



GMS310

Data Manager

User Guide

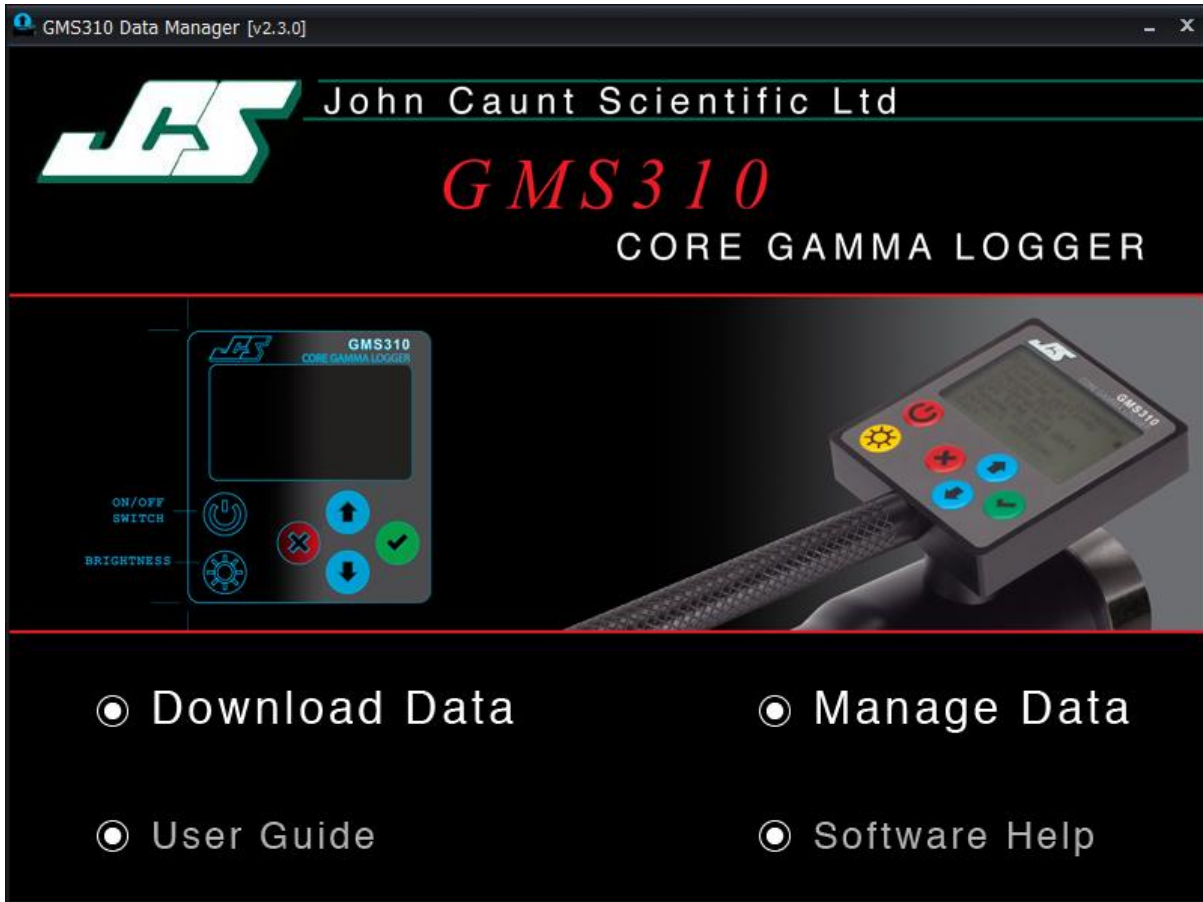
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GMS310 Data Manager



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1. Introduction

This document provides an overview of the installation and use of the GMS310 Data Manager software application.

The GMS310 Data Manager is used for the retrieval (download) and deletion of data files from the GMS310 Core Gamma Logger Instrument and subsequent analysis and export of sample data.

This version of this User Guide refers to version '2.3.0' of the Data Manager software application and supersedes all previous versions.

Previous versions of this software application will be upgraded by installing this version.

2. System Requirements

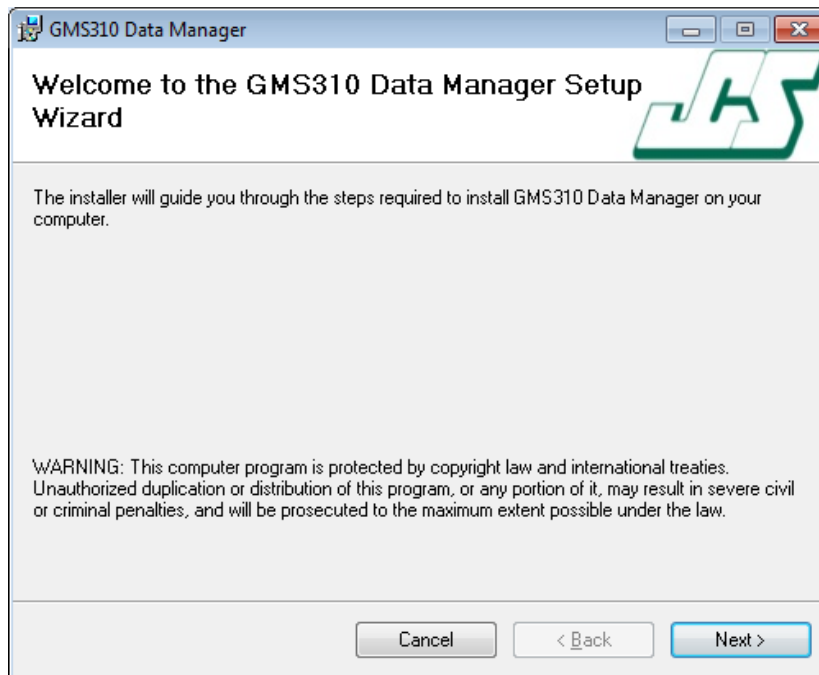
The GMS310 Data Manager requires the following minimum system:

- Windows XP (Service pack 3 or higher)
- 1GB RAM
- 250MB Disk space
- 1024 x 768 Screen Resolution
- USB port

3. Installation

The GMS310 Data Manager is supplied on an installation CD.

