HuaGoScan Scanner Driver Settings Help Manual

Foreword

HuaGoScan scanner driver is an application used on a computer operating system. It enables the computer to obtain images from the scanner. To fully understand the functions of the HuaGoScan scanner driver and to use them efficiently, please read this help manual, the "HuaGoScan Scanning Software Help Manual" and the operation manual of the scanner.

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1. Instructions Before Use

Please read the following explanations before use:

Global: Introduces the global functions of the scan parameter settings dialog box.

Basic Settings: Introduces the functions and settings of the scanner's basic parameters.

Brightness: Introduces the brightness/contrast/gamma settings of the scanner.

Image Processing: Introduces image processing related functions and settings of the scanner.

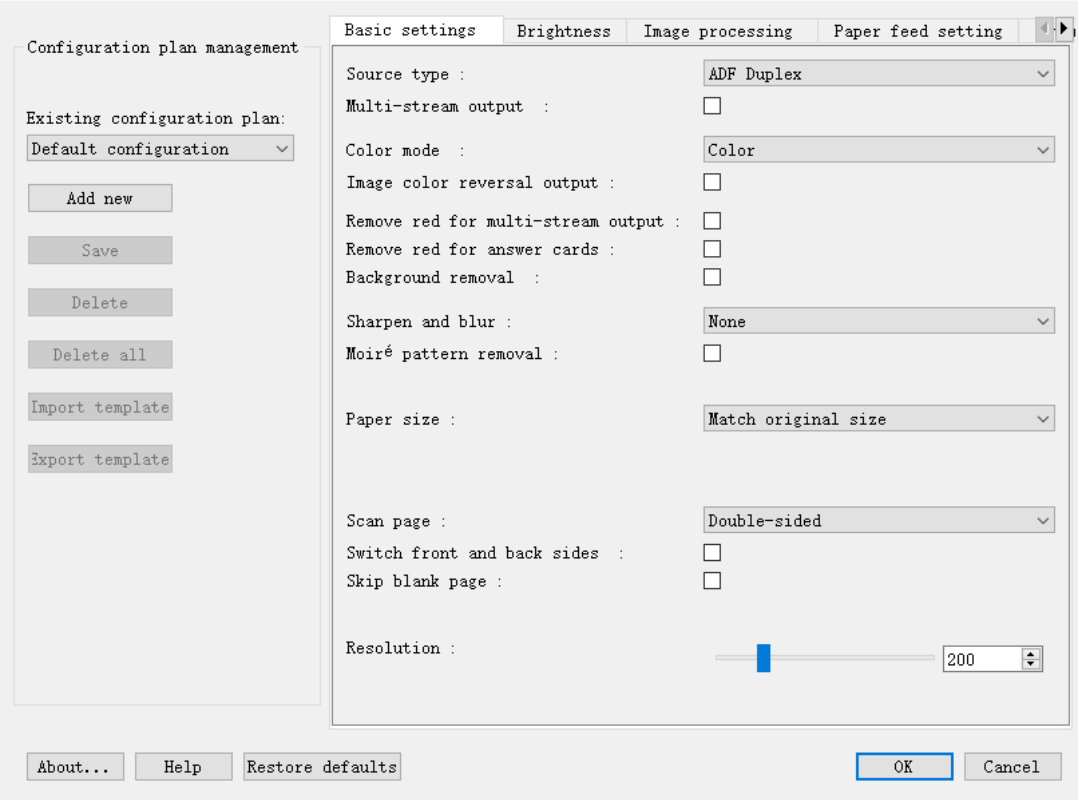
Paper Feed Setting: Introduces paper feed related functions and settings of the scanner.

Important information

- Make sure that the scanner is correctly connected to the computer and that the cable between the scanner and the computer is firmly connected; otherwise unstable exceptions will occur. Please refer to the operation manual of the scanner for detailed information.
- Based on variations in scanner models and different versions of the same scanner model, some functions may be unavailable; this manual does not describe all of these differences in detail. To learn more, please contact your dealer or the after-sales technical support of the scanner manufacturer.

2. Global

The user interface of the HuaGoScan scanner scan parameter settings dialog box is as follows:



Global functions are not affected by the currently selected tab; they include "Global function keys" and "Configuration template management".

Global function keys:

A. About...: Displays the version information of the device and the driver.

B. Help: Opens this help manual.

C. Restore default settings: Restores all scan parameters on every tab to the default parameter configuration.

D. OK: Closes the dialog box and saves all changed parameter configurations.

E. Cancel: Closes the dialog box and all parameter configurations changed this time will not be saved. All parameter configurations are restored to the configuration last saved.

Configuration template management:

A. Existing configuration template: Click to expand the configuration list and switch between saved user configurations.

B. Add new template: Saves the current parameters as a new configuration template. The new template must be named before saving; after saving, the template can be selected in "Existing configuration template".

C. **Save:** Overwrites and saves the current parameters to the currently selected configuration template.

D. **Delete current template:** Deletes the currently selected configuration template.

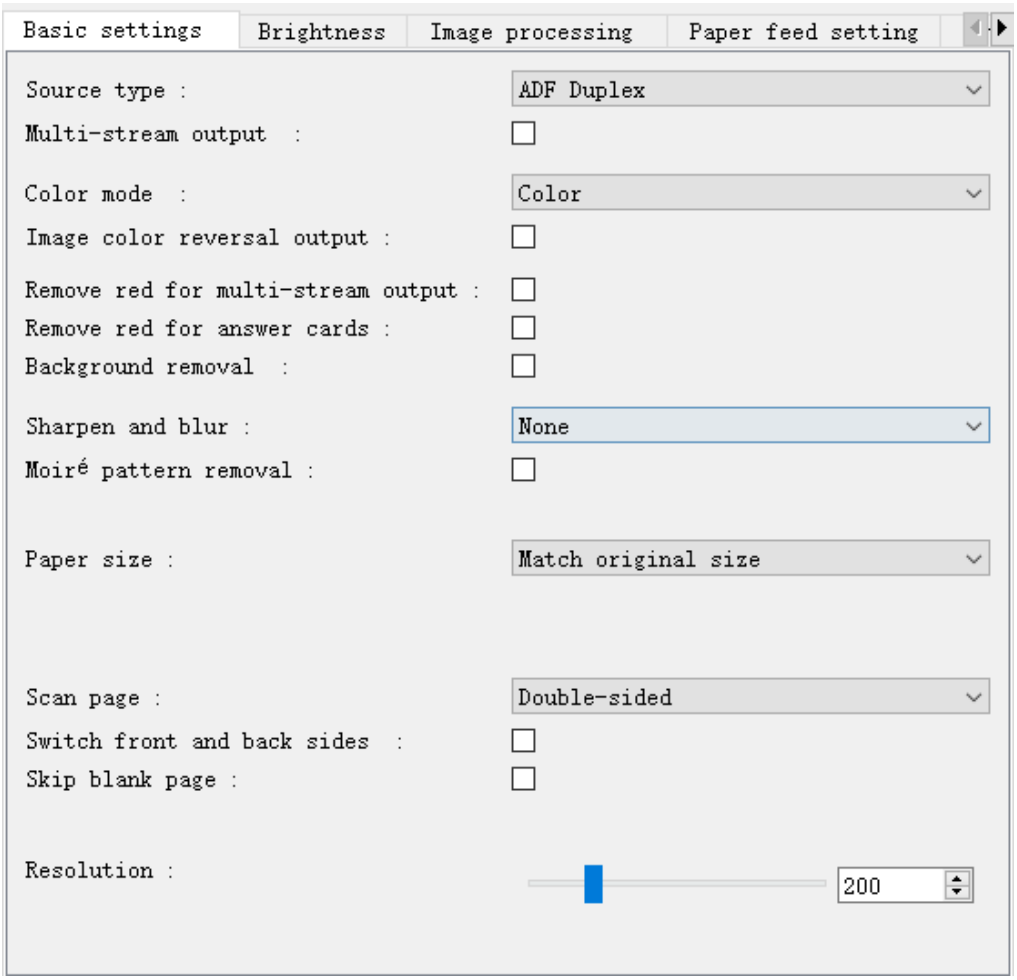
E. **Delete all:** Deletes all custom configuration templates, keeping only the default settings template.

F. **Import template:** Imports a template file from local storage and changes the current parameter settings to the configuration of the imported template. The template file format is "*.cfg".

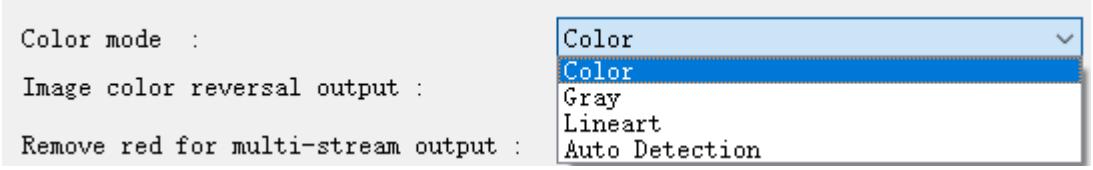
G. **Export template:** Exports the current parameter settings to the specified path and saves them as a template file. The template file format is "*.cfg".

3. Basic Settings

The Basic settings tab includes: **Color mode, Paper size, Scan page and Resolution** four basic parameter options. There are also other options that may change or be forced on/off according to the basic parameters.



1. Color Mode



Allows configuring the color of the document images scanned by the scanner; there are **24-bit color (default), 256 level grayscale, Black and white and Automatic color identification** four modes.

A. 24-bit color: Under this mode, the scanned document image is displayed in RGB

three-channel color.

