

## **What is SoftWriting**

If you have notes, documents, interview notes, minutes of meetings, lecture notes, assignments or any other handwritten documents, SoftWriting can help you turn them into Word documents or text files, fast and easy. Once these documents are converted, you will be able to view and modify them using the word processor of your choice.

SoftWriting uses an advanced Intelligent Character Recognition (ICR) Engine, to give you the best possible results when converting your handwritten documents to printed text. SoftWriting also enables you to review the converted documents and change or verify any words that SoftWriting is not confident about their accuracy. This is a very quick process, which means that you will have your documents ready in no time.

## **What is a Character Recognition Engine**

A Character Recognition Engine is a software program that examines an image containing text and by analyzing the image, determines what the characters are. SoftWriting has a built-in Character Recognition Engine that is specifically suited to examine non-cursive handwriting. SoftWriting's Character Recognition Engine is special in that it does not need many samples of your handwriting in order to learn your handwriting and then uses this information when analyzing your documents. Since every person has unique handwriting, SoftWriting's learning ability means that it can recognize handwritten characters exceptionally well.

## **How does SoftWriting work**

If you have handwritten papers that you would like to convert to text file, SoftWriting is your solution.

The required process is as follows:

1. You scan your papers directly into SoftWriting or you can open files that contain your scanned documents (scanned documents should be in black and white TIFF format).
2. SoftWriting will then process your documents and convert the characters into printed characters.
3. Once finished, SoftWriting displays the document, highlighting words whose correctness is below a threshold confidence level.
4. You have the ability to correct words or leave them as they are.
5. Finally you can save the document in a format that is recognizable by most word processors.

## **General concepts of SoftWriting**

SoftWriting's ICR learns text written by each individual and constructs a learning base for him. The learning base consists of two different parts: One part contains information on the particular form of each character written by the user. The second part accumulates information on the user's vocabulary. These two kinds of information are unique for every user and are useful in the ICR's decision making procedure. The base reaches saturation after learning a large enough sample of every character and a large enough number of words, respectively. This goal is achieved in several steps:

1. Three pages (about 300-500 words) of text supply information for constructing an elementary data base. At this point one has a not very bad data base for lower case letters.
2. SoftWriting continues to learn, enlarges its data base and improves its performance, as work goes on. In particular, upper case characters and digits are learnt rather slowly, as relevant information accumulates.
3. The user's vocabulary data base is constructed in a similar manner.

This procedure explains why SoftWriting is expected to improve with time, until saturation is achieved.

SoftWriting is sensitive to false information supplied at the beginning of the learning stage. Therefore, while processing the first 10 pages (approximately), users are requested to correct carefully uncertain words. These corrections are learnt and specific form of each character is added to the data base. In so doing, the ICR is able to recognize more confidently specific character (whose form looks similar to the learnt one) in further encounters.

## **System specification**

A PC equipped with an Intel 486 or Pentium (or compatible) microprocessor and configured with 16 megabytes (16 MB) of random access memory (RAM).

- Microsoft Windows 95, Windows 98, Windows ME or Windows NT
- A hard disk with a minimum of 5 megabytes of free space

Note You will also need space for any images you want to store.

## **Scanner support**

SoftWriting supports most popular desktop scanners and other input devices through the TWAIN interface standard. SoftWriting is compatible with any TWAIN-compliant scanner that can scan in colors, gray or black and white between 200 and 300 dpi. Your scanner manufacturer supplies TWAIN drivers.

## **Working modes**

Page Mode – displays an image of one page at a time.

Proofread Mode – displays the page image as well as the converted text and enables correction of the text.

Preview Mode – enables viewing of multiple pages and enables reordering of pages.

## **Using help**

SoftWriting provides you with context sensitive help. This means that SoftWriting senses what you are trying to do and will attempt to give you the required help information. Once the Help window opens, you can browse all the help topics available or search for a particular word using the index.