Once the CD has been inserted into the PC you will be prompted to run the 'JCS Installer'. The installation CD comes preloaded with an 'autoplay' file that will instruct Windows to prompt you to install the application. If you are not prompted automatically, run the 'setup.exe' on the CD to start the installation process.



During the installation process several sub-folders are created under the root 'Program Files*' directory, as per the following structure:

- Program Files *
 - JCS
 - GMS310 Data Manager
 - Downloads**
 - Downloaded data files
 - Errors
 - Data files that 'error' during the download process
 - Exported Data**
 - Exported data files ('XLS', 'CSV' and 'PDF')

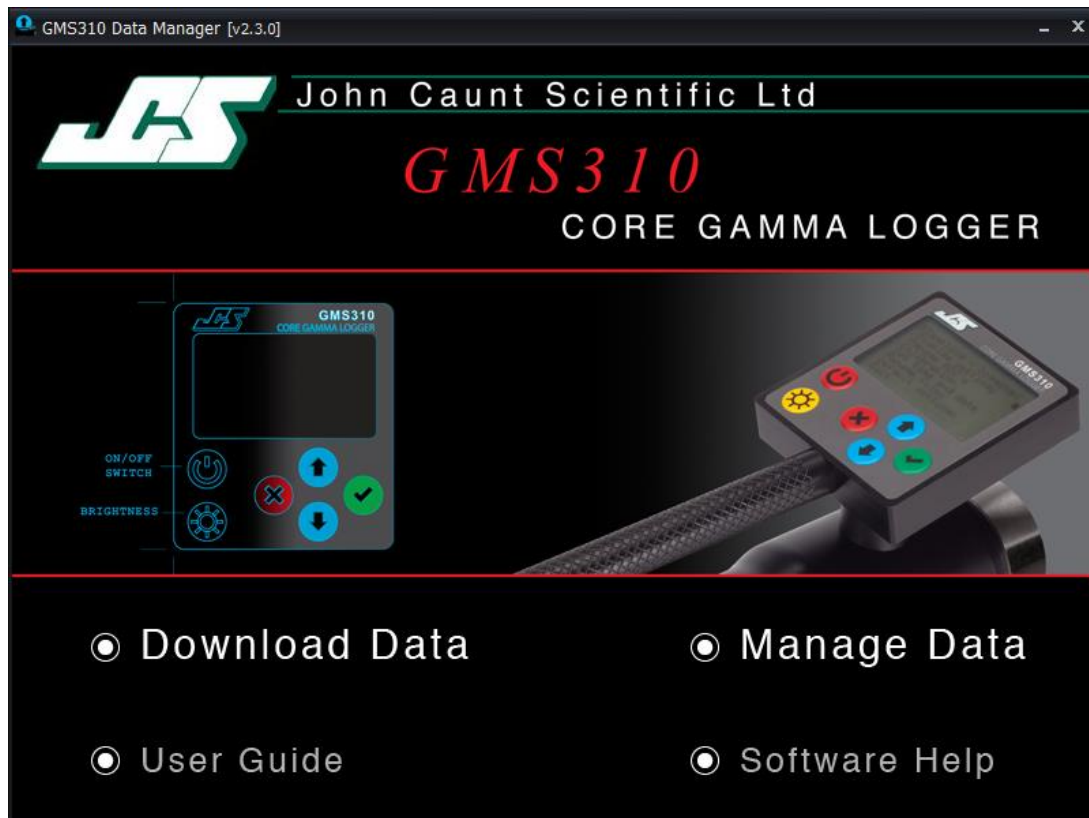
*Dependant on the PC environment (i.e. 32 or 64bit)

**Previous versions of the software application installed 'Uploads' and 'Extracts' sub-folders, these are replaced by 'Downloads' and 'Exported Data' as part of the upgrade to this version. All previous data is kept and moved to the new folders.

4. Using the GMS310 Data Manager

4.1 Launching the GMS310 Data Manager

The GMS310 Data Manager can be launched as usual within Windows environment from several places, including the desktop icon, as created during the installation process.



The main screen allows the following actions to be carried out:

- 'Download Data' - launches the Download Data screen
- 'Manage Data' – launches the Manage Data screen
- 'User Guide' - opens the GMS310 Instrument User Guide
- 'Software Help' - opens the GMS310 Data Manager User Guide
- JCS logo – hyperlinks to the JCS website – www.johncaunt.com

4.2 Download Data

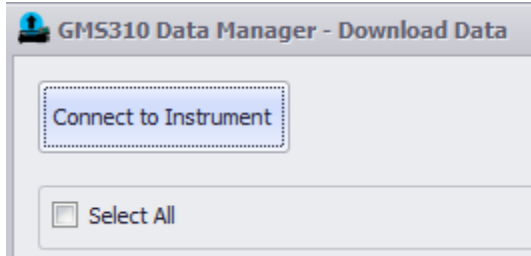
Selecting 'Download Data' from the main screen will open the 'Download Data' screen as shown below:

The screenshot shows the 'GMS310 Data Manager - Download Data' window. It features a 'Connect to Instrument' button at the top left. Below it are two checkboxes: 'Select All' and 'Select Files Not Downloaded'. The main area contains a table with the following columns: File Name, S/No., Date Logged, Date Downloaded, and Download Status. The table lists 19 CSV files, most with a status of 'Downloaded' and one with a status of 'Error'. At the bottom of the window are two buttons: 'Download to PC' and 'Delete from Instrument'.

