
# SCIPRO HAWK™1

## ENGINEERING AND SCIENTIFIC DATA MINING USER GUIDE

DS DATA MINING CO., LLC

**First Edition: November 2016**
**Document Part Number: 100001-002**

**Patent Pending on SciPro Hawk™1 Software**

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# Engineering and Scientific Data Mining User Guide

## 1 INTRODUCTION

The engineering and scientific data mining, tabulation, analysis, and graphing software is a product of DS Data Mining Co. The purpose of this user guide is to instruct the software end user on the utilization of the various features of the data mining software. The software was developed to fulfill a requirement for engineers and scientists to export data from several different formats into one format (Excel) and then allow the user to manipulate the data. The software, through a user GUI interface, has the capability to import, tabulate, analyze and graph data. The software is licensed in four types a 15-day trial version, a standard edition, a university edition, an individual edition, and a student edition. A breakdown of the features associated with the different licenses is shown in the proceeding table.

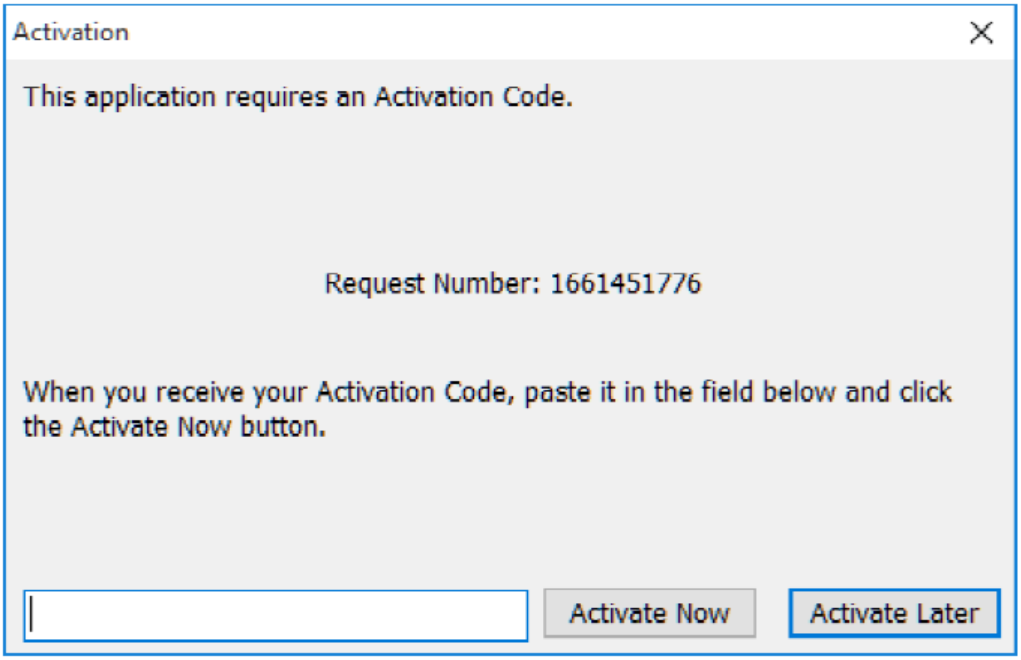
| Software Features | SciPro Hawk1 Licensing Types | | | | |
|---|---|---|---|---|---|
| | 15-day Trial | Standard Edition | University Edition | Student Edition | Individual Edition |
| **Directory Importing Features** | | | | | |
| Require to Close Excel GUI | | | | X | X |
| Load Directory/Files | X | X | X | X | X |
| Delimit Import Data | X | X | X | X | X |
| Clear Directory | X | X | X | | |
| Import Four File Types: | | | | | |
| Log File | X | X | X | X | X |
| CSV File | X | X | X | X | X |
| Text File | X | X | X | X | X |
| RTF File | X | X | X | X | X |
| Reset Import File Types | X | X | X | X | X |
| Save File Automatically in the directory | X | X | X | X | X |
| **Data Analysis** | | | | | |
| Analysis Types: | | | | | |
| Analysis | X | X | X | X | X |
| Tabulation | X | X | X | X | X |
| Ananlysis and Tabulation | X | X | X | | |
| Analysis and Graphing Placement | X | X | X | X | X |
| Six Statistical Analysis Types | X | X | X | X | X |
| Place equations in cells | X | X | X | X | X |
| Three Types of Graphs | X | X | X | X | X |
| Scatter Plot | X | X | X | X | X |
| Linear Plot | X | X | X | X | X |
| Histogram Plot | X | X | X | X | X |
| **Tabulation/Data Search** | | | | | |
| Four Separate Tabulation and Search Parameters | X | X | X | X | X |
| Time or Number Indexing | X | X | X | X | X |
| Start and Index Value Configuration | X | X | X | X | X |
| Data can Be Transposed | X | X | X | X | X |
| Data Placement | X | X | X | X | X |
| Copy and Start/End Placement | X | X | X | X | X |
| **Configuration Options** | | | | | |
| Save Configuration Setting | X | X | X | | |
| Load Configuration Setting | X | X | X | | |

# 2 SOFTWARE INSTALLATION

The SciPro Hawk™1 has two basic installation versions: a 15-day trial version and a full license version. The full license version can be activated through a web based process after the licenses has been purchased which gives the end user quick access to the software. The workbook is protected through Quick License software which wraps the Excel workbook in an application that converts the Excel workbook into an executable. The end user can only install one license per computer. For a site license covering multiple computer installations, contact the DS Data Mining Co. representative.

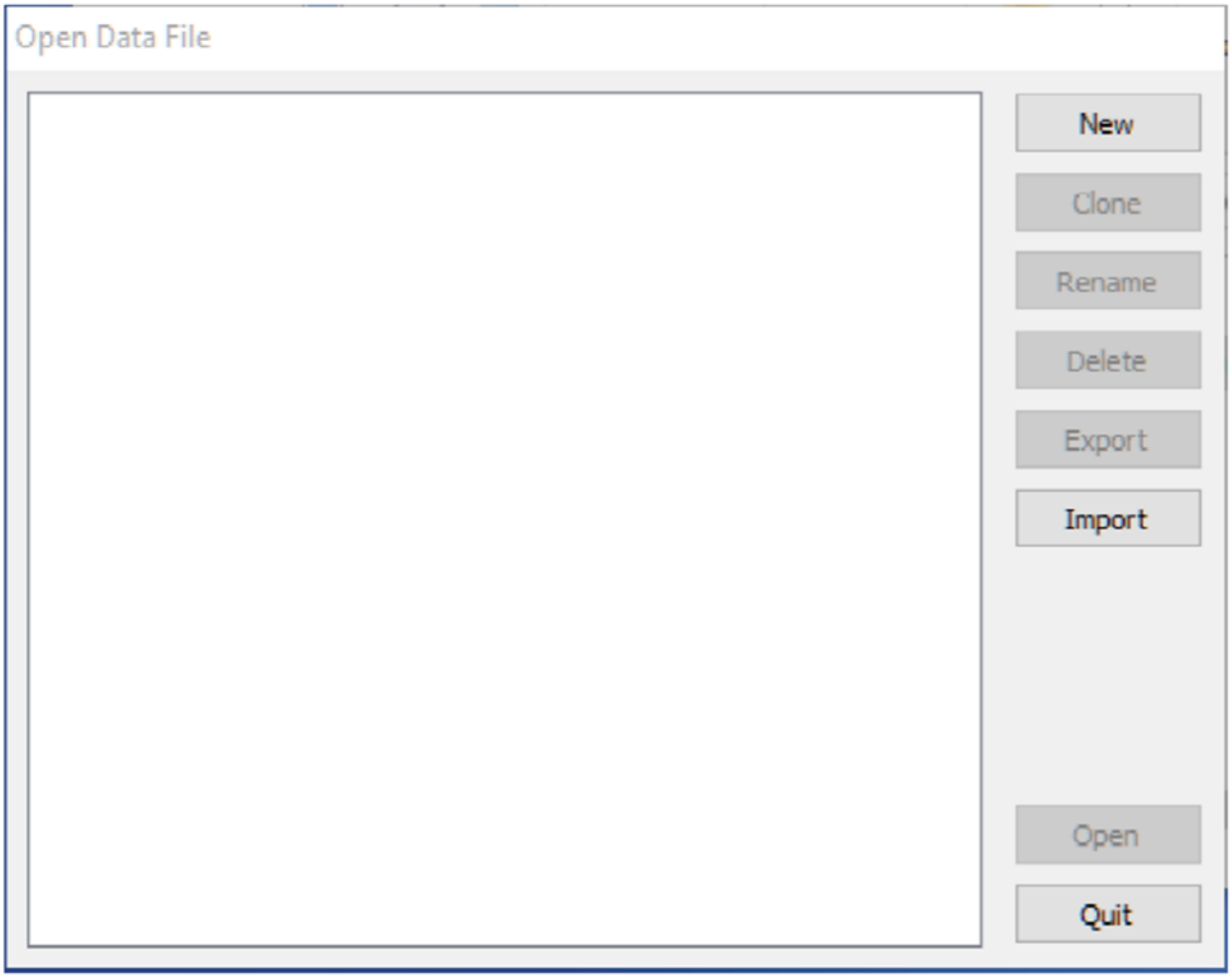
**Manual Activation Process**

A manual activation process is used for the standard version. The EXE or APP prompts the customer to supply a unique Activation Code during the initial launch of the software through the Activation GUI.




The customer will e-mail DS Data Mining Co the assigned Request Number to receive the Activation Code. When you receive the Activation Code, enter it in the designated field to permanently activate the application on a specific computer.

Once you have completed activation and on each subsequent launch, the Open Data File dialog is presented. This dialog presents a user interface to create named copies of your spreadsheet that are listed in the dialog. You may notice that a folder has been created at c:\users\public\YourApp where these files are stored.

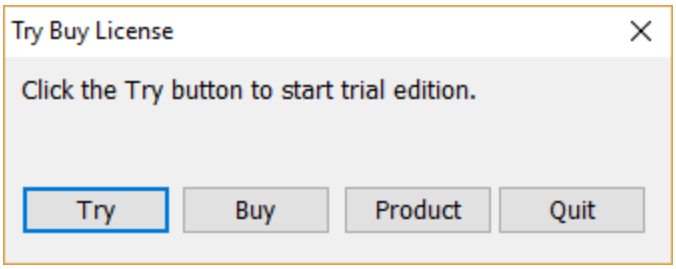



**User Interface Presented by AddLicense Protected Spreadsheet**

When the user double-clicks a listed document, or clicks the Open button, that document is opened in Microsoft Excel.

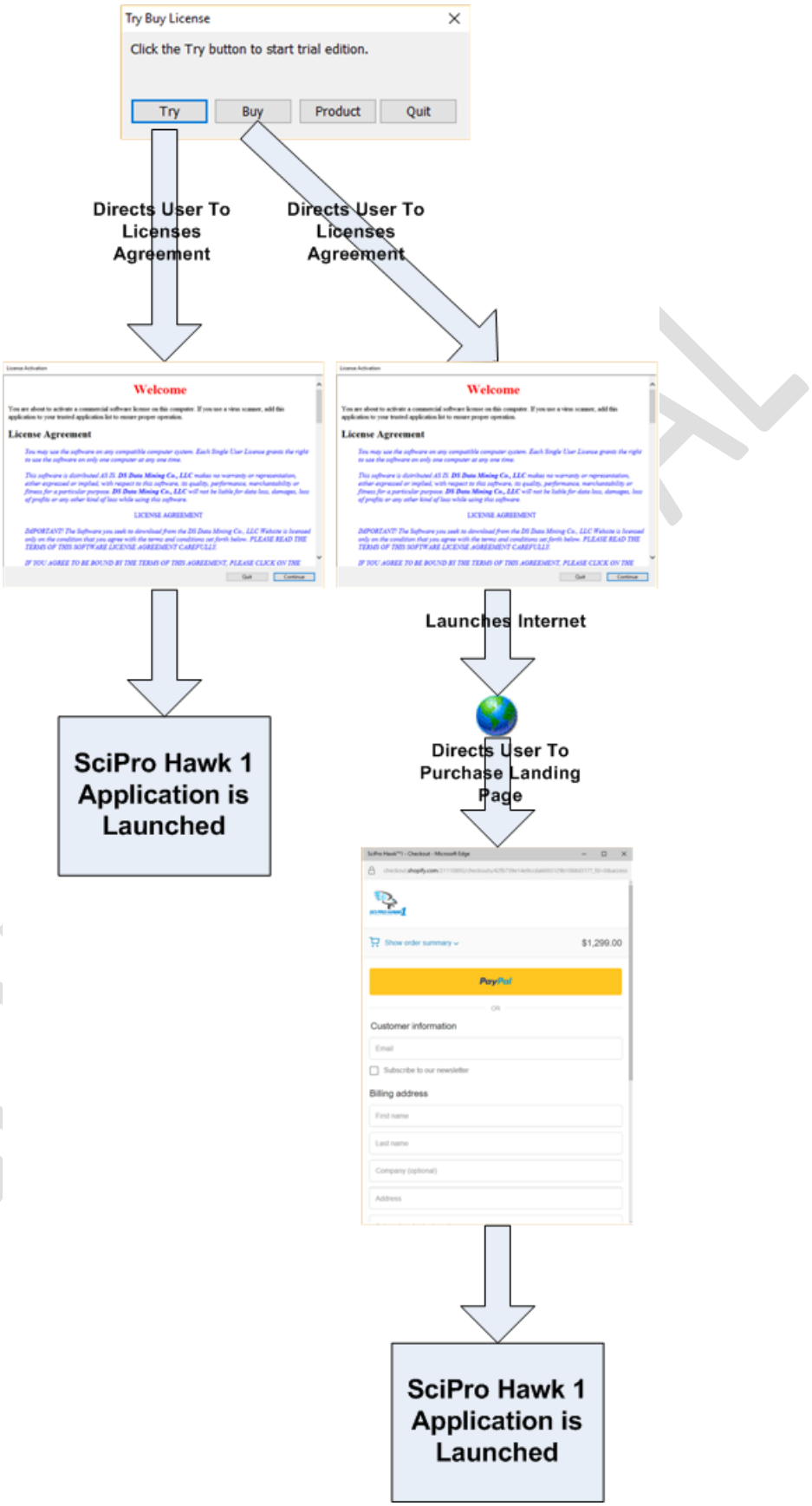
**Online Activation**

Safe Activation is an online service where you log into your account with a web browser and enter data into a few screens. The Select Activation Type Dialogue GUI appears for the end user to begin the activation process.



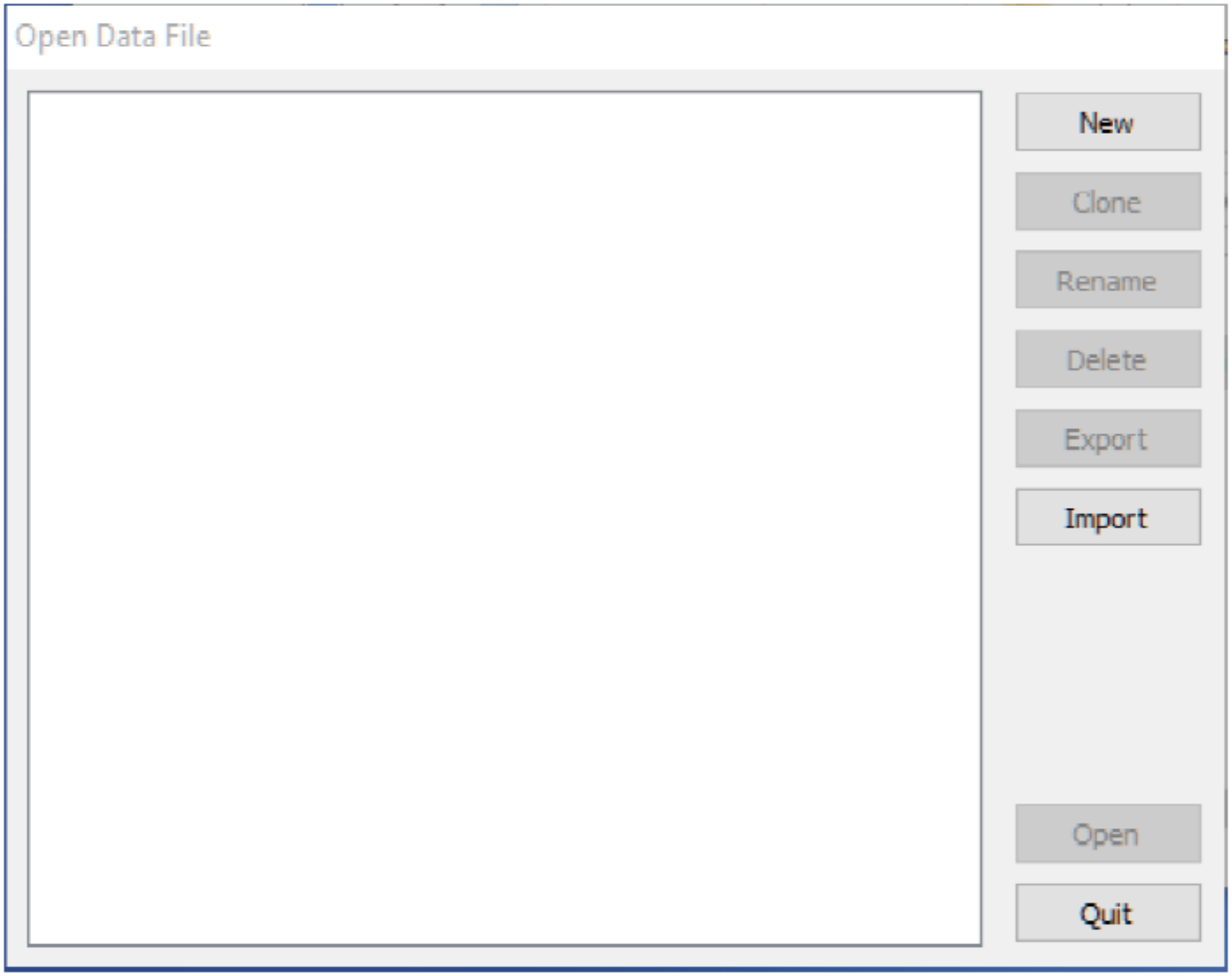

**Dialog Presented if User Allowed to Select Activation Type**

The Try Buy License GUI will appear and will prompt you with four selections. They Try button will begin the 15-Day trial version of the software, the Buy button will navigate you to our shopify purchase landing page for you to purchase the software. Once purchase the license will activate automatically. The Product button provides you with the User agreement, and the Quit button exits the activation process.

