



Barcode Utility

User's Guide

Definitions of Notes

We use the following symbol throughout this User's Guide:



Tips icons indicate helpful hints and supplementary information.

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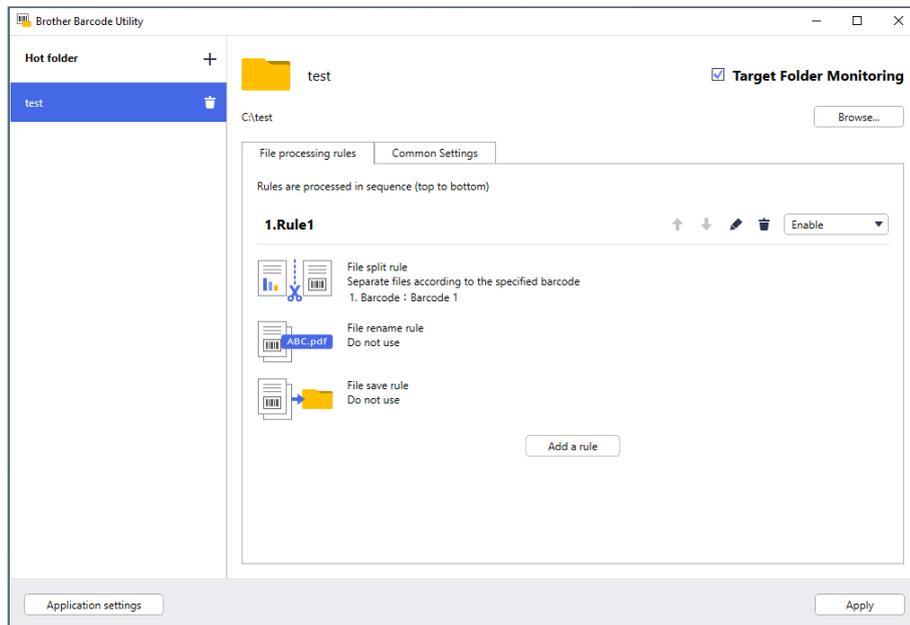
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1. Introduction

1.1 Overview



The Brother Barcode Utility lets you streamline your workflow processes around scanned documents containing barcodes. Using the barcodes included on scanned pages, the Barcode Utility allows you to:

1. Group individual pages into separate documents
2. Rename split files
3. Redirect split files to the relevant folder

Compared to typical manual data entry, barcodes offer more accurate and efficient data input. The Barcode Utility can read and analyze all the barcode identification numbers within a document scanned using a compatible Brother machine. Assign various rules to barcode identification numbers, allowing the Barcode Utility to automatically process each scan job.

Functions and Features

- Supports up to 20 barcodes per page
- Supports both 1D and 2D barcode types
- Allows users to monitor up to five hot folders
- Supports up to 50 file-processing rules per function
- Works on any compatible Brother machine that has scanning capabilities
- Compatible with the Brother iPrint&Scan for Windows application
- Supports processing scan jobs from multiple machines
- Allows integration with third-party systems



To activate this solution, you need a valid license code and software that can send license codes to target machines. For more information, contact your local Brother office.

1.2 System Requirements

Operating Systems	Client OS	Windows 7 (64bit), Windows 8.1 (64bit), Windows 10 (64bit)
	Server OS	Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, Windows Server 2016
Operating System Components	.Net Framework 4.5	

1.3 Supported Input/Output File Formats

Each document containing barcodes must be scanned using a Brother machine compatible with the Barcode Utility in one of the following ways:

- Using the machine's control panel
- Using Brother iPrint&Scan for Windows

The Barcode Utility supports the following input and output file formats:

Input File Format	Output File Format
PDF (Auto Color Mode OFF)	<ul style="list-style-type: none"> • PDF • PDF/A-1b • TIFF

PDF Input Format Specification

Item	Description
Maximum Pages	100
Recommended Image Resolution	Between 200 DPI and 600 DPI



For a complete list of supported barcodes, see *Appendix C: Supported Barcode Types and Options*.

1.4 Supported Scan Color Settings

Make sure that your Brother machine uses the Barcode Utility's supported scan settings. The Barcode Utility cannot process PDF files created using the automatic color mode settings.

Machine Type	Setting Method	Supported Settings	Unsupported Settings
Document Scanner	Machine LCD	Color	Auto
	Web Based Management	<ul style="list-style-type: none"> • Color Auto • Color 200 DPI (or more) 	<ul style="list-style-type: none"> • Auto • Auto 200 DPI (or more)
	iPrint&Scan for Desktop	24bit Color	Auto
Laser and Inkjet Machine (Monochrome or Color)	Machine LCD	Color	N/A
	Web Based Management	<ul style="list-style-type: none"> • Color Auto • Color 200 DPI (or more) 	N/A
	iPrint&Scan for Desktop	24bit Color	N/A

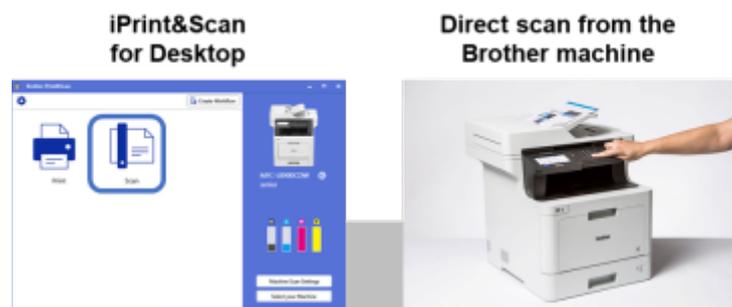


For best scanning results and barcode recognition, we recommend using the 24bit color scan setting. For more information, see *Appendix A: Barcode Recognition Requirements*.

2. Monitor Folders and Process Files

The Barcode Utility runs as a background service and can continuously monitor specific folders (hot folders) for newly scanned files and then process them according to the barcode recognition and document separation rules.

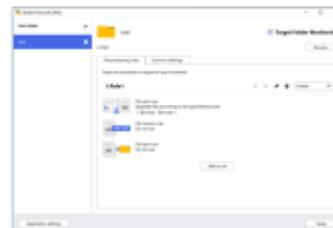
1. Scan documents containing barcodes.



2. Save documents in a hot folder.



3. The Barcode Utility continuously polls the hot folder.



4. Data is routed to a specific output folder.



2.1 Requirements

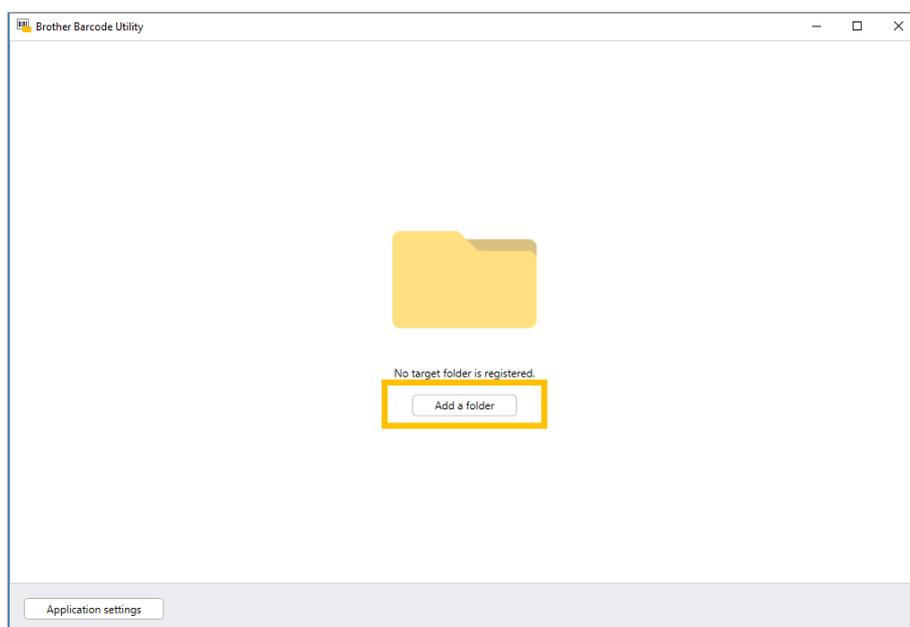
- The Barcode Utility solution must be activated on the target machine. For more information, visit your local Brother website or contact your local Brother office.
- The Barcode Utility application must be installed on your computer. To download the application, go to your model's **Downloads** page at support.brother.com.
- The documents must be scanned either directly from the machine or using the Brother iPrint&Scan for Desktop application.

2.2 Add a Folder to Be Monitored (Hot Folder)

Hot Folder Requirements

- You can add up to five hot folders.
- Each hot folder must be accessible from the computer or server where the Barcode Utility is running.
- Subfolders within hot folders cannot be monitored and will be ignored.
- Multiple hot folders can use the same name.
- Multiple hot folders cannot have the same folder path.

1. Launch the Barcode Utility.
2. Click **Add a Folder** in the main screen.



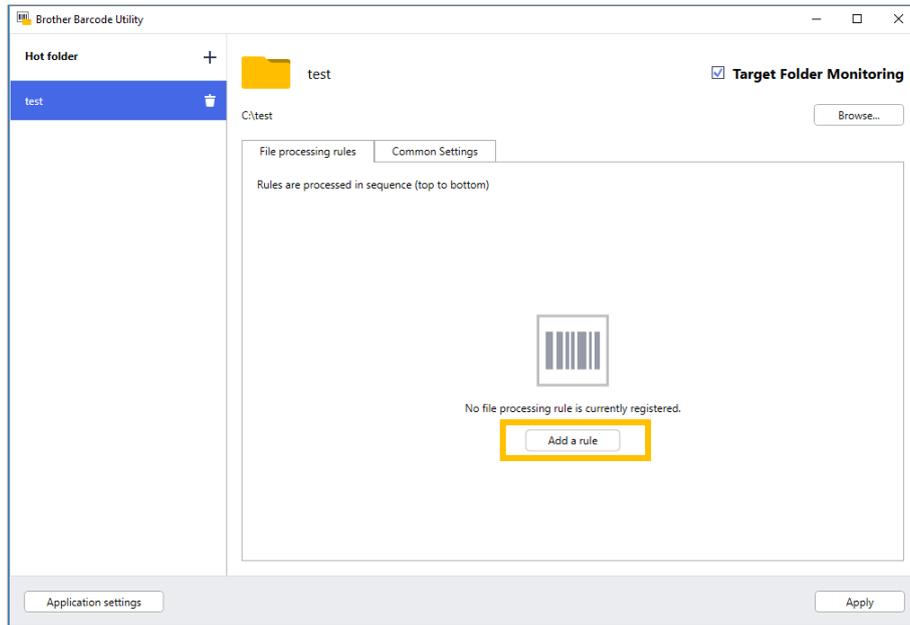
3. Select the folder you want to monitor, and then click **Select Folder**. The folder appears in the **Hot folder** list.