Context sensitive help is provided when you press F1 from any screen in SoftWriting. The Help window will open and display the most appropriate help topic.

## **Languages**

To install new dictionaries for recognition please read the page <http://www.charactell.com/docs/languages.htm> and follow the instructions.

## Registration

In order to be able to work with SoftWriting after the evaluation period expired, you need to have a **registration number**. The registration number will be given to you after you purchase the product.

If you purchased the product from our website, CharacTell will send your registration number to your email address. This number is also shown on your browser in the end of the purchase process.

If you purchased a CD, the registration number is shown inside the CD box.

The registration number contains 14 digits.

After you provide the registration number, you will need to approve each writer. See [Profile approval and advanced registration](#) for more details.

## Profile approval and advanced registration

For each registration number CharacTell keeps a record that contains the number of writers that are allowed to use SoftWriting.

This information is shown in the **Licenses** tab of the "Approve writers" dialog.

Each writer who wishes to work with SoftWriting after the evaluation period expired, needs to *make an approval*. Once the writer was approved, SoftWriting will send this information to CharacTell's web-site. For each registration number there is a limit on the number of approved writers. You will not be able to approve more writers than the limit that you have for your registration number. If you wish that additional writers will be able to use SoftWriting, you need to buy a new license and *Add* it in the **Licenses** tab.

To approve a writer, select *Approve writer* from the main menu. In the **Writers** tab you can click on the writer(s) that you want to approve, and then click on the *Approve* button.

If you mistakenly approved a writer, send an email to [support@charactell.com](mailto:support@charactell.com).

## Welcome screen

The Welcome screen is the first screen that will be displayed when you start the SoftWriting application. In this screen you are required to select your profile, or, in the event that you are converting someone else's document, the profile of the person who wrote the documents. You will also need to select the language and the case of the documents being converted.

We recommend that new users will see the demo using the demo button. The demo takes about 3-4 minutes, and it demonstrates the concepts and the screens of SoftWriting.

If you do not have a profile or you wish to convert someone else's writing and that person does not have a profile, you must create a profile first. See [Create a new Writer Profile](#)

### Writer's name

The name of the writer whose documents you wish to convert. Select your profile name if you are converting documents written by you, or, another person's name if you are converting their documents. For each writer profile created, SoftWriting learns the writer's unique handwriting characteristics.

### Language

The language in which the documents you wish to convert were written in. Initially SoftWriting will only be available in English but later on in other languages as well. You will however, be required to teach SoftWriting your hand writing for each language you want to convert.

### Case

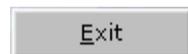
The case in which the documents you wish to convert were written in. This can be Mixed for documents containing both upper and lower case or Upper for documents written only in uppercase.



Starts the SoftWriting application with the profile selected in the Writer's name text box.



Create a new profile



Close the SoftWriting application and return to Windows

## **New User screen**

The New User window is used to define the name of the writer profile you are creating. See [Create a new Writer Profile](#)

### **Existing writers**

These are profiles which have already been created

### **New writer's name**

The name for the new profile being created. The name cannot be the same as an existing writer

## Main screen - before converting to text

The SoftWriting main screen is where you will do most of your work. The screen will appear different before conversion and after conversion of your documents.

Before conversion of your documents, the following buttons are available:



Start a new session and a new document



Save the converted text in Word format or standard text format



Select the profile corresponding to the writer whose documents you wish to convert. See [Selecting the writer profile](#)



Open SoftWriting's online help. See [Using help](#)



Display only one image in the work area.



Display all pages in the work area



Load the documents you wish to convert. See [Add page to document](#)



Convert the pages loaded to text and display the for proofreading. See [Convert to Text](#)



Zoom in to magnify the image



Zoom out to reduce the image size



Rotate the image by 90 degrees each time



Pick the tool to add a new picture region. Such region will be saved as an image. After you picked this tool you can define a region with the a mouse drag.