B. 256 level grayscale: Under this mode, the scanned document image is displayed in 256 level single-channel grayscale.

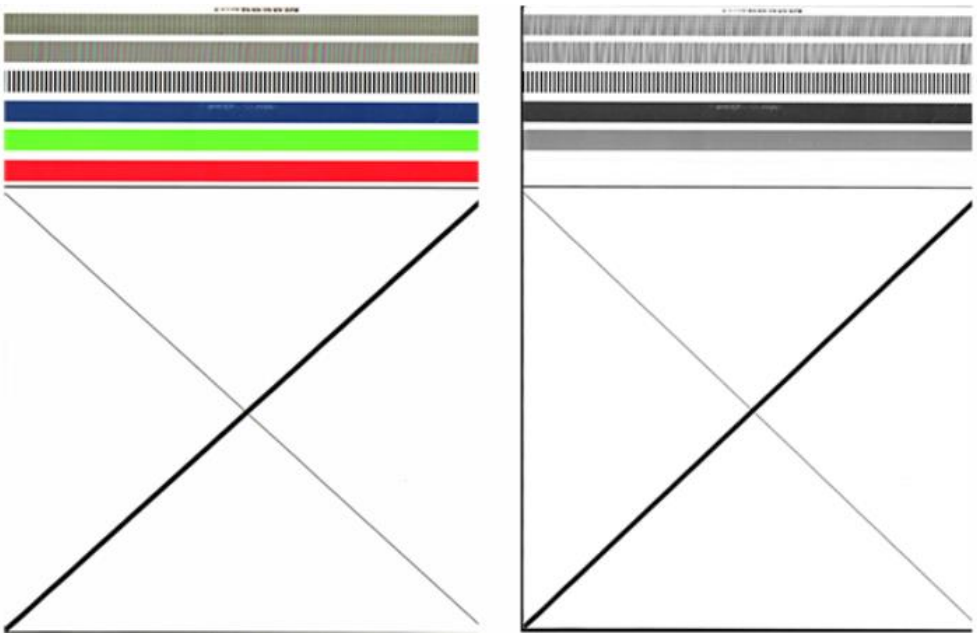
C. Black and white: Under this mode, the scanned document image is displayed as a binary image.

D. Automatic color identification: Under this mode, the scanner will automatically identify and output the corresponding image according to the color situation of the document. Documents containing color information are output as color images; documents containing only black, white and gray information are output as grayscale images.

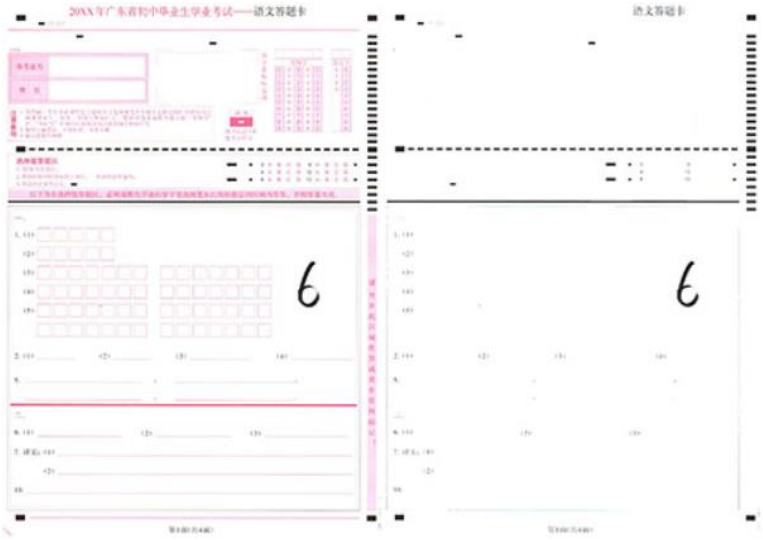
The following related functions may be enabled/disabled according to the color mode selected:

Function	24-bit color	256 level grayscale	Black and white	Automatic color identification
Remove red for multi-stream output (color image)	ON	OFF	OFF	OFF
Remove red for answer cards (color image)	ON	OFF	OFF	OFF
Background removal	ON	OFF	OFF	OFF
Sharpen and blur	ON	ON	ON	ON
Moiré pattern removal	ON	ON	OFF	OFF
Color removal and enhancement (grayscale/b&w image)	OFF	ON	ON	OFF
Black and white image noise optimization	OFF	OFF	ON	OFF
Error diffusion	OFF	OFF	ON	OFF

A. **Remove red for multi-stream output (color image):** Scans and outputs a document simultaneously as a 24-bit color image and a 256 level grayscale image with red removal effects.



B. Remove red for answer cards (color image): Removes the red component in answer card images.



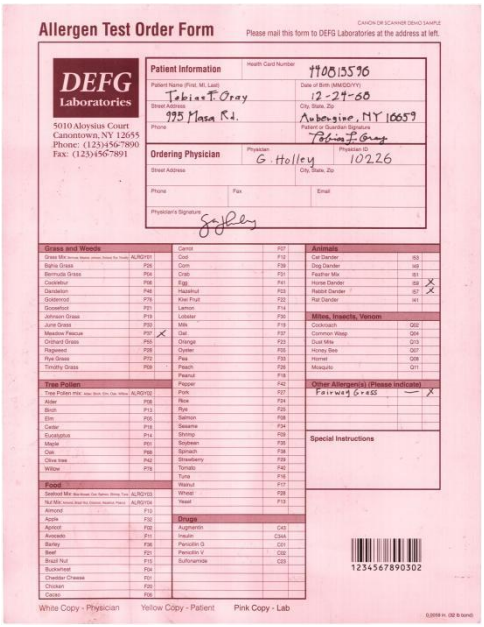
Description

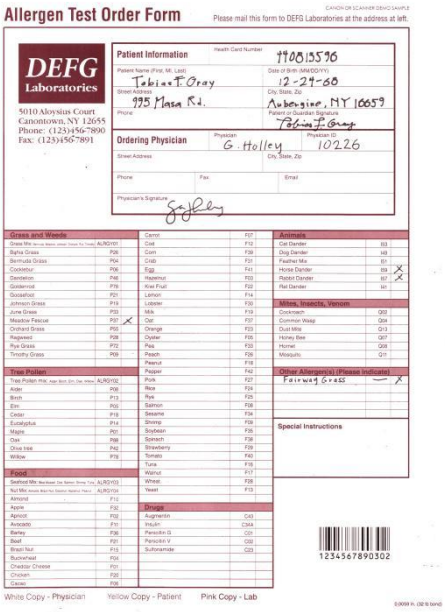
Differences from the "Color removal and enhancement (grayscale/b&w image) > Remove red" function:

Color removal and enhancement (grayscale/b&w image) > Remove red: Only removes the R channel component from the RGB information of pixels, and the output is a 256 level grayscale image or a black and white image;

Remove red for answer cards (color image): Determines the RGB information comprehensively; when determined as red, removes all three RGB channels of the color here and outputs a 24-bit color image.

C. **Background removal:** Removes the large-area background color at the bottom of document patterns or text.





Description

Background color floating range: When the image processing algorithm confirms that a certain color is the document background color, the RGB value of this color is used as the baseline to check the RGB values of all pixels. When the grayscale deviations of the R, G and B channels of a pixel are all within the set background color floating range, the pixel is determined as a background color; otherwise, if the value of any of the R, G and B channels exceeds the background color floating range, the pixel is determined as a non-background color and will not be processed.

Example

Through calculation of the entire image, the image processing algorithm obtains the baseline value of the document background color as RGB(230, 75, 128), and the background color floating range is set to 20. It can be seen that when the RGB values of any pixel are within the range of R(210~250), G(55~95) and B(108~148), it will be regarded as a background color.

For pixel 1 (RGB = 210,55, 108), it is determined as a background color and will be processed;

For pixel 2 (RGB = 250, 95, 148), it is determined as a background color and will be processed;

For pixel 3 (RGB = 198, 75, 128), it is determined that its red component exceeds the background color range, so it will not be processed;

For pixel 4 (RGB = 254, 75, 128), it is determined that its red component exceeds the background color range, so it will not be processed;

For pixel 5 (RGB = 230, 47, 128), it is determined that its green component exceeds the background color range, so it will not be processed;

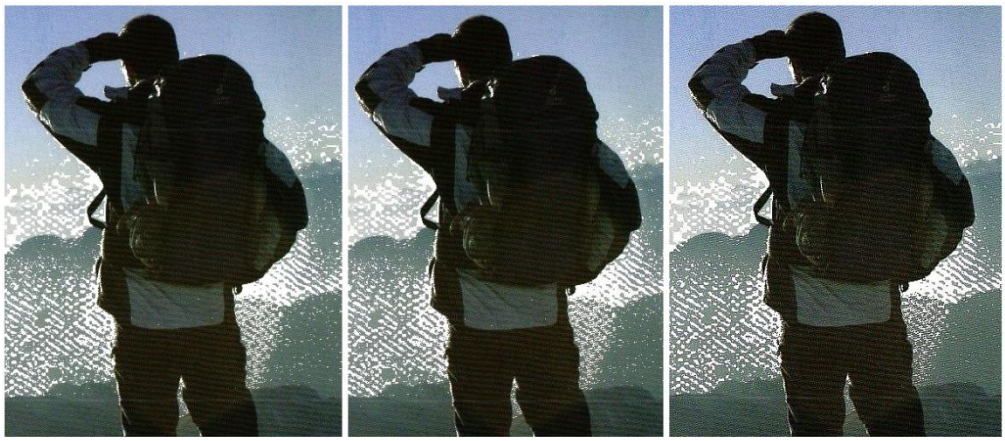
For pixel 6 (RGB = 230, 105, 128), it is determined that its green component exceeds the background color range, so it will not be processed;

For pixel 7 (RGB = 230, 75, 106), it is determined that its blue component exceeds the background color range, so it will not be processed;

For pixel 8 (RGB = 230, 75, 225), it is determined that its blue component exceeds the

background color range, so it will not be processed.

D. Sharpen and blur: Makes the image sharper or blurrier.





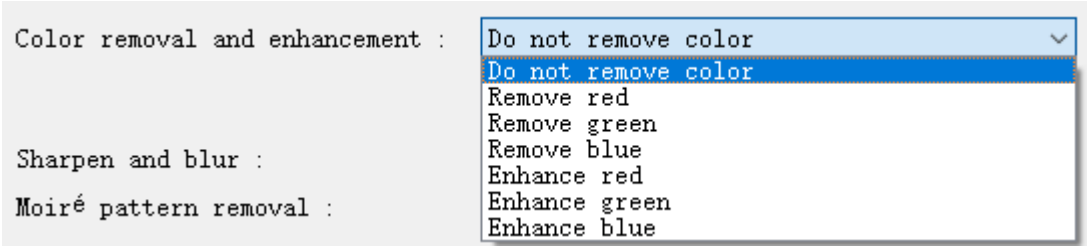
E. Moiré pattern removal: Removes the Moiré patterns on the image.



