Canon Barcode Module III

and

DR Scanners

Overview

The Canon Barcode Module III is an optional software accessory that offers the end user a way to more effectively and easily scan large batches of documents. The module can be purchased through the same distributors as the Canon DR scanners. The Barcode Module III, when used in conjunction with Capture Perfect and many of the DR Scanners, can perform the following functions:

- Separate files by barcode
- Name files using barcode data
- Create or point a file to a specific folder using the barcode data

Technical Data

Compatibility

> Barcode Module III is designed to work only with Capture Perfect version 3.09 or higher, and will not work within any other capture software. It is also designed to work **only** with specific DR scanner models.

> Note: To determine if the Barcode Module III will work with a particular model, please consult the documentation for that specific model's available accessories.

Barcode Specifications

The table below lists the Barcode Module III compatible barcode types along with technical data concerning each type:

Code	No. of Digits	Checksum
EAN	8 or 13	Modulus 10, Weight 3
Codabar	3 to 32 (including Start/Stop characters)	Modulus 16, 7 DR
Code 39	3 to 32 (including Start/Stop characters) (Standard ASCII or Full ASCII)	Modulus 43
ITF	2 to 32 (Even number. of digits only)	Modulus 10, Weight 3
Code 128	1 to 32 (Valid data only)	Modulus 103
UPC-A	13	Modulus 10, Weight 3
UPC-E	8	Modulus 10, Weight 3

The following table shows the detection conditions for proper barcode reading. This describes specifications such as barcode size, position, etc.

Item	Condition	
Printed Side	Front or back (or both, but at reduced speed)	
Orientation	Perpendicular (0 degrees) or parallel (90 degrees) to the feeding direction [1] Feed direction 0° 90° Reading direction should be specified beforehand [2]	
Size	Line Width	0.3 to 1 mm [3]
	Code Width	105 mm or less (including quiet zone)
	Bar Height	At least 10 mm
	Margins	At least one character at each end
Slew	Within ±3°	
Element Ratio	2.2 to 3.0	
PCS Value	At least 0.60 (with a white point of at least 75% reflectance)	
Position	Feeding Direction	At least 2 mm from the edge of the page
	Perpendicular to Feeding Direction	At least 5 mm from the edge of the page
Quantity	Up to four per page	
Spacing	At least 5 mm	
Conditions	No background or overlapping barcodes	

Document Requirements

In addition to the above requirements, it is recommended that the files you wish to scan follow these guidelines:

- The barcode that is to be read be placed on the first page of each file. This can be a separator page or the barcode can be placed onto the live document.
- The file does not contain any other barcodes that are not intended to be read.

  Note: It may be possible to exclude "erroneous" barcodes within the file by specifying a zone to be read or by limiting acceptable barcode types. This will be discussed later in the Setup and Operation section.
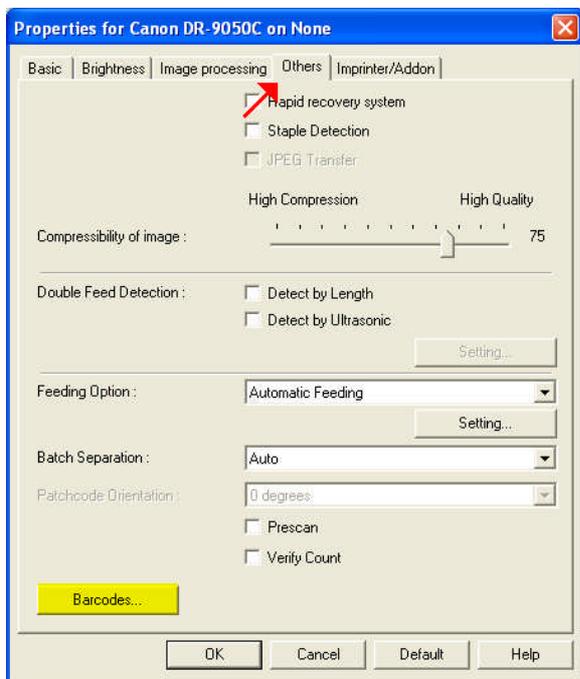
Installation

Since the Barcode Module III is a software module, installation is quick, easy and requires no hardware installation.

Start by installing the Capture Perfect software along with the ISIS/TWAIN drivers for the scanner being used. If Capture Perfect and the drivers are already installed you can skip this step.