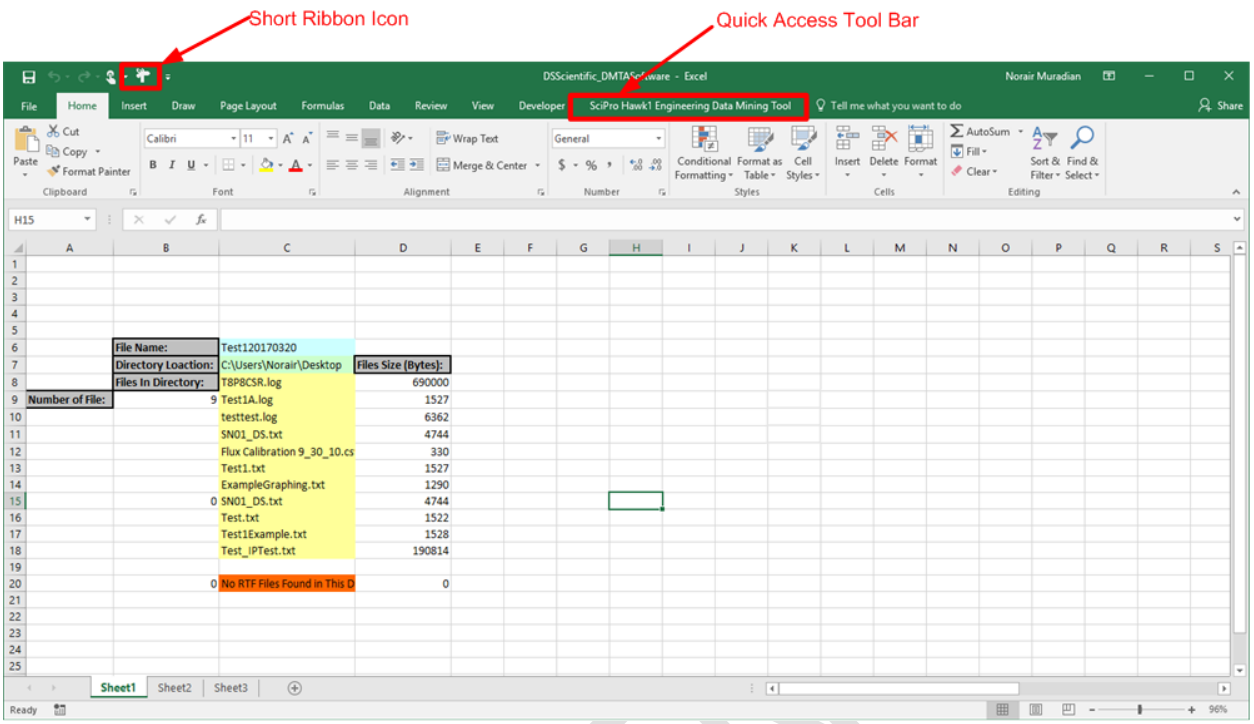

Try Buy License
Click the Try button to start trial edition.
Try
Buy
Product
Quit
Directs User To Licenses Agreement
Directs User To Licenses Agreement
Welcome
License Agreement
Welcome
License Agreement
Launches Internet
Directs User To Purchase Landing Page
SciPro Hawk 1 Application is Launched
$1,299.00
PayPal
Customer information
Billing address
SciPro Hawk 1 Application is Launched

# 3 SOFTWARE QUICK START

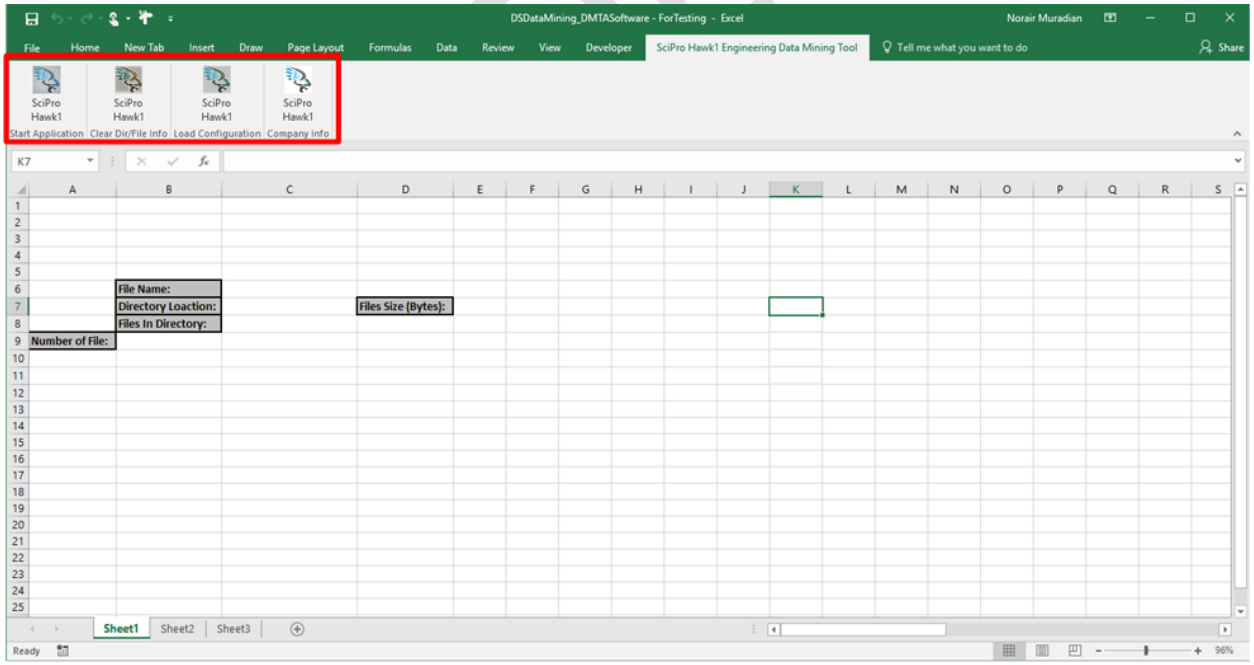
On each launch the Open Data File dialog is presented. This dialog presents a user interface to create named copies of your spreadsheet that are listed in the dialog.



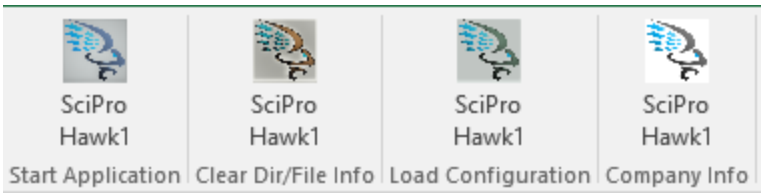

The software has a customized short Ribbon icon and a customized quick launch tab/icon for the user to start the user interface GUI to utilize the program features.

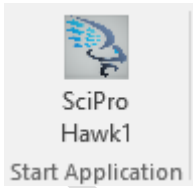



The ribbon and quick launch icons allow the end user to quickly access the data mining software. By navigating to the quick access tool bar, the data mining menu will be highlighted.

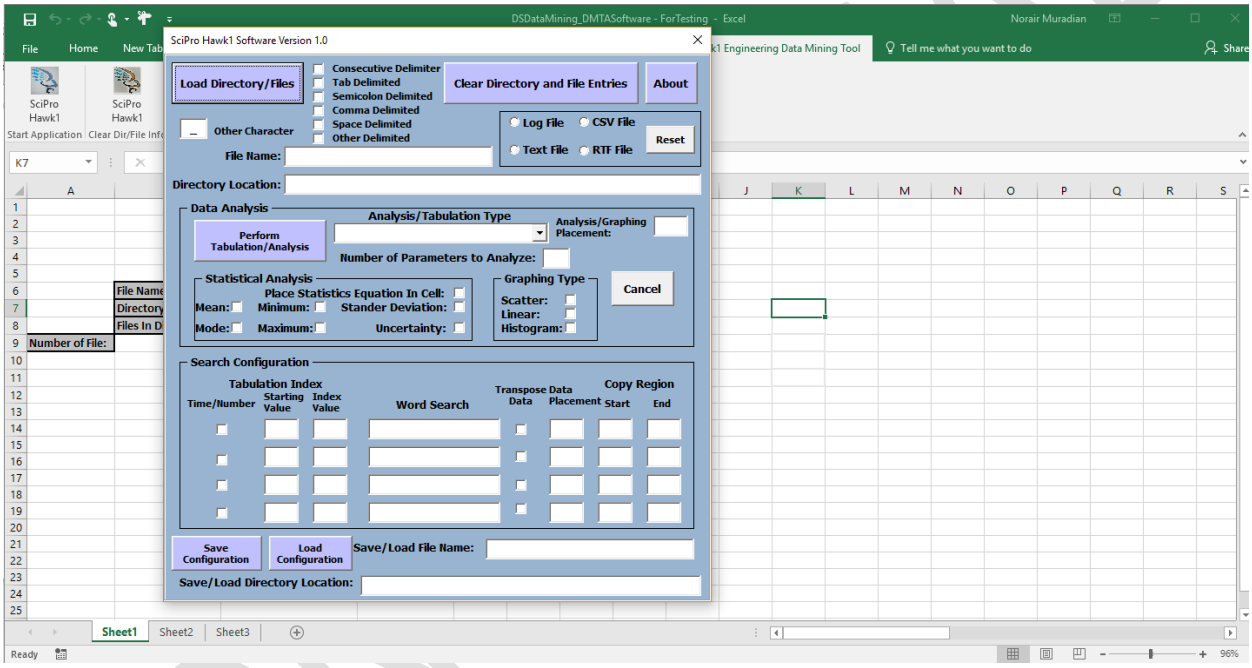


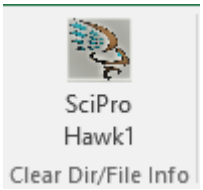

There are currently four ribbon icons associated with the SciPro Hawk™1 software. From left to right are: the start application icon, the clear directory/file information icon, the load configuration icon, and the company information icon.



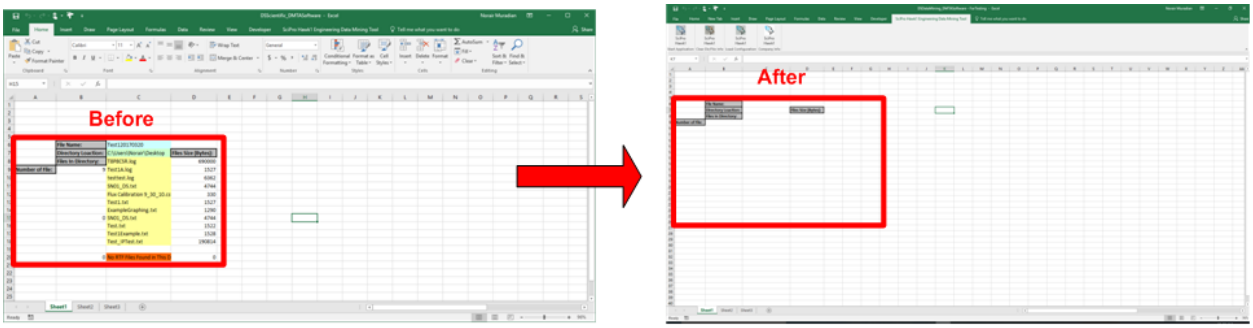

By pressing on either the quick access icon or the **Start Application** ribbon icon 

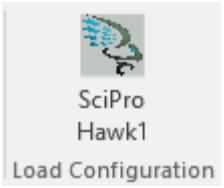
you can launch the user GUI.



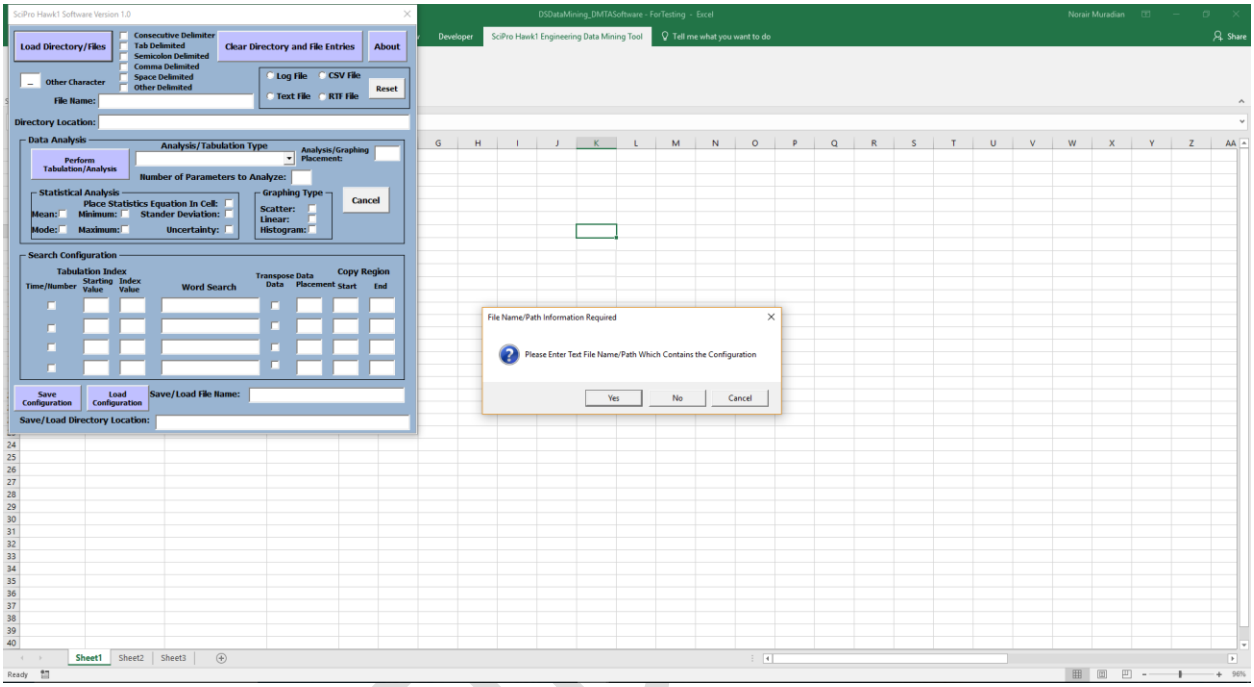

By pressing the **Clear Dir/File Info** ribbon icon 

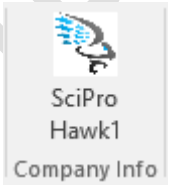
you can clear the Excel data in the summary page.



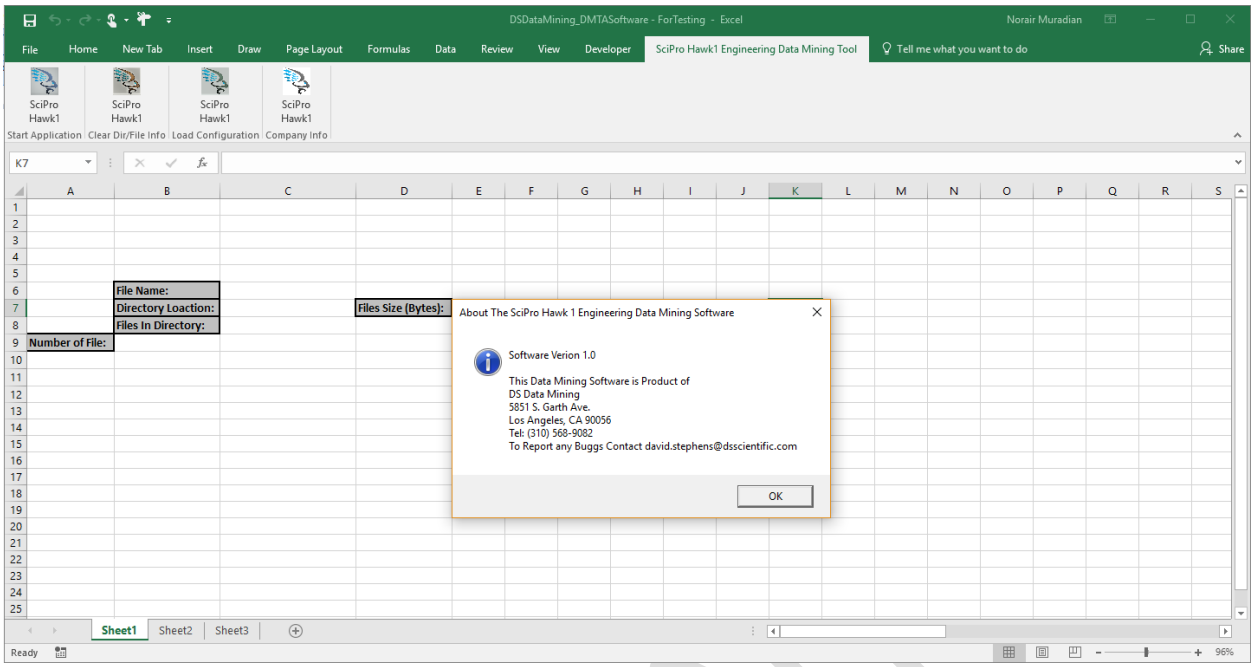


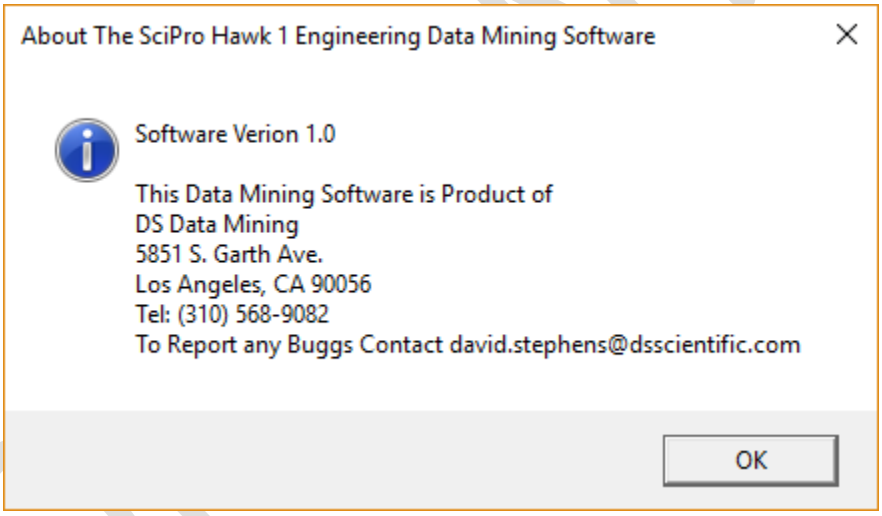

By pressing the **Load Configuration** ribbon icon you can launch the user GUI and then prompt the user to load a saved configuration file. Follow the steps outlined in Section 9.