Note

This function is only supported at resolutions below 500. After enabling this function, the scanner will reduce the scanning speed and perform slow scanning.

F. Color removal and enhancement (grayscale/b&w image): Removes or enhances the display of the specified color. This includes: Do not remove color, Remove red, Remove green, Remove blue, Enhance red, Enhance green and Enhance blue seven effects.



Effects of the color removal options:

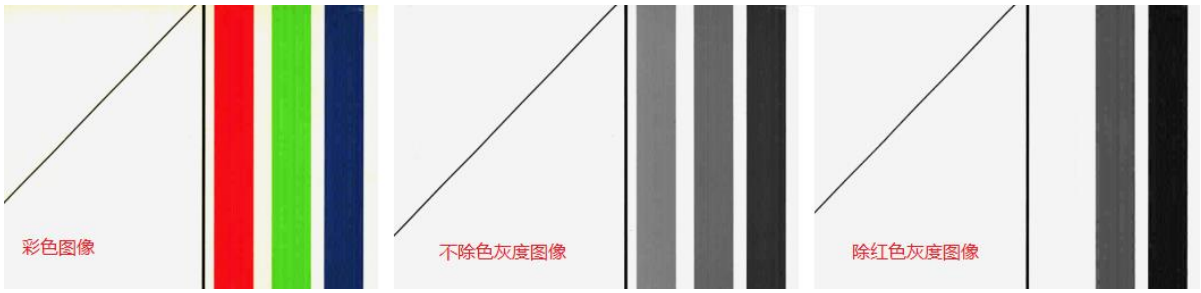
- Remove red: Reduces or eliminates the red component in images.
- Remove green: Reduces or eliminates the green component in images.
- Remove blue: Reduces or eliminates the blue component in images.

Effects of the enhance options:

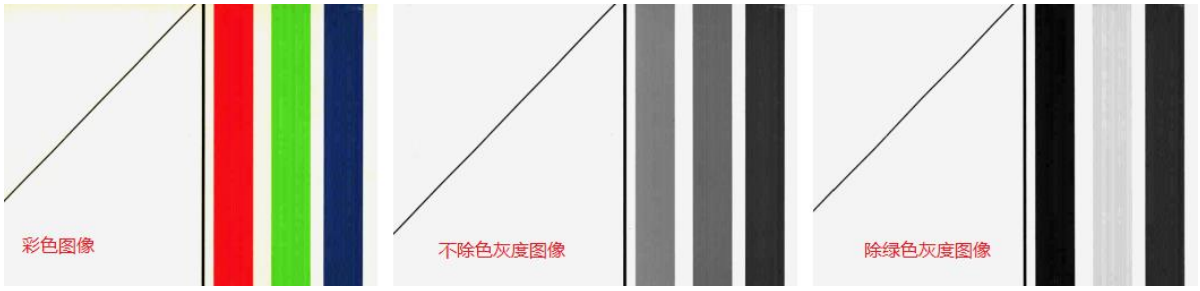
- Enhance red: Makes the red component in images darker.
- Enhance green: Makes the green component in images darker.
- Enhance blue: Makes the blue component in images darker.

Example

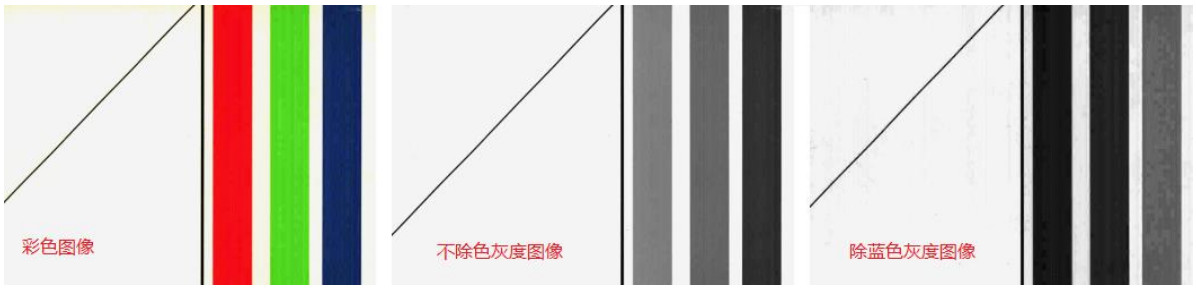
Comparison of Remove red image effects:



Comparison of Remove green image effects:



Comparison of Remove blue image effects:



Comparison of Enhance red image effects:



Comparison of Enhance green image effects:



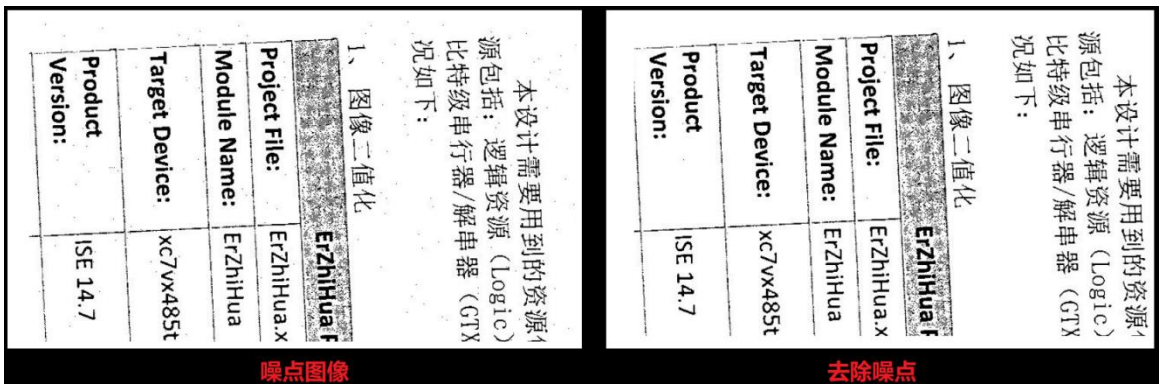
Comparison of Enhance blue image effects:



Description

The color removal function is a separate processing effect on the three R, G and B channels in color images; therefore, when processing non-pure colors, they cannot be removed completely. To achieve better color removal effects, there are higher requirements for the color purity of the scanned document patterns and the cleanliness of the paper.

G. Black and white image noise optimization: Removes the noise that exists in images.



Description

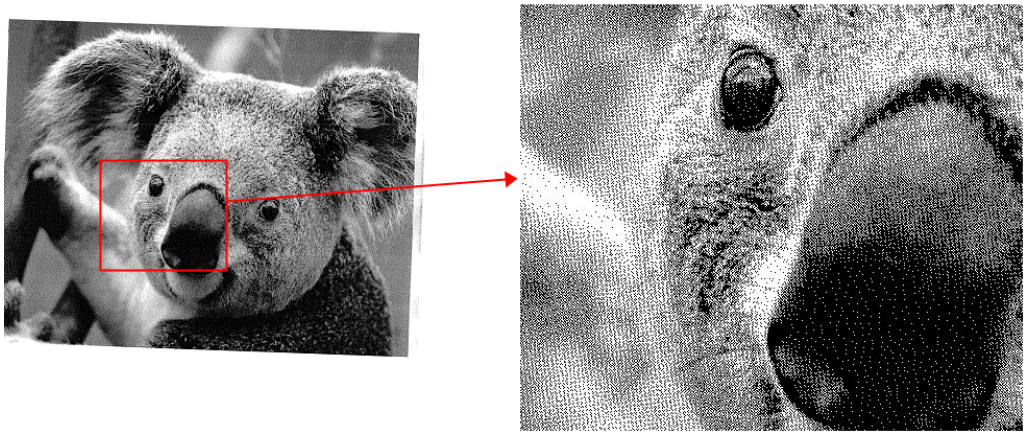
Noise optimization size: Represents the number of connected black pixels. Removes the black isolated points whose number of connected points on the entire image is less than the set value.

Example

Calculation of the number of connected noise points:



H. Error diffusion: Draws the document pattern using black points in the form of a dot matrix.

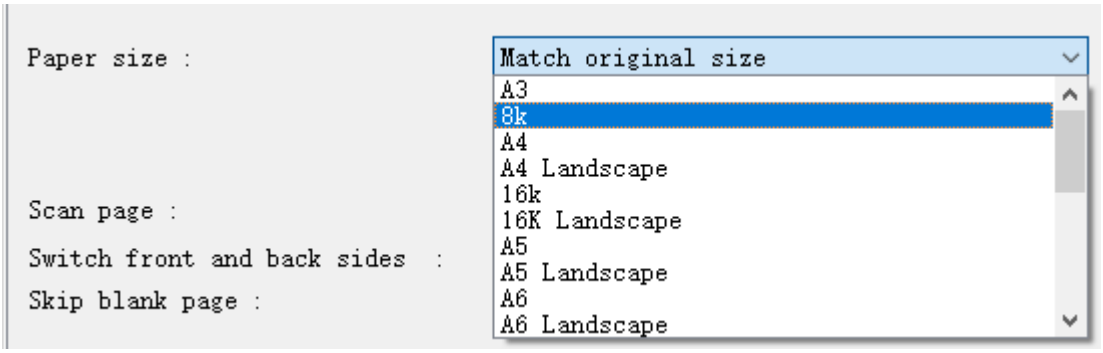


2. Paper Size

Allows configuring the size of the document images scanned by the scanner.

Note

Available paper size options vary according to the different HuaGoScan model devices.