Pick the tool to add a new ignore region. Such regions will be ignored by the recognition engine. After you picked this tool you can define a region with the a mouse drag.



Pick the tool to delete regions. After you picked this tool you can click on a region and it will be deleted.

## Main screen - after converting to text

The SoftWriting main screen is where you will do most of your work. The screen will appear different before conversion and after conversion of your documents.

After conversion of your documents, the following buttons are available:



Start a new session and a new document.



Save the converted text in Word format or standard text format



Select the profile corresponding to the writer whose documents you wish to convert. See [Selecting the writer profile](#)



Open SoftWriting's online help. See [Using help](#)



Display only one image in the work area



Display all pages in the work area



Load the documents you wish to convert. See [Add page to document](#)



Convert the pages loaded to text and display the for proofreading. See [Convert to Text](#)



Zoom in to magnify the image



Zoom out to reduce the image size



Rotate the image by 90 degrees each time



Change a word to a bullet. This can be done to the first word in a line.

Accept

Accept the word as correct. If the word is colored in blue it will now be colored in black and the cursor will jump to the next blue word. Accept is the same as pressing the <ENTER> key. See [Accept a suspected word](#)

Decide later

Leave the word as is and move the cursor to the next blue word. See [Ignore suspected word for the time being](#)

Keep as image

Replace the word with an image containing that word in handwriting. See [Include word as image](#)

Merge with next

Merge the word with the following word. See [Merge words](#)

Undo merge

Undo the most previous merge. See [Undo merged words](#)



## **Proofread screen**

Once you have completed proofreading your document you can do one of the following:

<b>Save document As...</b>	Save the text as a Word or standard text file
<b>Save later</b>	Return to the session without saving the document
<b>Add page</b>	Load another page to be converted
<b>Reorder pages</b>	Display the pages in Preview mode where they can be reordered

If you have completed the documents required for learning, this screen will only have two buttons:

<b>Learn now</b>	Complete the learning of this document
<b>Return to revise</b>	Continue proofreading the document

## **Document complete screen**

This screen has two sections. The first section asks you whether you want SoftWriting to open the saved document in your word processor application. The second section asks you if you wish to stay in current session, start a new session or close SoftWriting.

Note: these two sections do not affect each other. It does not matter whether you choose to open the word processor or not, you can still choose any of the three options in the second section

### **Open in default word processor**

This option will open your word processing application and display the document you have just saved.

### **Do not open word processor**

This option tells SoftWriting not to open the word processing application

### **Start a new session**

SoftWriting will close the current session and start a new one. This is the same as clicking the New Document button

### **Stay in current session**

SoftWriting will not close the current session so you can go back and edit the document

### **Close**

the SoftWriting application will be closed

## Create a new Writer Profile

Any person who wishes to have SoftWriting convert their handwritten documents will be required to create a profile for themselves. The profile specifies the writer's name. Only documents written by that writer should be converted using this profile. Using a profile to convert documents written by other writers will significantly reduce the character recognition rates

To create a new profile

- Click the New button in the Welcome screen
- In the New User window which appears, enter the writer's name and click OK. You will be returned to the Welcome screen
- Select the language and the case (mixed or upper case only) of the documents you are about to convert
- Click the Select button

## Learning a writer's handwriting

There are a number of situations where SoftWriting needs to learn a writer's handwriting

1. When creating a new user profile
2. When selecting a language that has not been learnt before  
For example: SoftWriting has learnt your English writing and now you wish to convert documents written in Spanish. (This feature will be available in the near future as SoftWriting supports more languages)
3. When selecting a case (mixed or upper) that has not been learnt before  
For example: SoftWriting has learnt your documents written in Mixed case and now you wish to convert documents written in Upper case

When you are in the Welcome screen and you create a new profile, or specify a language or case that has not been learnt before, once you click the Select button, SoftWriting will notify you that it is necessary to perform the activities required for learning

## **The handwriting learning steps**

When you click the Select button in the Welcome screen, if SoftWriting needs to learn the writers handwriting, the SoftWriting wizard will appear. The wizard will notify you of the steps required to complete the learning process.

