

Softek Software Ltd

BarcodeFiler

Product Documentation



V2.10.7

1 Contents

2	Overview	1
3	Main Window.....	1
4	Options.....	3
4.1	Input.....	3
4.1.1	Folder and Options.....	3
4.1.2	Timer & Watch	3
4.1.3	Locked File Handling	3
4.1.4	File Name Patterns.....	3
4.1.5	File Types.....	3
4.2	Processing	3
4.2.1	Split Mode & Options.....	3
4.2.2	JPG Options	4
4.2.3	Output File Format.....	4
4.2.4	Exceptions	5
4.2.5	Character Filter	5
4.2.6	Reformat Barcode Values	5
4.2.7	Blank Page Removal	7
4.2.8	Timer & Watch	7
4.2.9	Command Line	7
4.2.10	Batches.....	8
4.3	Output.....	8
4.3.1	Folder and Options.....	8
4.3.2	Name Template.....	8
4.3.3	File Format	9
4.3.4	Sequence Numbers	9
4.3.5	Blank Page Removal	10
4.3.6	Exceptions	10
4.3.7	Processed Files	10
4.4	Folders.....	10
4.4.1	Input	10
4.4.2	Output.....	10
4.4.3	Processed	10
4.4.4	Exception.....	10

4.4.5	Logging	10
4.5	PDF	10
4.5.1	Image Extraction and Render	10
4.5.2	Signing	11
4.6	Barcode	11
4.6.1	Barcode Types (Barcode Recognition/Barcode Types)	11
4.6.2	Performance (Barcode Recognition/Performance)	11
4.6.3	Image Cleanup (Barcode Recognition/Image Cleanup)	11
4.6.4	Pattern Matching (Barcode Recognition/Pattern Matching)	11
4.6.5	Checksums (Barcode Recognition/Checksums)	11
4.6.6	Barcode Length (Barcode Recognition/Size of Barcode)	11
4.6.7	Advanced (Barcode Recognition/Advanced)	12
4.6.8	Zone (Barcode Recognition/Zone)	12
4.6.9	Reformat Barcodes Values	12
4.6.10	Character Filter	12
4.7	Log Files	12
4.7.1	Folder and Options	12
4.7.2	Custom Log File	12
4.8	License Key	13
4.9	Import, Export & reset Settings	13
5	Dynamic Folder Creation	14
6	Running BardecodeFiler from the Command Line	14
7	Running the BardecodeFiler Windows Service	14
7.1	Configuring the Windows Service	14
7.2	Starting and Stopping the Windows Service	15
7.3	Running additional BardecodeFiler Services	15
8	Purchase Information	16
9	Release Notes	17
9.1	Version 2.10.9.1	17
9.2	Version 2.10.8.1	17
9.3	Version 2.10.7.1	17
9.4	Version 2.10.6.1	17
9.5	Version 2.10.5.1	17
9.6	Version 2.10.3.3	17

9.7	Version 2.10.3.1	17
9.8	Version 2.10.1.1	17
9.9	Version 2.8.1.1	17
9.10	Version 2.7.2.1	17
9.11	Version 2.7.1.1	18
9.12	Version 2.6.3.8	18
9.13	Version 2.6.3.7	18
9.14	Version 2.6.3.6	18
9.15	Version 2.6.3.5	18
9.16	Version 2.6.3.4	18
9.17	Version 2.6.3.3	18
9.18	Version 2.6.3.2	19
9.19	Version 2.6.3.1	19
9.20	Version 2.6.2.1	19
9.21	Version 2.6.1.3	19
9.22	Version 2.6.1.1	19
9.23	Version 2.5.1.2	20
9.24	Version 2.5.1.1	20
9.25	Version 2.4.5.2	20
9.26	Version 2.4.5.1	20
9.27	Version 2.4.4.2	20
9.28	Version 2.4.4.1	20
9.29	Version 2.4.3.1	20
9.30	Version 2.4.2.1	20
9.31	Version 2.4.1.3	21
9.32	Version 2.4.1.2	21
9.33	Version 2.4.1.1	21
9.34	Version 2.3.3.2	21
9.35	Version 2.3.3.1	21
9.36	Version 2.3.2.5	21
9.37	Version 2.3.2.4	22
9.38	Version 2.3.2.1	22
9.39	Version 2.3.1.2	22
9.40	Version 2.3.1.1	22

9.41	Version 2.2.1.1	23
9.42	Version 2.1.1.1	23
9.43	Version 1.9.1	25
9.44	Version 1.8.1	25
9.45	Version 1.7.1	25
9.46	Version 1.6.1	26
9.47	Version 1.5.3	26
9.48	Version 1.5.2	26
9.49	Version 1.5.1	26
9.50	Version 1.4.4	26
9.51	Version 1.4.2	26
9.52	Version 1.3.2	26
9.53	Version 1.3.1	27
9.54	Version 1.3	27
9.55	Version 1.2.1	27
9.56	Version 1.2	27
9.57	Version 1.1	27

2 Overview

BarcodeFiler splits and renames TIF and PDF documents according to the barcode values found in the images. It is available as both a Windows application with a user interface and, at an additional cost, as a Windows Service.

BarcodeFiler can either read documents from an input folder or a user can select one or more files for processing via File/Open (ctrl-O). New documents are created in an output folder. The original documents are left intact by default, but there are options to move them to a different folder or delete them. The name of a new document is controlled by a template, which can include the original file name, barcode values and sequence numbers. Documents can either be left whole or split in sub-files according to barcode location

The barcodes can either be used as separators (where the presence of a barcode indicates either the start or end of a document) or a change in barcode value can be used to indicate a new document.

The application can also be run from the command line – see section 6.

