



USER GUIDE

v1.2

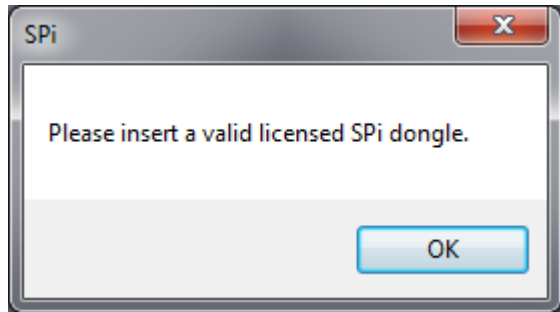
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## SPi Dongle

The SPi dongle must be inserted into your computer throughout the entire use of the program. If it is removed, SPi will stop functioning and you may have to restart the extraction process again.

If you are presented with the message box below please ensure the SPi dongle is valid and inserted into your computer. If your license has expired please contact MD5 to renew your license.



## Main Screen

SPI displays the computers current date and time here

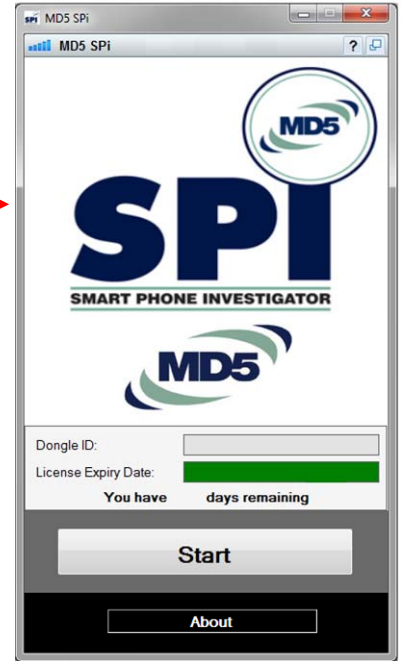


Link to About/Help screen

This button will minimise/maximise the SPI screen as shown. Please note this feature is available throughout the program and can be used at anytime

You're Dongle ID and Expiry Date will be displayed here along with how many days you have remaining

This button will direct you to the About/Help screen where you can view the Frequently Asked Questions (FAQ's) or read about SPI



## Extraction Setup Screen

You can import your iOS image file by browsing to its location, or by pasting the location address into the "Import iOS Image File" field.

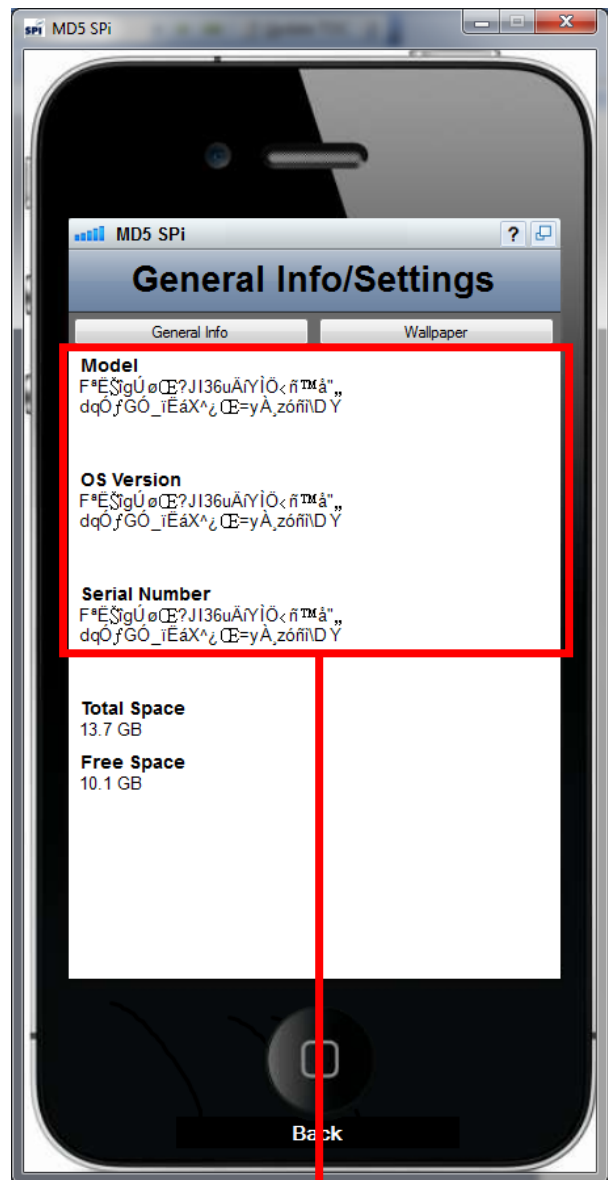
The same also goes for the export location which is compulsory. Please ensure the export location chosen has enough disk space available for SPi to save the extracted files to.

The Case Data fields are optional. However, if they are left blank then the excel report that will be produced will contain blank fields against the case data.

Please note, SPi is only able to extract data from unencrypted iOS image files. If an encrypted iOS file is chosen then no data will be extracted and the "General Info/Settings" screen will look like the screen below.