Next, install the barcode module by executing the Setup.exe file on the barcode module CD.

To verify that the installation was successful, open Capture Perfect and select **scanner settings**. Then select the **others** tab. You should now be able to select the Barcode Button located at the bottom of the box:

If the Barcode Button is grayed out, the Barcode Module did not install correctly. If this happens, uninstall the software using Windows Control Panel \Add\remove programs and reinstall the Barcode Module (again).

Setup and Operation of Barcode Module III

It is important that before you begin the set up you have the following information at hand:

- Type of barcode being read
- Number of barcodes that will be read

To properly set up and use the Barcode Module III with Capture Perfect, it is necessary to understand that there are two (2) fundamental steps involved. One is the set up of the DR Scanner Driver and the other is the configuration of Capture Perfect. If either of these steps were missed or configured incorrectly, the software will not read and interpret the barcodes correctly.

The first step will be to set up the driver. Open up the scanner driver box by selecting Scanner Setting from within Capture Perfect. Once open, select the **others** tab and then select Barcode button to open the Barcode Dialog box. Now check the Enable Barcode Detection Box.
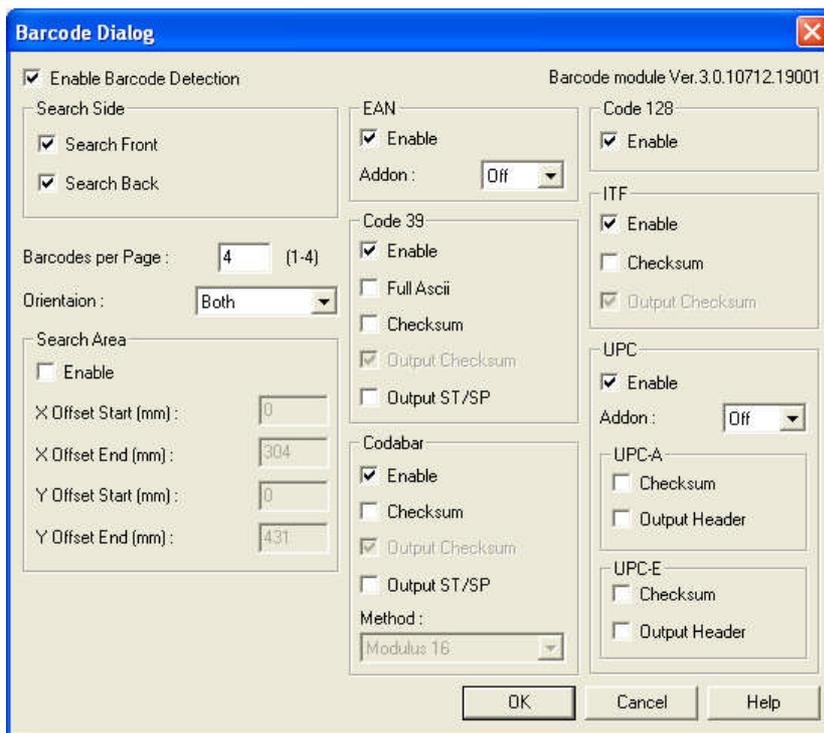
At this point you are ready to begin configuring barcode types, placement, etc.
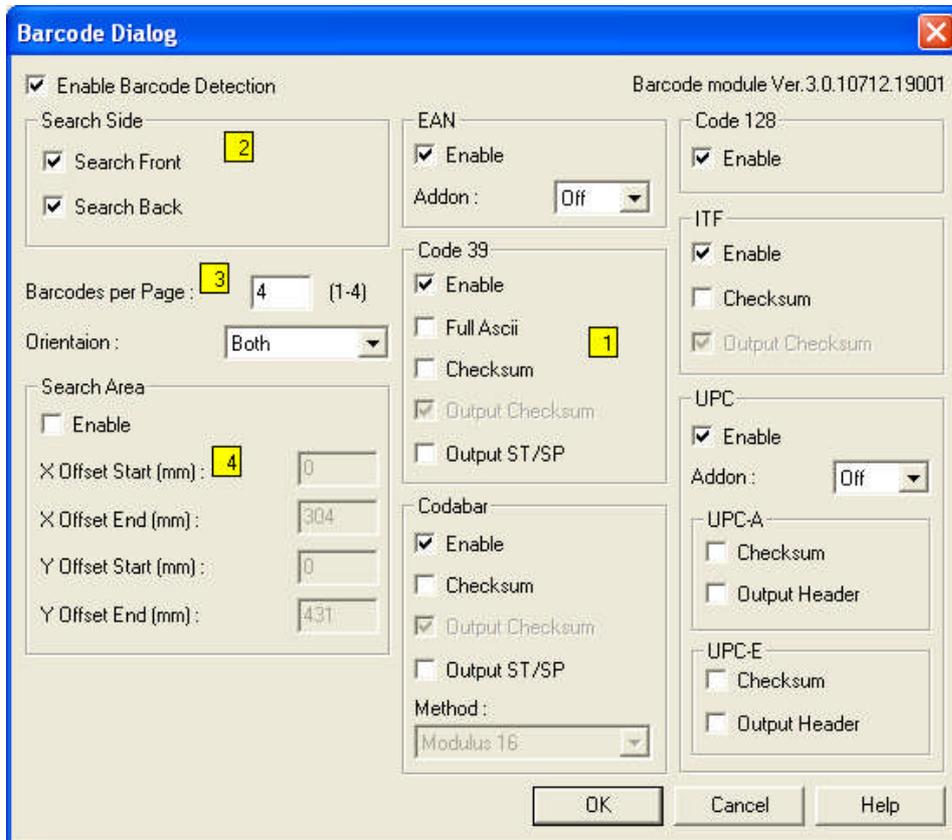
The Barcode Dialog Box can be divided into four (4) subsections. Depending on your application, it may not be necessary to make changes in all four sections, but the following will describe the purpose and function of each.

