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Simple Image Quality Adjustment Tool

Installation and Adjustments Guide

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1

SIQA software installation

The Simple Image Quality Adjustment (SIQA) software is used to perform the Auto Alignment Adjustment and Density Uniformity Adjustment procedures.

Important

Without the installation of the SIQA software, the aforementioned procedures cannot be performed.

The SIQA software installation process consists of the following:

1. Installing the SIQA software on a PC.
2. Setting up communication between the SIQA software application and the print engine. This varies depending on the print server attached to your machine and whether or not a third-party PC is being used.

Installing the SIQA software on a PC

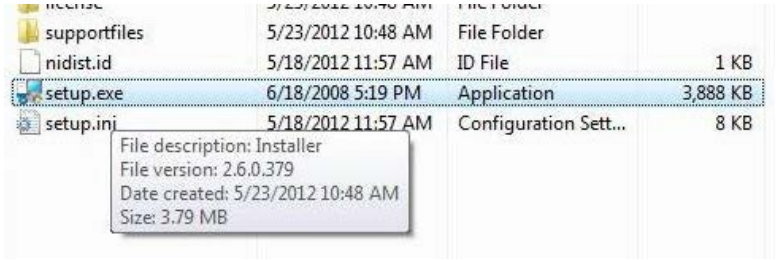
The following requirements must be met before installing the SIQA software:

- A client PC with an operating system (OS) of Windows Vista®, Windows® XP, or Windows 7.
  - If using a Xerox® EX Print Server, Powered by Fiery® (standalone), the SIQA software may be installed on it.
  - If using a Xerox® Integrated Fiery® Color Server, the SIQA software must be installed on a separate Windows-based PC.
  - If using a Xerox® FreeFlow® Print Server, a separate Windows-based PC must be used for installing the SIQA software.
- The SIQA software either on a USB drive or a DVD.
- The SIQA background PDF file which resides either on the USB drive or the DVD.

1. Connect the USB drive or insert the DVD into the targeted PC.

2. On the removable media, locate and open the **SIQA install files** folder.

3. Copy the **SIQA_Software files** folder onto the PC or server desktop.
4. Open the **SIQA_Software files** folder on the desktop.
5. Locate and double-click on the **setup.exe** file.

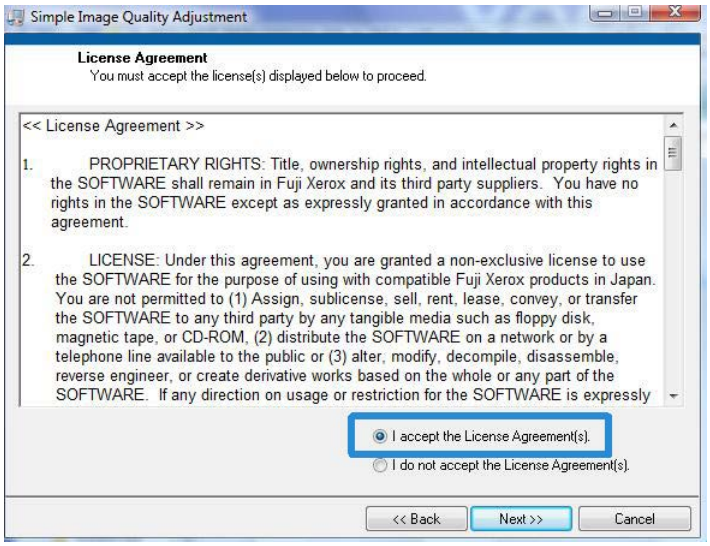


The PC may display a message stating: It is strongly recommended that you exit all programs before running this installer. Applications that run in the background, such as virus-scanning utilities, might cause the installer to take longer than average to complete.

a) Select **Next** to continue the installation process.
b) Select **Next** to continue.

The License Agreement message is displayed.

6. Select the **I accept the License Agreement(s)** radio button.

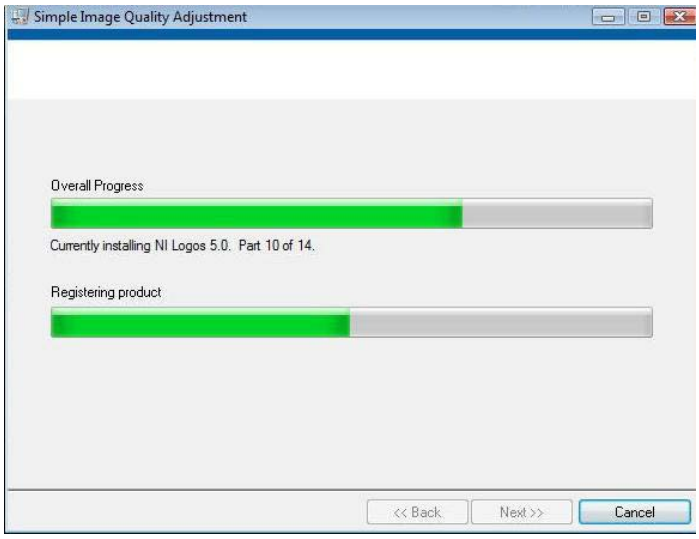


7. Select **Next** to continue.

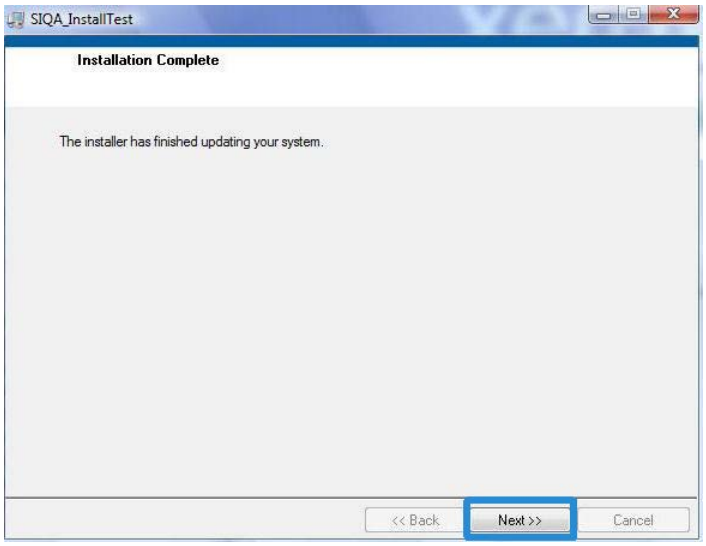
The Start Installation window is displayed.

8. Select **Next** to continue.

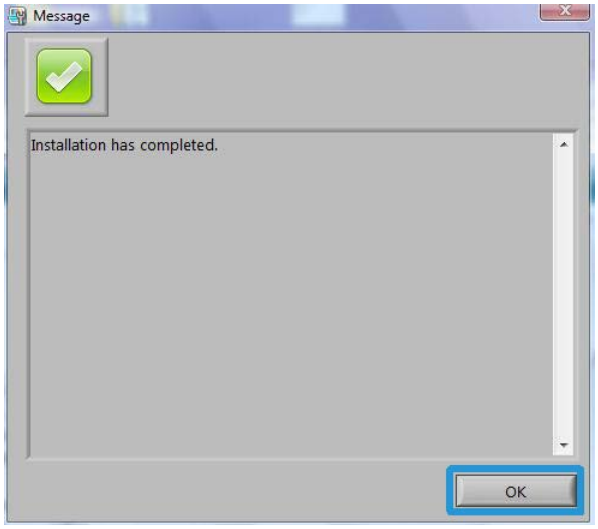
   A progress window is displayed as the software continues the installation process.



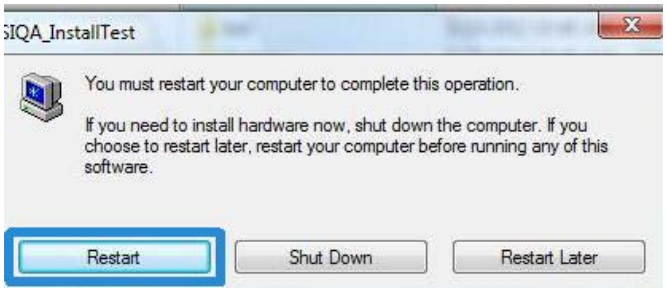
9. At the Installation Complete window, select **Next**.



10. Select **OK** when the Message window is displayed.



11. If prompted, select **Restart** to reboot the PC and complete the installation process. If not prompted, go to step 13.



12. Upon completion of the PC reboot, enter a user name and password, if required.
13. If necessary, close the any open folders.
14. Create a SIQA shortcut onto the PC desktop:
    a) Click the **Start** button and select **Program > Simple Image Quality Adjustment > SIQA**.
    b) Left-click the **SIQA** icon and drag it to the desktop.