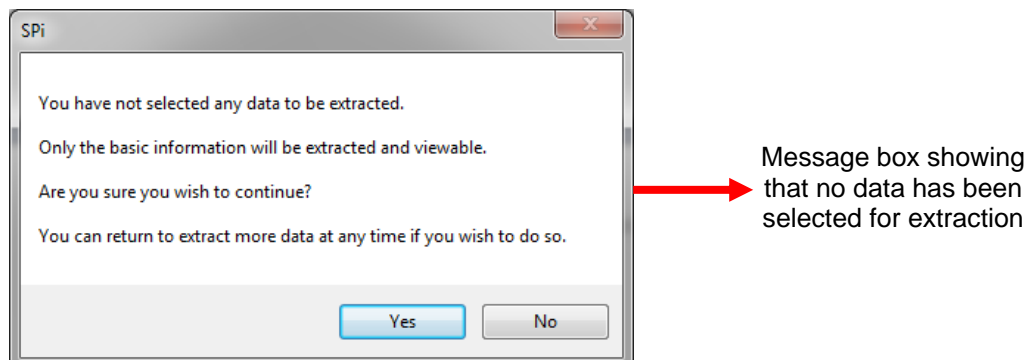
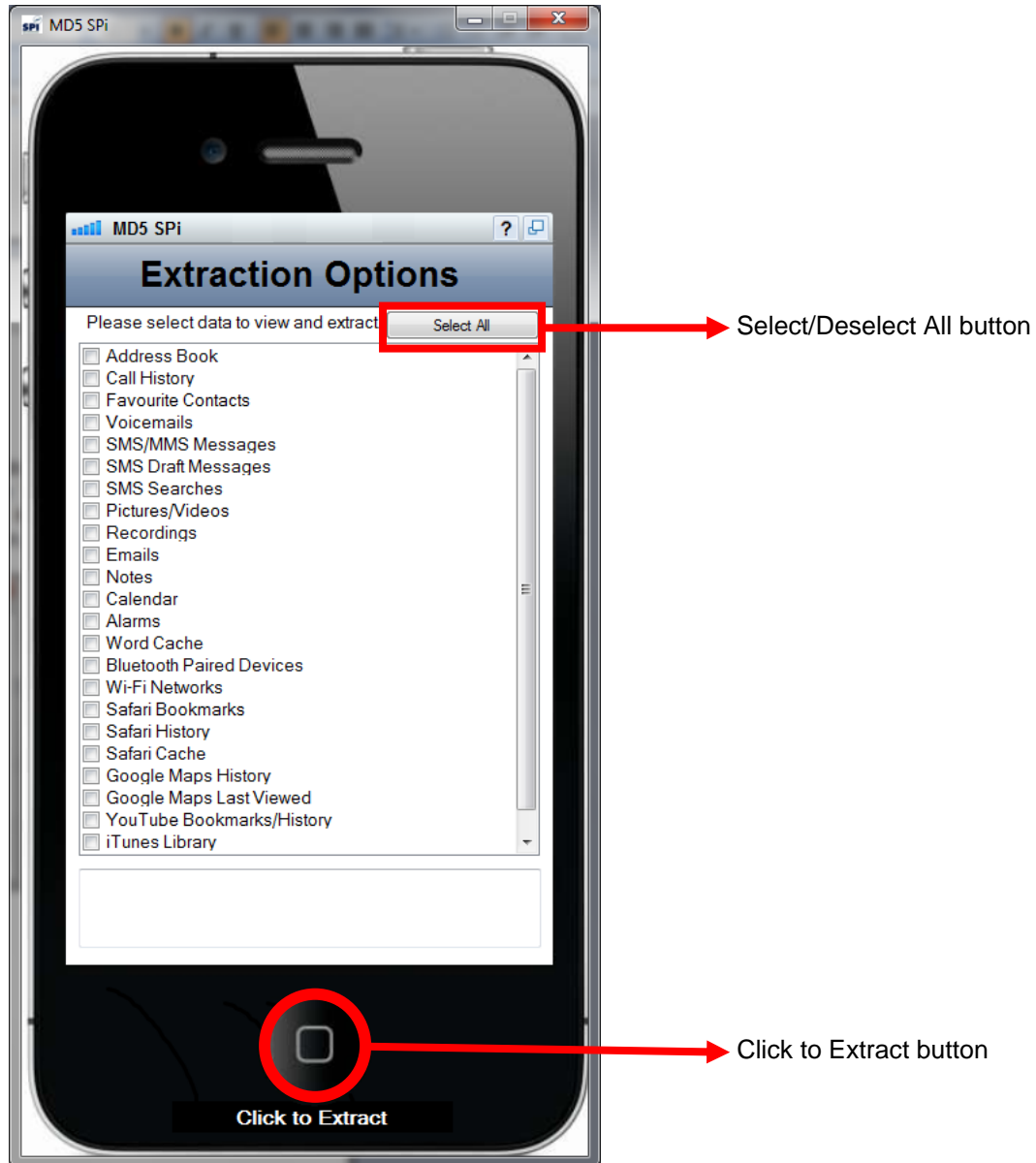
Case Data fields



