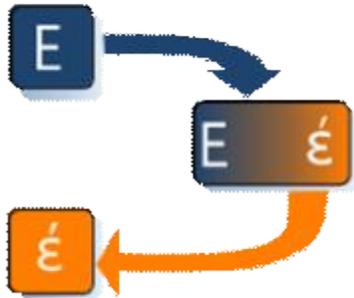


## Introduction to PhraseSwapper



PhraseSwapper is an aid to Cleanup, Repurpose, Translate, or discover what is in a Microsoft® Excel® based file. PhraseSwapper uses three steps to transform your Microsoft Excel Files.

1. Acquire all the text into one list, a 'Library'
2. Assign alternates in the 'Library'
3. Swap the Alternates with the Originals

PhraseSwapper is designed for Microsoft Excel versions XP and above running on the Microsoft Windows® platform. PhraseSwapper is not designed for use on special 64-bit versions of Windows or other platforms.

PhraseSwapper is a "List and Replace" utility that captures the language and words that your file uses, searching in all of the places they may be found, while ignoring numbers and formulas. Most spreadsheets use a very limited number of words and phrases in their construction. However, when it comes time to put your solution into a different language or make it more consistent, you are left with an arduous search and change task. Even a simple spreadsheet can put elements of text (words) into many different places that are easily overlooked by a manual search task. PhraseSwapper will find and list all of these.

PhraseSwapper distinguishes between functions, numbers and true text entries. Visit [www.PhraseSwapper.com](http://www.PhraseSwapper.com) for more information regarding criteria for more robust Find / Replace Solutions.

### *Installation Requirements*

#### Software

- Microsoft Excel - You must have a properly licensed and installed version of Microsoft Excel XP (2002) or above. PhraseSwapper works on files that can be read by these versions of Excel.
- PhraseSwapper is intended for and tested on Windows. PhraseSwapper does not run on the Mac.
- .NET Framework 2.0 - installed and available on the installation machine.

#### Hardware

- No additional devices are required since the installation machine is running Microsoft Excel XP (2002) or above.

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## User Privileges

- You must have the privilege to install software on the machine you will use PhraseSwapper on. This usually means that you must be an administrator or a power user.

## Installation Location

- PhraseSwapper can only be installed on a personal computer (a local machine). It cannot be installed as a network resource. However, once installed, it can access any file that the user may access thru Microsoft Excel, including network locations.



## *Getting Started - Install*

### Installation

- Download the PhraseSwapperSetup.msi file from [www.PhraseSwapper.com/download.aspx](http://www.PhraseSwapper.com/download.aspx). You may choose to either run the installation from the download location or you can save it to a folder on your machine to install later.
- The standard edition and the trial edition use the same install file. You must purchase a registration serial number in order to have all of the functional benefits of PhraseSwapper. The Trial edition is limited to about 15 phrases in the Acquire / Swap operation.
- The help file is located in the application folder – the same folder as PhraseSwapper was installed in. It is also available from [www.PhraseSwapper.com/download.aspx](http://www.PhraseSwapper.com/download.aspx); both of these are in pdf format and require Adobe Acrobat reader in order to view. As an alternate, <http://www.phraseswapper.com/lib/support/Support.aspx> also has an html version of this file.

### Startup

- Start PhraseSwapper from your Start/All Programs/ToolSleuth menu.

### Registration

- You may enter your registration Serial number when the program is started, or from the main menu Help/Register... item.

### Uninstalling PhraseSwapper

Use the Control Panel "Add/Remove Programs" ("Programs and Features" in Windows Vista) to uninstall PhraseSwapper.



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## The Process

Before you begin, it is strongly recommended to work from copies of the Target and Library Files. DO NOT USE your only original.

ToolSleuth. LLC has no responsibility for loss of data or files.

The exchange of one phrase for another consists of three steps, Acquire, Assign, and Swap. The file you want to get the phrases from is called the 'Target' file. The file that the phrases are placed in during the Acquire Phase is the 'Library' file. They may be the same Microsoft Excel file, or two separate Microsoft Excel Files.

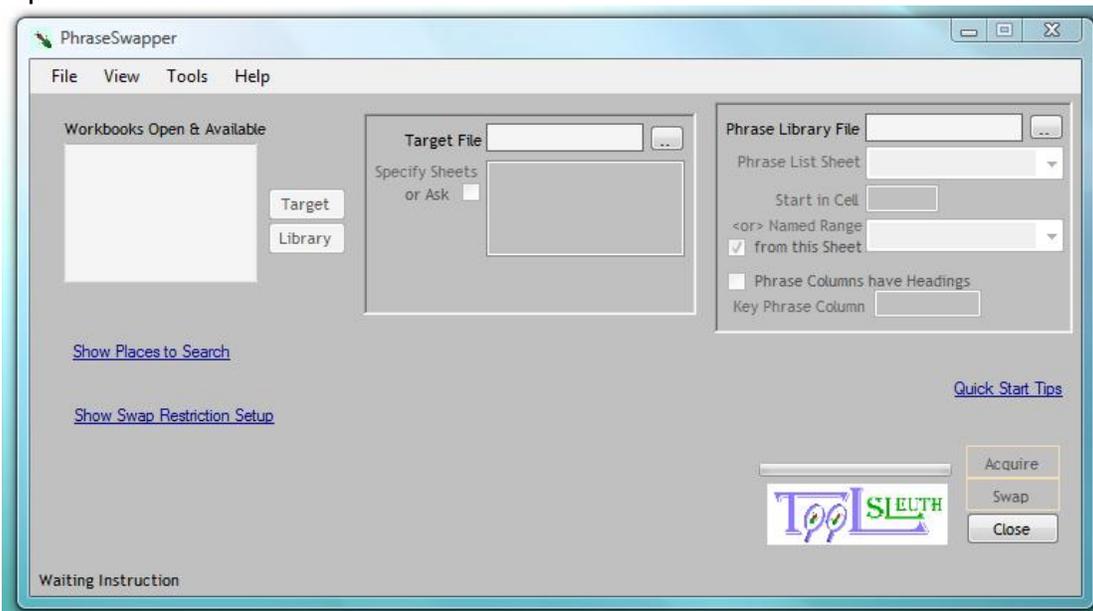


Figure 1 PhraseSwapper Main Window.

