlex® software version R4.2.3 is a minor release that includes bug fixes and known issues.

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

There were no new features included in this release.

3 Bug Fixes

The section includes issues that were fixed in this release.

3.1 No Notification When Bulk Ink Supply Not Providing Ink

When the bulk ink supply was not providing ink there was no indication to the user and the system would fault. This may have been due to blocked or pinched tubing or the bulk ink supply was empty or not connected. Now, the PES Status displays INK_OUT, but the system does not fault.

3.2 PrnStatus_printDataBuffer Level not Reporting

Kareela and Kenmare have both been updated to report the PrnStatus_printDataBuffer level.

3.3 NGQ Consumable Errors During Printing

Errors in the NGQ consumable tracking system would case the engine to fault during printing. This issue has been resolved.

3.4 Printing Hangs When Adding Job to Chain

When a job is nearing completion and a new job was added to the chain, the printing would stop and not resume with no notification. Jobs can now be added to a job chain at any time during printing without issues.

3.5 Gymea Assert “isChainSuccessful” During Printing

The print engine no longer enters a Fault State due to the Gymea software module exiting, which consequently caused the Kareela software module to report a timeout.

3.6 Ink Refill Timeout Adjusted

Previously, the wait for ink refill timeout was 40 seconds long. This was an issue during installation and initial power-up when the empty IR tanks would not fill completely in 4 0seconds. The printer would need to be re-initialized several times to work around this issue. The ink refill timeout has been extended to 120 seconds (2 minutes).

4 Known Issues

The following are known issues in this release.

4.1 Data Under Run Error During Long Print Jobs

When printing long jobs (more than 1,000 pages), you may experience a data under run error and the system will fault. There is a higher chance of this occurring if the printed image is less than 2 inches long. If you experience this issue, please contact your Memjet TAM.

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.

Be sure to perform the following before a new software installation or upgrade:

- Create a DPCA LiveUSB drive according to the instructions in the *DuraFlex Installation and Commissioning Guide* (Section 5.6 Create DPCA LiveUSB Drive).
- 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 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 DuraFlex.
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**.
9. Wait until the print unit boots from the DPCA LiveUSB drive again and obtains an IP address.

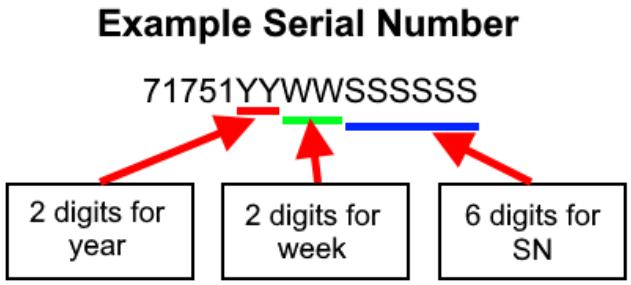
10. Ping the IP address of the print unit. Verify that the print unit successfully responds.
11. Power off the print unit.
12. Remove the DPCA LiveUSB drive.
13. Power on the print unit and wait until the print unit boots up.
14. From the Client PC, log in to DuraFlex using PuTTY with credentials (`duraflex` for both username and password).
15. In the PuTTY terminal, enter the command below to set the hostname:

    ```
    sudo hostnamectl set-hostname rsYYSSSSSS.local
    ```

    The hostname is based on the Datapath PCA serial number labelled on the electrical enclosure.

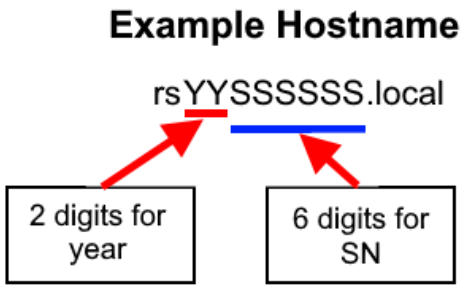
    The serial number includes 2 digits for year, 2 digits for week, and 6 digits for the serial number (SN).

Figure 2 – Fields in Serial Number



The hostname consists of the following fields, including 2 digits for year and 6 digits for SN, with `.local` added to the end.

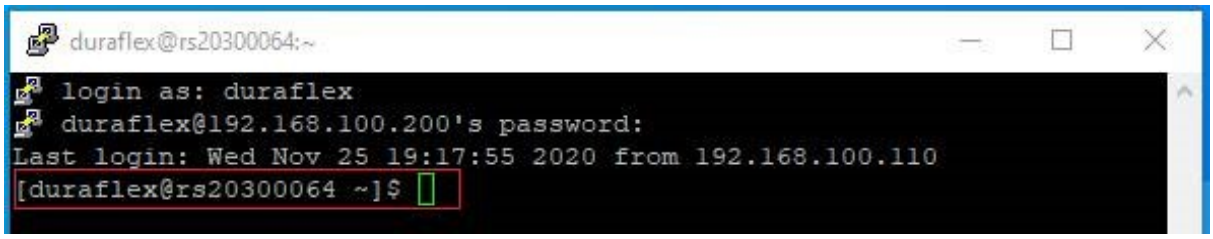
Figure 3 – Fields in Hostname



For example, if the serial number is `717512020300062`, the hostname will be `rs20300062.local`.

16. Exit the PuTTY terminal. Log in again using the same credentials. Verify that the hostname is shown on the login prompt. Figure 106 shows an example.

Figure 4 – Hostname on Login Prompt



17. 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 6.1 Configure the Printing System, to make necessary changes.
    d. Save and close the file.
18. Continue with the steps in Section 5.11 Set RIP Mode to set the print mode.