Example of ENCRYPTED iOS Image file processed by SPi

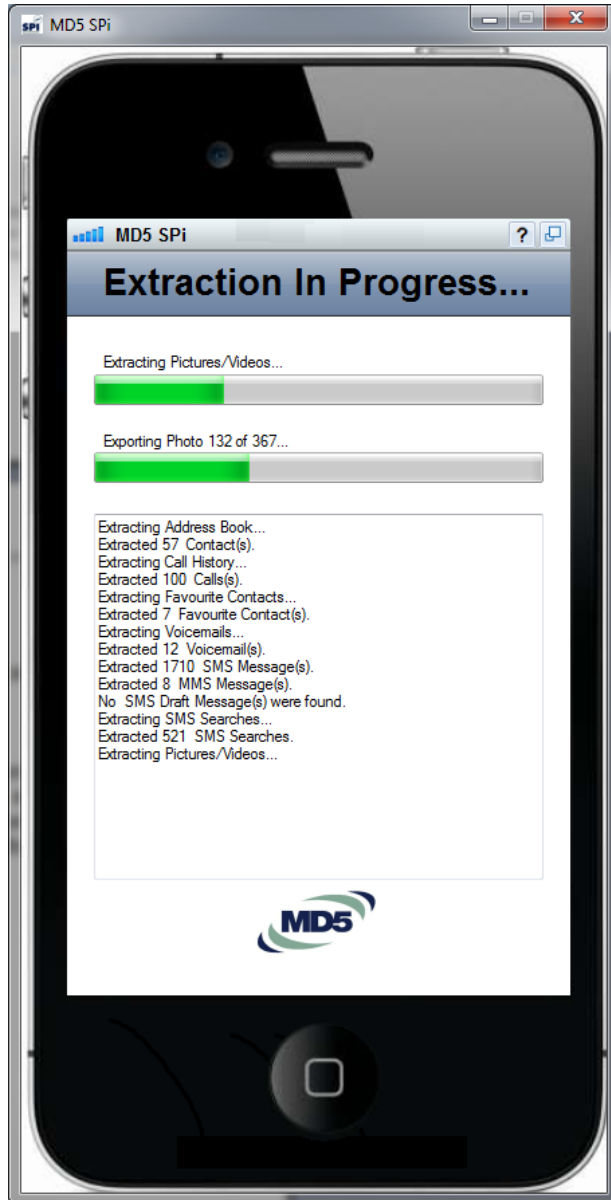
## Extraction Options Screen

This screen allows you to select the data you want to extract and export. All data can easily be selected/deselected by pressing the "Select All" button. Please note if none are selected then only the basic information will be viewable/extractable such as: Model of iPhone, OS Version, IMEI etc.



## Extraction in Progress Screen

Once you have selected the data you want to extract and clicked on the “Click to Extract” button then you be presented with the screen below.



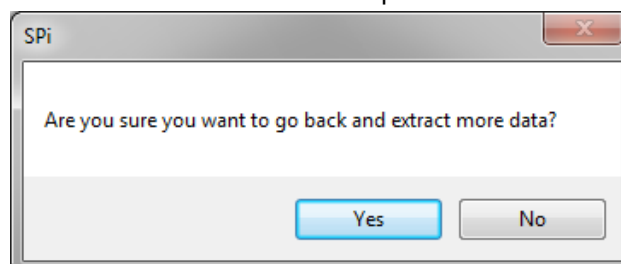
This screen will display the progress of the extraction and inform you what data has been found and extracted. It will also show if any errors have occurred during the extraction process. This Extraction Log along with the Export Log can be viewed later by clicking the “Advanced” button from the bottom toolbar and then choosing “View SPi Logs”. See below.

## Result Screen

Once the extraction process is finished you will be able to view the extracted data on the screen below by simply selecting the data you wish to analyse.

