GlobalScan NX Image Enhancement Plug-in

Administrator's Guide

The GlobalScan NX Image Enhancement Plug-in (Image Enhancement Plug-in) is a GlobalScan NX (GSNX) plug-in filter that corrects images scanned using a Multifunctional Device (MFP).

Use of this plug-in in conjunction with GSNX distribution services allows you to automates image correction of scanned documents and perform efficient digitization and distribution of high-quality documents.
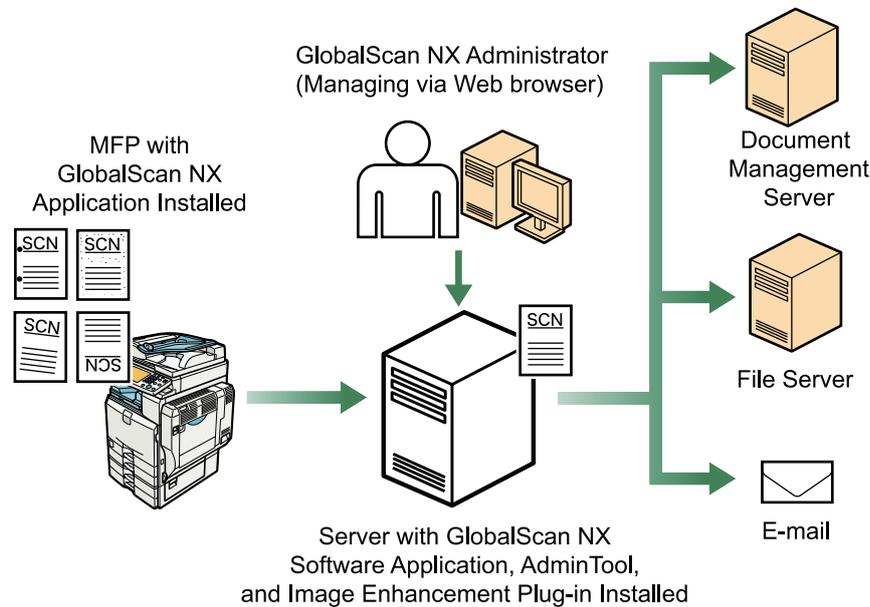
Fig. 1: GlobalScan NX Image Enhancement Plug-in Workflow

⬇ Note

- This plug-in is displayed as "Image Correction" on the GSNX server, in AdminTool, and on the MFP control panel.
- This manual explains the configuration procedures for the Image Enhancement Plug-in. For details about Administrator Settings and Service/Filter Settings, see *GSNX Administrator's Guide*.

Introduction

This manual contains detailed instructions and notes on the operation and use of this product. For your safety and benefit, read this manual carefully before using the product. Keep this manual in a handy place for quick reference.

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- Do not remove or insert any disk while operating this software.

Before You Begin

Abbreviations

The following abbreviations are used in this guide.

Product / Name	Abbreviation
GlobalScan NX	GSNX
Multifunctional Device	MFP, Device
GlobalScan NX Image Enhancement Plug-in	Image Enhancement Plug-in

System Requirements

To install the Image Enhancement Plug-in, the following GlobalScan NX edition must be installed:
- GlobalScan NX Business Server Edition (Ver. 1.2 or later)
- GlobalScan NX Enterprise Server Edition (Ver. 1.2 or later)

Supported File Formats

The following file formats are supported as input/output data by the Image Enhancement Plug-in.

Supported File Format for Input Data	Supported File Format for Output Data
TIFF (MH, single-page)	TIFF (MH, single-page)
TIFF (MR, single-page)	TIFF (MR, single-page)
TIFF (MMR, single-page)	TIFF (MMR, single-page)
TIFF (Uncompressed, single-page)	TIFF (Uncompressed, single-page)
TIFF (MH, multi-page)	TIFF (MH, multi-page)
TIFF (MR, multi-page)	TIFF (MR, multi-page)
TIFF (MMR, multi-page)	TIFF (MMR, multi-page)
TIFF (Uncompressed, multi-page)	TIFF (Uncompressed, multi-page)
TIFF-F (MH, single-page)	JPEG
TIFF-F (MR, single-page)	BMP (Uncommpressed)
TIFF-F (MMR, single-page)	PNG
TIFF-F (MH, multi-page)	GIF
TIFF-F (MR, multi-page)	DCX (single-page)
TIFF-F (MMR, multi-page)	DCX (multi-page)
JPEG	
BMP (Uncommpressed)	
PNG	
GIF	
DCX (single-page)	
DCX (multi-page)	

Note

- If an unsupported file format is entered, the data is directly output without being processed by the Image Enhancement Plug-in.
- TIFF-F format files are not supported for output data. If a TIFF-F format file is input, the output will be A TIFF format file.

