SureTrend

Data Analysis Software

User's Manual

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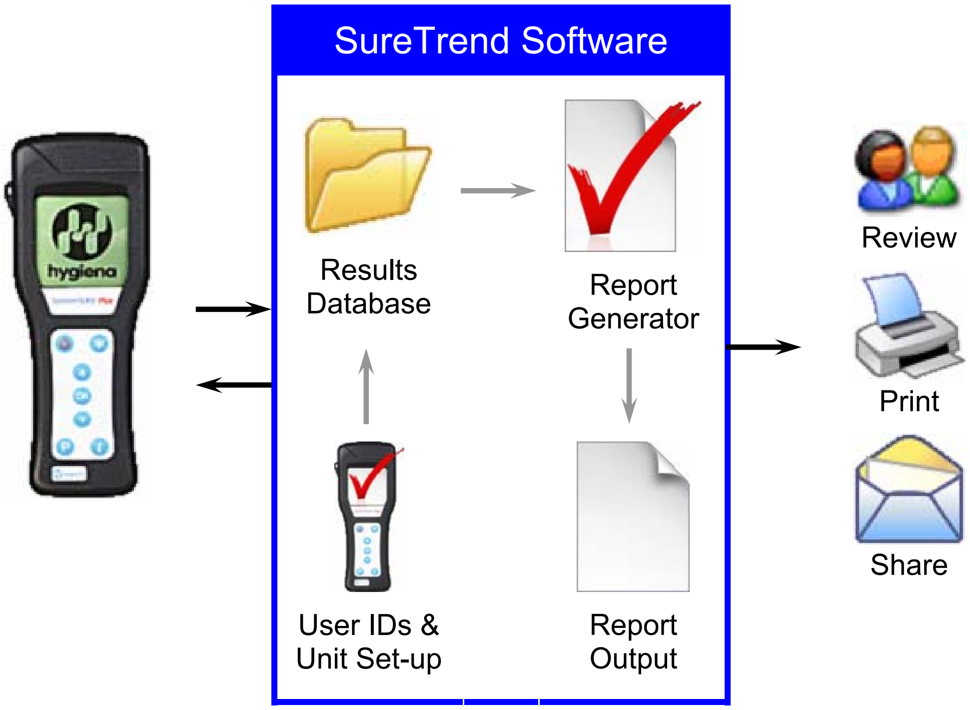
1 Introduction

The **SureTrend** Data Analysis Software is a standalone test results database and trend analysis application, for use with the SystemSURE Plus and systemSURE II units.

The core elements of the SureTrend software are:



The key advantages and features of the SureTrend software are:

- Fully standalone application with no need for third-party software such as Microsoft Excel or Microsoft Access
- Direct uploading of test results data from one or more SystemSURE Plus or systemSURE II units
- Storage of uploaded results in to a single contiguous database file, which can be protected to prevent accidental or fraudulent manipulation of the data
- Optional annotation of test results and report output data
- Fully configurable report output chart and data generation and printing
- Trend analysis of test results data over specific time periods
- Program location and threshold set-up and download to individual SystemSURE units
- SystemSURE Plus support for User ID, program location name and sample test plan definition and downloading
- Automatic PC clock time and date synchronisation with the SystemSURE unit

Please refer to the appropriate SystemSURE Operator's Manual for details of the SystemSURE Plus and systemSURE II units.

For any other technical assistance, please contact your local distributor.

1.1 Installing the SureTrend Software

<u>IMPORTANT</u>

Please ensure that you have read and understood the "Conditions and Limitations of Use" section at the beginning of this manual before continuing any further.

Do not install this software if you are not in agreement with the "Conditions and Limitations of Use".

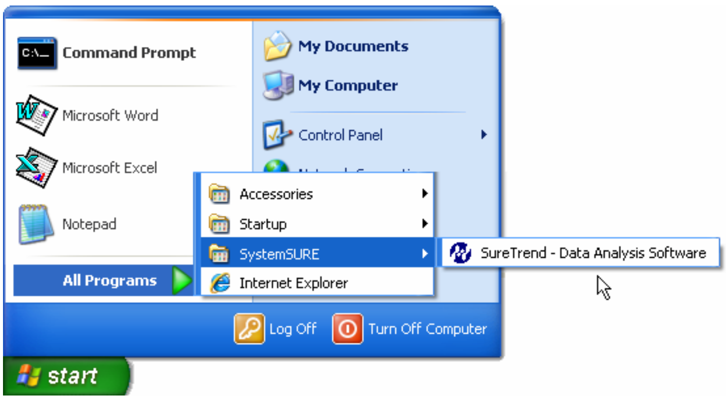
It is strongly recommended that you read this <u>entire</u> manual **before** installing and running the SureTrend software, as some features may need to be configured prior to uploading any test results from the SystemSURE unit.