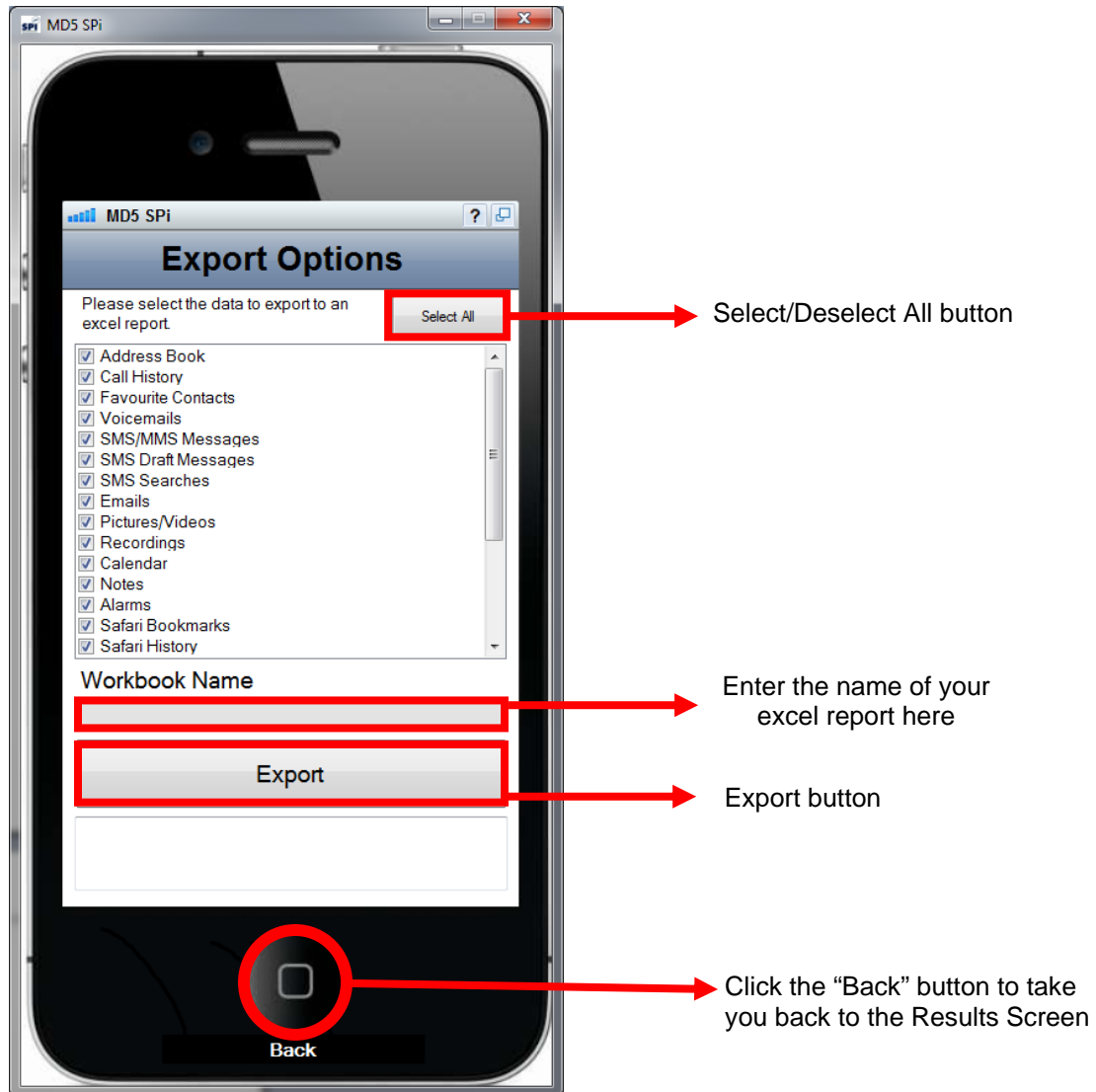


You can easily go back and extract more data by clicking this button. This will take you back to the "Extraction Options" screen

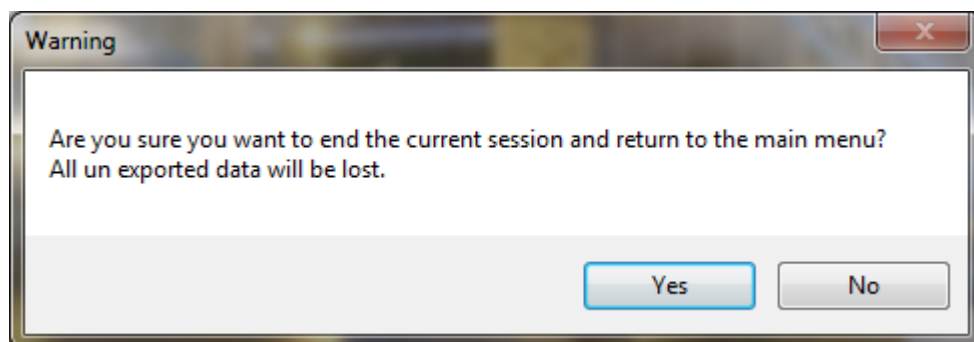


## Export Options Screen

Clicking the “Export” button on the bottom toolbar will display the following screen where you can select the data you wish to export to an excel report. Again, all data can easily be selected/deselected by pressing the “Select All” button.



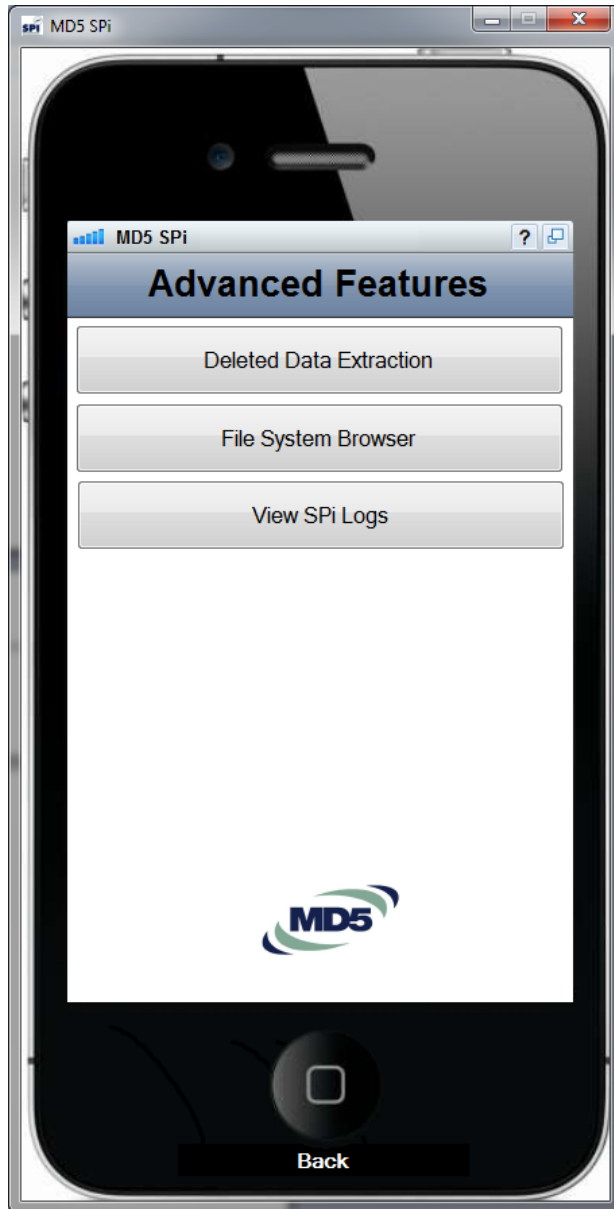
Clicking the “Main Menu” button on the bottom toolbar will display the following message box.