By pressing the **Company Info** ribbon icon you can launch the message box with the company and software information.


DSDataMining_DMTASoftware - ForTesting - Excel
Norair Muradian
File
Home
New Tab
Insert
Draw
Page Layout
Formulas
Data
Review
View
Developer
SciPro Hawk1 Engineering Data Mining Tool
Tell me what you want to do
Share
SciPro Hawk1
Start Application
Clear Dir/File Info
Load Configuration
Company Info
File Name:
Directory Loaction:
Files In Directory:
Files Size (Bytes):
Number of File:
About The SciPro Hawk 1 Engineering Data Mining Software
Software Verion 1.0
This Data Mining Software is Product of
DS Data Mining
5851 S. Garth Ave.
Los Angeles, CA 90056
Tel: (310) 568-9082
To Report any Buggs Contact david.stephens@dsscientific.com
OK
Sheet1
Sheet2
Sheet3
Ready


About The SciPro Hawk 1 Engineering Data Mining Software
Software Verion 1.0
This Data Mining Software is Product of
DS Data Mining
5851 S. Garth Ave.
Los Angeles, CA 90056
Tel: (310) 568-9082
To Report any Buggs Contact david.stephens@dsscientific.com
OK

If enabled, OneDrive will force the software to open multiple folders during the tabulation portion of the code. If you are not utilizing OneDrive, please disable the software with the following steps.

In the Notifications area on the bottom of the Windows screen, right-click the OneDrive icon [(1)]. You might have to click the Show Hidden Icons arrow to find OneDrive.


1. Click **Settings**, and on the **Settings** tab, uncheck all the boxes under **General**.
2. On the **AutoSave** tab, set the **Documents and Pictures** lists to **This PC only**, and uncheck the other boxes.
3. On the **Account** tab, click **Choose folders**.
4. In the **Sync your OneDrive files to this PC** box, check and uncheck the box at **Sync all files and folders in my OneDrive**. (The first check selects all the boxes, then the uncheck clears them all.) Click **OK** to close the box and return to settings.

This step removes all OneDrive files from your computer, but leaves them on OneDrive.com.

5. Click **OK** to save your changes in the **Settings** box.
6. Open the **Settings** box again: In the Notifications area, right-click the **OneDrive** icon, click **Settings**. On the **Account** tab, click **Unlink OneDrive**. Close the **Welcome to OneDrive** box that appears.
7. Open File Explorer, right-click **OneDrive**, and then click **Properties**.

On the **General** tab, next to **Attributes**, check the **Hidden** box. This hides OneDrive from File Explorer.

8. One more time, back in the Notifications area, right-click the **OneDrive** icon and click **Exit**. This removes the OneDrive icon from the Notifications area.

[(1)] https://support.office.com/en-US/article/Turn-off-or-uninstall-OneDrive-f32a17ce-3336-40fe-9c38-6efb09f944b0.

# 4 GUI NAVIGATION

This section will instruct the user on the main features in the user GUI interface referred to in Figure 1.

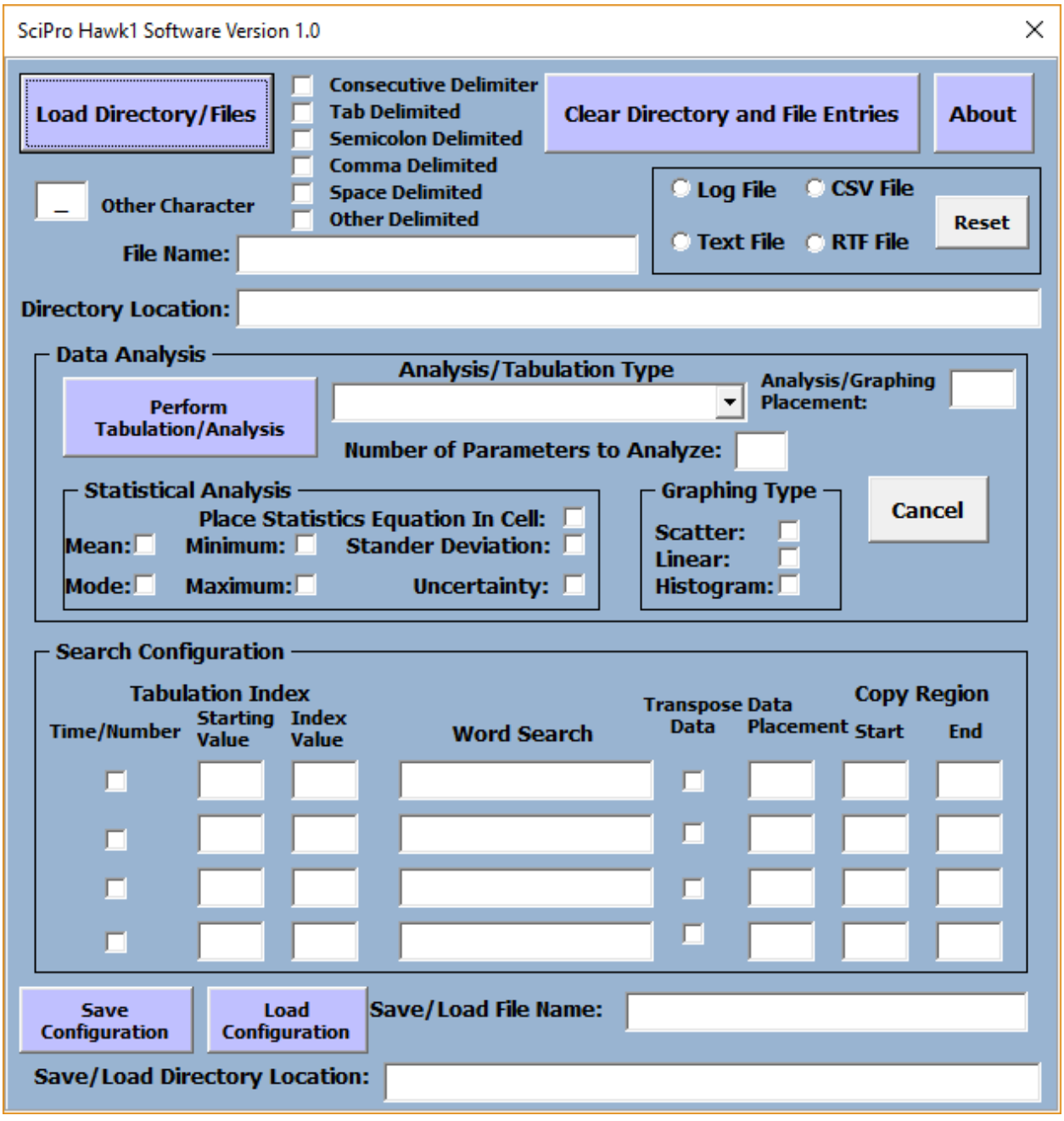



Figure 1. User GUI Interface.

The GUI is separated into **three sections** a **data import**, **data analysis/graphing**, and a **data tabulation/search** section. This allows for greater flexibility in the data mining software referred to in Figure 2.

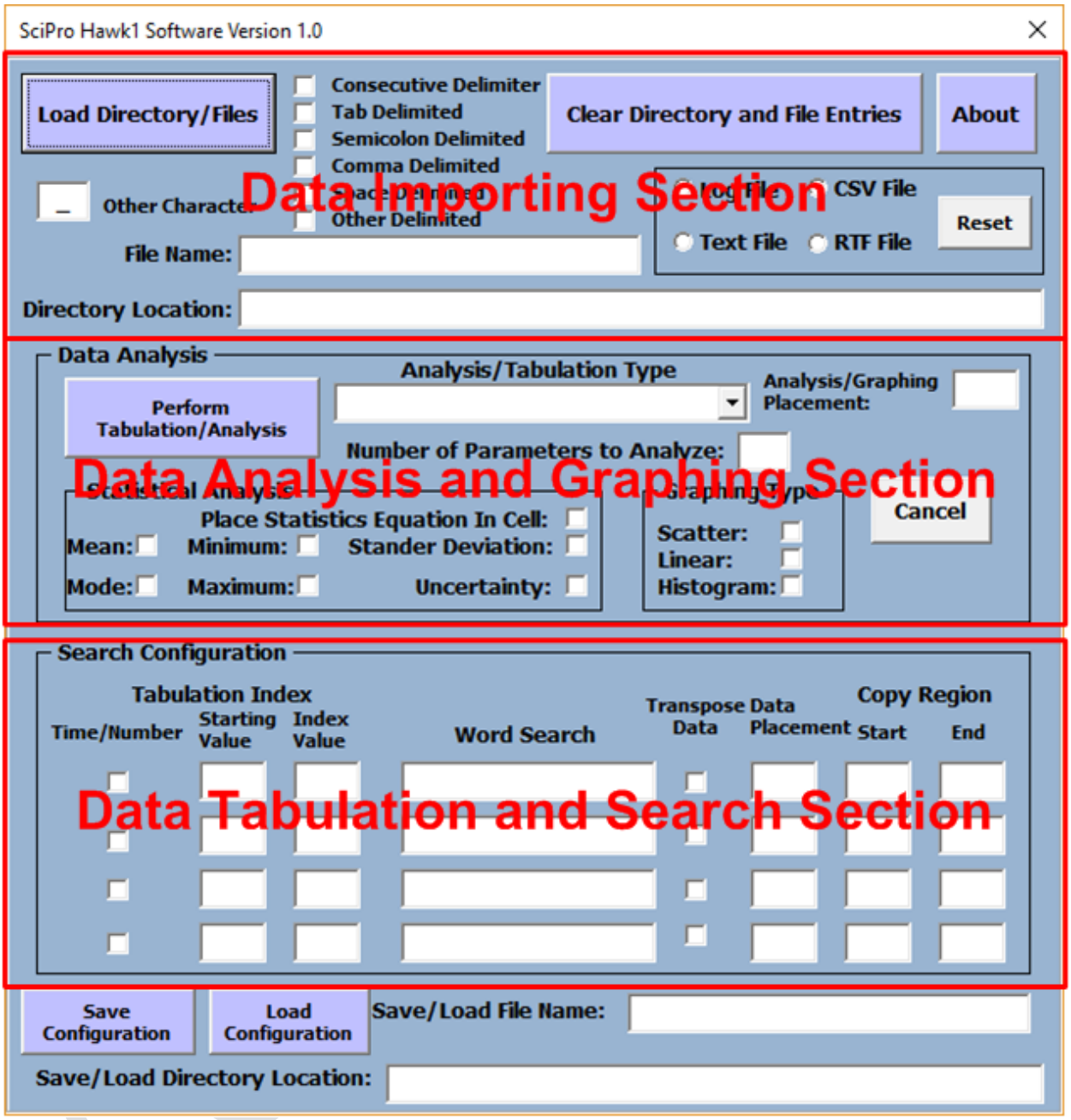
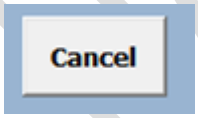



Figure 2. User GUI Interface Sections.

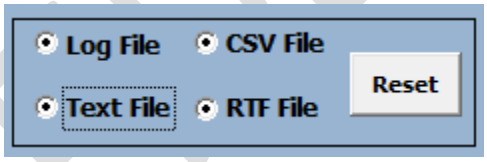
# 5 DATA IMPORTING

Data can be imported from four different file types into Excel with multiple types of delimitations. This section of the manual instructs the user on how to import the data into Excel (Refer to Figure 3). To import the data into Excel, the data import parameters need to be configured.

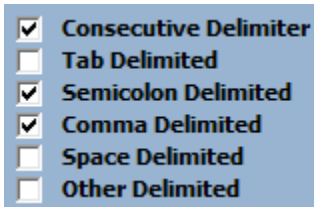

Figure 3. Data Import User GUI Interface Sections.

You can **stop** the data import process by pressing the **Cancel** button  in the Data Analysis section.

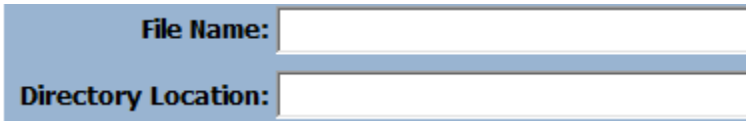

**Step 1:** Select the file types in the file directory, the user can choose from four file types Log, CSV, Text, and/or RTF. Single or multiple file types can be chosen. The **Reset** button will allow you to clear the file types that have been chosen.



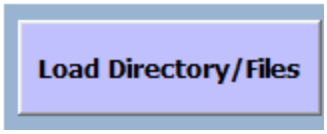

**Step 2:** Select the delimiter types required, multiple delimiter types can be chosen. If **Other Delimited** is checked or chosen you can place the character, letter, or number in the text edit field to the right. A default value of _ is chosen for you.



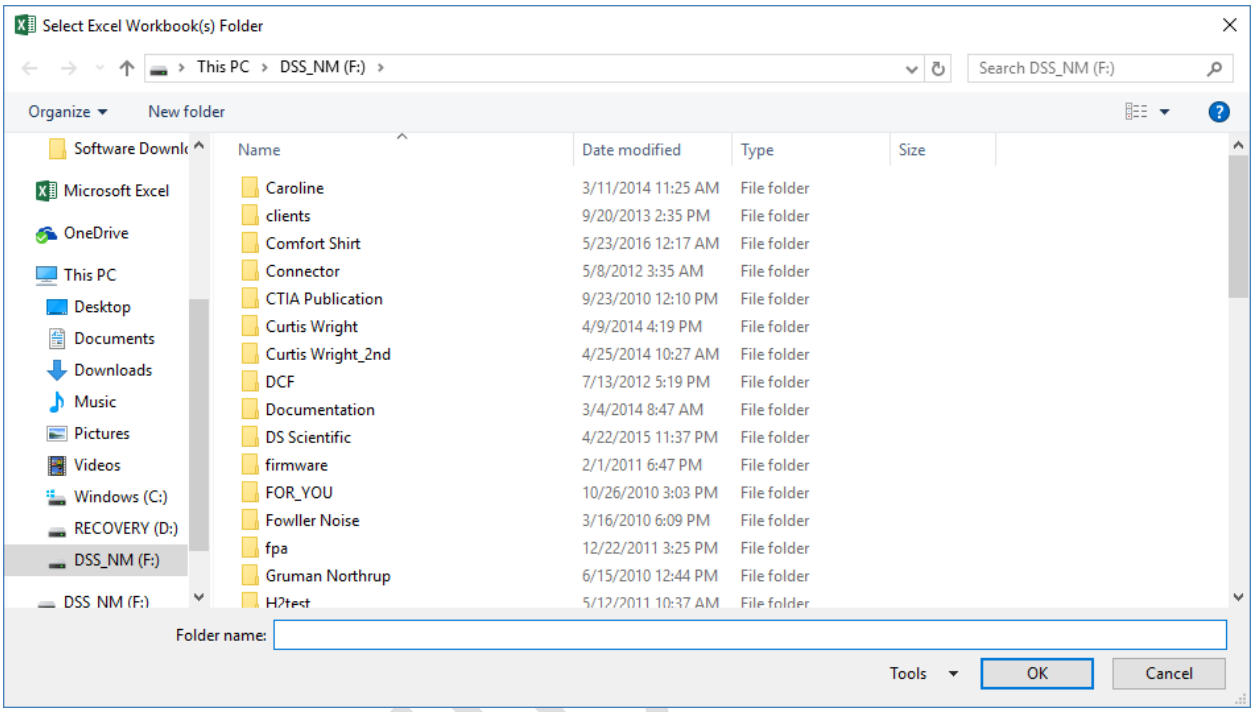

**Step 3:** To load the directory you . can copy the directory path and directory name in the corresponding **edit boxes**.