1. The right side of the box is where you will select the type of barcode you will be reading. While it is acceptable to leave all the barcode types checked, this would cause a problem if there are other barcodes within the file that you do not wish to read. By selecting only the type of barcode being used, the software will ignore any other barcodes that occur within the file. Each of the barcode types has various other configurations that may need to be checked or unchecked depending on the type of barcode being used. This information would need to be obtained from the software originally creating the barcode.

2. Both front and the back of the document can be searched for applicable barcodes. If the barcodes will only be on the front or back of the document it is recommended you only check the appropriate box.

3. Up to four (4) barcodes can be read per page. The orientation refers to the direction the barcode is placed on the page in relation to the feed direction:
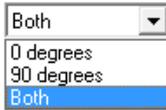

4. This section is where you can define a specific area for the scanner to look for a barcode(s). By default the scanner will search the entire page for appropriate barcodes. However, if you wish to ignore certain barcodes on the page(for example if pages within the file contained barcodes that you do not want to read) you can specify it here and the scanner will only search that area.

You now have the scanner driver configured to read barcodes. The next step is to configure the software.
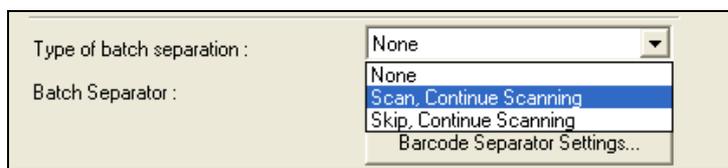
Instructions for Capture Perfect 3.0x

From within Capture Perfect select the Scan to Batch feature. The following box will be displayed:
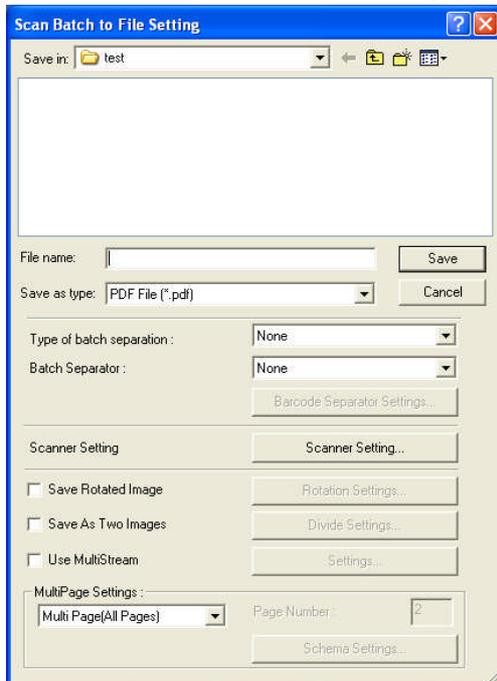
Once this dialog box is opened select the drop down menu for Batch Separator and select Barcode:
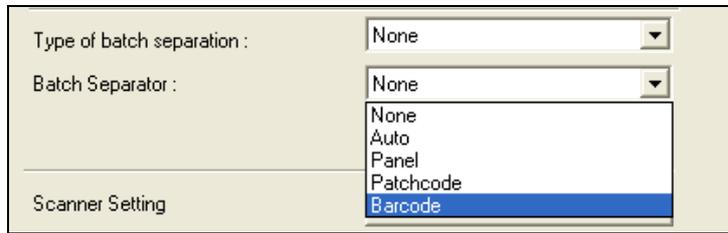
Next , use the drop down menu for Type of Batch Separation:

In this box you have two (2) options:

Scan, Continue Scanning
> If this feature is selected, the scanner will read the barcode and *keep* the barcode page with the file.

Skip, and Continue Scanning
> If this feature is selected the scanner will read the barcode and NOT keep the barcode page with the file. This would typically be used if you were using a barcode separator page that did not contain anything but the barcode.

The next step is to configure what you want Capture Perfect to do with the barcode data once it has been read.

By default, Capture Perfect will always use the barcode data as part of the file name. However, you must have at least one (1) character in the file name box. Of course you are allowed to have more characters, but at least one must be used:
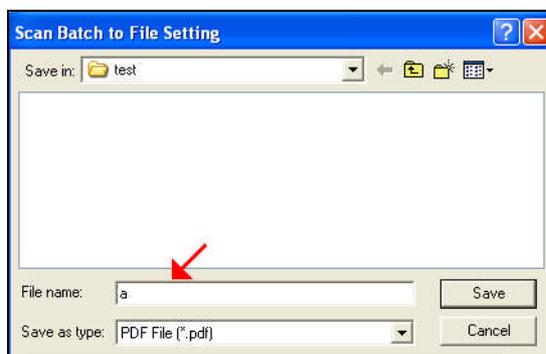
In the above example the file name would appear as follows:
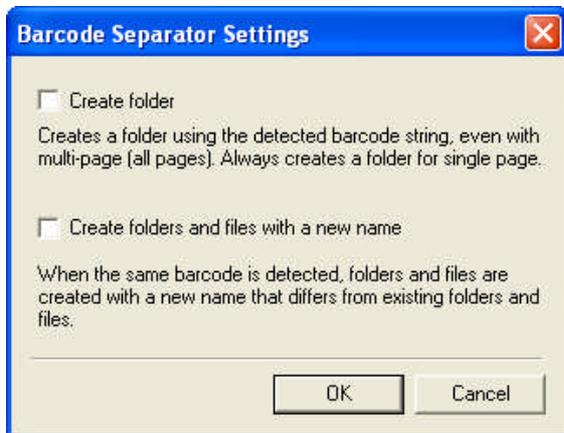
a_"barcode data".PDF

You can read up to four (4) barcodes per page if you choose. If you are using more than one barcode, the naming convention would be as follows, starting with the first barcode on the page (in feed direction):

a_barcode#1_barcode#2_barcode#3_barcode#4.PDF

In addition to naming the file using the barcode data, you also have the option of creating or naming a folder using the same barcode data. To set this, select the Barcode Separator Settings button:
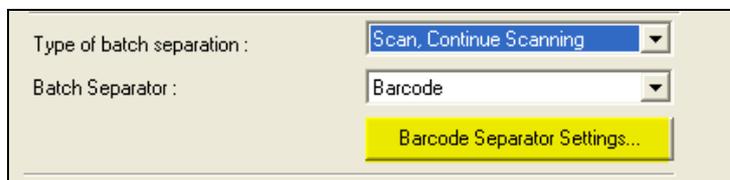
Once here you will be presented with two (2) choices.

The first option will create a folder in the designated destination using the barcode data. If the folder already exists with that name, the file will be placed into that folder.