Installing the Image Enhancement Plug-in

Step 1: Pre-Installation Procedure

To log in to AdminTool, you must use either a Built-in Administrator account (specified during the installation of AdminTool) or an Administrator account (specified beforehand using AdminTool).

1. Open your Web browser.

2. Enter the AdminTool URL.
   http://*IP address*:8080/gsnx/

3. Press [**ENTER**] or click [**Go**].
   The AdminTool Login Page appears.

Fig. 2: AdminTool Login Page

4. Select an authentication profile and enter the corresponding password.

5. Select a language from the drop-down list.

6. Click [**Login**].
   The AdminTool Home Page appears.

7. Click [**Maintenance Settings**].
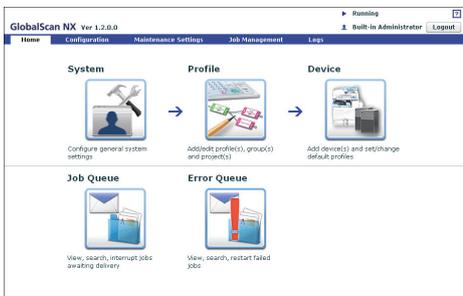
Fig. 3: AdminTool Home Page

8. Click [**System Control**].

9. Click [**Switch Delivery Service Status**] to switch the GSNX server status from [**Running**] to [**Suspended**].

   > **Note**
   > • To update the "Delivery Service Status", click [**Refresh**], next to "Delivery Service Status"

10. Click [**OK**].

11. Click [**Logout**] to log out of the AdminTool.

Step 2: Installation

1. Close all applications currently running on the GSNX server.

2. Double-click **GSLaunch.exe**.
   The "GlobalScan NX Image Enhancement Plug-in Setup" screen appears.

3. Click [**GlobalScan NX Image Enhancement Plug-in**].
   The "Welcome" window appears.

4. Click [**Next**].

5. Read the licensing agreement, and then select "I accept…".

6. Click [**Next**].

   > **Note**
   > • The folder where GSNX is installed is automatically selected as the location for the plug-in's installation files.

7. Click [**Next**].
   Installation starts.

8. Click [**Finish**].
   If a message prompting you to restart the computer appears, click [**OK**]. This will complete the installation.

Step 3: Start the Service

1. Login to the AdminTool.

   > **Reference**
   > • For details about how to log in to the AdminTool, see P.3 "Pre-Installation Procedure".

2. Click [**Maintenance Settings**].

3. Click [**System Control**].

4. Click [**Switch Delivery Service Status**] to switch the GSNX server status from [**Suspended**] to [**Running**].

   > **Note**
   > • To update the "Delivery Service Status", click [**Refresh**], next to "Delivery Service Status"

5. Click [**Logout**] to log out of the AdminTool. To continue setting up Image Enhancement Plug-in without logging out of AdminTool, click [**Home**] and proceed to P.4 "Step 2: Add a Profile".

Adding the Image Enhancement Plug-in

Step 1: Login to AdminTool

To log in to AdminTool, you must use either a Built-in Administrator account (specified during the installation of AdminTool) or an Administrator account (specified beforehand using AdminTool).

1. Open your Web browser.

2. Enter the AdminTool URL.
   http://*IP address*:8080/gsnx/

3. Press [**ENTER**] or click [**Go**].
   The AdminTool Login Page appears.

Fig. 4: AdminTool Login Page

4. Select an authentication profile and enter the corresponding password.

5. Select a language from the drop-down list.

6. Click [**Login**].
   The AdminTool Home Page appears.

Step 2: Add a Profile

1. Click [**Profile**].

Fig. 5: AdminTool Home Page

2. Click [**Create**].
   The Profile Properties screen appears.
   If you are adding the Image Enhancement Plug-in to an existing profile, proceed to P.4 "Step 3: Add a Group".

3. Enter the profile name and screen title.

   🔽 Note
   • The profile name can contain up to 128 characters.
   • The screen title can contain up to 50 characters.
   • For details about profile settings, see *GSNX Administrator's Guide*.

4. Click [**OK**].

Step 3: Add a Group

1. In the Profile List, double-click the profile name you want to add the Image Enhancement Plug-in to.
   The Group/Project screen appears.

Fig. 6: Group/Project screen

   🔽 Note
   • If adding the Image Enhancement Plug-in to an existing group, click the group you require, and then proceed to P.4 "Step 4: Add a Project".

2. Click [📧] (top left).
   The Group Properties screen appears.

3. Enter the group name.

   🔽 Note
   • The group name can contain up to 128 characters.

4. Make sure the status of "Display" is [**On**].

5. Click [**OK**] to save the settings.
   The group appears as a tab on the Group/Project screen.

   🔽 Note
   • For details about group settings, see *GSNX Administrator's Guide*.