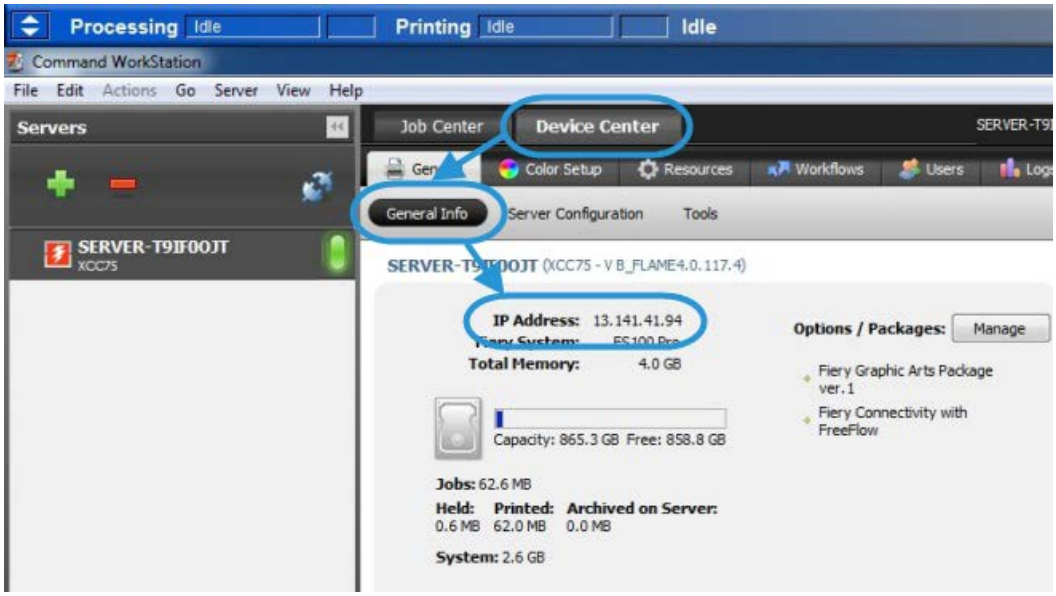
Setting up communication between the SIQA application and the print engine

Setting up communication between the SIQA software application and the print engine varies depending on the print server that is attached to the machine and whether or not a third-party PC is being used. The procedures provided here include:

- Setting up and running SIQA software on an EX Print Server (Fiery standalone)
- Setting up and running SIQA software on a third-party PC via an EX Print Server or an Integrated Fiery Color Server
- Setting up and running SIQA software on a third-party PC when a FreeFlow Print Server is installed

Setting up and running SIQA software on an EX Print Server

1. Ensure that the cross-over Ethernet cable is installed and connected between the EX Print Server and the print engine.
2. From the EX Print Server locate the print server IP address by selecting **Command Workstation > Device Center > General Info**.
3. Record the print server IP address.

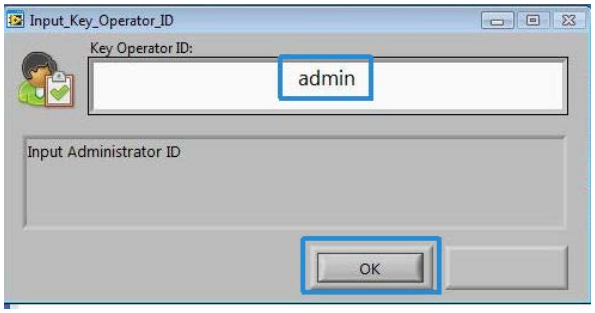


4. From the print server desktop, double-click the **SIQA** icon.
   An Input_Address window is displayed.

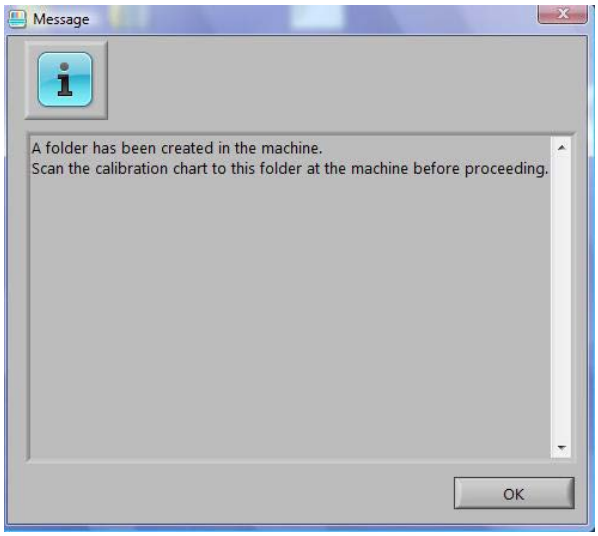
5. Enter the print server IP address and select **OK**.

An Input_Key_Operator_ID window is displayed.

6. Enter the key operator ID as **admin** and select **OK**.



A folder will be created on the print engine hard drive saying: A folder has been created in the machine. Scan the calibration chart to this folder at the machine before proceeding.



7. Select **OK**.

The main SIQA window is displayed. The Auto Alignment Adjustment and/or Density Uniformity Adjustment procedures may now be performed.

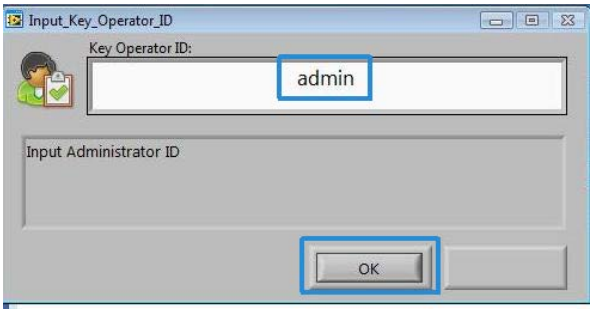
Setting up and running SIQA software on a PC via an EX Print Server or Integrated Fiery Color Server

1. Ensure that the cross-over Ethernet cable is installed and connected between the print server and the print engine.
2. From the print server, access and record the IP address of the EFI server.
3. From the PC desktop, double-click the **SIQA** icon.

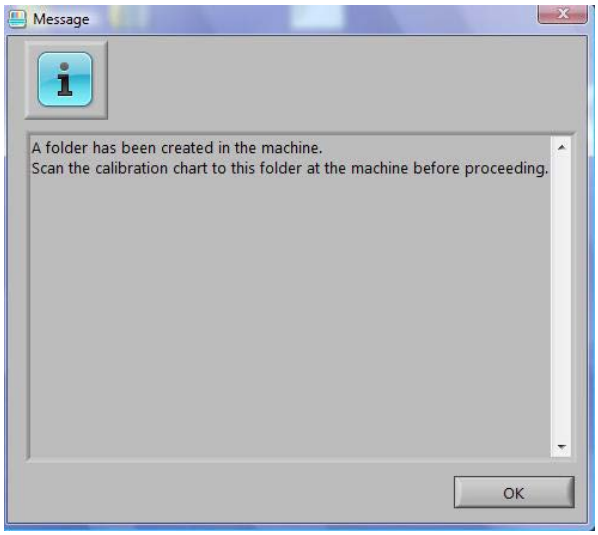
   An Input_Address window is displayed.
4. Enter the print server IP address and select **OK**.

An Input_Key_Operator_ID window is displayed.

5. Enter the key operator ID as **admin** and select **OK**.



A folder will be created on the print engine hard drive saying: A folder has been created in the machine. Scan the calibration chart to this folder at the machine before proceeding.



6. Select **OK**.

The main SIQA window is displayed. The Auto Alignment Adjustment and/or Density Uniformity Adjustment procedures may now be performed.

Setting up and running SIQA software on a PC when a FreeFlow Print Server is installed

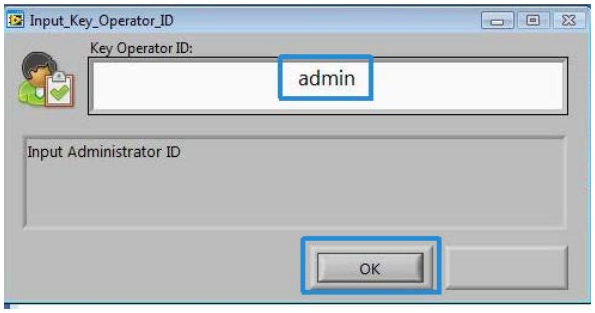
1. Ensure that the hub is installed and that the three Ethernet cables are connected to the following:
   - One cable from the wall drop to the hub
   - One cable from the hub to the FreeFlow Print Server
   - One cable from the hub to the print engine
2. At the print engine UI record the machine's IP address by selecting **Machine Status > Machine Information**.
3. From the PC desktop, double-click the **SIQA** icon.

   An Input_Address window is displayed.

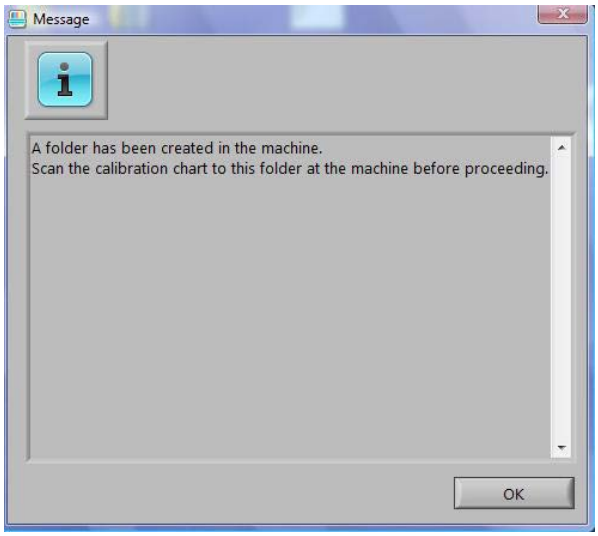
4. Enter the print server IP address and select **OK**.

An Input_Key_Operator_ID window is displayed.

5. Enter the key operator ID as **admin** and select **OK**.



A folder will be created on the print engine hard drive saying: A folder has been created in the machine. Scan the calibration chart to this folder at the machine before proceeding.