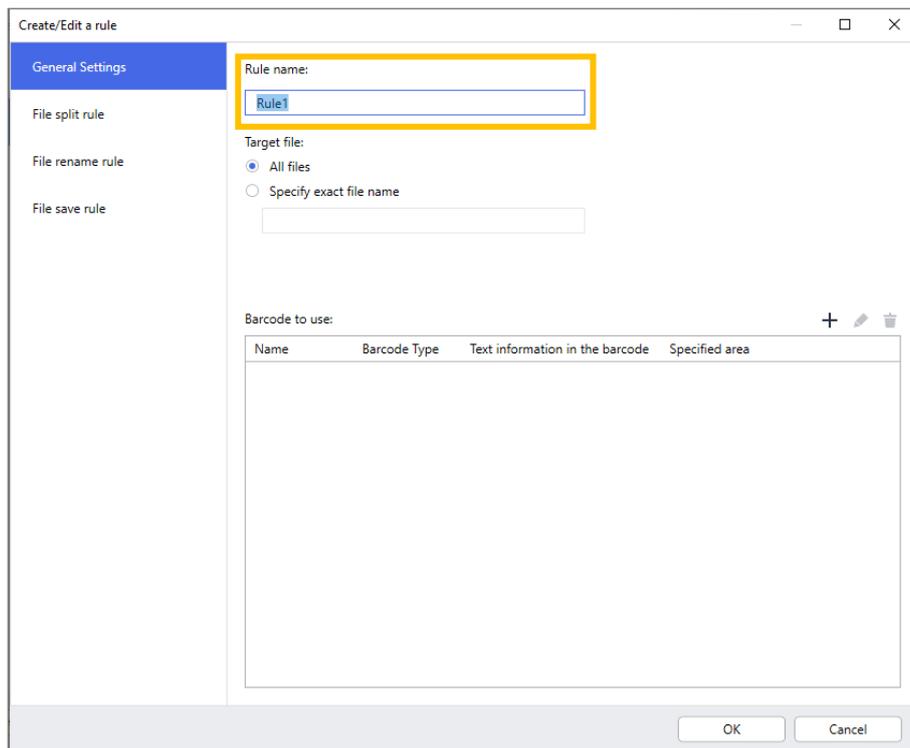
- To change the hot folder path, click **Browse...**, and then select the folder you want.
 - To add another hot folder, click [+] in the **Hot folder** list on the left side of the screen.
-

2.3 Create a File Processing Rule

1. Click the **File processing rules** tab, and then click **Add a rule**.



2. When the **Create/Edit a rule** dialog box appears, type a name for your new rule in the **Rule name** field.

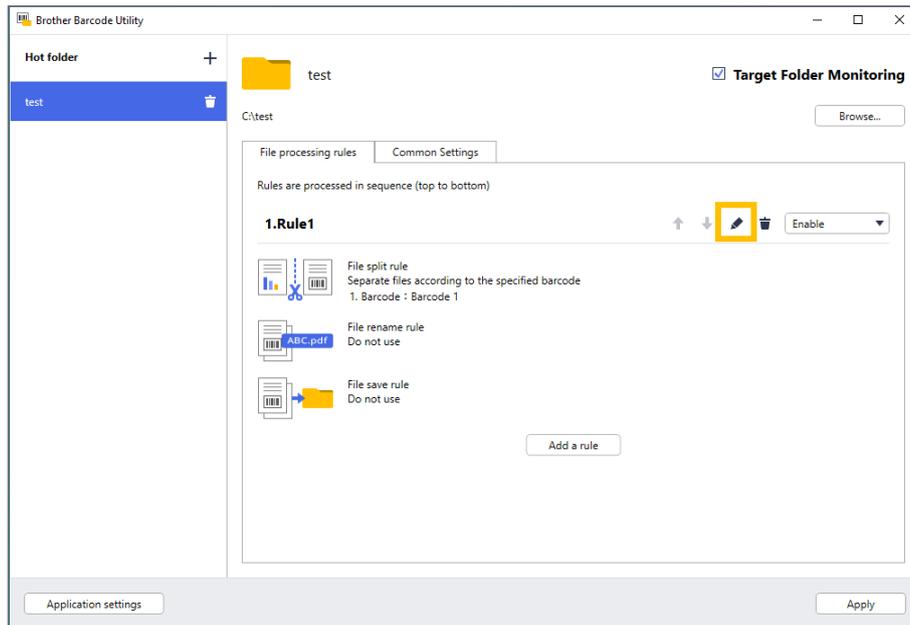


3. Specify the **Target file** type so you can process scanned documents based on your requirements.

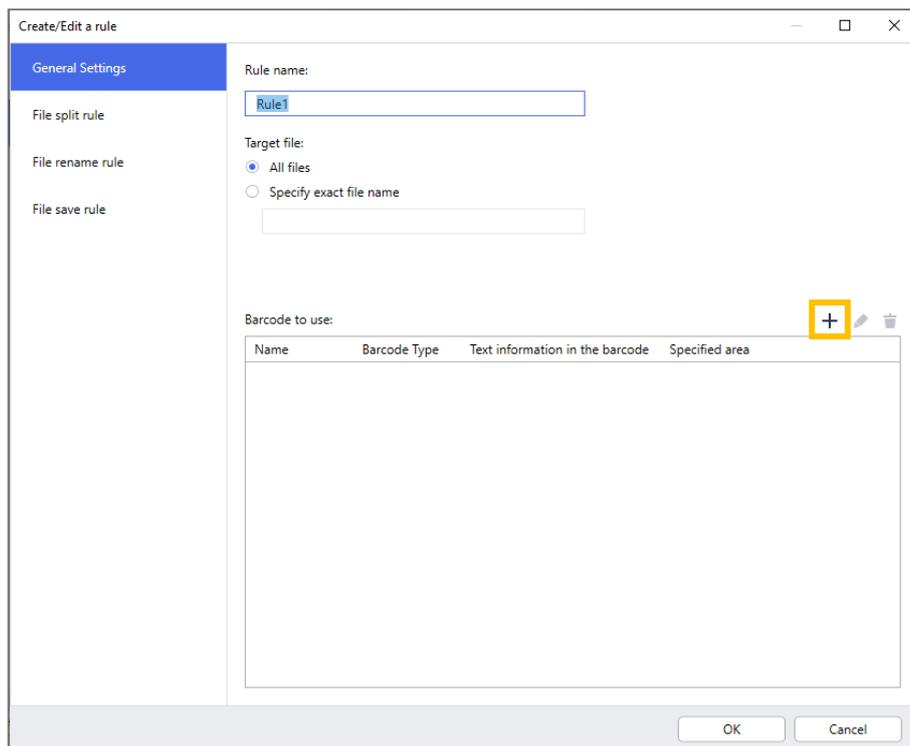
Target File Type	Description
All files	All scanned files are processed according to rules assigned to this specific hot folder.
Specify exact file name	The scanned file is processed according to its file name. The processing rule will apply only to files with the specified file name: you must type the specific file name here.

2.4 Assign Barcodes to File Processing Rules

1. Click the edit button [] next to the newly created rule.



2. Click **General Settings**, and then click [+].



3. When the **Barcode Configuration** dialog box appears, type the **Barcode Name**.



To correctly recognize and read a barcode, the utility's barcode recognition settings must be set correctly.

Barcode Configuration

Barcode name:
Barcode 1

No barcode area is specified Search Area...

Barcode Type	Check Digit	Extended
<input type="checkbox"/> CODE39 / CODE3of9	<input type="checkbox"/> Include	<input type="checkbox"/> Full ASCII
<input type="checkbox"/> ITF / ITF-14	<input type="checkbox"/> Include	
<input type="checkbox"/> CODABAR / Code2of7 / NW-7	<input type="checkbox"/> Include	
<input type="checkbox"/> CODE93		<input type="checkbox"/> Full ASCII
<input type="checkbox"/> CODE128		
<input type="checkbox"/> GS1-128 / UCC128 / EAN128		
<input type="checkbox"/> UPC-A		
<input type="checkbox"/> UPC-E		

Specify exact text information in the barcode:

Add a check digit to the barcode information

OK Cancel

4. Select the applicable **Barcode Type** check boxes.
5. Type additional barcode information in the **Specify exact text information in the barcode** field, if applicable.
6. Select the **Add a check digit to the barcode information** check box if the barcode does not include a check digit and you want to add one.
7. For more accurate file processing, we recommend defining the barcode search area.

To define the barcode search area

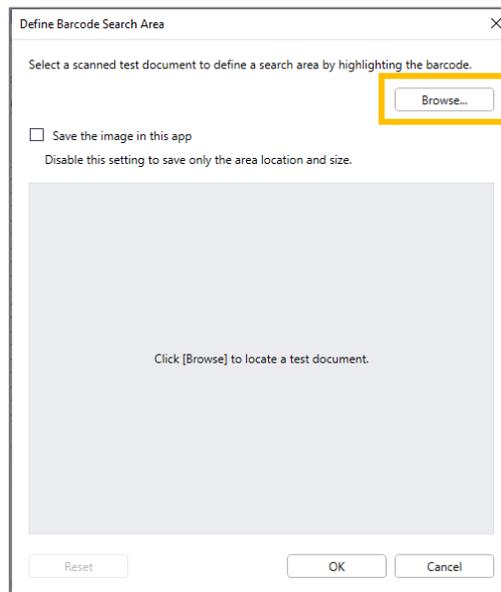
Go to step 8.

To proceed without defining the barcode search area

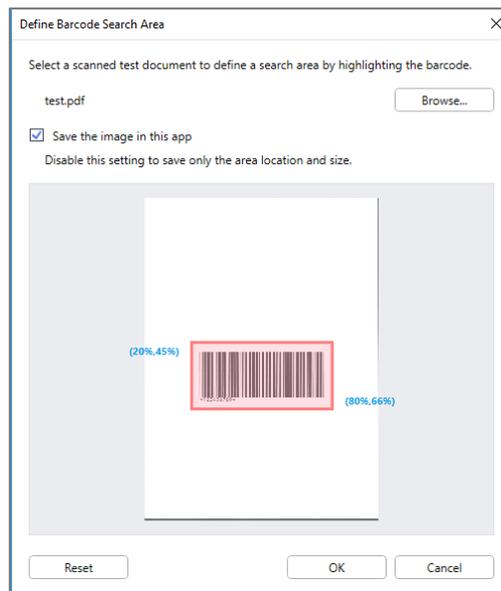
Go to step 13.

8. Click **Search Area...**

9. The **Define Barcode Search Area** dialog box appears. Click **Browse...**, select the scanned file that contains the barcode you want to use, and then click **Open**.



10. The scanned file's name and a preview appears.



Do one of the following:

If the document has only one page

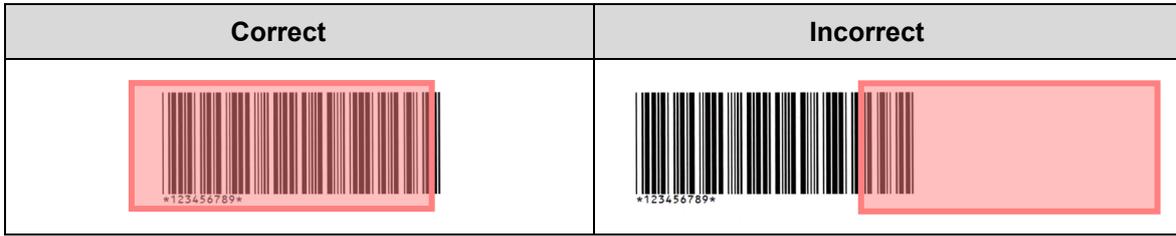
Move and resize the selection rectangle in the preview field to select the barcode you want. When the barcode is highlighted in red, click **OK** to save the selection.

If the document has multiple pages

Select the page where you want to specify the barcode area. Move and resize the selection rectangle in the preview field to select the barcode you want. When the barcode is highlighted in red, click **OK** to save the selection. This will be applied to all pages.

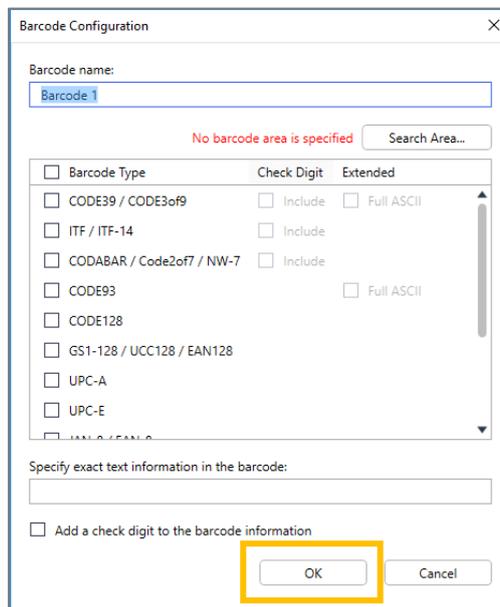


- If you cannot load the scanned file, scan the master barcode again using a Brother machine compatible with the Barcode Utility.
- Make sure you place the red recognition area over a minimum of 80% of the target barcode to ensure accurate recognition.



11. To save the barcode image for later use, select the **Save the image in this app** check box. Barcode images are stored in the application folder's `\img_bkup` folder.

12. Click **OK**.



13. Confirm your settings, and then click **OK**.

The new barcode appears in the **Barcode to use** list in **General Settings**.

