Xerox® Color C60/C70 Printer
Simple Image Quality Adjustment (SIQA) User Guide

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Simple Image Quality Adjustment (SIQA) Overview

Simple Image Quality Adjustment (SIQA) is a set of maintenance tools that adjust the quality of the printed images generated by the printer. Use the SIQA Tool in the following instances:

- When image alignment on duplex output requires correction
- When within page image density requires uniformity adjustment

SIQA performs three types of adjustments, which must be performed in the order given:

- **Image Transfer**: This tool corrects for uneven toner and color shift by creating an Image Transfer Adjustment to the Bias Transfer Roll in the printer. The adjustment is created and saved for specific stocks and can be selected for any tray when printing on those stocks. Perform the Image Transfer Adjustment before performing any other image adjustment.

- **Alignment**: The Alignment procedure generates an individual alignment profile for each stock/tray combination selected when performing the procedure. These profiles, ot Types, ensure that images are placed correctly on the media. You can create a maximum of 50 Types for use across all input trays. You can assign a different Type to each of the input trays, if desired. The assigned Type is then automatically applied each time the associated tray is used, ensuring optimal print quality. Perform Alignment Adjustment after you have completed the Image Transfer Adjustment.

- **Density Uniformity**: The Density Uniformity procedure adjusts print engine tables to ensure that ink is deposited uniformly and consistently across the entire surface of a page for each print. Perform the Density Uniformity Adjustment after you have completed the Image Transfer and Alignment Adjustments. Unlike Auto Alignment Adjustment, the profile you select applies to all input trays.

These are the three sets of steps that are performed when calibrating the printer with the SIQA tools:

1. Print the SIQA targets.
2. Scan the targets using either the Document Feeder or the Platen Glass.
3. Save the adjustment data to a file on the printer providing the file with a unique name.

The adjustment profile is then complete and can be selected by users for print runs, as needed.

Accessing the SIQA Tools

To access the SIQA tools:

1. Log in as a System Administrator.

   a) At the printer Control Panel, press the **Login/Logout** button.

   b) Type admin and touch **Next**.

   c) Type the Administrator passcode and touch **Enter**.

   The default passcode is **1111**.

2. Press the **Machine Status** button on the control panel.

3. Touch the **Tools** tab.

4. In the Features column, scroll down and touch **Maintenance**.
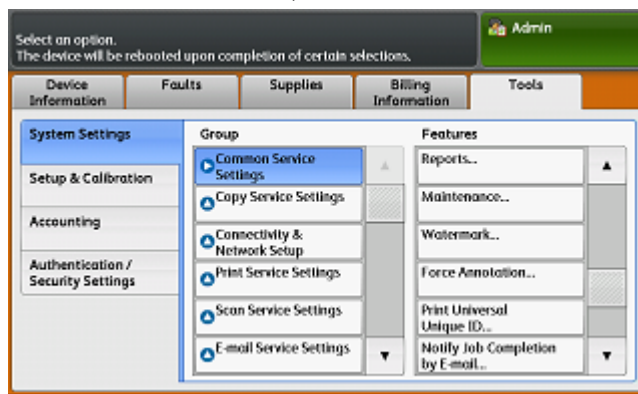
5. Touch the down arrow to access the SIQA tools on the next screen.

Image Orientation Definitions

Inboard and outboard are as follows:

- On the machine, **inboard** refers to the rear of the machine (the side farthest from you as you are using the machine) and **outboard** refers to the front (the side nearest you).
- On the printed output, as you hold the sheet with the top facing up, **inboard** refers to the left side of the sheet and **outboard** refers to the right side. The short black line indicates the top of the sheet.
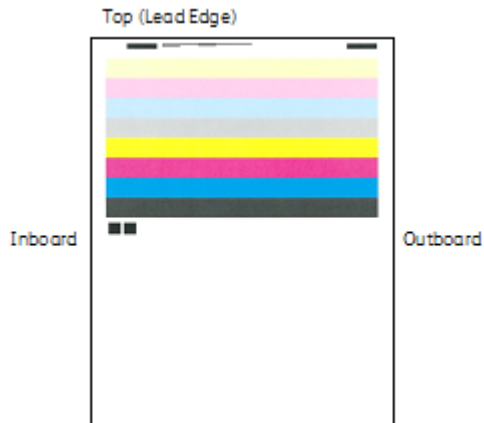
2

Image Transfer Adjustment

Image Transfer Adjustment Overview

The purpose of the Image Transfer Adjustment is to correct for mottle (uneven toner coverage) and color shift (inconsistent color). These image quality issues may occur on heavy-weight stocks. The Image Transfer Adjustment applies only to the paper type selected during the procedure. You must perform this adjustment for each paper type loaded in the printer.