There is a total of 23 configurable scanning sizes for the A3 format scanner; the actual paper length and width corresponding to each size is shown in the table below:

Selected size	Height (mm)	Width (mm)
A3	420	297
B4 (8K)	390	270
A4	297	210
A4 Landscape	210	297
B5 (16K)	270	190
B5 (16K) Landscape	190	270
A5	210	148
A5 Landscape	148	210

A6	148	105
A6 Landscape	105	148
B4	353	250
B5	250	176
B5 Landscape	176	250
B6	176	125
B6 Landscape	125	176
Letter	279	216
Letter Landscape	216	279
Double Letter	432	279
LEGAL	356	216
Match original size (default)	Automatic detection (MAX: 1000)	Automatic detection (MAX: 297)
*Automatic cropping at maximum scan size	Automatic detection (MAX: 1000)	Automatic detection (MAX: 297)
*Maximum scan size	1000	297
Triple test paper	560	270

There is a total of 10 configurable scanning sizes for the A4 format scanner; the actual paper length and width corresponding to each size is shown in the table below:

Selected size	Height (mm)	Width (mm)
A4	297	210
A5	210	148
A5 Landscape	148	210
A6	148	105
A6 Landscape	105	148
B5	250	176
B6	176	125
B6 Landscape	125	176
Match original size (default)	Automatic detection (MAX: 630)	Automatic detection (MAX: 210)
*Maximum scan size	Automatic detection (MAX: 3000)	210

Description

When "Match original size" and "Automatic cropping at maximum scan size" are selected, the software will automatically detect the edges of the paper document fed into the scanner and output the image according to the actual paper size.

Note

- The parameter values of "Match original size", "Automatic cropping at maximum scan size" and "Maximum scan size" are related to the hardware version and firmware version of the

product. The parameters listed in the table reflect optimal conditions; for the sizes the product actually supports, please consult the product dealer or manufacturer.

- The maximum height supported by "Match original size", "Automatic cropping at maximum scan size", "Maximum scan size" and "Triple test paper" is based on a resolution of 200 dpi. When the resolution increases, the maximum height must be reduced proportionally; when the resolution decreases, the maximum height will not increase and will still be based on the size at 200 dpi.

⚠ Important

"Maximum scan size", "Automatic cropping at maximum scan size" and "Triple test paper" are special modes opened for professional users; the structure of the HuaGoScan scanner is not suitable for stacking and automatically batch feeding long documents.

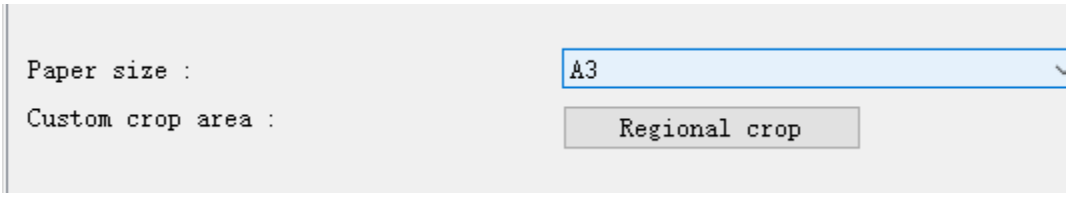
If you are a professional user:

- Please make sure that the paper does not deviate too much in the horizontal feed direction during the feeding of long documents; otherwise the document may be damaged.
- When you use "Maximum scan size" and "Automatic cropping at maximum scan size", if too many scan settings are checked, scanning anomalies may occur. When this happens, please scan by one or more of the following methods: lower the resolution, use grayscale or black and white color modes, scan a single side, or uncheck image processing effects.

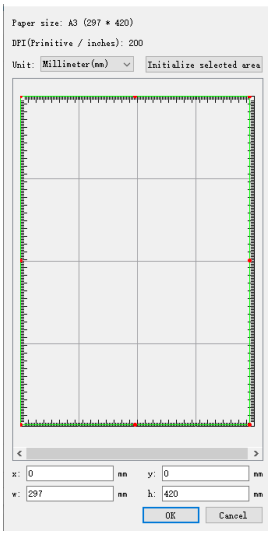
The following related functions may be enabled/disabled according to the paper size selected:

Function	Match original size	Automatic cropping at maximum scan size	Maximum scan size	Triple test paper	Others
Custom scan area	OFF	OFF	OFF	OFF	ON
Size detection	OFF	OFF	OFF	OFF	ON
Moiré pattern removal	ON	OFF	OFF	OFF	ON

A. **Custom scan area:** When the selected size is a fixed format size, additional regional cropping can be performed on the basis of the current size to customize the area of the output image.



Click the "Regional crop" button to open the custom scan area window:



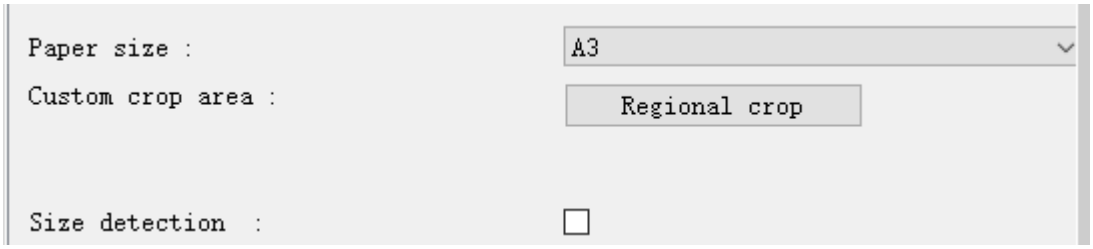
The unit used for area adjustment can be selected; three units are supported: millimeter, inch and pixel.

The range of the crop area can be adjusted by dragging the crop frame manually; the crop area can also be confirmed by entering data in the input boxes below:

x, y: The coordinates of the starting vertex position of the crop area; it represents the relative position from the vertex at the top-left corner of the crop area to the vertex at the top-left corner of the current paper size;

w, h: The width and height of the crop area.

B. **Size detection:** When the deviation between the actual scanned document size and the size set in "Paper size" exceeds a certain level, the software will issue a prompt that the scanned size is incorrect.



Note

Depending on the paper size selected, the "Size detection" function may be unavailable:

When the paper size is "B4 (8K)", "B5 (16K)", "B5 (16K) Landscape", "Landscape match original size", "Automatic cropping at maximum scan size", "Maximum scan size" or "Triple test paper", the size detection function is unavailable.

3. Scan Page

Allows configuring the page conditions for the scanner to scan documents; there are Single side (front and back sides for some devices), Double-sided (default), Skip blank pages (universal), Skip blank pages (receipt paper) and Fold five modes.

A. Single side: Only scans the front side of the document; some devices support the front and back sides.

Description

The paper is placed on the paper feed tray of the machine, and the side facing up is the front. When Single side mode is selected, the front side is scanned.

B. Double-sided: Scans both the front and back sides of the document.

C. Skip blank pages (universal): Applicable to normal documents. The scanner scans both sides of the document automatically and automatically determines whether content exists on the page; blank pages with no content are discarded directly.

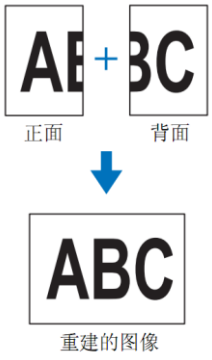
D. Skip blank pages (receipt paper): Applicable to receipt documents. The scanner scans both sides of the document automatically and automatically determines whether content exists on the page; blank pages with no content are discarded directly.

E. Fold: Applicable to documents larger than the maximum size of the scanner. The scanner scans both sides of the document automatically and stitches the front and back images of the document into a complete image for output.

Description

The folding direction of the paper and the stitching method are shown below:





The following related functions may be enabled/disabled according to the scan page selected:

Function	Front/Back	Double-sided	Skip blank pages (universal/receipt paper)	Fold
Sensitivity for skipping blank pages	OFF	OFF	ON	OFF
Switch front and back sides	OFF	ON	ON	ON
Fold mode	OFF	OFF	OFF	ON
Image split	ON	ON	OFF	OFF
Automatic correction	ON	ON	ON	OFF

A. **Sensitivity for skipping blank pages:** Allows adjusting the software's strength for determining blank pages. The larger the value, the more easily the image will be determined as a blank page and skipped.

B. **Switch front and back sides:** Using this option, the output order of the front and back sides of the scanned document can be swapped.

Example

The front side of the document is marked as "_f" and the back side as "_b". If three documents are scanned continuously, the output order is: 1_f, 1_b, 2_f, 2_b, 3_f, 3_b.

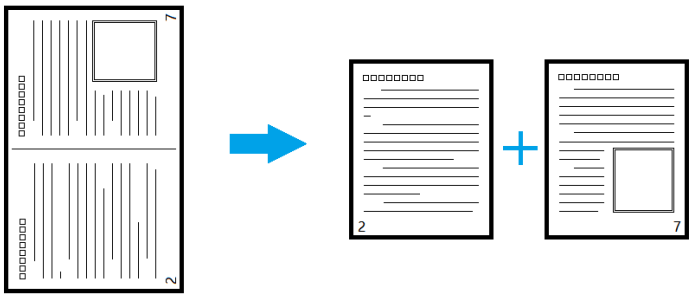
After checking "Switch front and back sides", the output order changes to: 1_b, 1_f, 2_b, 2_f, 3_b, 3_f.

C. **Fold mode:** Allows selecting the stitching direction of the folded document. If "Auto fold" is selected, the driver will automatically determine the length and width of the output image and use the long side as the folding line for stitching.

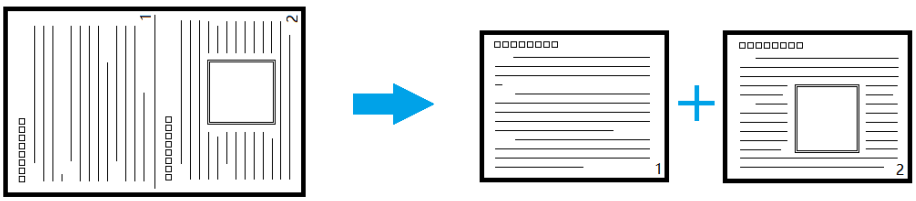
D. Image split: Splits each scanned image in half into two separate images and rotates them 90° clockwise (the back side image is rotated 90° counter-clockwise, to conform to most printing situations).