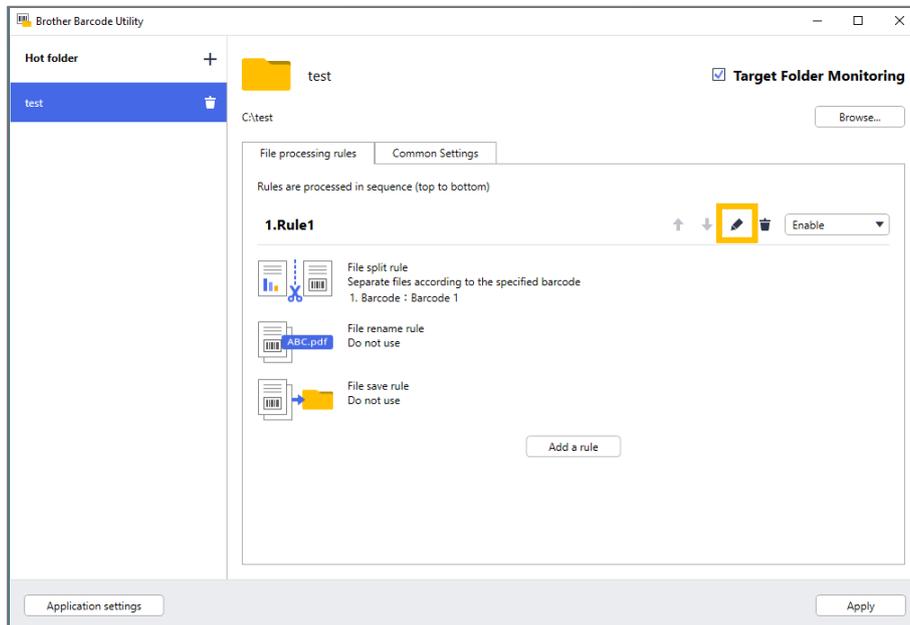


To add, edit, or delete barcodes, use the [+], [✎], and [🗑] buttons.

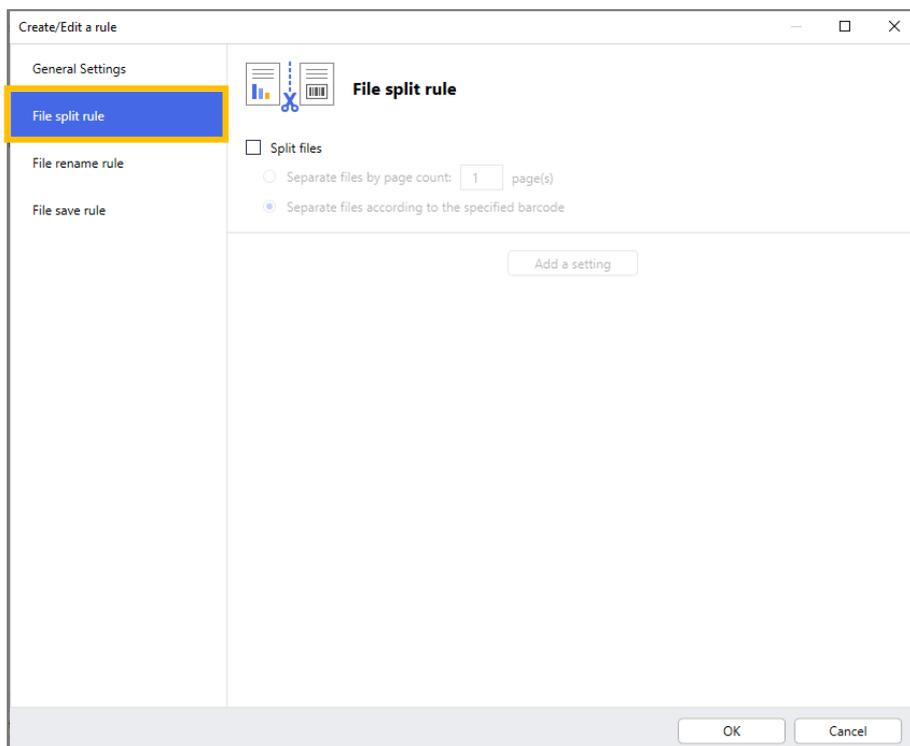
2.5 Configure File Split Settings

The Barcode Utility can split multiple-page scanned documents into shorter documents.

1. Click the edit button [] next to the newly created rule.



2. Click **File split rule** in the left navigation bar.

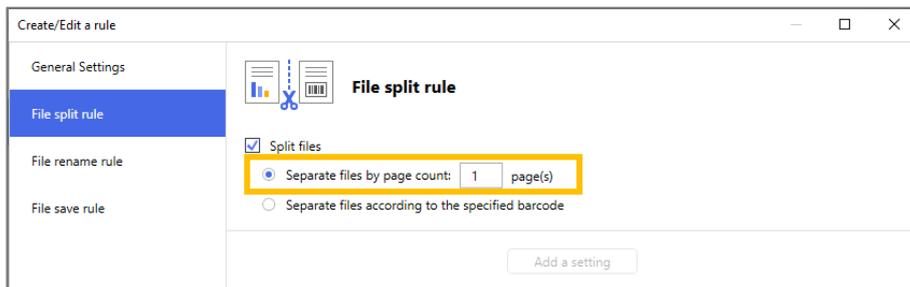


3. Select the **Split files** check box.

4. Choose one of the following 'Split file' rules:

To split files by page count

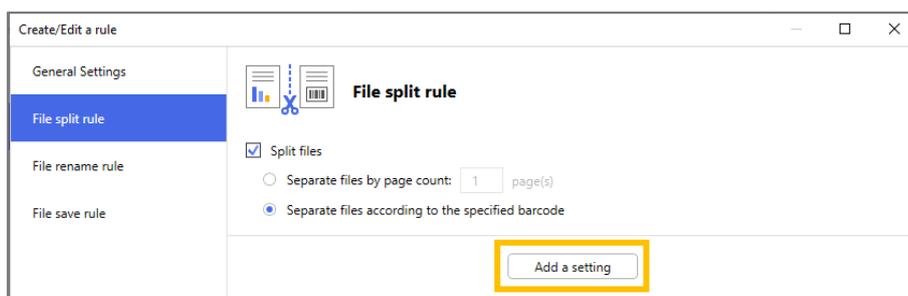
- a. Select the **Separate files by page count** radio button.



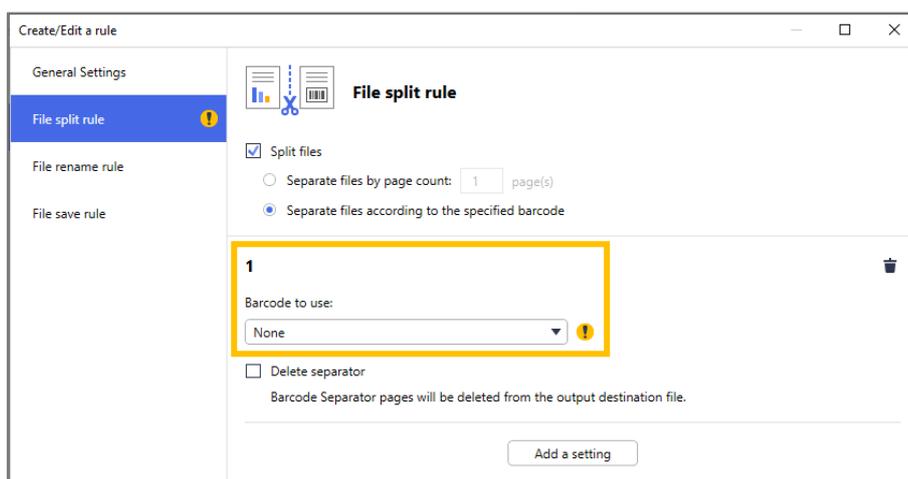
- b. Type the number of pages you want in each final, shorter document (max. 99).

To split files based on specific barcodes

- a. Select the **Separate files according to the specified barcode** radio button.
b. Click **Add a setting**.



- c. In the **Barcode to use** drop-down list, select the barcode to use or specify a new barcode by selecting the **Add a new barcode setting...** option.



- d. If your document contains pages with barcodes for file separation and you want to delete them from the output destination file, select the **Delete Separator** check box. For more information, see the examples on page 12.
e. If necessary, add more rules using the **Add a setting** button.

5. Confirm your settings, and then click **OK**.
If any warning icons [] appear, fix the settings as indicated.

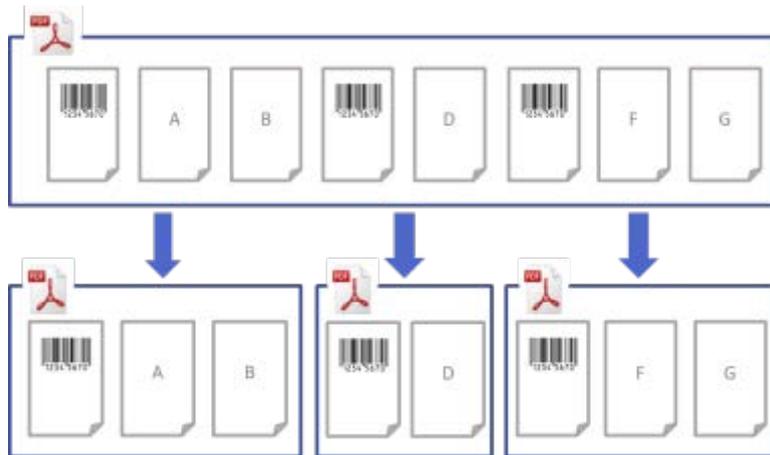


To delete a file split rule, click the [] button to the right of the rule name.

Detect or delete separator pages

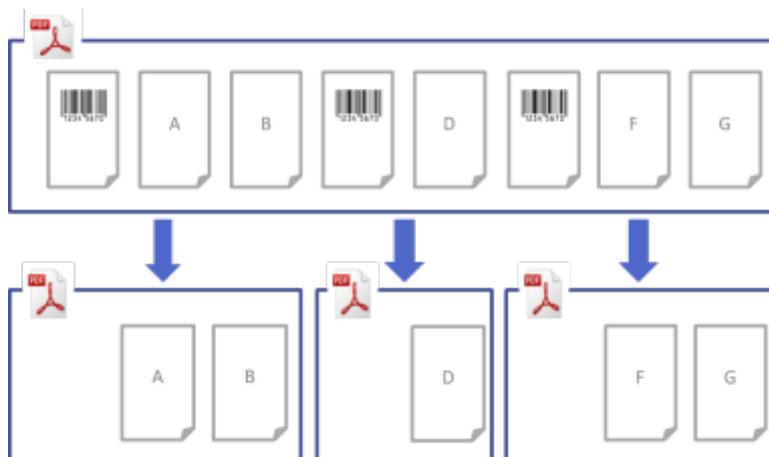
Example 1

Detect file separation using a barcode.



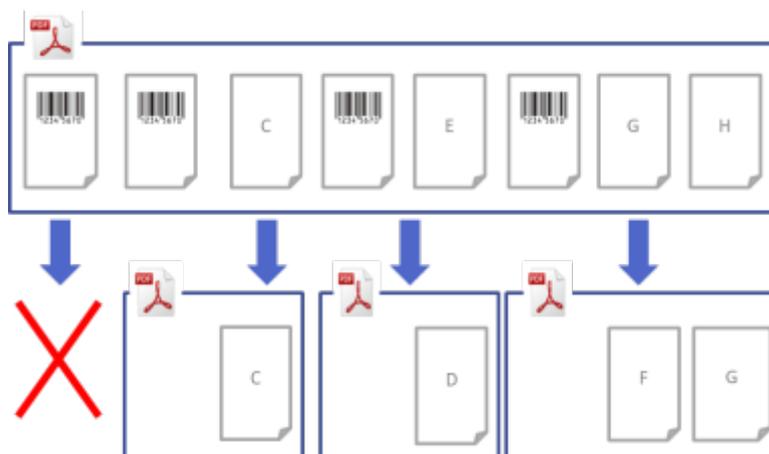
Example 2

Delete the separator page containing the barcode information from the output file.



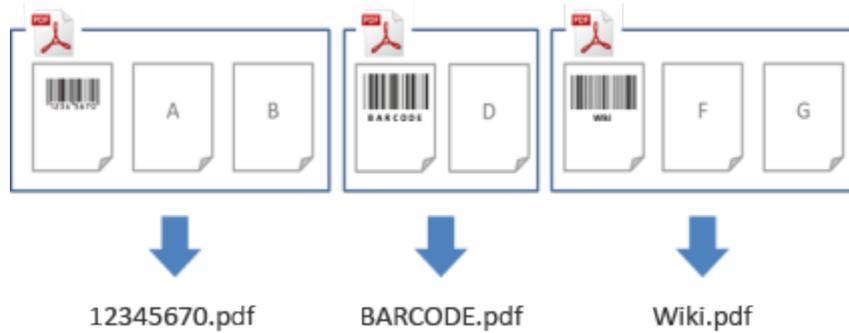
Example 3

Delete the separator page containing the barcode used for file separation.