6. Select **OK**.

The main SIQA window is displayed. The Auto Alignment Adjustment and/or Density Uniformity Adjustment procedures may now be performed.

2

Auto Alignment Adjustment

Use this procedure to correct misalignment of the printed output. The Auto Alignment Adjustment uses a new application called Simple Image Quality Adjustment (SIQA), and it allows the user to easily and quickly make adjustments and correct any misalignment on the output.

The procedure requires the installation of the SIQA (Simple Image Quality Adjustment) application on a Windows® PC.

Note

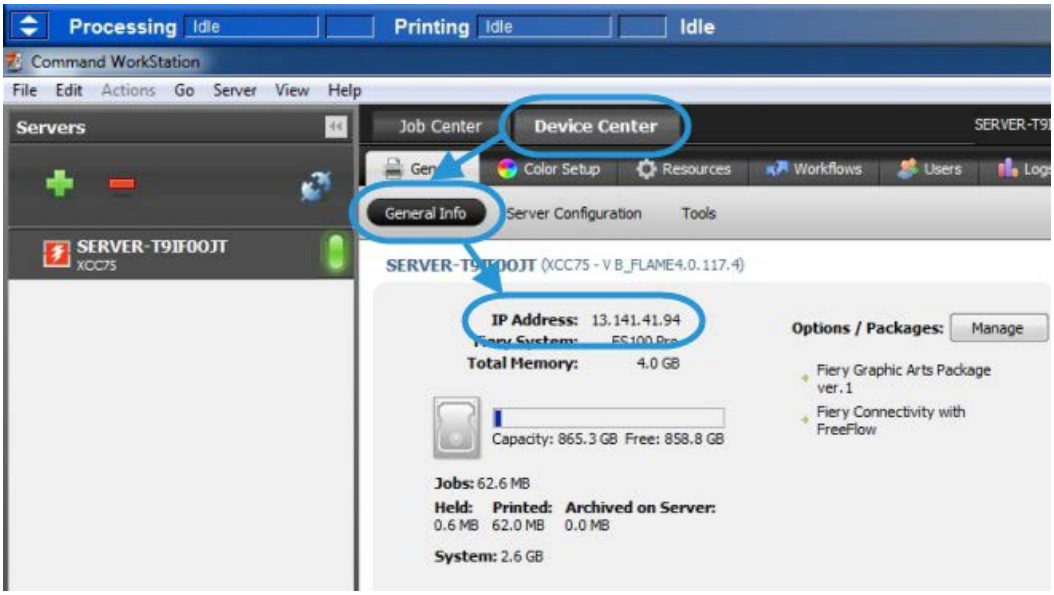
If your print server is a Windows-based PC, the SIQA application may be installed on it; otherwise a third-party PC is required. Contact the Customer Support Center for more information.

This procedure also requires the black background pattern file which can be found in the SIQA install folder.

1. Record the IP address; this will be used later in the procedure.

a) If connected to a FreeFlow Print Server, obtain the IP address from the print engine UI by selecting **Machine Status > Machine Information**. Record the IPv4 IP address.

b) If connected to a standalone EX Print Server, obtain the print server IP address either from the configuration sheet or by selecting **Command Workstation > Device Center > General**.



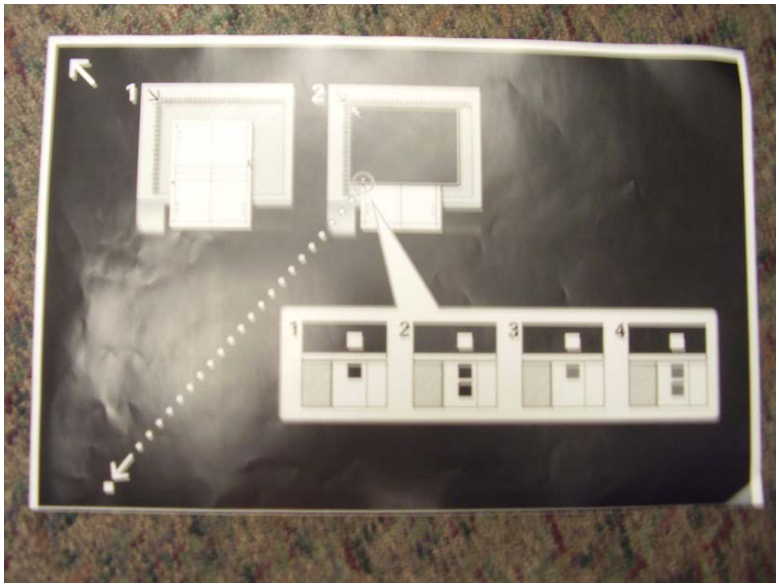
c) If connected to an Integrated Fiery Color Server, obtain the print server IP address from the configuration sheet.

2. Print the SIQA Doc Background test pattern, which will be used during the registration adjustments.

This pattern is a PDF file called SIQA Doc Background and is located in the SIQA install folder.

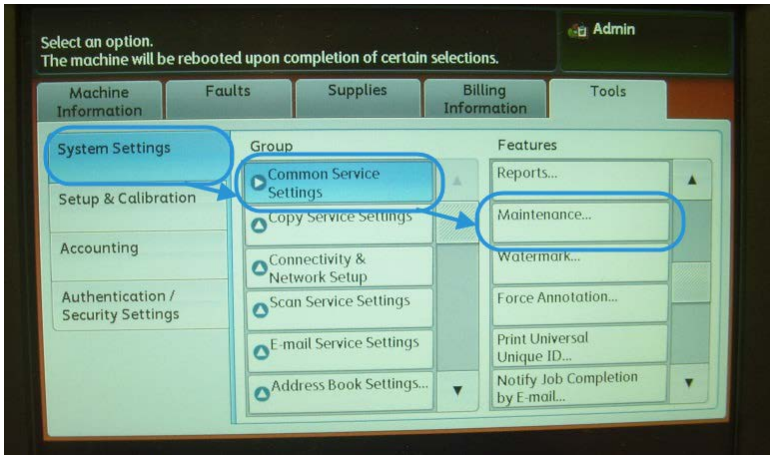
Print the file with the following information:

- For the Xerox North America (XNA) market, print the file on 11 x 17 in. media, 2-sided. The gsm is not important, but a higher gsm results in longer tool life.
- For the Xerox European (XE) market, print the file on A3 media, 2-sided. The gsm is not important, but a higher gsm results in longer tool life.



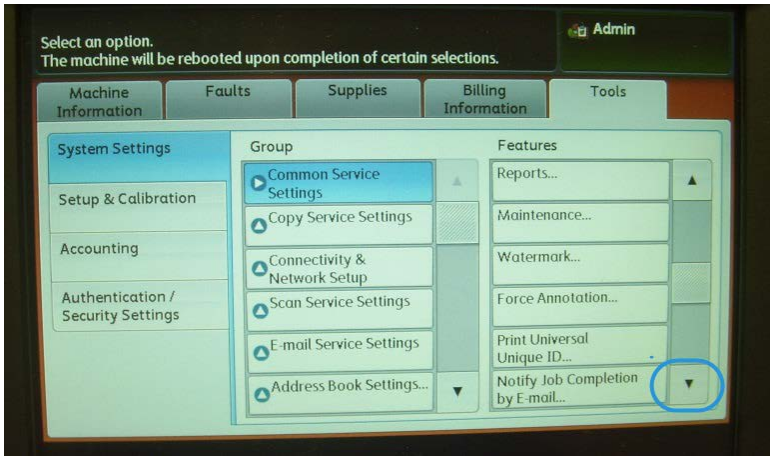
3. From the print engine (machine) UI, login as administrator.
   a) Press the **Log In/Out** button on the control panel.
   b) Enter the system administrator ID.
      The default ID is **admin**, and the default password is **1111**.
   c) Select **Enter**.
4. Press the **Machine Status** button on the UI.
5. Select the **Tools** tab.

6. Select **System Settings > Common Service Settings > Maintenance**.

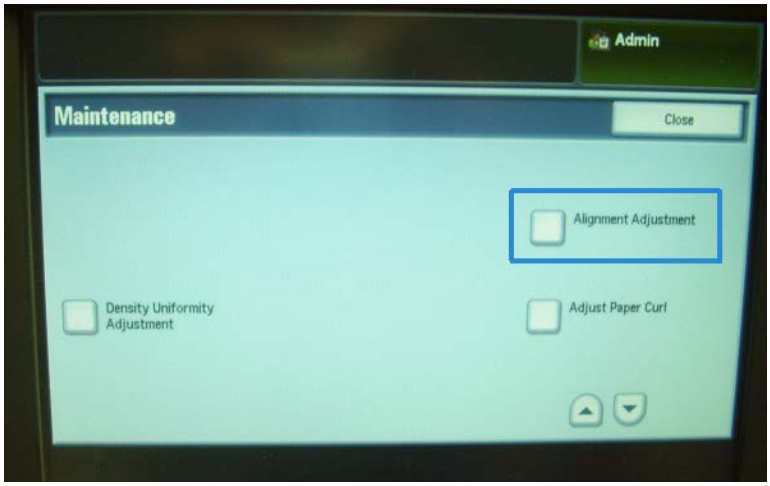


The Maintenance screen is displayed.