5.3 Manual Glenbeigh Upgrade

Note:	Skip this section if the Glenbeigh FPGA upgrade image has been upgraded automatically by following the procedure in Section 5.7 Automatic Glenbeigh FPGA Firmware Upgrade.

Otherwise, perform the following steps to manually upgrade the image.

5.3.1 Prerequisites

Before beginning the upgrade, check with your Memjet Technical Account Manager:

1. Request the release-specific requirements.
2. Provide the serial number from the label on the Electrical Enclosure.
3. Request the Glenbeigh upgrade image file. See the examples below for reference:
    - Glenbeigh file name:

      `GlenbeighFW_SN717512020300062_GSHAA7007002-2_20200819-220326.bin`

    - Glenbeigh version:

      `GSHAA7007002-2`

5.3.2 Upgrade Glenbeigh Image on DuraFlex

1. From the Client PC, log in to DuraFlex using PuTTY with the credentials (`duraflex` for both username and password).
2. In the PuTTY terminal prompt, enter the command below to disable printing:

   `dtpStop`

3. Power cycle DuraFlex.
4. After reboot, follow step 1 to log in to DuraFlex again.

5. In the PuTTY terminal prompt, enter the command below to make a new directory, and convert the hyphen "-" to underscore "_" when you type the Glenbeigh version in terminal.

   For example, for the image version `GSHAA7007002-2`, the directory name should be `GSHAA7007002_2`, as shown below:
   ```
   sudo mkdir -p /opt/memjet/glenbeigh-images/GSHAA7007002_2
   ```
6. On the Client PC, use WinSCP to copy the Glenbeigh FPGA image to the directory shown above on DuraFlex. Use the credentials `root` for both username and password.
7. In the PuTTY terminal prompt, enter the commands below to update the link "`current`":

   ```
   cd /opt/memjet/glenbeigh-images
   sudo rm current
   sudo ln -s GSHAA7007002_2 current
   ```
8. Power cycle DuraFlex.
9. From the Client PC, log in to DuraFlex using PuTTY with the credentials (`duraflex` for both username and password).

   It might take a few minutes for the Glenbeigh image to update.
10. Confirm that the Glenbeigh upgrade is successful:

    a. In the PuTTY terminal prompt, enter the command below:

       ```
       lsgbg
       ```

    b. If the following response shows up, it proves the firmware is successfully upgraded:

       ```
       … v7.06.02 …
       ```
11. In the PuTTY terminal prompt, enter the command below to re-enable the printing services:

    `dtpUseExternalRip` or `dtpUseInternalRip`

5.4 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:

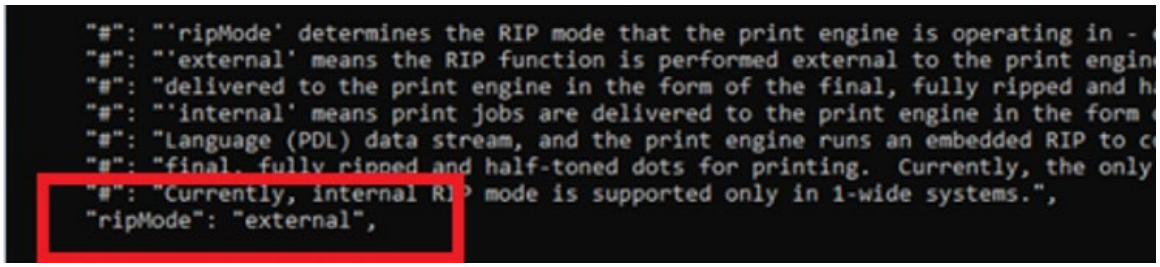
   a. Run the command to open the text editor:

      ```
      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 5*.

Figure 5 – Set RIP Mode in the JSON File



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.

Note:	It is a new feature in R4.2.x that the OEM must update the `ripMode` variable in the `hwparamstore.json` file to set the RIP mode.

4. Choose one of the options to enable the same RIP mode that you have set in `hwparamstore.json`.

Option 1 – Use the PuTTY terminal:

a. Disable the current RIP mode:

```
dtpStop
```

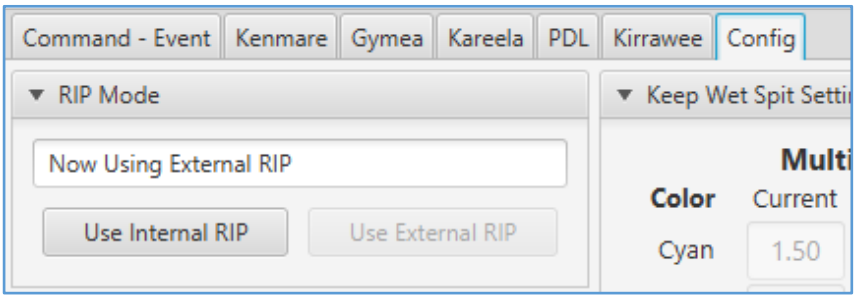
b. Power cycle DuraFlex.
c. Enable the internal or external RIP mode:

```
dtpUseInternalRip or dtpUseExternalRip
```

Option 2 – Alternatively, use the Demo GUI:

a. In the Demo GUI connected to the print engine, select the **Config** tab.

Figure 6 – Use RIP Mode



b. In the RIP Mode section, enable the desired mode:

- To enable the Embedded RIP mode, click **Use Internal RIP**.
- To enable the External RIP mode, click **Use External RIP**.

To change the print mode, the print unit must be in the **OFF** state. Otherwise, a shutdown confirmation (*Figure 7*) will pop up. Click **Yes** to shut down the print engine.

Figure 7 – Shutdown Confirmation Window