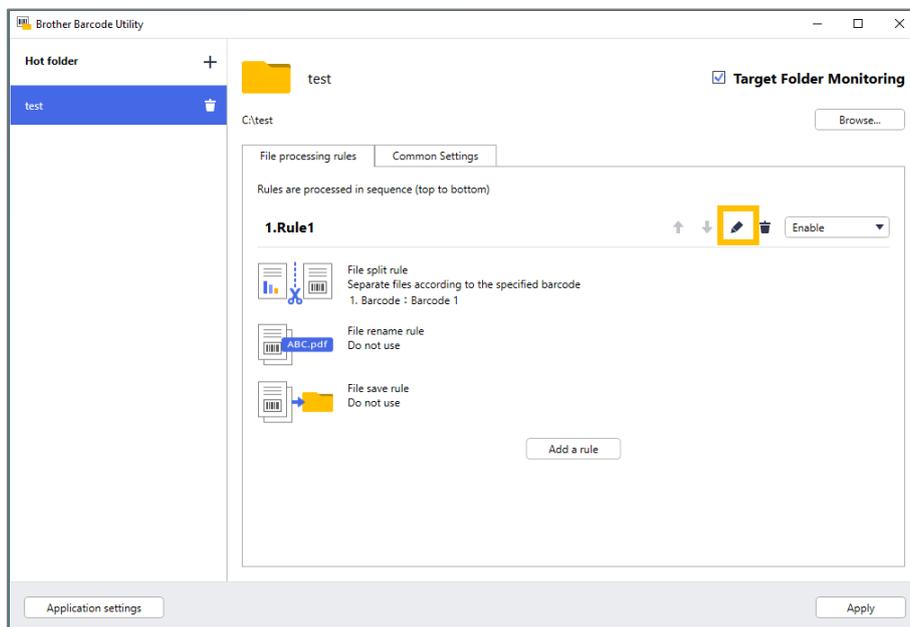


2.6 Configure File Rename Settings

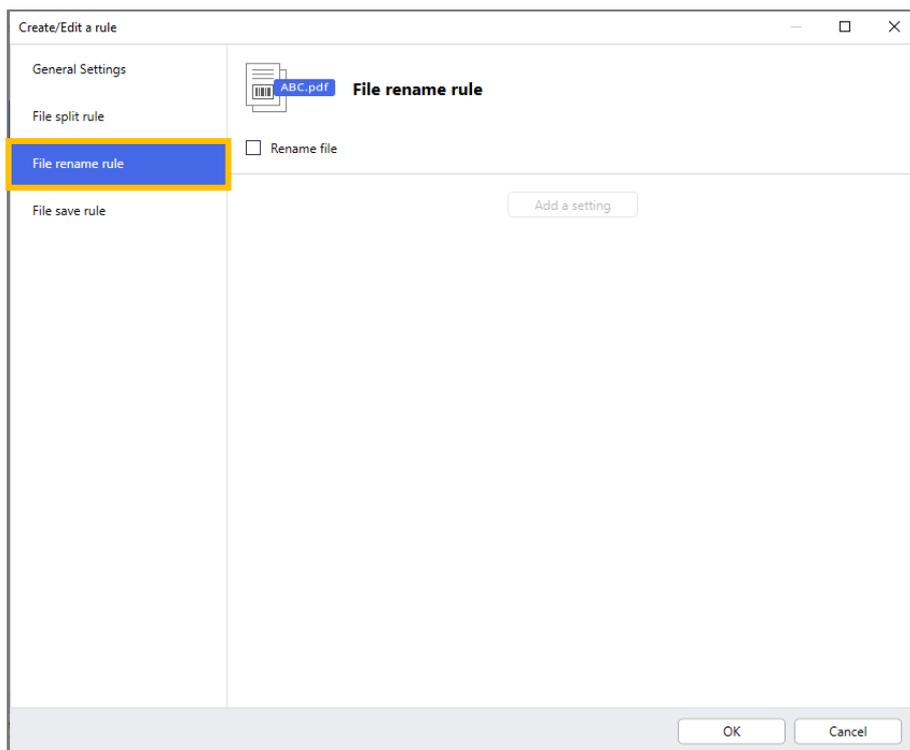
The Barcode Utility can rename newly separated document files based on the barcodes each file contains.



1. Click the edit button [] next to the newly created rule.



2. Click **File rename rule** in the left navigation bar.



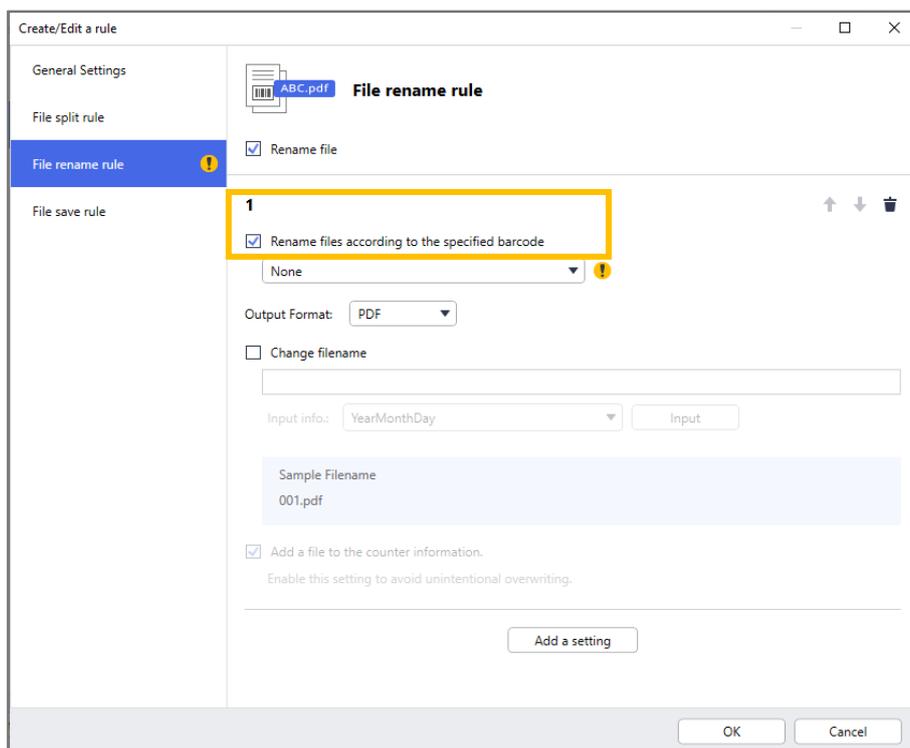
3. Select the **Rename file** check box.

4. Click **Add a setting**.

5. Specify the file name rules:

To rename files based on specific barcodes

a. Select the **Rename files according to the specified barcode** check box.



-
- b. In the drop-down list, select the barcode to use or specify a new barcode by clicking the **Add a new barcode setting...** option.
 - c. Select the output format from the **Output Format** drop-down list.

To rename files based on a combination of static and dynamic information

- a. Select the **Change filename** check box.
 - b. Type the file name you want to use.
 - c. Select any additional information you want from the **Input info.** drop-down list, and then click **Input**. For more information, see *Appendix B: Custom Naming Rules*.
 - d. Confirm the sample file name preview.
 - e. To avoid unintentional file overwriting, select the **Add a file to the counter information** check box.
6. If necessary, add more rules using the **Add a setting** button.
 7. Confirm your settings, and then click **OK**.
If any warning icons [] appear, fix the settings as indicated.



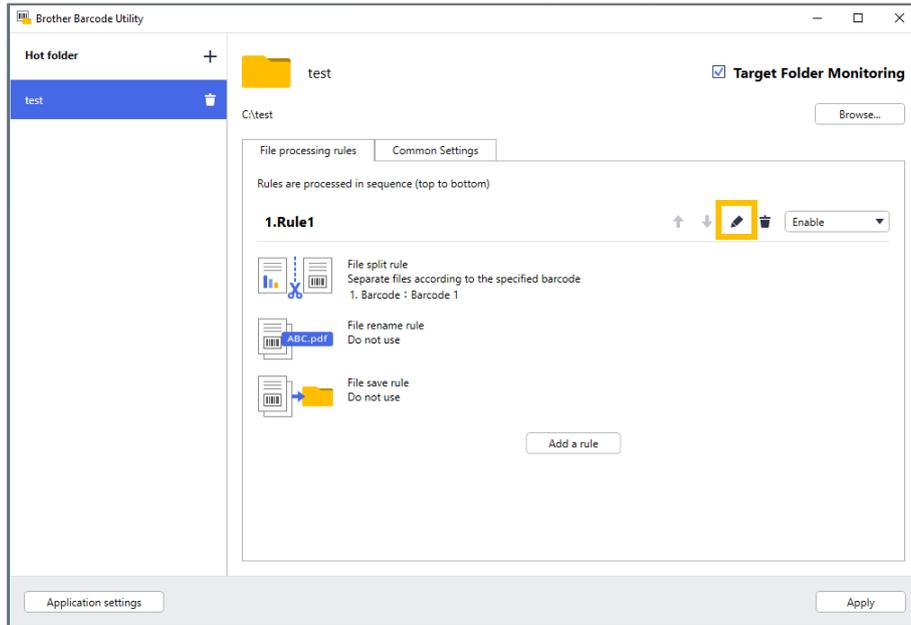
To reorder the rule sequence or delete File Rename rule, use the [ ] and [] buttons.

2.7 Configure File Save Settings

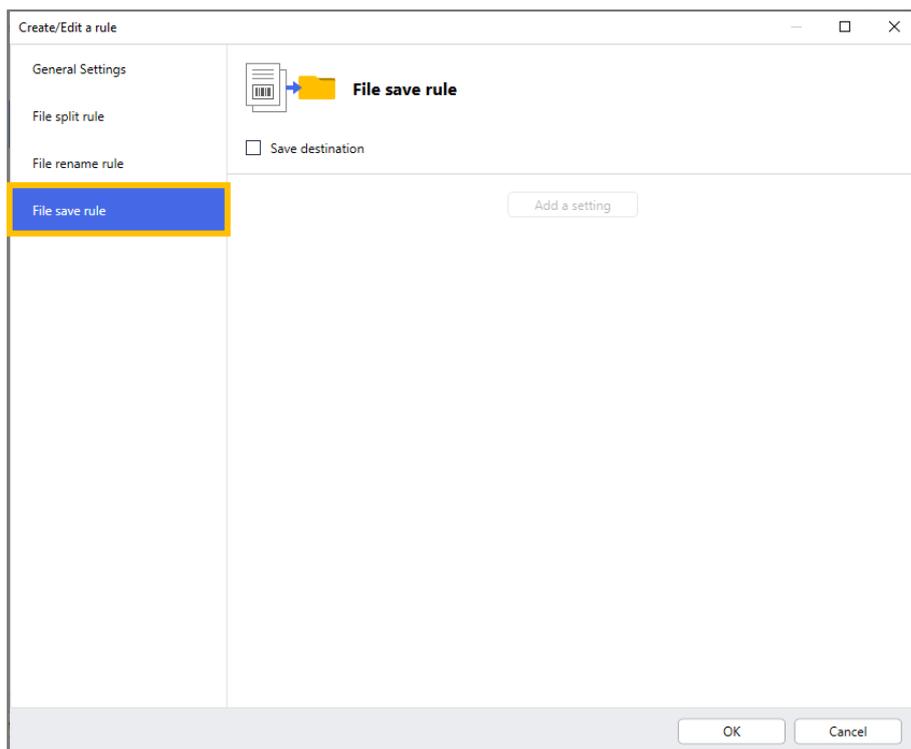
The Barcode Utility can save newly separated document files in specific folders.