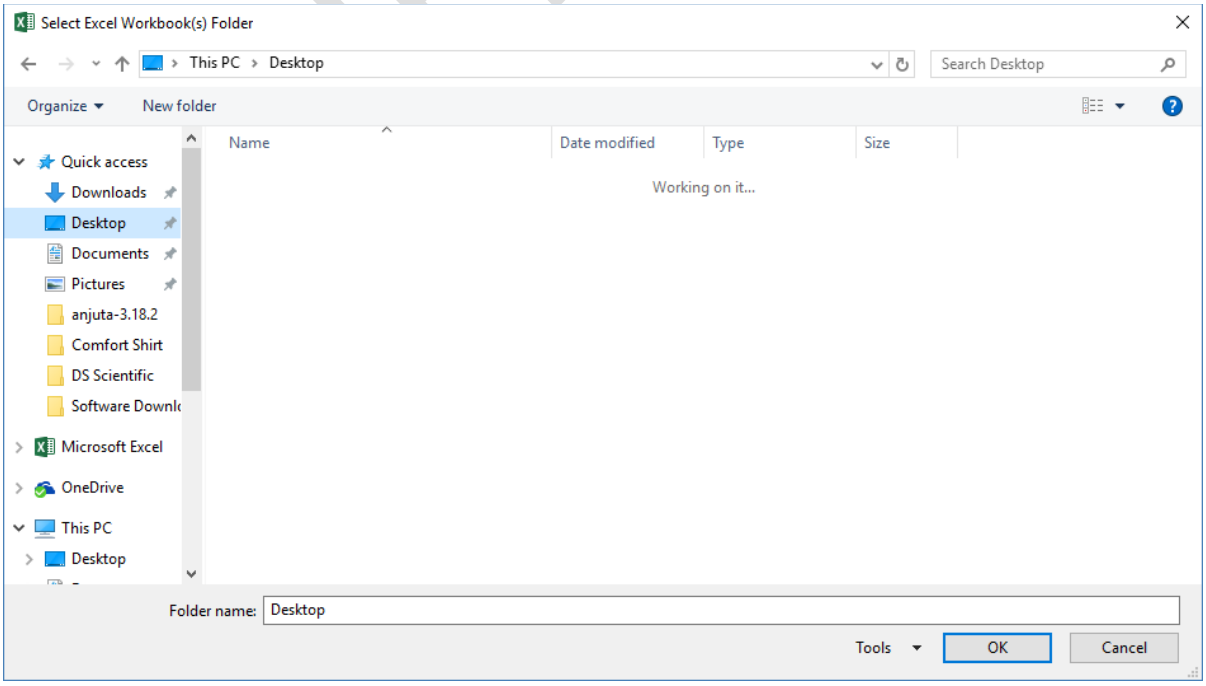

Or you can select the **Load Directory/Files** button and navigate to the directory folder.



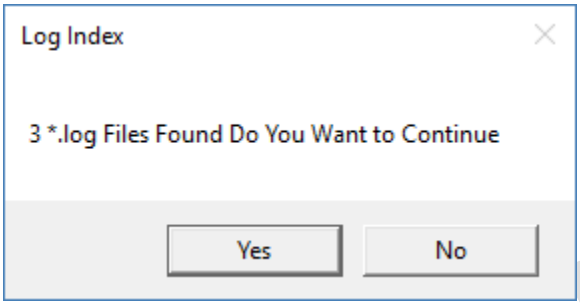

The Select Excel Workbook(s) Folder GUI will appear, allowing you to navigate to the folder directory.



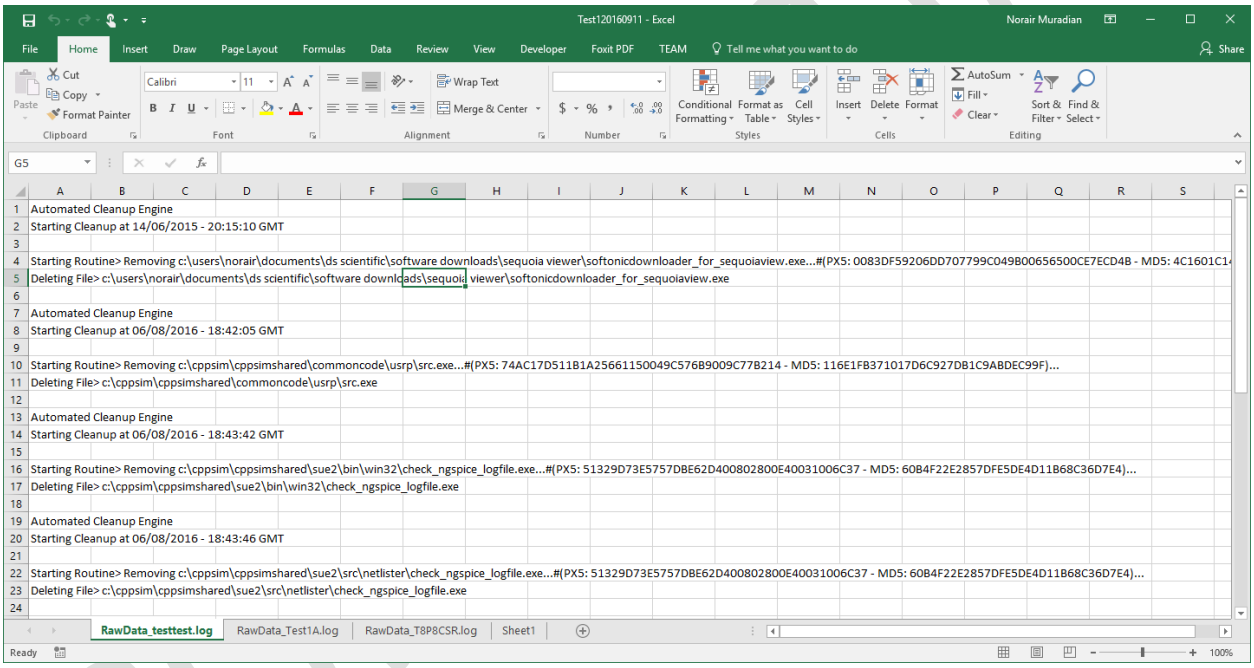

In this example I have navigated to the Desktop directory, **notice** the file type and files in the folder will not appear on the GUI.



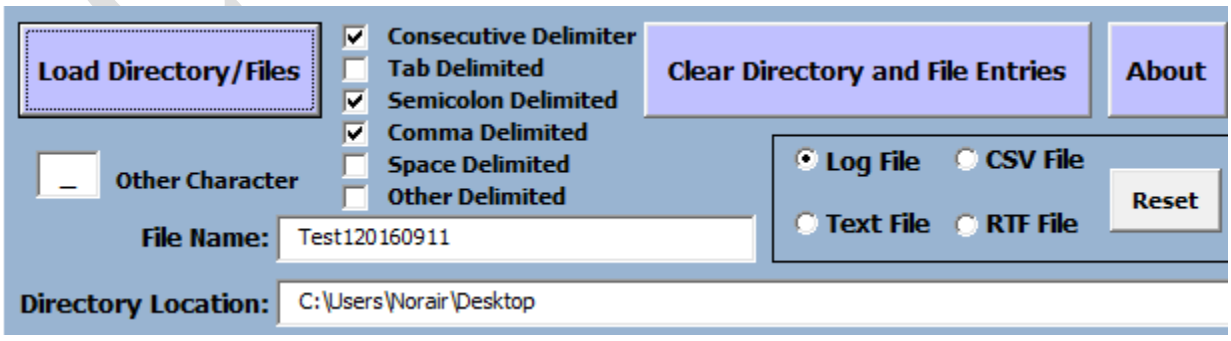
**Step 4:** Then press **OK** button. A message GUI will appear instructing the user on how many files it has found, in this example 3 Log files have been found. Press the **Yes** or **No** button to continue. A **Yes** will allow the software to continue processing the files while a **No** will stop the program.



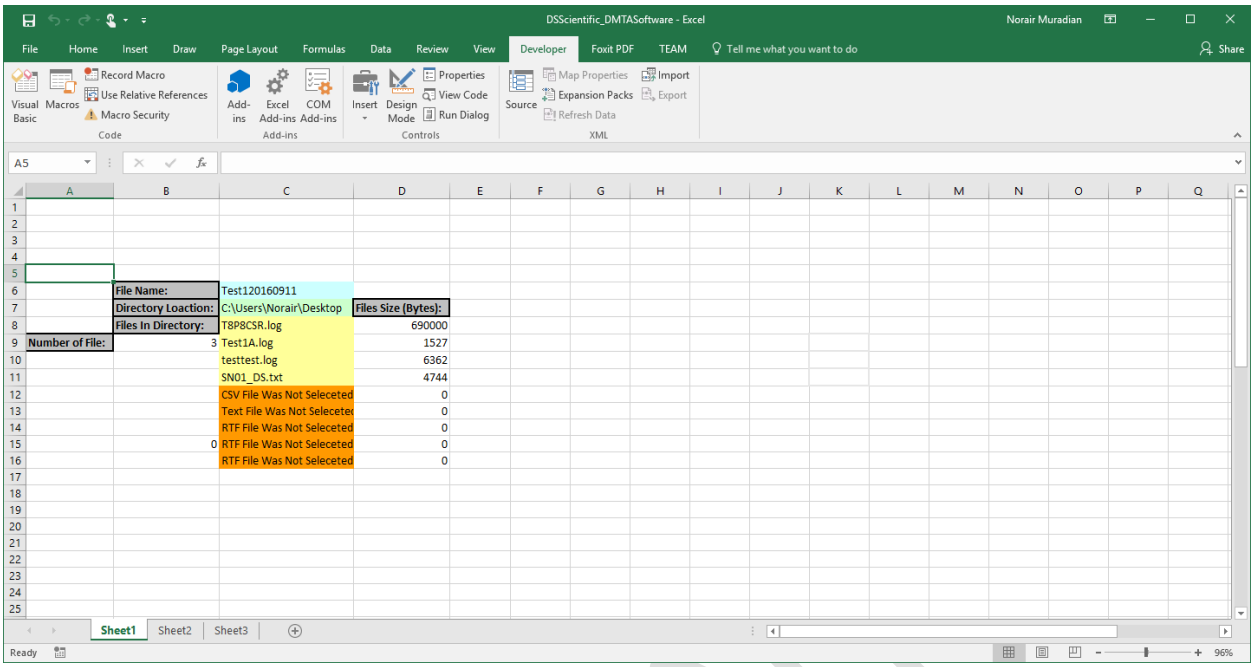

**Step5:** The software will open a new Excel workbook and populate the results of the directory Log files into the Excel workbooks, one for every Excel workbook.




**Step 6:** Note that the software will choose a default file name and load the directory name and file path in the user GUI. The default name is Test1 followed by the date 9-11-2016 in reverse order 20160911.



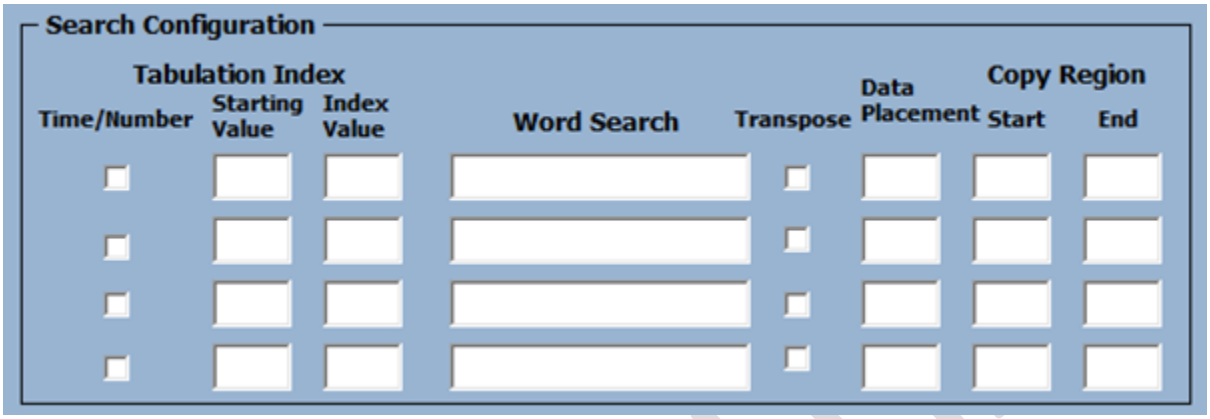

The software will also update the summary sheet with directory information.



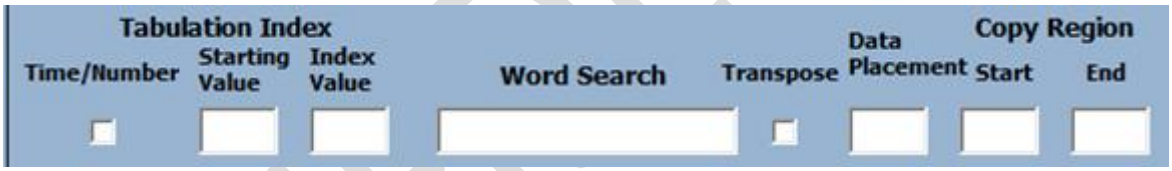

The <u>software</u> will save a copy of the Excel file in the same directory where the data resides.

# 6 DATA TABULATION AND SEARCHING

The section of the GUI which controls the parameter search and tabulation of the data is referred to as the **Search Configuration** section (Refer to the figure below.)




The **search configuration** allows the user to find four search parameters in the imported data (refer to Section 4) and tabulate the data for further processing. This section of the manual will provide the user with guidance on how to configure the search in order to properly tabulate the results. Each parameter as shown in the figure below needs to be set for the engineering data mining software to properly tabulate the information for further processing.

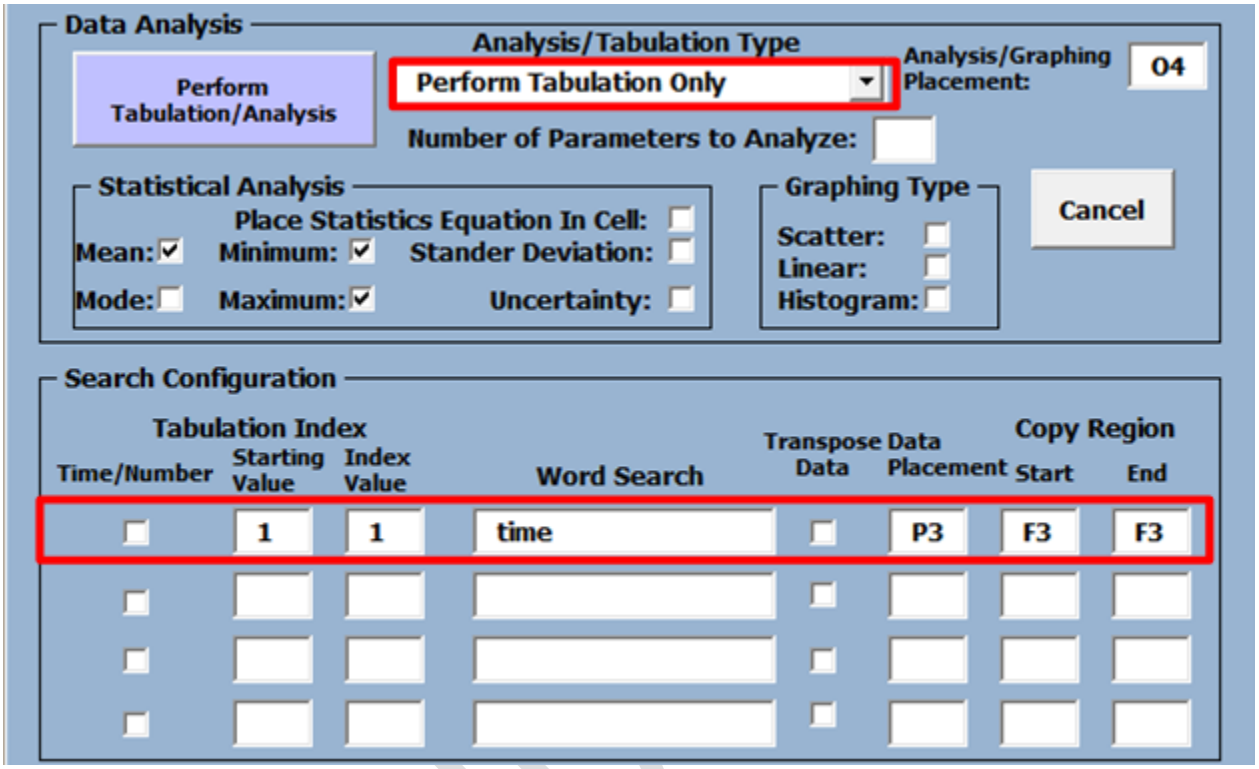



The Search Configuration section is separated into four sub-sections 1) Tabulation Index, 2) Word Search, 3) Data Placement, and 4) Copy Region. The Tabulation Index is composed of a Time/Number check box, a Starting Value text box, and an Index Value text box. The Time/Number check box will allow the data to be indexed as a function of a time or a number. By selecting the check box, you index all the tabulated data with a time stamp which can be modified for any time frame. For example, if you imported the data of a voltage value as a function of time and you would like to search the data set and tabulate the results with an incrementing index of time. The Starting Value text box allows you to begin the indexing at any number. For example, if you want to begin at a time stamp of 100 sec., type in 100 in the Starting Value text box. The Index Value indicates how often the data will repeat 50 times, 100 times, etc.