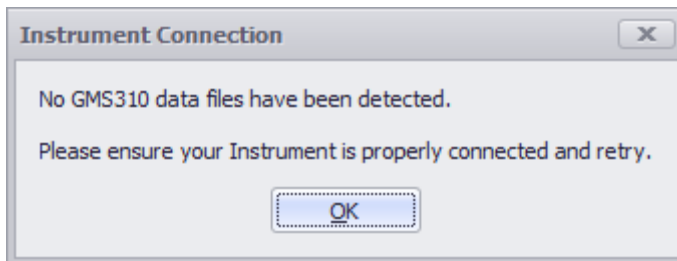
File Name	S/No.	Date Logged	Date Downloaded	Download Status
<input type="checkbox"/> A011012A.CSV	0112	11/01/2012 12:00:00	17/03/2013 20:30:26	Downloaded
<input type="checkbox"/> A011011O.CSV	0111	10/01/2012 12:02:20	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011N.CSV	0111	10/01/2012 12:02:10	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011M.CSV	0111	10/01/2012 12:02:00	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011L.CSV	0111	10/01/2012 12:01:50	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011K.CSV	0111	10/01/2012 12:01:40	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011J.CSV	0111	10/01/2012 12:01:30	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011I.CSV	0111	10/01/2012 12:01:20	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011H.CSV	0111	10/01/2012 12:01:10	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011G.CSV	0111	10/01/2012 12:01:00	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011F.CSV	0111	10/01/2012 12:00:50	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011E.CSV	0111	10/01/2012 12:00:40	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011D.CSV	0111	10/01/2012 12:00:30	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011C.CSV	0111	10/01/2012 12:00:20	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011B.CSV	0111	10/01/2012 12:00:10	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011A.CSV	0111	10/01/2012 12:00:00	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A011011P.CSV	0111	09/01/2012 12:02:20	17/03/2013 20:31:04	Downloaded
<input type="checkbox"/> A0100AAA.CSV	0100	10/09/2011 13:46:40	17/03/2013 20:31:04	Error

4.3 Connecting to the Instrument

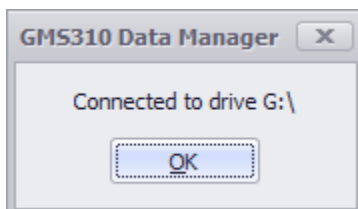
Once the Instrument has been connected to the PC (via. USB port) the GMS310 Data Manager makes contact by using the 'Connect to Instrument' button, as below:



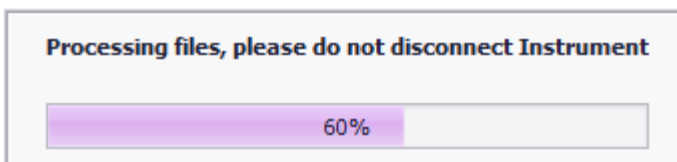
If no data files can be detected by the GMS310 Data Manager then the following message will appear:



To confirm which external drive/port you are connected to, press the 'Shift' and '~' keys together and the following message will appear:



Whilst connected to the instrument (Connecting, Downloading or Deleting) the following message may appear when working with large volumes of data files:



4.4 Downloading and Deleting data files

Once connected to the instrument, the GMS310 Data Manager allows for data files to be downloaded to the PC and permanently deleted from the instrument.

You can select and download and delete one, many or all the data files on the instrument.

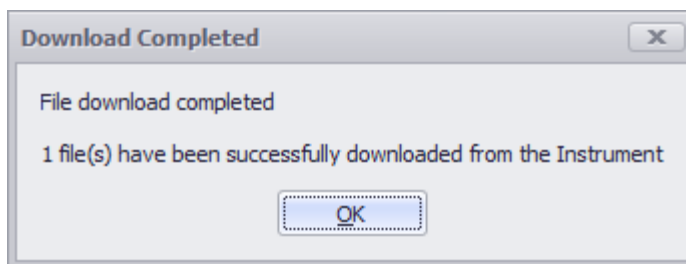
The Download Data screen shows all data files held on the instrument together with the current 'Download Status' for each file.

Once files have been selected, both the 'Download to PC' and the 'Delete from Instrument' buttons are enabled for use.

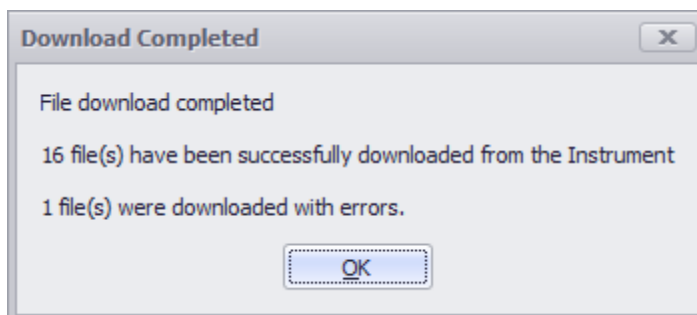
4.4.1 Downloading data files

Data files are downloaded from the instrument to the PC using the 'Download to PC' button.

