

## **Write-On 3.0**

### **Quick Start Guide**

Thank you for using our Write-On 3.0 software. Write-On assists document examiners in collecting, managing, searching, and comparing large quantities of typed and handwritten documents. Forensic document examiners also use it to assess natural variations in handwriting and report findings.

Before using Write-On for its intended purpose - which is to search handwritten documents for specific words, segments, and characters - documents and their contents must be imported into the application. This usually involves clerical work such as typing a transcript and connecting each word with its equivalent on the image. In Write-On, this is referred to as association.

This document is divided into five sections:

1. What's New: describes the various changes implemented since Write-On 2.0.
2. First Case: takes you through the steps necessary to import your first document and transcript, and to perform your first association.
3. Searching and Comparing: guides you through a search and the various comparison tools.
4. Reporting: an in-depth look at the reporting features of Write-On.
5. Printing and Exporting: printing and exporting all data and results.

Write-On 3.0 also comes with a set of demo cases that can be opened immediately and used as background when reading this document. Demo cases may be accessed using the main "File" menu. You may also import an existing Write-On 2.0 case if one is available to you.

#### **Disclaimer**

The features incorporated in this release have been extensively tested. However, it is possible that minor glitches will be discovered as the software is put through real case work. Issues reported to us will be fixed immediately.

We plan to improve and add new features as we receive comments and feedback from our users. Please visit our website frequently to update to the most recent release.

Write-On is constantly evolving. As such, some of the screen images presented in this document may be slightly different than those of the latest release.

#### **Important**

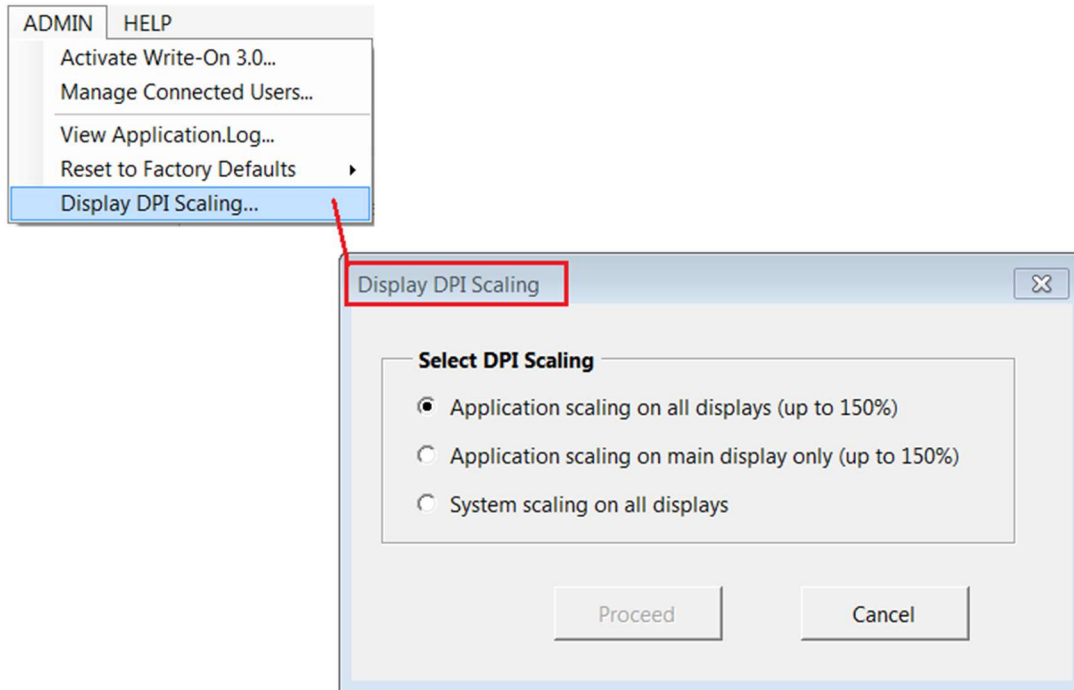
Many of the features and options described in the manual may be accessed in different ways. For example, the "Print Preview" feature may be accessed from the main FILE menu, the main toolbar, or from the context sensitive menu (mouse right click). For simplicity, this manual will usually describe only one method.

#### **High Definition Display**

Because Write-On deals with a combination of buttons, dropdowns, lists, and images, it is practically impossible to have the interface compatible with every high definition display now available in the market. As such Write-On was developed and successfully tested for resolution of up to 144 DPI (Microsoft

Windows 150% scaling setting). Using Write-On 3.0 with DPI scaling higher than 150% may render some of the text and button unreadable.

As an alternative, those using Microsoft Windows 10, may modify how Write-On 3.0 renders on high definition displays. This is achieved by visiting the “Display DPI Scaling...” feature located under the main ADMIN menu. We suggest you try one of the three possible option best fitting your display configuration.



## 1.0 What's New

### New Interface

Although similar to Write-On 2.0 in appearance, Write-On 3.0 was designed from the ground up. Some elements were removed, whereas others were added or improved. Having to type or import a transcript for each document is still required. However, we have endeavored to find ways to improve this process. We have also moved many features and options into a new "Wizard" window.

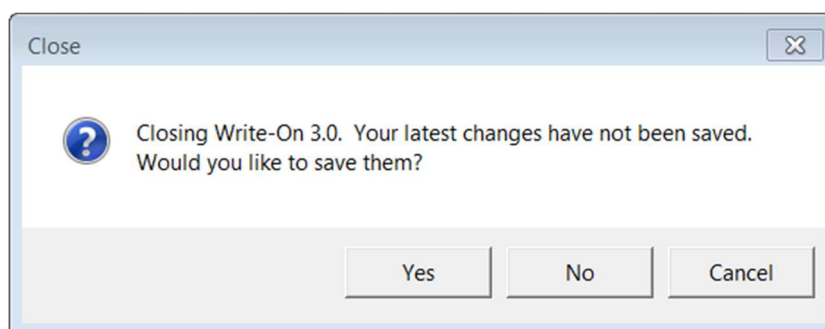
Also new to Write-On 3.0 is its compatibility with multi-display systems. The interface allows you to drag and drop various windows to other displays where available.

The rest of this document lists the major aspects and features of Write-On 3.0 and explains how they work.

### 1.1 Saving on Demand

In Write-On 2.0, changes were saved automatically. However, we found that this was causing issues for those working from remote drives or networks susceptible to timing out.

In Write-On 3.0, nothing gets recorded to the case file until the "Save Case" or "Save As Case" command is used. Write-On will alert you if changes should be saved before closing the program. Similar to other Microsoft Office products, you will be provided with the option to disregard the changes before exiting the software.



### 1.2 Imaging Concept

New in Write-On 3.0 is how images are handled. In Write-On 2.0, we recommended that images be imported as 300 DPI Bitmap Gray scale. At the time we felt it was the best compromise between image quality and performance. As such, many users commented that they had to keep two copies of their images: a high-resolution image for record-keeping and a toned-down resolution for use within Write-On.

We have resolved this issue and are pleased to provide our users with the best of both worlds. It is now possible to import high resolution color images into Write-On without compromising performance. Importing 600 DPI (Color or Grayscale) images into Write-On is now recommended. When importing images, Write-On will automatically create a lower resolution image for search and display purposes. By default, the lower resolution images will be used for searching and creating side-by-side comparison displays. Higher resolution images will be used for 1:1 comparison, reporting, exporting, and printing. In Write-On 3.0, lower resolution images are referred to as "Working Images", whereas the original image is

referred to as "Original Image". Once imported into Write-On, all images are saved as TIFF using LZW compression.

## **1.3 Recent Cases**

The "Catalogue" feature in Write-On 2.0 was removed and replaced with a new "Recent Cases" window. Like the catalogue, the Recent Cases window will display a list of the most recent cases loaded into Write-On. In addition to displaying better case information, the list can be edited. For example, this feature allows you to specify a case that will be automatically loaded at start-up.

## **1.4 Case Wizard**

Like other Microsoft Windows applications, the most common options and features may be accessed through the main menu and toolbars located at the top of the interface. However, because there is so much one can do with Write-On 3.0, centralizing the less frequently used features in a central location will make the software more user-friendly. The Wizard window lists the many options and commands available to the user. The list can be sorted by context, action, or description. For example, this is where one would go to export images, occurrences, set expert mode, and manually rebuild indexes. Because Write-On is expected to continue to evolve, this is where all new features will be posted.

## **1.5 Improved Desktop**

The main desktop is now divided into 3 areas: Components, Filters, and Context List.

### **Components**

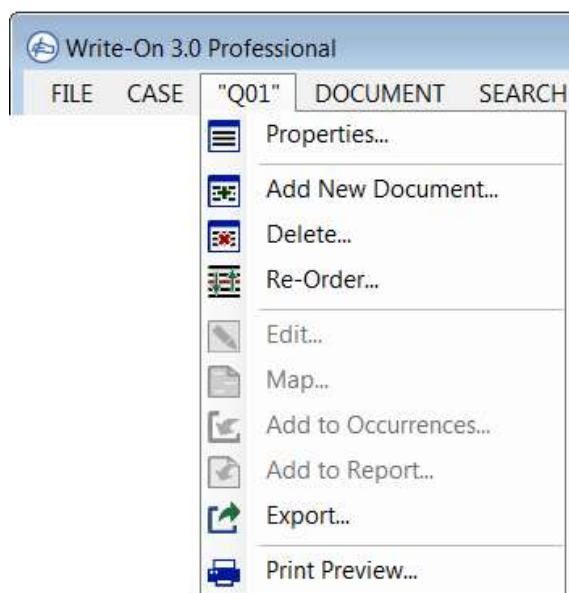
As its name suggests, the components area lists the various topics available to the current case. The list includes Documents, Associations, Indexes, History, and Reports. The item selected will dictate the content of the context list.

### **Filters**

New to Write-On 3.0 is how documents and searches are displayed. Depending on the component selected, turning filters ON or OFF will update the context list accordingly. Filters are very flexible and powerful. As such, they are discussed separately later in this document.

## Context List

This is the third area of the desktop. The content of this pane is dictated by the selected component and the status of the filters.



The availability of many features is context sensitive, meaning that specific actions apply to the component or item(s) currently selected. For example, a document can only be viewed, deleted, or exported if it is selected. The same applies to Reports, Writers, Status, Occurrence, etc. In that regard, many of the options available at any given time are listed under the main "Context" menu located between the "Case" and "Document" menus. This context sensitive menu may also be accessed using your mouse's right button.

## 1.6 Properties

Write-On 3.0 also makes use of "Properties". Properties offer a way to update parameters affecting various components of your case. The list of available properties depends on the context under consideration. Users can view and edit properties affecting the current case such as? document, Q/K Groups, Writers, Status, Features, and Reports. For example, to revise the name of a specific document, select it from the document list, access "Document Properties", and revise the "Name:" entry. The same concept applies to all aspects of the software.

Unique to documents, updating a property or feature will apply to all selected documents. For example, this feature could be used to change the display scale of multiple documents.

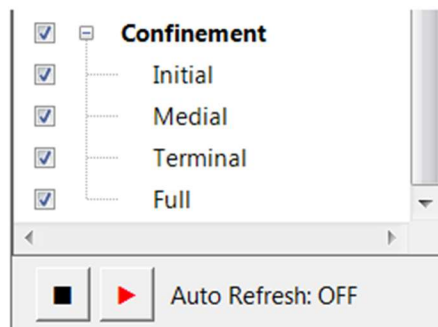
## 1.7 Filters

Filters are new to Write-On 3.0. They limit and dictate what components will be displayed, how indexes will be presented, and how searches will be performed. Filters can be added, deleted, sorted, turned ON, and turned OFF. The list of available filters is also context sensitive. For example, "Characterization" and "Confinement" are available for Segments Index but are not for Documents.

Filters are mutually exclusive, meaning that turning one OFF removes its reference from the list. For example, assuming a document named "K05" was set as "K", with Writer "Sarah", and Status as

"Disabled". Turning the "Disabled" filter OFF would remove Document "K05" from consideration even if "Sarah" was set to ON.

If "Auto Refresh" is set to "ON", updates to the associated list will be automatic and performed on the spot. This is fine if you are dealing with a small number of documents. However, if your case has many documents, each change to the filter may slow things down. In that respect, you may turn this auto refresh feature OFF. In doing so, you must refresh manually using the "Play" button located at the bottom of the Filters pane. Auto refresh may also be permanently disabled through user settings.



The filters are divided into the following 6 groups:

## Q/K Groups

This group of filters dictates how documents are handled during indexing and searching. Forensic document examiners usually divide documents into two groups: Questioned (Q) and Known (K). Users can add, delete, and rename Q/K Groups. However, Q/K Groups must be set as either Questioned (Q) or Known (K). Q/K Groups are document-specific, meaning that each document must be assigned to a specific Q/K Group. The Q/K Group for a specific document may be changed using the document properties.

## Writers

Users can add, delete, and rename Writers. Writers are document-specific, meaning the writer for a specific document may be changed using the document properties. In Write-On 2.0, writers were used to define the document type (Q or K). This is no longer the case. Writers are only used for information and filtering purposes.

## Status

Users can add, delete, and rename Status. Status is document-specific, meaning the status for a given document may be changed using the document properties. By default, status is defined as "Enabled" or "Disabled" for compatibility with Write-On 2.0. However, it can be defined as anything; Blue, Red; Marked, Unmarked, Visible, etc. Status is only used for information and filtering purposes.

## Features

Users can add, delete, and rename Features. Features are document-specific, meaning the feature(s) for a specific document may be changed using the document properties. Unlike Q/K Groups, Writers, and Status, documents may be referenced by more than one feature. For example, the list of features may include "English", "Arabic", "Blue Ink", "Black Ink", "Block", and "Cursive". A specific document may have 3 features: "English", "Black Ink", and "Cursive". Features are used for information and filtering purposes. They provide one more method of managing large quantities of documents.

Because of the "many-to-many" relationship concept offered by the document features, turning OFF a specific feature will only hide documents specifically marked with that feature. Accordingly, turning it ON may not display it if another of its feature is already turned OFF.

## Characterization

Characterization dictates how the various indexes and the results of a search will be presented. Turning "Letter Case" ON will separate upper and lower case letters. Turning "Diacritics" ON will separate the same letters if they include diacritics. How you set the characterization filters depends on the circumstances under consideration.