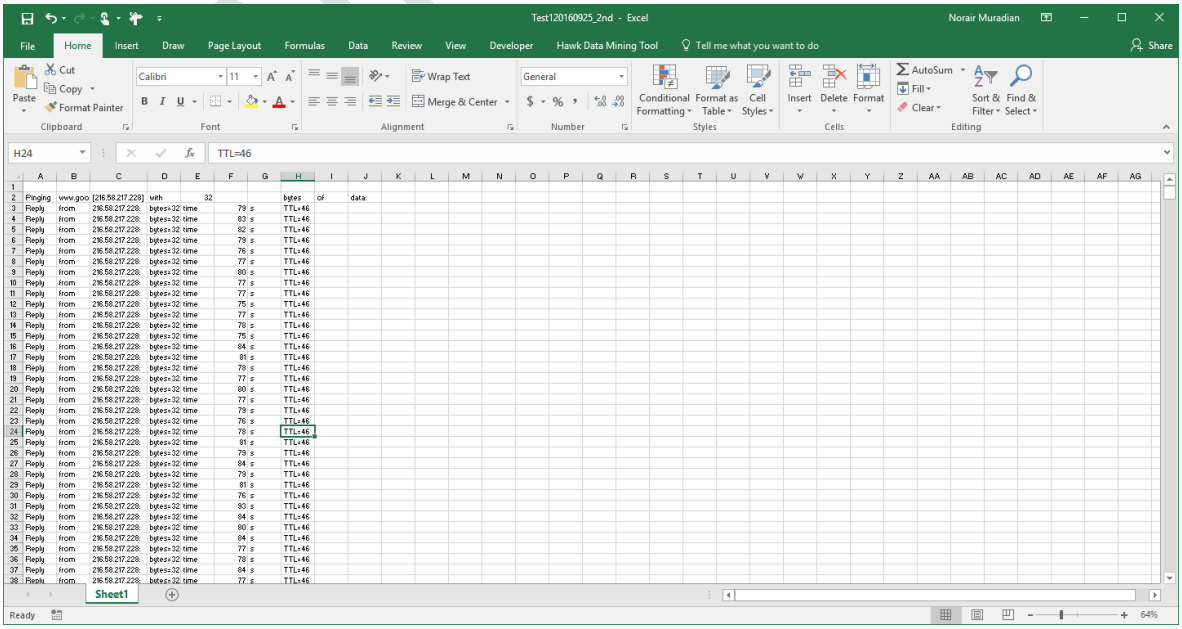
The Word Search section will provide the word to find in the imported Excel workbook that the associated data is correlated to. For example, if you typed in the word Time, it would locate the data that is correlated to time based measurements that was taken.

Next is the Transpose check box. By selecting the check box, you allow the data to be tabulated horizontally., If you uncheck the Transpose check box, the data will be tabulated vertically in the Excel worksheet. This is followed by the Data Placement text box which will allow the user to tabulate the data in any part of the worksheet (Note: that the software will not allow the user to override any data present or data that already exists in the worksheet). The software will shift to the left until any empty range of

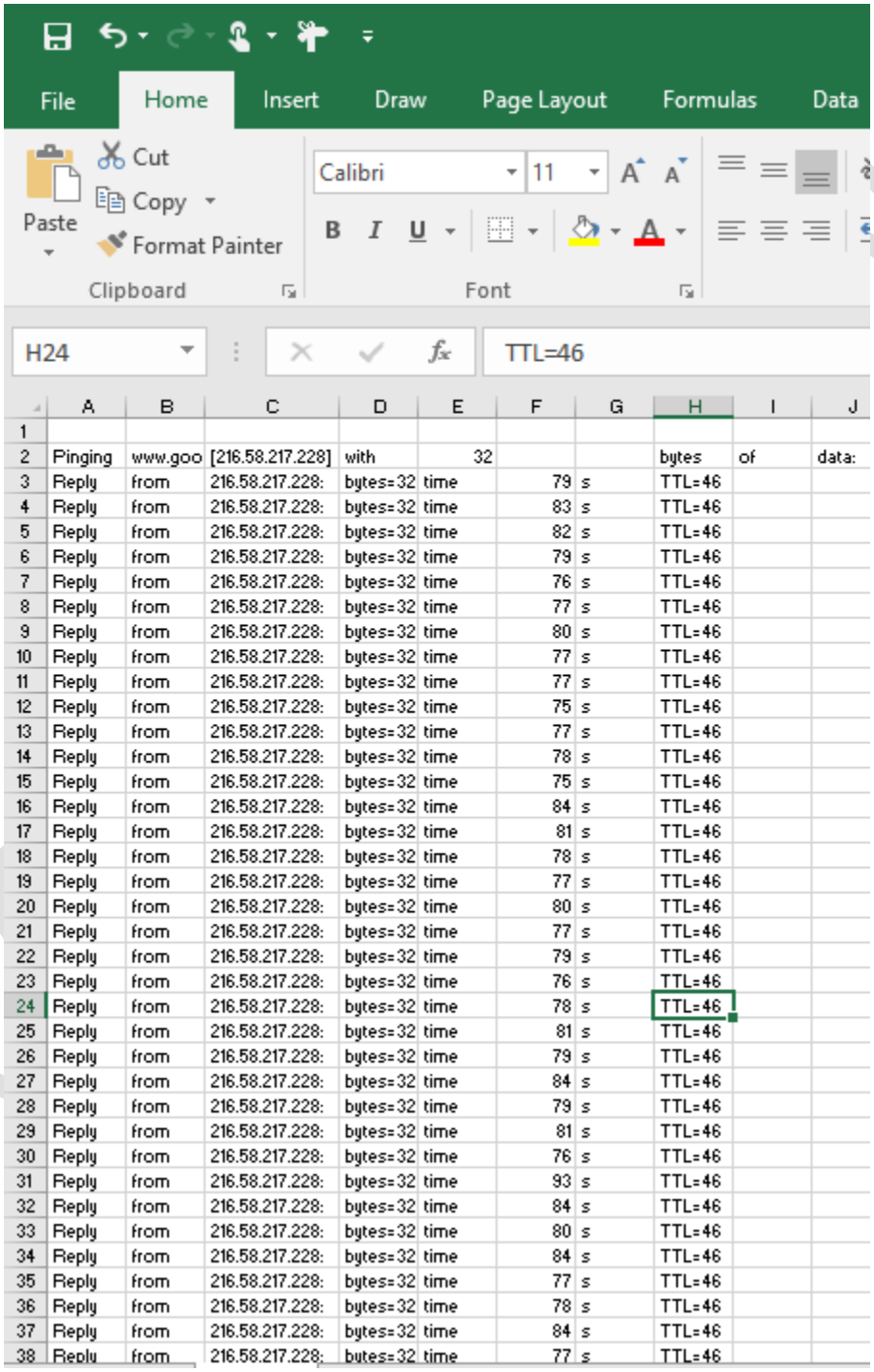
cells are found that match the size of the tabulation range. The copy region is only utilized if the transpose check box is checked. The software will place the data range in the start of the data placement cell. The following two examples will illustrate how to utilize the search configurations.




In the first example the data mining software tool will be instructed to find and tabulate the data of IP ping results. To tabulate the data, let's review the data itself to have a better understanding of what the software will be instructed to accomplish.

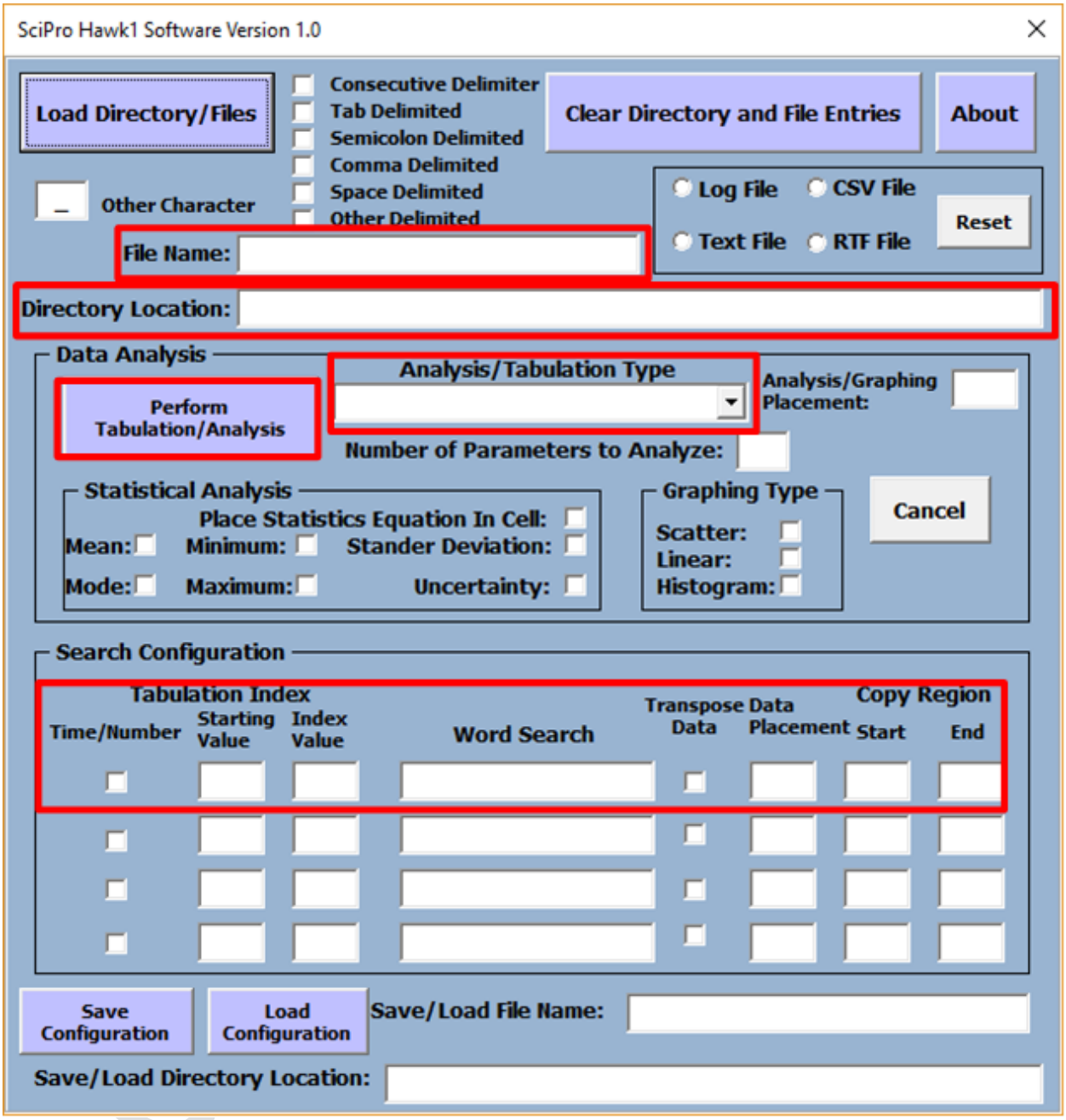


Reviewing the data in this example, we can determine that we are interested in the ping time. We can identify a word to use as the search criteria in this data set. We can utilize the search criteria as the reference point in the data set. In this example, we identify the word "time" with the data starting in cell F3 (the latency of the ping testing). You can also choose words in the Excel workbook such as "reply" or "from". The key is the selected search criteria repeats itself throughout the Excel workbook. For every word, there is a corresponding data of latency.



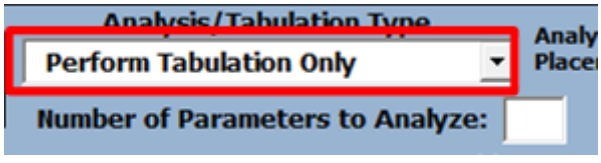

| | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | |
| 2 | Pinging | www.goo | [216.58.217.228] | with | 32 | | | bytes | of | data: |
| 3 | Reply | from | 216.58.217.228: | bytes=32 | time | 79 | s | TTL=46 | | |
| 4 | Reply | from | 216.58.217.228: | bytes=32 | time | 83 | s | TTL=46 | | |
| 5 | Reply | from | 216.58.217.228: | bytes=32 | time | 82 | s | TTL=46 | | |
| 6 | Reply | from | 216.58.217.228: | bytes=32 | time | 79 | s | TTL=46 | | |
| 7 | Reply | from | 216.58.217.228: | bytes=32 | time | 76 | s | TTL=46 | | |
| 8 | Reply | from | 216.58.217.228: | bytes=32 | time | 77 | s | TTL=46 | | |
| 9 | Reply | from | 216.58.217.228: | bytes=32 | time | 80 | s | TTL=46 | | |
| 10 | Reply | from | 216.58.217.228: | bytes=32 | time | 77 | s | TTL=46 | | |
| 11 | Reply | from | 216.58.217.228: | bytes=32 | time | 77 | s | TTL=46 | | |
| 12 | Reply | from | 216.58.217.228: | bytes=32 | time | 75 | s | TTL=46 | | |
| 13 | Reply | from | 216.58.217.228: | bytes=32 | time | 77 | s | TTL=46 | | |
| 14 | Reply | from | 216.58.217.228: | bytes=32 | time | 78 | s | TTL=46 | | |
| 15 | Reply | from | 216.58.217.228: | bytes=32 | time | 75 | s | TTL=46 | | |
| 16 | Reply | from | 216.58.217.228: | bytes=32 | time | 84 | s | TTL=46 | | |
| 17 | Reply | from | 216.58.217.228: | bytes=32 | time | 81 | s | TTL=46 | | |
| 18 | Reply | from | 216.58.217.228: | bytes=32 | time | 78 | s | TTL=46 | | |
| 19 | Reply | from | 216.58.217.228: | bytes=32 | time | 77 | s | TTL=46 | | |
| 20 | Reply | from | 216.58.217.228: | bytes=32 | time | 80 | s | TTL=46 | | |
| 21 | Reply | from | 216.58.217.228: | bytes=32 | time | 77 | s | TTL=46 | | |
| 22 | Reply | from | 216.58.217.228: | bytes=32 | time | 79 | s | TTL=46 | | |
| 23 | Reply | from | 216.58.217.228: | bytes=32 | time | 76 | s | TTL=46 | | |
| 24 | Reply | from | 216.58.217.228: | bytes=32 | time | 78 | s | TTL=46 | | |
| 25 | Reply | from | 216.58.217.228: | bytes=32 | time | 81 | s | TTL=46 | | |
| 26 | Reply | from | 216.58.217.228: | bytes=32 | time | 79 | s | TTL=46 | | |
| 27 | Reply | from | 216.58.217.228: | bytes=32 | time | 84 | s | TTL=46 | | |
| 28 | Reply | from | 216.58.217.228: | bytes=32 | time | 79 | s | TTL=46 | | |
| 29 | Reply | from | 216.58.217.228: | bytes=32 | time | 81 | s | TTL=46 | | |
| 30 | Reply | from | 216.58.217.228: | bytes=32 | time | 76 | s | TTL=46 | | |
| 31 | Reply | from | 216.58.217.228: | bytes=32 | time | 93 | s | TTL=46 | | |
| 32 | Reply | from | 216.58.217.228: | bytes=32 | time | 84 | s | TTL=46 | | |
| 33 | Reply | from | 216.58.217.228: | bytes=32 | time | 80 | s | TTL=46 | | |
| 34 | Reply | from | 216.58.217.228: | bytes=32 | time | 84 | s | TTL=46 | | |
| 35 | Reply | from | 216.58.217.228: | bytes=32 | time | 77 | s | TTL=46 | | |
| 36 | Reply | from | 216.58.217.228: | bytes=32 | time | 78 | s | TTL=46 | | |
| 37 | Reply | from | 216.58.217.228: | bytes=32 | time | 84 | s | TTL=46 | | |
| 38 | Reply | from | 216.58.217.228: | bytes=32 | time | 77 | s | TTL=46 | | |

To complete the data mining GUI for the tabulation of the data set, refer to the example below.

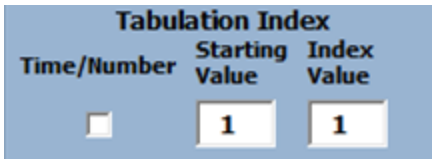



Let's work through an example step by step to see how we configured the search in the GUI.

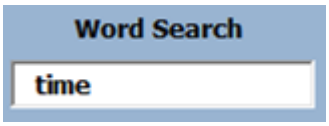
**Step 1:** We chose the **Perform Tabulation Only** from the Analysis /Tabulation Type pull down menu.



**Step 2:** In the Search Configuration we have chosen the starting Value as 1 and the index value as 1, this means that the data would increment by 1.

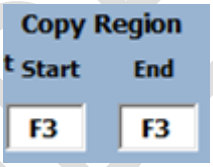



**Step 3:** The word search is "time". This is the word that the software will find.



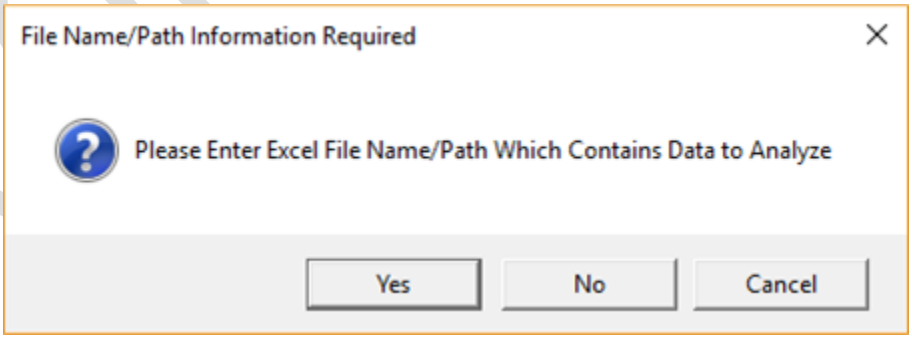

**Step 4:** The Data Placement is in Cell N3, the software will tabulate the data in cell N3.


**Step 5:** The region where the actual data is going to be copied from starts at F3 which is the latency of the ping results.