The Acquire step places the list of phrases that are discovered in the Target File into the 'Library' file. This list is also known as the 'Key Phrase' list. Clicking on the 'Show Places to Search' allows you to select the types of places that are searched, or just search them all.

The Assign step is a manual step performed outside of the PhraseSwapper. The User or Translator must examine the resulting list and place the new phrase into an adjacent column to the right. You may elect to make no change by leaving the adjacent column blank, or entering the exact phrase from the left most column.

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The Swap step is the final step that exchanges the original phrases in the target file for the ones provided in the adjacent column. This file should be saved under a filename that is different from the original filename. There are methods available that allow sections to be skipped during this step. Clicking the 'Show Swap Restriction Setup' displays entry areas for these methods and for the column in the Library that supplies the alternate phrases.



### ***What's 'the Library'?***

The Library file is a reusable file of key phrases and their alternates or translations. It is a specific range of cells on a sheet within the Microsoft Excel File designated as the Library. The Library may be reused for any spreadsheet during the 'Acquire' and 'Swap' steps, not just the Workbook that you used to 'Acquire' the phrases from. This feature allows the list to be built up over time.

You can skip the Acquire Phase on a new Target spreadsheet, but if the target spreadsheet uses a new phrase that is not in the library, the new phrase will not be replaced during a swap operation. In the event an alternate phrase is empty, the key phrase will not be replaced.

The maximum number of phrases stored in the Library is 25,000 unique phrases. Your patience will run out before this list is completed.

### **Specifying the Library Location**

The Library file can be selected from:

- one of the files already open in Microsoft Excel, and listed in the Open workbooks listing
- dragged from the file explorer (My Computer or My Documents file listings), or
- opened using either the File/Open selection or
- Using the Ellipsis (...) button adjacent to the display box.

Once the Library File is selected, a Library location within that file needs to be appointed. That means that you must select a sheet from the dropdown list, and either type in the cell address to contain the first phrase, or select a range name that will contain all the phrases, the alternates or translations.

### ***If a Library File or Location is not Specified***

If a Library file is not specified for the Acquire operation, a new workbook is opened and the phrase list is placed in the new workbook.

### ***Putting the Library in the Target File***

The Target file may contain the Library also. This is possible because the library exists on a sheet within a defined range. To do this, just specify the target file as the library file.

This technique is useful if a spreadsheet is regularly 'swapped' from one language to another.

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NOTE: While it is possible to use a lookup formula to change languages 'on the fly', it complicates the entire spreadsheet, slows down performance, and substantially increases the file size.



### ***What's "The Target"?***

Simply put, the target is the file that you intend to change. The target is the spreadsheet you intend to work on. It supplies the list of Key Phrases that are put into the Library and it is the file that the swap operation will be performed on.

### **Where to do the work in the Target?**

There are two methods that limit the amount of searching to be done. You may pick the sheets to be searched, and you may pick the types of places (Constants, formulas, comments, and the like) that are to be searched.

### **Picking the Sheets**

You may specify the sheets to be searched. Using the box in the target section that lists the sheets, you may select:

1. All sheets, which will include the hidden sheets as well as those visible; or
2. you may select just those that are visible; or
3. select one or more of those listed, or
4. Be asked whether or not to examine each specific sheet.

Once a sheet is selected for search, the entire sheet is searched according to the places selected for search.