## Confinement

Like characterization, the filters relating to confinement are fixed and only available for some of the indexes and manual searches. Confinement dictates how the various indexes and the results of a search will be presented. For example, turning the "Terminal" filter ON (all others OFF), would only report on segments or characters located at the end of a word. There are many possible combinations. How you set the confinement filters depends on the circumstances under consideration.

### Very Important:

By default, punctuation and numerals are not included in the Words and Segments indexes. They are included in the Custom and Characters indexes and manual searches. This behavior may report discrepancies if compared to searches involving the "Terminal" only confinement. This behavior and its associated warning message may be modified in the user settings and case properties.

## 1.8 Indexes

Write-On automatically builds and updates indexes every time a transcript is added, deleted, or modified. Indexes are also refreshed when filters are updated. Indexes can be sorted according to their text representation and/or their occurrence count. The indexes can be searched for a specific text using the "Search List" feature or used to search documents for a specific occurrence ("Search Selected"). The Q and K counts reported in the indexes are dictated by each document's Q/K Group setting.

The following four types of indexes are produced:

### Words

An index of all the words found in the filtered documents is automatically produced. This index tabulates the words found and the number of occurrences found in the Q and K documents. What constitutes a word is of course debatable. You can modify how punctuation and numerals are handled within the "User Settings" and "Case properties".

### Segments

Where segments had to be pre-determined by the user in Write-On 2.0, segments in Write-On 3.0 are automatically defined. This means that you don't have to worry about missing undefined segments regardless of the writing system or content of the transcripts. As with words, what constitutes a segment is debatable. You can modify the length of reported segments and how punctuation and numerals are handled within the "User Settings" and "Case properties".

### Characters

A single character index is also automatically produced. In addition to the Q/K count and confinement, the index also reports on each character category. Character categories can be used later to define custom segments and perform flexible manual searches.

## Custom

There are cases where creating custom segments will be required. This can be done using the "Custom Segments" option located under the main "Options" or "Case" menus. Custom segments may be defined for all new cases or for the current case only.

Custom segments can still be defined using regular characters but Write On 3.0 was designed to use the character categories described by the Unicode Consortium (<https://unicode.org/>). A good example would be when dealing with financial cases involving various numerals. Defining a custom segment as [N][P][N], for example, would report segments such as "3,4", "0.0", "7-5", etc. A custom segment defined as [C][N] would report segments such as \$3 or €8. How you define custom segments depends on the circumstances under consideration.

Custom segments may be defined by combining any character with any or all of the following 6 categories:

1. [L]: Letter
2. [P]: Punctuation
3. [N]: Numeral
4. [C]: Currency
5. [S]: Symbol
6. [O]: Other (not fitting the above categories)

Custom Segments: Applicable to Current Case

#	Segments
1	[L][P][L]
2	[N][P][N]
3	[P][P]

Custom Segment: [N][P][N]

[L] Letter [C] Currency  
[P] Punctuation [S] Symbol  
[N] Numeral [O] Other

Add Update  
Delete Reset  
Proceed Cancel

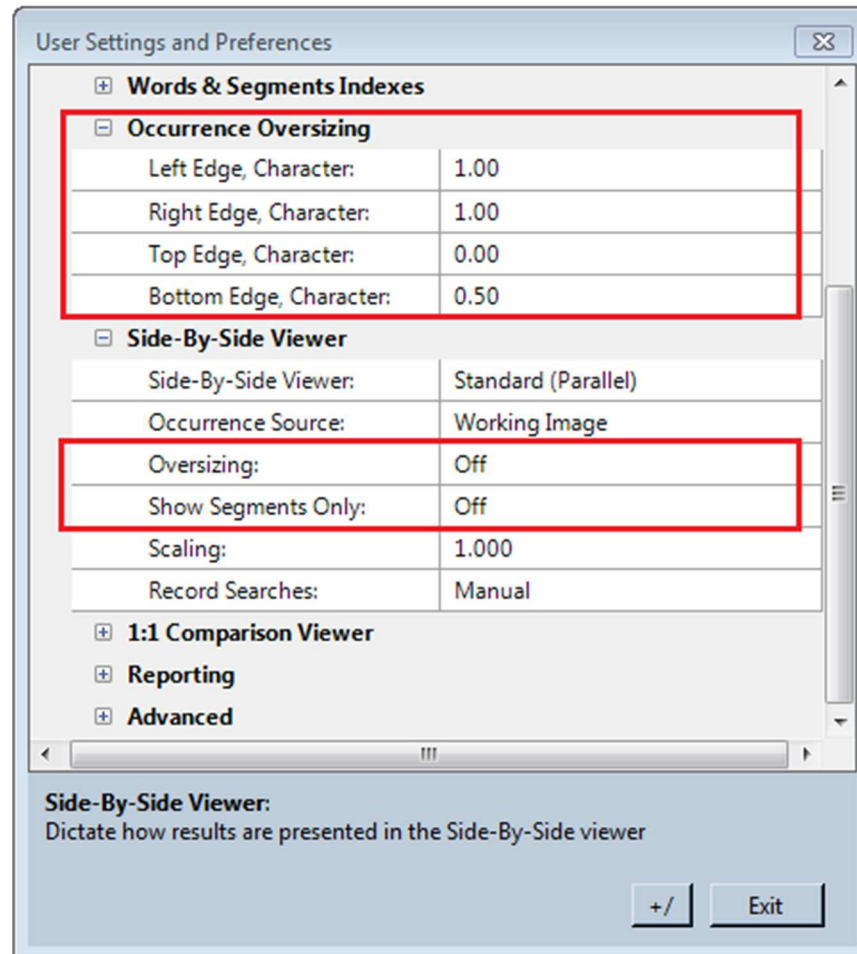
## Punctuation and Numerals

In addition to producing various indexes, you may also customize how the punctuation and numerals will be handled during the creation of the Words and Segments indexes. Punctuation and numerals may be included, split from, or completely excluded from the associated word. These preferences are defined within the case properties and the user settings.



## 1.9 Occurrence Oversizing

When displaying the results of a search, the extent of the images (i.e. occurrences) presented on screen is based on the size of the rectangle used during association. This behavior may be modified by setting the “Oversizing” property to “ON”. The exact amount of oversizing is dictated by the “Occurrence Oversizing” properties. The oversizing feature is available within the User Settings located under the main OPTIONS menu.



Write-On calculates the width of a single character (in pixels) by dividing the width of the association rectangle by the number of characters within the word. This is obviously an estimate as leading and closing characters tend to take more spaces. Characters such as “w” and “m” would also take more space than the character “i”.

The oversizing feature is applicable to the Side-By-Side comparison, 1:1 Comparison, and individual reports. When selected, occurrence oversizing will also affect how the “Show Segments Only” applies.

### **1.10 Show Segments Only**

By default, when reporting a segment or a single character, the image (i.e. occurrence) of the entire word will be presented on the screen. This behavior may be modified by setting the "Show Segments Only" property to ON. This feature is available within the User Settings located under the main OPTIONS menu.

The precision of the segments presented depends on many factors including the length of the word itself, the length of the segment, the style of the writing, the number of occurrences of the segment (or character) within the word. The extent of the image presented is also influenced by the oversizing feature.

The "Show Segments Only" feature is applicable to the Side-By-Side comparison, 1:1 Comparison, and individual reports.

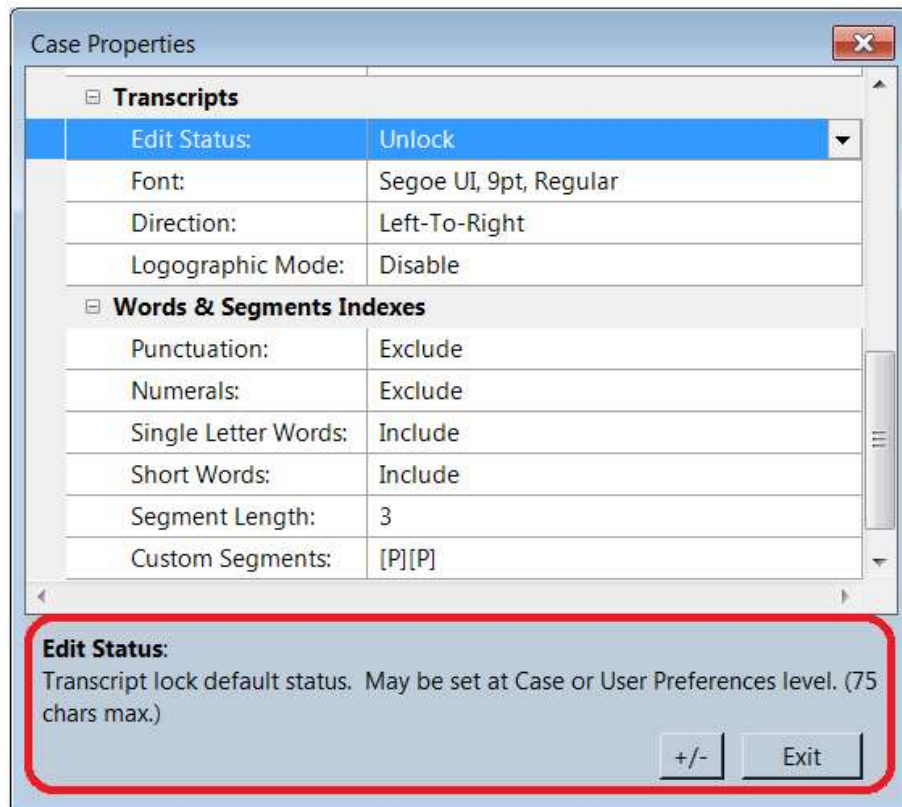
#### **Very Important:**

The "Show Segments Only" feature was added in release 3.2003.0401.0. It will have no effect on saved searches, comparisons, occurrences, and reports saved or created with release 3.19.12.011 and prior.

### **1.11 User Settings Vs Properties Vs Case Properties**

Many of the features and default behaviors of Write-On 3.0 may be modified using the "User Settings". How these settings affect the current dataset or case depend on the specific setting. Some have an immediate effect while others require a restart of the application or will only apply to new cases or documents. Many of these settings are repeated in other contexts (i.e. Case, Documents, Report properties). For example, it is possible to have a set of custom segments defined under user settings and a different set under case properties. Settings defined within Case Properties will only apply to the current case under consideration. Settings defined within user settings will only affect new cases created thereafter.

This document does not enumerate or go through all available user settings or properties as most of them are self-explanatory. A short definition of each selected property is available at the bottom of the property window.



## 1.12 Image and Occurrence Scaling

Unless corrupted, scanned images usually include a marker describing the document scanning resolution. This resolution is used by Write-On to display, export, and print images at the correct scale. As a result, the same image will appear smaller on a higher resolution display than a lower one. Handwriting also comes in various sizes, which may present challenges during examination.

To handle multiple handwriting conditions and document resolutions, Write-On provides custom scaling options at various locations within the software. They include:

- Individual documents (via document properties)
- Side-by-side comparison viewer (via user settings)
- 1:1 Comparison viewer (via user settings)
- Individual reports (via report properties)

It is important to note that these scaling factors are cumulative. For example, setting the scale of a specific document to 1.5 and a specific report to 1.25 would display the affected occurrences at a scaling factor of 1.875 (i.e.  $1.5 \times 1.25 = 1.875$ ).

## 2.0 First Case

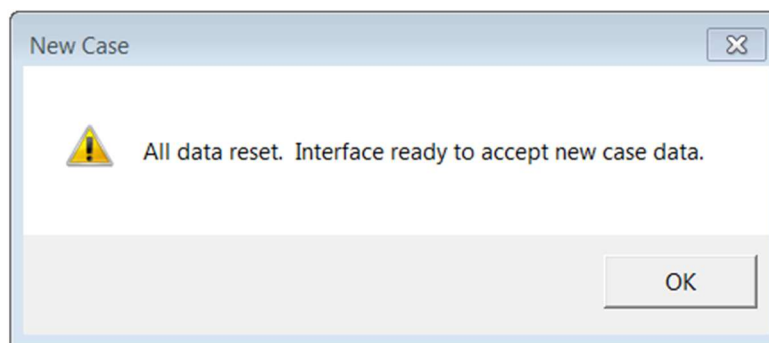
Create your first case by following the five steps below:

1. Create a New Case
2. Import a Document
3. Open Document Viewer
4. Type or Import Transcript
5. Associate Transcript

Before you begin, you should have at least one document image in your computer.

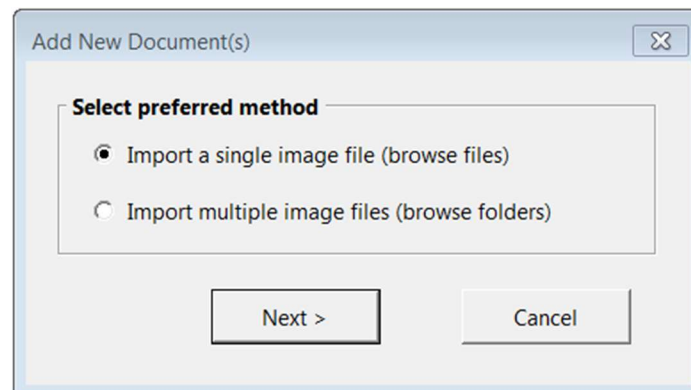
### 2.1 Create a new Case

The first step is to reset the interface and prepare it to accept a new set of data. Access "New Case..." located under the main "File" menu. You may be asked "Save before continuing?" if a previous case was opened and its contents modified. The decision to proceed without saving is yours. If all went as per plan, you will be provided with a confirmation window similar to the one displayed below and an empty document list.



### 2.2 Import a Document

To import your first document, visit "Add..." located under the main "Document" menu. You will be provided with two options:



Select "Import a single image file (browse files). Then "Next". You will be presented with a file browser. Browse to and select the image file of your choice. You may import many kinds of images, including TIFF, PNG, BMP, JPG. Select "Open" from your browser. If the image opens successfully, a window similar to the one below will appear.