This function automatically determines whether to split horizontally or vertically according to the length and width of the selected size.

Processing method for vertical documents:



Processing method for horizontal documents:



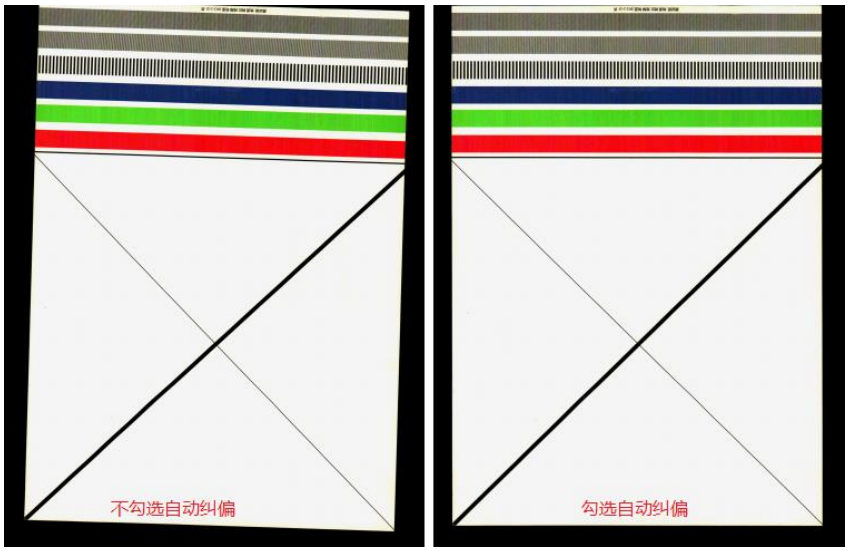
Description

- In the "Paper size" option, if a size with "Landscape" is selected, the processing method for horizontal documents is applied automatically; for the remaining fixed format sizes, the processing method for vertical documents is applied automatically.
- In the "Paper size" option, if an automatic detection related size is selected, the system will first identify the size of the document fed, then compare the length and width of the document to automatically determine whether to apply the horizontal or vertical document

processing method.

- This function is usually used together with the "Book sorting" function in the scanning application provided with the scanner.

E. Automatic correction: Automatically identifies the skew condition of the paper and automatically adjusts the output image to a horizontal and vertical state.



4. Resolution



Allows setting the resolution of the document images scanned by the scanner; the settable range is**100~600** dpi. The default is 200 dpi.

Taking the A3 paper size as an example, the impacts of resolutions on images are shown in the table below:

Selected resolution	Number of pixels in the vertical direction	Number of pixels in the horizontal direction
100	1653	1169
150	2480	1753
200	3307	2338
240	3968	2806
300	4960	3507
600	9921	7014

The size of the image resolution affects the maximum clarity of the image. When scanning fine

objects, please select a high resolution mode.

Example

Font zoom display at 300 DPI:



Font zoom display at 100 DPI:

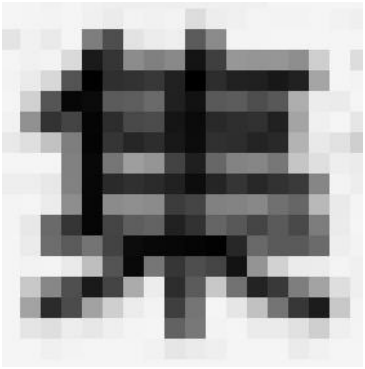
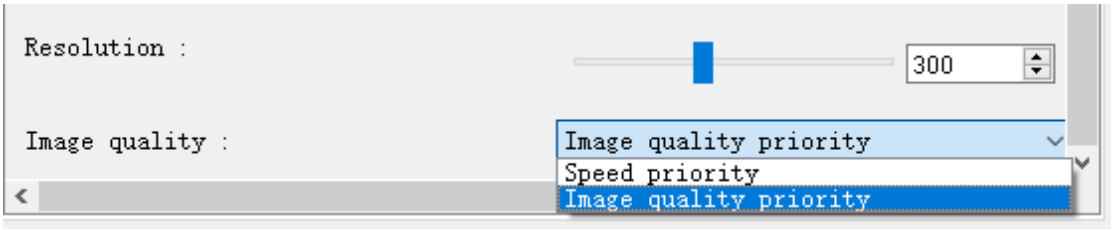


Image quality: When a high resolution mode is selected (300 DPI or more), the image quality can be selected.

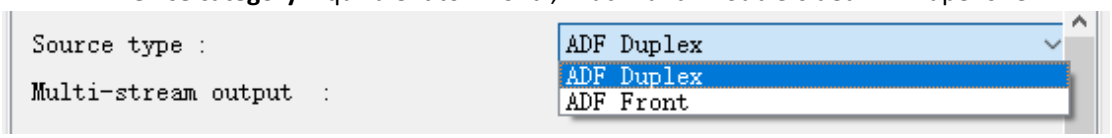


Description

- When "Speed priority" is selected, the scanner scans at its original speed and the scanned image keeps the original image quality.
- When "Image quality priority" is selected, the scanner will scan at a reduced speed and the scanned image will have high definition image quality.

5. Other Functions

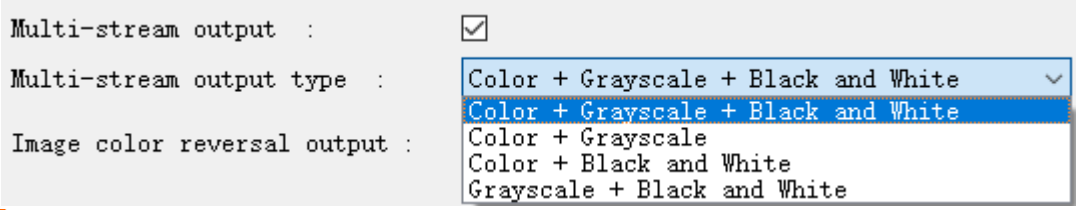
A. **Device category:** Equivalent to "Front", "Back" and "Double-sided" in "Paper size".



Note

When the device category changes, "Paper size" changes accordingly. Similarly, when "Paper size" changes in a way that involves switching between single-sided and double-sided, the device category changes accordingly as well.

B. **Multi-stream output:** Allows outputting images in multiple color modes at the same time.

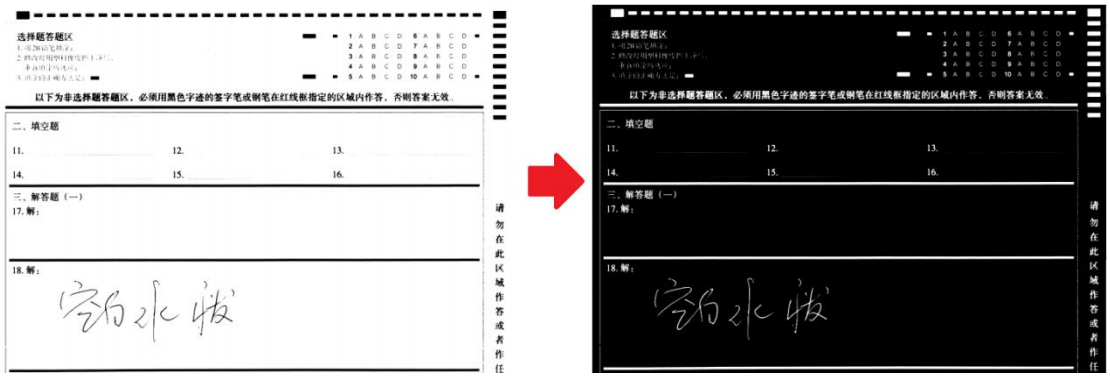


Note

In Multi-stream output mode, the image processing functions related to each color mode are not effective by default.

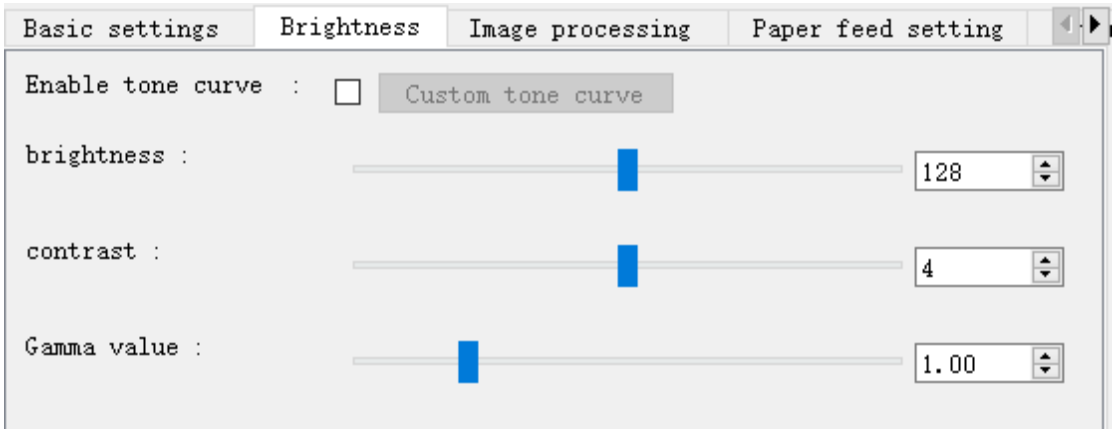
C. **Image inverse color output:** Makes the image appear as a negative. (Black and white inverse color is mainly applied to pnm format image output)





Brightness

The Brightness tab includes: Tone curve, Brightness level, Contrast and Gamma value four parameter options.