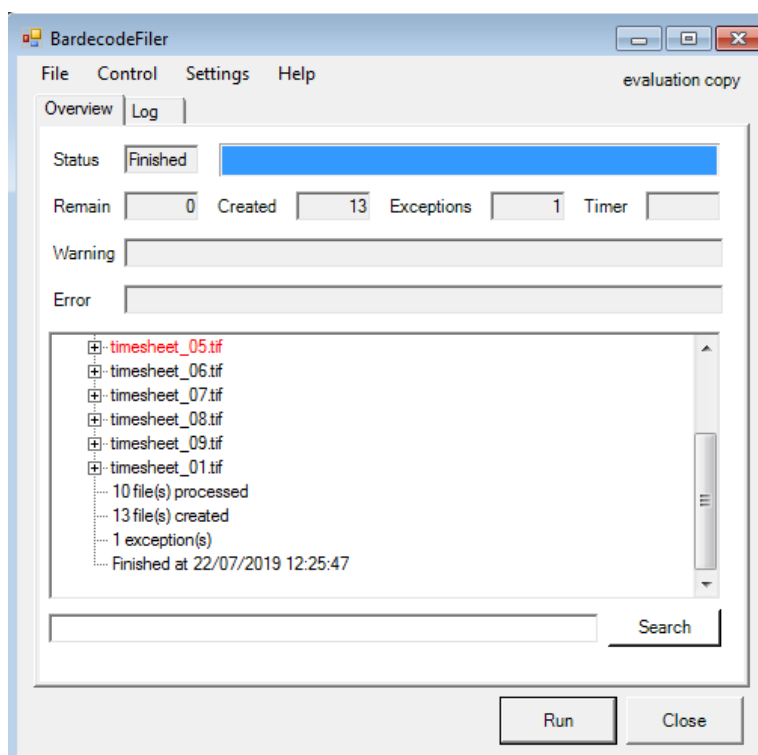
The first time you run BarcodeFiler it will launch a set up wizard. If you are familiar with setting up BarcodeFiler then you can click Cancel and use the Options screen to configure the software. The set up wizard walks you through each of the important settings for BarcodeFiler in a number of steps. Click on Finish at the end of the wizard in order to save your settings.

Important:

BarcodeFiler does not support TIF documents using type 6 compression (also known as old-style jpeg). Grayscale type 6 images will normally work but there is no support for full color type 6 images.

3 Main Window

The main window for the application is shown below:



File Menu

File/Open – open one or more files for processing.

File/Results – open previous result files or clear the results output.

File/Log – open the latest log file.

Folder Menu

Folder/Select – modify the input, output, exception, processed and log folder locations.

Folder/Open – open the the input, output, exception, processed and log folders in explorer.

Control Menu – Run or Stop a batch. Same as the Run/Stop button at the bottom of the main window.

Settings Menu

Settings/Options – access the option window for the application

Settings/Service Settings – access the settings for each of the 4 BardecodeFiler Windows Services (note that you should start BardecodeFiler as an admin user to make changes to the service settings).

Settings/Setup Wizard – run the BardecodeFiler set up wizard

Help Menu – access to this document and version information.

The upper part of the BardecodeFiler window shows status information for a batch and the lower half of the screen is reserved for output information for a batch in the form of a tree. The tree data for each batch is saved to a file in the log folder and can be reloaded at any time from the File/Results menu. Links to relevant files will appear at the bottom of the screen and can be clicked on to open files in Windows Explorer. The results tree can also be searched using the search box below the results.

The Run button on the main window will always process files from the input folder to the output folder.

4 Options

The Options window contains a tree menu on the left hand side that can be navigated to access the set up screens for BardecodeFiler.

The text box below the menu can be used to search the option screens. For example, type the word “convert” and it will display the page where you can select the output format.

4.1 Input

4.1.1 Folder and Options

Use this screen to select the input folder and associated options. Note that files are left in the input folder unless you configure the software to move or delete them after processing.

4.1.2 Timer & Watch

Configure the software to run every automatically, either after an interval or by watching the input folder for new files. Note that not all file systems support the folder watch.

4.1.3 Locked File Handling

Useful settings if the input file is locked at the time of processing or is not yet complete.

4.1.4 File Name Patterns

Use regular expressions to specify the patterns that input file names or folders must match.

4.1.5 File Types

Specify what types of files the software should process. The default is TIF and PDF.

4.2 Processing

4.2.1 Split Mode & Options

The split mode controls how the software will handle an input file.

- Split so each sub-file starts with a barcode.
- Split so each sub-file ends with a barcode.
- Split so each sub-file contains only the pages between barcodes.
- Split and only output the pages with a barcode.
- JPG mode - process jpg documents. Files are processed in the current sort order and the output template name is automatically set to %VALUES_%PAGE. An input file that contains a barcode is copied to the output folder as page 1 using the barcode value found in the file. If the next file contains no barcode then it is copied to the output folder as page 2 using the same barcode value. The process is repeated until a file is found to contain a barcode value, in which case it is used as page 1 again and the process repeats.
- Rename files based on barcodes from any page – no split. Don't split files – just rename each input file according to the specified template. If you only want to use barcode values from page 1 then check the box labeled “Only read barcodes on page 1”. This will increase the speed when processing multi-page images.
- Split on different barcode value - each sub-file starts with a barcode. Only split a document when a new barcode value is found. In this mode all the pages belonging to the same

document will have the same barcode value. Pages with no barcode are assumed to belong to the same document as the previous page that contained a barcode. Pages belonging to the same document must appear consecutively in the input file unless the [Append option](#) is enabled.

- Split at fixed intervals – using the interval specified against **Number of pages in a fixed split** the input file is split into equal parts (except for the final part which may contain fewer pages). Parts that contain a barcode are processed as normal but parts without are placed in the exception folder using the file template specified in the **Output Files/Exception Handling** window.
- Rename files based only on barcodes from final page - no split. Don't split files – just rename each input file according to the specified template using barcodes found on the final page.
- Rename files based only on barcodes from first page - no split. Don't split files – just rename each input file according to the specified template using barcodes found on the first page.
- Remove blank pages, no split no barcode reading. Don't split files or read barcodes – just remove the blank pages.
- Convert format only, no split, no barcode reading.

Other options available on this screen:

- Only read barcodes on page 1
- Process images with no barcode – when this is checked and no barcode was detected in a file then it assigned the value “NOBARCODE” and processed as normal using this value in the output templates.
- Number of pages in a fixed split - use the up down selection box to specify the number of pages in a fixed split.

4.2.2 JPG Options

Options in this screen only apply when the split mode is set to “JPG Mode”.

Check **JPG files are linked sequences of pages** if jpg input files, when listed in the current sort order, are pages of what is effectively a multi-page document. For example, if an input folder contains jpg files 1.JPG to 9.JPG and 1, 4 and 7 each contain a barcode. Then 2 and 3 will be filed using the barcode from 1, and 5 and 6 will be filed using the barcode from 4 and 8 and 9 will be filed using the barcode from 7.