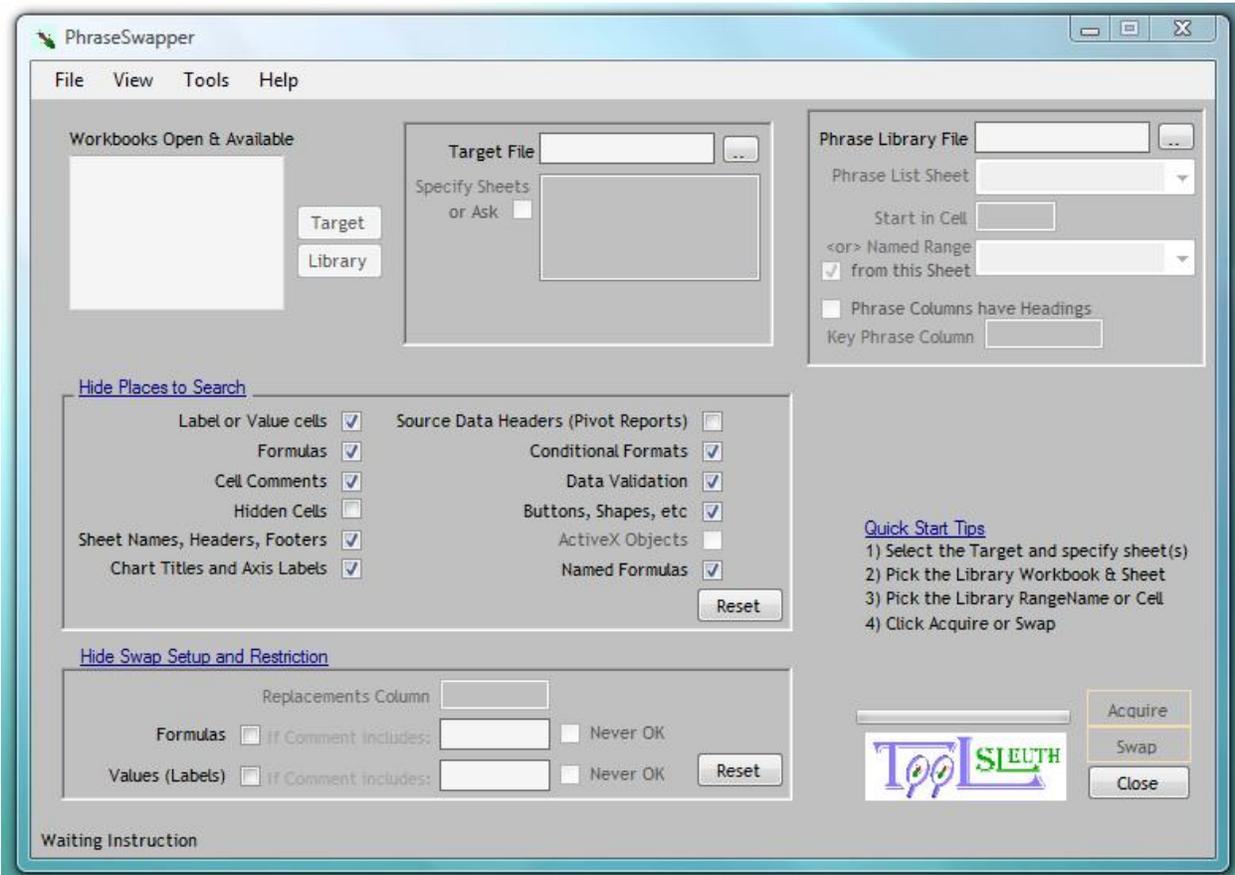


Figure 2 PhraseSwapper Main Window (Expanded)

## Picking the Search Places

Language Phrases are found in various forms in a Microsoft Excel spreadsheet. You may specify some or all of these locations to be searched. The Search locations apply to both the Acquire and Swap phases.

### *Places where 'phrases' may be found in Excel*

'Places' are also known as objects or items. When you click on the "Show Places to Search" link, a group of check boxes are presented designating the places where Excel may hold language phrases. Places where the box is checked will be searched.

#### Label and Value Cells

These are also known as 'Constants'. These cells do not contain a formula. They display text that you typed in.



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#### Formulas - See Also Named Formulas

These are cells that contain a formula. They may be functions or simple mathematical operations. In any case, only text from these cells is captured as phrases. NOTE: you may exclude specific functions from consideration. Functions such as 'Indirect' and "GetPivotData" which may reference names or data elements that you do not want to change may be excluded. The Tools/Options dialog provides a listbox where you may specify these functions.

#### Cell Comments

Cells that have a comment associated with them are normally marked with a small red triangle in the top right corner. The comment displays when the mouse is moved over the commented cell. Some files may have the comments set to always be displayed.

#### Hidden Cells

Entire rows or columns may be hidden in a spreadsheet file. This is often done to present a cleaner display to a user by hiding intermediate calculations. Hiding Rows and Columns also allows you to exclude them from the Acquire or Swap operations.

#### SheetNames, Headers, Footers

A workbook tab is the sheet name. Note that changing this name during a 'swap' operation may break macros and visual basic code that depends on the sheet name.

#### Chart Titles and Axis Labels

The Chart Titles and Axis labels are normally available for users to edit and are not driven by the data. Charts, whether full page or embedded on a worksheet are highly dependent on what is in the source data list, so the chart will change when the source data is changed.

#### Source Data Headers (Pivot Reports)

Leave this option unchecked so that Column Headings are unchanged if the columns contain data used by a Pivot table within the spreadsheet.

A few cautions are in order regarding Pivot tables: (1) they will break if the heading of the data source is changed. PhraseSwapper attempts to exclude the data source heading cells, but will not be able to detect this condition when the range supplies data to a Pivot table in a different workbook. (i.e., it is an 'External' reference)

#### Conditional Formats

A conditional format is when a cell is formatted differently if the contents meet a specific criteria or an associated formula is true. A particular conditional format may be applied to more than one cell, depending on how it is defined.

#### Data Validation

Certain cells may enforce constraints for what may be entered. These may be presented as an 'in-cell' dropdown, or free form entry area. They can also have an input title and message as well as an error title and message.

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### Buttons, Shapes, etc

These are items that make a spreadsheet easier to use. OLE stands for Object Linking and Embedding. In addition to Buttons, this class includes dropdown boxes, list boxes, checkboxes, radio buttons and other items that may be provided from outside of Excel. PhraseSwapper may not be able to capture all of the text where these advanced objects are used.

### ActiveX Objects

ActiveX objects can be buttons, text boxes, dropdown selections and other user input areas. ActiveX can be used to execute code (run a program) from the Microsoft Excel file. This selection is disabled if PhraseSwapper detects that Macros are not enabled for the file.

### Named Formulas

A particular file may also have a formula that is not contained in a cell, but is attached as a name. The result of a named formula is usually used in cell formulas.

### A note about Data Lists

Excel is a very powerful tool to analyze large amounts of data. Often the data includes numbers and language phrases.