The second option will again create a folder using the barcode data, however if the folder already exists with that name a new folder will be created by adding a counter. For example, if the barcode data was *Canon*, and there was already a folder named *Canon,,* then a new folder would be created named *Canon001.* The same would hold true if the file named Canon already existed.
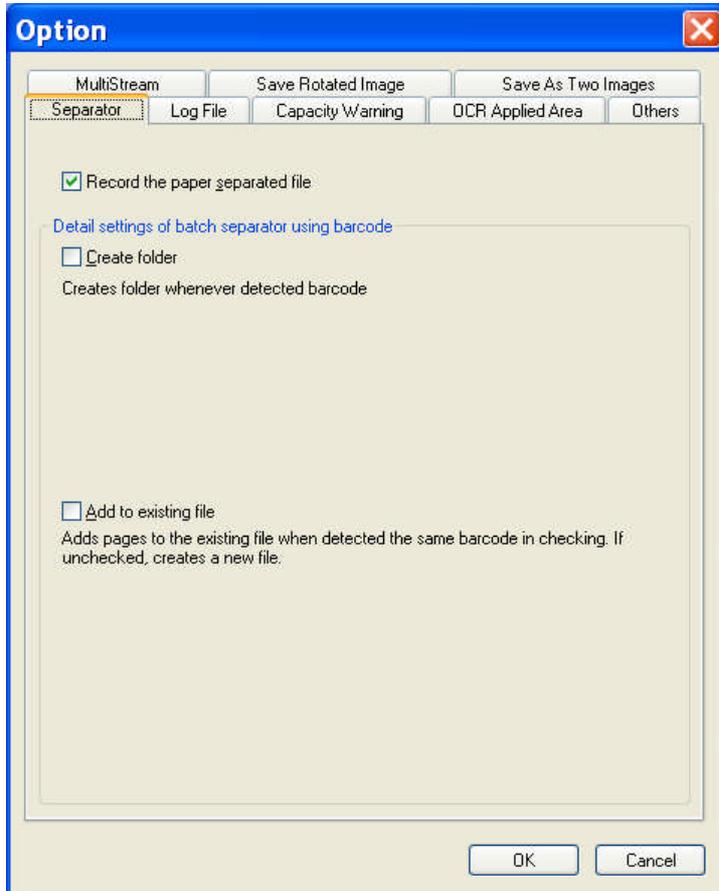
Instructions for Capture Perfect 3.1x

Select Scan Batch to File option from within Capture Perfect. The following box will be displayed. Start by selecting the destination folder for you file and the type of file you require.

The next step is to select "Barcode" under Batch Separation.
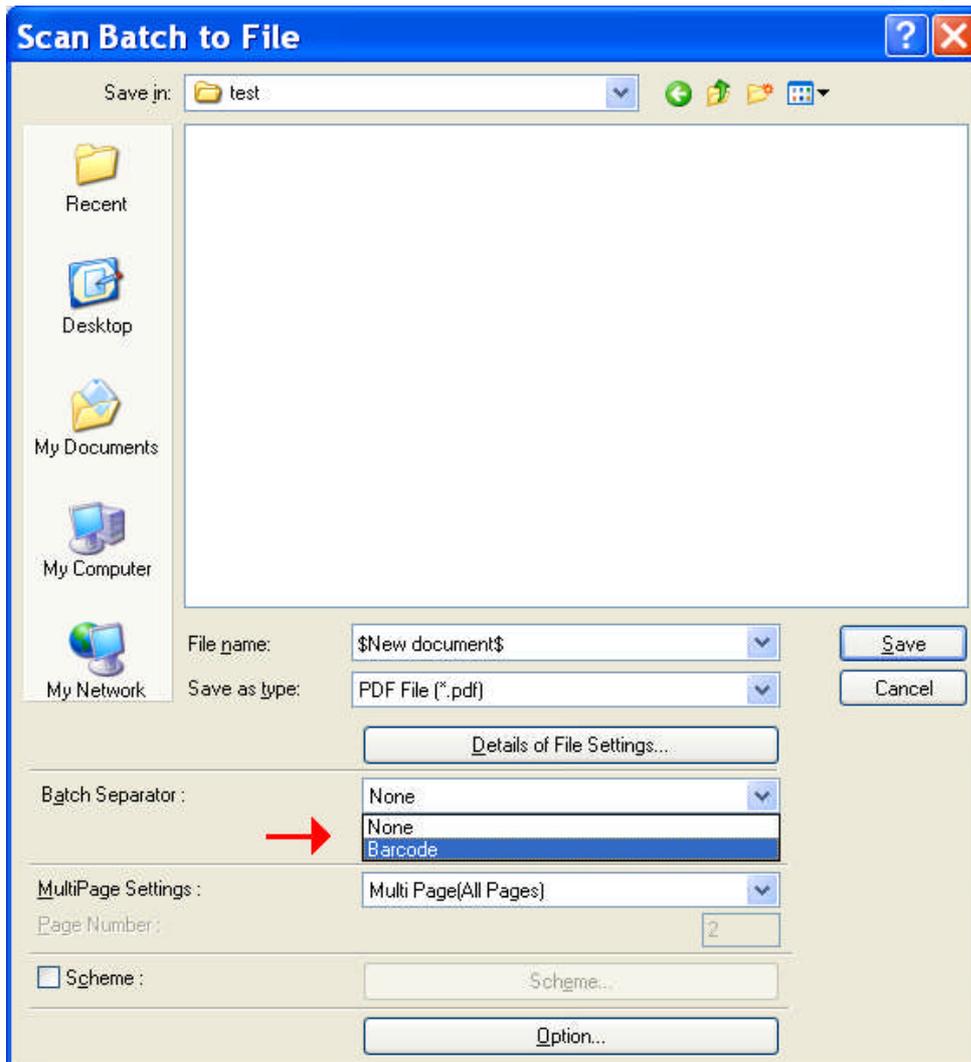
Now select the Option button at the bottom of the screen.