7. Using the **down** button, scroll to the next Maintenance page/screen.



8. Select **Alignment Adjustment**.

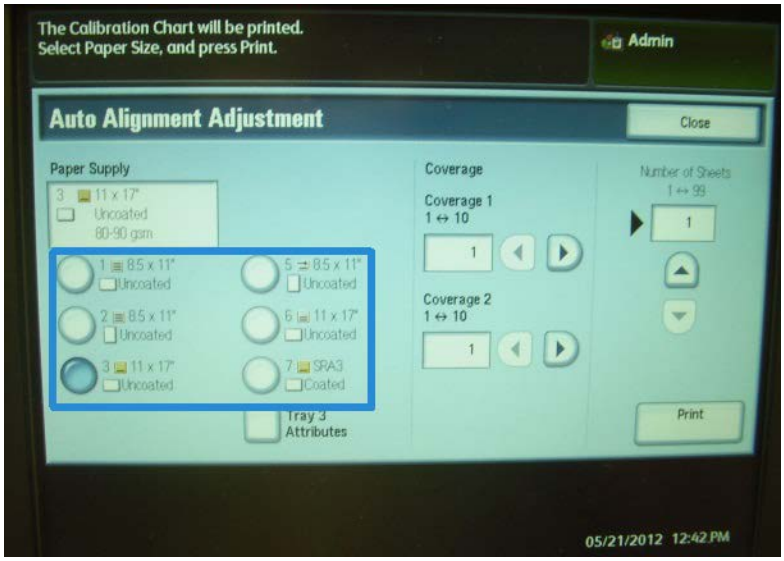


The Alignment Adjustment screen displays.

9. Select **Auto Alignment Adjustment**.

The Auto Alignment Adjustment screen displays.

10. Select the desired target tray for the adjustment.



11. If necessary, select the area coverage.

Area coverage can be one of the factors that changes the alignment. By adjusting a specific area coverage level, you set the value from **1** to **10**. As the value goes higher, the area coverage will be higher accordingly. However for most cases, setting value **1** is fine. Furthermore, you can select a different setting for side 1 and side 2 of the print.

12. Select the number of sample sheets.

With multiple samples, the software uses the average values for the adjustment; this means the variation between the sheets is reduced.

For 8.5 x 11 (A4), the paper needs to be in the SEF direction.

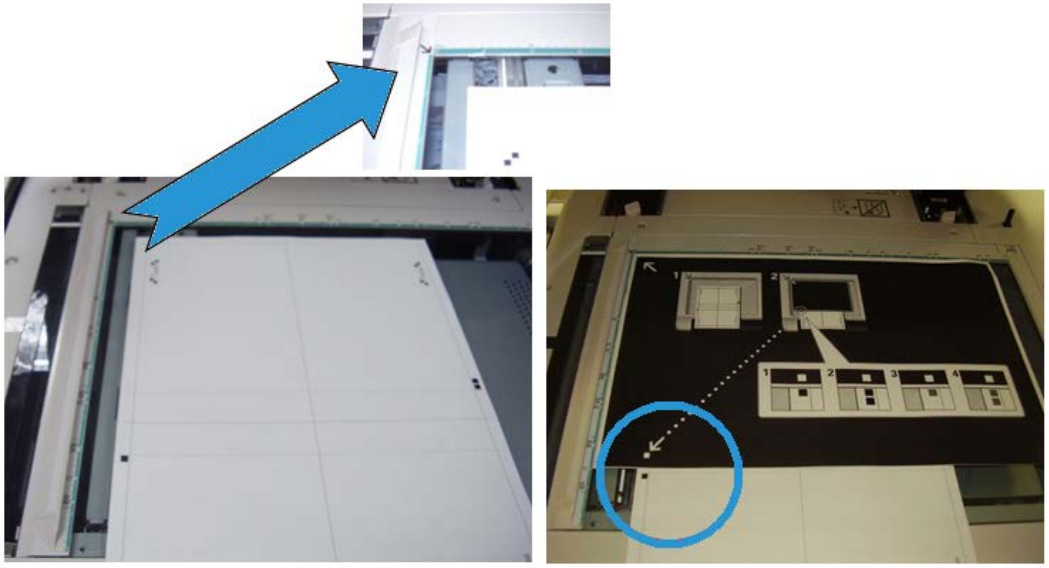
13. Select **Print**.

The sample chart is printed.

14. To correct the misalignment, scan the 4 sides of sample chart, lead edge and trail edge for each front and back side. Follow the instructions on the UI.

a) The test pattern must NOT be placed against the registration edge (minimum of 20mm) and not skewed more than 15 degrees.

Ensure there is space between the document glass edge and the test pattern.

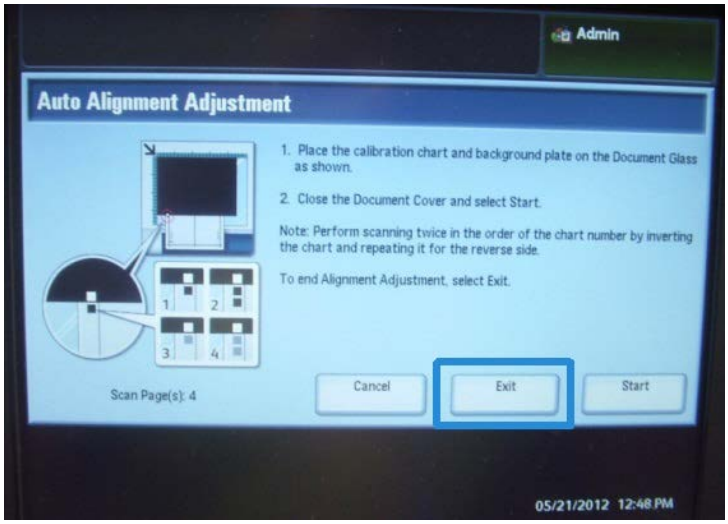


b) Cover the pattern with a black background paper for contrast.

Cover with black paper and align the white mark with the test print mark.

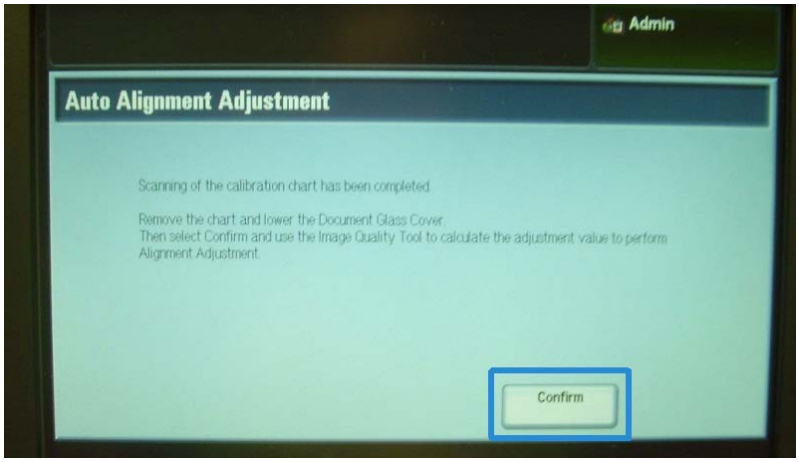
The order of scanning in not mandatory; the color coded side helps the user know which side to scan.

15. Scan each of the four sides as per the UI instructions.
16. If using multiple samples, repeat the scanning process.
17. After scanning four times, an **Exit** button appears on the UI. Select **Exit** and the scanning process completes.



18. Remove the test print and the black background paper from the document glass.

19. On the machine UI, select **Confirm** to send the data to the print engine's folder.



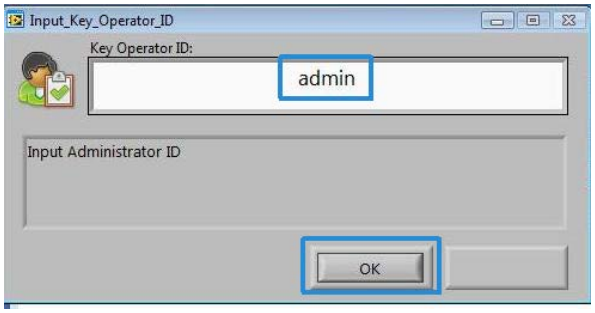
20. Go to the Windows PC where the SIQA application was installed.
21. From the Windows PC desktop, start the SIQA application by double-clicking it.
    The Input_Key_Operator_ID screen is displayed.

    Note

    If the SIQA application fails to launch/open, go to the Problem Solving chapter in the System Administration Guide for information and instructions on resolving the problem.

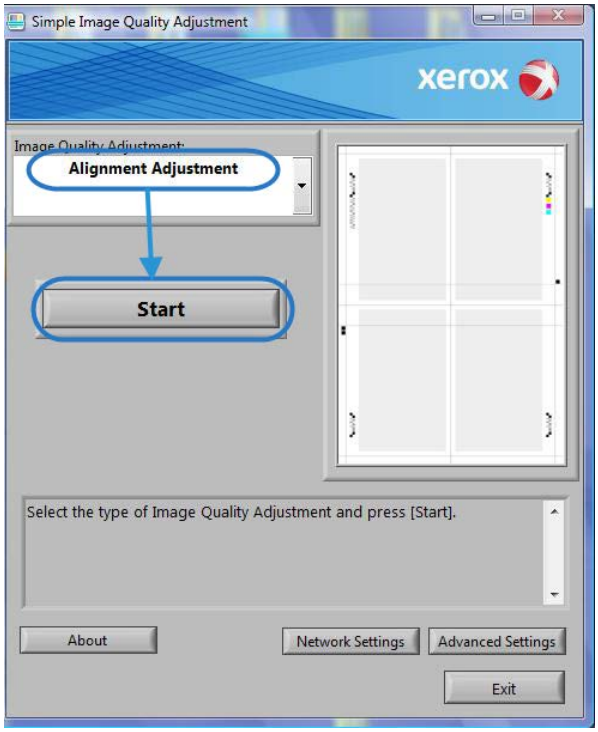
22. Enter the key operator ID.