## Starting the SoftWriting application

To start the SoftWriting application

- Double click on the SoftWriting icon. Alternatively, you can open the SoftWriting application from the Window's Start menu by pointing to the folder containing the SoftWriting application.

See Windows Help if you require more assistance with this operation.

Once started SoftWriting will display the Welcome screen that enables you to select the writer profile or to create a new writer profile. You will need to create at least one writer profile before you can start using SoftWriting.

If your desired profile has already been defined, select it from the list and click the Select button to open SoftWriting's main window

## Selecting the Writer Profile

Once started, SoftWriting will display the Welcome screen that enables you to select the writer profile or to [create a new writer profile](#).

To choose a writer profile

- select the desired writer profile, the language and the case (mixed or upper case only) from the drop down list on the Welcome screen
- Click the Select button

To change the writer's profile from within the main SoftWriting window

- Click the select writer's name button  on the toolbar or choose Select Profile from the Process menu

For more information, see [Select a different writer](#).

When you convert the images to text, SoftWriting needs to know who wrote the papers it is trying to convert. Therefore, you must make sure that you are using the correct writer profile, i.e. the profile of the person who wrote the papers you wish to convert.

## Open a new document

SoftWriting refers to the paper images you supply it, as pages, while a document refers to both the images and the text extracted from these images. When you start SoftWriting, it automatically starts with a blank new document and is ready for you to add pages either from a scanner or from a file. You can add many pages to a document.

To open a new document

- Click the new document button  or select New Document from the File Menu

Tip: you can also use CTRL +N as a shortcut

Opening a new document is a little bit like cleaning out your work area

## **Add page to document**

When you first open a new document it includes no pages and no converted text. Before you can convert the contents of a page to text, you must add that page to the document. Adding a page to a document can be done by scanning the page or by selecting a file containing the page.

To add a page to the document click on the Add page button or select Add page to document from the Process Menu.

The Select Source window will appear asking you whether you want to add the page using a scanner or from a file:

Note: You can add pages to the document at any time. Even if you have already converted one or more pages, you can still add more pages to the document. When you click the Convert to text button, SoftWriting will convert the new pages and add the results to the previous page results. After finishing the conversion SoftWriting will enter Proofread mode and display the first suspicious word it encounters in the document.

## Select Source for adding a page

To add pages using a scanner:

- Select the scanner option and click OK

If you need to change the scanner parameters, click the Scanner Options button. For more information see [Scanner Options](#)

If you are not satisfied with the scanning results, check the *Preview scanned images* check box, in order to view the scanned gray or color images before SoftWriting turns them into black and white images.

To add pages from a file:

- Select the File option and click OK
- Find the location of where the desired file resides, click on that file name and click Open. Alternatively you can double click on the file name

A batch is a set of images that were scanned by SoftWriting and saved using the **Save Batch** menu option. To add a pre-scanned batch:

- Select the Batch option and click OK
- Take the batch from the batch location and click open.

## Preview scanned image

The Preview screen enables the user to view the scanned images as color or gray before SoftWriting turns them into black and white images. It is designed to make sure the scanning results are satisfactory, in order to achieve optimal recognition results.

If writing on the reverse side of the page is clearly visible on screen, check the box marked *Reverse-side writing clearly visible on screen*. When this box is checked, SoftWriting will identify and ignore reverse-side writing.

Do not check this box unless you can clearly see the writing on the reverse side. This may result in loss of relevant information.

If you are satisfied with the scanning results, click Continue.  
To re-scan the images, click Cancel and select **Add Page** again.