**Add New Document**

**Path:** C:\Users\Pierre\Desktop\Images\Q04\_5.tiff

**Name:** Q1

**Description:** Q1.tiff

**Q/K Group:** Q

**Writer:** Writer 1

**Direction:** Left-To-Right

**Logographic Mode:** Disable

**Status:** Enabled

**Features:** None

**Document Order:** Bottom of list

**Buttons:** Next..., Add, Add All..., Remove..., Exit

**Image DPI:** 300

**Preview:** A scanned document with a form. The form includes fields for Name (DAVID CORMICAN), Address (30 Merchant Lane), City (Trenton), Province (ON), Postal Code (M6P 4S6), Country (CANADA), Telephone Number (647) 228-3287, E-mail Address, Date of Occurrence (Feb 27/07), and Airline and Flight No. (AC 157). There is a 'RECEIVED MAR 06' stamp. Handwritten text on the document reads: 'Sarah at the info book was most helpful. Big, beautiful, beaming with a smile... and she then offered to mail my letters (as there is no mail box post-security walk in the terminal and I wouldn't be able to go out and clear security and still make my flight). It is this kind of exceptional, over-and-above the call of duty behaviour / actions that make traveling a such a pleasure to fly from. Thanks for keeping the smile on my face! Give this lady a raise!!'.

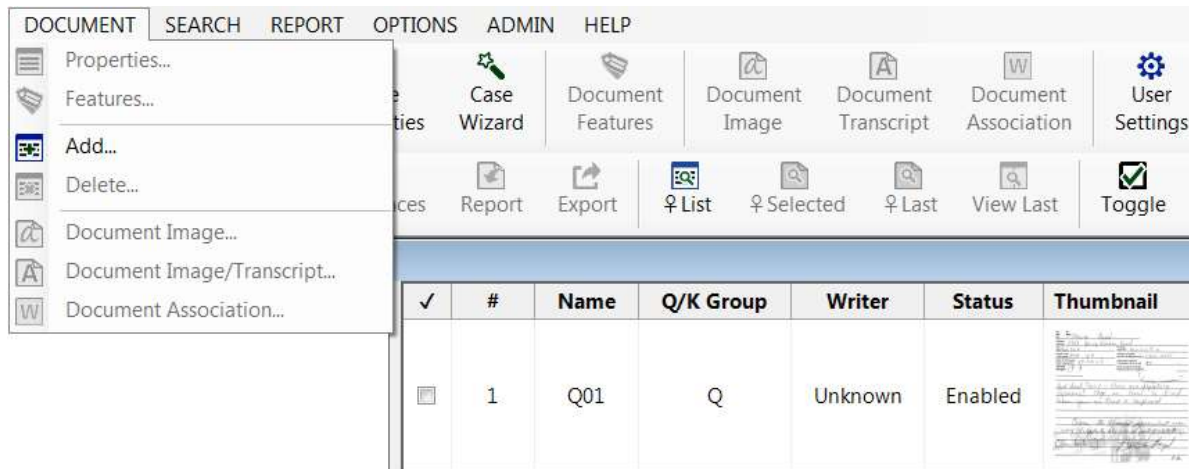
Review the parameters listed and modify them to fit the image. These parameters have been provided next to the image for convenience. You may change them at any time using the document properties. At this time, the most important is probably to set the "Q/K Group" to "Q" or "K". Click "Add".

If the document was imported correctly, the document list should have been updated automatically. The list would show the name of the document, the Q/K Group, the Writer, the Status, and a thumbnail of your document. There are a few options affecting the look and feel of the document list. These may be modified by visiting the user settings.

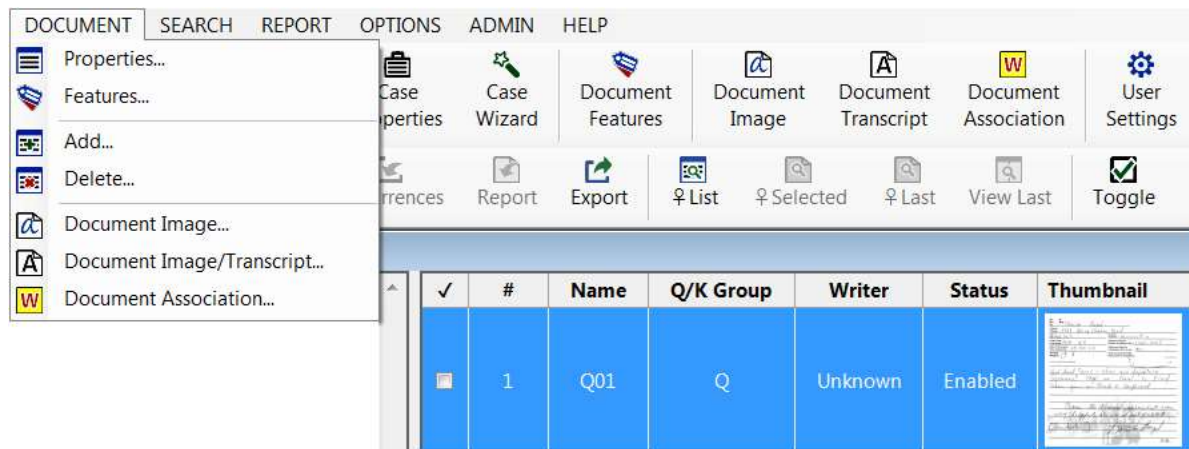
✓	#	Name	Q/K Group	Writer	Status	Thumbnail
<input type="checkbox"/>	1	Q1	Q	Writer 1	Enabled	

## 2.3 Open Document Viewer

At this time, the features providing you with access to the document viewer would still be disabled.



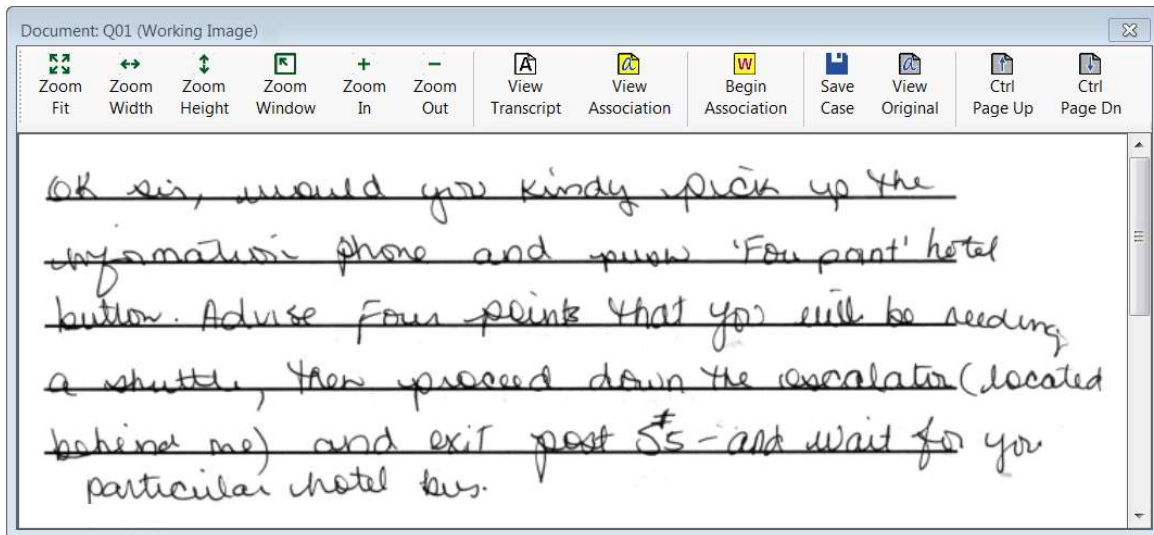
From the document list, select the imported image using your pointing device's left button. Doing so will enable the context menu and document viewer option.



Open and view the selected document using the "Document Image..." command located under the main "Document" menu. Alternatively, you may also:

- Click the "Document Image" button on the main tool bar.
- Double click on the image thumbnail.

If successful, the document viewer will open, displaying the working version of your document (i.e. a reduced resolution of your original image).



The document viewer has many zooming features. We believe they are self-explanatory, but this would be a good time to try them all and see how they affect the viewing of your image. You may also elect to view the original image. However, remember that your original image may have a much higher resolution and could take a few seconds to load.

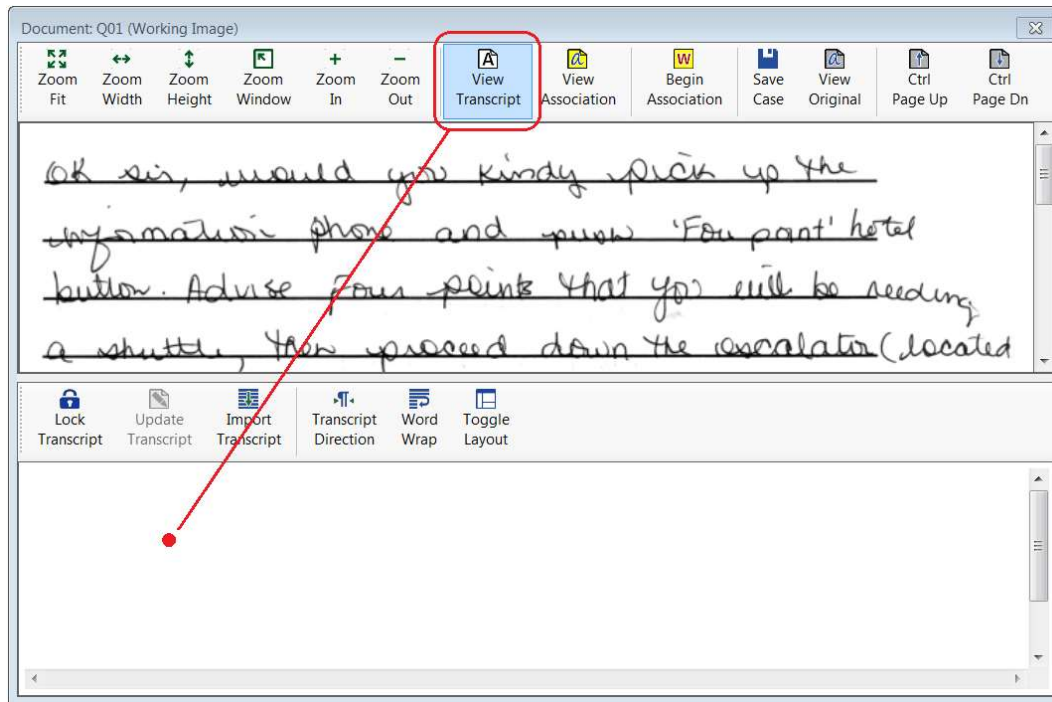
From the document viewer, you may also view the transcript, the association, and navigate to the next or previous documents using the Ctrl-Page Up and Ctrl-Page Down keys.



## 2.4 Type or Import Transcript

The next step is to type or import your transcript. A transcript is an exact electronic version of the document under consideration. The transcript is used to produce the various indexes and is required later to perform "Transcript Association".

From the document viewer, select "View Transcript".



The document viewer will split into two separate panes: one showing your document image, the other showing an empty transcript.

With your pointing device, move focus to the transcript section and start typing the contents of the document. If you already have an electronic version of your transcript, you may import it using the "Import Transcript" feature. Upon completion of this step, click the "Update Transcript" button to record the new transcript in the system and automatically rebuild all affected indexes.

## 2.5 Associate Transcript

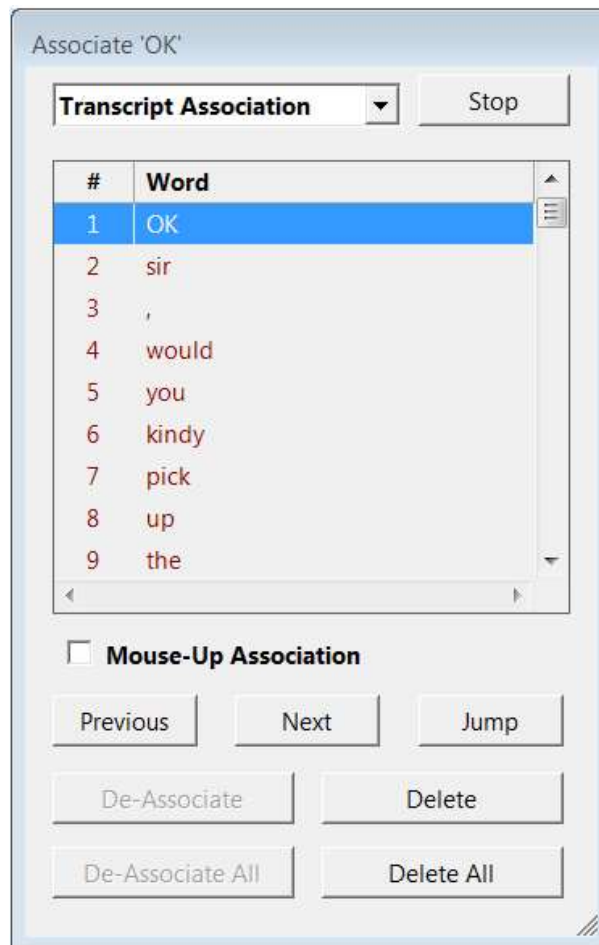
The fifth and last step is the association of the transcript. The association process consists of connecting the contents of the transcript to the document image. This is done by selecting a specific word from the transcript and drawing a rectangle around the portion of the image corresponding to the word.

From the document viewer, select "Begin Association".