There are a number of tabs within this box but we will only be discussing the separator tab. If you would like information concerning the rest of the tabs you can use the help file to find out more information.

Under the separation tab there are 3 options:

Record Paper Separated File

By checking this box the barcode sheet will be saved with the file. Leaving it unchecked will cause the software to not keep the barcode sheet with the file

Create Folder

When you select this option, the software will use the barcode data to create a folder and place the file into that folder. The folder will be created in the folder that you selected earlier. If a folder with the same name already exists, the file will be placed into that folder.

Add To Existing File

This feature is used when you are using the barcode data to name the file (we will discuss how to set this up in the next section). By selecting this option, if a file already exists with the same name the images will simply be added to the end of the file.

Once you have set these options select OK.

The next step will describe how to use the barcode data to name the file. This step is not required if you will be naming the file manually in the File Name box. By default, the file name is set to $New document$. You have the option of replacing this with your own file name or leaving it as it is. Leaving it this way will allow you to use the schema setting to create you file name format.

Check the schema check box and select the schema button:

File Tab
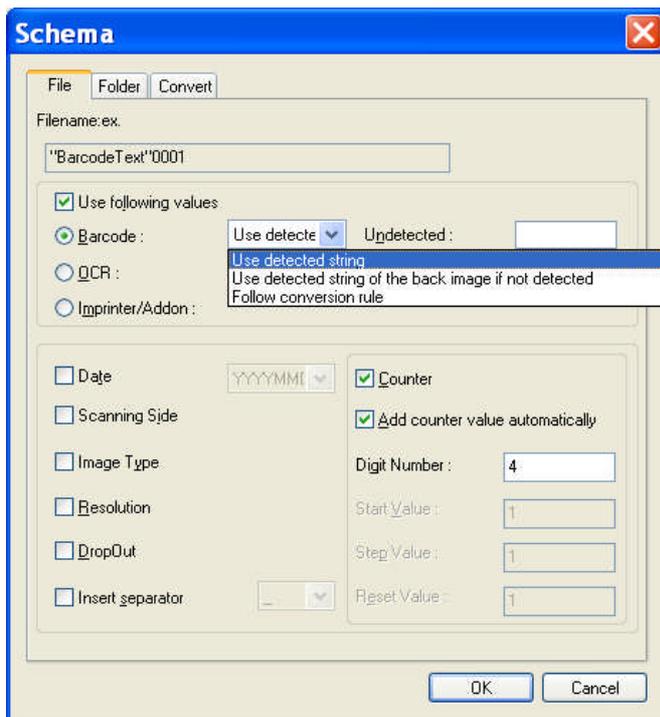
You will need to select Use Following Values button as well as the Barcode button.
You have 3 options for file naming and dividing.

Use Detected String

This would be selected if you are scanning in single page mode and each page has a barcode printed on it.

Use Detected String of the back image if not detected

Use this setting if you are scanning in multi-page mode and files will be varying lengths. By selecting this the software will start a new file each time it detects a barcode and will place each following page with that file until it comes to a new barcode.