## **Delete a page from document**

To delete a page that has been added to the document

- Select Delete Page from the Process Menu

You can also delete pages while in Preview mode

- Click on the page you wish to delete
- Select Delete Page from the Process Menu

## Setting abbreviations

Abbreviation is a useful concept that lets you write fast frequently used long words. You can define abbreviations for such words. For example, instead of the word "miscellaneous" you can set the abbreviation "MC". By doing so, if you write on the paper the word MC, SoftWriting will replace all the occurrences of the word "MC" with "miscellaneous" in the entire document.

To set an abbreviation you should:

1. Select **Tools** and **Abbreviations** from the menu. Then the Abbreviation Setting dialog appears
2. Write the short form (e.g.: MC) in the "Replace" box. Write the long form (e.g.: miscellaneous) in the "With" box.
3. Click on the **Add** button.

To remove an abbreviation you should select it from the abbreviation list and click on the **Delete** button.

## Convert to text

To convert the pages of the document to text

- Click the Convert to text button or select Convert all pages from the Process Menu.

To convert a single page of the document to text

- Display the page you wish to convert
- Select Convert current page from the Process Menu.

SoftWriting will display the page and will color it in three cycles. Firstly it will color it in yellow, then it will color it in blue and a third time in pink. While the pages are being colored, SoftWriting is actually analyzing these pages and converting them to text. Once finished, SoftWriting will enter Proofread mode in which it displays the page image on the top part of the screen and the converted text on the bottom part.

## Select a different writer

When you convert the images to text, SoftWriting needs to know who wrote the papers it is trying to convert. Therefore, you must make sure that you are using the correct writer profile, i.e. the profile of the person who wrote the papers you are trying to convert.

To select a different writer

- Click the select writer's name button  or choose Select writer from the File menu

You will need to select a different writer in one of two cases:

1. You selected a certain writer in the Welcome screen and you realize you want to convert pages of a different writer
2. You finished converting pages of one writer and you wish to convert pages of a different writer.

Note: You cannot select a new writer if you have already performed the add page action. In this case you will be required to start a new document and add the pages again

## Save document

SoftWriting enables you to save the converted text as a text file that you can then open in other applications such as your word processor. The text file will be saved in either Word format or as a standard text file

To save a document

- Click the Save document button  or select Save document As... from the File menu

## Remote Scanning

Sometimes you want to scan the documents in one computer and process them on another computer. This is generally the case when you do not have a scanner connected to your computer, and there is a scanner that is connected to another computer in the same local network.

To do this, you should do the following:

1. Install SoftWriting. Set the installation directory on a shared place on the local network.
2. Create an Icon on the desktop of the remote computer that execute the file **softwriting.exe** from the installation directory.
3. Run SoftWriting from the remote computer.
4. Select your writer's name.
5. Scan the pages using the **Add Page**.
6. Select the **Save Batch** from the menu, and give a name to the set of papers you just scanned.
7. Exit from the remote computer, and run SoftWriting on your computer.
8. After you click on the **Add Page**, select the **Batch** source.
9. Now you can continue as usual with the **Convert to Text** option.

## **Creating a zone**

This feature will be supported in the future

You can specify areas on your documents (zones) to specify an exact area containing an image. SoftWriting will not attempt to convert this area to text but it will include it in your converted document as an image

## **Deleting a zone**

Once you have created a zone you can use this option to delete the zone definition

## Overview

Once SoftWriting is finished analyzing your pages and converting them to text, it switches to Proofread Mode whereby it enables you to proofread the document and correct inaccurate words.

When in Proofread Mode, words that SoftWriting is not certain about their accuracy, appears in blue. These suspicious words can be either:

1. Words that were not matched with a word in the dictionary
2. Words that have a match with the dictionary but SoftWriting is still not certain that the word was recognized correctly.

The correction mode enables you to perform a number of actions.

- Accept a suspected word
- Alter a suspected word
- Alter a non-suspected word
- Ignore a suspected word
- Select a choice from the dictionary
- Include word as image
- Merge words

## **Accept a suspected word**

Words that SoftWriting suspects were not recognized properly are colored in blue. When you switch to Proofread Mode, SoftWriting will highlight in yellow the first suspicious word.