If you elect to include a data list in the acquire or swap phase, it may take a long time to complete. It is highly recommended to locate these lists on a separate tab (Worksheet) so that you may exclude the data list from the acquire and the swap phases.



## ***Performing the Acquire***

The only file that you must have selected in order to perform an Acquire, is the Target file. The Library is handled in one of three ways:

- 1) You have left the Library file blank. PhraseSwapper opens a new workbook file and puts the Library in a sheet named 'Phrases' with the Range Name of "\_PhraseLibrary".
- 2) You have selected the Target File as the Library File. PhraseSwapper will use the library sheet and location you have defined in the Library section. If you have left this blank, then PhraseSwapper will create a new Library sheet and locate the library on that sheet as in the first case above.
- 3) You have selected a library file and identified where the Library is located. PhraseSwapper uses this as the Library.



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Libraries may contain many columns of alternate phrases for the Key Phrase list. If you are working with an existing library file or with a multi-column library, it is important that you work from a copy of your master file and that you identify which column is to be the Key Phrase Column.

Finally, click the Acquire button. The Acquire phase first searches the label or constant cells, then Formula Cells, Comment Cells, Conditional Formats, Data Validations, Shapes and finally Sheet names and page headers and footers.

Once PhraseSwapper has searched all of these locations, it compiles the library into a unique list (Capitalization is ignored) and publishes it to the file. PhraseSwapper does not sort the results before the list is published.

### ***Performing the Swap***

In order to perform a Swap, both the Target and Library files must be selected. Once you select the Library file, you will need to either pick the named range that contains the Library, or pick the region and cell addresses that the Library is located.

Set the search locations in the same way as for the Acquire operation. You may specify which column to use as the Key (Specified in the Select Library File section), and which to use as the Alternate (Specified from the Swap Setup section on the main form). This is useful if your Library has multiple columns in it, or you want to replace the alternate phrases with the original Key Phrases. If you have not selected the 'Library has headers', then enter the column index numbers (ie, the first column is '1' and the second column is '2'); otherwise, select the column headings as appropriate.

Identify any passphrases that you have setup in the comments of your target spreadsheet that flag PhraseSwapper to either ignore the Phrase, or Ask you before the swap is performed.

Finally, click the 'Swap button.' The order of searches is the same as for the Acquire Phase.

### **Where a swap won't be done (Swap Traps)**

#### **Phrase Size is out of limits**

PhraseSwapper ships with the default minimum phrase length to be between 2 and 255 characters (inclusive). These settings are defined from the Tools/Options page, Define Phrase Limits section. This means that an essay of 256 or more characters will be skipped as will short text of 2 characters, such as when the word 'Be' is the only entry within a cell or quoted in a formula.

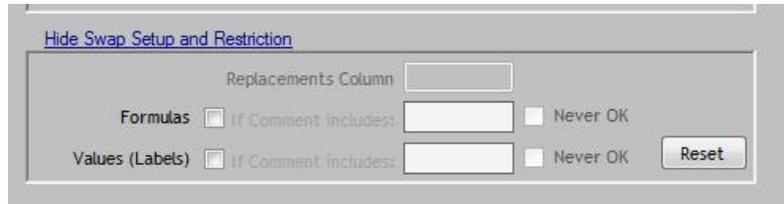
#### **Ignored Formulas**

Certain functions should not have their associated text changed. For example, the formula '=Cell("Address",a4)' contains the text "address", which means something to the 'Cell'

function. Therefore, the word “address” should not be changed. By design, any cell that contains one of the ignored functions will be ignored in it’s entirely.

PhraseSwapper ships with the following formulas ignored:

“Cell”,  
 “GetPivotInfo”, “Indirect”, and “Info”. By definition, if a formula



is excluded for the Acquire step, it is also excluded for a Swap operation. You may specify additional functions to be excluded during the swap using the Tools/Options dialog and expanding the “Function Exclusions” section.

#### Pivot table source data

Pivot tables will break if the column headings in the source data are changed. PhraseSwapper detects the column headings and won’t change them if the data and pivot table are in the same workbook. If they are in different workbooks, there is no way to detect the dependency. Therefore Pivot Tables that use ‘External data’ will break if the column headings are changed in the external spreadsheet. There are 2 ways to avoid this problem.

- 4) You can hide the row containing the column headings and unchecking the ‘Hidden Cells’ checkbox in the ‘Places to Search’ section in the middle of the main form.
- 5) You may insert a comment in the heading cells as described in the “Excluding cells via comment passphrase” section.

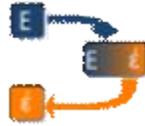
#### Excluding cells using a comment passphrase

You may also exclude specific cells by adding a passphrase in the cell comment (i.e. ‘Do\_Not\_Swap’). This feature is only available for swap operations. In order to provide some flexibility, you may assign a passphrase for constants (labels and the like) that is different from the one used for formulas. You may also request to be asked if you want that cell to be excluded when that passphrase is encountered.

Once you have entered the passphrase into the appropriate cell comments, you must tell PhraseSwapper what the rules are. You may configure these from the main page by expanding the ‘Show Swap Setup and Restriction’ link. You will see two rows to configure this feature. One is labeled ‘Formulas’ and affects cells with formulas. The other is labeled ‘Values’ and affects only cells that are constants or labels.

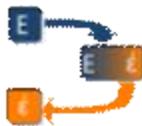
Once you check the appropriate Formulas or Values (Labels) box, you have alerted PhraseSwapper to look at cell comments for cells that should be ignored (excluded). You then need to enter the passphrase in the ‘If comment includes’ box. Finally, you may choose to ignore every case when the cell contains this passphrase by checking the ‘Never ask’ checkbox. If this box is unchecked, PhraseSwapper will ask your permission each time that the passphrase is encountered.