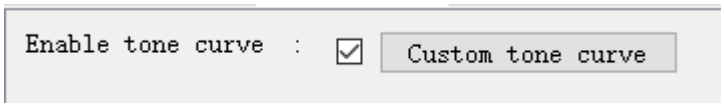


1. Tone Curve

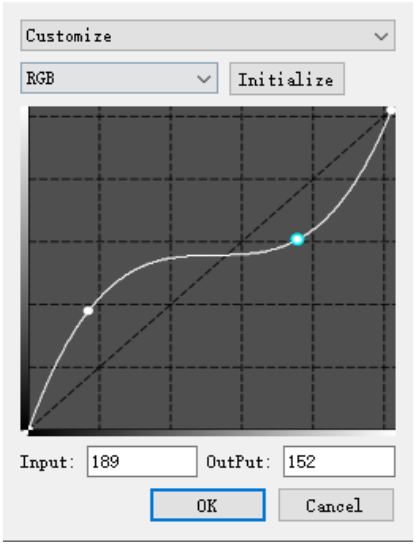
Using this option, the brightness and color components of the image can be configured by means of a visual curve.

Note

When this function is enabled, the brightness, contrast and gamma value functions will become invalid automatically.



Check "Enable tone curve" and click the "Custom tone curve" button to open the tone curve window:



You can select a preset curve scheme or customize the curve.

When customizing the curve, you can add control points in the curve window with the left mouse

button, and change the shape of the curve by dragging the control points.

Description
You can select the curve corresponding to the color you want to adjust:
RGB: In color images, the red, green and blue color components change synchronously according to the same curve; effective in color mode.
Gray: In grayscale images, the gray scale changes according to the curve; effective in grayscale mode.
Red: In color images, the red component changes according to the curve; effective in color mode.
Blue: In color images, the blue component changes according to the curve; effective in color mode.
Green: In color images, the green component changes according to the curve; effective in color mode.

2. Brightness Level

Using this option, the brightness of the document images scanned by the scanner can be configured.
Adjustment range: 1~255
Default value: 128
Adjustment method:

- By dragging the slider in the middle with the mouse;
- By entering numbers in the value box with the keyboard;
- By clicking the up and down arrows on the right side of the value box with the mouse;

Brightness affects how light or dark the image is. The lower the brightness, the darker the image; the higher the brightness, the lighter the image.

3. Contrast

Using this option, the contrast of the document images scanned by the scanner can be configured.
Adjustment range: 1~7
Default value: 4
Adjustment method:

- By dragging the slider in the middle with the mouse;
- By entering numbers in the value box with the keyboard;
- By clicking the up and down arrows on the right side of the value box with the mouse;

Contrast affects how light or dark the image is in dark and light areas. The lower the contrast, the

closer the dark and light parts of the image are, and the easier it is to expose highlight and shadow details; the higher the contrast, the darker the dark parts and the lighter the light parts of the image, and the easier it is to lose highlight and shadow details.
After checking "Auto contrast", the device will automatically set the contrast parameter with its own algorithm and output images with that effect.

4. Gamma Value

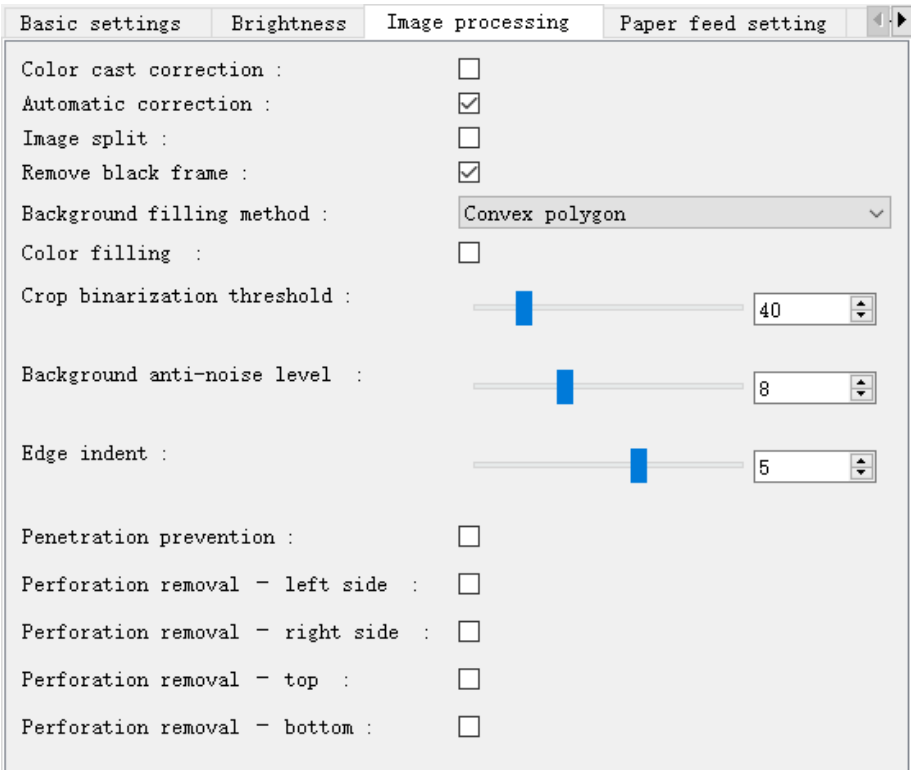
Using this option, the gamma value of the document images scanned by the scanner can be configured.
Adjustment range: 0.01~5.00
Default value: 1.00
Adjustment method:

- By dragging the slider in the middle with the mouse;
- By entering numbers in the value box with the keyboard;
- By clicking the up and down arrows on the right side of the value box with the mouse;

The gamma value can adjust the light and dark levels of the image, representing the acceleration of changes in different light and dark pixels. The smaller the gamma value, the darker the overall image, and the closer the light and dark parts are; the larger the gamma value, the brighter the overall image, and the light parts brighten faster than the dark parts as the value increases.

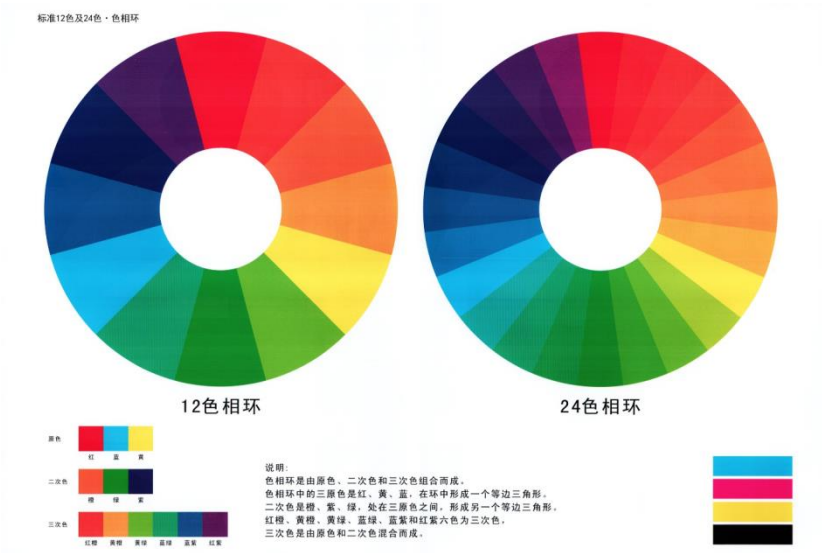
4. Image Processing

The Image processing tab includes: Color correction, Automatic correction, Remove black frame, Advanced cropping parameters, Penetration prevention and Perforation removal and other parameter options.

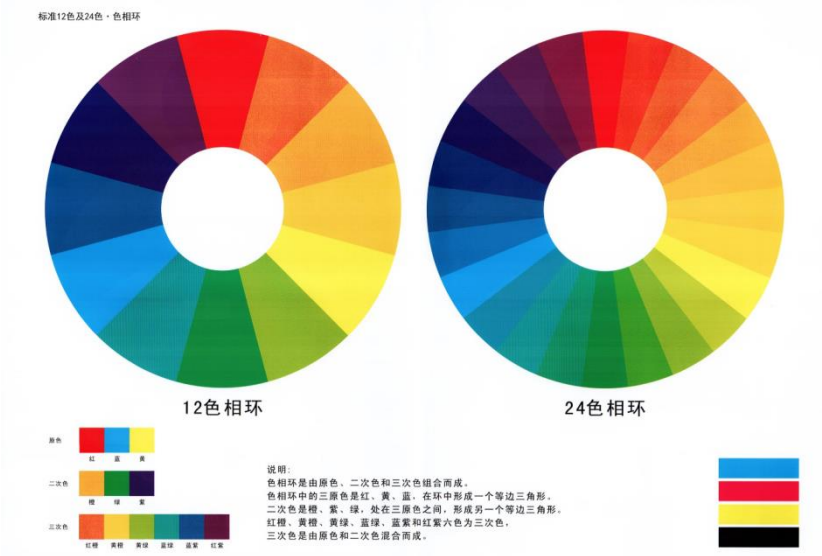


1. Color Correction

When enabled, it restores the original colors of the scanned document more accurately.



Color correction off



Color correction on

2. Automatic correction

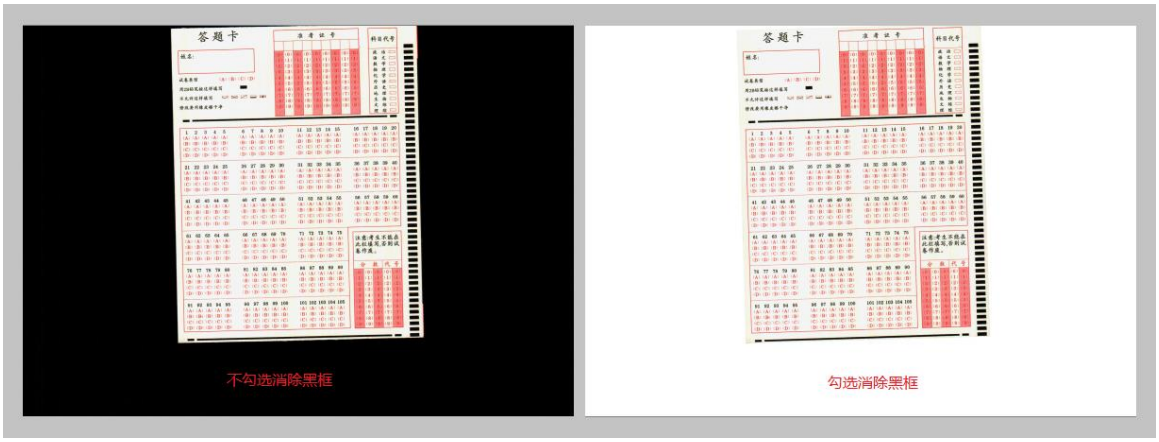
See the related introduction in chapter "**III. Basic Settings > 3. Scan Page**".