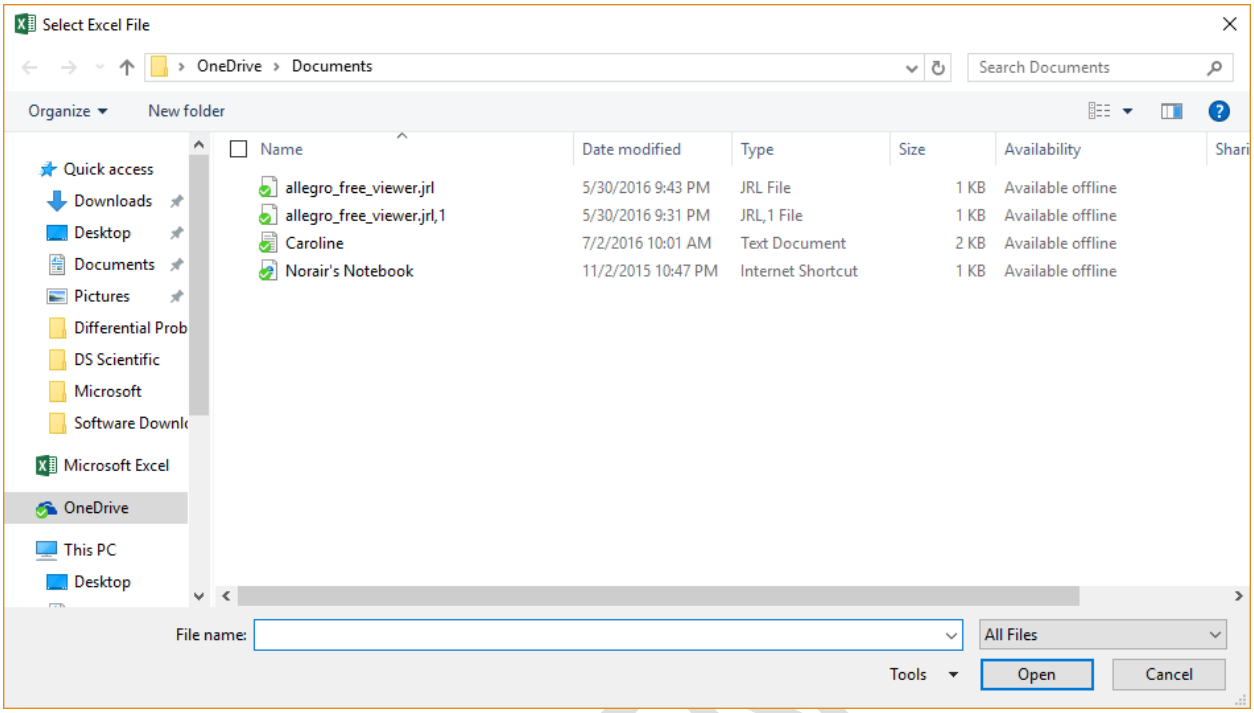

**Step 6:** You do not need to populate the file name or directory location unless you have already imported the data. The software will prompt you for the directory and file information.

If you press the **Perform Tabulation/Analysis** button, the software will prompt you to enter the file that you want to tabulate.

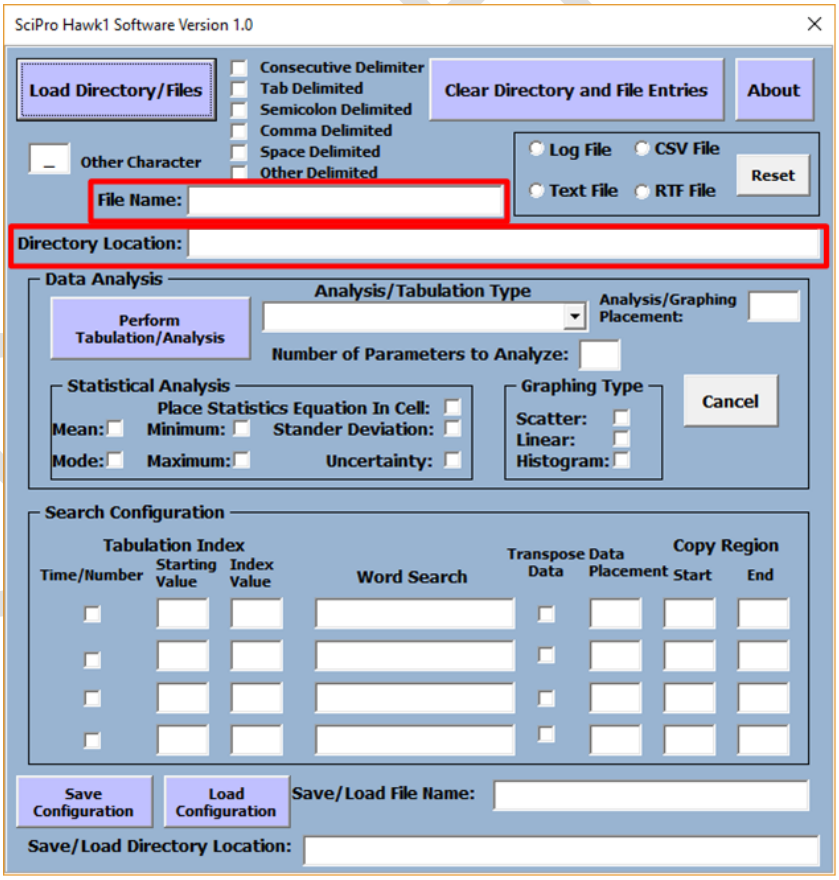



Press the **Yes** button to continue.

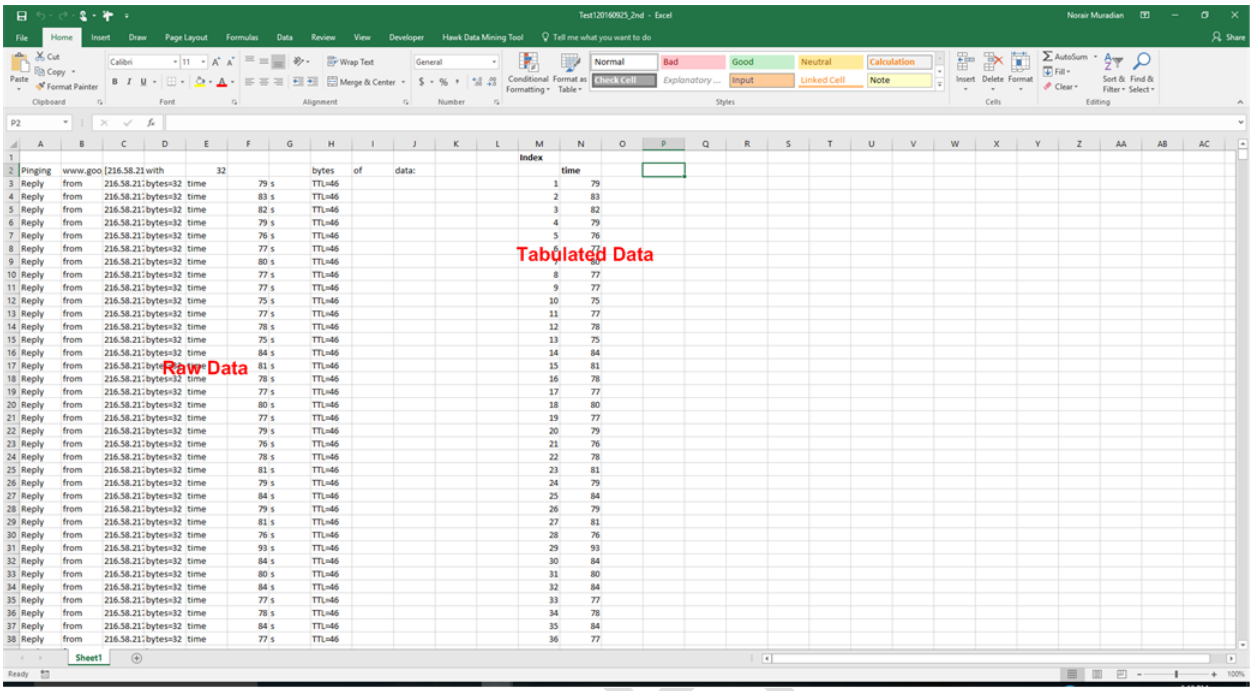
**Step 7:** When the Select Excel File GUI will appear, navigate to the folder and choose the file you want to tabulate. Press the **Open** button.



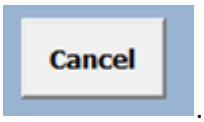

**Step8:** The Data Mining software will populate the file and folder information on the user GUI.



**Step9:** The software tool will then begin tabulating the raw data on the left of the Excel workbook to its new location N3 on the right of the workbook.




You can tabulate up to four separate search parameters in the same Excel workbook.

**Step 10:** The tabulation can be stopped by pressing the **Cancel** button 

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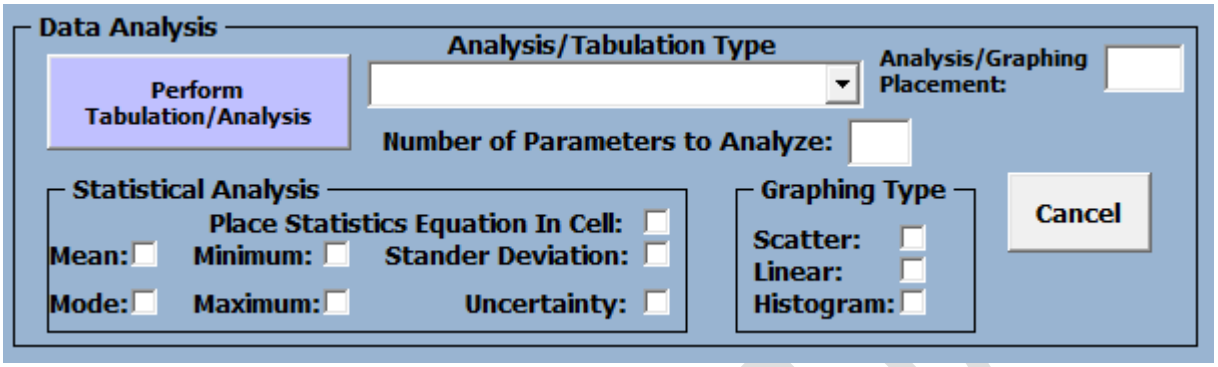
# 7 DATA ANALYSIS AND GRAPHING

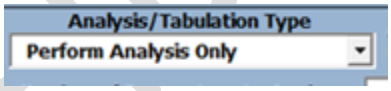
The section of the GUI which controls the analysis and graphing of data is referred to as the Data Analysis section (see below).



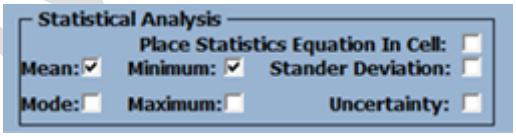

The Data Analysis section is divided into three sub-sections. The first section allows you to choose all the statistical analysis that needs to be performed. The second graphing section allows you to select the graphs you require. And, the third general controls section determines where the data will be placed.

This section of the User Guide reviews the procedure for configuring the data mining GUI to perform the analysis required by the user.

In the example below, you require data analysis to be performed on the ping data from the tabulation section. **Step 1:** Start by choosing the Perform Analysis Only on the pull-down tab on the Analysis/Tabulation type.

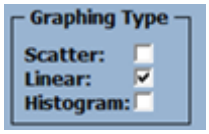



**Step 2:** Then choose any type of analysis to be performed as well as the type of graphing required. In this example, Check the Mean, Minimum, and Maximum.

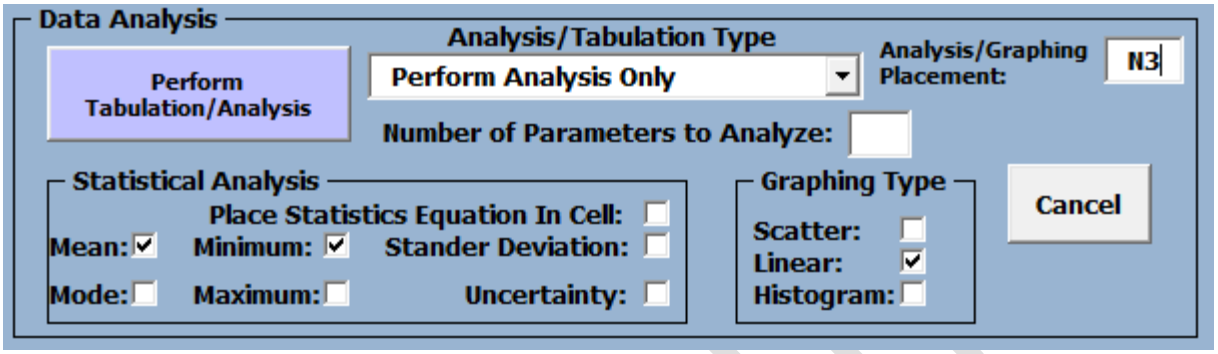



**Step 3:** In the **Analysis/Graphing Placement,** choose the cell where you require the software to place the results.

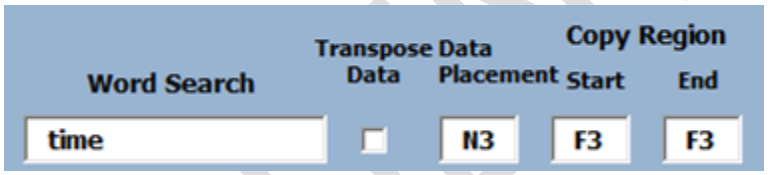

**Step 4:** Finally, choose a **Linear Graphing type** to display your latency results and place the results in cell N3. You can choose all three graphing types if you prefer. However, in this example only one graphing type has been chosen.



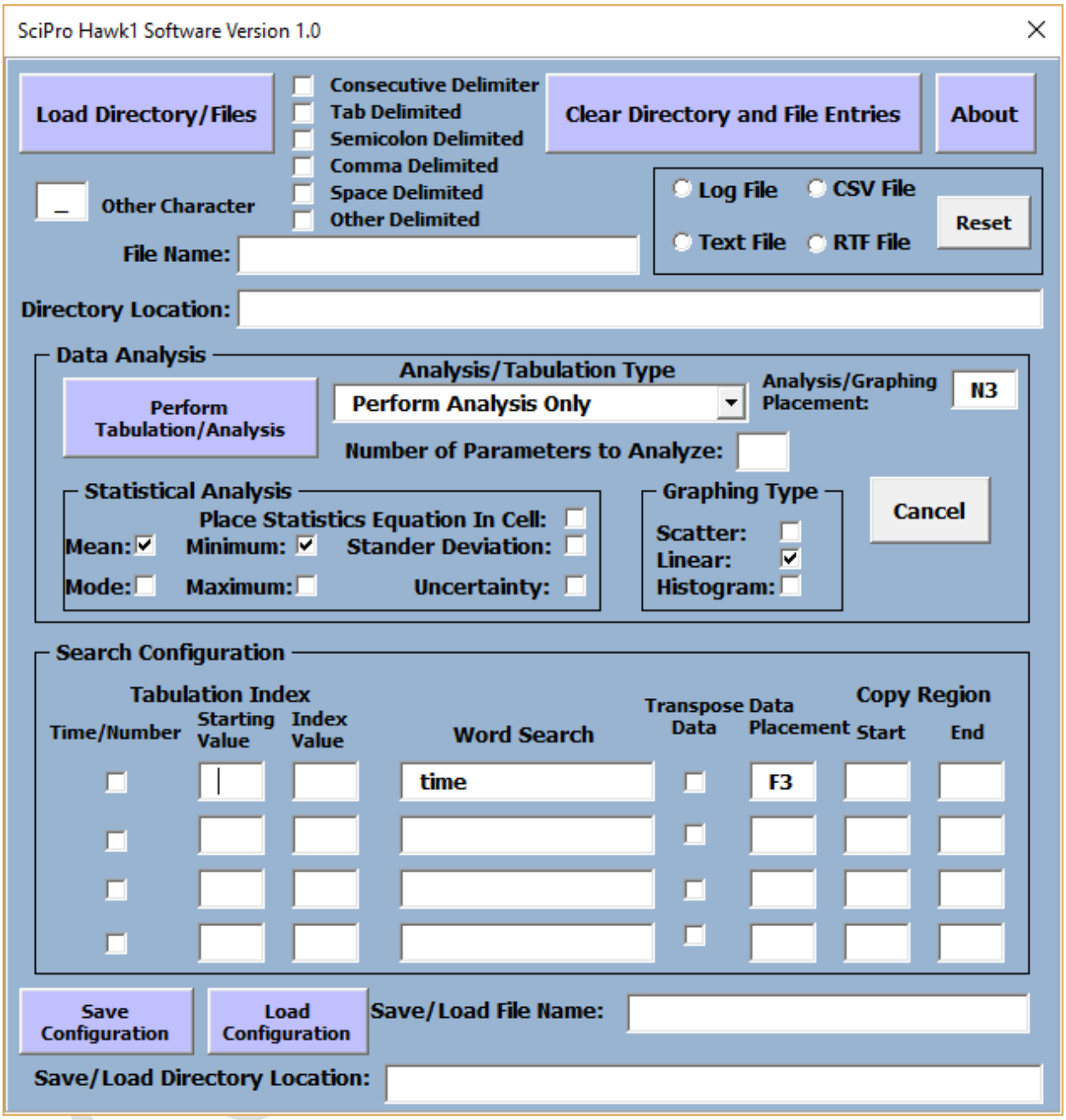

**Step 5:** The configuration of your Data Analysis section is shown in below.



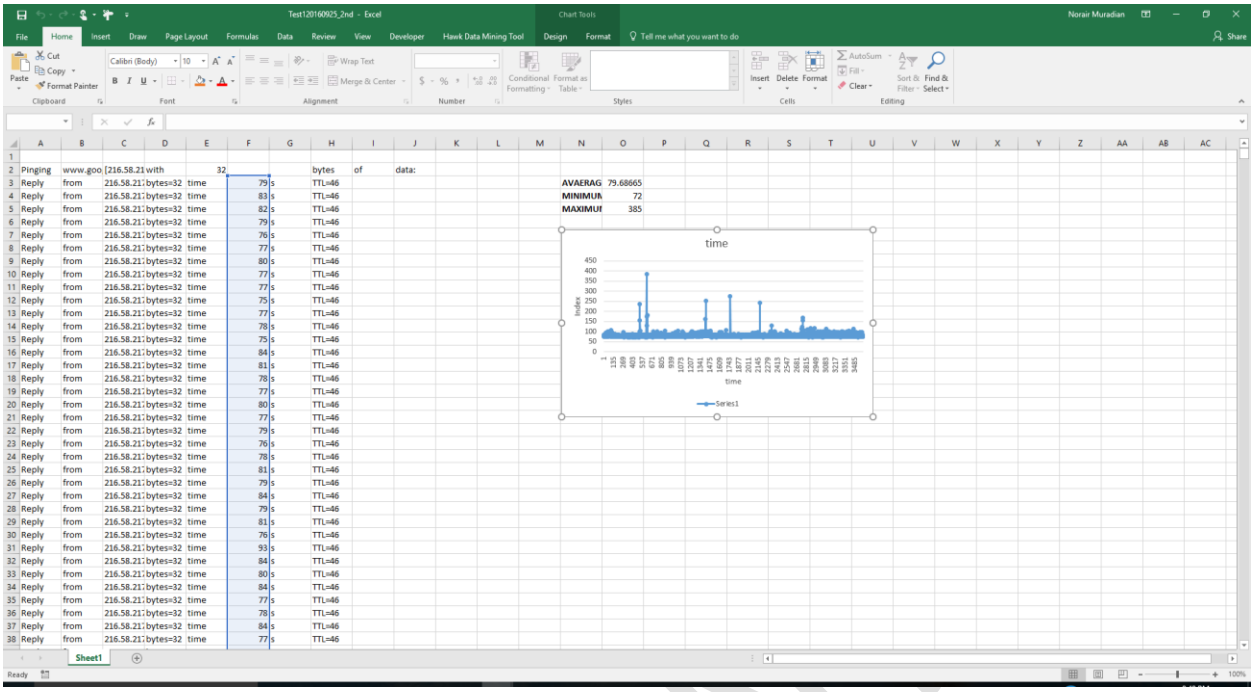

**Step 6:** In the **search configuration** choose the word search and copy region.




In the word Search type “time” and in the Data Placement type cell "F3" (location where the data starts). Once all the fields have been entered, press the Perform Tabulation/Analysis button to begin the analysis process. As indicated in the tabulation section, if you do not enter the file name and directory location the data mining software will instruct the user to choose the file for the analysis to be performed on.