Step 4: Add a Project

1. Drag the [📄] button (below the [📧] button) to the Group/Project screen.
   The Project Properties screen appears.

   🔽 Note
   • If you are adding the Image Enhancement Plug-in to an existing project, click the desired project, and then proceed to P.5 "Step 5: Add a Service and Filter/Create a Delivery Flow".

2. Enter the project name.

   🔽 Note
   • For details about project settings, see *GSNX Administrator's Guide*.

3. Click [**OK**].
   A new project button appears.

Step 5: Add a Service and Filter/Create a Delivery Flow

1. Double-click the project button.
   The Project Configuration screen appears.

2. Under "New Filter(s)", drag "Image Correction" to the Delivery Flow Editor screen.

Fig. 7: Delivery Flow Editor screen

⬇ Note

- To automatically align Service(s) and Filter(s), click the [ ] button (below the [ ] button).
- For details about creating a delivery flow, see *GSNX Administrator's Guide*.

3. Under "New Service(s)", drag the service you require to the Delivery Flow Editor screen.

4. Double-click the lower half of the Service/Filter icon added to the Delivery Flow.
   The Properties screen appears.

⬇ Note

- There is no property setting item of Image Enhancement Plug-in.
- There are three levels at which you can configure the properties for services: the System Level, Profile Level, and Project Level. This example procedure explains how to configure the properties at the Project Level. For details about how to specify the properties in other levels, see *GSNX Administrator's Guide*.
- The contents of each setting vary depending on the Service/Filters. For details, see *GSNX Administrator's Guide*. If you are using the optional Service/Filter plug-in, see the Administrator's Guide of each plug-in.

5. Change the settings as necessary.

6. Click [**Apply**], and then [**OK**] to return to the Group/Project screen.

Step 6: Configure the MFP (s)

Finally, identify the MFP(s) that you want to use with GSNX operations by adding them manually or discovering them on the network. (In the following procedure, you will also assign a profile to the device.)

1. On the Home Page, click the [**Device**] shortcut.
   The Device List appears.
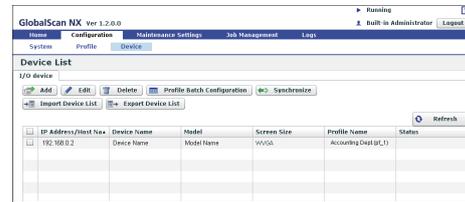
Fig. 8: Device List

2. Select one of the following methods:

   ### Manually Add MFP(s)

   a. Click [**Add**].
      The Add Device screen appears.

   b. Select [**Specify Manually**], enter the IP address or host name of the MFP that you want to add, and then click [**Next**].

   c. Proceed to step 3.

   ### Search for Connected MFPs

   a. Click [**Add**].
      The Add Device screen appears.

   b. Select [**Select from list**].

   c. Click [**Search**].
      Any GSNX-enabled MFPs that are discovered on the network will be displayed.

   d. Select the check boxes of the MFPs you want to add, and then click [**Next**].

   e. Proceed to step 3.

3. Configure the device properties: [**Device Name**], [**Profile Name**], and [**Use Scanner > Yes**]. Then click [**OK**].

Configuring the Image Enhancement Plug-in

This section explains the functions of the Image Enhancement Plug-in.

About the Image Enhancement Plug-in

◆ Noise Reduction

This function prevents unwanted speckles and blemishes (noise) on the original appearing in the scanned image.
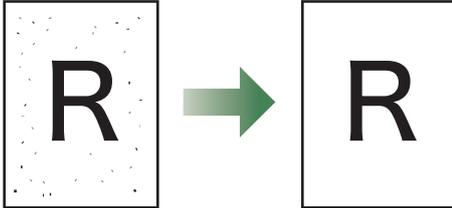
BTR002S

⬇ Note

- If "File Format" under "Scan Settings" is set to [**Grayscale/Color**], the noise reduction function cannot be applied, even if it is set to [**Yes**].

◆ Remove Punch Holes

This function prevents shadow from punch holes in the original document appearing in the scanned image.
This function becomes available when the original being scanned has punch holes.
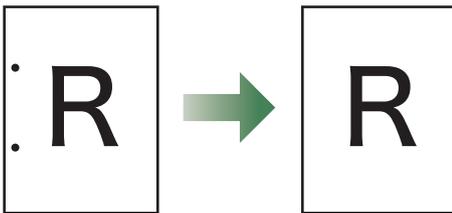
BTR003S

⬇ Note

- The following table shows the relationship between the number of punch holes whose shadows can be removed, punch hole size, and paper size.