1. Click the edit button [] next to the newly created rule.

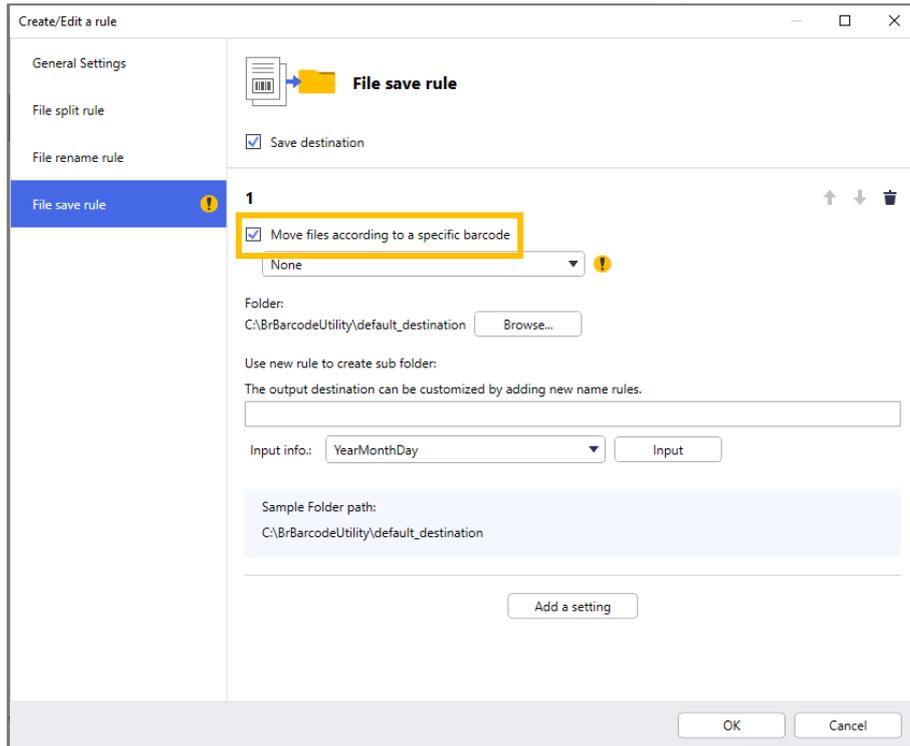


2. Click **File save rule** in the left navigation bar.



3. Select the **Save destination** check box.
4. Click **Add a setting**.

5. Select the **Move files according to a specific barcode** check box.



6. In the drop-down list, select the barcode to use or specify a new barcode by clicking the **Add a new barcode setting** option.
7. To change the default destination, click **Browse...**, select the folder you want, and then click **Select Folder**.
8. Type the folder path you want to use.
9. To customize the path, or add subfolders, select the additional information you want from the **Input info.** drop-down list, and then click **Input**.



- The static path cannot be left blank.
- Only an existing folder can be selected as the static path.
- The static path cannot share the same path as a hot folder.
- The static path name cannot be longer than 247 characters.

Example

To define the output destination “C:\Statement001\2017\003\” specify the following settings:

- Static path: C:\
- Naming rule: [BARCODE] \ [YEAR] \ [COUNTER]
- Barcode information: Statement001
- System date information: 15/06/2017
- Current counter number: 003

For more information about combining static paths with custom naming rules, see *Appendix B: Custom Naming Rules*.

10. Confirm that the path listed in the sample folder path field is correct.
11. If necessary, add more rules using the **Add a setting** button.

12. Confirm your settings, and then click **OK**.
If any warning icons [] appear, fix the settings as indicated.

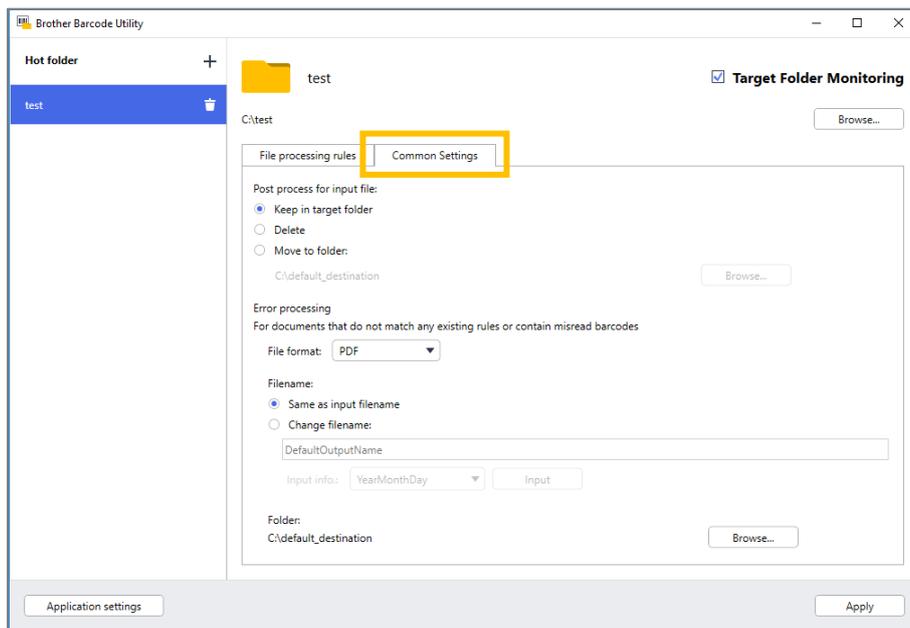


To reorder the rule sequence or delete File Save rule, use the [ ] and [] buttons.

2.8 Configure Common Settings

Configure these settings before you start monitoring hot folders. These settings can help you keep track of the barcodes used and avoid incorrect file processing if a profile is not found or a barcode is not recognized.

1. Click the **Common Settings** tab in the main screen.



2. Specify rules for saving files that have already been processed.

Setting	Description
Keep in target folder	Keep processed input files in the target folder.
Delete	Delete all processed input files.
Move to folder	Move the processed input files to a specific folder. Click Browse... and navigate to the folder you want.

3. In the **Error processing** section, do the following:

- a. Select output formats for saving incorrectly processed files using the **File format** drop-down list.

Setting	Description
Same as input filename	Do not change file names for incorrectly processed files.
Change filename	Automatically rename any incorrectly processed files. Type the new default file name you want in the Change filename: field, and then specify any additional information if necessary. For more information, see <i>Appendix B: Custom Naming Rules</i> .

- b. Click **Browse...** to specify the folder where you want to save any incorrectly processed files.

4. Click **Apply**.

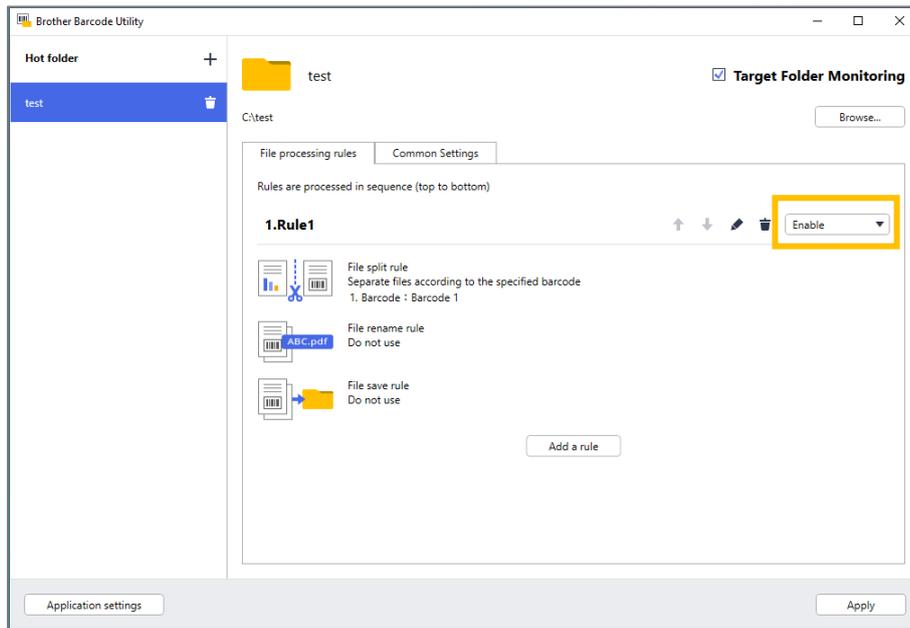
2.9 Start Folder Monitoring and File Processing

Enable the rules you want to use to process incoming scan jobs before you start monitoring hot folders.



- By default, the Folder Monitoring function is On.
- Make sure you have configured at least one rule for the Barcode Utility to process files in the hot folder.
- When creating file processing rules, make sure they are set to “Enable”.

1. In the **Hot folder** list on the left side of the screen, select the hot folder you want to monitor.
2. Select **Enable** in the drop-down list next to each rule you want to activate. You may have to scroll down your screen to view all rules.



3. At the top right of the screen, select the **Target Folder Monitoring** check box, and then click **Apply**. The Barcode Utility starts monitoring the hot folder you selected, applying the rules you just enabled.



To stop monitoring incoming scan jobs, clear the **Target Folder Monitoring** check box, and then click **Apply**.

- To monitor multiple hot folders simultaneously, make sure each folder has **Target Folder Monitoring** enabled.
- You can export the current settings as an XML file and then import them to restore specific barcode and rule settings. For more information, see section 3.2 *Export and Import Configuration*.
- Settings cannot be copied between hot folders.

If the Barcode Utility does not process the files correctly, see:

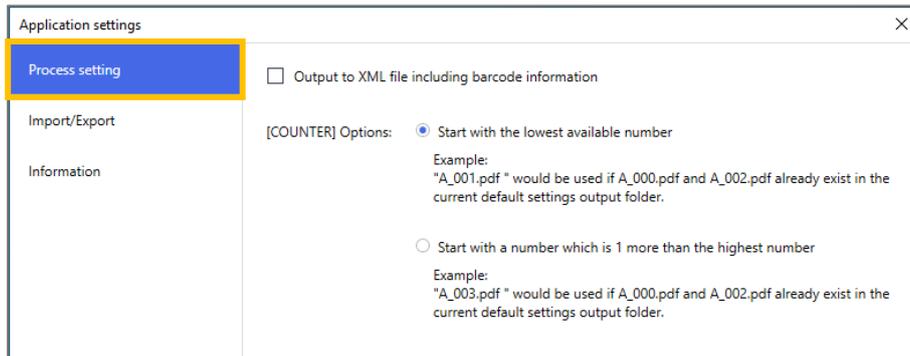
- Section 4.1 *Check the Application Log*.
- Section 5. *Troubleshooting*.

3. Additional Features

3.1 Change the [COUNTER] Naming Rules

When you use the custom naming rule, or [COUNTER], a counter is added to file names in a three-digit number format (000 – 999) with additional digits being added incrementally from 1000 onwards.

1. Click **Application settings** in the main screen.
2. Click **Process setting** in the left navigation bar.



3. Do one of the following:

To start counting with the lowest available number

Select the **Start with the lowest available number** check box.

Example

Three files are in the destination folder: `document_000.pdf`, `document_001.pdf`, and `document_099.pdf`. If you use the “`document_[COUNTER]`” format and apply this rule, the next file is automatically named `document_002.pdf`.

To start with the next available number

Select the **Start with a number which is 1 more than the highest number** check box.

Example

Three files are in the destination folder: `document_000.pdf`, `document_001.pdf`, `document_099.pdf`. If you use the “`document_[COUNTER]`” format, and apply this rule, the next file is automatically named `document_100.pdf`.



To export barcode information to an XML file, select the **Output to XML file including barcode information** check box at the top of the screen. For more information, see *Appendix D: XML Specification for Barcodes*.

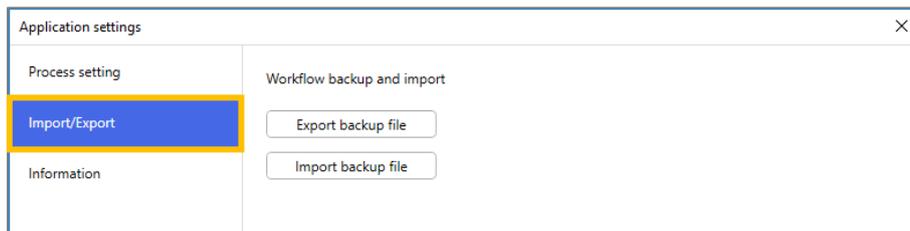
4. Click **OK**.
5. Click **Apply** in the application’s main screen.