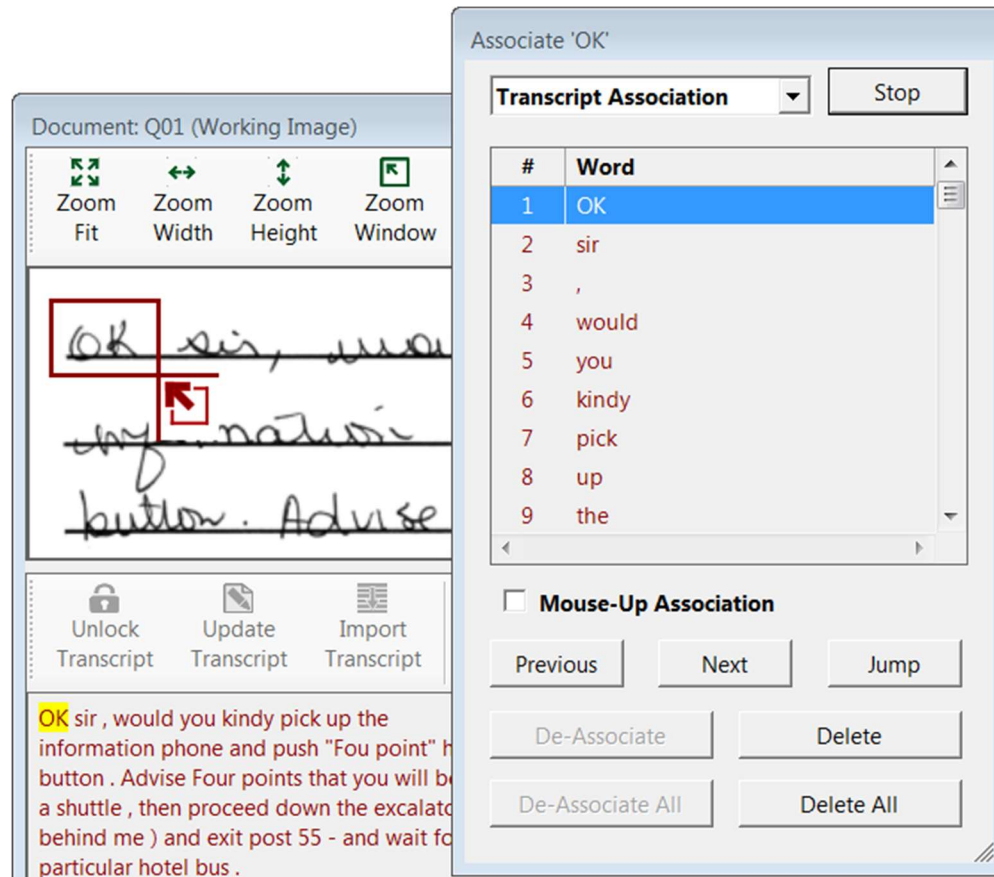


A window similar to the one presented below will appear.

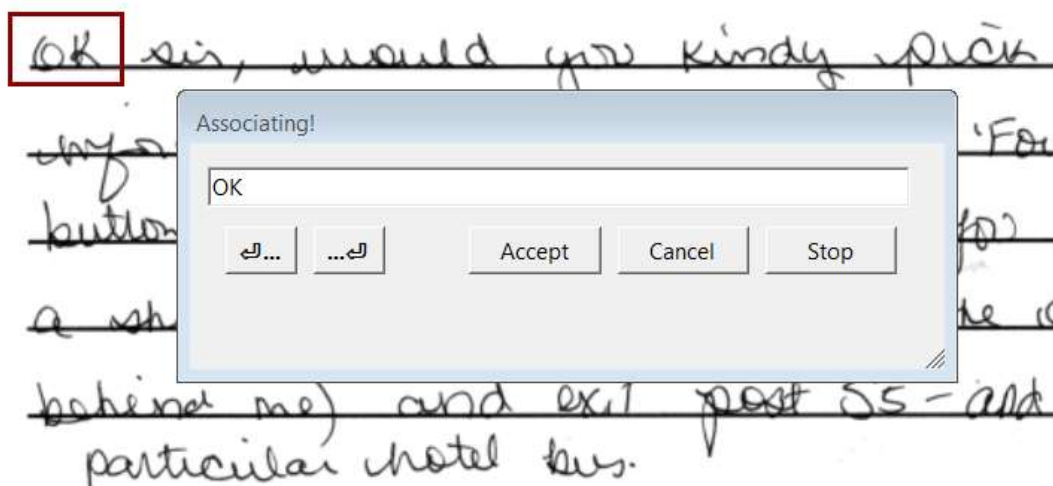


This window lists all the words in the order in which they were found in the transcript. The highlighted word represents the word under consideration. You may start from the top or select any word from the list. From that point on, associating a word consists of drawing a rectangle on the image by pressing and holding down your pointing device's left button.

During the association process, access to the transcript will be disabled. However, the word selected within the list will also be highlighted within the transcript so as to provide a visual cue of the word under consideration.



Once you are satisfied with the location and the size of the rectangle, release the left button to complete the process. A new window will appear, asking you to confirm the word as typed within the transcript.



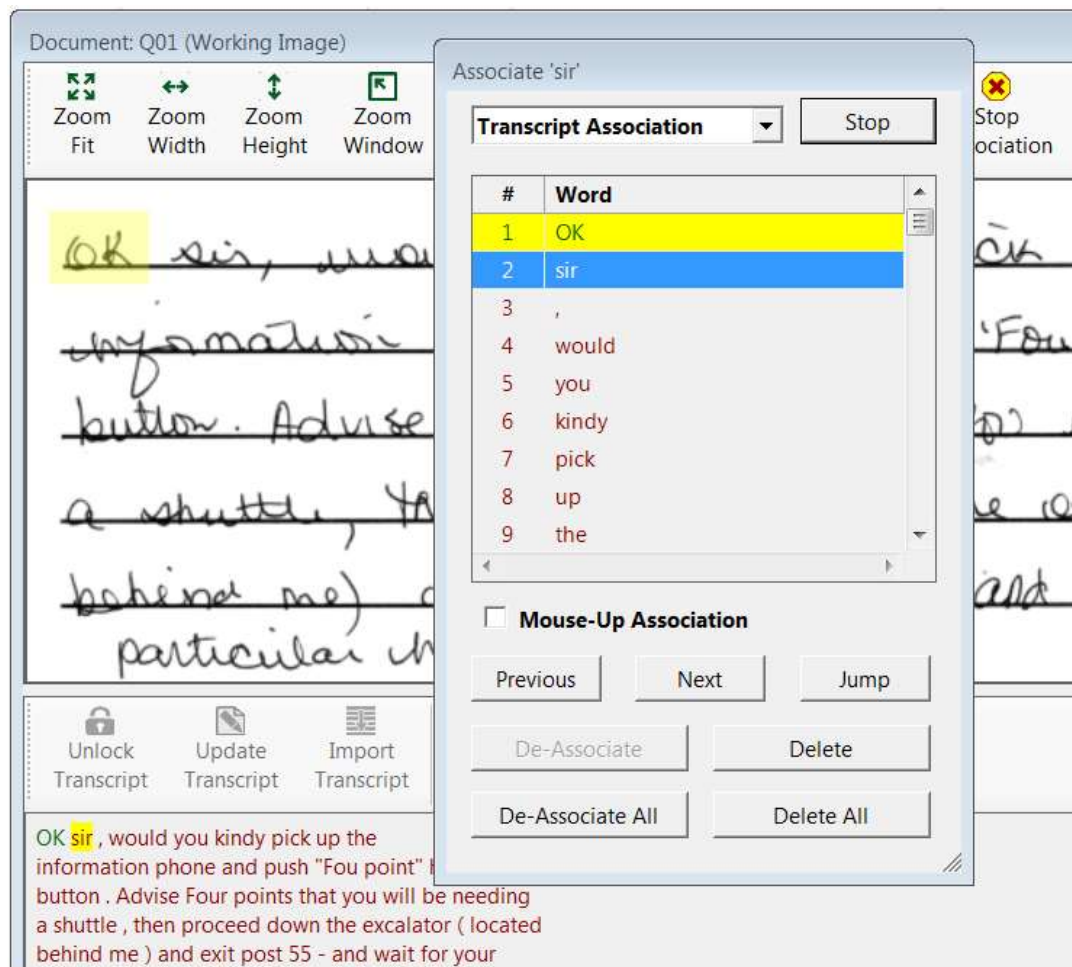
This association confirmation window offers various options and alternatives:

- You can edit the text within the text box if necessary.
- Add a line feed character just before the word to create a new paragraph at the word.
- Add a line feed character just after the word to create a new paragraph immediately after the word.
- Accept the association as is.
- Cancel the process, which allows you to redraw the rectangle.
- Stop the association process altogether.

If you elect to accept the association, four actions will occur:

- The associated word on the document image will be highlighted.
- The forecolor of the word within the transcript will be updated from red to green.
- The word within the association preview list will be highlighted.
- The association will automatically jump to the next word within the list.

The combination of color and highlight is meant to differentiate between words that are associated and those that are not.



This association preview has many features. You can navigate to the previous or the next word in the list or jump directly to the next non-associated word. Depending on the state of a specific word, you may also elect to de-associate or delete a word, or the entire transcript. You can stop and restart the association process at any time.

The transcript association also includes a "Mouse-Up Association" feature.

☒ **Mouse-Up Association**

When selected, this feature will automatically skip the association confirmation window, associate the word, and jump to the next non-associated word. This option can be turned ON/OFF at any time during transcript association. It was designed for more advanced users to speed up the association process.

The association preview window is the central system of the association process. It was designed to correct words or mistakes made during the association.

## 2.6 Image Association

As an alternative, you can skip the initial typing and/or exporting of the transcript and use the "Image Association" option. Image association consist of drawing the association rectangle first then entering a transcription of the word within the textbox provided.



When attempting to associate a document which does not have a transcript, Write-On will automatically switch and lock to image association mode. The ability to switch back and forth between image and transcript association will become available after the first word is associated and added to the transcript.

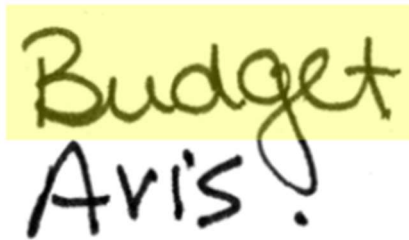
When using image association, words will be automatically added at the end of the transcript. To correct or modify a word associated using image association, simply revert back to transcript association, select the word from the list, and re-associate.

## 2.7 Association Correction Features

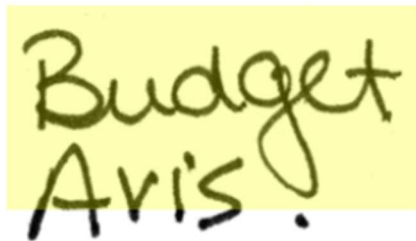
The association process was also designed to correct or modify the association of a specific word or words. The word which is currently selected can be re-associated at any time, de-associated, or deleted completely from the transcript. Ultimately, the entire transcript may be de-associated or deleted.

## 2.8 Association Rectangle

It is important to encapsulate the entire word area even if it overlaps with other words or document features. Although Write-On has an "Occurrence Oversizing" feature that can automatically enlarge the association rectangle when displaying search results, it is better to encapsulate all the features applicable to a given word. You may also modify the association rectangle at any time by re-associating the word.



**"Budget" incorrectly associated**  
**Does not encapsulate entire word**



**"Budget" correctly associated**  
**Encapsulates entire word**

### 3.0 Searching and Comparing

There are two types of searches in Write-On: searching a list for a specific string and searching documents for occurrences.

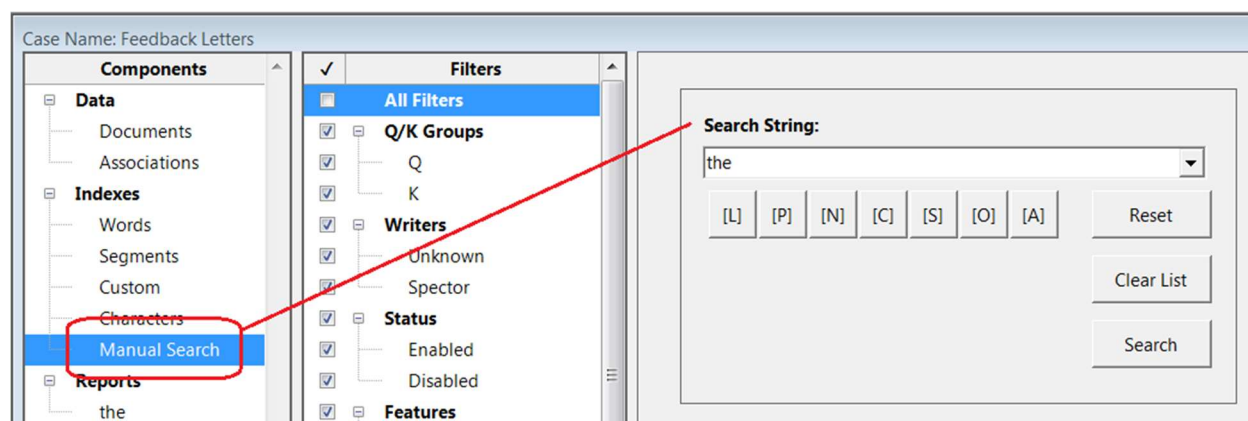
#### Search List

This feature allows users to search many of the lists (Documents, Associations, Indexes, Reports, etc.) for a specific string. This can be achieved using the "Search List" option located under the main "Search" menu.

#### Searching for Occurrences

This feature allows users to search documents for a specific occurrence. Searching for an occurrence may be initiated directly from one of the indexes using the "Search Selected" option or the "Manual Search" pane. Regardless of the method selected, the results will be based on the filters selected. If a document is not listed because one of its filters is OFF, it will not be included in the index or search.

Technically, most of your searches may be initiated directly from the 4 indexes. However, manual searching allows you to incorporate character categories within your search string. A manual search can be initiated by selecting "Manual Search", located in the components pane.



Search strings are defined by combining any character with any or all of the 7 following categories:

1. [L]: Letter
2. [P]: Punctuation
3. [N]: Numeral
4. [C]: Currency
5. [S]: Symbol
6. [O]: Other (not fitting in above categories)
7. [A]: Any of the categories noted above

Just like index searches, the results obtained from a manual search will respect the filtering status.