    The ID password is **admin**.

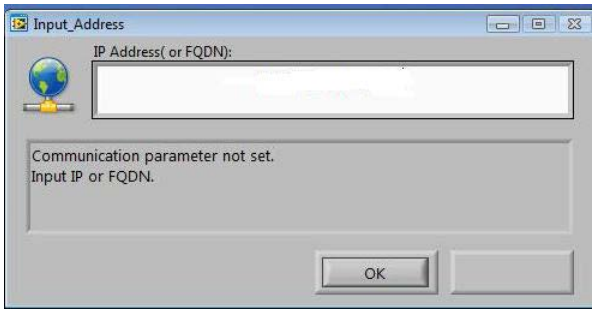


23. Select **OK** (Start).
    The Simple Image Quality Adjustment screen is displayed.

24. From the pull-down menu, select **Auto Alignment Adjustment**, and then select **Start**.



If the Input Address screen is displayed, confirm or enter the IP Address of the machine.



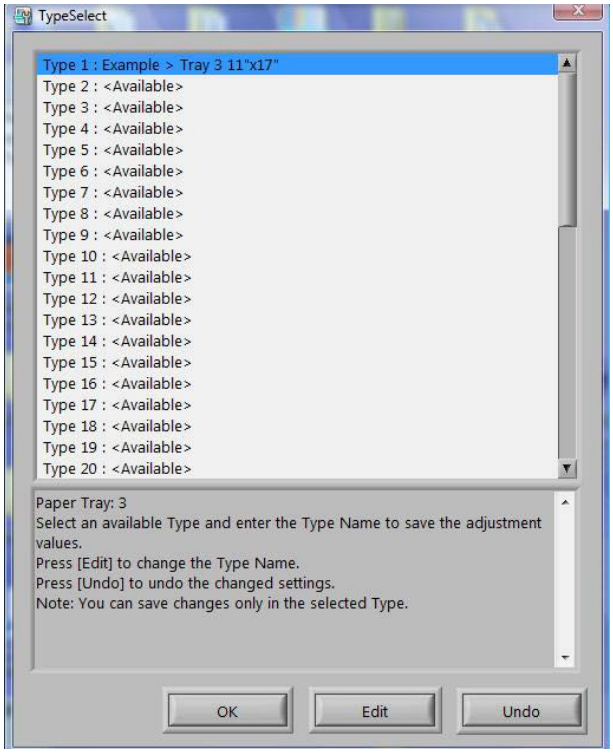
Note

If the SIQA application is communicating to the machine that is connected to either a FreeFlow Print Server or a Fiery EFI Integrated Print Server, enter the IP address that appears on the **Machine Status > Machine Information** screen.

25. Select **OK** (Start).

The scanned image data from the printer folder/Mail Box is accessed and read by the SIQA application. The SIQA application analyzes the data and automatically calculates the adjustment values.

26. From the TypeSelect window, perform the following:



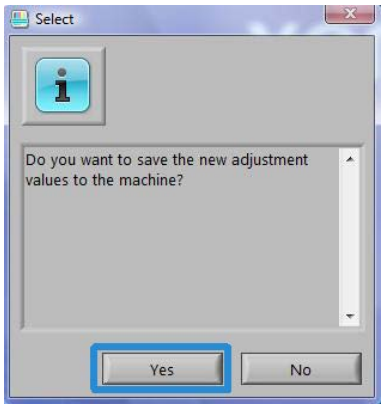
a) Select the line you want to save as a profile. There are 50 profiles available.
b) Select where to save the calculated adjustment values. In the example, **Type 1** was selected, and then using the **Edit** button, it was renamed to **Example > Tray 3 11”x17”**.

27. Select **OK**.

If you saved the calculated values to the new Type, enter the TypeName first. It is recommended to include the tray name, paper size, or paper type, so you can see that the adjustment is for a specific tray and paper.

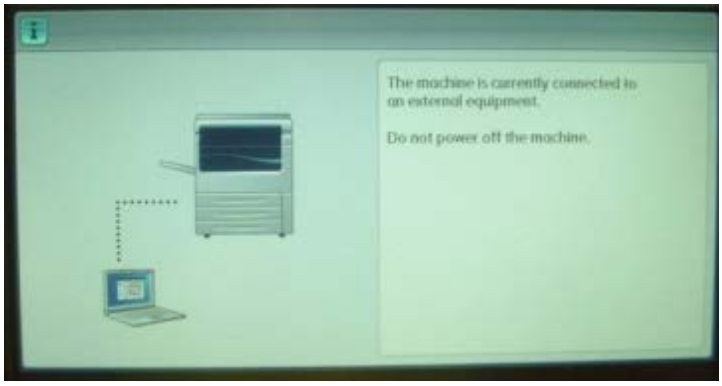
28. Select **OK** (at the TypeName window).

The Select screen displays the message: Do you want to save the new adjustment values to the machine?



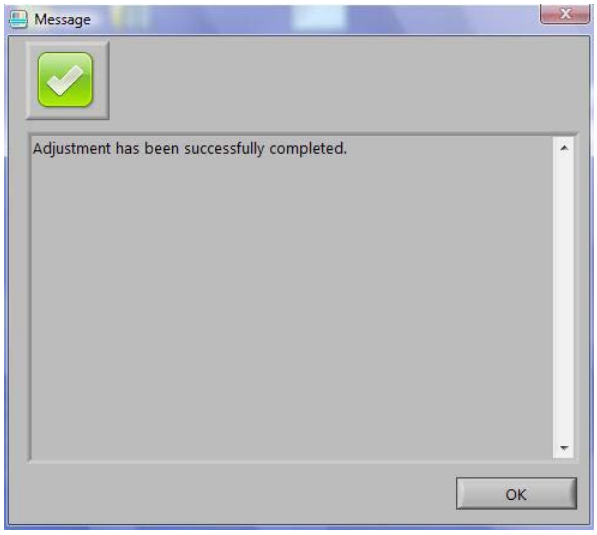
29. Select **Yes** to apply the new adjustment values/parameters.

The values are written into the machine's NVM. The machine's UI displays the message: The machine is currently connected to an external equipment. Do not power off the machine.



Upon completion, the SIQA application displays the Message screen: Adjustment has been successfully completed.

30. Select **OK** to close the message.



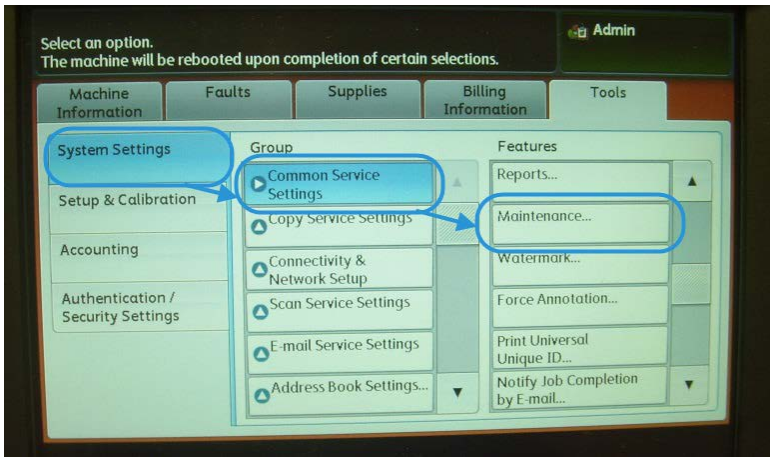
Note

The remaining steps in this procedure are to verify the profile adjustment.

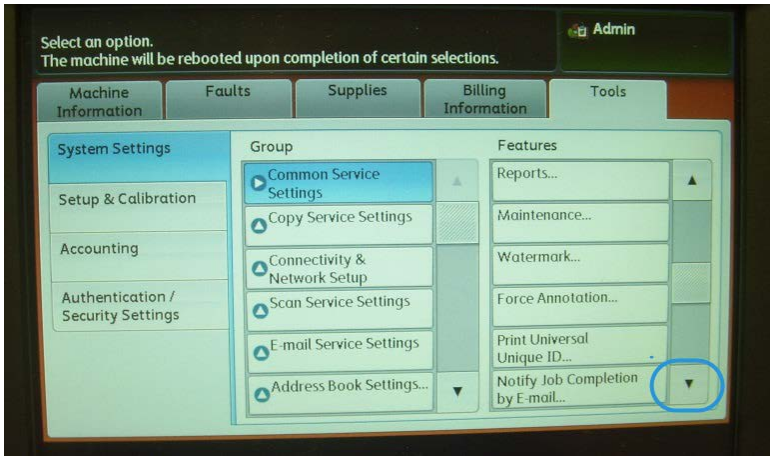
31. From the print engine (machine) UI, login as administrator.
    a) Press the **Log In/Out** button on the control panel.
    b) Enter the system administrator ID.
       The default ID is **admin**, and the default password is **1111**.
    c) Select **Enter**.
32. Press the **Machine Status** button on the UI.