Punch holes	Pitch	Paper size
2	80 mm	A3, A4, A5, B4, B5, B6
3	108 mm	$8^1/_2 \times 11$ inch, A4
	89 mm	7×9 inch
	70 mm	$6^1/_3 \times 8^1/_2$ inch
4	57 mm	B5
	80 mm	A4
	20 mm, 70 mm	A4

- If "File Format" under "Scan Settings" is set to [**Grayscale/Color**], the punch hole removal function cannot be applied, even if it is set to [**Yes**].
- This function cannot prevent shadow from contoured or partial punch holes appearing on the scanned image.

◆ Remove Blank Pages

This function prevents unwanted blank pages contained in multiple-page originals being scanned. This function is helpful when scanning a multiple-page original containing a mixture of one- and two-sided pages.
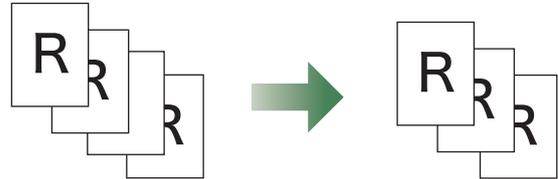
BTR004S

⬇ Note

- This function is available even if the original contains pages that are of various solid colors.

◆ Deskew

This function straightens skewed images on originals, producing scanned images that are better aligned.
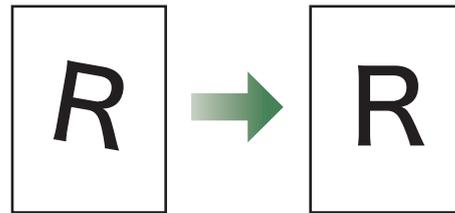
BTR006S

⬇ Note

- White margins can appear around the scanned image if the degree of correction is extreme.
- The range of skew that can be corrected is -7 to +7 degrees.

◆ Auto Orientation

This function corrects rotated images in steps of 90 degrees.
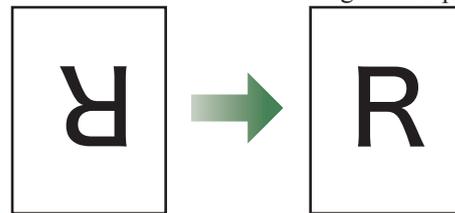
BTR005S

MFP Filter Screen Overview

Use this screen to specify preset options and specify which options are hidden or displayed. The preset options are displayed on the MFP's control panel.
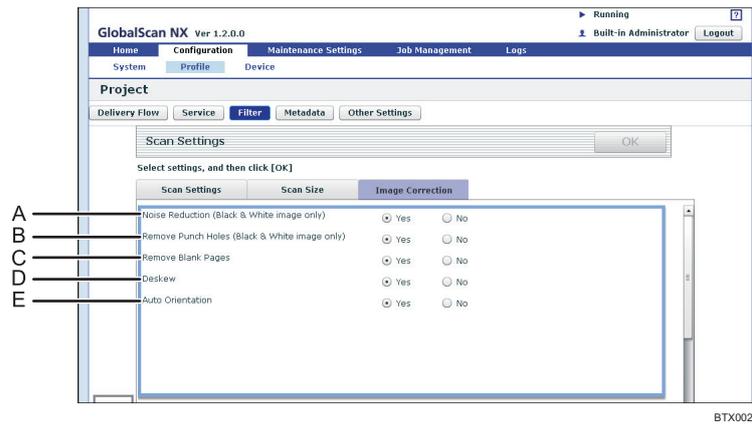
Fig. 9: MFP Filter Screen

A. Noise Reduction (Black & White image only)

Specify whether to remove noise. Also, specify whether to display or hide this setting.

⬇Note
- If "File Format" under "Scan Settings" is set to [**Grayscale/Color**], the noise reduction function cannot be applied, even if it is set to [**Yes**].

B. Remove Punch Holes (Black & White image only)

Specify whether to remove punch hole shadow. Also, specify whether to display or hide this setting.

⬇Note
- If "File Format" under "Scan Settings" is set to [**Grayscale/Color**], the punch hole removal function cannot be applied, even if it is set to [**Yes**].

C. Remove Blank Pages

Specify whether to remove blank pages. Also, specify whether to display or hide this setting.

D. Deskew

Specify whether to correct image skew. Also, specify whether to display or hide this setting.

E. Auto Orientation

Specify whether to correct image orientation. Also, specify whether to display or hide this setting.

Procedure

1. Click [**Home**], and then click the [**Profile**] shortcut.
   The Profile screen appears.

2. Select the group you require.

3. Double-click the project you require.
   The Delivery Flow screen appears.

4. Click [**Filter**].

5. Click [**Image Correction**].

6. Edit the settings as necessary.

7. Edit other filter settings as necessary, and then click [**OK**].