## 3.1 Comparing Occurrences

Occurrences can be visually compared in two ways:

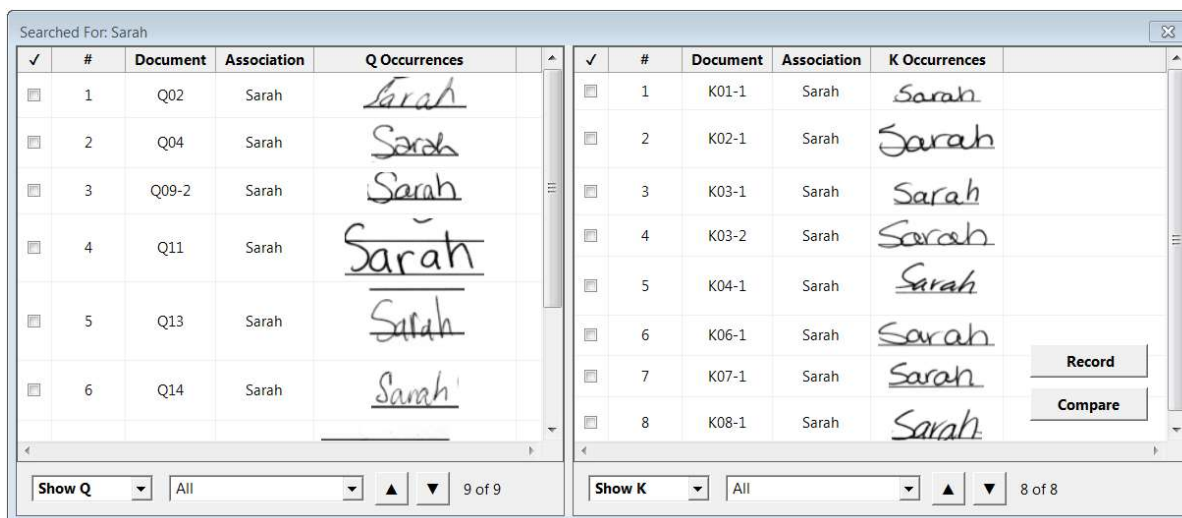
1. From the Side-by-Side viewer.
2. From the 1:1 Comparison Window (new in Write-On 3.0).

## 3.2 Side-By-Side Viewer

The results of a search will be automatically displayed in the side-by-side viewer. By default, the left pane should display the Questioned (Q) occurrences and the right pane displays the Known (K) occurrences. However, the content of the left and right panels may be modified to show Q vs Q or K vs K.

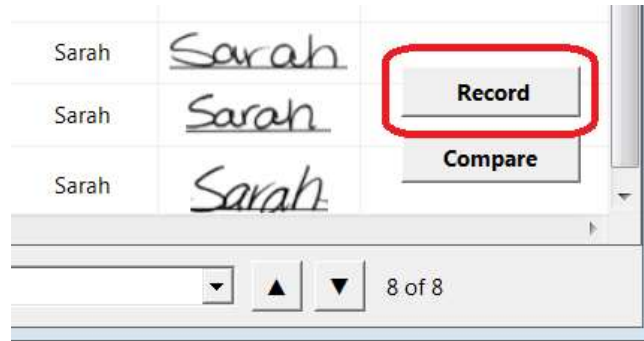
Depending on the number of occurrences reported, the lists (Q and K) may show these for all documents or on a document per document basis. By default, the list of occurrences that can be displayed at any given time is 500. If the list has more than 500, occurrences will be displayed on a document per document basis. The default number of 500 may be modified in the advanced section of the user settings.

The side-by-side viewer has 4 different display modes: Standard/Parallel (default), Standard/Mirrored, Classic/Parallel (similar to Write-On 2.0), and Standard/Mirrored. You can select the display mode best suited to your preferences by visiting the user settings.



The search results displayed in the side-by-side viewer may also be saved for future retrieval. This is done by clicking the "Record" button located at the bottom right of the right pane. Alternatively, you may set Write-On to automatically save every search by visiting the user settings.



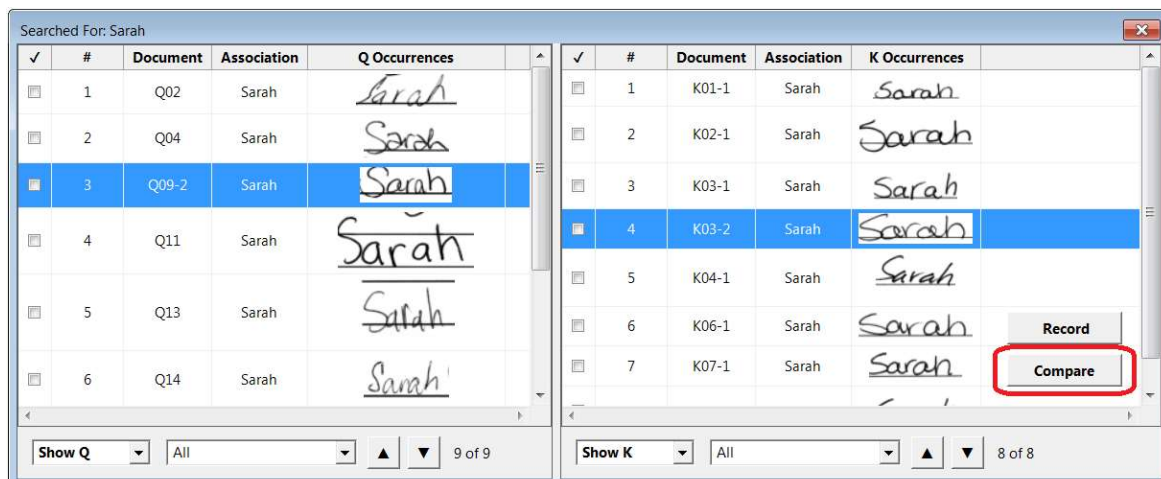


Saved searches may be recalled by accessing "History\Searches". Because saved searches are based on the filter status at the time the search was performed, recalling a search may return unexpected results if some of the documents or transcripts were modified or if the filtering was modified after saving.

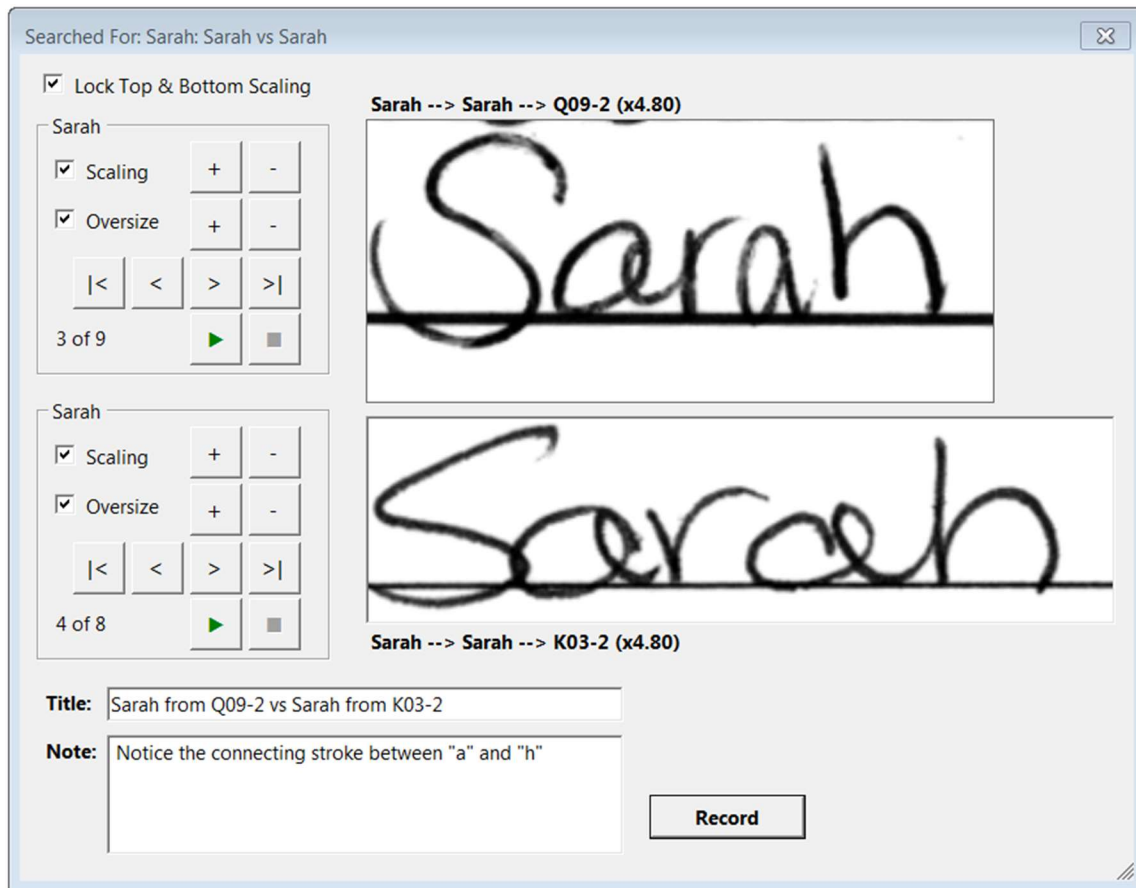


### 3.3 One-To-One Comparison

New in Write-On 3.0 is the capability to isolate and visually compare two occurrences. You can do this by selecting any two occurrences from the side-by-side viewer (one from each side) and clicking the "Compare" button.



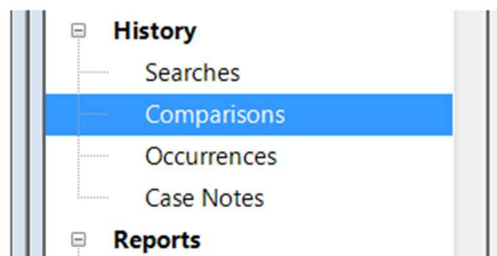




This comparison window has multiple features:

- Scale or oversize individual occurrences.
- Navigate to other occurrences (as listed in the side-by-side viewer).
- Auto play (and pause) occurrences.
- Set a title and short note that will be recorded with the images.

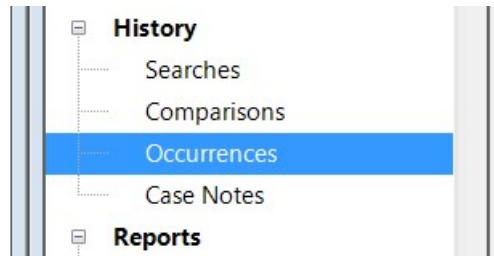
Recorded 1:1 Comparisons may be recalled by accessing "History\Comparisons".



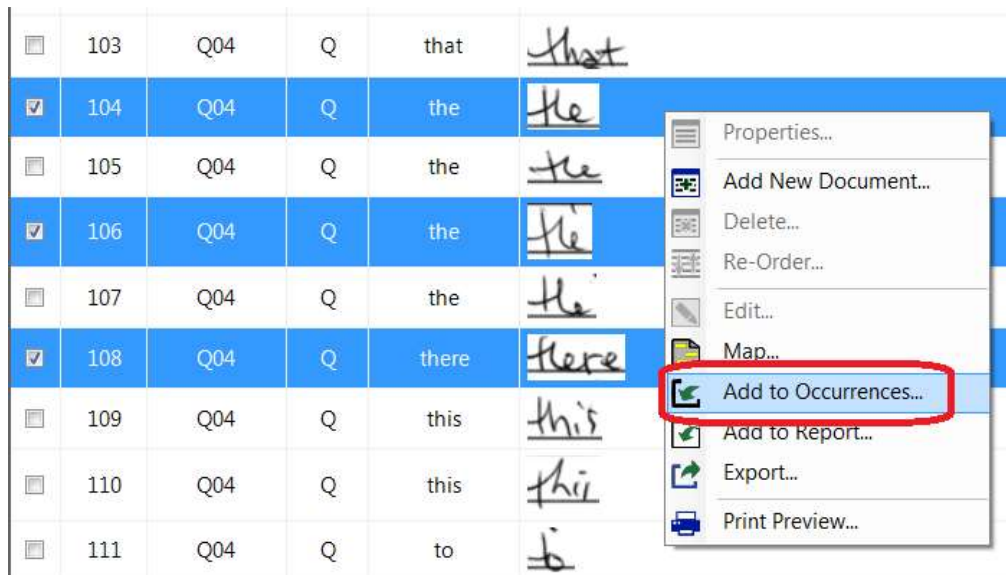
By default, the occurrences displayed in the 1:1 Comparison window are extracted from the original higher resolution image to allow better zooming and review.

### 3.4 Recording Occurrences

In addition to being able to record searches and comparisons, occurrences may be recorded in the "Occurrences" section of the History component.



Select the occurrences and use the "Add to Occurrences..." command from the context-sensitive menu. Occurrences may also be recorded using the Windows "Drag and Drop" feature.



Recording searches, comparisons and occurrences, combined with the ability to take notes directly within Write-On is a way to keep track of your examination as it progresses.

## 4.0 Reporting

The report feature of Write-On provides users with a way to group and present multiple occurrences in a court-style chart. You can produce many reports using multiple formats.

Although most of the search results and occurrences produced and presented in Write-On may be printed and exported to file, the many reporting features of Write-On allow you to customize exactly how the results are presented. For example, the number of columns, the labels describing the occurrences, the fonts, and the justification may be adjusted to fit specific requirements.

Producing a report or a court chart in Write-On requires 5 steps:

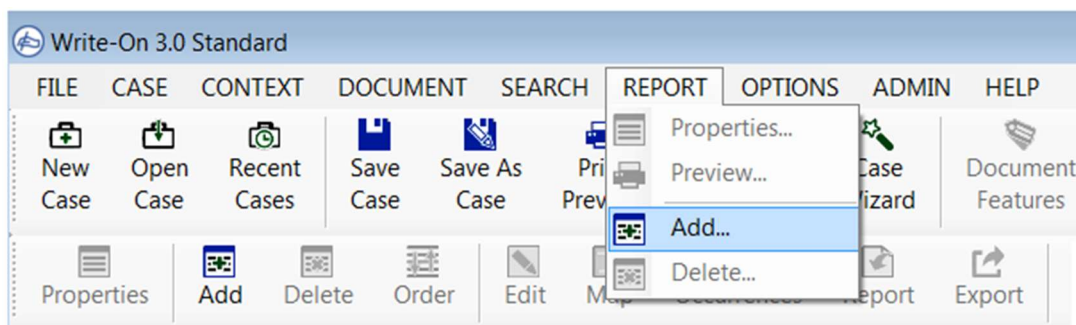
1. Create a new blank report
2. Set basic properties such as titles and format
3. Populate report with occurrences
4. Set order in which occurrences will be presented
5. Preview report

In addition, labels describing occurrences may be pre-defined or customized as required. Occurrence images may also be edited using Microsoft Paint or the graphic software of your choice.