The software is installed onto your computer by inserting the CD into your CD-ROM drive and following the installation script screen prompts. If the install script does not automatically start, open the CD-ROM folder from the **My Computer** icon on the PC desktop and run the **Install** application.

TIP: You might need to be logged on to your computer as an administrator, or be a member of the Administrators group, in order to install the software.

NOTE: If the SureTrend data files are to accessed by multiple users, the software and data files should be installed onto the shared file server first, and then additionally installed on each local user's PC. When the installation is complete, each user installation of the software should be individually configured to the needs and privileges of each user and their computer hardware capabilities. Please refer to section 10 for software set-up details.

Once installed, the new software is run by selecting the **SureTrend - Data Analysis Software** shortcut from the Windows ***start*** menu:



A digital version of this User's Manual is also installed and is accessible from the **Help** menu of the SureTrend software.

NOTE: This User's Manual is stored in Portable Document Format and requires Adobe® PDF Reader to view it. This reader is not supplied with the SureTrend software, but is freely available from the Abode web site: www.adobe.com

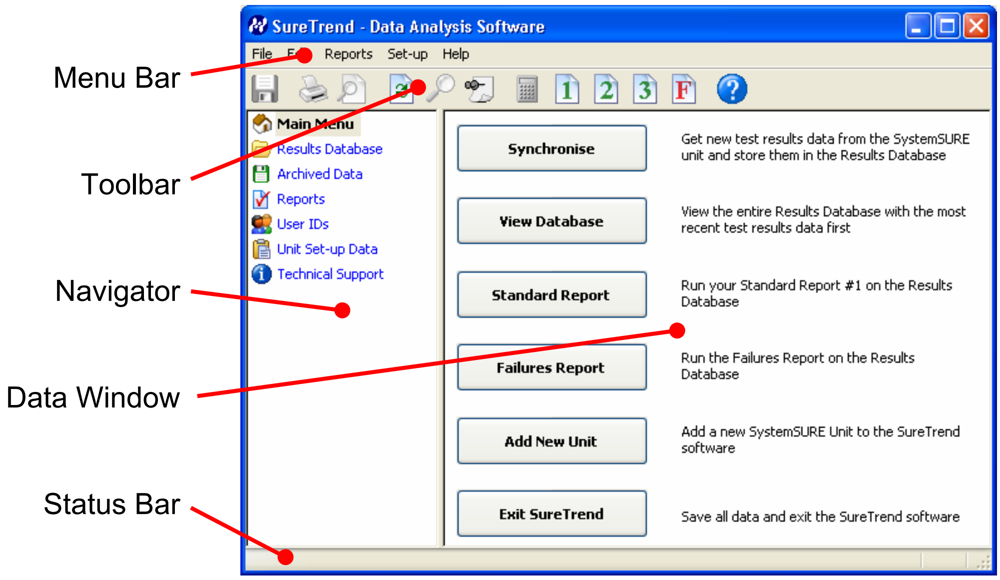
1.2 Uninstalling the SureTrend Software

To uninstall the SureTrend software from your PC, use the **Add or Remove Programs** option in the Windows **Control Panel**. Then select SureTrend Data Analysis Software from the list of currently installed programs and follow the on-screen prompts.

NOTE: Please copy off any test results data and set-up files you may wish to keep <u>before</u> uninstalling the software.

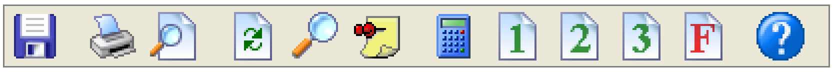
2 General Software Features

When the SureTrend software is opened (from the Windows ***start*** menu), the following application screen is displayed:



2.1 Toolbar Buttons and Menu Bar Options

The toolbar has the following buttons:



These toolbar buttons provide shortcuts to commonly used menu bar options:

Menu Option	Toolbar Button	Action Performed	Manual Section
File Open		Open the selected data file	2.3
File Close		Close the current data file	2.2
File Close All		Close all open data files	2.2
File Save		Save data file changes to disk	2.2.3
File Revert		Discard any changes are reopen the previously saved data file	
File Synchronise...		Transfer data between SureTrend software and the SystemSURE unit	2.5
File Import...		Import database, reports and unit set-up data files from other sites	2.4
File Export...		Export database, reports and unit set-up data files to other sites	2.4.1
File Create Archive File		Reduce the size of the Results Database by archiving old data	5
File Printer Set-up...		Set-up the printer properties	