The data mining software will then retrieve and analyze the data (see below for results). Note that the analysis and graphing are performed independently from the tabulation portion in this example. This is done to show how the analysis and graphing portion of the software functions. You can perform the tabulation, analysis, and graphing simultaneously.

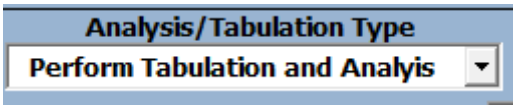

Test120160925_2nd - Excel
Chart Tools
Norair Muradian
time
Series1
Sheet1
Ready

# 8 TABULATION, ANALYSIS, AND GRAPHING

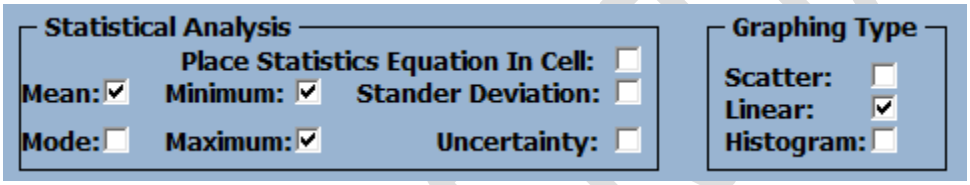
As indicated in Section 7, we can perform the tabulation, analysis, and graphing simultaneously. Let's go through the step by step process.

**Step 1:** Launch the SciPro Hawk™1 user GUI, if you haven't already done so.

**Step 2:** Start by choosing the **Perform Tabulation and Analysis Only** on the pull-down tab on the Analysis/Tabulation type.

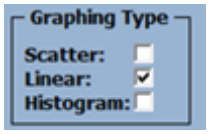



**Step 3:** Select any type of analysis to be performed and any type of graphing required. In this example, the Mean, Minimum, and Maximum were selected.

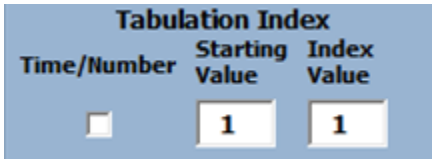



**Step 4:** In the **Analysis/Graphing Placement,** choose the cell where you require the software to place the results.

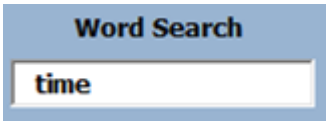

**Step 5:** Choose the **Linear Graphing type** to display your latency results and place the results in cell N3. You can choose all three graphing types if you prefer; for this example, only one has been chosen.



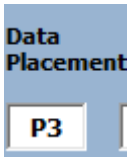

**Step 6:** In the **Search Configuration** we have chosen the starting value as 1 and the index value as 1, which means that the data would increment by 1.



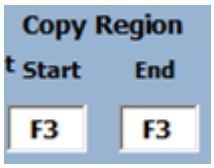

**Step 7:** The **word search** is "time". This is the word that the software will find.



**Step 8:** The **Data Placement** is in Cell P3, the software will tabulate the data in cell P3.

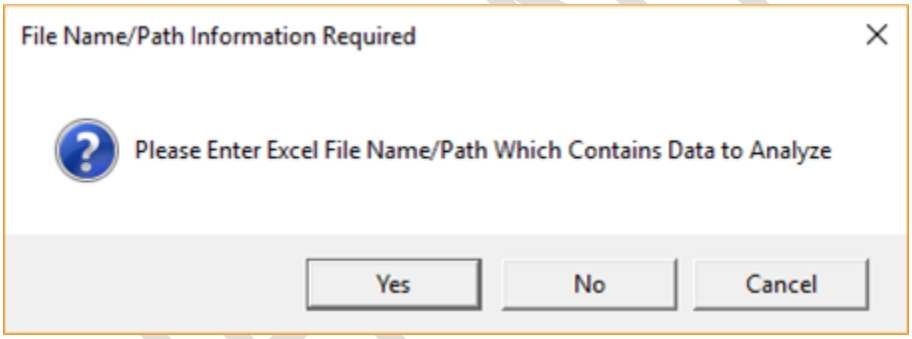



**Step 9:** The Copy Region selected is F3**,** which is the latency of the ping results.



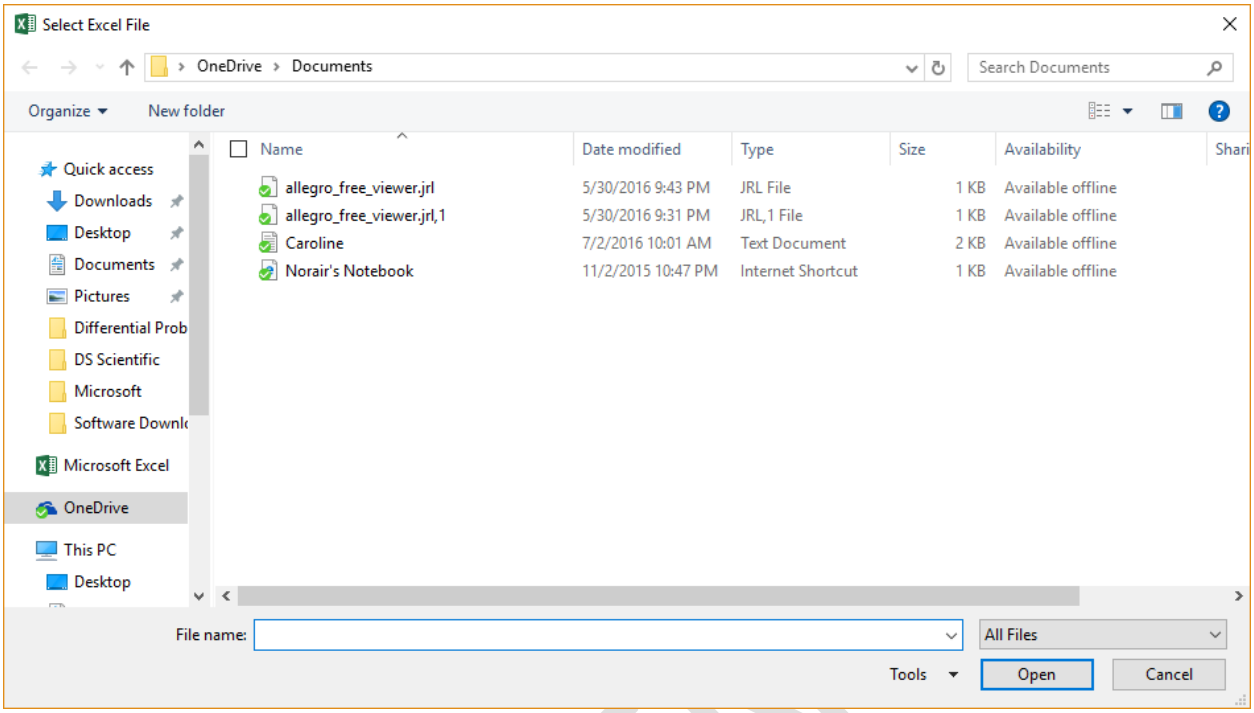

**Step 10:** You do not need to populate the file name or directory location unless you have already imported the data. The software will prompt you for the directory and file information.

If you press the **Perform Tabulation/Analysis** button, the software will prompt you to enter the file that you want to tabulate.

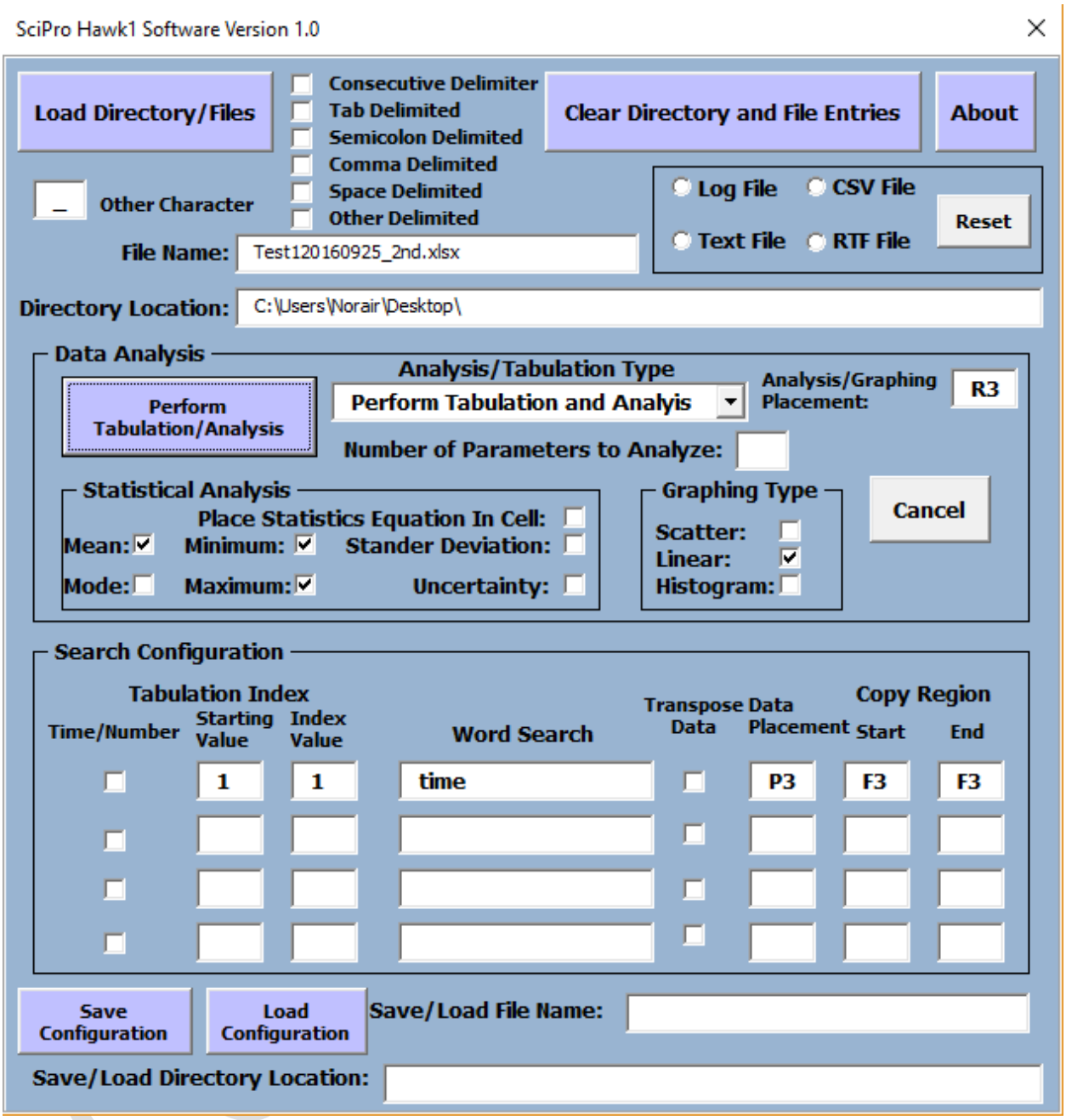



Press the **Yes** button to continue.

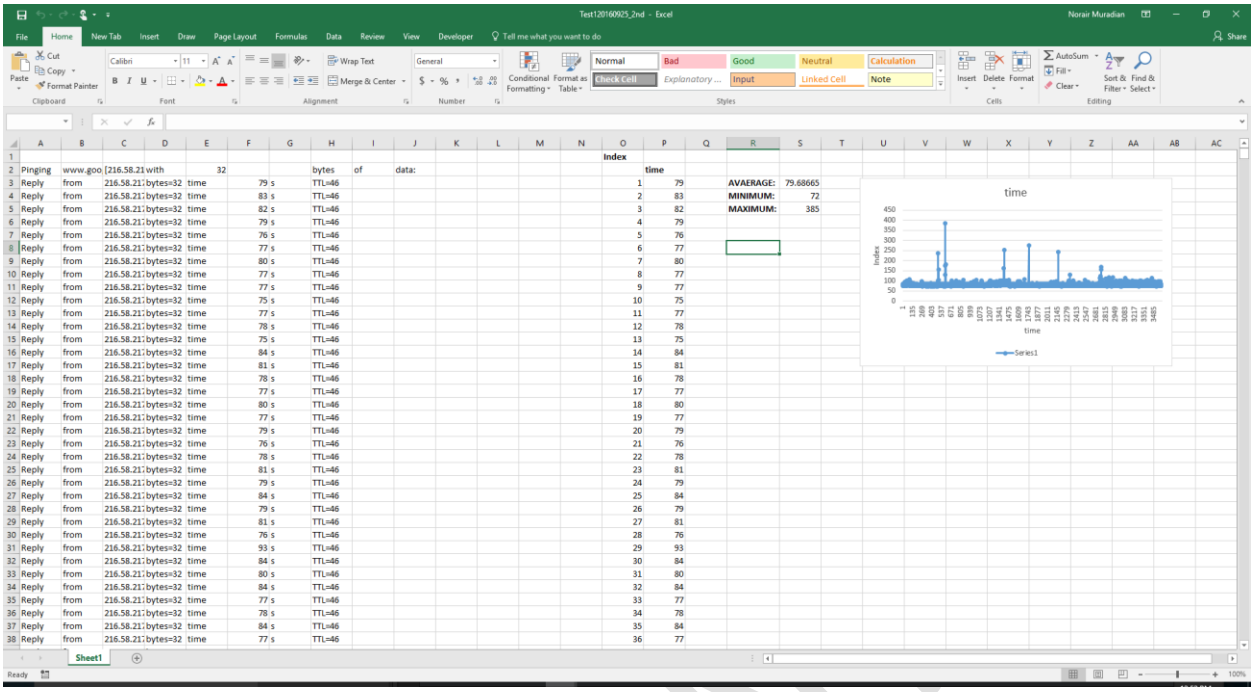
**Step 11:** When the **Select Excel File GUI** appears, navigate to the folder and choose the file that you want to tabulate. Then press the **Open** button.