Adjust Image Transfer

The Image Transfer Adjustment applies only to the paper type selected during the procedure. You must perform this adjustment for each paper type loaded in the printer.

Follow these steps to perform a Simple Image Quality Adjustment (SIQA) for image transfer:

1. Log-in as a System Administrator and access the SIQA tools screen. Refer to Accessing the SIQA Tools.
2. Touch **Adjust Image Transfer**.
3. Touch **Paper Type**, and choose a paper type from the list.

4. Touch **Close**.

5. Load the selected paper type into Tray 5 (bypass).

   Acceptable paper sizes:

   - 11 x 17 in.
   - 8.5 x 11 in.
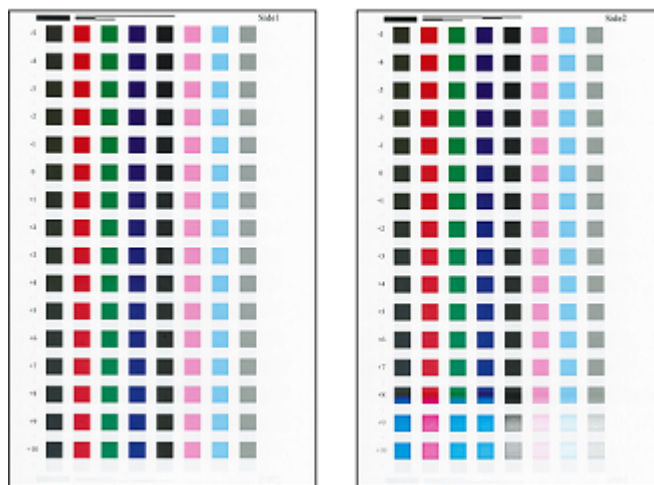   - A3
   - A4
   - SRA3

6. Touch **Print Sample**.
7. Select a paper size.
8. Select **1 Sided** or **2 Sided** for the calibration chart.
9. Press the **Start** button on the control panel to print the calibration chart.

10. Touch **Confirm**.
11. Touch **Close**.
12. Touch **Scan Calibration Chart**.

    Note

    If you printed a 2-sided sample, scan both sides.

13. Follow the instructions on the control panel touch screen to complete the calibration.
14. Touch **Confirm** to exit the scan.
15. View the adjustment numbers for **Side 1** and **Side 2**.

16. Touch **Adjust** to complete and save the calibration.
17. Touch **Close** twice to exit the SIQA tool.
18. To log out of Admin mode, select the Admin icon on the top right of the screen and touch **Logout**.

Adjust Image Transfer Manually

If you are not satisfied with the results achieved after completing the Image Transfer Adjustment procedure, you may run the calibration again using a different row of squares on the calibration chart. You may also change the adjustment values directly.
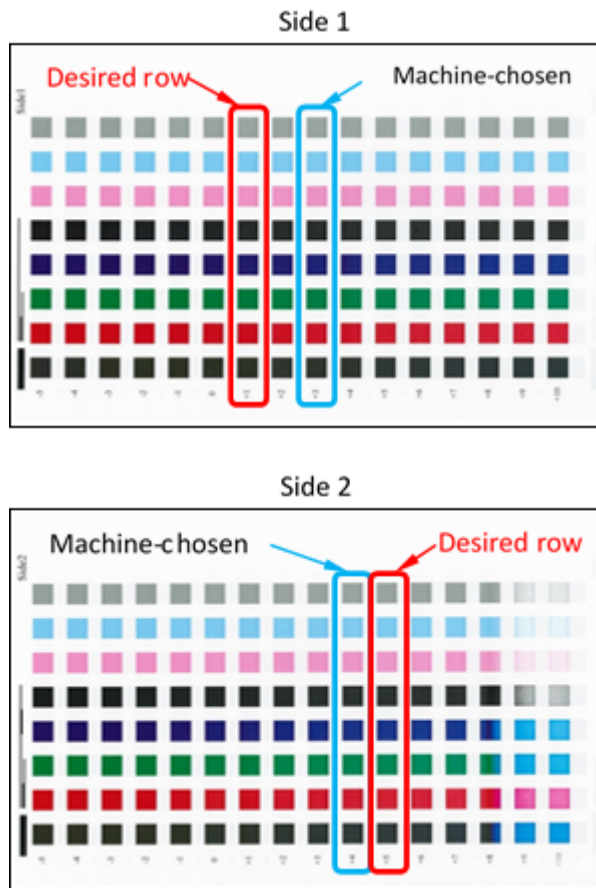