On completion of the download process, the following message appears:



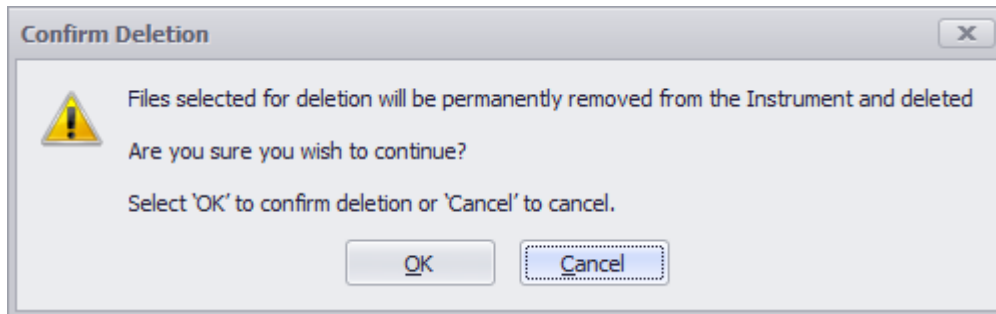
Should there be a problem with one or more of the files during the download process then the 'error' files will be downloaded to the 'Error' folder and the following message will appear:



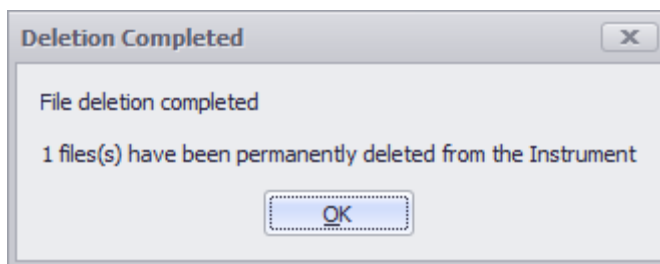
4.4.2 Deleting data files

Data files are deleted (permanently) from the instrument using the 'Delete from Instrument' button.

Before the deletion process starts the following warning message appears:

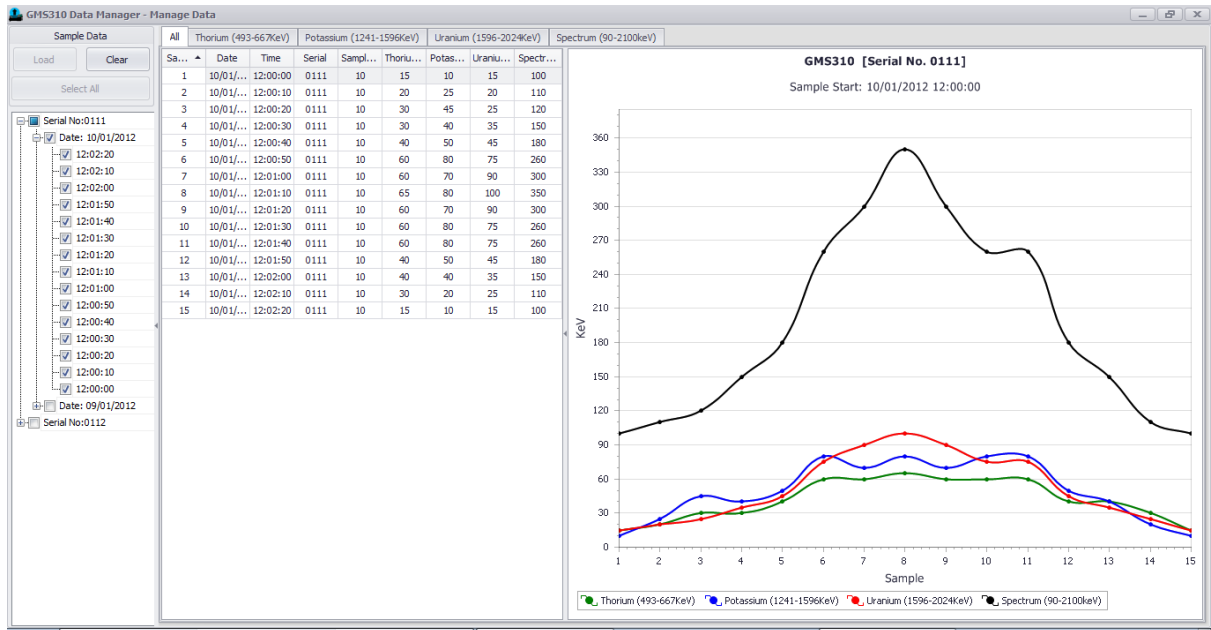


On completion of the deletion process, the following message will appear:



4.5 Manage Data

The Manage Data screen is used for the selection, deletion and analysis of Sample Data.



Once loaded, the sample data is presented in both the 'Grid Data' and 'Chart' areas for analysis.

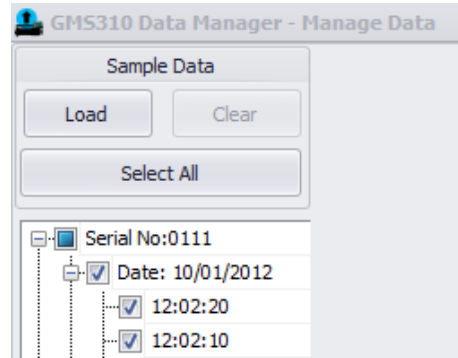
Included within the data shown is the following:

- Sample No.
 - This is generated by the application and relates to the number of samples selected and loaded.
- Date
 - Date the sample was taken
- Time
 - Time the sample was taken
- Sample Time (s)
 - Sample duration in seconds
- Regions Of Interest (ROI)
 - Data recorded within each ROI
- Spectrum
 - Data recorded captured across the total Spectrum