To accept the word as is

- Click the suspected word to highlight it if it is not already highlighted
- Click the Accept button. Alternatively, you can press <ENTER>.

The word will change to black to signify that it is no longer suspicious and the next blue word will be highlighted in yellow.

## **Alter a suspected word**

Words that SoftWriting suspects were not recognized properly are colored in blue. When you switch to Proofread Mode, SoftWriting will highlight in yellow the first suspicious word.

To alter the word

- Click the suspected word to highlight it if it is not already highlighted
- Correct the word as necessary
- Press <ENTER> when finished correcting the word or click the Accept button

The correct word will appear in the document in black to signify that it is no longer suspicious and the next blue word will be highlighted in yellow.

## **Alter a non-suspected word**

In the Proofread Mode, you can alter any word even if that word is not suspicious.

To alter a word

- Click the word you wish to alter so that it is highlighted
- Correct the word as necessary
- Press <ENTER> when finished correcting the word or click the Accept button

The next suspected word will be highlighted.

## **Ignore suspected word for the time being**

Words that SoftWriting suspects were not recognized properly are colored in blue. When you switch to Proofread Mode, SoftWriting will highlight in yellow the first suspicious word.

To ignore a suspected word for the time being

- When the word you wish to ignore is highlighted, click the Decide Later button.
  - The word will remain blue to signify that it is still suspicious and the next blue word will be highlighted in yellow.
- Note: SoftWriting will not save the text to a file if that text contains suspected words i.e. words colored in blue, therefore you will be required to accept all words before you can save the text to a file. This means that if a word is colored in blue you need to correct it, accept it as is, or click the Decide later button knowing you will need to come back to that word and accept it before you can save the text

## Select word from dictionary

Any words which SoftWriting suspects were not recognized properly are colored in blue. Clicking on a suspected word will also display a list of similar words in a listbox which will open underneath the word. One of these words can be used to replace the suspected word.

To select a word from the dictionary

- Click the word you wish to replace so that it is highlighted. SoftWriting will jump to the next suspected word
- Note: you can use the up and down arrows to select the desired word from the listbox which opens underneath the suspicious word

## **Add word to dictionary**

SoftWriting does not require that you specify that words be added to the dictionary. Whenever you correct words, they will automatically be added to the dictionary. This includes names, abbreviations etc.

## **Include word as image**

SoftWriting gives you the ability to include parts of your handwritten page as images in your document.

For example, if you have a mathematical formula that the Character Recognition Engine cannot recognize properly, you can choose to include it in your original handwriting.

To include a word as an image of the original handwriting

- Click the word to highlight it if it is not already highlighted
- Click the Keep as image button

If you want to include a large area as an image use the Zoning feature.

To convert an image back to text

- Click the image to highlight it if it is not already highlighted
- Click the Keep as text button

## **Merge words**

To merge a word with the word next to it

- Click the word to highlight it if it is not already highlighted
- Click the Merge with next button

To undo a Merge with next operation

- Click the merged word to highlight it if it is not already highlighted
- Click the Undo merge button

## **Undo merged words**

To undo a Merge with next operation

- Click the merged word to highlight it if it is not already highlighted
- Click the Undo merge button

## Zooming the image

You can increase or decrease the size of the image using the zooming buttons.

Use the Zoom in image and Zoom out image to zoom in and out of the page image.

To zoom in on the image

- Click the Zoom in button  or select Zoom in Image from the View menu

To zoom out of the image

- Click the Zoom out button  or select Zoom out Image from the View menu

## **Resizing the image or document**

When in Proofread Mode, SoftWriting will display the page image on the top part of the screen and the converted text on the bottom part. You can resize the page image part which resizes the document part at the same time

To resize the page image and the document

- Place the mouse cursor at the bottom part of the page image. It should turn into a double sided arrow
- While the cursor is a double sided arrow, click and drag the bottom line up or down to resize the parts.