Check **Retain barcode values and page numbers between runs in JPG Mode** if it is possible for additional linked JPG files to be added to the input folder between runs. For example, say the first run consisted of 3 files, 1.JPG, 2.JPG and 3.JPG, with a barcode in file 1. In this case files 2 and 3 would be filed using the barcode from file 1. Then if in the second run a file called 4.JPG was added to the input folder and contained no barcode, then file 4 would also be filed using the barcode from file 1. Note that this only applies for runs carried out in the same session, so if the application is exited between runs then the value will not be retained. This option is useful if the input folder may be modified during a run of the application.

4.2.3 Output File Format

Options to select the format for the output files.

4.2.4 Exceptions

Use this screen to control the templates for creating files in the exception folder.

4.2.5 Character Filter

This screen allows you to define the set of characters that may be used in either the %VALUE or %VALUES key words. Any character not in this set will be removed. Note that this filter is applied after any re-formatting of barcode values.

The Value separator character is used to separate the individual barcode values in the %VALUES key word.

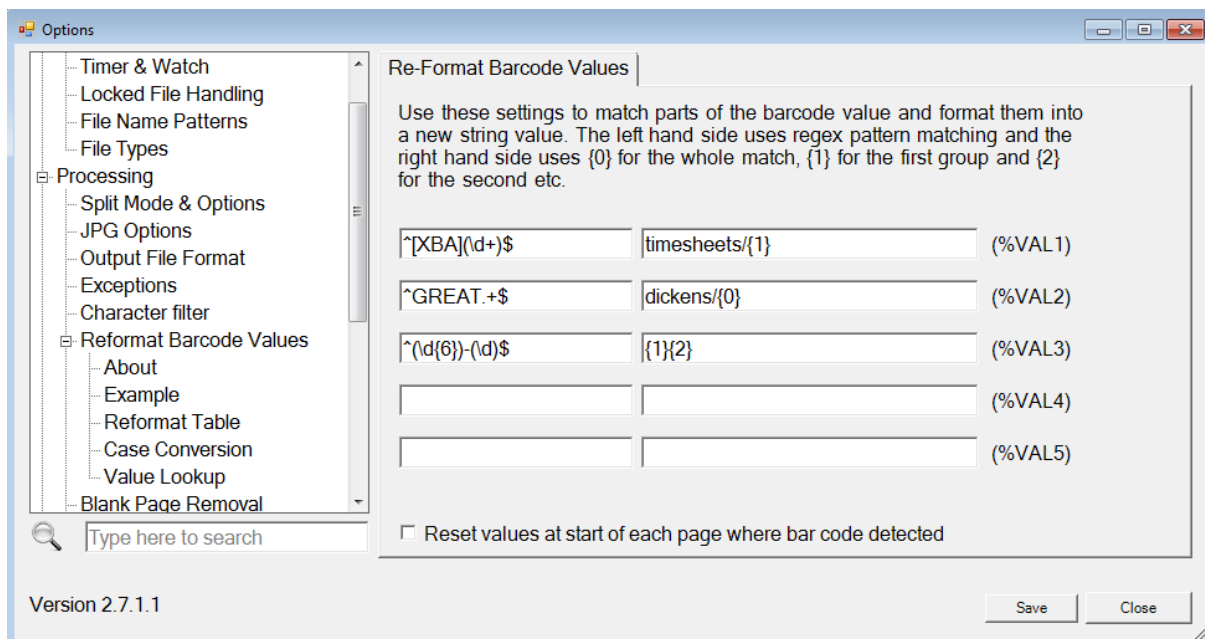
Check the **Replace tokens (e.g. %DAY) in barcode values** option if barcodes or reformatted barcode values may contain template tokens that need replacement. With this option checked it is possible to use the Re-Format tab to trap multiple patterns of barcode value and use a different template for each pattern.

4.2.6 Reformat Barcode Values

The screen provides a way to re-format barcode values using regular expressions and format strings. Do not confuse the regular expression in this tab with the one in the Barcode Opts tab.

The tokens %VAL1 to %VAL5 will be assigned to the re-formatted values and can be used in the templates or custom log.

The application supports up to 5 regular expression pattern matches and 5 corresponding format strings.



In the above screen shot there are 3 patterns being trapped:

`^[XBA](\d+)$` matches anything that starts with X, B or A followed by digits (e.g. X123456) and formats the value as “timesheets/{1}. The brackets around `(\d+)` mark out that part of the barcode

as a group and this can be used in the format string as {1} because it is the first group. So in this case an input of X123456 gives an output of timesheets/123456.

`^GREAT.+` simply checks to see if the barcode starts with the word "GREAT" and if so formats the output as "dickens/" followed by the value of the whole barcode. Note the use of `."+` to ensure that the rest of the barcode value is included in the match.

`^(\\d{6})-(\\d)$` matches barcodes in the format "NNNNNN-N" and removes the "-" leaving "NNNNNNN"

Note that in the first 2 reformats the output included a "/" character – which means that a sub-folder will be created under the output folder. In these cases the folders will be called "timesheets" and "dickens". Also, the input value is tested against each pattern until a match is found.

The output value is used in the %VALUE or %VALUES key words in the construction of the output templates.

The Regex matching string should be a valid regular expression that matches one or more groups in the input barcode string. The format string can be used to specify the output value by using the tokens {1}, {2}, {3} etc. for the matched groups from the regular expression.

Example 1:

Say the input barcode value is 0123456789 and you wish the output to be 012789 then the regular expression could be:

`(\\d{3})\\d{4}(\\d{3})`

And the format string would be {1}{2}

Explanation:

In a regular expression `\\d` matches any decimal digit and the following {N} means that it must occur N times. The () around part of the expression means we want to use this part in the format string – the first group corresponds to {1} and the second to {2} etc.

So in this example we have a group of 3 digits, followed by 4 digits we don't need, followed by another group of 3 digits.

Example 2:

Say the input barcode value is ABC1234-DEF/567 and you wish the output to be 567XYZ1234 then the regular expression could be:

`\\D+(\\d+)-\\D/(\\d+)`

And the format string would be {2}XYZ{1}

Explanation:

\D matches non-digit characters, in this case the ABC, (\d+) specifies a group of one or more digits (that's the + sign), then a hyphen followed by more non-digits, followed by a slash followed by another group of one or more digits.

Quick guide of common elements used in regular expressions:

[chars] matches any single character in *chars* e.g. [abc] matches a or b or c.

[^chars] matches any single character not in *chars*.