4.5.1 Selecting and Loading Sample Data

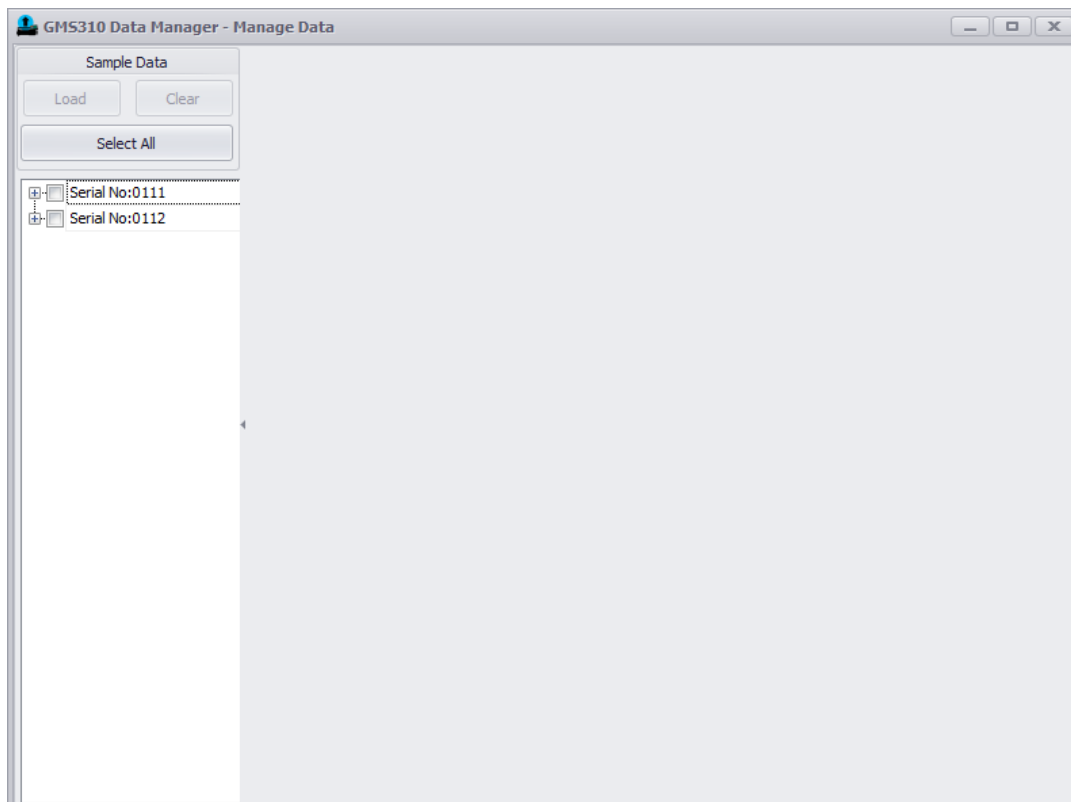
Sample data can be selected for loading, clearing and deleting using the 'Sample Data' tree view and the 'Load' & 'Clear' buttons, as shown below:



The sample data is shown in instrument Serial No. order, by date and then sample.

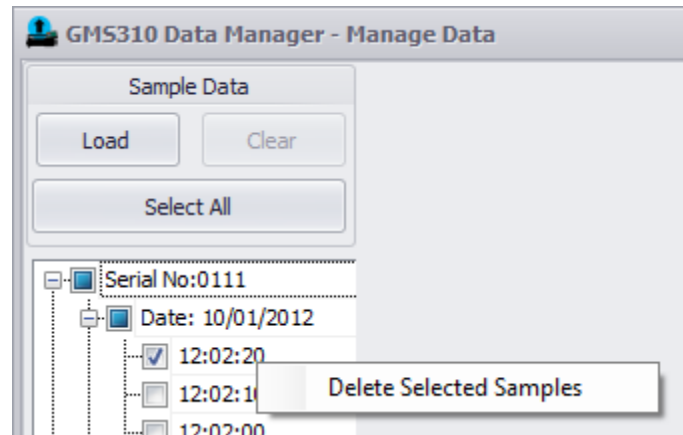
The 'Load' button becomes enabled once a sample (or samples) has been selected in the tree view; the 'Clear' button becomes available once a sample has been loaded into the 'Grid Data' & 'Chart' areas.

Pressing 'Load' will load the sample data into the 'Grid Data' and 'Chart' areas for analysis and pressing 'Clear' will empty/clear the sample data from the 'Grid Data' and 'Chart' areas.



4.5.2 Deleting Sample Data

The 'Delete Selected Samples' option is made available by using the mouse right-click option in the 'Sample Data' tree view, as shown below:



Sample data can be deleted from the application, data records are sent to the PC's recycle bin.

4.5.3 Analysing Sample Data

The information shown relates to the data collected by the GMS310 Core Gamma Logger.

Once loaded, the sample data is shown in both the 'Grid Data' and 'Chart' areas.

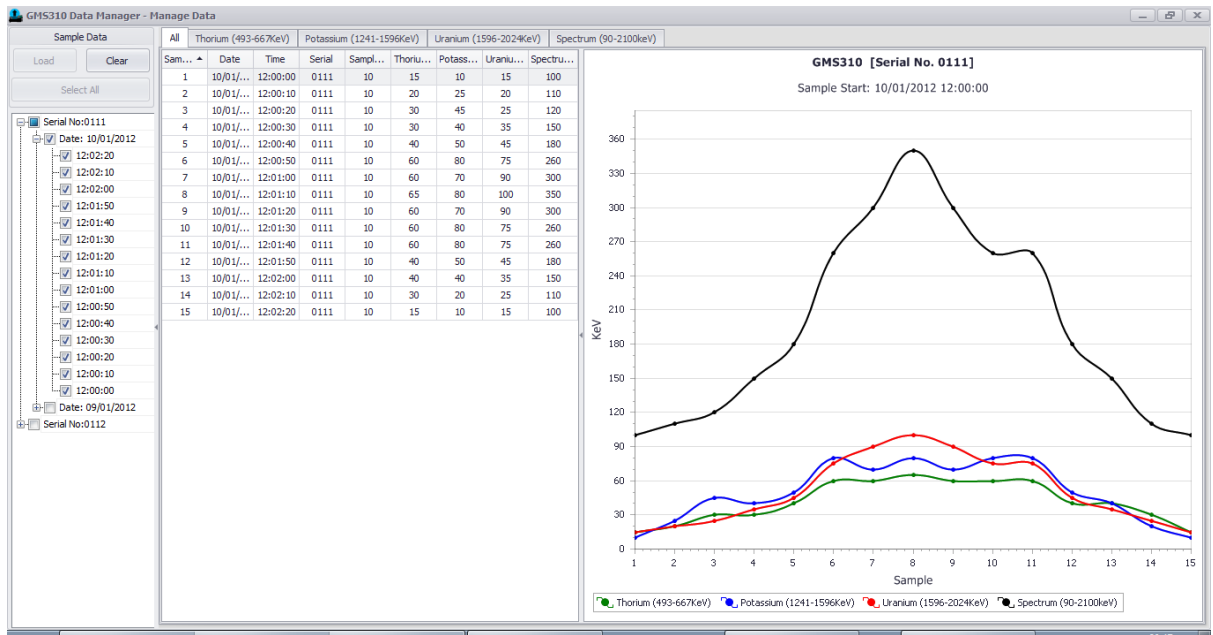
The 'Grid Data' area allows for the data to be sorted and filtered per ROI by using the column header.