Adjust Image Transfer screen showing machine-chosen values for Side 1 and Side 2 after calibration

1. Select the row of transfer samples that you wish to use for the calibration.

   Note

   The key to choosing the best row of samples is to select a row with the fewest white spots in each square.

Side 1

Side 2

2. Enter the number that represents the desired sample row, which is indicated next to the row on the side of the sheet.

   Using the image above as an example, you would enter **1** for Side 1 and **5** for Side 2.


3. Touch **Adjust** to save the values for image adjustment.
4. Touch **Close** twice to exit the SIQA tool.
5. Touch **Close**.
6. To log out of Admin mode, select the Admin icon on the top right of the screen and touch **Logout**.

Assigning the Image Transfer to Media

One an Image Transfer is created and saved, you can assign it to any tray that is feeding the stock for which you created the adjustment. Follow these steps to assign the adjustment:

1. Open and close the paper tray with the media requiring the Image Transfer settings. The Tray Properties window opens on the Touch Screen.
2. Touch **Change Settings**.
3. Select **Paper Type & Paper Weight**.
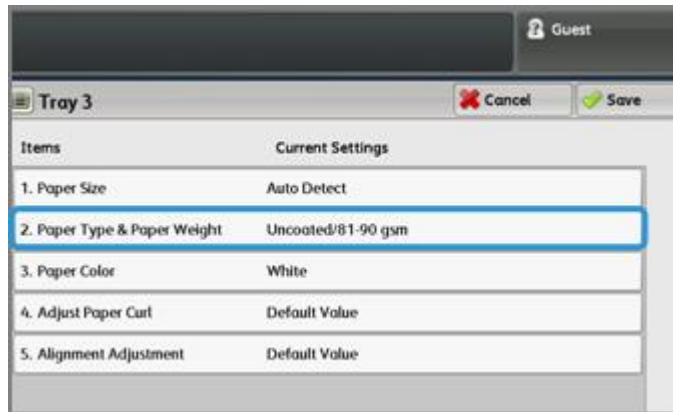
4. Scroll down until you see the **name** of the Image Transfer Adjustment that you created and want to apply. Select this name.
5. Touch **Save**.
6. Touch **Save** two more times to save the assignment and exit the screens.

The selected Image Transfer Adjustment will now appear on the Control Panel display for the Paper Tray that you assigned.

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Auto Alignment Adjustment

Auto Alignment Adjustment Overview

The Auto Alignment procedure generates an individual alignment profile, or Type, for each stock/tray combination selected when performing the procedure. These Types ensure that images are placed correctly on the media. You can create up to 50 Types. Each time a stock is used, the Type associated with the stock/tray will be used automatically, ensuring optimal print quality.

Printing the SIQA Targets

Before using the Auto Alignment Adjustment procedure you must print the calibration chart and a duplex copy of the SIQA Black Paper image file. The calibration chart is printed directly from the printer control panel touch screen. The Black Paper image files are located on the CD-ROM or DVD-ROM or you may download them from www.xerox.com/support. under the Color C60/C70 Printer documentation. Use the Black Paper file that corresponds to the paper size used in your region:

- **11 x 17 in.**: SIQA Black Paper for Adjustment-Tabloid.pdf
- **A3**: SIQA Black Paper for Adjustment-A3.pdf

Printing the SIQA Black Paper Image File

Before using the Auto Alignment Adjustment procedure you must print a duplex copy of the SIQA Black Paper image file that corresponds to the paper size used in your region. The files are located on the CD-ROM or DVD-ROM or you may download them from www.xerox.com/support. under the Color C60/C70 Printer documentation.