Key Note: Comments are processed after Constants and Formulas, but if you include the passphrase in the phrase list and assign an alternate phrase, the comment will be changed and the passphrase will no longer be effective.



## ***Limitations***

- 1) Please note that PhraseSwapper ignores Macros, Dialogs, and Visual Basic code. This is by design.
- 2) Untrusted worksheets and worksheets that have macros disabled will not include text located on ActiveX controls for either Acquire or Swap operations. This is by design of Microsoft Office products.
- 3) PhraseSwapper also respects protections that are in place. By design, if a workbook or a worksheet is protected, the Acquire operation will have limited success and most Swap operations will fail.
- 4) PhraseSwapper performs a case –insensitive check. That means that PhraseSwapper regards words starting with capital letters to be the same as if it were all lower case. This behavior is by design. It is in place in order to limit the number of ways a simple phrase like “The Bag Is Brown” is listed.
- 5) PhraseSwapper cannot detect that a value dependant Function has been broken. This can happen when a Function depends on a Function, particularly if they are auto generated. Let’s suppose that you have a pivot table that shows grand totals for each row. Let’s also suppose that you have a ‘summary’ tab that shows the contents of the ‘Grand Total’ for a specific row, say ‘Red Widgets’. The typical way to do this is click on the summary tab cell, enter an ‘=’ (equals) sign, then click on the correct Grand Total row. Microsoft Excel will auto generate a ‘GETPIVOTTABLE’ function call. If you have allowed the phrase ‘Red Widgets’ to be swapped with ‘Widgets’, your ‘GETPIVOTTABLE’ will fail because it depends on the phrase ‘Red Widgets’ instead of ‘Widgets’.



## ***PhraseSwapper Tool Options***

PhraseSwapper provides certain features that allow you to set how PhraseSwapper performs. You can get to this screen from the Tools/Options menu selection.

There are three option groupings:

- How many files to show on the quick pick lists,
- Function Exclusions, and
- Phrase Limits.

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You also may save the settings as your preferences, by checking the 'Save as My Preferences'. You can reset the options to either be restored to your preferences, or return to the original settings when PhraseSwapper was installed. You may also restore the Function Exclusions or the Define Phrase Limit sections independently.

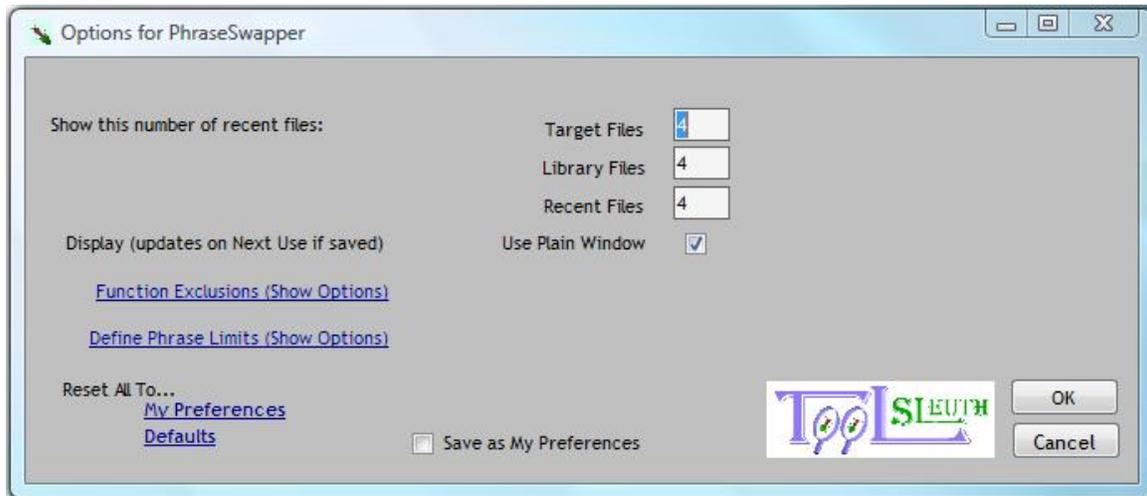


Figure 3 PhraseSwapper Tool Options, Main view

Click on the 'Show Options' to view the Function Exclusions section or the Define Phrase Limits section. You may have both sections expanded to see the full view.