**Step 12:** The Data Mining software will populate the file and folder information on the user GUI.



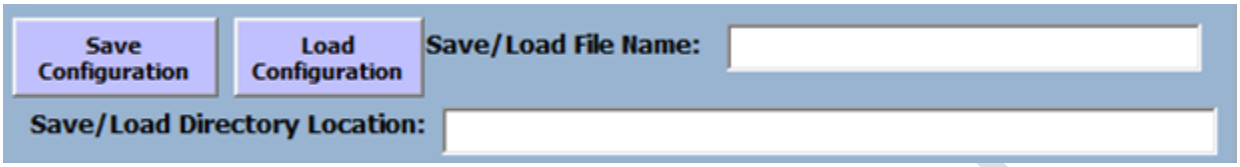

**Step 13:** The software tool will begin tabulating the raw data on the left of the Excel workbook to the new location N3 on the right of the workbook.



| | A | B | C | D | E | F | G | H | I | J | O | P | R | S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | Index | | | |
| 2 | Pinging | www.goo | [216.58.21 | with | 32 | | | bytes | of | data: | | time | | |
| 3 | Reply | from | 216.58.21 | bytes=32 | time | 79 | s | TTL=46 | | | 1 | 79 | AVAERAGE: | 79.68665 |
| 4 | Reply | from | 216.58.21 | bytes=32 | time | 83 | s | TTL=46 | | | 2 | 83 | MINIMUM: | 72 |
| 5 | Reply | from | 216.58.21 | bytes=32 | time | 82 | s | TTL=46 | | | 3 | 82 | MAXIMUM: | 385 |
| 6 | Reply | from | 216.58.21 | bytes=32 | time | 79 | s | TTL=46 | | | 4 | 79 | | |
| 7 | Reply | from | 216.58.21 | bytes=32 | time | 76 | s | TTL=46 | | | 5 | 76 | | |
| 8 | Reply | from | 216.58.21 | bytes=32 | time | 77 | s | TTL=46 | | | 6 | 77 | | |
| 9 | Reply | from | 216.58.21 | bytes=32 | time | 80 | s | TTL=46 | | | 7 | 80 | | |
| 10 | Reply | from | 216.58.21 | bytes=32 | time | 77 | s | TTL=46 | | | 8 | 77 | | |
| 11 | Reply | from | 216.58.21 | bytes=32 | time | 77 | s | TTL=46 | | | 9 | 77 | | |
| 12 | Reply | from | 216.58.21 | bytes=32 | time | 75 | s | TTL=46 | | | 10 | 75 | | |
| 13 | Reply | from | 216.58.21 | bytes=32 | time | 77 | s | TTL=46 | | | 11 | 77 | | |
| 14 | Reply | from | 216.58.21 | bytes=32 | time | 78 | s | TTL=46 | | | 12 | 78 | | |
| 15 | Reply | from | 216.58.21 | bytes=32 | time | 75 | s | TTL=46 | | | 13 | 75 | | |
| 16 | Reply | from | 216.58.21 | bytes=32 | time | 84 | s | TTL=46 | | | 14 | 84 | | |
| 17 | Reply | from | 216.58.21 | bytes=32 | time | 81 | s | TTL=46 | | | 15 | 81 | | |
| 18 | Reply | from | 216.58.21 | bytes=32 | time | 78 | s | TTL=46 | | | 16 | 78 | | |
| 19 | Reply | from | 216.58.21 | bytes=32 | time | 77 | s | TTL=46 | | | 17 | 77 | | |
| 20 | Reply | from | 216.58.21 | bytes=32 | time | 80 | s | TTL=46 | | | 18 | 80 | | |
| 21 | Reply | from | 216.58.21 | bytes=32 | time | 77 | s | TTL=46 | | | 19 | 77 | | |
| 22 | Reply | from | 216.58.21 | bytes=32 | time | 79 | s | TTL=46 | | | 20 | 79 | | |
| 23 | Reply | from | 216.58.21 | bytes=32 | time | 76 | s | TTL=46 | | | 21 | 76 | | |
| 24 | Reply | from | 216.58.21 | bytes=32 | time | 78 | s | TTL=46 | | | 22 | 78 | | |
| 25 | Reply | from | 216.58.21 | bytes=32 | time | 81 | s | TTL=46 | | | 23 | 81 | | |
| 26 | Reply | from | 216.58.21 | bytes=32 | time | 79 | s | TTL=46 | | | 24 | 79 | | |
| 27 | Reply | from | 216.58.21 | bytes=32 | time | 84 | s | TTL=46 | | | 25 | 84 | | |
| 28 | Reply | from | 216.58.21 | bytes=32 | time | 79 | s | TTL=46 | | | 26 | 79 | | |
| 29 | Reply | from | 216.58.21 | bytes=32 | time | 81 | s | TTL=46 | | | 27 | 81 | | |
| 30 | Reply | from | 216.58.21 | bytes=32 | time | 76 | s | TTL=46 | | | 28 | 76 | | |
| 31 | Reply | from | 216.58.21 | bytes=32 | time | 93 | s | TTL=46 | | | 29 | 93 | | |
| 32 | Reply | from | 216.58.21 | bytes=32 | time | 84 | s | TTL=46 | | | 30 | 84 | | |
| 33 | Reply | from | 216.58.21 | bytes=32 | time | 80 | s | TTL=46 | | | 31 | 80 | | |
| 34 | Reply | from | 216.58.21 | bytes=32 | time | 84 | s | TTL=46 | | | 32 | 84 | | |
| 35 | Reply | from | 216.58.21 | bytes=32 | time | 77 | s | TTL=46 | | | 33 | 77 | | |
| 36 | Reply | from | 216.58.21 | bytes=32 | time | 78 | s | TTL=46 | | | 34 | 78 | | |
| 37 | Reply | from | 216.58.21 | bytes=32 | time | 84 | s | TTL=46 | | | 35 | 84 | | |
| 38 | Reply | from | 216.58.21 | bytes=32 | time | 77 | s | TTL=46 | | | 36 | 77 | | |

# 9 SAVING AND LOADING CONFIGURATION FILES

The section of the GUI which controls the saving and loading of the configuration files is designed for the end user to save the configuration for later use (see below).

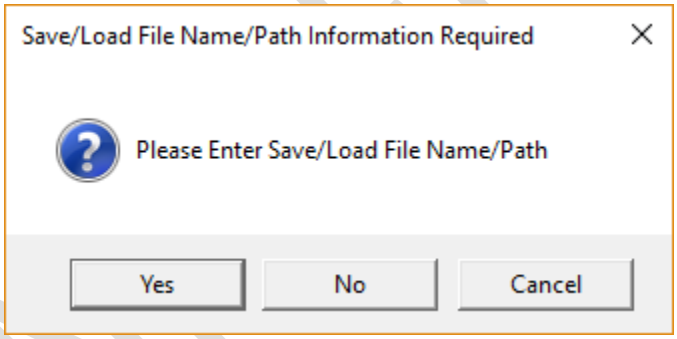



This portion of the data mining software saves the work as a text file and then recalls the text file for future use. To begin, you can either type in the file name and directory location or press the Save Configuration button and the software will instruct the user where to save the configuration file. To load the configuration file, the process is similar. Either type the information in the user fields or press the Load Configuration button to navigate to the location of the configuration file that you require loading.

**Saving A Configuration**

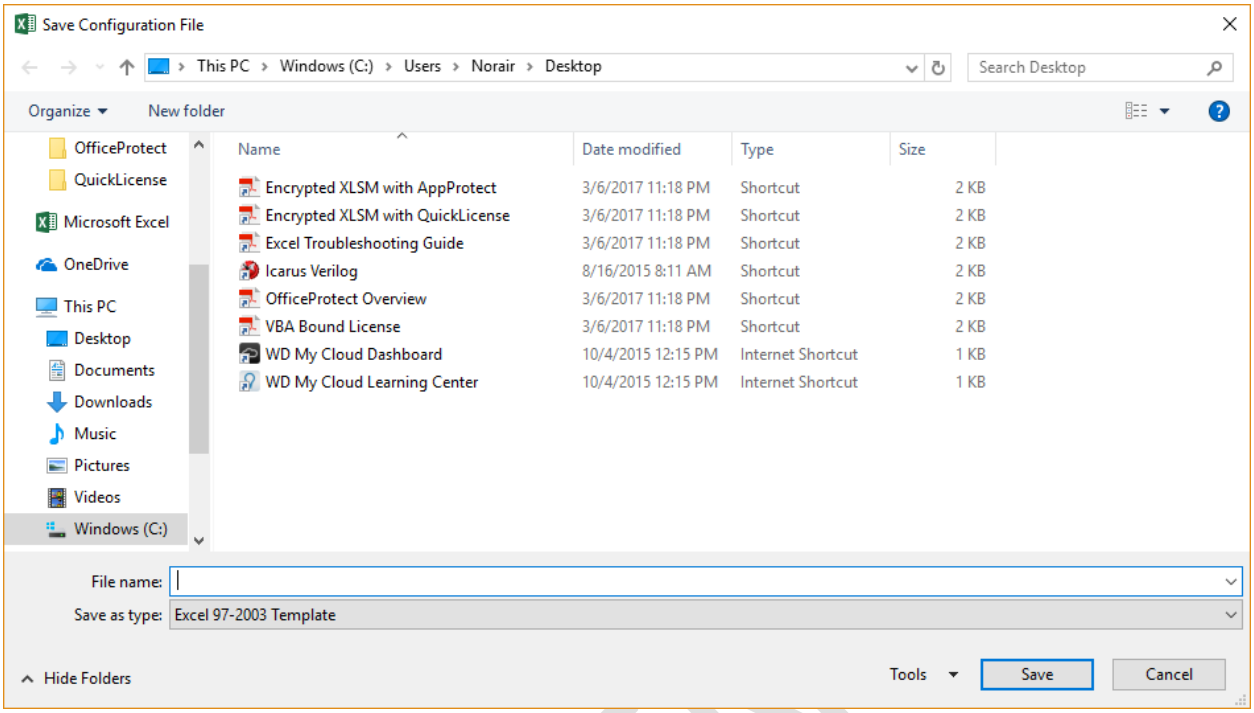
**Step 1:** Press the **Save Configuration** Button

**Step 2:** User GUI **Save/Load File Name/Path** Information Required will be prompted.

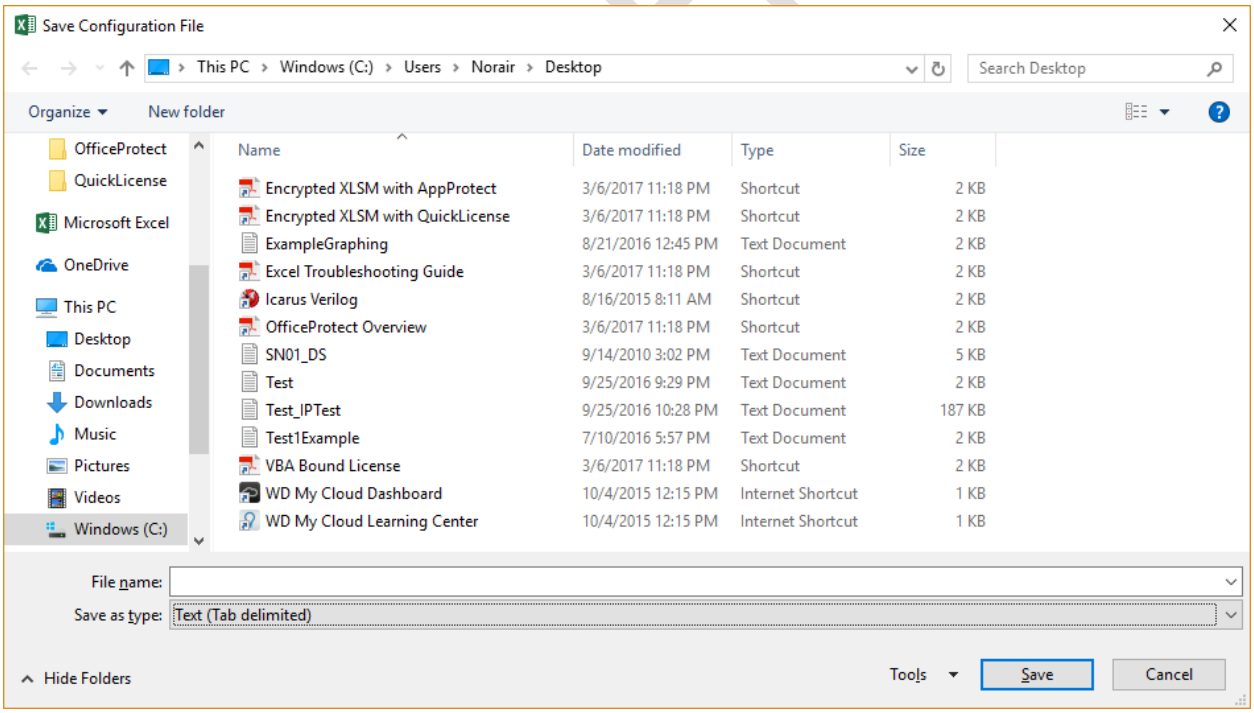



**Step 3:** Press **Yes** to Save the current configuration or press **No** to Cancel.

**Step 4:** The **Save Configuration File GUI** will prompt the user for a location to save the configuration file and the file name.

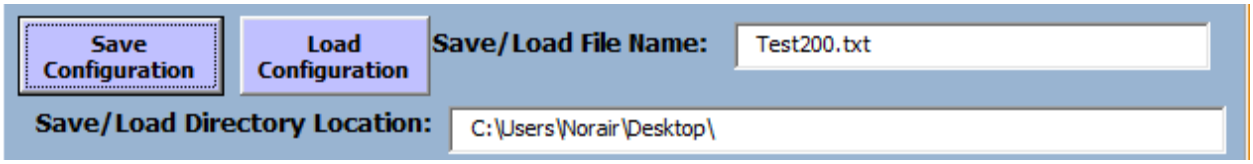



**Step 5:** Choose the **Save As Type** as Text (Tab delimited).




**Step 6:** Provide a file location and name, then press the **Save** button. This will save a text file with the current configuration of your data mining parameters.

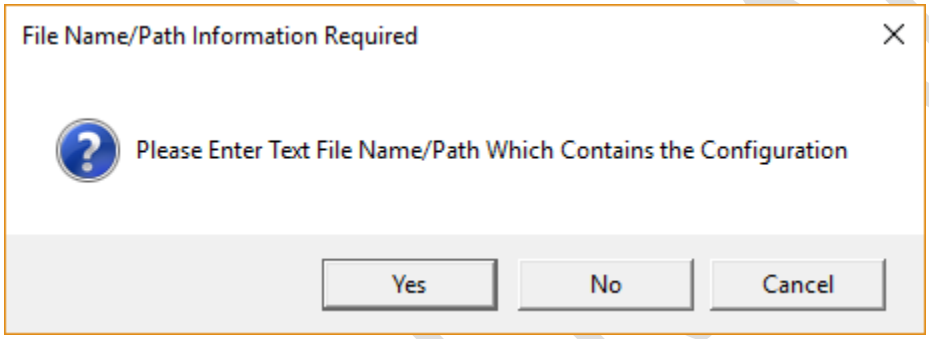
**Step 7:** The file location and file name will appear in the user GUI fields.




## Loading A Configuration

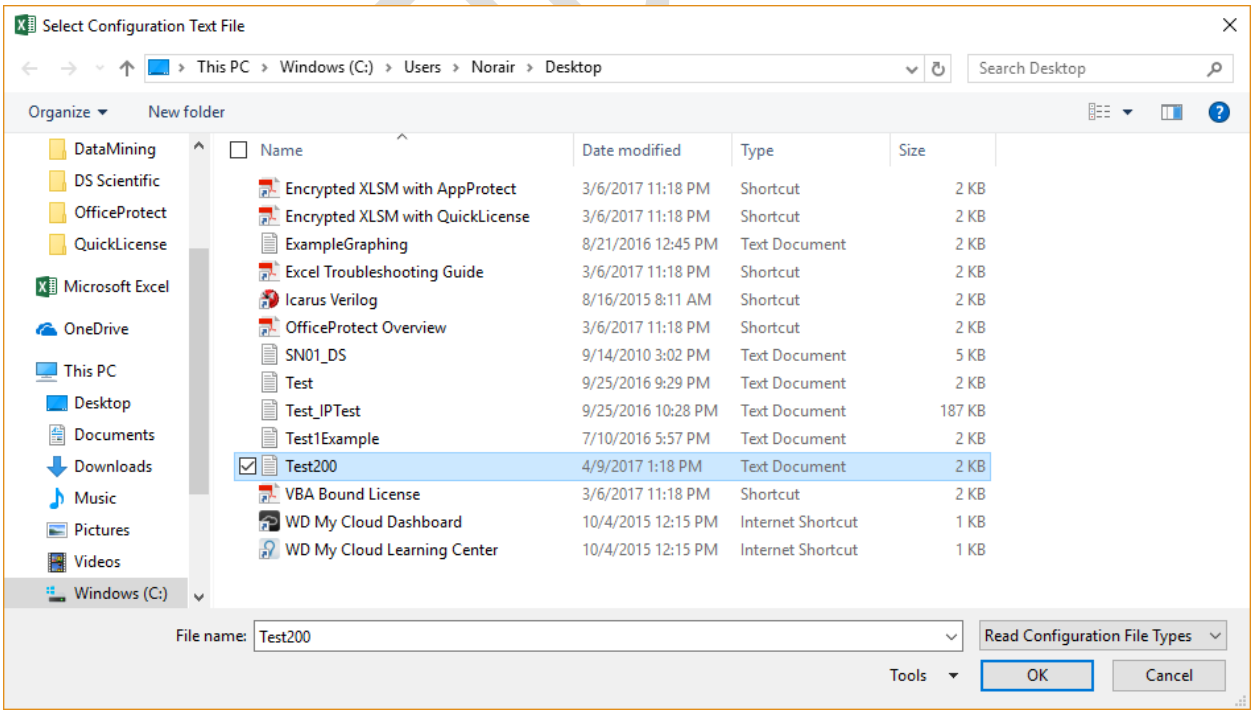
**Step 1:** Press the **Save Configuration** Button

**Step 2:** User GUI File Name/Path Information Required will be prompted.



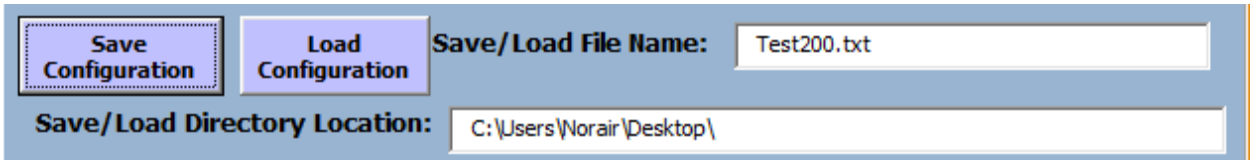

**Step 3:** Press **Yes** to load the current configuration or press **No** to Cancel.

**Step 4:** The **Select Configuration Text File GUI** will prompt for the user to supply a location to load the configuration file and file name.



**Step 5:** Provide the file name, then press **OK** Button. This will load the text file with the current configuration of your data mining parameters.

**Step 6:** The file location and file name will appear in the user GUI fields.



# 10 TECHNICAL SUPPORT OPTIONS

Your registered SciPro Hawk™1 product includes a one-year software maintenance that begins on your purchase date. You can contact technical support staff by phone or by email to receive one-on-one support when you are experiencing issues or have questions. A video instruction guide is provided at the DS Data Mining web site for technical support to show the user how to utilize the software.

Online: www.dsdatamining.com

Email: david.stephens@dsscientific.com

Call: (310) 568-9082

# 11 ACRONYMS

GUI – General User Interface

ICON – A symbol

TM – Trade Mark

PC – Personal Computer

LOG – Type of text file

CSV - Chorionic Villus Sampling

RTF – Rich Text Format

# 12 ACKNOWLEDGEMENTS

This data mining software, SciPro Hawk™1 and the corresponding User Guide are the result of dedicated effort.

We would like to thank the numerous people that provided consultative help and constructive suggestions during the development of our software.