- **11 x 17 in.**: SIQA Black Paper for Adjustment-Tabloid.pdf
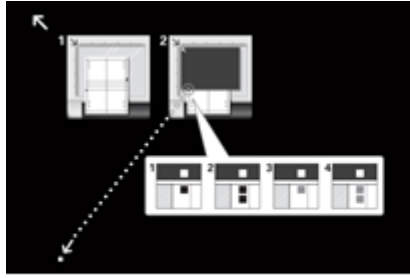- **A3**: SIQA Black Paper for Adjustment-A3.pdf

The Black Paper is needed when creating profiles for media over 220gsm and/or larger than 11x17/A3.

1. Open the PDF file that corresponds to the paper size used in your region.

2. Using duplex mode, print the image onto A3 or tabloid (11"x17") paper with a media weight of 105 gsm or 163 gsm.

The printed output appears as follows:

Side 1   Side 2

The weight (gsm) is not important, but a higher gsm will result in a longer sheet life. Once it is printed, you can re-use it and do not have to print it again until it gets worn down with use.
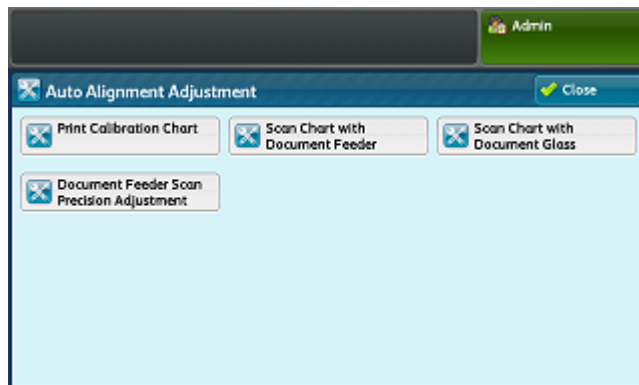
Continue to Printing the Calibration Chart.

Printing the Calibration Chart
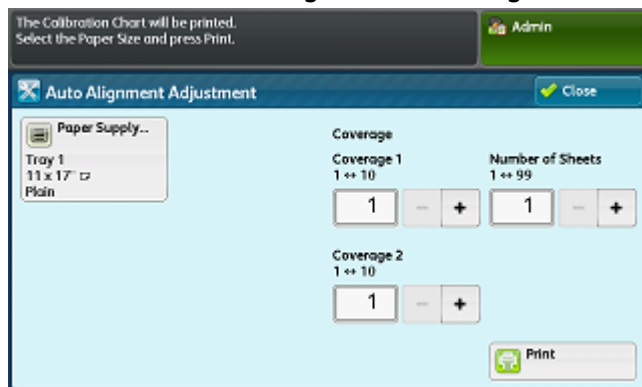
1. Log-in as a System Administrator and access the SIQA tools screen. Refer to Accessing the SIQA Tools.
2. Touch **Alignment Adjustment**.
3. Touch **Auto Alignment Adjustment**.
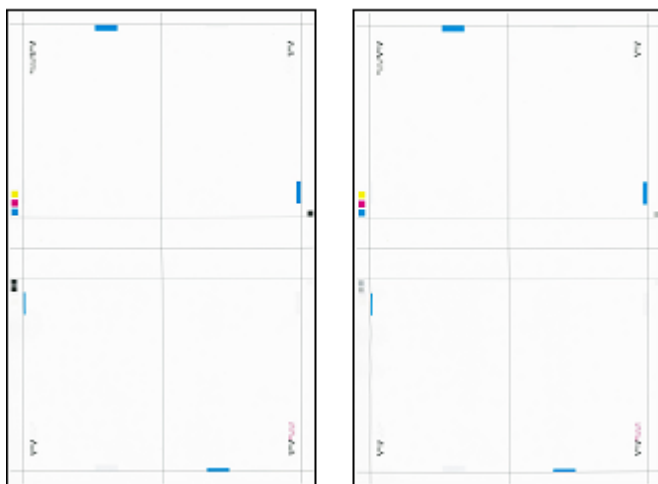