This section of the manual describes the most popular features, but the possibilities are almost endless. We suggest that you try them all until you find a combination that fits your requirements.

### 4.1 Create a New Report

To create a new report, select "Add..." from the main Report menu. As with many other features of Write-On, you may select "Reports" from components and use the "Add" button on the tool bar or the "Add New Report..." from the context sensitive menu. Subsequently, multiple reports can be created within a single case.



## 4.2 Report Properties

After creating a new report, a Properties window will be presented. Report properties are used to define various settings and appearance attributes for a very specific report. These include the report name, format options such as template and justification, margin settings, and a set of advanced options.

Report Properties	
Report Properties	
General	
Name:	New Report
Description:	
System ID:	(30, 1021)
Scaling:	1.000
Format Options	
Title:	Report Main Title
Sub Title:	Report Sub Title
Template:	OO
Justification:	Middle   Middle
Q Column Title:	Questioned

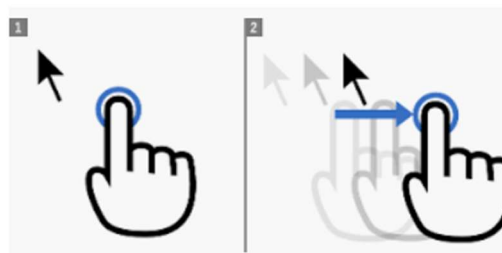
**Name:**  
Name of object or group (Document, Writer, Report...). This name to appear on screen. (50 chars max.)

+/- Exit

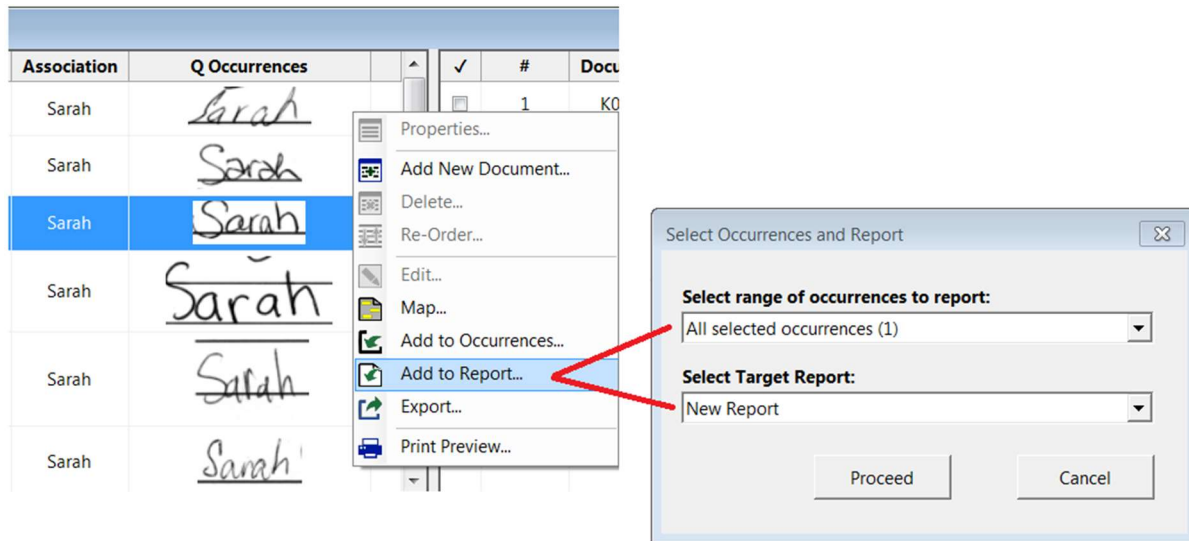
## 4.3 Populating Reports

Initially, a new report will be empty of occurrences. To populate the contents of a specific report, add occurrences obtained from other sections of Write-On into a specific report. Occurrences from the associations list, side-by-side viewer, 1:1 comparison, and occurrence history may be added to any report. In addition, occurrences from one report may also be added to another report.

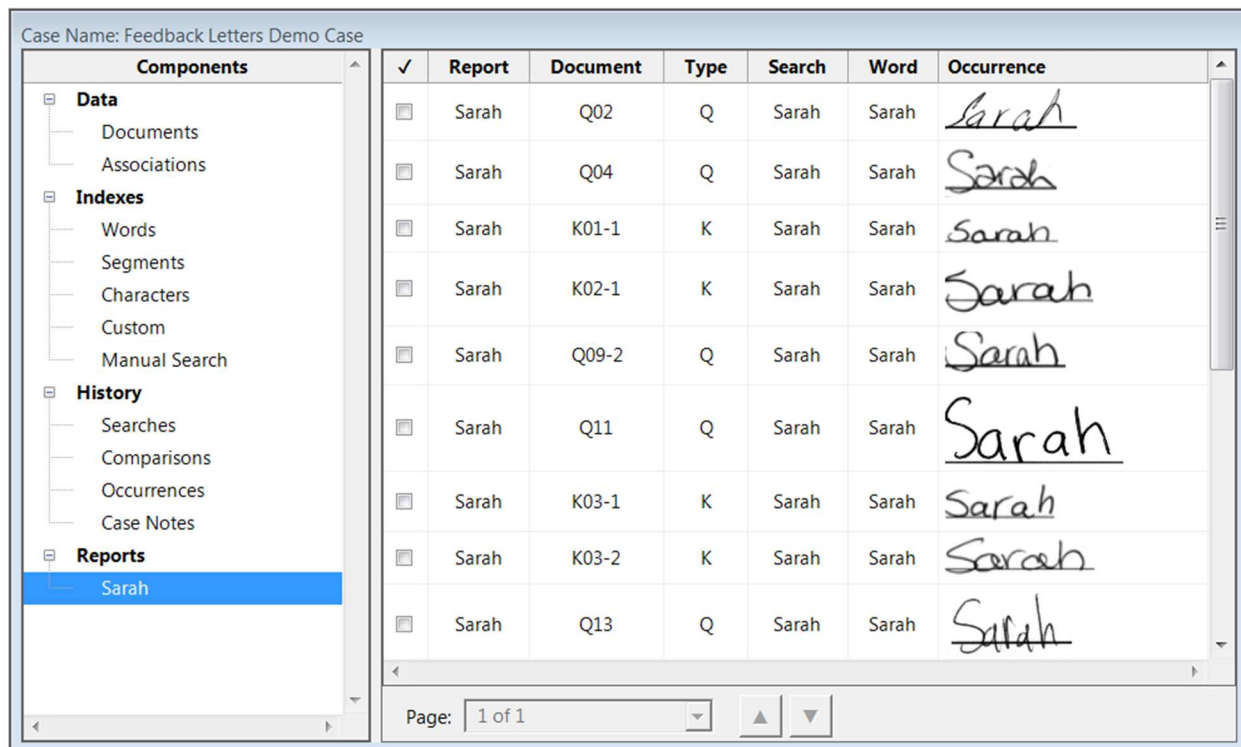
Occurrence(s) may be dragged from one list or window and dropped into a specific report by first selecting them. Drag and Drop is a Microsoft Windows feature that uses your pointing device's left button.



As an alternative, you may add occurrences to any report by selecting them and using the "Add to Report..." command. In that case you will be asked to select the report of your choice.



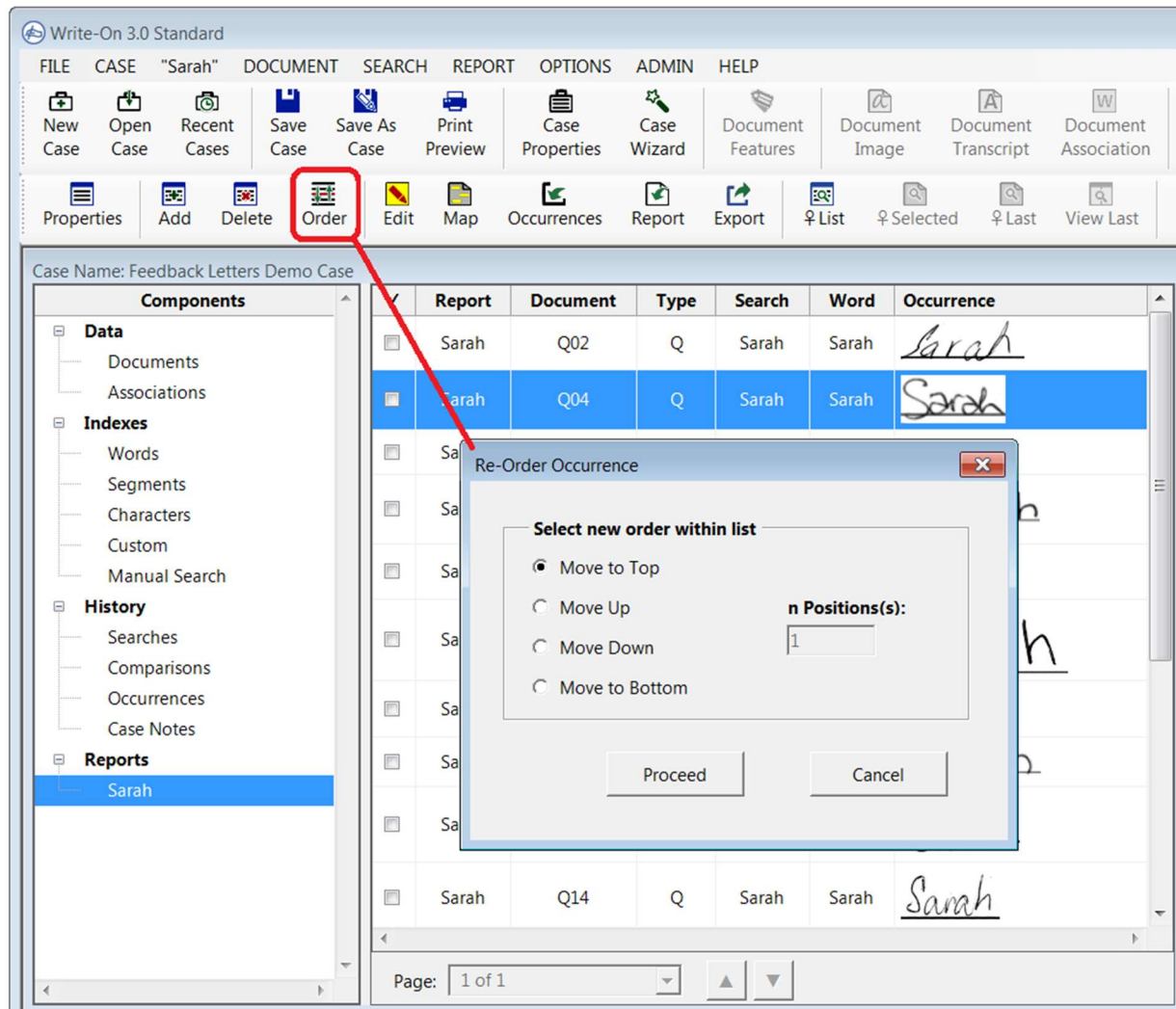
Adding one or many occurrences to a report will automatically update the list of occurrences applicable to that report. For example, the image presented below displays a list of at least 9 occurrences of "Sarah" that will be used in the Report "Sarah".



How these occurrences will be presented in the final report depends on the template selected within the Properties window.

## 4.4 Set Occurrence Order

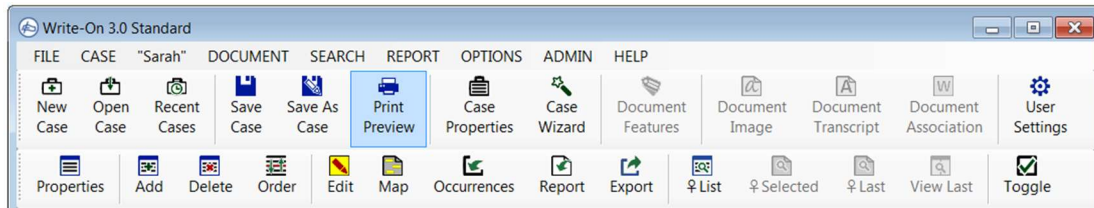
The order in which the occurrences are displayed in the above list will dictate the order in which they will be presented within the final report. The order can be modified by selecting, dragging, and dropping occurrences from one row to another. You may also use the "Order" button located on the tool bar to re-order one or more selected occurrences.