All	Thorium (493-667KeV)	Potassium (1241-1596KeV)	Uranium (1596-2024KeV)	Spectrum (90-2100keV)		
Sample No. ▲	Date	Time	Serial	Sample Time (S)	Thorium (493-667KeV)	Potassium (1241-1596KeV)
1	10/01/2012	12:00:00	0111	10	15	10
2	10/01/2012	12:00:10	0111	10	20	25
3	10/01/2012	12:00:20	0111	10	30	45
4	10/01/2012	12:00:30	0111	10	30	40

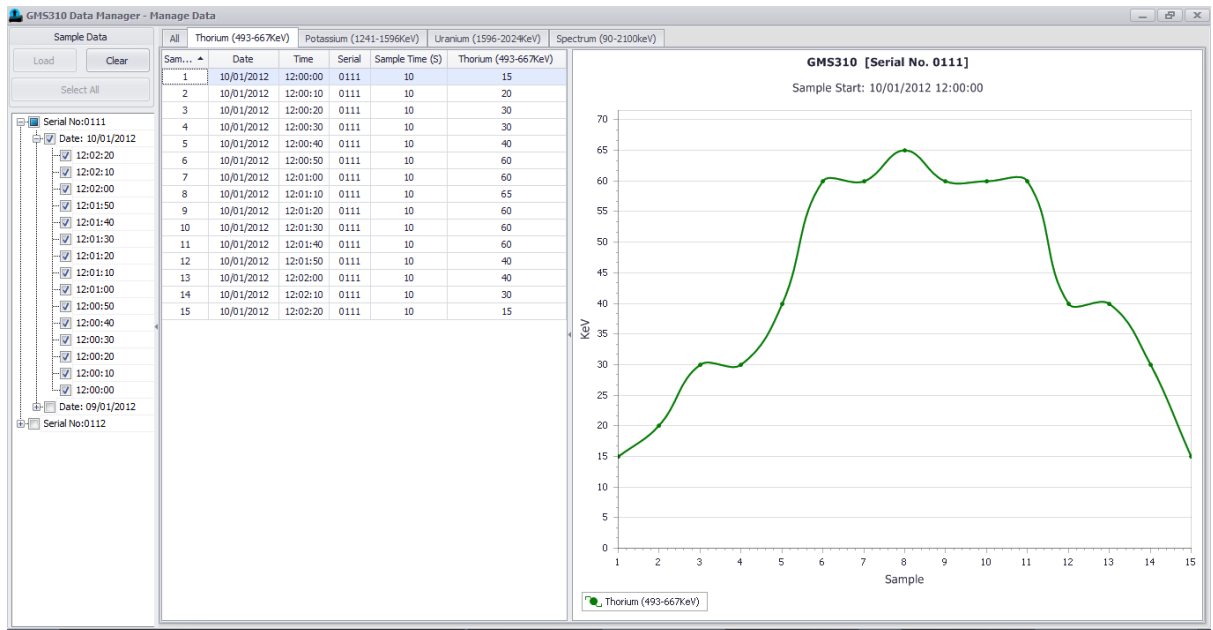
The 'Chart' area allows the user to zoom into the chart for closer analysis of the data using the mouse scroll button or the 'shift key' & mouse left click – the Sample Number can also be moved using the Chart horizontal scroll bar when zoomed in.

The data recorded in each ROI can be shown by selecting the appropriate 'tab', the 'All' tab shows the data for all ROIs at the same time.

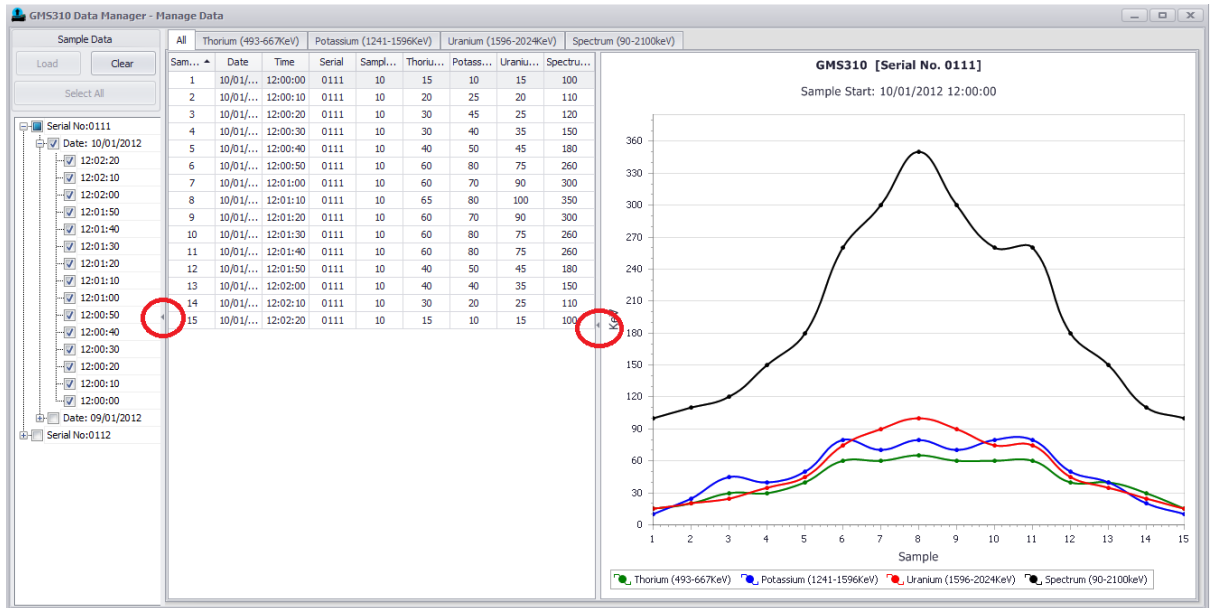
The 'All' Tab shows data for all ROIs on the same Grid/Chart:



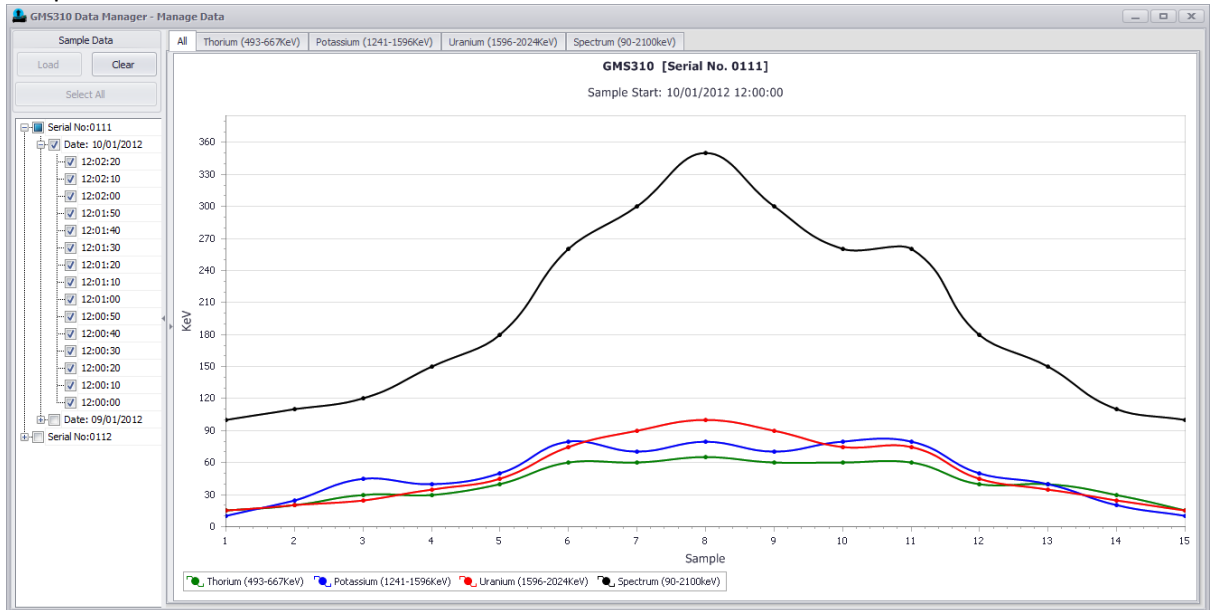
Each tab in turn shows data from each ROI (here Thorium):



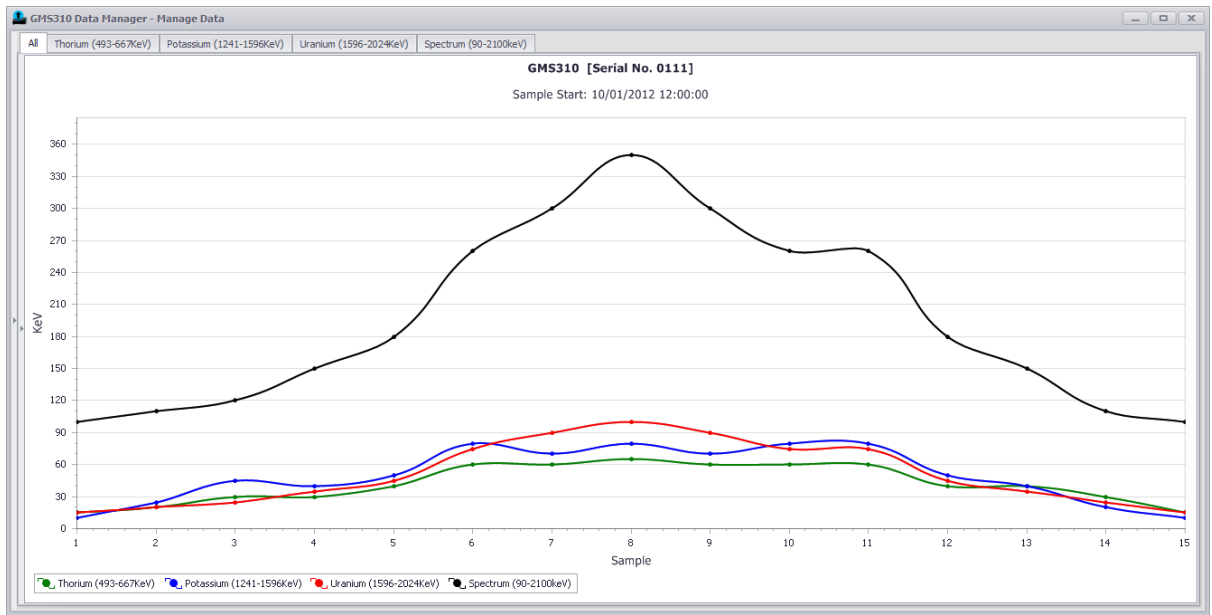
The 'Grid Data' and 'Chart' areas can be closed or widened to focus in on the data as required using the grab/splitter bars as shown below:



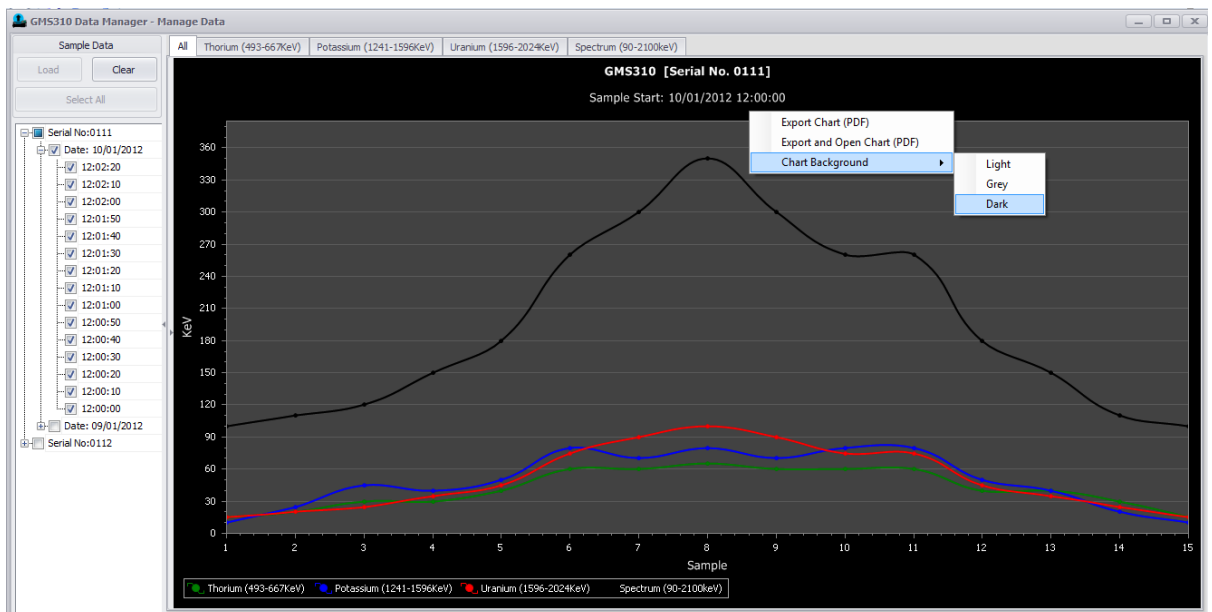
Sample Data and Chart area:



Just Chart area:



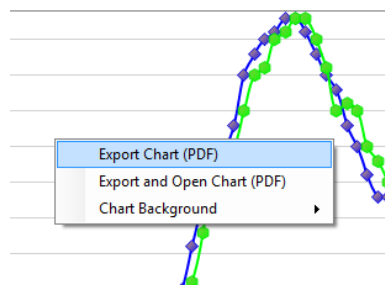
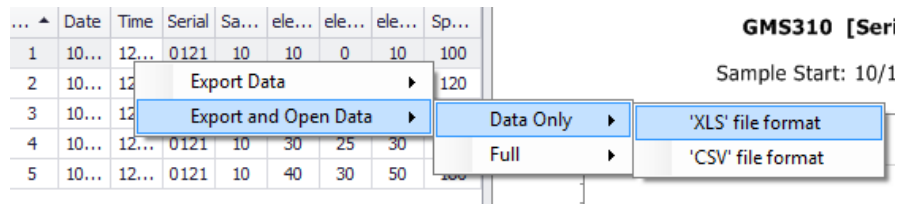
The 'Chart' background colour can be changed by using the mouse right-click option when in the 'Chart' area:



4.5.4 Exporting Sample Data

Data can be exported from both the 'Grid Data' and the 'Chart' areas separately.

The export options are selected using the mouse right-click function. You can either export straight out to a file or export and open using the PC's default application.



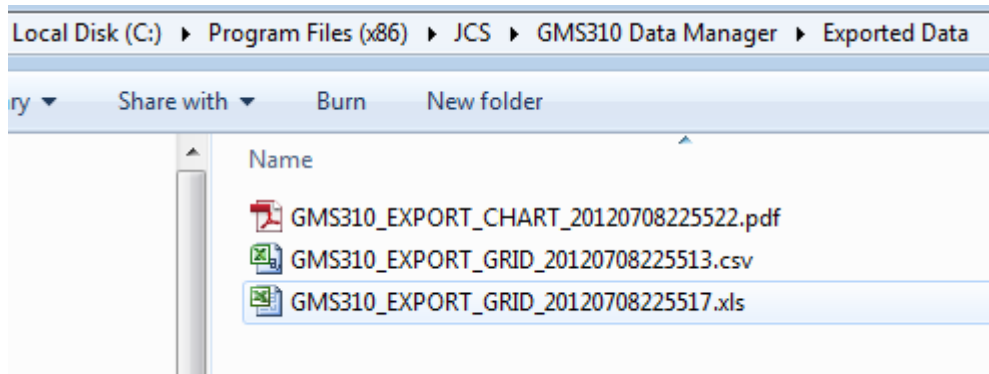
The 'Grid Data' area offers two options as to what can be exported, 'Data Only' and 'Full':

- Data Only
 - ROI sample data
- Full
 - All information recorded by the instrument during the sample reading

Data within 'Grid Data' area exports out to 'XLS' (native to Microsoft Excel) and 'CSV' file formats.

The 'Chart' area exports out to the 'PDF' file format.

Exported data files are saved to and stored in the 'Exported Data' sub folder with a unique date/time stamp, as shown below:



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