3.2 Export and Import Configuration

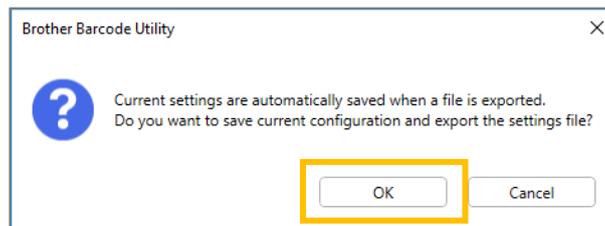
To save specific barcode and rule settings, export the current settings as an XML file. You can import and reapply them if necessary.

3.2.1 Export Configuration

1. Click **Application settings** in the main screen.
2. Click **Import/Export** in the left navigation bar.



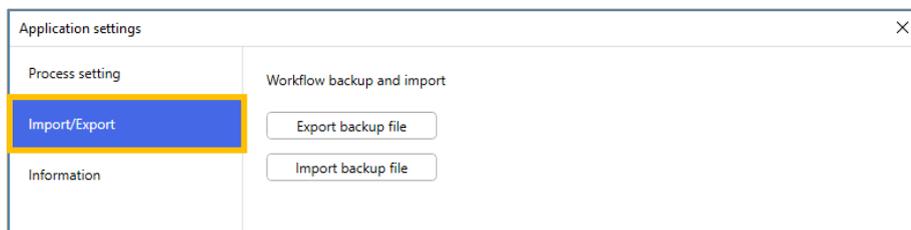
3. Click **Export backup file**.
4. When the confirmation message appears, click **OK**.



5. Type a name for the exported file, and then click **Save**.

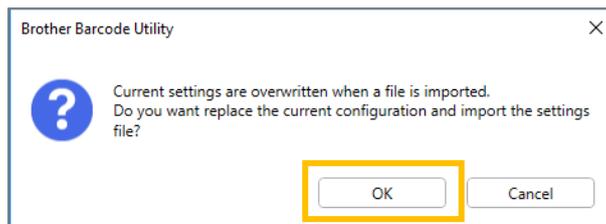
3.2.2 Import Configuration

1. Click **Application settings** in the main screen.
2. Click **Import/Export** in the left navigation bar.



3. Click **Import backup file**.
4. Select the XML file you want and click **Open**.

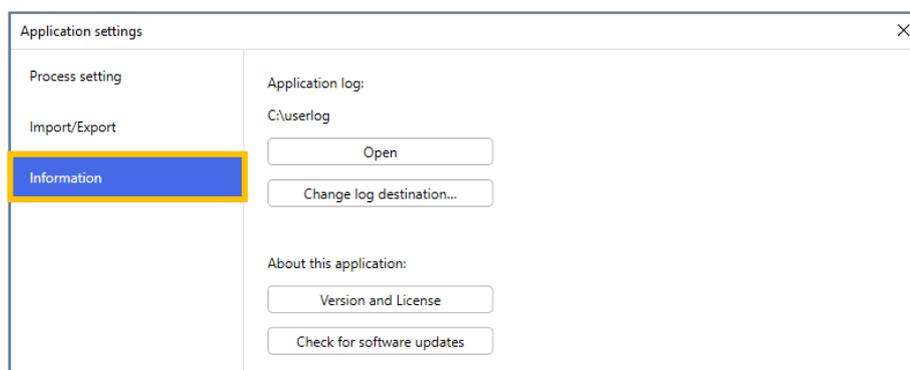
- When the confirmation message appears, click **OK**.



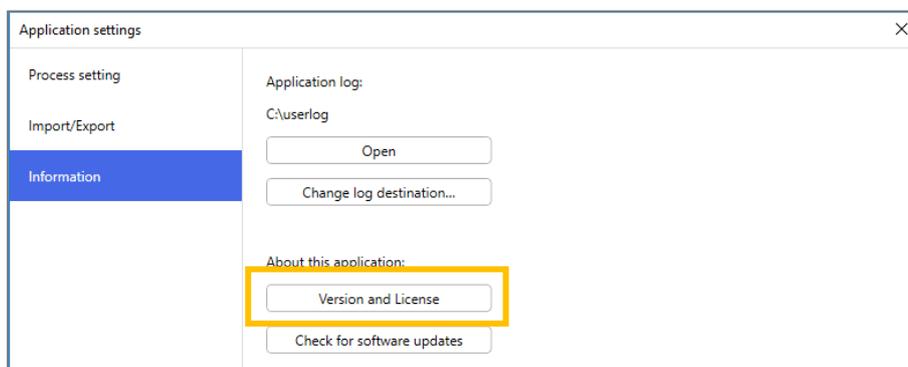
- Click **OK**.
- Click **Apply** in the application's main screen.

3.3 Check the Barcode Utility version

- Click **Application settings** in the main screen.
- Click **Information** in the left navigation bar.

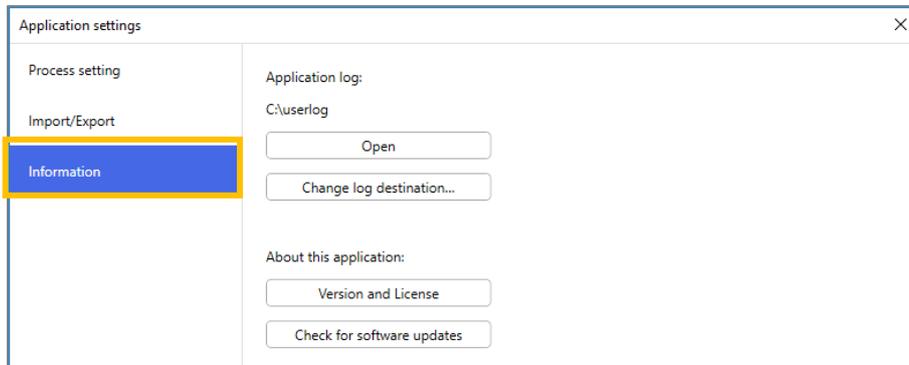


- Click **Version and License**.

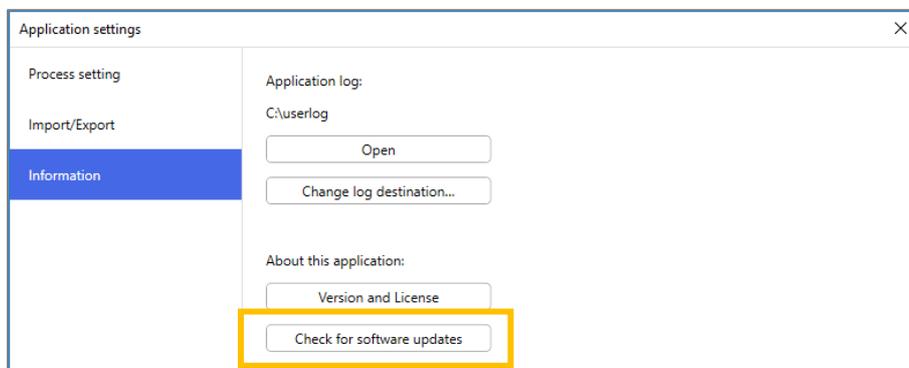


3.4 Update the Barcode Utility

1. Click **Application settings** in the main screen.
2. Click **Information**.



3. Click **Check for software updates**.



4. Check the Application Log

4.1 Check the Application Log

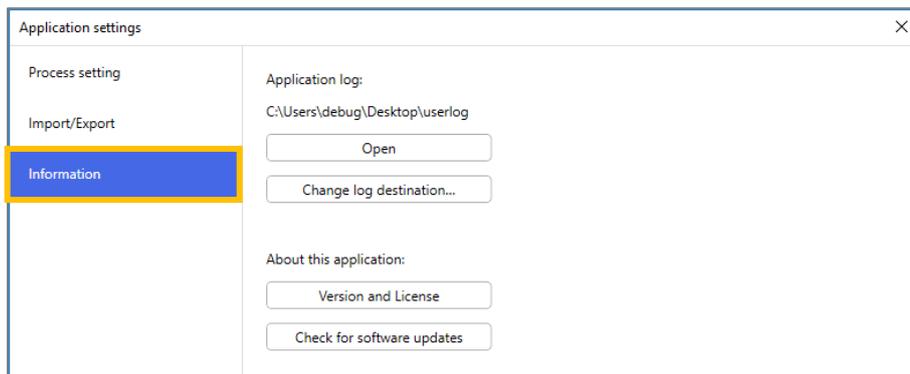
Check the Application Log if you encounter any problems when using the Barcode Utility. The log contains errors and notifications about:

- Barcode settings
- Input PDF and barcode quality
- File processing progress

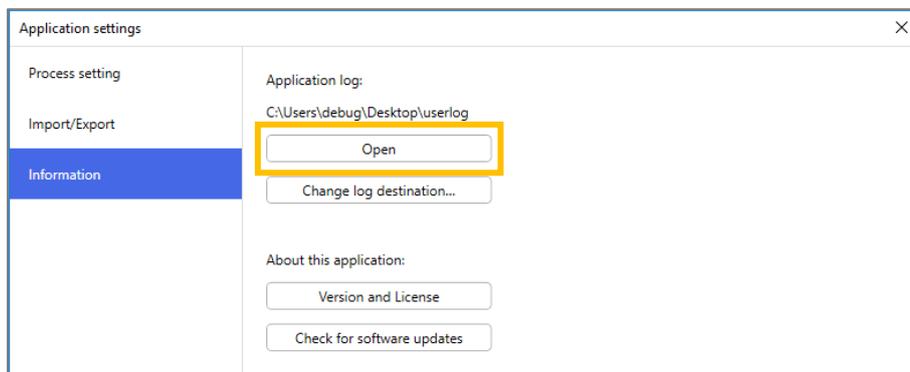
Log Item (Status)	Description
Error	The file cannot be processed. For more information, see section 5.2 <i>File Processing Errors</i> .
Warning	The file has been processed only partially. For more information, see section 5.2 <i>File Processing Errors</i> .
Inform	The file processing result is displayed.

4.2 Open the Application Log Folder

1. Click **Application settings** in the main screen.
2. Click **Information** in the left navigation bar.



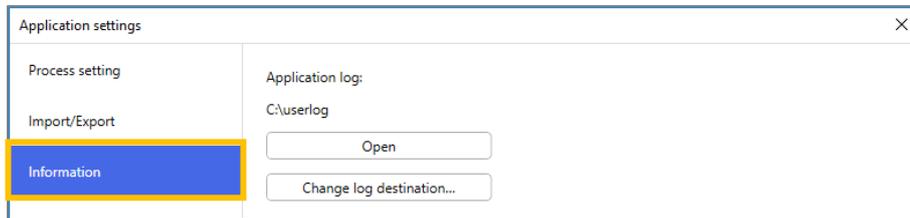
3. Click **Open**.



The Barcode Utility updates the log file until it reaches the file size limit you set, and then renames and backs up the file. If there are already six log files backed-up, the Barcode Utility replaces the oldest file with the latest one.

4.3 Change the Application Log Folder

1. Click **Application settings** in the main screen.
2. Click **Information** in the left navigation bar.



3. Click **Change log destination...**
(The default log file storage location is: `\BarcodeUtility install folder\userlog`.)
4. Browse to the folder you want, and then click **Select Folder**.

4.4 Change the Application Log Settings

1. Edit the `userlogsetting.txt` file in the Application Log folder.

Setting	Description
path	The log file's path on the computer (Default: <code>\Barcode Utility Install Folder\userlog</code>).
filename	The log file's name (Default: <code>userlog.csv</code>).
maxsize	The log file's maximum size in MB (1 – 10, Default: 2).

2. Save the file.

If the log settings are not within the acceptable ranges, the Barcode Utility uses the default settings.

5. Troubleshooting

5.1 General Troubleshooting

Use this section to resolve typical problems you may encounter. You can correct most problems yourself.