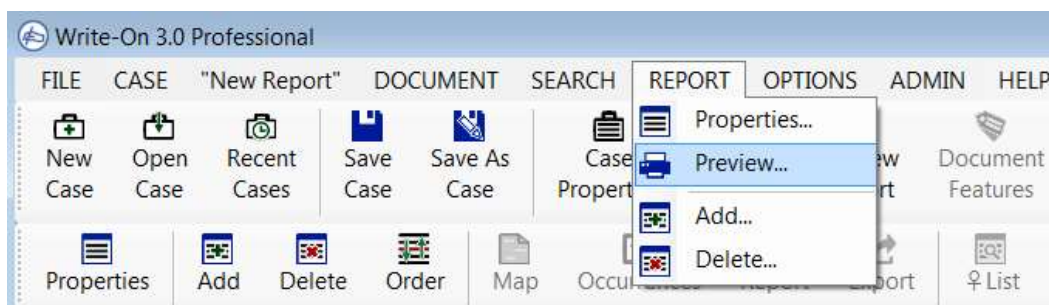
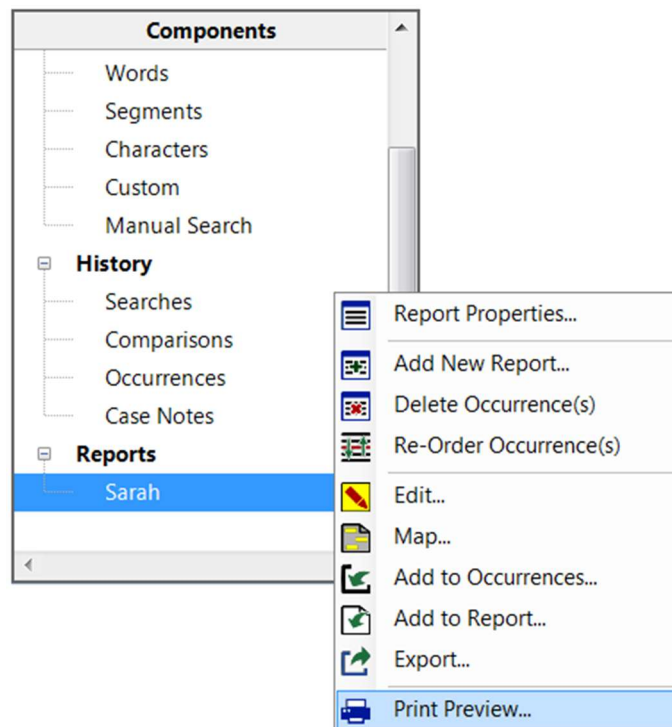


## 4.5 Preview Report

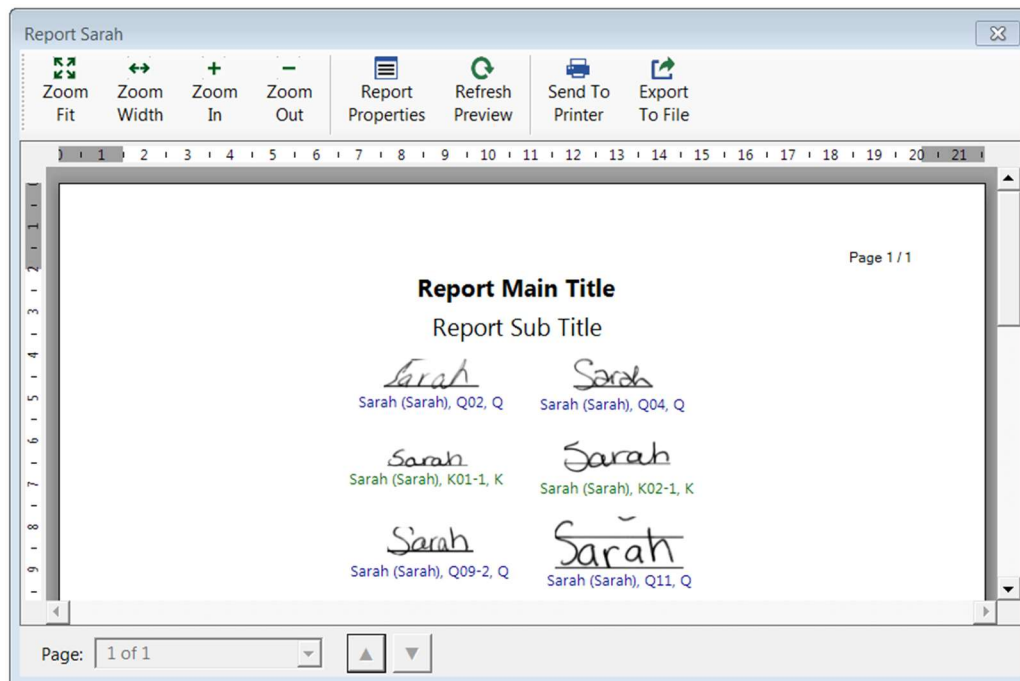
Once a report is created and populated, you can preview it in its formatted form by selecting the specific report and the "Print Preview" feature.



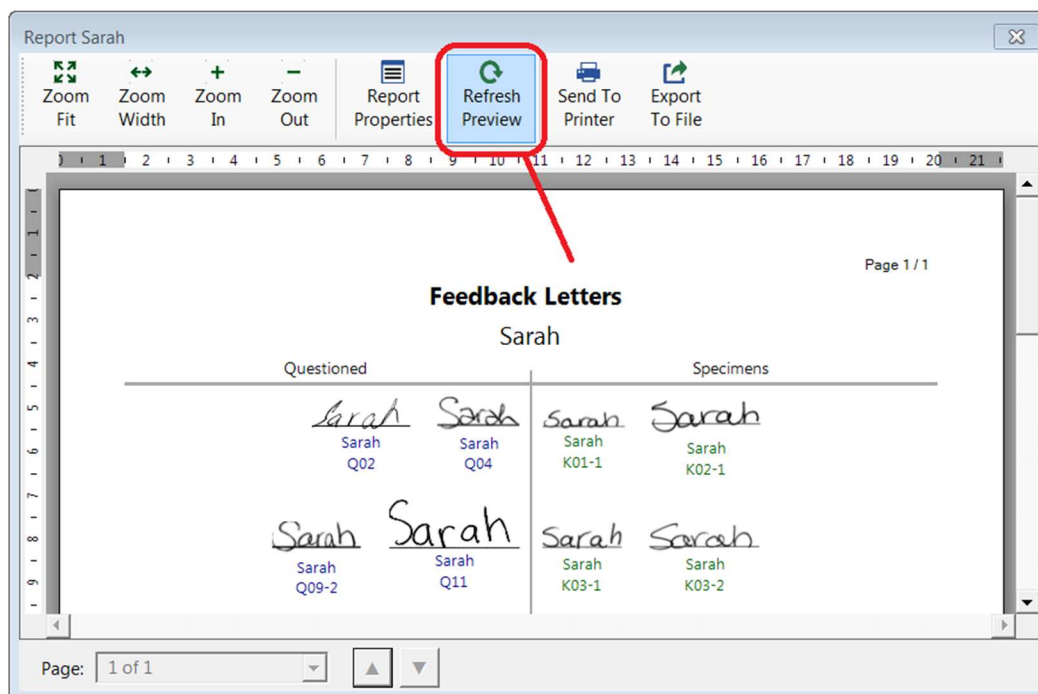
Alternatively, you may preview a report using the "Print Preview..." option located in the context-sensitive menu of the selected report or the "Preview..." command located under the main REPORT menu.



If the default properties and template (i.e. |OO|) were used, the report presented in the preview viewer should look similar to the image below.



After updating a few properties such as the Title, Subtitle, Template ("QQ | KK"), and Justification, refreshing using the "Refresh Preview" button should produce a report similar to the image below.

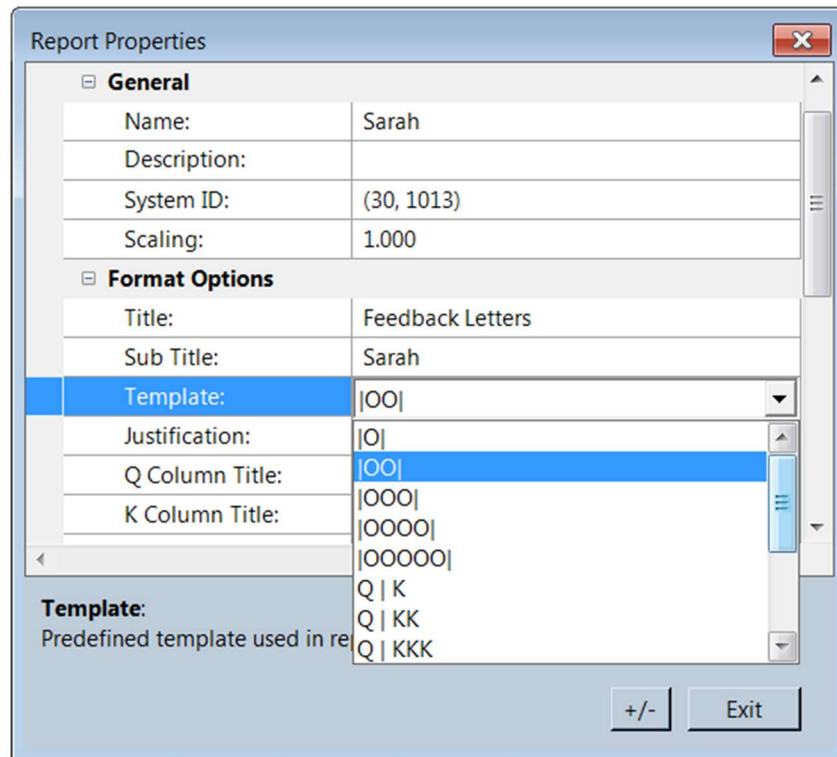




From the Print Preview window, the report may be sent to the printer of your choice or exported to a 600 DPI TIFF file for further editing.

## 4.6 Templates

The Template property is used to define how Q and K occurrences will be presented in the formatted version of the report. Write-On comes with 14 pre-defined templates, from |O| all the way to "QQQ | KKK".



- The letter "O" represents any occurrence.
- The letter "Q" represents an occurrence from a document marked as Q.
- The letter "K" represents an occurrence from a document marked as K.
- The number of letters describes the number of columns used in the report.

For example,

- Template "|O|" produces a report where all Q or K occurrences are positioned over a single column.
- Template "|OOO|" produces a report where all Q or K occurrences are positioned over 3 columns.
- Template "Q | KK" produces a report where Q occurrences are positioned over a single column on the left side of the page and K occurrences over 2 columns on the right side of the page.

How each column is presented also depends on the more advanced template options such as "Q/K Split Ratio" and "Force New Row". The use of templates combined with the many options available within the report properties offer an array of alternatives.

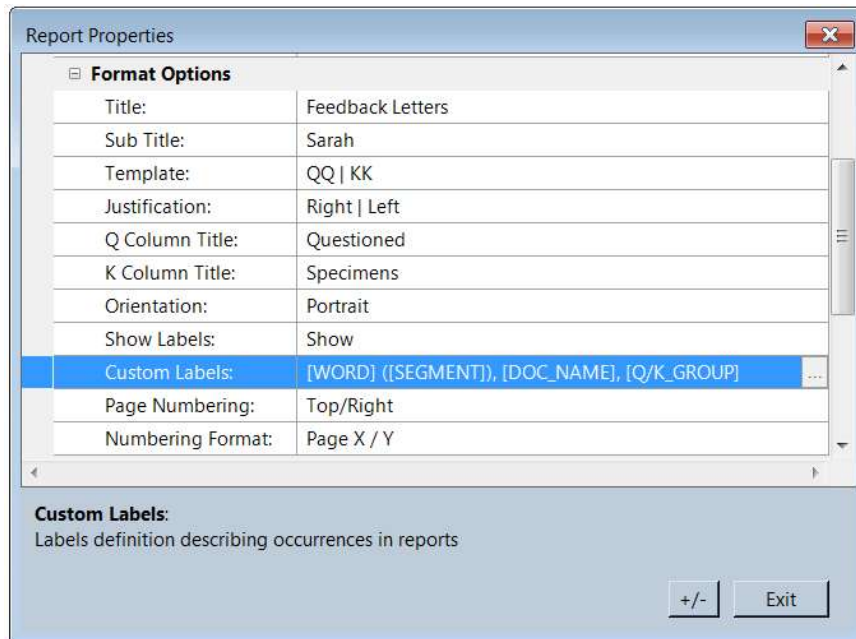
## 4.7 Editing Labels

Unless defined otherwise, the labels presented under each occurrence will display the entire word, the search string (in brackets), the document name, and the Q/K Group applicable to the occurrence.

  
Sarah (Sarah), Q04, Q

  
Sarah (Sarah), K01-1, K

The format used to display these labels can be modified via the "Custom Labels" report property.



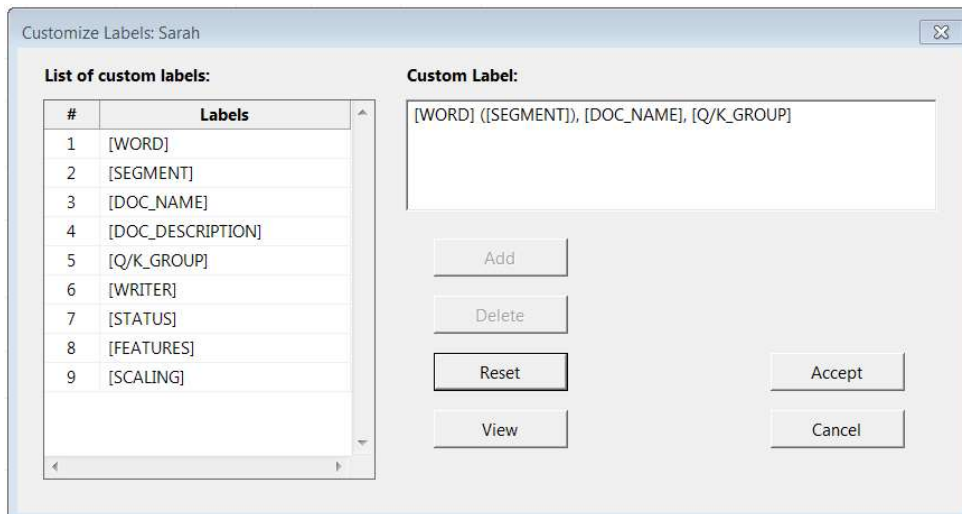
**Report Properties**

<b>Format Options</b>	
Title:	Feedback Letters
Sub Title:	Sarah
Template:	QQ   KK
Justification:	Right   Left
Q Column Title:	Questioned
K Column Title:	Specimens
Orientation:	Portrait
Show Labels:	Show
Custom Labels:	[WORD] ([SEGMENT]), [DOC_NAME], [Q/K_GROUP]
Page Numbering:	Top/Right
Numbering Format:	Page X / Y

**Custom Labels:**  
Labels definition describing occurrences in reports

+/- Exit

This property can be used to modify the typical labels appearing under all occurrences.



**Customize Labels: Sarah**

#	Labels
1	[WORD]
2	[SEGMENT]
3	[DOC_NAME]
4	[DOC_DESCRIPTION]
5	[Q/K_GROUP]
6	[WRITER]
7	[STATUS]
8	[FEATURES]
9	[SCALING]

**Custom Label:**

[WORD] ([SEGMENT]), [DOC\_NAME], [Q/K\_GROUP]

Add  
Delete  
Reset  
View

Accept  
Cancel

Labels may be modified to show one or many of the pre-defined variables produced by the application, from the word presented ([WORD]) to the scaling ([SCALING]). Labels may also include other hard-coded terms and spread over multiple lines. For example, a custom label defined as:

**Segment:** [SEGMENT]  
**Word:** [WORD]  
**From** [WRITER]









would be presented as follows within the final report:

  
 Segment: ah  
 Word: Sarah  
 From Writer A

As an alternative, all labels may be hidden using the "Show Labels" property. Furthermore, the label for a very specific occurrence and the occurrence image itself may be edited. This is discussed in the next section.