File **Print Preview**	Preview the output prior to printing	
File **Print...**	Print table data or report chart	
File **Exit**	Close the SureTrend software	
Edit **Cut**	Copy and delete selected data	2.2.3
Edit **Copy**	Copy selected data	2.2.3
Edit **Paste**	Paste selected data	2.2.3
Edit **Delete**	Delete selected data or set-up file	2.2.3
Edit **Select All**	Select all data for copy/cut/paste	2.2.3
Edit **Select None**	Cancel the data selection	2.2.3
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Set-up **Set Unit Clock**	Send the PC's clock time and date to the SystemSURE unit	10.3
Set-up **Password**	Set or change the data protection password	10.1
Set-up **Preferences...**	Access the SureTrend software configuration options	10
Help **User’s Manual**	Open this help file	9
Help	Open the Hygiena Technical Support	9

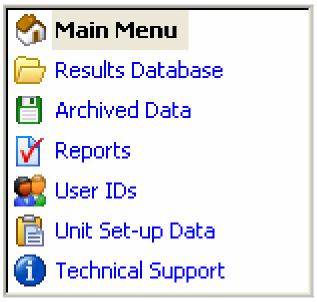
Technical Support...	internet page
Help **About SureTrend**	Display the SureTrend software version details

TIP: For consistency, this manual makes specific reference to the menu options (e.g. "the **Search** option from the **Edit** menu"), however if there is an associated toolbar button (e.g. "") this can be clicked instead.

Also, some options are also available on the *right-click* context menus, for example:

2.2 Navigator and Data Windows

The **Navigator** is located on the left-hand-side of the SureTrend application screen, and maintains a list of all data windows and open data files:



When new data files are opened, they are added to the Navigator list. Data files and windows can be closed by selecting the **Close** or **Close All** option from the **File** menu.

When a Navigator list item is selected (by clicking to the item name), the associated data is displayed in the Data Window area of the application.

The data is generally displayed in the form of a table of data records (running down the window in rows), with each record consisting of a set of related data fields (arranged across the window in columns):

← Record Data Fields →

Data Records

Index	Date	Time	Unit#	User ID	Plan	Prog#
1	16/07/2007	8:24	10000	Jim	Monday	99
2	16/07/2007	8:24	10000	Jim	Monday	9
3	16/07/2007	8:25	10000	Jim	Monday	10
4	16/07/2007	8:26	10000	Jim	Monday	11
5	16/07/2007	8:26	10000	Jim	Monday	1
6	16/07/2007	8:27	10000	Jim	Monday	2
7	16/07/2007	8:27	10000	Jim	Monday	3
8	16/07/2007	8:28	10000	Jim	Monday	4

The contents of the data window and the data record fields are specific to each data table type. Refer to sections 4 to 8 for further details.

2.2.1 Data Table Sorting

When the data table file is first opened, it is automatically sorted into ascending order, according to the values of the data field in the left-most column.

The table can be sorted by any of the data fields, either in ascending order or descending order, by clicking on the appropriate data window column headings:

Title	Date Modified *	Notes
Example (2 Weekly Report)	24/08/2007 13:17:17	Report Set-up File
Statistical (Trend Data)	24/08/2007 10:43:16	Report Set-up File
Statistical (Specific Period)	24/08/2007 10:43:14	Report Set-up File
Statistical (Specific Location)	24/08/2007 10:43:12	Report Set-up File
Statistical (All Data)	24/08/2007 10:43:10	Report Set-up File
RLUs vs Time (Specific User ID)	24/08/2007 10:43:08	Report Set-up File
RLUs vs Time (Specific Test Plan)	24/08/2007 10:43:07	Report Set-up File
RLUs vs Time (Specific Location)	24/08/2007 10:43:05	Report Set-up File

For example, clicking on the **Date Modified** column heading of the **Reports** window will sort the table into ascending order with the oldest report file at the top of the table. Whereas, clicking the column heading again will sort the list into descending order with the most recently modified file at the top.