This is only useful if you wish to load a new iOS image file into SPi without having to close the program down and re-open it. Please note, clicking “Yes” will delete the current session and all un-exported data will be lost.

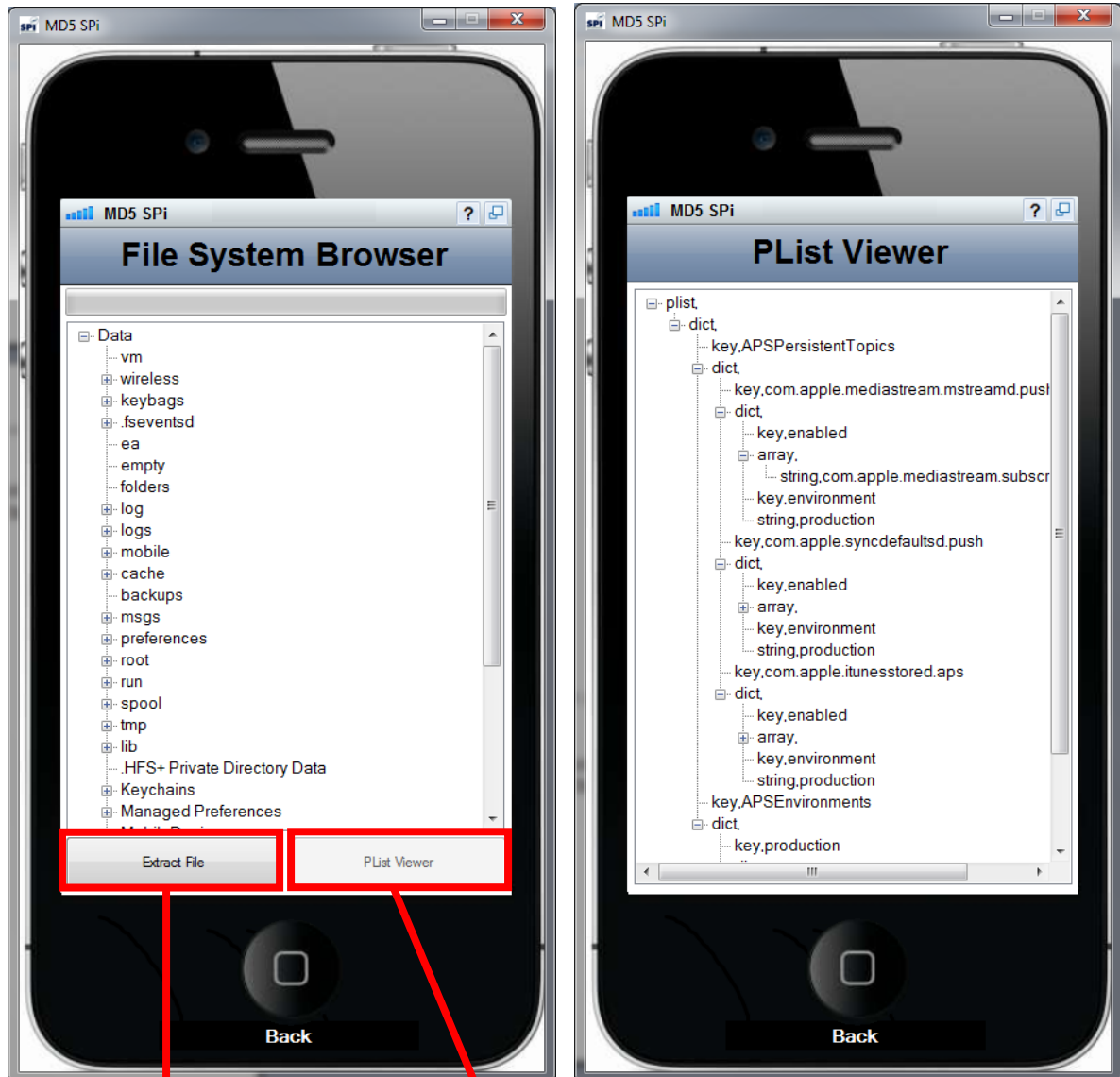
## Advanced Features

Clicking the “Advanced” button on the bottom toolbar will display the following screen.



As mentioned earlier, this is where you can view the Extraction and Export Logs by clicking “View SPi Logs” for more detailed information.