33. Select the **Tools** tab.

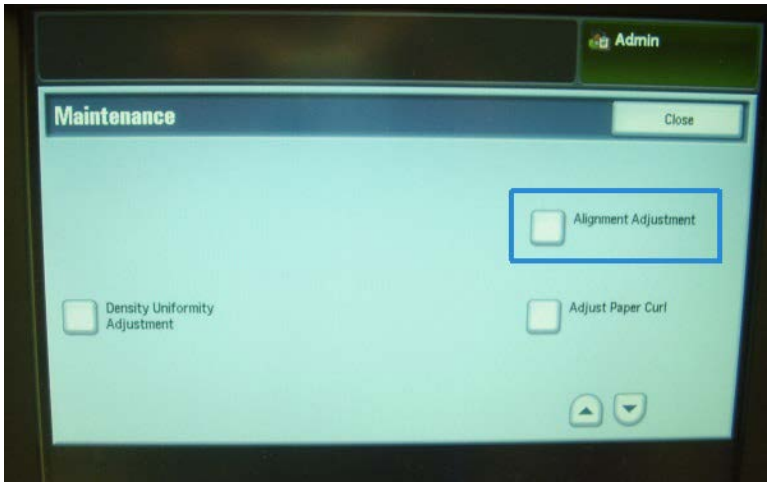
34. Select **System Settings > Common Service Settings > Maintenance**.
The Maintenance screen is displayed.



35. Using the **down** button, scroll to the next Maintenance page/screen.



36. Select **Alignment Adjustment**.

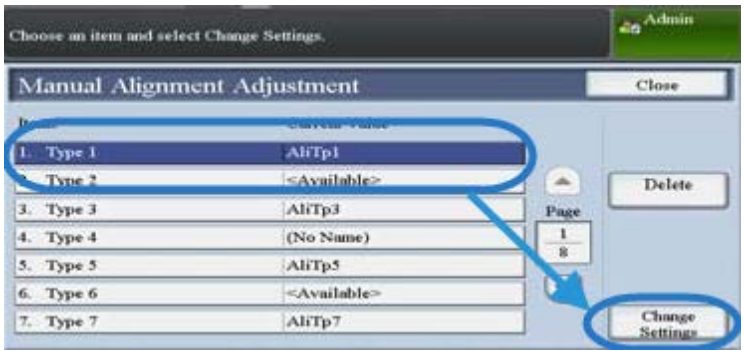


The Alignment Adjustment screen displays.

37. Select **Manual Alignment Adjustment**.

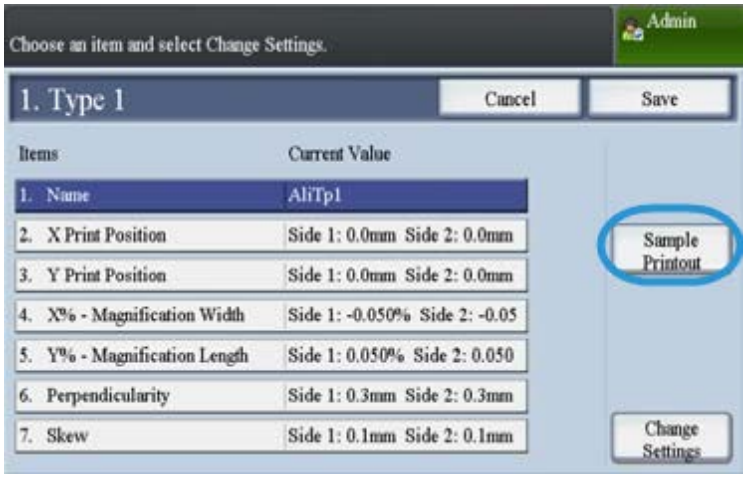
Selecting **Manual Alignment Adjustment** allows you to test the result by printing the corrected sample.

38. Select the saved profile that was created earlier in this procedure.



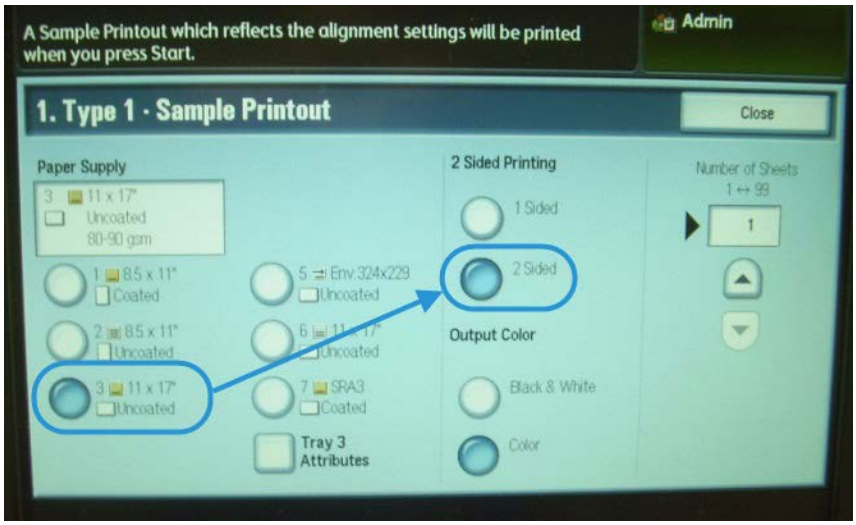
39. Select **Change Settings**.

40. Select **Sample Printout**.



This prints the corrected sample chart.

41. Select the specific tray that contains the media which matches the profile you created earlier in this procedure.



42. Ensure **2 Sided** is selected.

43. Press **Start** on the control panel.

44. Retrieve the printed sample chart and check it for alignment.

- If the alignment if okay, you are done and you can exit Administrator mode.
- If the alignment is not okay, repeat the steps in this procedure.

3

Density Uniformity Adjustment

Use this feature to correct image quality on the output when that image quality is not consistent throughout the entire output; for example, the image quality is lighter (faded) or heavier (thicker) on the left/right sides of the output (inboard/outboard). This feature uses a new application called Simple Image Quality Adjustment (SIQA), and it allows the user to easily and quickly make adjustments and correct these image quality issues.

The procedure requires the installation of the SIQA (Simple Image Quality Adjustment) application on a Windows® PC.

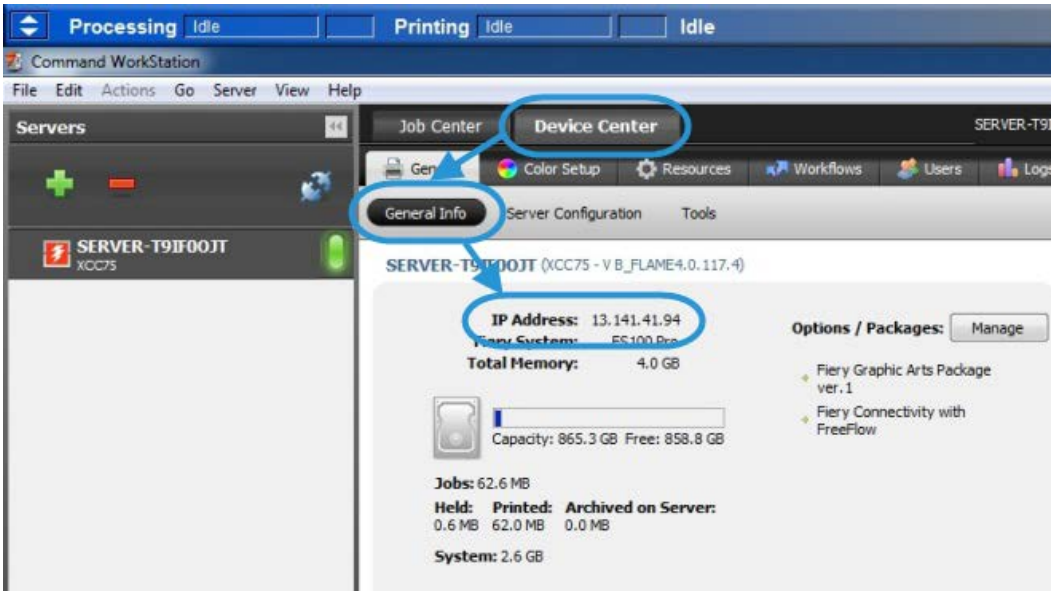
Note

If your print server is a Windows-based PC, the SIQA application may be installed on it; otherwise a third-party PC is required. Contact the Customer Support Center for more information.

1. Record the IP address; this will be used later in the procedure.

a) If connected to a FreeFlow Print Server, obtain the IP address from the print engine UI by selecting **Machine Status > Machine Information**. Record the IPv4 IP address.

b) If connected to a standalone EX Print Server, obtain the print server IP address either from the configuration sheet or by selecting **Command Workstation > Device Center > General**.



c) If connected to an Integrated Fiery Color Server, obtain the print server IP address from the configuration sheet.

