

# ODC and Feathering Calibration

Document version 2.2.

This document describes how to configure the Xitron DuraLink system to calibrate and use Optical Density Correction (ODC) and feathering.

## Preparation

Python 3.x must be installed on the Master PC (this is done by the DuraLink installer). Before starting ODC calibration, ensure that the system is configured correctly for normal output and that you have printed at least one job.

## Configuration

Edit `Utilities\ODC tools\ODC.ini` and configure the paths to the XiFlow shares on the RIP PCs. The first in the list should be the Master PC, i.e. the one running RIP Manager. For example:

```
[XiSharePaths]
PC1XiShare = \\RIP1\xishare
PC2XiShare = \\RIP2\xishare
PC3XiShare = \\RIP3\xishare
PC4XiShare = \\RIP4\xishare
```

Specify the address and login credentials of the Como DMI FTP Server, for instance:

```
[DMI]
url = 10.126.123.56
user = dmi
password = dmi
```

Specify the number of heads across the printer width, for instance:

```
[DuraLink]
NumberOfStripes = 4
```

Optionally, also in the [DuraLink] section, specify the name of the workflow to which the calibration chart will be printed:

```
[DuraLink]
workflow = 1. Prep Workflow
```

If a workflow is specified, MakeCalibrationChart.py will not ask the user to choose a workflow.

## Operation

A calibration is created in three phases:

- 1) Start a new calibration on the Master PC. This results in a new set of files on the DMI.
- 2) Complete the calibration on the DMI.
- 3) Update the RIP PCs to use the new calibration.

In detail:

- 1) Double-click `Utilities\ODC tools\MakeCalibrationChart.py` on the Master PC (the one running RIP Manager) to run it. Note the instructions before proceeding. (This script was previously named MakeODCChart.py in DuraLink R1)

PREPARING ODC / FEATHERING CALIBRATION CHARTS.

Any existing ABT files in any of the RIP PC DuralinkOutput folders will be deleted.  
Any existing calibration matching the name you enter will be overwritten.

Please ensure that the workflow this chart will be printed to has plain HDS Medium or HDS Fine screen pattern selected in the NxM plugin configuration.

If you make a change, use XiRemote to copy the updated RIP settings to all RIPs before proceeding.

Any CCT files selected in the NxM plugin configuration will be ignored when preparing ODC charts; there is no need to select '(none)' during this process. However, any selected CCTs will be used when printing Feathering calibration charts.

For this script to function, the Web Server must be running in addition to the Server, Client, and RIPs. The Web Server is started from the Server Settings dialog

While this script is running, please do not process other jobs, or make changes to the jobs in any workflows.

Press 'return' to continue, or quit this script at this point.

Allow the script to continue; print the chart to a File Prep workflow. In this example we are printing an ODC chart; printing a feathering chart is very similar.

The chart must be printed to a workflow which is set to the vertical resolution the chart is intended for. The

resolution is indicated by the first section of the chart folder name, i.e. 1585 dpi in the example below.

```
Verifying remote paths...
Is this for feathering? (Y/N): n

ODC mode

These are the available raw chart folders:
1 1585_620mm

Enter a chart folder number: 1

Please enter a name for this calibration: testing

These are the available workflows:
1 1. File Prep 1260
2 1. File Prep 1585
3 2. Press Output 1260
4 2. Press Output 1585
5 New Workflow 1

Which File Prep workflow number do you wish to print the chart to? 2

These are the available screen patterns:
1 HDS Medium
2 HDS Fine

Which screen pattern is selected in the workflow?: 2
The ODC/feathering folder will be named '1585_HDS-Fine_testing'
Deleting existing ABT files from RIP PCs...

Printing '1585_nxm_odc_chart.pdf' to '1. File Prep 1585' via hot folder...
Wait 15 seconds...
It looks like the job is paused; please release it.
Wait until 13 jobs in total have completed.....
.....
Waiting for file completion...
Waiting for file completion...
Uploading results...
Uploading chart details...
Uploading chart config file...
Deleting existing ABT files from RIP PCs...

Processing complete. Press 'return' to finish.
```

2) At this point, the calibration should be completed on the DuraLink system, resulting in the creation of CCT files on the DMI.

3) When it has been done, from DuraLink R2.4 onwards, the CCT files will be automatically transferred from the DMI to the RIP PCs.

In general, if CCTs are added, updated, or deleted, they will be refreshed on the RIP Manager and RIP PCs automatically, however this is dependent on Memjet software; this feature is not fully implemented in DLSS-16A. The path to the RefreshCCTs script must be specified in the Server .ini file, e.g:

```
[DuraLink]
RefreshCCTsPath = C:\Navigator\Utilities\ODC tools\RefreshCCTs.py
```

The DuraLink R2.4 installer and updater add this path to the .ini file automatically.

It is also possible to manually transfer a complete set of CCT files to the RIP PCs. To do this, double-click Utilities\ODC tools\RefreshCCTs.py . An example transcript follows:

```
Downloading a complete new set of CCTs.

Updating RIP ODC files.

Verifying remote paths...

Download CCT files for \\ChildVM1\xishare

CCT files
Download 1585_HDS-Fine_620mm

Feathered CCT files
Download 1585_HDS-Fine_620mm

Download CCT files for \\ChildVM2\xishare

CCT files
Download 1585_HDS-Fine_620mm

Feathered CCT files
Download 1585_HDS-Fine_620mm

Download CCT files for \\ChildVM3\xishare

CCT files
Download 1585_HDS-Fine_620mm

Feathered CCT files
Download 1585_HDS-Fine_620mm

Processing complete. Press 'return' to finish.
```

If this calibration was to a new name, edit the RIP Page Setups for which you wish to use it, on the Master PC and select the applicable CCT name in the NxM Plugin configuration dialog. Then use XiRemote to copy the RIP settings from the Master PC to the other RIP PCs.

## Notes

- Calibration names must contain at least one character, and may only contain alphanumeric characters plus underscore.
- If the user enters a calibration name which already exists, it will be overwritten. Any existing calibrations case-insensitively matching the entered name will be removed.