3. Image split

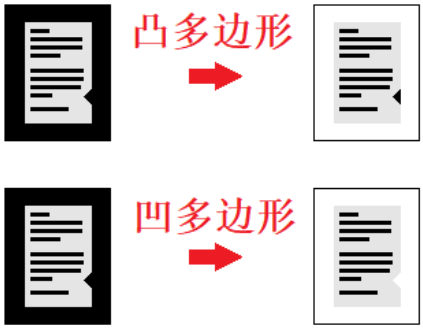
See the related introduction in chapter "III. Basic Settings > 3. Scan Page".

4. Remove Black Frame

Removes the black background outside the edge of the paper and fills the removed area with white.



A. Background filling method: Represents the filling method for the document background color of documents with irregular edges, as shown in the figure below:



B. Background filling color: For the black frame area, white, adaptive document background color and custom color can be selected for color filling;

C. Color filling: The black frame area is filled with pure white by default. After checking this option, the software will automatically determine the document background color and fill the black frame area with that color.



5. Advanced Cropping Parameters

Affects all processing effects involved in finding the paper edge in image processing, including Automatic size in Paper size, Remove black frame and Automatic correction, etc.

A. Cropping threshold: Represents the grayscale difference that distinguishes the background from the document content. The closer the grayscale values of the background and the document background color, the smaller this value needs to be set. The default value is 40.

B. Background anti-noise level: Represents the tolerable width of abnormal variegated stripes existing in the background. When the background is not clean enough, this value can be increased appropriately. The default value is 8.

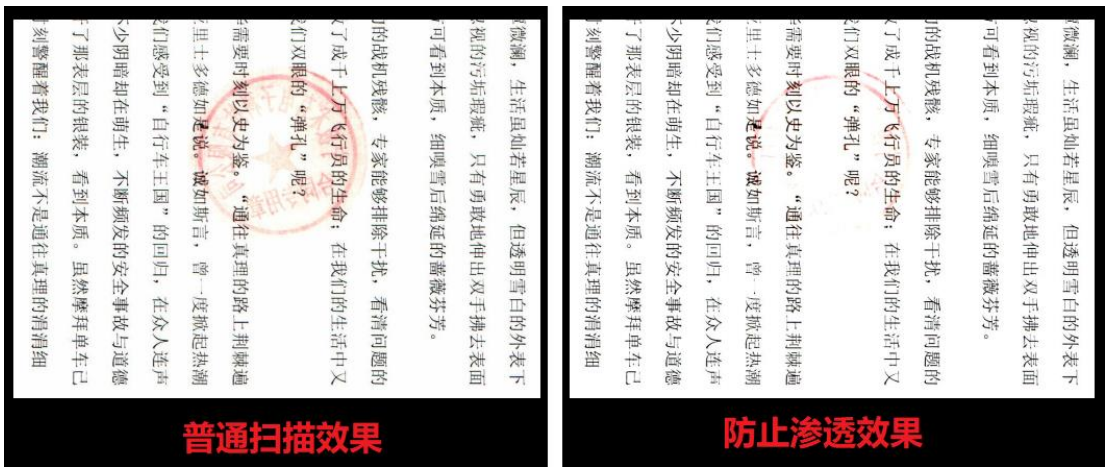
C. Edge indent: Represents the degree of intrusion into the document edge when Remove black frame automatically fills the background color. The larger the value, the more content is lost at the document edges. The default value is 5.

Important

Non-professional users are advised to use the default values; there is no need to change the advanced settings parameters, so as to avoid imaging anomalies.

6. Penetration Prevention

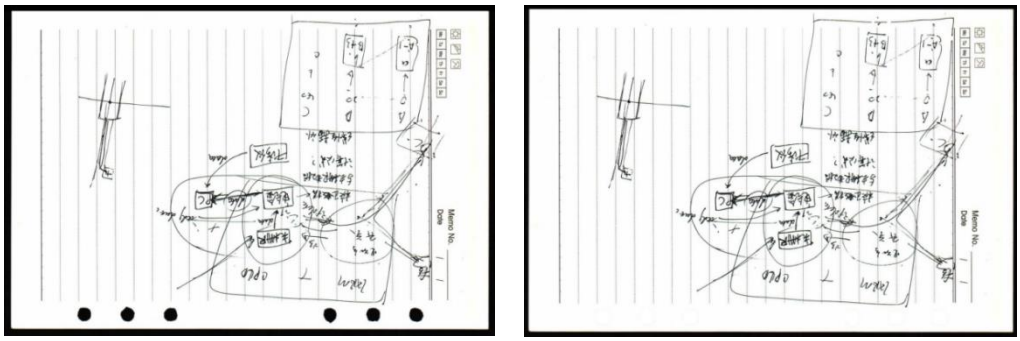
Removes or lightens image content that penetrates from the back of the paper to the front of the paper.



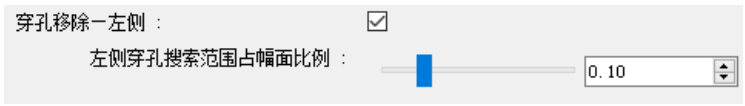
Some models can select five levels of penetration prevention strength; the processing strength increases in the order: Weak, Weaker, Normal, Stronger, Strong.

7. Perforation Removal

Fills the perforations on the image with color (filled automatically according to the color around the perforation).



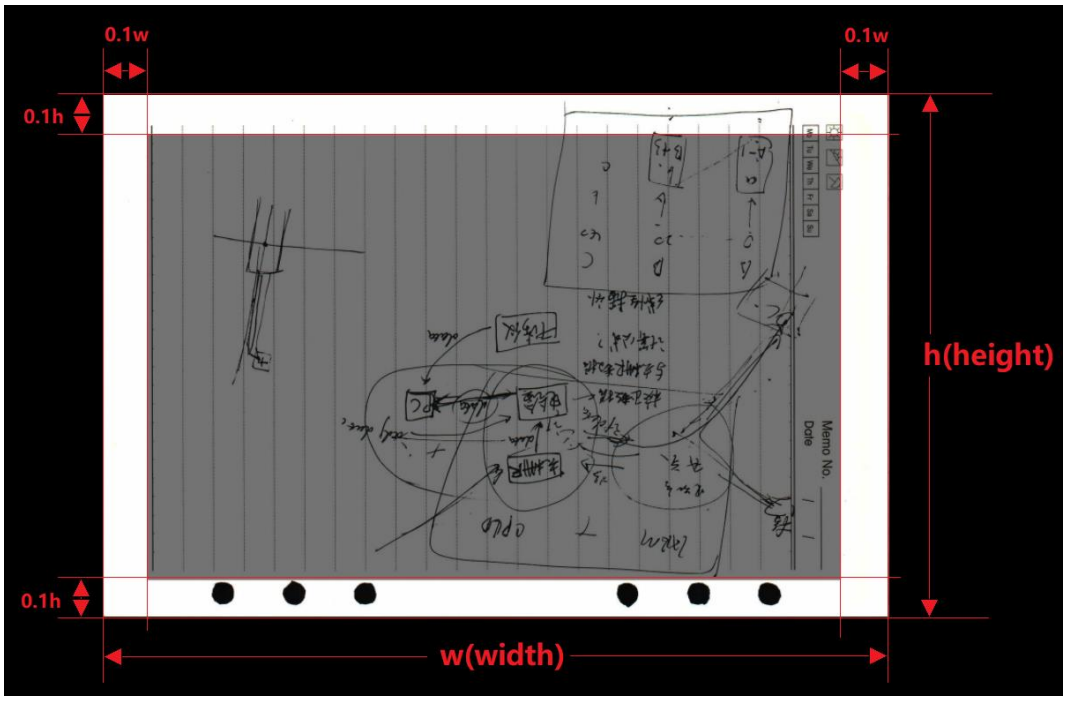
When Perforation removal is enabled, the search range for perforations can be set:
Adjustment range: 0.00 (0%)~0.50 (50%)
Default value: 0.10 (10%)



Description

- The format ratio of the perforation search range refers to the area within which the image processing algorithm detects and removes perforations.

For example: when the left perforation search range ratio is set to 0.10, it means perforations will be removed within an area occupying 10% of the paper format, measured from the left edge of the paper toward the center of the paper.