2. From the print engine (machine) UI, login as administrator.

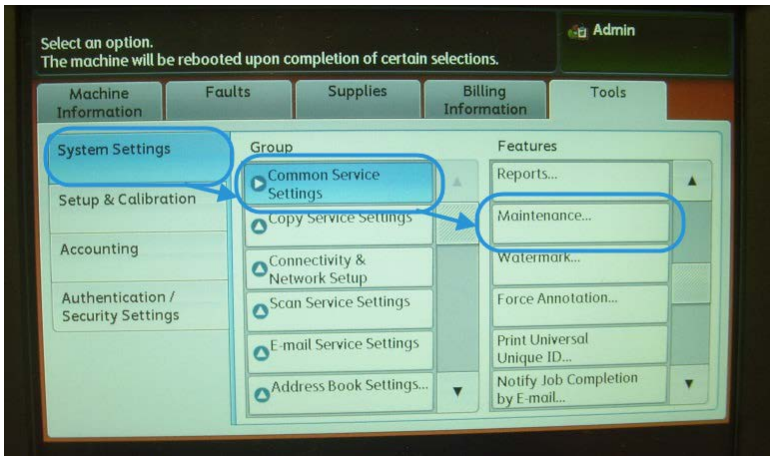
a) Press the **Log In/Out** button on the control panel.

b) Enter the system administrator ID.

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

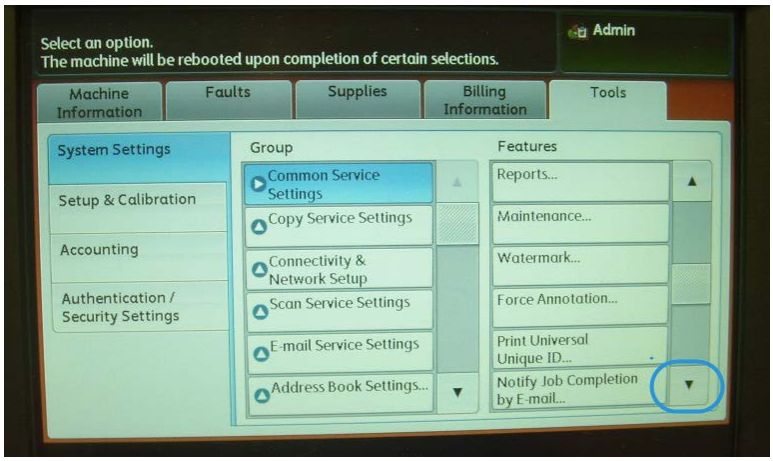
c) Select **Enter**.

3. Press the **Machine Status** button on the UI.
4. Select the **Tools** tab.
5. Select **System Settings > Common Service Settings > Maintenance**.

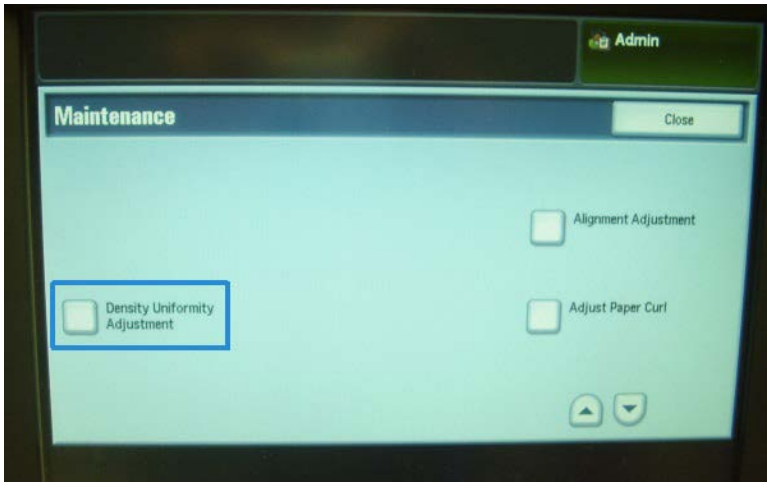


The Maintenance screen is displayed.

6. Using the **down** button, scroll to the next Maintenance page/screen.

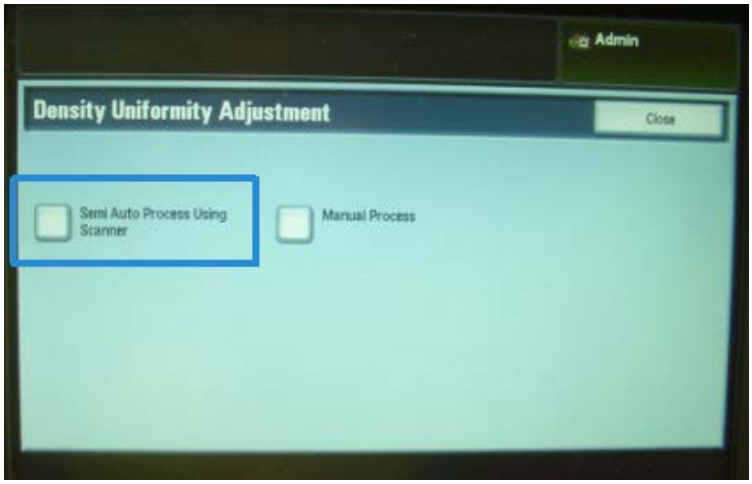


7. Select **Density Uniformity Adjustment**.

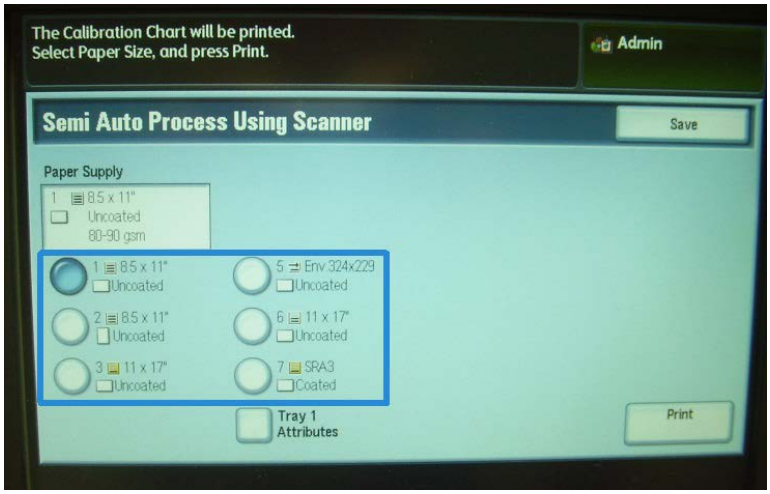


The Density Uniformity Adjustment screen is displayed.

8. Select **Semi Auto Process Using Scanner**.



9. From the Semi Auto Process Using Scanner screen, select the desired target tray that will be used for the adjustment.



10. Select **Print**.

    Two test patterns are printed; one is printed using CMYK mode, and the other is printed using RGB mode.

11. Retrieve the two printed test patterns and return to the machine's UI.

    The Semi Auto Process Using Scanner screen displays instructions starting the adjustment process.

12. Follow the instructions on the UI to scan the first test pattern.

    Important

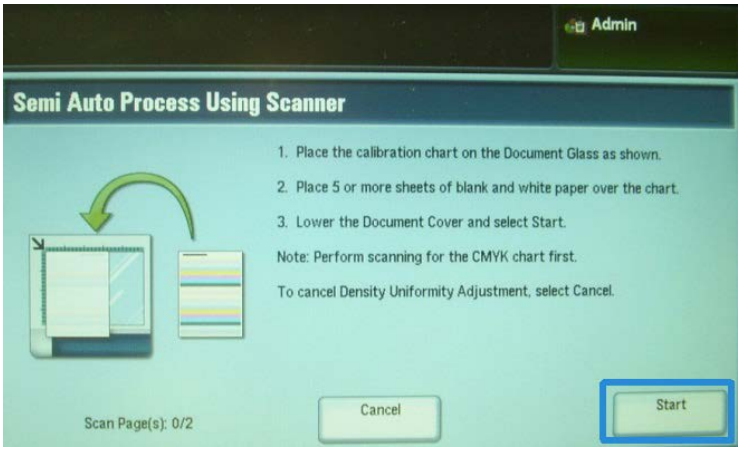
    Always scan the CMYK test pattern first.

    a) Place the CMYK test on the document glass, as shown in the illustration on the UI.
    b) Place five or more sheets of blank, white paper over the text pattern.

       These blank sheets of paper ensure that there is not any "see-through" effect on the printed output.

    c) Lower the document cover.

d) Select **Start** from the UI.



e) Retrieve the CMYK copies from the output tray.

13. Scan the second, RGB test pattern.

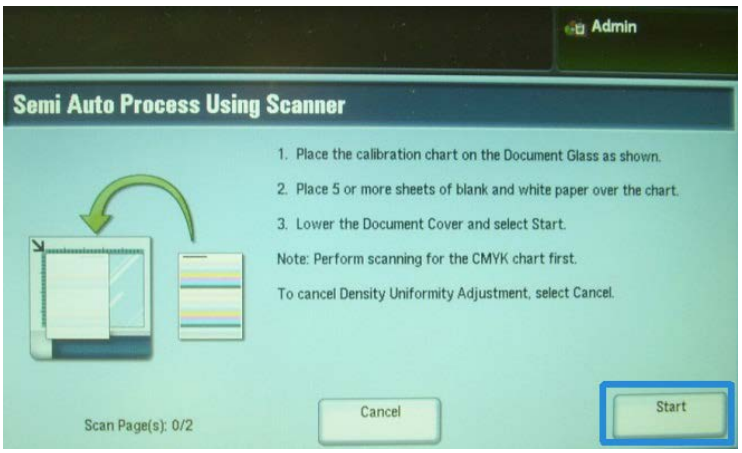
a) Place the RGB test on the document glass, as shown in the illustration on the UI.

b) Place five or more sheets of blank, white paper over the text pattern.

These blank sheets of paper ensure that there is not any “see-through” effect on the printed output.

c) Lower the document cover.

d) Select **Start** from the UI.