## Rotating images

To rotate the page being displayed

- Click the Rotate Page button  or select Rotate Clockwise from the View menu

The page is rotated by 90 degrees everytime the Rotate Page button is clicked

## View all pages in document

To view all pages in a document

- Click the Preview button 
- When viewing multiple pages you can also use the reorder feature to [reorder the pages](#)

## Reorder pages

To reorder the pages in the document

- Click the Preview button 
- Click inside the page you want to move and drag it to the desired position. Alternatively, enter in the text box under the page, the number the page should be. The pages will immediately change positions according to the reorder

Note: to return to Proofread Mode, double click on the page you want to correct or click the One page button

## User options

The User Option window lets you customize SoftWriting to suit your own needs  
This window has six tabs each one containing a different group of related options.

To open the User Options window select Options.. from the File menu

In the User Options window, the tabs available are:

Scanner

Save As

File Locations

General

Text Display

Image Display

Internet

## **Scanner options**

<b>TWAIN Driver</b>	SoftWriting includes two TWAIN drivers so that if one is not working properly with the scanner you can try the other one. The default TWAIN driver is the main driver. However, if you are having problems accessing your scanner, try the alternate driver to see if it is more suitable for your scanner
<b>Twain GUI on</b>	If Twain GUI is set to on when you select to add a page using a scanner, the scanner's program will open and you will use it to do the scanning
<b>Twain GUI off</b>	If Twain GUI is set to off when you select to add a page using a scanner, you will do the scanning from within SoftWriting i.e. the scanner's program will not be displayed
<b>Resolution</b>	This is the resolution you wish to scan in.
<b>Colors</b>	This determines how scanning will be done. B&W is black and white, Grey is for grey-scale scanning and color is for color scanning
<b>Paper Size</b>	Select the paper size of the documents you are scanning

## **Save As options**

You can specify whether the default file format when saving will be Word format or a standard text file.

Regardless of what you choose, you will still be able to specify a different choice when you actually save the file

## **File Location options**

These specify the default locations for your files

**Scanned Images**            This is the locations where the files of your scanned documents are saved

**Saved Doc**                    This is the location where your Word or text files are saved

Click on one of the file types and click Modify to change the location

## General options

### Suspected words

These options specify which words will be colored during the proofreading stage

#### Color spelling mistakes

If this option is ticked, then any word not matched with the dictionary is highlighted. These will include names and other words which are not in the dictionary. If the option is ticked off, then words which are not matched with a dictionary are not necessarily highlighted.

#### Color only highly suspected words

If this option is ticked, then only words which are highly suspected of being recognized wrong are highlighted. If this option is ticked off, then all words which are suspected will be colored in blue. Ticking this option off will mean there will be more blue words to accept but is safer in that there will be less instances where words are colored in black even though they are wrong.

#### Always verify numbers

If this option is checked, then numbers always displayed with colors, asking for the typist confirmation. Otherwise, only unclear numbers requires confirmation.

### Numbers with backslash

There is an option to write a backslash preceding a number. When SoftWriting would recognize the backslash it will recognize the numbers better, because he would know that this is not a regular word in the dictionary.

The backslash should be clear - around 45 degrees. SoftWriting would accept backslash with diagonal between 26 degrees and 68 degrees.

#### Always backslash precedes numbers

If this option is set, then SoftWriting would not search for numerals unless it finds a backslash as the first character in the word.

#### Sometimes backslash precedes numbers

If this option is set, then when SoftWriting finds a backslash as the first character in the word, it will look only for numerals in such word. It will look for numerals also in other words.

#### Never backslash precedes numbers

If this option is set, SoftWriting will not consider a backslash as a suggestion to find a number.

### Number of characters to learn

SoftWriting learns by default 10,000 samples of characters. Then it stops collecting the user's characters. You can change this option [here](#).