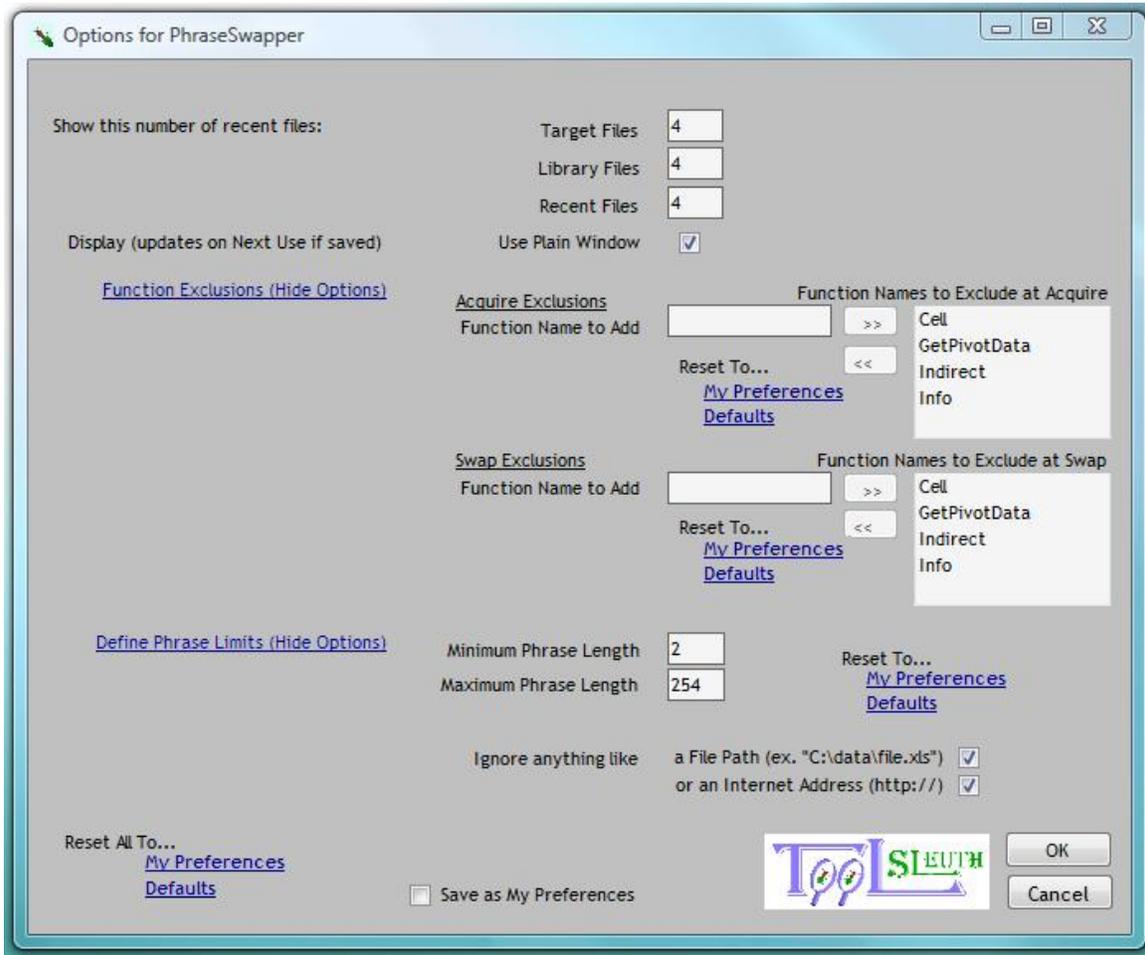


Figure 4 PhraseSwapper Tool Options page, Expanded

### The Function Exclusions Section

You may add or remove Functions to the list of functions that are ignored if a cell formula uses it at all. If the formula is “=AVERAGE(E1:E100) & INDIRECT(B2)”, the cell will be ignored because the Function ‘INDIRECT’ is used within the formula. (Click on ‘Show Options’ in order to display the section.)

PhraseSwapper also recognizes that the list for Acquire may be different than Swap. Enter the function to be excluded in the text box, then click the button with ‘>>’ in order to add it. To remove a Function, select it from the right hand listbox and click the button with ‘<<’ in order to remove it.

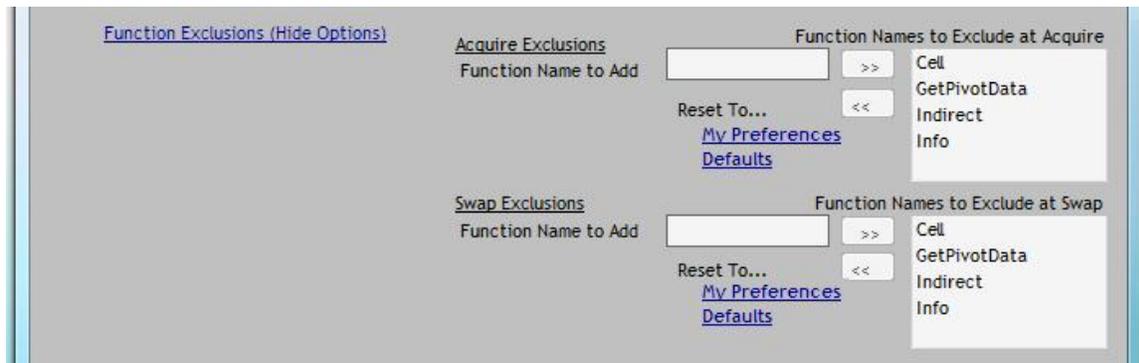
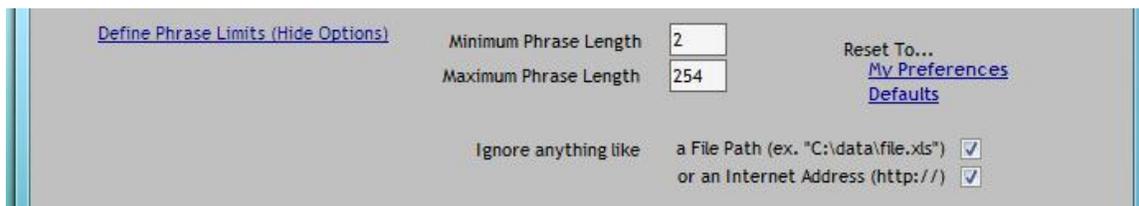


Figure 5 PhraseSwapper Function Exclusion Section on the Tools / Options Page.

## Defining Phrase Limits

PhraseSwapper permits you to define some limits on items captured and treated as phrases. PhraseSwapper ignores numbers and dates, but for text, there is a point where it is impractical to treat a phrase as anything but a paragraph that should be handled separately.