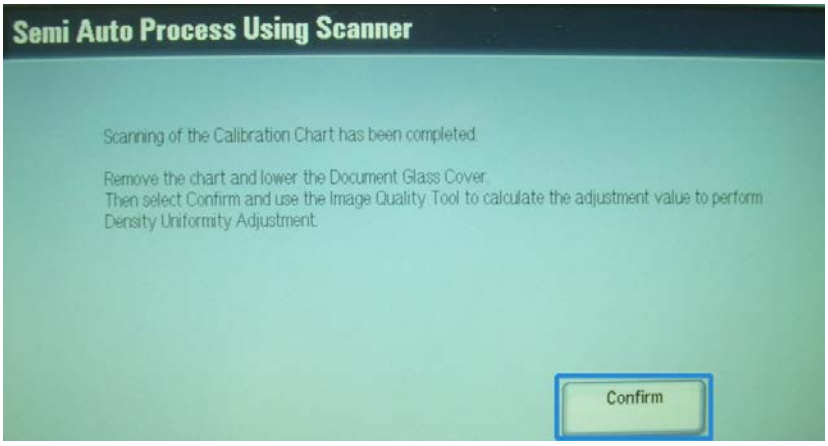
e) Retrieve the RGB copies from the output tray.

14. Follow the instructions shown on the machine’s UI.

a) Remove the chart (test pattern) from the document glass.

b) Lower the document cover.

c) Select **Confirm**.



The scanned data is sent to the machine's folder (Mail Box). The SIQA application (Image Quality Tool) will read and analyze this data in order to calculate the adjustment value and perform the adjustment.

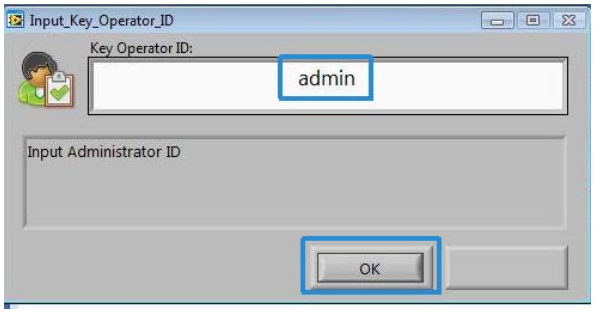
15. Go to the Windows PC where the SIQA application was installed.
16. From the Windows PC desktop, start the SIQA application by double-clicking it.
    The Input_Key_Operator_ID screen is displayed.

    Note

    If the SIQA application fails to launch/open, go to the Problem Solving chapter in the System Administration Guide for information and instructions on resolving the problem.

17. Enter the key operator ID.

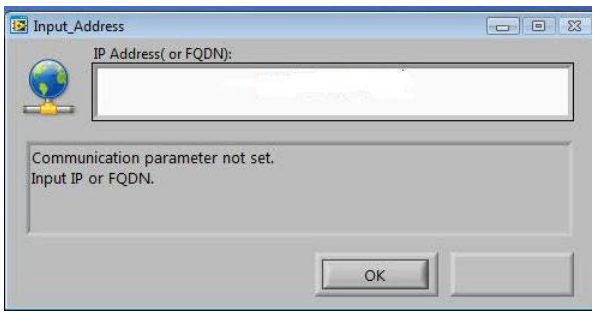
    The ID password is **admin**.



18. Select **OK** (Start).
    The Simple Image Quality Adjustment screen is displayed.

19. From the pull-down menu, select **Density Uniformity Adjustment**, and then select **Start**.

If the Input Address screen is displayed, confirm or enter the IP Address of the machine.



Note

If the SIQA application is communicating to the machine that is connected to either a FreeFlow Print Server or a Fiery EFI Integrated Print Server, enter the IP address that appears on the **Machine Status > Machine Information** screen.

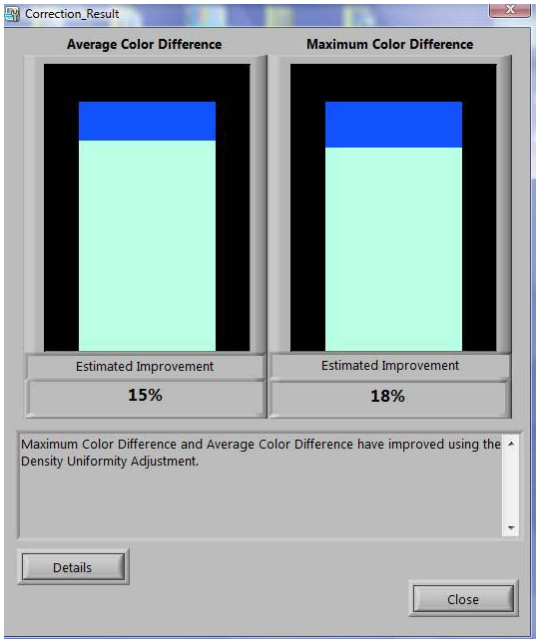
20. Select **OK** (Start).

The scanned image data from the printer folder/Mail Box is accessed and read by the SIQA application. The SIQA application analyzes the data and automatically calculates the required adjustment values.

Note

Several screens are displayed while the analysis and calculation processes occur. Be patient.

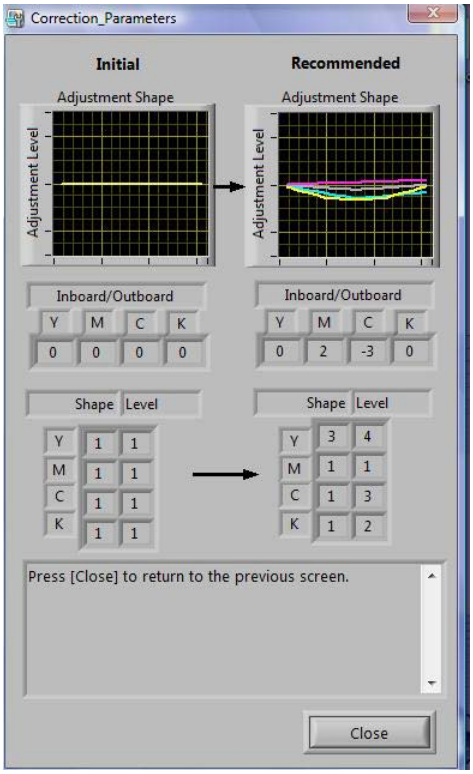
21. Review the information provided on the Correction Results screen.



This screen is displayed after the analysis and calculation processes finish.

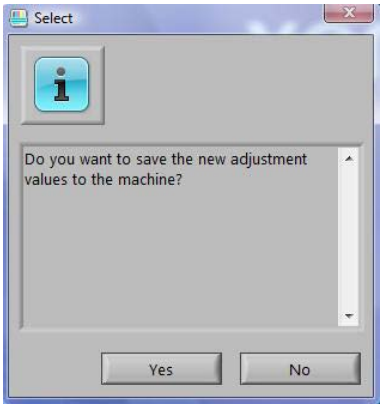
The Correction Results information displays the possible improvement to correct inboard-to-outboard density variation.

22. Select **Details** to review the information on the Correction Parameters screen.



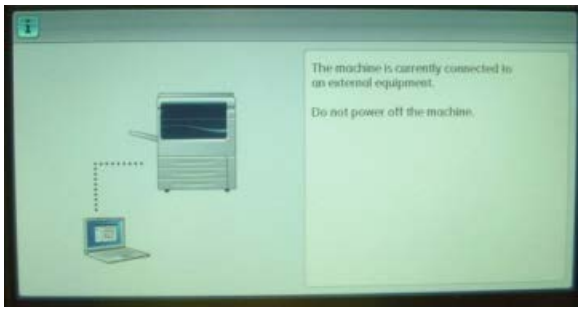
23. Select **Close** two times to exit the Correction Parameters and Correction Results screens.

The Select screen displays the message: Do you want to write the new parameters into the machine?

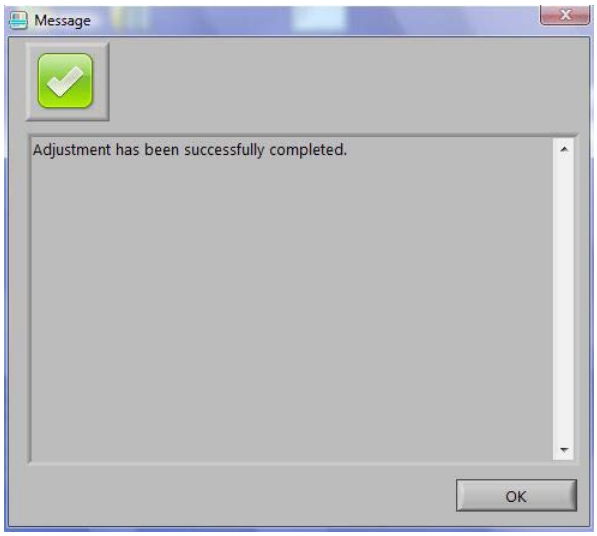


24. Select **Yes** to apply the new adjustment values/parameters.

The values are written into the machine's NVM. The machine cycles up and down 4 to 8 times to allow each ROS to initialize to the new values. The machine's UI displays the message: The machine is currently connected to an external equipment. Do not power off the machine.



Upon completion, the SIQA application displays the Message screen: Adjustment completed.



25. Select **OK** to close and exit the SIQA application.

    The adjustment may be verified by rerunning the test patterns and performing all the previous steps in this procedure.