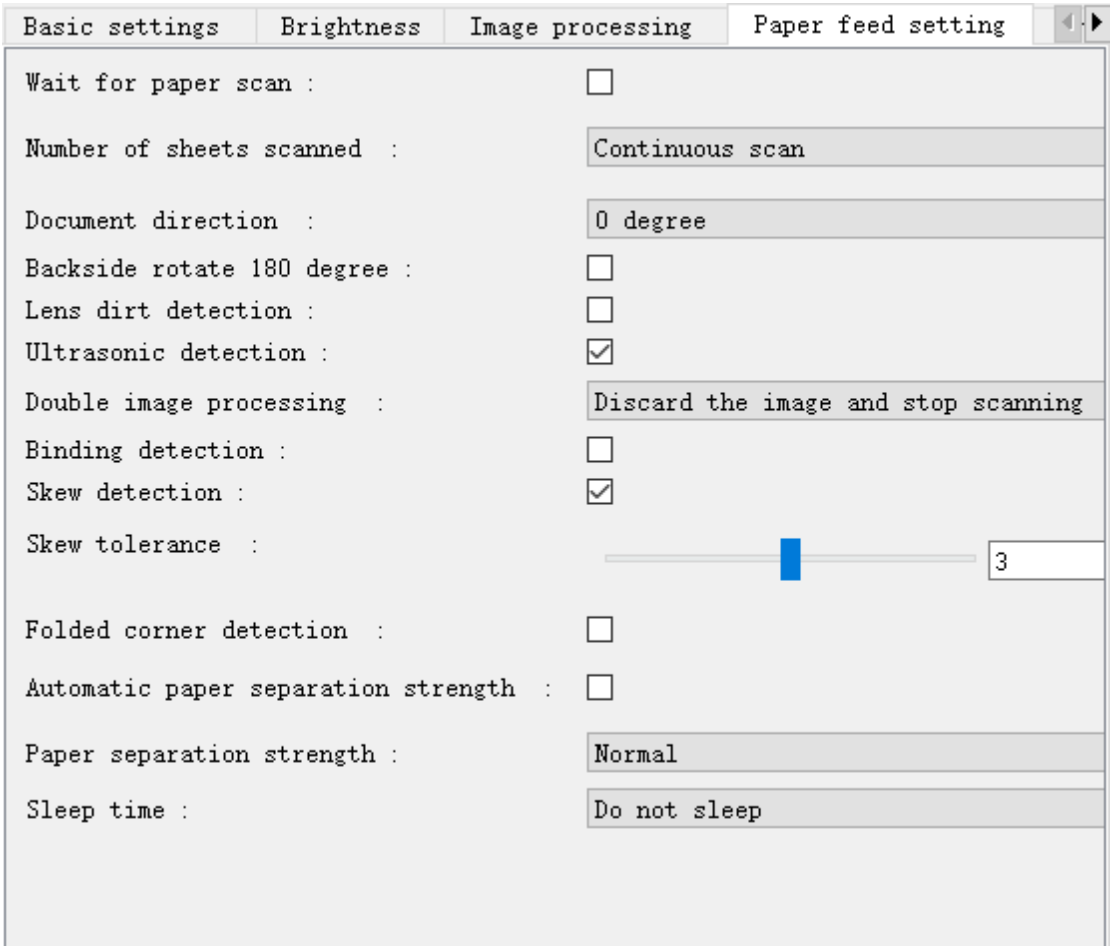


Schematic diagram of the detection range when Perforation removal is enabled on all four sides and the search ranges are all set to 0.10

- If the perforation search range is set to 0.50, it means searching within the range from that side to the midline position of the paper along the direction of that side. If all four directions are enabled and the search ranges are all set to 0.50, it means perforation removal is performed across the entire format.
- When the perforations are relatively large, the perforation may be determined as a black pattern and will not be removed.

5. Paper Feed Setting

The Paper feed tab includes: Scan settings, Document direction, Detection switch and Hardware configuration four types of options.

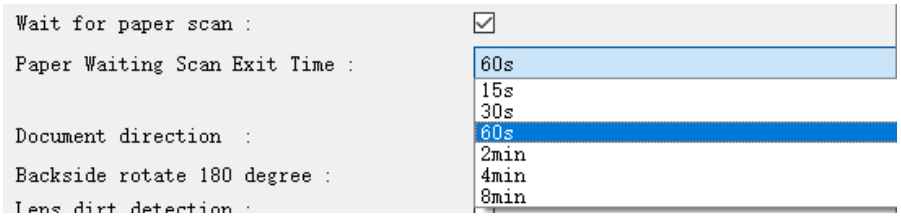


1. Scan Settings

A. **Waiting for paper scan:** When enabled, apart from the first scan of this scan task which requires a manual click to start, the scanner will automatically detect whether a document has been placed for subsequent scans, and start scanning automatically once a document is detected, until the user manually clicks to end.

Description

After the Waiting for paper scan function is enabled, the waiting-for-paper exit time can be selected. This time means that if the scanner still does not detect any paper being placed within this period, it will automatically exit the Waiting for paper scan mode and end the scan.



B. **Number of sheets scanned:** Configures the number of documents the scanner scans in a single scan; there are **Continuous scan (default) and Scan specified number of sheets** two modes.

a. **Continuous scan:** After the scanner starts scanning, it will automatically pick up the paper on the paper feed tray and scan it until all the paper has been scanned.

b. **Scan specified number of sheets:** After the scanner starts scanning, it will automatically pick up the paper on the paper feed tray and scan it until the specified number of sheets has been scanned.

- When this mode is used, the number of sheets to be scanned this time needs to be set first.
- The number of sheets can be increased or decreased by entering a value in the value box or by clicking the arrows on the right side of the value box.
- Valid range for the number of sheets: 1~1000 (varies according to the scanner model)

Description

The maximum range that can be set for the Number of sheets scanned is limited by the scanner model.

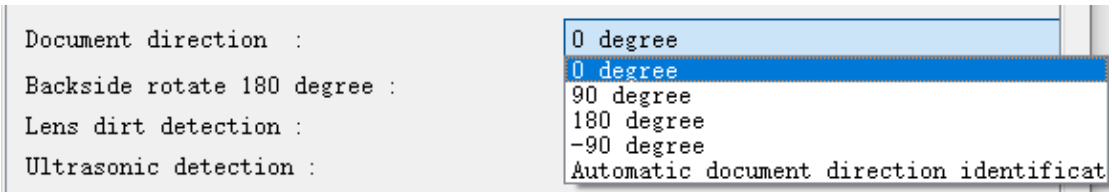
Note

After the "Waiting for paper scan" function is enabled, this option will be hidden automatically and will not take effect.

2. Document Direction

Configures the direction in which the scanner outputs the image of the scanned document. It also provides the option to rotate the back side image by 180 degrees.

A. Document direction: There are 0° (default), 90°, 180°, -90° and Automatic text direction identification five options.



Description

A 90° document direction means the image is rotated 90° clockwise; a -90° document direction means the image is rotated 90° counter-clockwise.

The "Automatic text direction identification" function is affected by the document content; rotation errors and failures may occur. If the document has the following conditions, please use a fixed rotation direction:

- The document contains a large number of patterns or a background color.
- The document contains a large number of lines and frames, such as table frames.
- The text of the document uses too small fonts, special fonts, or contains a large number of symbols, etc.
- The orientation of the text in the document is not uniform.

B. **Backside rotate 180° :** When this function is checked, the image output of the back side will be further rotated 180° on the basis of the set document rotation direction.

Note

The Backside rotate 180° function will be disabled and become invalid when the scan side is in "Single side" mode.

3. Detection Switch

The scanner can determine whether the lens is dirty through image imaging, to prompt users to clean it in a timely manner.

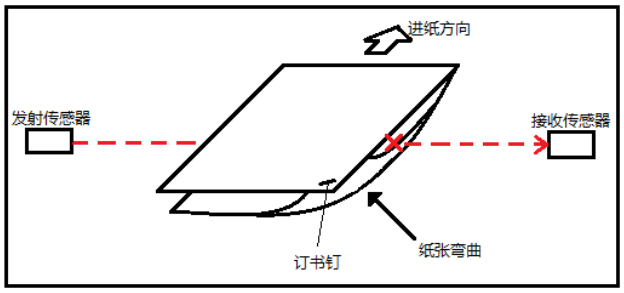
The scanner is equipped with three types of hardware sensor detection functions: Ultrasonic double sheet detection, Binding detection and Skew detection.

A. Ultrasonic double sheet detection: Use this option to enable/disable the scanner's double sheet detection function. Enabled by default.

Ultrasonic double sheet detection uses ultrasonic waves to detect the number of sheets fed in a single feed; it can effectively prevent feeding two sheets at once and avoid file loss and missing pages.

Double image processing: Allows choosing whether to keep the images of the detected double sheets.

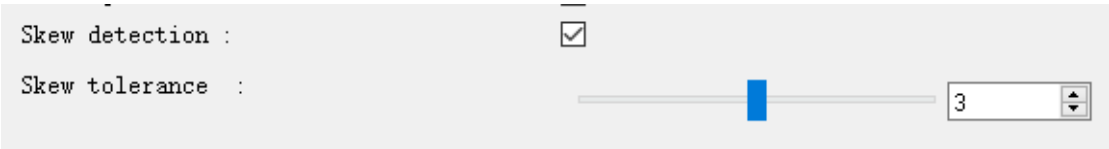
B. Binding detection: Use this option to enable/disable the scanner's Binding detection function.



Binding detection uses a beam sensor to detect the flatness of the paper in a single feed; it can effectively prevent the feeding of papers stuck together by staples, tape and other objects, and avoid document damage.

C. Skew detection: Use this option to enable/disable the scanner's Skew detection

function.



Skew detection uses a beam sensor to detect the skew level of papers in a single feed; it can effectively prevent excessively skewed papers from being fed and avoid document damage and missing images. The detection strength of Skew detection can be set in five levels.

Description

When "1" is selected, the device will issue a warning for papers whose feed edge is skewed by more than 2° and stop picking up paper;

When "5" is selected, the device will issue a warning for papers whose feed edge is skewed by more than 4° and stop picking up paper.

Note

Some HuaGoScan models do not have "Binding detection" and "Skew detection" sensors, so they do not have these two detection switches.

The scanner is equipped with a Folded corner detection function; this function is a software detection function.

Folded corner detection: Use this option to enable/disable the scanner's Folded corner detection function.

Description

The detection strength of Folded corner detection can be set, indicating how sensitive the device is to the size of document folded corners. The larger the value, the larger the paper folded corner that can be tolerated, and the harder it is to detect folded corners.

4. Hardware Configuration

Configures the scanner hardware parameters, including the paper pickup strength setting, the sleep time setting and the scan sensor signal strength setting.

A. Paper separation strength: Configures the scanner's paper separation strength; it is divided into three levels: Strong, Normal and Weak.

Automatic paper pickup strength: When enabled, the scanner will automatically correct the appropriate paper pickup strength according to the paper pickup situation of the current several scanning batches.

B. Sleep time: Configures the scanner's sleep time. It can be configured as never sleep.

C. Scan sensor signal strength: Configures the signal emission strength of the sensor that starts and stops scanning.

Description

The larger the value, the stronger the sensor signal emission strength and the easier it is to penetrate the paper.

- Adjustable value range: 1~40. The default value is 2.
- If you need to scan relatively transparent documents such as vellum paper, this value needs to be reduced.

Note

Some HuaGoScan models do not have these hardware functions, so they do not have one or more of the above hardware configuration options.