2.2.2 Selecting Data Records

To select a single data record, simply click on the table row:

Index	Date	Time	Unit#	User ID	Plan	Prog#
71	24/07/2007	9:10	10000	Sally	Tuesday	4
72	24/07/2007	9:11	10000	Sally	Tuesday	5
73	24/07/2007	9:11	10000	Sally	Tuesday	6
74	24/07/2007	9:12	10000	Sally	Tuesday	6
75	24/07/2007	9:12	10000	Sally	Tuesday	7
76	25/07/2007	16:23	10000	Sally	Wednesday	9
77	25/07/2007	16:24	10000	Sally	Wednesday	9
78	25/07/2007	16:24	10000	Sally	Wednesday	9

You can then perform various data functions (such as Copy) by either: selecting the menu option from the menu bar; clicking on the toolbar button; or right-clicking on the selected data to access the context menu.

To select more than one table record, hold down the **Ctrl** key on the keyboard and then click on each of the rows you wish to select in turn.

To select a range of records, click on the first table row, then hold down the keyboard **Shift** key and click on the last row you wish to select. This will select the first row clicked, the last row, and all the rows in between.

You can also use the **Search** option from the **Edit** menu to search for and select all records that contains the specified text:

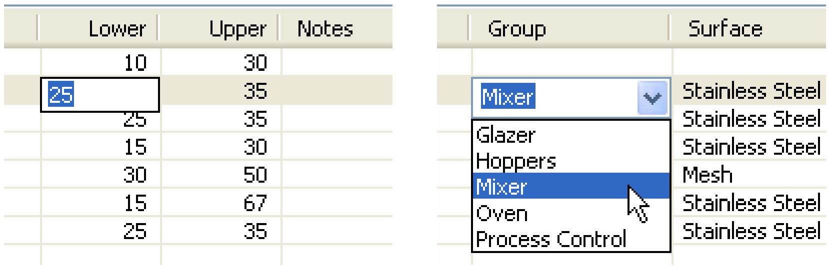
NOTE: The **Search** option performs a text search on all records and fields and is case insensitive (i.e. upper and lower case letters are treated as being the same).

TIP: If the **Select all matching records** option is not ticked, the **Search** option will find the next matching record after the currently selected record. This can be repeated to step through each occurrence of the text in turn.

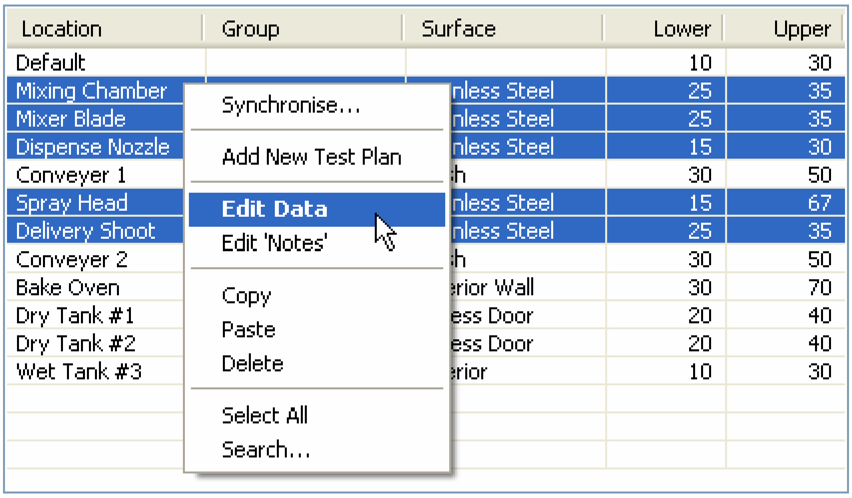
2.2.3 Data Table Editing

Where allowed, the user can edit or modify the contents of the data table's record fields in several ways:

(a) Most editable data fields can be changed by double-clicking on the field data value, and typing-in the new value or selecting one from the drop-down list:



(b) Selecting several data rows and then using the right-click menu **Edit** options to change each data fields value in turn:



TIP: When editing multiple table rows, you will be prompted as to whether you wish to apply the same text to all of the selected records. If you answer **No,** the software will step through each selected field in turn.

(c) Selecting one or more data rows and copying (**Copy**) and pasting (**Paste**) the selected data into a different part of the table.

NOTE: If the data field you are attempting to change is 'edit protected' (see section 10.1) you will be prompted for a password before the value can be modified.

Refer to sections 4 to 8 for details of which record data fields can be modified and what right-click context menu options are available.

TIP: Whenever the data table contents is changed, the window text will turn **BLUE** to indicate that the data file has been modified and needs to be saved by selecting the **Save** option from the **File** menu.