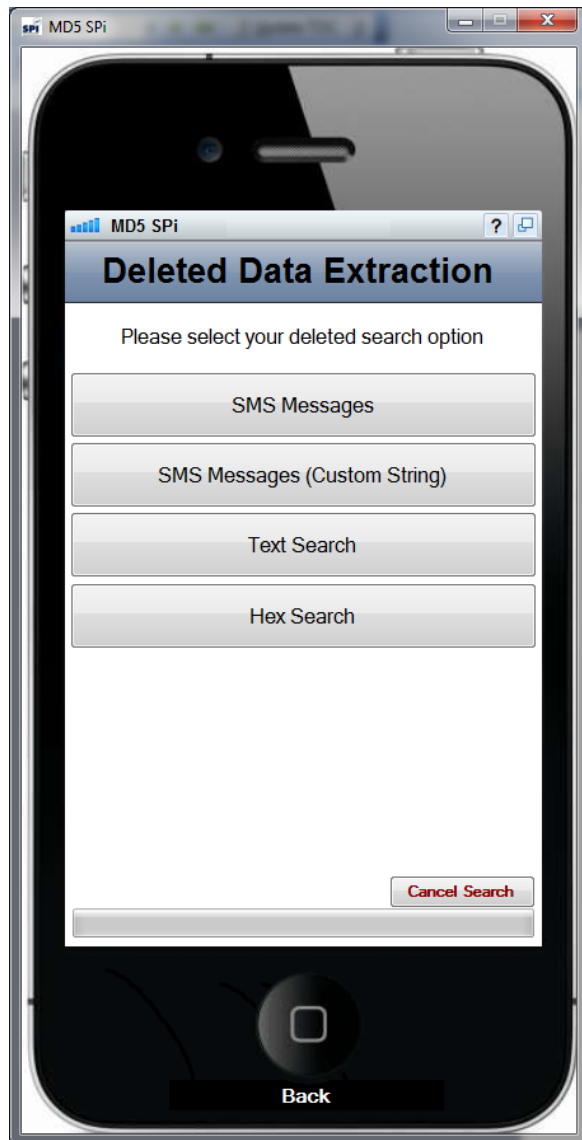
Selecting “File System Browser” will allow you to view the file structure of the iOS image file in its raw format as well as extract individual files. There is also a built-in PList viewer allowing you to view the raw data of a PList file. Please note, only .plist files will be available to view in the PList Viewer.



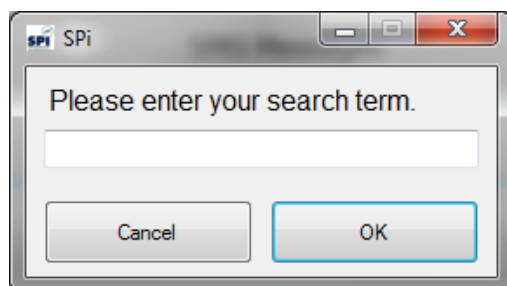
To extract a file, select it and then click this button

This button will only become active if the selected file is a .plist file

Selecting “Deleted Data Extraction” will show you the following screen with the options available for recovery of deleted data.



Selecting “SMS Messages” on this screen will recover both live (existing) and deleted SMS Messages from the iOS image file. This search option by default has specific built-in SMS search headers that SPi uses to recover messages and can not be modified. If you wish to use your own SMS search header please select “SMS Messages (Custom String)” from the options. Please note, this search will only accept hex strings.

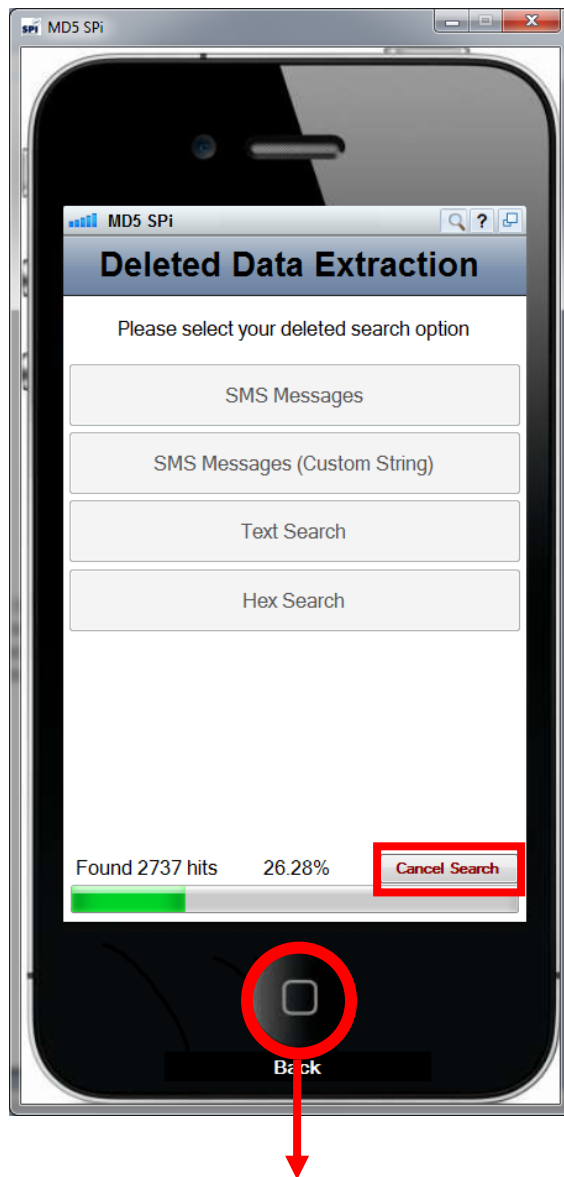


Message box asking user to input their SMS search header

Once you have selected your deleted search option (SMS Messages – in this example) you will be presented with the screen below showing the recovery progress.