Problem	Solution
A large PDF (over 100 pages) cannot be processed.	The Barcode Utility supports PDF files containing no more than 100 pages.
Barcodes scanned using the Auto Color scan setting are not recognized correctly.	Documents cannot be scanned using the Auto Color scan setting. We recommend using the 24bit color scan setting for best scan results and barcode recognition.
I cannot find the log file.	<ul style="list-style-type: none">• Check the default Application Log folder: <code>\BarcodeUtility install folder\userlog</code>.• Check the current log destination: Click Application Settings > Information.• The Barcode Utility may have no permission to save the log in the specified folder. Change the Application Log folder location. For more information, see <i>4.1 Check the Application Log</i>.
I cannot find the barcode images I saved.	Check the barcode image storage folder <code>\img_bkup</code> in the application's folder.
I cannot monitor more than five hot folders simultaneously.	The limit is five hot folders.
I cannot monitor a subfolder within a hot folder.	Subfolders inside hot folders cannot be monitored. Set up the subfolder as a new hot folder and apply the same rules.
I cannot start monitoring a hot folder.	Make sure that: <ul style="list-style-type: none">• The settings are correct and no warning icons [] are displayed.• The Target Folder Monitoring check box is selected, and then click Apply.• You have configured at least one rule for the Barcode Utility to process files in the hot folder.• At least one file processing rule is set to "Enable".• Each hot folder is accessible from the computer or server where the Barcode Utility is running.• The Barcode Utility is activated on the Brother machine used to scan. For more information, contact your local Brother office.
I want incorrectly processed files to be renamed, moved, or converted to a different format.	Check the Error Processing settings in Common Settings .
I want to restore the Barcode Utility's previous settings.	Make sure you have a valid backup file and use the import function. For more information, see <i>3.2 Export and Import Configuration</i> .
I want to preview the scanned documents before the Barcode Utility processes them.	Use Brother iPrint&Scan for Windows to scan documents intended for processing. Go to your model's Downloads page on the Brother support website at support.brother.com to download the latest version.

Problem	Solution
I want to specify more than one barcode in a multi-page document.	The Barcode Utility allows you specify up to 20 barcodes per page.
I want to delete pages with barcodes from the output destination file.	Use the Delete Separator function when configuring file split settings. For more information, see <i>2.5 Configure File Split Settings</i> .
My barcode was not read correctly.	<ul style="list-style-type: none"> • Check for specific errors in the Application Log. For solutions, see <i>5.2 File Processing Errors</i>. • Make sure the barcode is supported and correctly created. For more information, see <i>Appendix A: Barcode Recognition Requirements</i> and <i>Appendix C: Supported Barcode Types and Options</i>.
Original scanned files are moved or deleted after they are processed.	Check the post-processing settings in Common Settings .
The Barcode Utility does not process the input file according to the specified name.	Make sure you specify the input file name correctly. Only files that match the specified file name exactly will be processed. For more information, see <i>2.3 Create a File Processing Rule</i> .
The custom naming rules I created are not processed correctly.	Make sure you specify the naming rules correctly. For more information, see <i>Appendix B: Custom Naming Rules</i> .
The processed files have incorrect file names.	Check the File rename rule settings.
The processed files are overwritten by newly processed files.	To avoid unintentional file overwriting, select the Add a file to the counter information check box when configuring the File rename rule settings.
The processed files are not saved in the correct location.	<p>Make sure that:</p> <ul style="list-style-type: none"> • The static path is not blank. • An existing folder is selected as the static path. • The static path does not share the same path as a hot folder. • The static path name is no longer than 247 characters. • Any custom naming rules are specified correctly. <p>For more information, see <i>2.7 Configure File Save Settings</i>.</p>
The processed files are not separated correctly.	Check the File split rule settings.

5.2 File Processing Errors

Check the Application Log. For more information, see section 4.1 *Check the Application Log*.

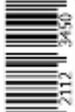
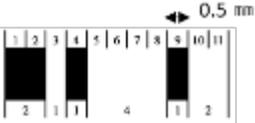
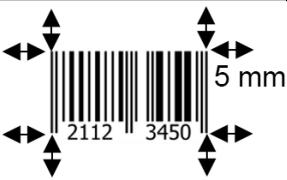
Error	Solution
Barcode for file rename not found.	Check the barcode type setting in the File rename rule settings. For more information, see section 2.6 <i>Configure File Rename Settings</i> .
Barcode for file split not found.	Check the barcode type setting in the File split rule settings. For more information, see section 2.5 <i>Configure File Split Settings</i> .
Cannot find the backup folder for the input file.	Check the backup settings in Common Settings . For more information, see section 2.8 <i>Configure Common Settings</i> .
Cannot find the barcode for file save.	Check the barcode type setting in the File save rule settings. For more information, see section 2.7 <i>Configure File Save Settings</i> .
Cannot find the folder for file save.	Check the folder path setting in the File save rule settings. For more information, see section 2.7 <i>Configure File Save Settings</i> .
Cannot find the output folder for the input file.	Check the backup settings in Common Settings . For more information, see section 2.8 <i>Configure Common Settings</i> .
Cannot save the file in the specified backup folder.	Check folder permissions.
Routed PDF files are being created with the same name.	If this is not intentional, make sure all file rename settings are correctly configured. For more information, see section 2.6 <i>Configure File Rename Settings</i> .
The barcode has been detected outside the specified zonal area.	Move or resize the barcode for better barcode recognition. For more information, see section 2.4 <i>Assign Barcodes to File Processing Rules</i> .
The Brother device used to scan this document is not optimized.	For maximum reliability, change your Brother machine's scan settings to Full Color PDF (we recommend using the 24bit color scan setting for best scan results and barcode recognition). We do not recommend using the Auto Color mode settings. For more information, see section 1.4 <i>Supported Scan Color Settings</i> .
The cell size of barcode on page <page number> is too small.	Change the cell size to the recommended size. For more information, see section <i>Appendix A: Barcode Recognition Requirements</i> .
The resolution of the PDF is lower than 200dpi.	The barcode may not be read correctly with the current resolution. Increase the barcode resolution. For more information, see section <i>Appendix A: Barcode Recognition Requirements</i> .
The resolution of the PDF is too low.	For two-dimensional (2D) barcodes, change the resolution setting to 300 DPI or higher. For more information, see section <i>Appendix A: Barcode Recognition Requirements</i> .
The specified barcode area is too small.	Resize the barcode area. For more information, see section 2.4 <i>Assign Barcodes to File Processing Rules</i> .
This barcode contains none of the characters registered as part of the file renaming rule.	Check your settings. For more information, see section 2.3 <i>Create a File Processing Rule</i> .

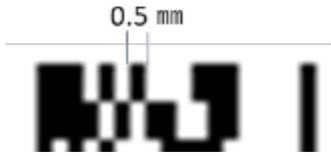
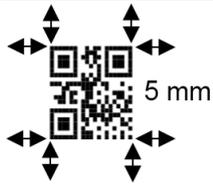
Error	Solution
This file splitting rule is not registered.	Register a new file splitting rule. For more information, see section 2.5 <i>Configure File Split Settings</i> .
Unregistered file renaming rule.	Register a new file renaming rule. For more information, see section 2.6 <i>Configure File Rename Settings</i> .
Unregistered file save rule.	Register a new file save rule. For more information, see section 2.7 <i>Configure File Save Settings</i> .
Non-supported PDF type detected.	<ul style="list-style-type: none"> • Make sure the Barcode Utility is activated on your Brother machine. • Check the scan settings of the machine used to scan into the hot folder. • Make sure the PDF type is normal PDF (The Searchable PDF, Secure PDF, and High compression PDF types are not supported). For more information, see section 1.3 <i>Supported Input/Output File Formats</i>. • If the issue is not resolved, contact your local Brother office.

Appendix A: Barcode Recognition Requirements



The requirements listed in this section are for 24bit color scanning. We recommend using the 24bit color scan setting for best scan results and barcode recognition. For more information, see section 1.4 Supported Scan Color Settings.

Item		Specification	Details
General	Barcode rotation angle	0° 90° 180° 270°	 
			 
	Tolerance angle	± 5°	
	Maximum number of barcodes recognized per page	20	
Condition of 1D Barcode Detection	Vertical size	5 mm or more	
	Recommended scan resolution	200 DPI or more	
	Minimum size of each line when using the recommended scan resolution	All thin lines must be wider than 0.5 mm	
	Minimum margin around barcode	10 times the size of the thinnest cell line	
	Barcode color	Black	
Background color	White		

Item		Specification	Details		
Condition of 2D Barcode Detection	PDF417	Recommended scan resolution	200 DPI or more		
		Minimum size of each line when using the recommended scan resolution (black line/white line)	0.5 mm		
		Minimum margin around barcode	More than 5 mm		
		Barcode color	Black		
		Background color	White		
	QR Code	Recommended scan resolution	200 DPI or more		
		Minimum size of each line when using the recommended scan resolution (black line/white line)	200 DPI	0.7 mm	
			300 DPI or more	0.5 mm	
		Minimum margin around barcode	More than 5 mm		
		Barcode color	Black		
	Background color	White			
	Datamatrix / GS1 Datamatrix	Recommended scan resolution	200 DPI or more		
		Recommended scan resolution and minimum size of one cell	200 DPI	0.6 mm	
			300 DPI or more	0.5 mm	
		Minimum margin around barcode	More than 5 mm		
		Barcode color	Black		
	Background color	White			

Appendix B: Custom Naming Rules

If a file name is defined using a custom naming rule, and there is no barcode information or the barcode information contains only unsupported characters, the custom naming rule is ignored.



The year, month, day, hour, minute, and second settings are not based on the time the input file is created or the time the input file is saved in the hot folder.

Input Info.	Code	Function
Year	[YEAR]	Adds the creation year *
Month	[MONTH]	Adds the creation month *
Day	[DAY]	Adds the creation day *
YearMonthDay	[YEAR] [MONTH] [DAY]	Adds the creation year, month, and day *
Hour	[HOUR]	Inserts the hour *
Minute	[MINUTE]	Inserts the minute *
Second	[SECOND]	Inserts the second *
Time	[HOUR] [MINUTE] [SECOND]	Inserts the time *
Barcode info. (all)	[BARCODE]	Inserts the recognized information from the barcode ID
Barcode info. (part)	[BARCODE L(A, B)] [BARCODE R(A, B)]	Inserts a specific number of characters from the recognized information from the barcode ID
Filename	[FILENAME]	Inserts the original input file name

* Synchronized with the system time



- All name rules except for [COUNTER] can be used more than once in the same job profile.
- All name rules should contain only upper-case characters.
- The total supported length of a file name (folder path and name) is 247 characters. If the name exceeds this limit, the file is automatically saved to the default settings destination path.
- When creating a user-defined file name, do not use these characters:
< > : " / \ | ? * ¥

If the recognized information from the barcode ID contains any of these characters, they will not be included in the file name.

Naming Rules for [BARCODE L(A,B)] and [BARCODE R(A,B)]

To select a specific number of consecutive barcode characters, use the [BARCODE] naming rule, which offers additional options:

Extended Naming Rule	Description
[BARCODE L(A, B)]	Reads the barcode information from left to right. Barcode information can be determined by the character located on the right side of A through to B.
[BARCODE R(A, B)]	Reads the barcode information from right to left. Barcode information can be determined by the character located on the right side of A through to B.

Example

To define a filename setting using:

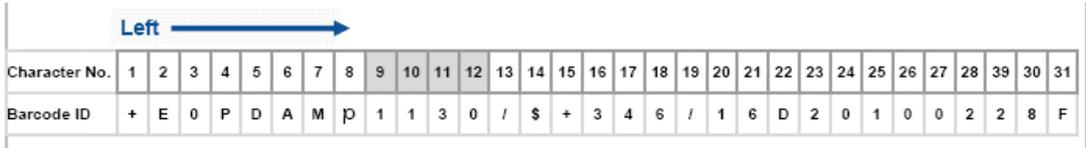
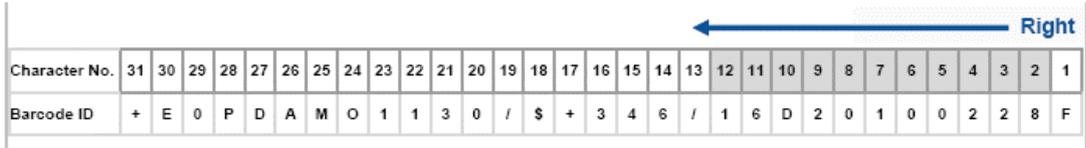
- Static prefix: "document"
- Dynamic barcode ID information (for example, "Invoice")
- Dynamic page counter (for example, "001")

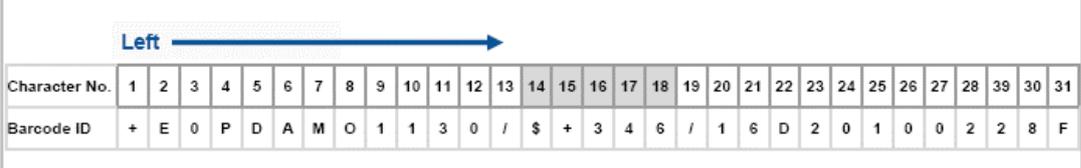
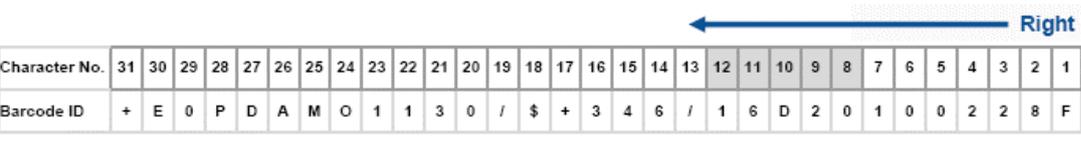
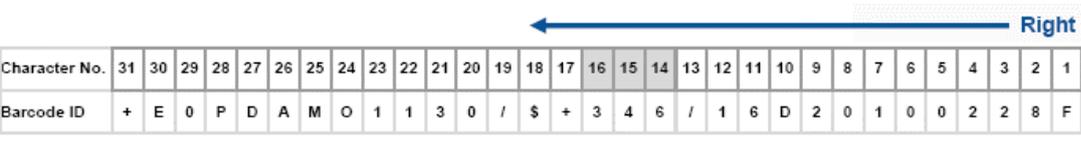
Create the following naming rule: "document_[BARCODE]_[COUNTER]".