Follow Conversion Rule

This feature is use if you have an application that requires a special file name to be used if a specific barcode value is detected. If you select this option you will need to select the Convert tab and specify what values you require for specific barcode data.

The rest of the File tab gives you options for selecting various components to add to the file name, i.e. date, scanning side, etc. There is also an option for placing a counter at the end of the file name.

As you select various option you can see what the format of the file name will be using the Filename ex.
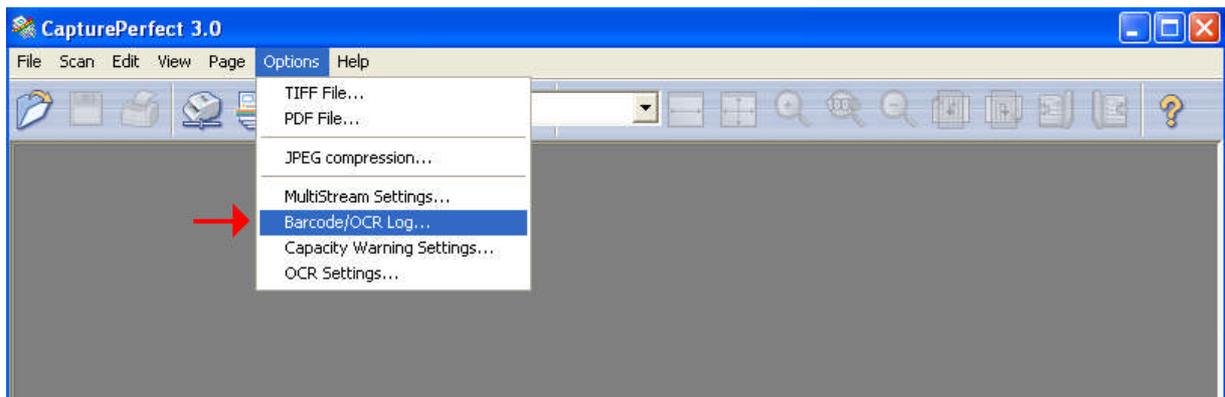
Filename:ex.

"BarcodeText"0001

Folder Tab

In this screen you have the ability to set how the folder name will handled. This only applies if you selected "Create Folder" feature in the Options/separator tab. The same rules apply for folder naming as for file naming described in the section above with the exception that there is no conversion feature available.

At this point you have completed the set up of the scanner driver and Capture Perfect.

Creating a log file
One final option that is available within Capture Perfect is the ability to place the barcode data into a log file. This log file is a CSV file that could then be imported into another application such as Document Management Software, for indexing purposes. This is selected under Options from within Capture Perfect:

At this screen you can select to use the log file, choose the location, and name the CSV file. Again, the use of the log file is optional.
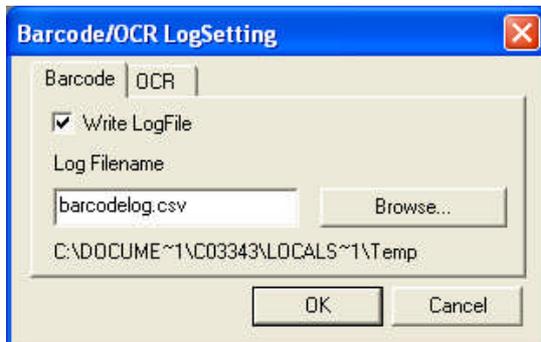
The log file will record the following information:
- Date and Time the file was created
- Location of the file
- Name of the file

Troubleshooting

<u>Problem:</u>
Barcodes are not being read.

<u>Possible Cause:</u>
- Enable Barcode is not selected from within the scanner driver
- Barcode separation is not selected from Capture Perfect
- A barcode type is being used that is not supported by Barcode Module III and Capture Perfect
- The wrong type of barcode is selected in the driver setting box
- Barcode is configured incorrectly, i.e. check bit
- Barcode is incorrect size
- Barcode orientation is set incorrectly

<u>Problem:</u>
Cannot start scanning once Batch Separation cinfiguation is completed from within Capture Perfect

<u>Possible Cause:</u>
There is nothing typed into the file name box. There must be at least one character.

<u>Problem:</u>
No folders are created. All files are placed into designated folder.

<u>Possible Cause:</u>
Nothing is selected in the Barcode Separator Settings box within Capture Perfect