2.2.4 Exporting Table Data

To export the entire contents of a data table to Microsoft Excel, perform the following:

(a) Open the data table from the Navigator list.
(b) Select the **Export** option from the **Files** menu.
(c) Choose a destination filename and folder location.
(d) Click the **Save** button.
(e) The data table will then be converted and saved as an **Excel** file. This can take a while for large tables.

NOTE: Due to the limitations of the Microsoft Excel application, only the first 65535 data records can be exported. Larger tables will be truncated.

Alternatively, to export a smaller section of data from the data table into another application, such as Microsoft Word or Microsoft Excel, perform the following:

(a) Select the data rows from the table you wish to export.
(b) Select the **Copy** option from the **Edit** menu to transfer the data (including column heading) into the Windows Clipboard.
(c) Go to your other application and **Paste** the copied data into the document at the appropriate position.
(d) Edit the pasted data into the desired format and style.

Refer the section 2.4.1 for details of how to export and share data files between other SureTrend users.

2.3 Shared Data File Access

The SureTrend software is designed to allow several computer users to access the Results Database, Report Data, User IDs and Unit Set-up Data files at the same time (usually via a shared network file server).

However, this can cause an 'access conflict' if two or more users try to view or modify the same data file at the same time. This conflict is resolved as follows:

1) The first user to open the data file is given full 'read-write' permission, allowing the data to be viewed and modified.

2) Subsequent users who attempt to open the same data file are only given restricted 'read-only' permission, allowing the file contents to be viewed but not modified. In this case the data window text will turn **GREY** to indicate that the data cannot be edited.

3) Once the first user has closed the data file, one of the other users can gain full 'read-write' permission by reopening the data file using the **Open** option in the **File** menu. If successful, the window text will turn **BLACK** and the file contents can now be edited.

NOTE: If the user does not normally have the authority to modify the data file contents (in that, a password is required to alter the data), the file will be initially opened as 'read-only'. When the user attempts to modify the data, they will be prompted for the password and then the file will be reopened with full 'read-write' permissions.

TIP: The **Monitor Shared Files** set-up option (see section 10.6) can be used to automatically check the status of 'read-only' data files to determine whether the data has been modified by another user.

2.4 Importing and Export Data Files

As well as allowing multiple users to access a common set of SureTrend data files on a local network system, these files can also be exported from one site, emailed (for example) to another site, and imported back into the SureTrend software.

2.4.1 Exporting Data Files

To export an archived data file, a report set-up or output file, or a unit set-up data file, perform the following:

(a) Open the appropriate **Archived Data**, **Reports** or **Unit Set-up Data** window from the Navigator list.
(b) Select the file (or files) to be exported from the file table.
(c) Select the **Export** option from the **File** menu.
(d) Select a destination filename and folder.
(e) Click the **Save** button to export the data files as a single output file.

TIP: This can also be used to backup your data files into a single output file, which can be reopened at a later date, if need be, and the stored files imported back into the software.

To export the Results Database file, perform the following:

(a) Open the **Archived Data** window from the Navigator list.
(b) Select the Results Database file from the file table.
(c) Select the **Export** option from the **File** menu.
(d) Select a destination filename and folder.
(e) Click the **Save** button to save the database file as a new exported file.

Refer to section 2.2.4 for details of how to convert and save the Results Database file as a Microsoft Excel file.

2.4.2 Importing Data Files

To import data files from another site or remote user, perform the following:

(a) Select the **Import** option from the **File** menu.
(b) Browse to the folder where the new files are located.
(c) Select the files to be imported from the file list (using the **Ctrl** and **Shift** keys to select more than one file at a time if required).
(d) Click the **Open** button to read the selected data files into the SureTrend software and automatically stored them the appropriate data folders.

TIP: Alternative, it is also possible to drag-and-drop the data files directly into the Main Menu window of the SureTrend software.

If the imported file has the same name as an existing data file, you will be prompted to supply a new file name. This allows similar files from different sites to be imported without overriding the existing files.

TIP: To import files received by email, first save the attachments (to your desktop, say) and then import them into the software as detailed above.

NOTE: If the data files have been supplied on CD-ROM, they may have read-only file properties, and will remain read-only when the files are imported. If this is a problem, use Windows Explorer to copy the files to your hard disk, then change the file **Properties** to remove the Read-only attribute, and finally import these files instead.