4. Touch **Print Calibration Chart**.

5. Select a paper tray with 11 x 17 in. or A3 size paper.
6. Set the value for **Coverage 1** and **Coverage 2** to 1.
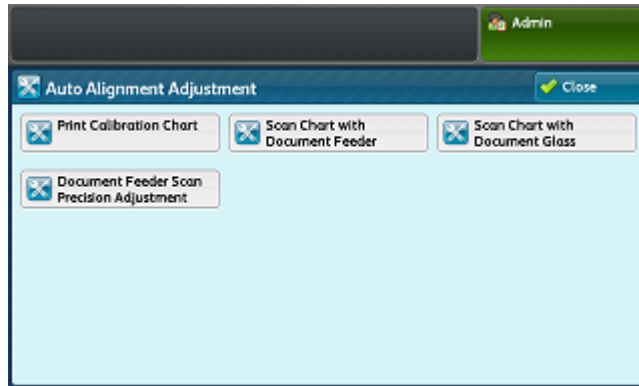

7. Touch **Print** to print the calibration chart.

8. Touch **Confirm**.
9. Collect the printed targets from the output area of the printer.

Continue to Document Feeder Precision Scan Adjustment.

Document Feeder Precision Scan Adjustment

Touch **Document Feeder Scan Precision Adjustment**.

Continue to Scanning the Targets.

Scanning the Targets

After collecting the printed targets from the printer output area, you must review them and choose which scanning option is the best to use for scanning the targets: the Document Feeder or the Document Glass

- **Document Glass**: Select this option for a target media size of 11 x 17 in. / A3 or smaller and less than 220 gsm.
- **Document Feeder**: Select this option for a target media size of larger than 11 x 17 in. / A3 and more than 220 gsm.

Note

The Document Feeder provides a faster and easier scan process; however, the Document Glass is more accurate. The accuracy of the Document Feeder is within 0.2 mm, while the accuracy of the Platen Glass is within 0.1 mm.

Scanning the Targets with the Document Feeder (DADF)

1. Touch **Document Feeder Scan Precision Adjustment**.
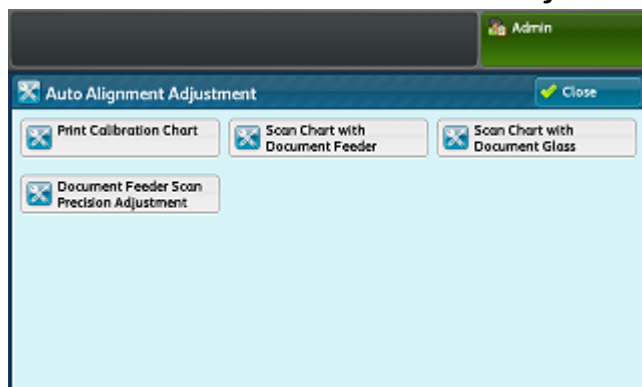
2. Place all of the target sheets in the Document Feeder. The orientation of a target sheet is not important when using the DADF.
3. Touch **Scan Chart with Document Feeder**.
4. Select **Scan**.
5. After the scanning completes, select **Start**.
6. To continue, go to Saving the Profile.

Scanning the Targets with the Platen Glass

1. Select the **Scan Chart with Document Glass** button on the UI.

   In the next steps, you will scan the Calibration Chart 4 times; 2 times per side. For each scan you will reposition the chart.

   For each scan do not place the target against the registration edge, but leave at least 20 mm to the edge of the glass. Also make sure the target is not skewed more than 15 degrees:

2. Open the cover of the Automatic Document Feeder (ADF). Notice that the Control Panel now displays the Auto Alignment Adjustment screen. The instructions on this screen will assist you in performing the next several steps. Notice that the bottom right of the screen displays: Scan Page(s): 0.

   The next series of steps will be performed 4 times; twice for each side of the Alignment Adjustment Calibration Chart that you printed.

3. To position the Calibration Chart and the Background Plate onto the glass, perform the following:

   a) Place the Background Plate on the document glass and align it to the rear left corner, as shown on the UI.

      The all-black side of the document should be placed face down on the document glass. The side of the document with the instructional icons should face up. Note that these icons are identical to those displayed on the UI.

   b) Select one of the five Calibration Charts that you printed.

   c) Inspect the Calibration Chart to find the side of the document that contains a **single black square** printed in the left-hand margin.

   d) Orient the document so that this **single black square** is in the lower left-hand quadrant of the page as you hold the document.

   e) Slide the chart under the Background Plate that you previously placed on the document glass.