[first – last] matches any character in a range e.g. [0-3] matches 0,1,2 or 3

. (full-stop) matches any single character (except new line)

\w matches any word character e.g. ABC in AB.C

\W matches any non-word character e.g. (full-stop) in AB.C

\s matches any white space character

\S matches any non-white space character

\d matches any decimal digit

\D matches any non-decimal digit

(*expression*) defines a group that will be used as {1} or {2} etc. in the format string.

{N} after an expression specifies that it must occur N times.

{N,M} means it must occur between N and M times.

* means it can occur 0 or more times

+ means it must occur at least once.

^ can be used for the start of the string and \$ for the end.

Regular expressions are complicated but there is plenty of information available on the internet that can help in understanding how they work.

4.2.7 Blank Page Removal

The software can remove pages which appear to be blank from output files. The margin setting is the area around the outside of the page that should be ignored when determining if the page is blank.

4.2.8 Timer & Watch

Use this screen to enable a timer to run at a specified interval or select the option to watch the input folder for new input.

4.2.9 Command Line

Please refer to [Running BarcodeFiler from the Command Line](#) for more details.

4.2.10 Batches

In this screen you can specify external commands (.bat files) that will be executed at various stages of the process. Note that all parameters are enclosed in "" characters.

Pre-Run

This is launched just before the files in the input folder are processed. Note that the command is launched after the list of files in the input folder has been compiled.

Parameters: none

Pre-Process File

Launched just before a file is processed.

Parameters: input path

Barcode Value

Called for each recognized barcode after an input file has been scanned.

Parameters: input path, total number of barcodes, index number for this barcode, page where barcode found, value of barcode

Create Output File

Called each time an output file is created.

Parameters: input path, output path, start page from input file, end page from input file

Post-Process File

Called after a file has been processed.

Parameters: input path

Post-Run

Called at the end of the Run process.

Parameters: none

4.3 Output

4.3.1 Folder and Options

Use this screen to select the output folder location and associated options.

4.3.2 Name Template

The output file template controls the way in which new file names are allocated. The template can contain any valid file name characters, with the following keywords being replaced as follows:

- %ORIG is replaced by the name of the corresponding input file.

- %VALUES is replaced by the barcode values found in the input file that are relevant to the output file. The barcode values are concatenated together with current separator character between the values.
- %VALUE is similar to %VALUES except that one copy of the output file is generated for each barcode value.
- %FVALUES – bar code values from first page that contained bar codes.
- %PAGE is replaced by the separator page number in the input file.
- %INPAGES is replaced by the total number of pages in the input file.
- %OUTPAGES is replaced by the number of pages in the output file or being appended to an existing output file.
- %SUBFOLDER – name of sub-folder from which the input file was taken.
- %SEQ1 is replaced by a number (with no leading zeroes) – see [Sequence Numbers](#) for more information.
- %SEQ3 is replaced by a 3 digit number – see [Sequence Numbers](#) for more information.
- %SEQ6 is replaced by a 6 digit number – see [Sequence Numbers](#) for more information.
- %ORD is replaced by (N) where N is a number only if necessary to create a unique file name. e.g. If 123456.PDF already exists then 123456(1).PDF will be created.
- %YEAR2 is replaced by a 2 digit year value.
- %YEAR4 is replaced by a 4 digit year value.
- %MONTH is replaced by a 2 digit month value 01 to 12.
- %DAY is replaced by a 2 digit month-day value 01 to 31.
- %HOUR is replaced by a 2 digit hour value 00 to 23.
- %MIN is replaced by a 2 digit minute value 00 to 59.
- %SEC is replaced by a 2 digit second value 00 to 59.
- %VAL1 to %VAL5 are tokens generated in the [Reformat screen](#).
- %UID – unique id for each split in a batch
- It is also possible to use [Windows environment variables](#)

There are also options to reverse the order of barcodes used to create the %VALUES token and to send the file or sub-file to the exception folder if one of the %Val or %FVAL tokens used in the template are empty.

Windows environment variables may be used in templates using the following format:

`%ENV(windows_environment_variable_name)`

For example:

`%ENV(COMPUTERNAME)`

4.3.3 File Format

See [Output File Format](#)

4.3.4 Sequence Numbers

Sequence numbers are used according to the following selection:

- **Create unique file names:** In this mode the SEQ token will be replaced by a number, starting at 1 and increasing by 1 until a unique file name is created.
- **Index output files:** In this mode the SEQ token is set to 1 at the start of each batch and increases by 1 for each new file generated in the output folder.
- **Index input files:** In this mode the SEQ token is set to 1 at the start of each batch and increases by 1 for each file processed from the input folder.

Note that sequence numbers in the exception folder are always used to create a unique file name.

4.3.5 Blank Page Removal

See [Blank Page Removal](#)

4.3.6 Exceptions

See [Exceptions](#)

4.3.7 Processed Files

Files can be moved to a folder after processing. Use this screen to enable this option and select the location of the folder.

4.4 Folders

4.4.1 Input

See [Folder and Options](#)

4.4.2 Output

See [Folder and Options](#)

4.4.3 Processed

See [Processed Files](#)

4.4.4 Exception

See [Exceptions](#)

4.4.5 Logging

See [Folder and Options](#)

4.5 PDF

4.5.1 Image Extraction and Render

PDF files contain... tick if documents contain scanned or faxed images

Render PDF as... select the color depth that is most appropriate for your documents.

DPI – select the dots per inch value that most closely matches the scan quality of your documents.

Render documents to file... normally leave un-ticked but select to separate out the render process from the scan process.

4.5.2 Signing

It is possible to sign PDF files as they are created in the output folder by configuring the options in this screen:

Digitally sign PDF files – check this option if you wish to sign PDF files in the output folder.

PFX File – click the Browse button to select the PFX file to use for signing.

Password – the password for the PFX file.

Field Name – the field name to be used in the PDF file. The file signing will fail if this field is blank.

Reason, Location and Contact Info – optional information.

4.6 Barcode

4.6.1 Barcode Types (Barcode Recognition/Barcode Types)

Use this window to select the types of bar code you wish to read.

4.6.2 Performance (Barcode Recognition/Performance)

If you wish to read more than one bar code on a page then check the box labelled **Pages may contain more than 1 barcode**.

You may also set the time out for processing a page in a document. A value of 0 indicates no time out.