2.4.3 Importing the dataSURE II Database File

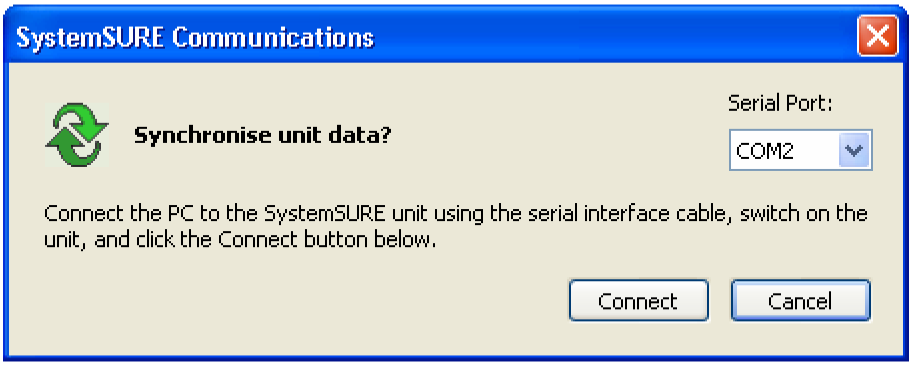
The database file from the older **dataSURE II** Data Analysis Software can be imported directly into SureTrend to form the basis of new database file. This is achieved as follows:

(a) Import the dataSURE II database file in manner described in section 2.4.2, giving it a new filename if necessary.
(b) Open the **Archived Data** window from the Navigator list.
(c) Select the dataSURE II database file from the file list.
(d) Select the **Open** option from the **File** menu.
(e) When prompted as to whether you wish the read the old dataSURE II test results data into the Results Database, answer **Yes**.

NOTE: This can only be done if the SureTrend Results Database is complete empty.

2.5 SystemSURE Unit Communications

When the **Synchronise** option is selected from the **File** menu, the following dialog window will appear:



Connect the serial interface cable (supplied with the unit) between the SystemSURE unit and one of the RS232 or USB ports on your PC. Please refer to the SystemSURE Operator's Manual for details.

Next, select the **Serial Port** from the drop-down list. If you do not know which COM port you are using, you may have to resort to 'trial-and-error'. Generally: Laptops use COM1; Desktops PCs use COM2; and USB-to-RS232 adapters use COM3-COM5.

Finally, switch on the SystemSURE unit and click on the dialog **Connect** button.

If correctly connected, the establish communications with the SystemSURE unit and automatically transfer the unit's results and set-up data, as required.

TIP: The software can be configured to automatically connect with the SystemSURE unit when the **Synchronise** option is selected, without the need to click the **Connect** button. See section 10.5 for more details.

3 Main Menu

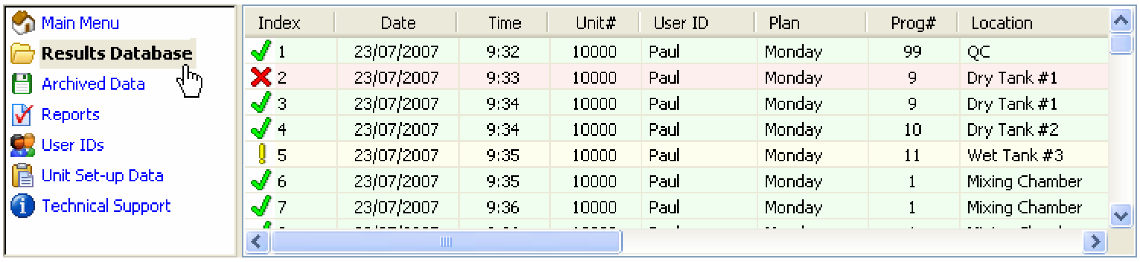
When the SureTrend software is opened, the **Main Menu** window is displayed, which provides direct access to the primary software functions:

Button	Action	Section
Synchronise	Upload new test results data from the SystemSURE unit and store them in the Results Database	4.1
View Database	View the entire Results Database with the most recent test results data first	4
Standard Report	Run your Standard Report #1 on the Results Database	6
Failures Report	Run the Failures Report on the Results Database	6
Add New Unit	Add a new SystemSURE Unit to the SureTrend software	8.1
Exit SureTrend	Save all data and exit the SureTrend software	-

TIP: The action of the Standard Report and Failures Report buttons can be configured via the software **Preferences** window. See section 10.4 for details.

4 Results Database

The **Results Database** window displays the contents of the test results database table, which maintains a history of every test results uploaded from the SystemSURE units:



New test results data is uploaded directly from one or more SystemSURE Plus and/or systemSURE II units and stored in the Results Database. As each test result is stored along with its unit serial number, test time and date, and the sample location, it can be positively identified and data trends tracked.