To display these limits, click on the “Define Phrase Limits (Show Options)” label. PhraseSwapper allows you to set the minimum and maximum lengths of what is considered a ‘Phrase’ using the Define Phrase Limits section. These are inclusive numbers. That means that if the minimum length is ‘2’ (the default), then the word ‘Is’ will be captured, but the word ‘a’ will be ignored.

You may also use this section to ignore file names and internet addresses (URLs). A file path is detected for strings beginning with a letter, colon and slash (ex. “C:\”). Text beginning with ‘\’ and one or more letters are also assumed to be folder locations for a file name. PhraseSwapper detects anything that starts with HTTP://, HTTPS:// or FTP:// as internet addresses.



## Appendix A – Alternate Windows (Skins)

This section shows the original set of windows that PhraseSwapper used. During testing it was discovered that transparency masks were not properly displayed on some 32 bit displays in Windows XP. You may use these windows by unchecking the 'Use Plain Windows' option found in the Tools/Options dialog.

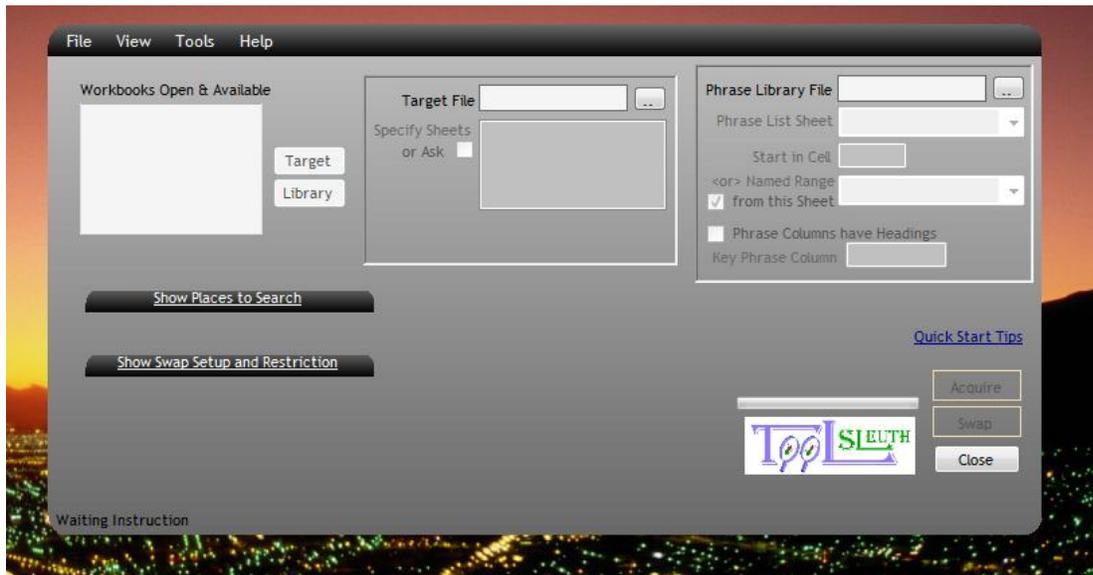


Figure 6 PhraseSwapper Alternate Main Window

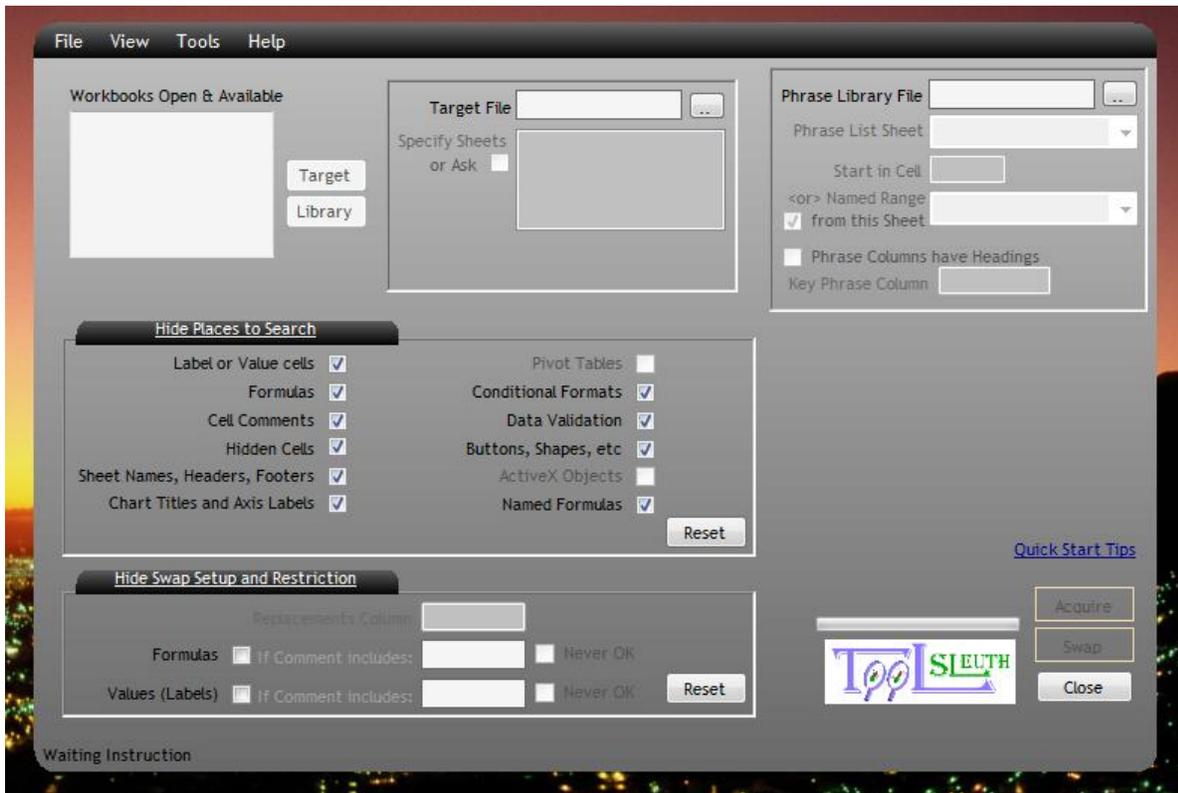


Figure 7 PhraseSwapper Alternate Main Window Expanded

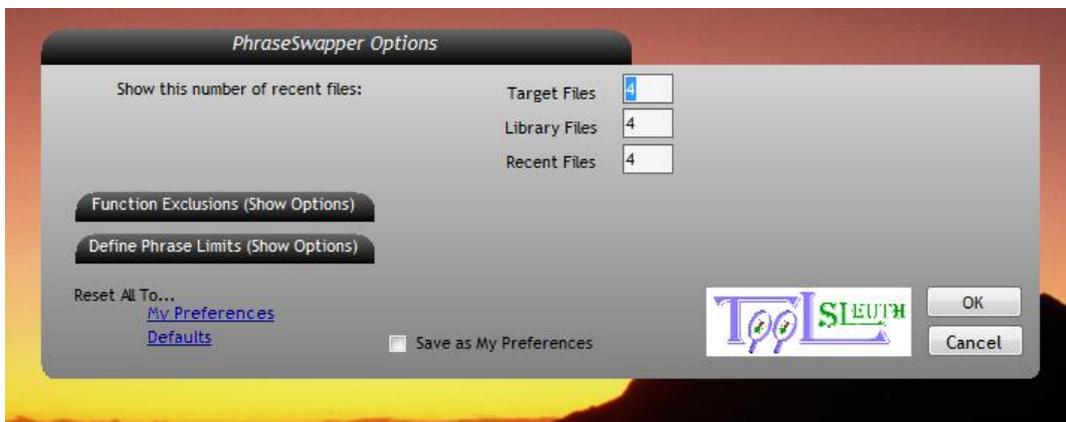


Figure 8 PhraseSwapper Alternate Tool Options, Main View

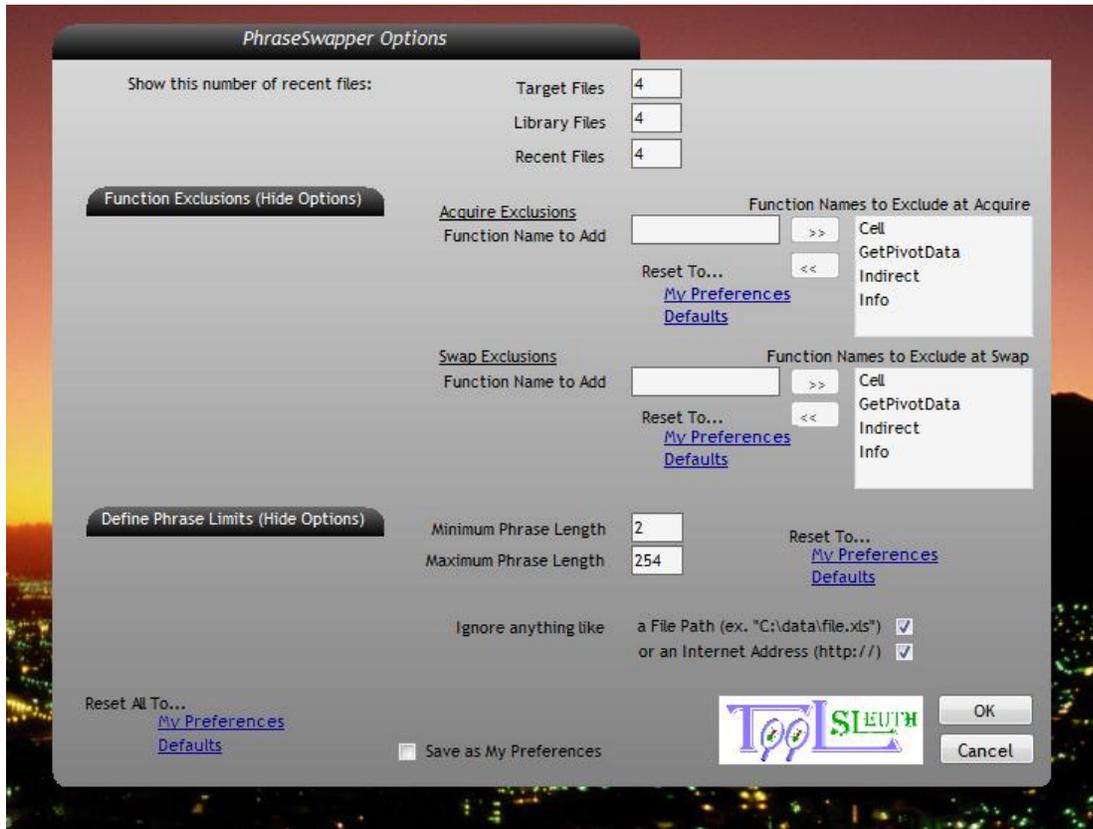


Figure 9 PhraseSwapper Tools/Options Page (Expanded)



The "E é waterfall" diagram,



The Toolsleuth Logo and



"GumShoe, the Worker" artwork

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