At this stage, you don't have to wait for the search to finish as you can go back to the "Results" screen and view the extracted data by clicking the "Back" button. The search will carry on processing in the background.

There is also an option to cancel the search at anytime which will terminate the search and display the recovered data.



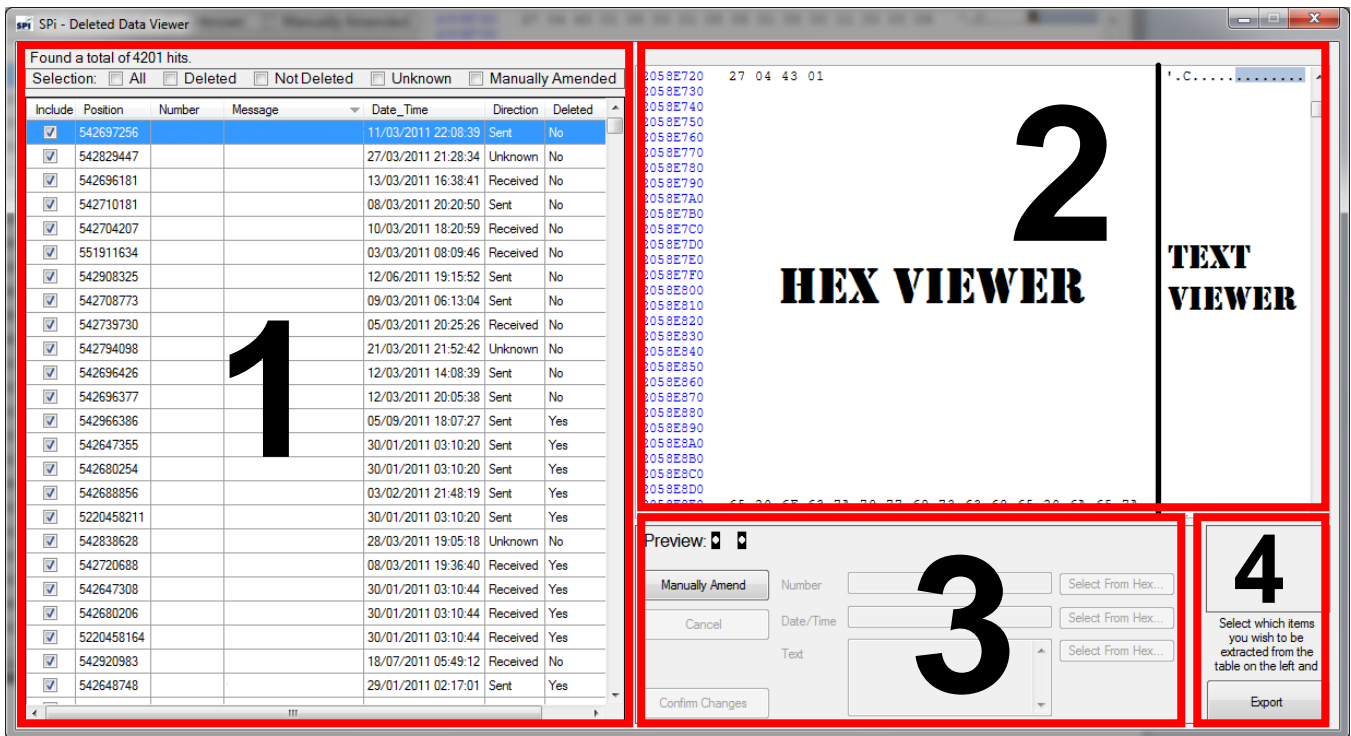
Click the "Back" button to take you back to the Results Screen

If you do choose to return to the “Results” screen whilst searching for deleted data you will notice a magnifying icon in the top toolbar, which when hovered over will show you the current progress of the search as shown below.



Clicking the magnifying icon will take you back to the “Deleted Data Extraction” screen.

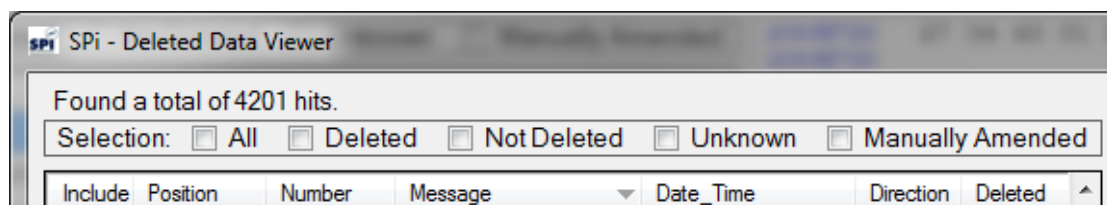
Once the deleted search is complete, you will be presented with the following “Deleted Data Viewer” window where you can browse, amend and select the messages you wish to export.



Panel 1 (Results Panel) – This panel displays the results found from the search along with the option of selecting which messages you want to export.

You can either manually select the messages you wish to export by checking the “Include” check box next to the message or by choosing one of the following.

1. All (this includes every entry in Panel 1)
2. Deleted (only deleted messages)
3. Not Deleted (all messages except deleted)
4. Unknown (only unknown messages)
5. Manually Amended (only manually amended messages)



When a message in this panel is highlighted, the appropriate location of the message within the iOS image file is shown in Panel 2 (Hex/Text View), allowing you to view the original raw data of the message.