To prevent accidental or fraudulent manipulation of the test results in the database, data cannot be directly added, deleted or edited by the user. This protects the integrity of the uploaded data and eliminates 'selective amendments' or other ‘data abuse'.

Each individual test result record comprises of the following set of data fields:

Column	Field Data
Index	The overall ✓ / ! / ✗ result icon and database record index number
Date	The date the test was performed
Time	The time the test was performed
Unit#	The serial number of the SystemSURE unit that performed the test
User ID	The **ID** of the User the performed the test
Plan	The **Test Plan** name
Prog#	The unit **PROG** number used for the test
Location	The **Location** name associated with the **Unit#** and **Prog#**
Group	The **Group** name associated with the **Unit#** and **Prog#**
Surface	The **Surface** name associated with the **Unit#** and **Prog#**
Test Type	The test type: **Normal**/**Repeat Reading**/**Retested**/**Retest Result**
Result	The overall **Pass**/**Caution**/**Fail** test result
RLUs	The test reading in RLUs
Lower	The lower (⇩) program threshold
Upper	The upper (⇧) program threshold
Notes	Additional field for optional related comments and notes

The format of the **Date** and **Time** fields is defined in the software **Preferences** window. See section 10.3 for details.

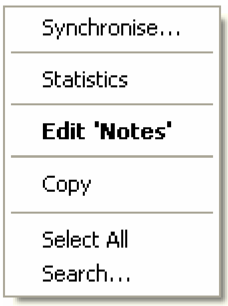
The **User ID**, **Plan**, **Location**, **Group** and **Surface** can be changed by double-clicking on the value you want to change and then either typing the correct name or by selecting one from the drop-down list.

The **Test Type** field describes how the test was performed on the SystemSURE Plus unit and how the result was derived at:

Test Type	Reading Method
Normal	A normal **Pass** (✓), **Caution** (!) or **Fail** (✗) test result, whereby the Ultrasnap sample device was placed in the unit and read once only.
Repeat Reading	A repeat reading **Pass**, **Caution** or **Fail** result, whereby the sample device was placed in the unit and multiple reading taken by repeatedly pressing the OK button without removing the sample device.
Retested	A **Fail** test result that has been subsequently retested and marked with the R icon on the SystemSURE Plus display.
Retest Result	The **Pass**, **Caution** or **Fail** result of a retest, that is marked with the R icon on the SystemSURE Plus display.

The **Notes** field can be used to optionally annotate the test result records with additional user entered text, as required. Refer to section 2.2.3 for details.

The following right-click menu options are available to the Results Database window:



Synchronise: Upload new test results from the SystemSURE unit.

Statistics: Display statistical data for selected database records.

Edit 'Notes': Edit the Notes field of the selected records.

Copy: Copy the selected data to the clipboard.

Select All: Select all database records.

Search: Search the database for the specified text.

4.1 Uploading Test Results from the SystemSURE Unit

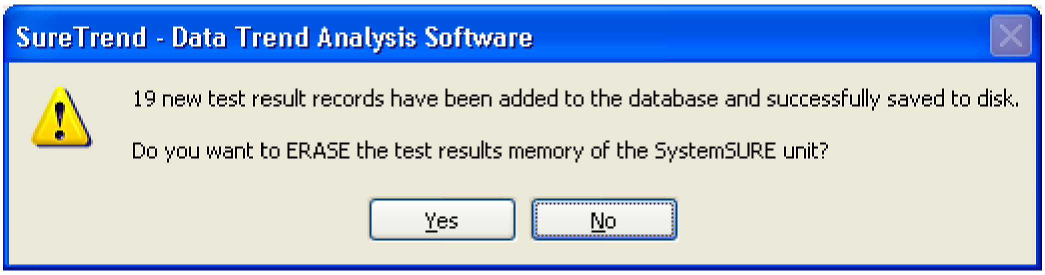
Sample test results data is uploaded from the SystemSURE Plus or systemSURE II unit and stored in the Results Database file. Please refer to the SystemSURE Operator's Manual for details of how to take sample measurements.

WARNING: Please ensure that the associated Unit Set-up Data file has been created and fully configured before attempting to upload test results from the SystemSURE unit, otherwise a loss of uploaded results data may occur. See section 8 for details.

To upload new test results data from the SystemSURE unit, connect the unit to the PC, select the **Synchronise** option from the **File** menu and click the **Connect** button. Refer to section 2.5 for further details.