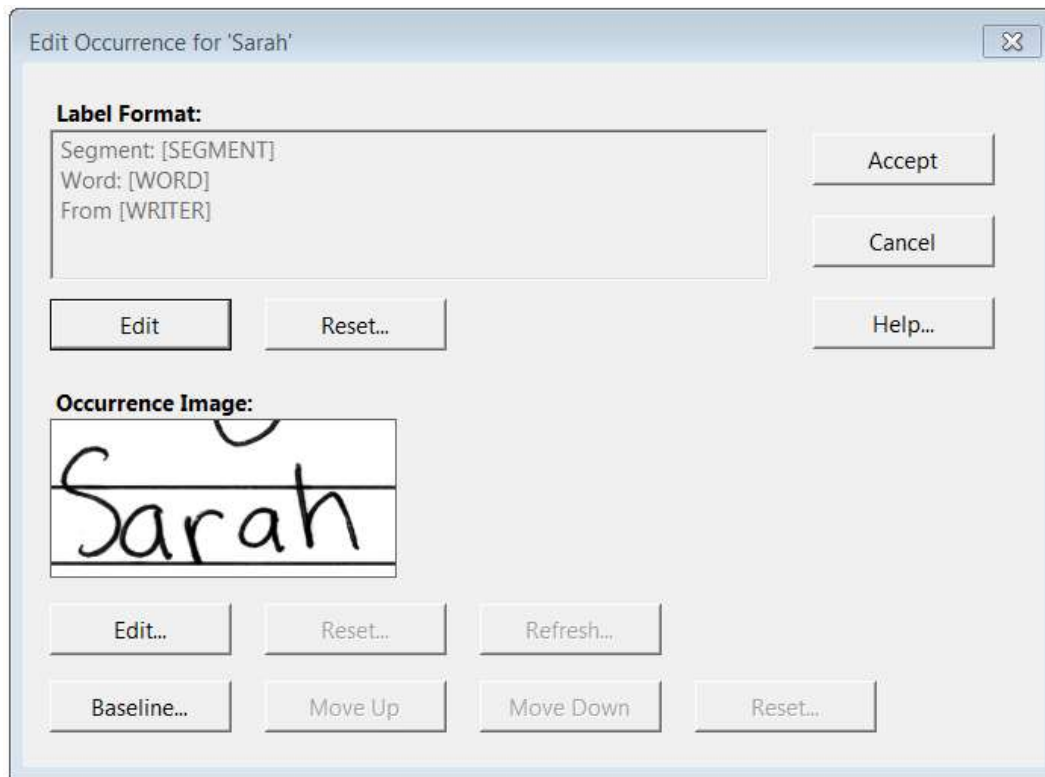
## 4.8 Editing Individual Labels and Occurrences

The label for a specific occurrence and the occurrence itself may be edited by selecting it and using the "Edit..." command located within the context sensitive menu.

✓	Page	#	Report	Document	Type	Search	Word	Occurrence
<input type="checkbox"/>	1	10	Sarah	Q14	Q	Sarah	Sarah	
<input type="checkbox"/>	1	11	Sarah	K04-1	K	Sarah	Sarah	
<input type="checkbox"/>	1	12	Sarah	K06-1	K	Sarah	Sarah	
<input checked="" type="checkbox"/>	1	13	Sarah	Q11	Q	Sarah	Sarah	
<input type="checkbox"/>	1	14	Sarah	Q15	Q	Sarah	Sarah	
<input type="checkbox"/>	1	15	Sarah	Q16	Q	Sarah	Sarah	
<input type="checkbox"/>	1	16	Sarah	K07-1	K	Sarah	Sarah	
<input type="checkbox"/>	1	17	Sarah	Q17	Q	Sarah	Sarah	

- Report Properties...
- Add New Report...
- Delete Occurrence(s)
- Re-Order Occurrence(s)
- Edit...**
- Map...
- Add to Occurrences...
- Add to Report...
- Export...
- Print Preview...

This edit feature offers many options: customize a specific label, edit the image using the graphic editing software of your choice, and update the baseline reference used in locating the image within the report.



## Editing Label

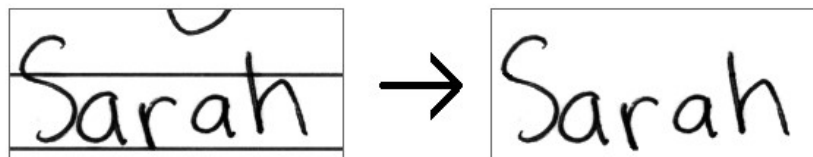
To edit the label, use the "Edit" button located under the label description to enable the textbox describing the label. Alternatively, you may use the "Reset..." button to bring back the default label set at the report level.

## Editing Image

Editing of the image is performed using a third-party graphic editing software. By default, Write-On is set to use Microsoft Paint. MS Paint is a raster graphic editor included with all versions of Windows. It has very limited options but is very simple to use. It is usually good enough to clean background distractions. The procedure to edit an occurrence within Write-On is as follows:

- Click "Edit..." located under the occurrence image.
- MS Paint should open automatically and load a high-resolution TIFF copy of the occurrence under consideration.
- Within MS Paint, perform the necessary editing.
- When complete, save the image using the MS Paint "Save..." command.
- Use the "Refresh..." button within Write-On to reload the occurrence within Write-On.

For example, MS Paint was used to clean the occurrence below:



This editing feature can also be used to add text, arrows, or color, as well as to resize or isolate portions of the image. It is only limited by the graphic editing software capabilities and your skills as a graphic artist. You may return to the original image at any time using the "Reset..." button located under the image.

You may select different graphic editing software by visiting the "Graphic Editor" property within the user settings. Edited images must be saved as LZW Compressed TIFF images.

### Important

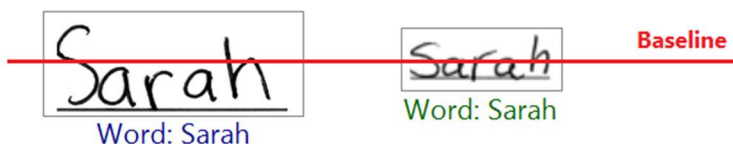
Editing the occurrence image does not alter the contents of the original document. The updated occurrences are saved individually within the "...Case.WRN3.CaseData\Images\Occurrences" folder.

### Important

When the occurrence is defined as "Show Segments Only", editing of the image will open the entire word as originally associated. This feature can be used to modify and show the exact segment.

### Editing Baseline

By default, occurrences are inserted in a report using a baseline situated in the middle of the image. The baseline for each individual image may be moved up or down using the "Baseline" button. For example, using the middle of the images as the baseline (default), these two occurrences would be displayed as follows:



Moving the baseline down to match the base of the handwriting would produce the following result:



## 4.9 Reporting Advanced Settings

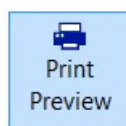
In addition to the many properties which serve to construct individual reports, user settings contain a series of properties affecting how all reports are produced. These include the ability to set the font style and size, the color of the labels, and the spacing between each row.

## 5.0 Printing and Exporting

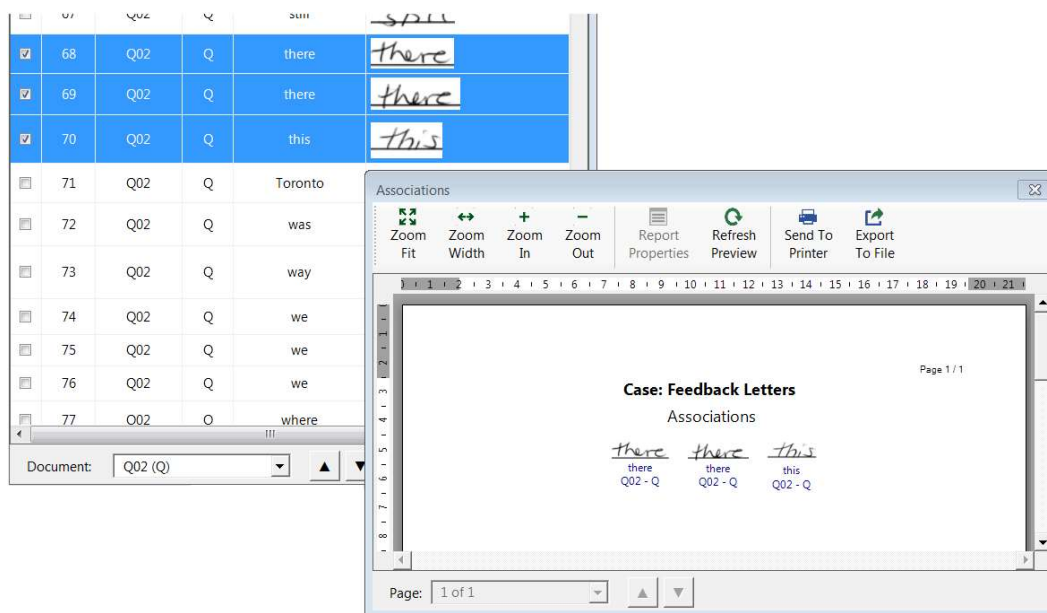
Most of the data, images, and output produced by Write-On may be printed or exported to text or TIFF format for further editing or analysis.

### 5.1 Printing and Exporting using Print Preview

All associations, side-by-side results, comparisons, and reports may be previewed, printed, or exported to TIFF files for further editing and insertion into other application. This is achieved by using the "Print Preview" button or command. Like other features of Write-On, Print Preview may be accessed through different means, such as the main FILE menu, the top tool bar, or the context-sensitive menu.



By default, the entire list of the context under consideration will be previewed. If more than one occurrence is selected, only the selected items will be available for preview as demonstrated below.



The content presented within the Print Preview window may be sent to the printer of your choice or exported to a 600 DPI - LZW compressed TIFF file for further editing or manipulation.

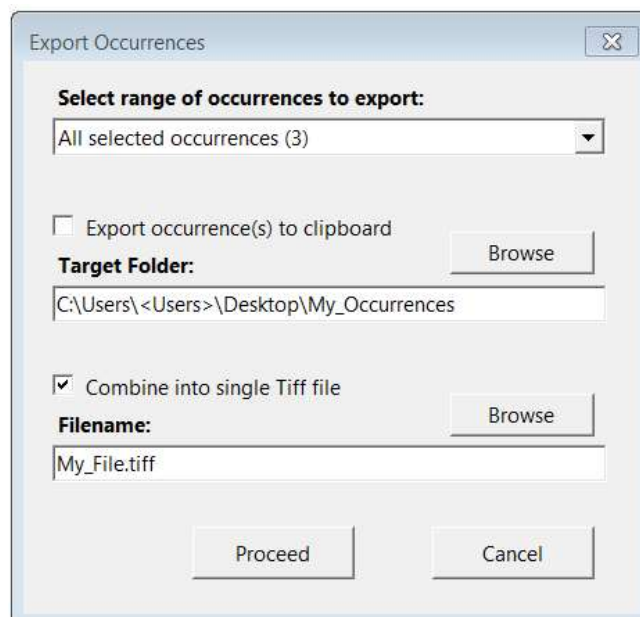
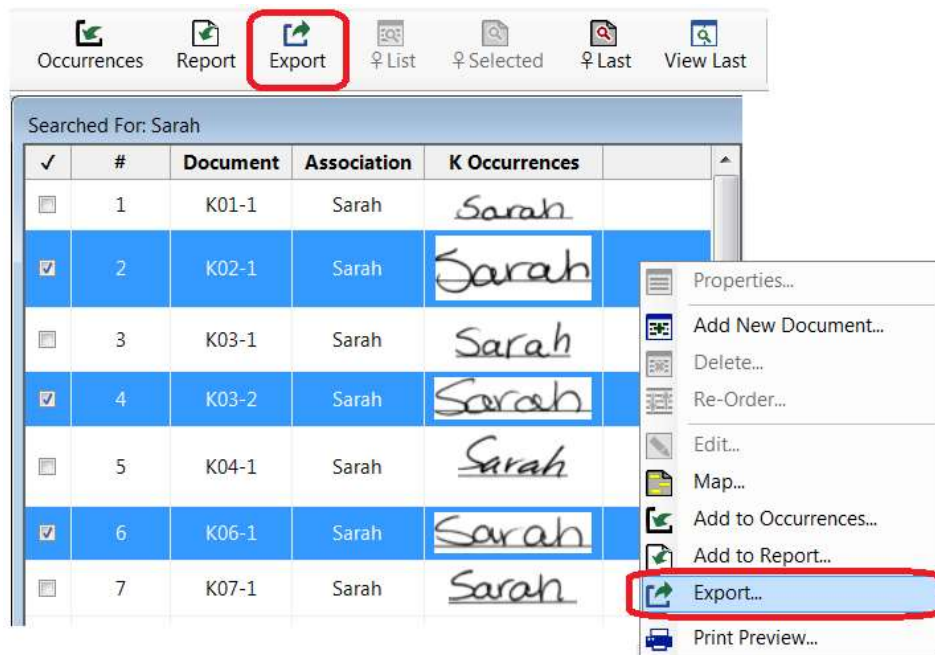
#### Important

Except for reports, the format, template, and labels used in the preview are fixed and cannot be modified by the user. However, the occurrences will always be extracted from the higher resolution original document for quality purposes. To exercise more control over the appearance of the output, use the Report feature.

## 5.2 Exporting Occurrences

All occurrences produced by Write-On may be exported to TIFF files or to memory for use within other applications such as Word, Excel, or Photoshop. When exporting, occurrences will always be extracted from the high-resolution original image.

To export one or multiple occurrences, select the specific occurrence(s) and use the "Export" command located on the main toolbar or the context-sensitive menu. Multiple occurrences may be exported as individual files or they may be combined into a single file.





## Important

When exported, occurrences will be extracted from the original documents without custom manipulations. To export occurrences that have been modified via oversizing, scaling, or to export only the segment portion, use the export feature located within the Print Preview command.

## 5.3 Exporting Data to Text Files

Write-On produces indexes and various lists. Although these lists may not be sent directly to a printer, they may be exported to TAB delimited text files for further analysis or insertion into other applications such as Word or Excel. This includes the list of documents, associations, all indexes, reports, saved searches and comparisons, and case notes.

This feature may be accessed using the main "Export..." command located under the main FILE menu.