This is useful in situations where SPi has recovered the SMS headers such as the recipient's number, the message content but was unable to recover the date/time of the message. If you feel the recovered data is incorrect/incomplete then you can manually amend the message by using Panel 3 (Amendment Panel). See below.

Panel 2 (Hex/Text View) – This panel displays the raw content of the iOS image file in hex and text view.

Panel 3 (Amendment Panel) – This panel is used for manually amending a selected message.

To manually amend a message please follow the steps below:

1. Select the message you wish to amend in Panel 1 (Results Panel).
2. Press the “Manually Amend” button in Panel 3 (shown above).
3. After pressing this button the rest of this panel will become available, displaying the Number, Date/Time and Text field from the selected message (if the data is available).
4. To alter these fields you can either type directly into them or use the “Select From Hex...” button according to the data type you wish to amend. This will allow you to select data from Panel 2 (Hex/Text View). The Amendment Panel will display a preview of the interpreted data that you have selected. If you are filling in the Number or Text fields the preview will use a plain text interpretation. If you are attempting to fill in the Date/Time field it will show you a date/time interpretation.
5. Once you are satisfied with the data you have selected in Panel 2 (Hex/Text View), clicking the “Select From Hex” button will fill in the field with the data you have chosen.
6. Once you have made the necessary amendments click the “Confirm Changes” button to save the message in Panel 1 (Results Panel).
7. If you want to cancel any changes made to this message and revert back to the original recovered data just click “Cancel”.

Note: If you amend a message the check box in the include column within Panel 1 (Results Panel) will automatically be selected.

Panel 4 (Export Panel) – This panel is simply to export the selected messages in Panel 1 (Results Panel) to an excel report.

## Extracting Deleted SMS Messages

Deleted messages are usually stored in the following sequence:

Number	Date/Time	Message
+447#####	05/03/2011 20:25:26	Your cab is booked for 05-03-11 at 2023 from #####.Thank you for booking your car with Liberty Cars - #####

```

04 75 6B 81 22 83 2E 13 00 27 04 82 01 01 08 00 .uk."....'.....
01 08 08 08 08 00 11 00 00 09 [red] +447
[red] [green] 4D 72 9C 36 [purple] 59 6F 75 72 20 [purple] Mr.6Your
63 61 62 20 69 73 20 62 6F 6F 6B 65 64 20 66 6F cab is booked fo
72 20 30 35 2D 30 33 2D 31 31 20 61 74 20 32 30 r 05-03-11 at 20
32 33 20 66 72 6F 6D 20 23 from
                2E 54 68 61 6E 6B 20 79 6F 75 20 66 .Thank you f
6F 72 20 62 6F 6F 6B 69 6E 67 20 79 6F 75 72 20 or booking your
63 61 72 20 77 69 74 68 20 4C 69 62 65 72 74 79 car with Liberty
20 43 61 72 73 20 2D 20 Cars -
[red] [green] 02 10 75 6B 5A 83 2D 12 00 27 04 [purple] ..ukZ.-..'.
    
```

Number (Red in the above example)

The phone number comes first. However it is of variable length and can sometimes be stored as a name.

Date/Time (Green in the above example)

The date and time is stored numerically and is always 4 bytes long. The 4 bytes represent a number. The example above shows 4D 72 9C 36 which represents the date/time 05/03/2011 20:25:26.

Please note, when manually amending a message date/time field we advise you to use the preview functionality at the top of Panel 3 (Amendment Panel). This is because once you highlight a Byte within Panel 2 (Hex/Text View) SPI automatically obtains the next 3 Bytes and interprets the data as a date/time field as seen below.

```

[red] 4D 72 9C 36 59 6F 75 72 20 ..... Mr.6Your
    
```

Highlighting a byte in Hex/Text View will result in SPI obtaining the next 3 bytes and interpreting it as a date/time field

The preview will only interpret the selected data as a date/time if this option is used

Preview: 05/03/2011 20:25:26

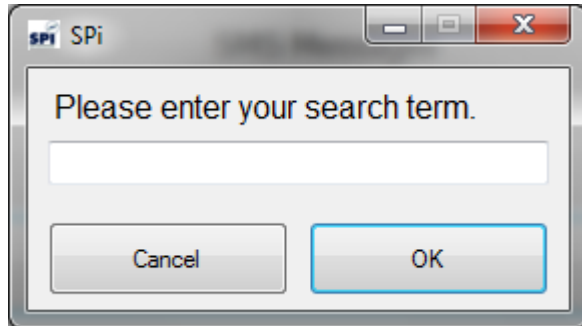
Manually Amend    Number    [ ]    Select From Hex...

Cancel    Date/Time    05/03/2011 20:25:26    **Select From Hex...**

Text    [ ]    Select From Hex...

Confirm Changes

Selecting “Text Search” or “Hex Search” from the “Deleted Data Extraction” screen will prompt you to enter a search term. SPi will then find all occurrences of this search term within the iOS image file and display the results in the “Deleted Data Viewer” as seen before.



“Text Search” can be used for keyword searching whereas “Hex Search” can be used for more advanced data recovery.

The process of selecting and amending the data from Hex/Text View to export to an excel report is similar to the SMS procedure mentioned earlier.