By the way, SoftWriting keeps learning the user's vocabulary for ever.

## **Text display options**

Define the colors and font to be used on the converted text

<b>Selected words</b>	What color to use to highlight the word that is being reviewed during proofreading
<b>Font</b>	What font to use when displaying the converted text
<b>Suspected words</b>	What color to use to highlight words which are suspected of not being correctly recognized

## **Image display options**

Define the colors to be used on the image

<b>Selected words</b>	What color to use when highlighting words on the image
<b>Text region</b>	What colors to use when highlighting a region containing text
<b>Image region</b>	What color to use when highlighting a region to be saved as an image

## **Internet Options**

Use the Proxy Server screen to specify whether your LAN uses a proxy server to connect to the Internet. A proxy server is a computer on your LAN that connects to the Internet without compromising the security of your internal network. If you are not sure how your LAN connects to the Internet, contact your system administrator.

## **Why is SoftWriting unique**

At present, SoftWriting is the only product available, which converts free formatted non-cursive (print) handwritten documents to text files. Furthermore, SoftWriting's optical character recognition engine is the only engine that learns efficiently the individual's handwriting characteristics.

## **How to improve the recognition results**

Recognition rates achievable with SoftWriting vary based on a number of factors.

### **Paper**

- If your paper is thin and half transparent (generally paper that is less than 80 mg), you should write on one side of the paper. Otherwise, the writing on the other side of the paper will appear on the scanned image and damage the recognition results.
- The paper color should be white or yellow.

### **Writing**

- The best recognition results are achieved when characters are separated from one another. SoftWriting attempts to separate connected letters. However, this task is sometimes performed unsuccessfully. Therefore, touching characters can reduce the recognition rate.
- Note that connecting characters that belong to different lines might reduce the recognition rate.
- Try to use a pen that does not produce breaks during writing.

### **Scanning**

- It is recommended that scanning be done from within SoftWriting. The default scanning parameters in the scanner options are "Gray" level and 200 dpi. If you have problems scanning with Gray level, you may want to try the "Color" option.
- In the scanner options, "Twain GUI on" allow you to use the scanner software interface rather than the SoftWriting interface to do the scanning. Use this option if you wish to define enhancements available through the scanner interface.
- If the paper is half transparent and the flatbed scanner has a black cover, the black cover will appear in the scanned image as spots. In such case, you should put another white paper between the scanned paper and the scanner cover.

### **Operation**

- Make sure that the pages you add are upright and not rotated before they are recognized.
- For documents written in upper case only, select "Upper only" in the Welcome screen, otherwise select "Upper and Lower".
- Insufficient number of words in the initial learning process will cause poor results. Only words that appear in the English dictionary are considered in the initial learning process.

## **What improvements can I expect from the learning process?**

The learning process comprises of two stages. In the first stage SoftWriting recognizes the handwriting without knowing the specific user's handwriting. The second stage involves you proofreading the results. After the proofreading is done, SoftWriting will complete the learning and you are ready to use the software.

Words that are not in the dictionary, e.g. names, are more likely not to be recognized properly. However,

once you correct these words, they are added to your personal dictionary and have a high chance of being recognized the next time that SoftWriting encounters these words.

SoftWriting will not recognize numbers the first time it encounters them. However, once you correct these numbers, they have a high chance of being recognized the next time that SoftWriting encounters these numbers.

## **Can SoftWriting support multiple users**

SoftWriting is able to support many users. Each user will need to perform the learning process separately. Then, each time someone wants to use SoftWriting, they choose their name from the list and the software then knows how to recognize their handwriting.

## **Support**

If you are encountering problems when using SoftWriting, you can contact our Support department for technical help

Email: [support@characterell.com](mailto:support@characterell.com)

## **Sales**

To find out more about CharacTell go to our web site at  
[www.charactell.com](http://www.charactell.com)

or send us an email requesting your desired information  
[sales@charactell.com](mailto:sales@charactell.com)