      Tip

      It is important to preserve a black margin around the Alignment Adjustment Calibration Chart.

   f) Align the chart laterally (left to right) so that it is at least 20 mm to the right of the left-hand edge of the glass, and not skewed more than 15 degrees.

   g) Align the chart vertically (forward and back) so that the horizontal line is just above the black square and aligned with the bottom edge of the Background Plate.
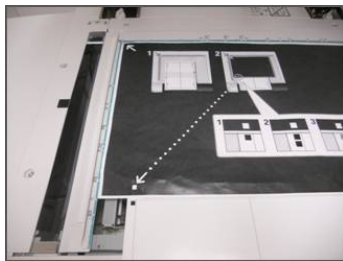
4. Close the document cover and select **Scan**.

   This will generate a scanned image that is stored on the press for later use. While the scan is in progress, the UI displays a status screen.

   The Auto Alignment Adjustment screen displays again when the scan is complete. Notice that the bottom left of the UI displays: **Scan Page(s): 1**, indicating that one scan is complete.

5. Slide the Alignment Adjustment Calibration Chart out from under the Background Plate and rotate it 180 degrees.

   Notice that the lower left-hand quadrant of the document now contains **two black squares** in the margin.

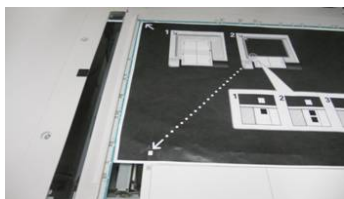6. Reposition the chart under the Background Plate as you did in Step 3, except that 2 black squares should be showing.
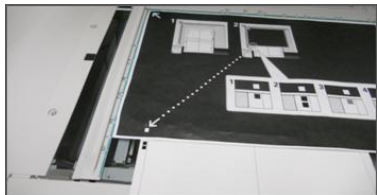
7. Close the document cover and select **Scan**.
Notice that the bottom left of the screen displays: **Scan Page(s): 2**, indicating that two scans are complete.

8. Slide the Alignment Adjustment Calibration Chart out from under the Background Plate and flip it over.

Notice that the lower left-hand quadrant of the document now contains **one gray square** in the margin. Reposition the chart under the Background Plate as you did in Step 3, except that one gray square should be showing.

9. Close the document cover and touch **Scan**.

10. Notice that the bottom left of the screen displays: Scan Page(s): 3, indicating that three scans are complete.

11. Slide the Alignment Adjustment Calibration Chart out from under the Background Plate and rotate it clockwise 180 degrees. Notice that the lower left-hand quadrant of the document now contains **two gray squares** in the margin. Reposition the chart under the Background Plate as you did in Step 3, except that two gray square should be showing.

12. Close the document cover and select **Scan**.

Notice that the bottom left of the screen displays: **Scan Page(s): 4**, indicating that four scans are complete. Note also that the **Start** button is now visible.

13. Select **Start**.

14. Remove the chart and black background sheet from the scanner.

15. Select **Confirm**.
This completes the scanning of the Alignment Adjustment Calibration Chart. To continue, go to Saving the Profile.

Saving the Profile

1. Choose one of the following:

   - If the Document Feeder was used, select the line shown next to the blue checkmark on the UI.

   - If Document Glass was used, select an **Available line** (for example Type 1, as shown). This will be the location for the saved adjustments.
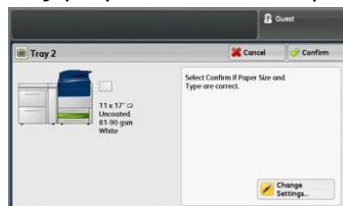
2. Select **Change Settings**.

   The profile opens for you to enter information.

3. Select the **Name line**.

4. Select **Change Settings**.

5. Using the UI keyboard, enter a **profile name**, so that users can select the profile for print jobs. Name the profile with the tray number, paper size, and weight. For example, **tray 2_11x17_90 gsm**.

6. Select **Save**.

7. To see the results of the adjustment, select **Sample Printout**.

8. For **2 Sided Printing**, select **1 Sided** if the profile was build for only one side, or **2 Sided** if the profile was built for both sides of the paper.