4.6.3 Image Cleanup (Barcode Recognition/Image Cleanup)

- **Noise Reduction** should be ticked if images contain small black marks in the spaces between bars.
- **Despeckle** should be ticked if the images also contains small white marks in the black bars.
- **De-Skew** should be ticked if the images contain skewed barcodes. Note that this slows down recognition of the barcodes.
- **Ignore 1 Pixel Gaps** should be ticked if the images contain tiny white marks in the black bars but no black marks in the spaces.
- **Median filter** should be ticked to apply a median filter to the image before processing.

4.6.4 Pattern Matching (Barcode Recognition/Pattern Matching)

Use this screen to specify a regular expression that the barcode value must satisfy. You can also specify if barcodes are numeric or if the barcode values must be in a numeric sequence.

4.6.5 Checksums (Barcode Recognition/Checksums)

If you wish to display checksum characters (the 13th digit on an EAN-13 bar code for example) then check the option **Output checksum characters where possible**. If you are processing Code 25 or Code 39 bar codes with checksums then check the option **Code39/25 barcodes contain checksum characters**.

4.6.6 Barcode Length (Barcode Recognition/Size of Barcode)

Use this window to enter the minimum and maximum lengths for your barcodes. This is useful for reducing the possibility of reading third party bar codes.

4.6.7 Advanced (Barcode Recognition/Advanced)

Advanced Flags give access to the underlying options in the barcode reading engine and should be set on advice by BardecodeFiler support.

LineJump is the frequency at which scan lines in an image are sampled. Higher values are faster.

4.6.8 Zone (Barcode Recognition/Zone)

Use this screen to select the zone in which your bar codes are located in your documents. Check the box labelled **Enable barcode zone** and then use the sliders at the edge of the page area to select the zone for scanning.

4.6.9 Reformat Barcodes Values

See [Reformat Barcode Values](#)

4.6.10 Character Filter

See [Character Filter](#)

4.7 Log Files

4.7.1 Folder and Options

Use this screen to enable or disable the default log files in the output folder. The results tree is the data displayed in the main window in tree format and for each batch is saved to a file called:

resultsTreeYYYYMMDDHHMMSS.dat

Options available:

- Create log files
- Clear down log files at start of each run
- Add date/time to log file name
- Add date/time and page count fields to results.csv
- Hide file details in tree until end of batch – improved performance for large batches
- Clear tree data at start of batch – clear the main window of older data when a batch starts.
- Save results tree for each batch – disable if performance is important
- Display previous results on start up – disable if performance is important

4.7.2 Custom Log File

If you would like to generate a custom log then enter the name of the log file and the format for each line using the following tokens:

- %ORIG – original file name without extension
- %NEW – new file name without extension
- %VALUES – concatenated barcode values
- %VALUE – individual barcode values (1 per line)
- %PAGE – page number from input file
- %VALn – nth value defined in the Re-Format tab.

If the Conditional Expression is used then it is evaluated as per the format but if, after evaluation, it is an empty string then the line is not written to the log file. For example, if you only want to write lines to the log file if either %VAL1 or %VAL2 are not empty then set the Condition Expression to %VAL1%VAL2.

4.8 License Key

Please use this screen to enter your license key or evaluation license key.

4.9 Import, Export & reset Settings

The Import/Export screen may be used to restore, load or save settings...

- Reset – restores all settings (*) back to default values.
- Import – loads settings from an ini file that has been previously exported from BarcodeFiler
- Export – saves settings to an ini file

* Apart from input/output/exception/processed folders and license key

Note: If you edit an exported “ini” file using Notepad then add a blank line at the top before the [Options] line to avoid problems when you come to reload the file (notepad adds an extra character at the start of the first line).

5 Dynamic Folder Creation

It's possible to use BardecodeFiler to dynamically create folders under the output folder according to data found in either the barcode values or the output template.

For example, a barcode value of "A/B/C/D/EFGHI" in a PDF document, with a template of "MY FOLDER/%VALUES" will result in a file called EFGHI.PDF in the folder "MY FOLDER/A/B/C/D" which (if necessary) will be created under the output folder.

6 Running BardecodeFiler from the Command Line

The BardecodeFiler application can also be called from the command line and within scripts. There are options to auto-start, auto-exit and to hide the application while it runs.

To work in this mode the application needs to be called as follows:

```
BardecodeFiler.exe <path to ini file>
```

Where the ini file is created by clicking on the "Create ini file" button.

e.g.

```
BardecodeFiler.exe c:\files\barcodefiler.ini
```

The following options apply:

- **Auto-Run** - automatically process files from the input folder.
- **Auto-Exit** - automatically exit after processing the input folder.
- **Hide window** – minimize application and remove from task bar whilst processing files.

Note that if Hide window is checked then Auto-Run and Auto-Exit will both be checked, and conversely, if either Auto-Run or Auto-Exit is un-checked then Hide window will also be un-checked.

7 Running the BardecodeFiler Windows Service

BardecodeFiler may be run as a Windows Service if a suitable license has been purchased or an evaluation license key has been entered (see section 8 for a purchase link). The standard installation creates 4 BardecodeFiler services, which can be used to handle different input and output folders. Additional services can be installed manually if required.

7.1 Configuring the Windows Service

The configuration file for the main BardecodeFiler Windows Service is stored under:

```
\ProgramData\Softek Software\BardecodeFiler\service_settings.ini
```

There are two ways to change the contents of this file:

1. To edit the existing settings: Start the BardecodeFiler application as Administrator and select Service Settings. Configure BardecodeFiler normally and click on Save.
2. To export your desktop settings to the service: Start the BardecodeFiler application as Administrator and click on Options. Select Import/Export & Reset Settings from the menu and click on Svc Export.

7.2 Starting and Stopping the Windows Service

The Windows Service is provided by the file:

`\Program Files\Softtek Software\BardecodeFiler\BardecodeFilerService.exe`

From the Control Panel select System and Security, Administrative Tools and then Services. Click on the service called "BardecodeFiler Service".

If you require the service to run with particular user permissions then select Properties from the Action menu, click on the Log On tab and enter the appropriate account details. You may also change the startup type from the General tab should you wish the service to start automatically at system boot.

You may start, stop or pause the service from the Action menu.

The main BardecodeFiler service will create a log file in `\ProgramData\Softtek Software\BardecodeFiler\BarFilerService.txt` which should be checked for any errors regarding license key or permissions.

7.3 Running additional BardecodeFiler Services

You can run an unlimited number of BardecodeFiler services subject to the resources available on a system.