Your first document is named as follows: "document_Invoice_001".

You can change the order of file name elements. For example, for "[BARCODE]_[COUNTER]_document", the filename is "Invoice_001_document".

To define a Barcode ID from either the left or right using only number references, see the examples below:

#	Name	Description																																																																
1	Left-Count	<p>Naming Rule: [BARCODE L(8,4)]</p> <p>Count Method: Starting from the left and reading the four characters starting after the eighth character.</p>  <table border="1" data-bbox="395 1355 1481 1451"> <tr> <td>Character No.</td> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td> </tr> <tr> <td>Barcode ID</td> <td colspan="31">+ E 0 P D A M 0 1 1 3 0 / \$ + 3 4 6 / 1 6 D 2 0 1 0 0 2 2 8 F</td> </tr> </table> <p>Text information in the barcode: The Barcode ID would be 1130</p>	Character No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Barcode ID	+ E 0 P D A M 0 1 1 3 0 / \$ + 3 4 6 / 1 6 D 2 0 1 0 0 2 2 8 F																														
Character No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31																																			
Barcode ID	+ E 0 P D A M 0 1 1 3 0 / \$ + 3 4 6 / 1 6 D 2 0 1 0 0 2 2 8 F																																																																	
2	Right-Count	<p>Naming Rule: [BARCODE R(13,11)]</p> <p>Count Method: Starting from the right and reading the next eleven characters starting after the thirteenth character.</p>  <table border="1" data-bbox="395 1771 1481 1868"> <tr> <td>Character No.</td> <td>31</td><td>30</td><td>29</td><td>28</td><td>27</td><td>26</td><td>25</td><td>24</td><td>23</td><td>22</td><td>21</td><td>20</td><td>19</td><td>18</td><td>17</td><td>16</td><td>15</td><td>14</td><td>13</td><td>12</td><td>11</td><td>10</td><td>9</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td> </tr> <tr> <td>Barcode ID</td> <td colspan="31">+ E 0 P D A M 0 1 1 3 0 / \$ + 3 4 6 / 1 6 D 2 0 1 0 0 2 2 8 F</td> </tr> </table> <p>Text information in the barcode: The Barcode ID would be 16D20100228</p>	Character No.	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Barcode ID	+ E 0 P D A M 0 1 1 3 0 / \$ + 3 4 6 / 1 6 D 2 0 1 0 0 2 2 8 F																														
Character No.	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1																																			
Barcode ID	+ E 0 P D A M 0 1 1 3 0 / \$ + 3 4 6 / 1 6 D 2 0 1 0 0 2 2 8 F																																																																	

#	Name	Description																																																																
3	Left-Count with One Specific Character	<p>Naming Rule: [BARCODE L ("/", 5)]</p> <p>Count Method: Starting from the left and reading the next five characters after the first instance of the / character.</p>  <table border="1" data-bbox="395 436 1476 515"> <tr> <td>Character No.</td> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td> </tr> <tr> <td>Barcode ID</td> <td>+</td><td>E</td><td>0</td><td>P</td><td>D</td><td>A</td><td>M</td><td>O</td><td>1</td><td>1</td><td>3</td><td>0</td><td>/</td><td>\$</td><td>+</td><td>3</td><td>4</td><td>6</td><td>/</td><td>1</td><td>6</td><td>D</td><td>2</td><td>0</td><td>1</td><td>0</td><td>0</td><td>2</td><td>2</td><td>8</td><td>F</td> </tr> </table> <p>Text information in the barcode: The Barcode ID would be: \$+346</p>	Character No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Barcode ID	+	E	0	P	D	A	M	O	1	1	3	0	/	\$	+	3	4	6	/	1	6	D	2	0	1	0	0	2	2	8	F
Character No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31																																			
Barcode ID	+	E	0	P	D	A	M	O	1	1	3	0	/	\$	+	3	4	6	/	1	6	D	2	0	1	0	0	2	2	8	F																																			
4a	Right-Count with One Specific Character	<p>Naming Rule: [BARCODE R ("/", 5)]</p> <p>Count Method: Starting from the right, reading the next five characters after the first instance of the / character.</p>  <table border="1" data-bbox="395 851 1476 929"> <tr> <td>Character No.</td> <td>31</td><td>30</td><td>29</td><td>28</td><td>27</td><td>26</td><td>25</td><td>24</td><td>23</td><td>22</td><td>21</td><td>20</td><td>19</td><td>18</td><td>17</td><td>16</td><td>15</td><td>14</td><td>13</td><td>12</td><td>11</td><td>10</td><td>9</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td> </tr> <tr> <td>Barcode ID</td> <td>+</td><td>E</td><td>0</td><td>P</td><td>D</td><td>A</td><td>M</td><td>O</td><td>1</td><td>1</td><td>3</td><td>0</td><td>/</td><td>\$</td><td>+</td><td>3</td><td>4</td><td>6</td><td>/</td><td>1</td><td>6</td><td>D</td><td>2</td><td>0</td><td>1</td><td>0</td><td>0</td><td>2</td><td>2</td><td>8</td><td>F</td> </tr> </table> <p>Text information in the barcode: 16D20</p>	Character No.	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Barcode ID	+	E	0	P	D	A	M	O	1	1	3	0	/	\$	+	3	4	6	/	1	6	D	2	0	1	0	0	2	2	8	F
Character No.	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1																																			
Barcode ID	+	E	0	P	D	A	M	O	1	1	3	0	/	\$	+	3	4	6	/	1	6	D	2	0	1	0	0	2	2	8	F																																			
4b	Right-Count with Specific Character String	<p>Naming Rule: [BARCODE R ("/\$+", 3)]</p> <p>Count Method: Starting from the right, reading the next three characters after the first instance of the /\$+ character string.</p>  <table border="1" data-bbox="395 1276 1476 1355"> <tr> <td>Character No.</td> <td>31</td><td>30</td><td>29</td><td>28</td><td>27</td><td>26</td><td>25</td><td>24</td><td>23</td><td>22</td><td>21</td><td>20</td><td>19</td><td>18</td><td>17</td><td>16</td><td>15</td><td>14</td><td>13</td><td>12</td><td>11</td><td>10</td><td>9</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td> </tr> <tr> <td>Barcode ID</td> <td>+</td><td>E</td><td>0</td><td>P</td><td>D</td><td>A</td><td>M</td><td>O</td><td>1</td><td>1</td><td>3</td><td>0</td><td>/</td><td>\$</td><td>+</td><td>3</td><td>4</td><td>6</td><td>/</td><td>1</td><td>6</td><td>D</td><td>2</td><td>0</td><td>1</td><td>0</td><td>0</td><td>2</td><td>2</td><td>8</td><td>F</td> </tr> </table> <p>Text information in the barcode: 346</p>	Character No.	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Barcode ID	+	E	0	P	D	A	M	O	1	1	3	0	/	\$	+	3	4	6	/	1	6	D	2	0	1	0	0	2	2	8	F
Character No.	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1																																			
Barcode ID	+	E	0	P	D	A	M	O	1	1	3	0	/	\$	+	3	4	6	/	1	6	D	2	0	1	0	0	2	2	8	F																																			

Appendix C: Supported Barcode Types and Options

The Barcode Utility supports the following 1D and 2D barcodes:

Barcode Name	Code Example	Check Digit
1D Barcode	CODE39 / CODE3of9 	Optional
	ITF / ITF-14 	Optional
	CODABAR / Code2of7 / NW-7 	Optional
	CODE93 	Mandatory
	CODE128 	Mandatory
	GS1-128 / UCC128 / EAN128 	Mandatory
	UPC-A 	Mandatory
	UPC-E 	Mandatory
	JAN-8 / EAN-8 	Mandatory
	JAN-13 / EAN-13 	Mandatory
2D Barcode	QR 	N/A
	Datamatrix / GS1 Datamatrix 	N/A
	PDF417 	N/A

Not Supported

- Micro QR code
- Add-on code for UPC-A, UPC-E
- Add-on code for JAN-8/EAN-8, JAN-13/EAN-13

For barcodes that include a check digit, the last one or two digits (which ensure the barcode is correctly composed) are checked automatically. If the check cannot be verified, the barcode information is not processed. The start and end markers for CODABAR/CODE39 are NOT included in the processing results.

Appendix D: XML Specification for Barcodes

Definition of an XML File

Elements and Tree Structure	Tag Name	Mandatory/Optional	Specification
Document name	DocumentName	Mandatory	Document name that contains barcode information
Total number of page	TotalPageNum	Mandatory	Total number of pages in the document
Total number of barcode	TotalBarcodeNum	Mandatory	Total number of barcodes in the document
Barcode information	BarcodeInfo	Mandatory	Tag for barcode information
Type of barcode	Type	Mandatory	Barcode type
Decode result includes check digit	String	Optional	Barcode string
Decode result excludes check digit	StringWoCheckDigit	Mandatory	Barcode string excludes check digit
Location Information	Location	Mandatory	Tag for location information
Area Information	Area	Mandatory	Tag for barcode area
Page Number	PageNum	Mandatory	The page number containing this barcode
X Coordinates	X	Mandatory	X coordinates of the top left corner of barcode (px)
Y Coordinates	Y	Mandatory	Y coordinates of the top left corner of barcode (px)
Width	Width	Mandatory	Width of barcode (px)
Height	Height	Mandatory	Height of barcode (px)
Rotation Angle	Degree	Mandatory	Barcode rotation angle
Optional Information	Option	Mandatory	Tag for optional information
Check Digit Flag	CheckDigit	Mandatory	Flag if this barcode has a check digit
Start Code	StartCode	Optional	Start code (Used only when the type of barcode is CODABAR or CODE39)
Stop Code	StopCode	Optional	Stop code (Used only when the type of barcode is CODABAR or CODE39)

Standard Name	Supported Barcode Type
CODE39	CODE39/CODE3of9
ITF	ITF / ITF-14
CODABAR	CODABAR / Code2of7 /NW-7
CODE93	CODE93
CODE128	CODE128
GS1-128	GS1-128 / UCC128 / EAN128
UPC-A	UPC-A
UPC-E	UPC-E
EAN-8	JAN-8 / EAN-8
EAN-13	JAN-13 / EAN-13
QR	QR
DATAMATRIX	Datamatrix / GS1 Datamatrix

Example of XML Description

```
<?xml version="1.0" encoding="UTF-8"?>
<BrotherBarcodeAgentBarcodeRecognitionResult>
  <DocumentName>                               </DocumentName>
  <TotalPageNum>                               </TotalPageNum>
  <TotalBarcodeNum>                            </TotalBarcodeNum>
```

```
<BarcodeInfo>
  <Type>
  <String>
  <StringWOCheckDigit>

  <Area>
    <PageNum>
    <X>
    <Y>
    <Width>
    <Height>
    <Degree>
  </Area>

  <Option>
    <CheckDigit>
    <StartCode>
    <StopCode>
  </Option>
</BarcodeInfo>
```

(To specify additional barcodes, describe each barcode in a separate `BarcodeInfo` section below)

```
</BrotherBarcodeAgentBarcodeRecognitionResult>
```

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