9. Press the green **Start button** on the Control Panel.

10. Press **Confirm** when the printing is complete.

11. Examine the print that was made using the new Adjustment Alignment Profile that you created. If you are satisfy with the results, touch **Close** and then **Save**. If you are not satisfied, touch **Close** and then **Cancel**. Restart the procedure at Step 1.

12. Select **Close** until the main Tools screen displays.

13. Log out of Admin mode by selecting the Admin icon on the top right of the screen, and touching **Logout**.

Using the Profile

The new profile is automatically assigned to the tray selected when performing the procedure. When a user selects this tray for a job, the profile will always be used unless the operator changes the setting.

To which profile a tray is using, or instruct the press to use no profile, use this procedure:

1. Open and close the tray to be used for the printing. Load the paper if needed. The tray properties window opens on the Touch Screen.

2. Select **Change Settings**.

3. Touch **Alignment Adjustment.**

4. Select a **new profile** to use, or select **Default Value** to not use a created profile.

5. Touch **Save**.

6. Touch **Save**.

7. Touch **Confirm**.

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Density Uniformity Adjustment

The purpose of this adjustment is to correct inboard-to-outboard density uniformity. This means the thickness of the toner across the page from one side of the paper to the other. At the press, you will print two Density Uniformity Adjustment targets and then scan them. One target consists of CMYK colors and the other is made up of RGB colors.

Performing Density Uniformity Adjustment

Follow these steps to perform a Simple Image Quality Adjustment (SIQA) for density uniformity:

1. At the Press User Interface (UI), select the **Login/Logout** button.
2. Enter the system administrator Login ID with the numeric keypad, and select **Enter**.

   The default Login ID value is **admin**, and the default password is **1111**.

   Note

   By default, the password prompt is not enabled.

3. Select the **Machine Status** button on the UI.
4. Touch the **Tools** tab.

5. From the main Tools screen, select **Setup & Adjustment > Density Uniformity Adjustment**.

   It is also accessed by selecting **System Settings > Common Service Settings > Maintenance > Density Uniformity Adjustment**.

6. Select **Semi-Auto Process Using Scanner**

7. Select **Print Calibration Chart**.
8. Select **Paper Supply** and select the Paper Supply **tray and paper** for the procedure. Select the type of stock that you most commonly use, and use a paper of this type with the widest width side-to-side.
9. Select the **Save** button.
10. Select **Print**.Two charts now print, one with CMYK colors and one with RGB colors.
11. Select **Confirm** when the printing is complete.
12. Select **Scan Calibration Chart**.
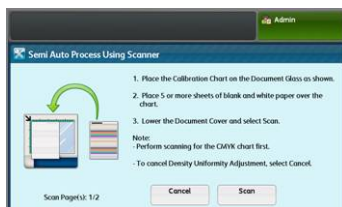
13. Place the CMYK calibration chart onto the Platen Glass. The CMYK chart can be recognized by the yellow color on the chart. Place the top of the chart against the top side of the glass as shown on the UI. Follow the directions that display on the UI. Make sure that you cover the charts with 4 or5 blank white sheets to avoid unwanted see through.
14. When the chart and blank sheets are in place, lower the cover and select **Scan**.
15. When scanning is complete, remove the CMYK calibration chart and place the RGB chart onto the Platen Glass, following the directions that display on the Touch Screen. Make sure that you cover the charts with 4 or5 blank white sheets to avoid unwanted see through.
16. When the chart and blank sheets are in place, lower the cover and select **Scan**.
17. When scanning is complete, select **Start**. The adjustments are now calculated.
18. When adjustments are complete, select **Confirm**.
19. You can now see the results of the adjustment procedure. To do this:
    a) On the UI window currently open, under Paper Supply, select the **tray** for which you created the adjustment.

    b) Select **Sample Printout**.

    c) Select **Confirm** after the sample prints.

    d) Examine the prints, if you are satisfy with the results, select **Save.** If not satisfied, touch **Cancel** and repeat the procedure from the beginning.

20. Select **Close** until the main Tools screen displays.

21. Log out of Admin mode by selecting the Admin icon on the top right of the screen, and selecting **Logout**.