Installation of BardecodeFiler creates 4 services called:

BardecodeFiler Service
BardecodeFiler Service(1)
BardecodeFiler Service(2)
BardecodeFiler Service(3)

Each service has its own settings file:

service_settings.ini
service_settings(1).ini
service_settings(2).ini
service_settings(3).ini

And each service has its own log file:

BarFilerService.txt
BarFilerService(1).txt
BarFilerService(2).txt
BarFilerService(3).txt

All the services are set to manual start up by default.

You can copy the contents of one settings file on top of another and share license keys between files.

To create additional services open an admin power shell or dos prompt and navigate to the BardecodeFiler installation folder and run...

```
BardecodeFilerService.exe -install N
```

Where N is the index number of the new service.

e.g.

```
BardecodeFilerService.exe -install 4
```

To remove a service run:

```
BardecodeFilerService.exe -uninstall N
```

Where N is the index number of the new service.

The new service will take settings from:

```
service_settings(N).txt
```

And use the log file:

```
BarFilerService(N).txt
```

8 Purchase Information

The BardecodeFiler application starts at US\$249 for one copy and can be purchased from the following URL:

<http://store.esellerate.net/softeksoftware/bardecodefiler>

BardecodeFiler with Windows Service costs US\$399 for one copy and can be purchased from the following URL:

<http://store.esellerate.net/softeksoftware/bardecodefilerservice>

9 Release Notes

9.1 Version 2.10.9.1

The Pre and Post Run batch processes now have the input and output folders as parameters.

9.2 Version 2.10.8.1

Added setting for an alternative command to cmd.exe when executing batch files

9.3 Version 2.10.7.1

Fixed error whereby tif documents containing Unicode characters (e.g Chinese characters) would not process.

9.4 Version 2.10.6.1

Fixed error whereby tokens were reset between images in JPG mode

9.5 Version 2.10.5.1

The Barcode reader engine DLL files have been updated to version 9.3.1.19 which may result in faster processing of some documents.

9.6 Version 2.10.3.3

The check box for adding the time stamp to the custom log file name now works correctly and the double "." in the file name has been corrected.

9.7 Version 2.10.3.1

Fixes an issue where BardecodeFiler Desktop could crash when run with an "ini" file.

9.8 Version 2.10.1.1

BardecodeFiler can now run as a 64-bit binary on a 64-bit system.

Stability fixes

9.9 Version 2.8.1.1

Users can now open specific files for processing (File/Open or ctrl-O).

The folder locations can now be modified via the Folder/Select menu (ctrl-shift-I for Input, ctrl-shift-O for output etc).

Files that have been recently modified can now be reprocessed as if they were locked (See new setting in Options/Input/Locked File Handling).

9.10 Version 2.7.2.1

Modified the way in which exceptions are handled to prevent the possibility of an infinite loop if an exception occurs when sending a file to the exception folder.

It is no longer possible to enable folder watch and a timer.

Prompts for conversion to a universal path are only given after the folder location has been modified by clicking on the "select" link.

9.11 Version 2.7.1.1

When selecting an input, output, processed, exception of logging folder the application will now prompt to convert the path from a local path to a universal path.

Option to include folder locations when importing settings.

The application has a new menu structure with a more logical division of settings into categories.

All details are displayed correctly in the results tree when Create Log Files has been un-ticked.

An Alphanumeric sort order option has been added. Using this option file2 would be processed before file11 for example.

Options for blank page detection and removal added.

Added option to specify seconds (not just minutes) between auto-runs.

The following new split modes have been added:

- Rename barcodes based on barcodes from first page - no split
- Remove blank pages – no split, no barcode reading
- Convert format only – no split, no barcode reading

9.12 Version 2.6.3.8

Updated SoftekBarcodeDLL.dll to version 9.1.1.9.

9.13 Version 2.6.3.7

Fixed bug when using split mode “split on different barcode value”

9.14 Version 2.6.3.6

Updated versions of Softek Barcode SDK and Debenu DLL files.

9.15 Version 2.6.3.5

Reprocessing of locked or incomplete files now works correctly and the error message box is cleared at the start of every file.

9.16 Version 2.6.3.4

Additional options added to custom log screen to turn on/off logging for the output, processed and exception folders.

Added new token %DEST that indicates the type of folder being written to (OUTPUT_FOLDER, PROCESSED_FOLDER or EXCEPTION_FOLDER).

9.17 Version 2.6.3.3

Fixed issue with reset reformat table values on pages with barcodes.

Added new Conditional Expression option on Custom Log. If the Conditional Expression evaluates to an empty string then the custom log is not written.

9.18 Version 2.6.3.2

Files that require reprocessing (e.g a locked PDF file) are only sent to the exception folder once all retries have been exhausted.

9.19 Version 2.6.3.1

The Debenu PDF library has been upgraded to 1711

The Softek Barcode reader DLL has been upgraded to version 8.4.1

There is now a choice of 3 render engines to choose from in PDF Options/Rendering.

The render options are no longer greyed out if the “PDF files contain scanned or faxed images...” option is ticked. This is because pages that contain more than 1 image or a mixture of image, vector and text will always be rendered.

Fixed the extra underscore problem if ‘Reverse Values’ is selected in Output Files/Name Template.

Fixed error that could cause a crash when the Remove unused images option is selected in PDF Options/Split.

PDF documents that cannot be opened due to a format problem will now be sent to the exception folder.

9.20 Version 2.6.2.1

2 new options have been added under Options/Log Files/Enable Disable:

Hide file details in tree until end of batch – do not display details for each file processed in a batch until the batch has completed.

Clear tree data at start of batch – clear all tree data when a new batch starts.

9.21 Version 2.6.1.3

When running BardecodeFile from an ini file the DisplayPreviousResults setting is now automatically disabled. Version 2.6.1.1 would crash when running from an ini file if this property was enabled or not set.

9.22 Version 2.6.1.1

The main window has been redesigned to display the output from a batch in an easy to read tree structure, with information split into nodes that can be expanded to reveal more information as required. Exceptions, warnings and errors are high-lighted in red. The results for each batch are saved and can be reloaded at any time (including results from the Windows service).

The log file has been moved to a separate tab and given more structure with date/time stamps.

Option added to automatically assess number of input files (Options/Folders/Locations/Calculate number of input files on startup).

Windows service version and desktop versions using “ini” files can now handle Unicode characters in folder paths.

Updated the SoftekBarcodeDLL.dll to version 8.3.3.3

Updated Debenu/Foxit Quick PDF Library to version 1613

9.23 Version 2.5.1.2

Updated SoftekBarcodeDLL.dll to version 8.3.3.2. This can improve the speed of processing for multi-page documents where only 1 bar codes needs to be recognized per page.

9.24 Version 2.5.1.1

The splitting process for large TIF and PDF files has been improved.

9.25 Version 2.4.5.2

Fixed bug that could cause a crash on Windows 10 for certain PDF documents.

9.26 Version 2.4.5.1

Fixed bug whereby zero length temporary files were left in a users temporary file folder.

9.27 Version 2.4.4.2

Fixed installation error for the additional BardecodeFiler services.

Existing installations can be fixed by running a command prompt as admin and navigating to installation folder (normally c:\Program Files\Softek Software\BardecodeFiler) and running:

```
BardecodeFilerService.exe –uninstall 1
```

```
BardecodeFilerService.exe –install 1
```

...and repeat for services 2 and 3.

9.28 Version 2.4.4.1

Updated Debenu to version 15.11

Updated Softek Barcode Reader SDK to version 8.3.2.1

9.29 Version 2.4.3.1

Option added in Output Template screen to raise an error if an empty %VAL or %FVAL token is used in the output template.

Upgraded Debenu to version 14.11

Upgraded the Barcode Reader engine to version 8.3.1

9.30 Version 2.4.2.1

BardecodeFiler now uses the .Net 4 framework.

Option for adding date/time and page count fields to results.csv log file.

Added %UID token – this holds a unique id (within a batch) for each split and can be used for collating sequencing of jpg files with separator sheets into multi-page PDF or TIF files.

The version of the Debenu library has been upgraded to 13.12.

Direct access Debenu functions are now used where possible, which allows processing of larger files.

The FVALUE token now has invalid characters filtered correctly.

The output folder for barcodefiler.log, results.csv and custom log files can now be set in Options/Folders/Locations.

Error codes returned from the scanning process are now displayed correctly.

Fixed error in the Windows Service whereby if Watch Folder was enabled then the system set both a timer and watched the folder, resulting in potential for deadlock if the folder was changed during a batch run.

9.31 Version 2.4.1.3

Fixed an “Error 87” error in the additional BarcodeFiler services. Users upgrading from a previous version will need to deinstall the old version, reboot and then install the new version.

9.32 Version 2.4.1.2

Fixed an invalid argument exception error if the input folder was not capable of being “watched” as a hot folder. This error occurred whether or not the hot folder option had been enabled.

9.33 Version 2.4.1.1

The input folder can now be watched for input as an alternative to using a timer. When BarcodeFiler sees a new file appear in the folder then it will react as if the Run button had been pressed.

External commands can now be launched at various stages of the process.

New tokens added:

- %INPAGES is replaced by the total number of pages in the input file.
- %OUTPAGES is replaced by the number of pages in the output file or being appended to an existing output file.

9.34 Version 2.3.3.2

BarcodeFiler has reverted to .Net 3.5 in order to support a wider range of Windows versions.

9.35 Version 2.3.3.1

BarcodeFiler now supports [multiple Windows Services](#).

9.36 Version 2.3.2.5

Added option for MedianFilter in Image Clean Up

Added options in Pattern Matching:

Numeric values – when checked barcodes should be numeric only.

Sequential values – when checked barcodes should be both numeric and in sequential order. For example, if the first barcode has value 00256 then the second should have value 00257 etc. If a barcode value is detected that is between 2 barcodes that are in the sequence then this value will be removed. For example, if the barcode read from a document are 00256, 00257, 00258, 52415,00259,00260 then the 52415 value will be removed.

9.37 Version 2.3.2.4

Updated Debenu library to version 12.12.

Updated Softek barcode DLL files to version 8.1.2.6.

Locked PDF files are now detected correctly.

Input files are no longer deleted if an error occurred when creating an output file.

Fixed page range bug where by the first page of a document is incorrectly removed when all of the following conditions apply:

1. Split mode set to “Split, so each subfile contains only the pages between barcodes”
2. An input file contains no barcodes
3. The “Process images with no barcode” option if checked.

9.38 Version 2.3.2.1

Added support for [Windows environment variables](#) in the output name template.

The descriptions for the different [split modes](#) have been changed in Options/Splitting/Mode and a new splitting mode has been added:

- Rename files based only on barcodes from final page – no split

Options added to Options/Splitting/Mode screen to allow the first page of a multi-page input file to be discarded when the output files are created.

It is now possible to digitally sign PDF documents in the output folder using a PFX file.

An option to remove unused images from split PDF files has been added.

It is now possible to convert PDF to TIFF as files are created in the output folder and JPG files can now be converted to PDF.

9.39 Version 2.3.1.2

- Make auto-exit option work correctly when running from an “ini” file.
- Update version of SoftekBarcodeDLL.dll to 8.1.1.11.

9.40 Version 2.3.1.1

- Change to the format of the data written to the console window.
- Change to File menu to include access to Service Settings

- Change to Import/Export screen to allow export of settings to Windows Service settings.
- Addition of BardecodeFiler Windows Service (licensed at additional cost)

9.41 Version 2.2.1.1

- Faster processing of multi-page documents.
- Progress bar display for the current document.
- Ability to stop the processing of a document part way through.

Important note regarding performance:

The bar code engine used by version 2.2.1.1 uses the Debenu PDF toolkit directly and to take advantage of the processing power of a multi-core system it is recommended that the options on the PDF Options page should be reviewed after installation. Fastest performance will be achieved by checking the option “PDF files contain scanned or faxed images...”. Note that even if this setting did not work for your documents in previous versions it may well work OK in this version because the underlying PDF engine is different. If this option is not selected then it is recommended for performance reasons that “Render documents to file before scanning” is un-checked.

9.42 Version 2.1.1.1

Highlights:

- Process input sub-folders
- Option to only process new input files
- Append to existing documents
- Ability to configure scanning zone on a page
- Use look up tables to convert barcode values
- Set up wizard for easy start
- New tree structure for options

Performance options (IMPORTANT CHANGE FOR EXISTING USERS) – It is assumed that pages contain no more than a single bar code unless the option called “Pages may contain more than 1 barcode” is checked under Options/Barcode Recognition/Performance. On the same page there is also a time out for the length of time taken to process a single page.

New Template Tokens

%ORD – ordinal number. An alternative to %SEQ but where an index number is only added to a file name if necessary to make it unique. For example, say the output template is %VALUES%ORD and %VALUES is “ABC123” then the application will first try to create a file called “ABC123.PDF”, but if this already exists then it will try “ABC123(1).PDF” and then “ABC123(2).PDF” etc until a unique name is created.

%SUBFOLDER – input sub-folder name. The name of the sub-folder from which the input file was taken.

%FVALUES – Value of %VALUES for the first page found to contain barcodes in a document.

%FVAL1 to %FVAL5 – Value of %VAL1 to %VAL5 for the first page found to contain barcodes in a document.

%HOUR – Hour, 00 to 23

%MIN – Minute, 00 to 59

%SEC – Second, 00 to 59

Scan Zone – it's now possible to select the area of an image in which to scan for barcodes, via Options/Barcode Recognition/Zone

Documentation link – via the File menu.

Look Up Tables

It is now possible to use a look up CSV or TSV file to convert barcode values as they are read under Options/Reformat Barcode Values/Value Lookup. The table should consist of 2 columns; The barcode values are compared against values in column 1 and if a match is found they are changed to the value in column 2. There is an option to create an exception if no match is found in the table.

PDF Raster Conversion – the default color depth has now been changed from black and white to grey scale.

Processed folder template – the template for creating files in the processed folder is now set to %ORIG%ORD.

License key – the license key no longer needs to be entered into an ini file if it has already been entered into the application when run normally. i.e. The application will check the registry for a license key if one is not found in the ini file.

Relative paths for ini file – BardecodeFiler now fully supports relative paths to ini files

Append to existing files – BardecodeFiler is now able to append documents to pre-existing TIF and PDF documents. See Options/Folders/Options.

RegEx patterns can now be specified for the input file name and folders. See Options/Folders/Patterns.

Input folder processing – file can be sorted for processing in alphabetic, creation or last modification order. See Options/Folders/Options.

Only process new files – option added to only process new files added to the input folder since the last process run. See Options/Folders/Options.

Case conversion in barcode values available in Options/Reformat Barcode Values/Case Conversion.

Unicode support for input and output file paths.

9.43 Version 1.9.1

PDF documents are now split in such a way as to preserve searchable data and other properties of the original file. An option has been added to the PDF tab in Options to allow the old method to be used if needs be.

It is now possible to reset options back to default values and import/export settings through the Import/Export tab in Options. Note that folder values and the license key are not over-written on reset or import.

Fixed interval split mode now works as expected, including the case when the “Process Images with no barcode” option has been checked.

Template tokens have been added for the current date (%YEAR2/%YEAR4/%MONTH and %DAY).

Template tokens can now be included in barcode values or reformatted barcode values (using the Re-Format tab in Options).

Improved support for TIF documents using Type 6 (old style jpeg) gray-scale compression. Please note that there is still only limited support for TIF documents using full color documents compressed using old style jpeg.

9.44 Version 1.8.1

Fixed interval split mode – new split mode added that splits the input file at every nth page. Parts of the input file that contain no valid barcode are put into the exception folder using a separate template.

Removal of characters from barcode values - a new “Char-Set” tab has been added to the Options window where the valid characters for use with %VALUE and %VALUES can be specified.

Formatting of the barcode value – a new “Re-Format” tab has been added to the Options window. This tab allows the reformat of a barcode value before it is used with the %VALUE or %VALUES key words and defines up to 5 new key words %VAL1 to %VAL5.

Custom Log tab added to allow the creation of log, csv or txt files using token values such as %VALUE or %VAL1 etc.

Size of output PDF documents – a bug where by the physical dimensions of an output PDF document was different to the input PDF document has been resolved.

9.45 Version 1.7.1

Added support for QR-Code.

Added timer option for automatic processing of the input folder

Supports Dynamic Folder creation (see section 4 for more details)

Fixed problem where some settings only came into effect after a restart.

Added SEQ1 template option that adds a sequence number with no leading zeroes.

Creates results.csv file in the output folder. This file holds the barcode values from the input files.

9.46 Version 1.6.1

The options screen has been re-arranged using tabs and the input, output and exception folder boxes have been moved onto the first tab from the main window. A new “Processed” folder has been added, with an option to move the input files into this folder once they have been processed. Another option to allow the over-write of output files has also been added.

Changes to the components used to load images into memory mean that TIF and JPG documents process faster. PDF files created by scanning or faxing will also process faster if the new option “PDF files contain scanned or faxed images” is ticked in the PDF Options tab.

A new split mode has been added, “Split on different barcode value “, which only splits a documents when a new barcode value is found.

A problem whereby the application slowed down as sequence numbers increased has been fixed.

Added %VALUE template option.

9.47 Version 1.5.3

Improved exception handling.

9.48 Version 1.5.2

Added Advanced Flags option.

9.49 Version 1.5.1

Added support for processing jpg files (see section 3.1 for more detail).

Enhanced output saved to log file.

Replaced “split-mode” radio buttons in options with drop down list box.

9.50 Version 1.4.4

Removed reliance on Visual C++ redistributable package, which also means that the application will now work on x64 systems.

Added option to only process barcodes on page 1 of input file.

Added the full stop character to the list of acceptable characters for the output file name.

9.51 Version 1.4.2

Changed auto-run to also use one argument – the path to an ini file, which can be created by clicking on the “Create ini file” button.

Added option to only split out pages containing a barcode.

9.52 Version 1.3.2

Corrected error in the creation of the output file path, which resulted in two “.” characters before the file extension.

9.53 Version 1.3.1

Added color depth options for PDF output.

9.54 Version 1.3

This version is capable of handling TIF and PDF files, and can also output in either the original format, or convert to PDF.

Changed buttons for selecting input, output and exception folders to links and added links to allow the user to browse the contents of the folders.

Added "Output Format" section in the Options dialog.

Fixed some logic errors splitting files with no barcode on page 1.

Added option to process files containing no barcode into the output folder.

Added option to delete input files as they are processed.

9.55 Version 1.2.1

Changed behavior when an output file already exists and the template does not include a sequence number. Previous versions would report the error and halt processing whereas this version will copy the input file to the exception folder and continue processing.

9.56 Version 1.2

Added ability to auto-run from command line. Options to auto-start, auto-exit and to hide the window when running.

Added Line-Jump option to control speed of execution.

Added field for user to enter a trial license key.

9.57 Version 1.1

First release