If correctly connected, the new test results will be uploaded from the SystemSURE unit and stored in the Results Database.

When the upload is complete, you can choose whether or not to erase the uploaded test results from the memory of the SystemSURE unit:



If you choose not to automatically erase the results from the unit, they can be manually erased later. Refer to the SystemSURE Operator's Manual for details.

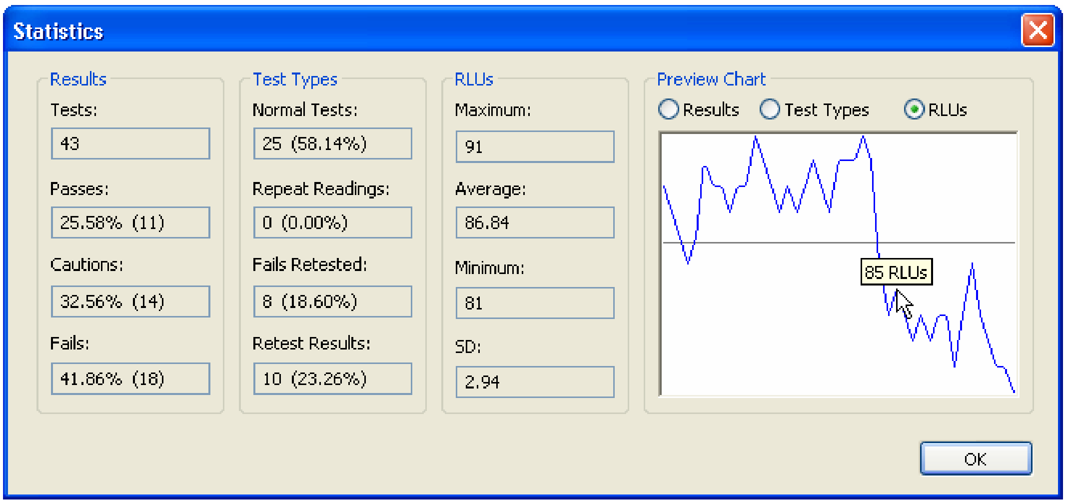
NOTE: The new test results data is automatically sorted into the Results Database in chronological (ascending date and time) order. Hence, if you are operating with several SystemSURE units, the most recently uploaded data may not always appear at the end of the database table, depending on the date the tests were performed.

Column sorting (see section 2.2.1) can therefore be used to sort and view the database contents in a more convenient order. For instance, clicking on the **Unit#** heading group the test results by unit serial number, whilst maintaining their chronological order.

Likewise, clicking on the **Result** column heading once will sort the database in ascending order by the test result type, with the oldest **Pass** result first; clicking on the column heading again will sort the database in descending order with the most recent **Fail** result first. This could be useful for quickly reviewing the most recent **Fail** results without the need to specifically set-up and run a report.

4.2 Previewing Statistical Data

Statistical data can be displayed by selecting a range of database records (see section 2.2.2) and then selecting the **Statistics** option from the **Reports** menu:

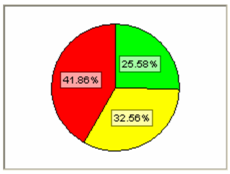


Each of the selected database records is then analysed and the following overall statistical data calculated and displayed:

Statistic	Displayed Data	Equation
Tests	Total number of tests selected	n
Passes	Percentage and number of Pass results	$\frac{n_{PASS}}{n}\%$, n_{PASS}
Cautions	Percentage and number of Caution results	$\frac{n_{CAUTION}}{n}\%$, $n_{CAUTION}$
Fails	Percentage and number of Fail results	$\frac{n_{FAIL}}{n}\%$, n_{FAIL}
Normal Tests	Number and percentage of normal test results	n_{NORMAL} , $\frac{n_{NORMAL}}{n}\%$
Repeat Readings	Number and percentage of repeat readings	n_{REPEAT} , $\frac{n_{REPEAT}}{n}\%$
Fails Retested	Number and percentage of failed results that have been retested	n_{FAIL} , $\frac{n_{FAIL}}{n}\%$
Retest Results	Number and percentage of retest results	n_{RETEST} , $\frac{n_{RETEST}}{n}\%$
Minimum	Minimum RLUs reading	x_{MIN}
Average	Average RLUs reading	$\bar{x} = \frac{\sum x}{n}$
Maximum	Maximum RLUs reading	x_{MAX}
SD	Standard Deviation (reports 0.0 if $n < 2$)	$\sqrt{\frac{\sum (x - \bar{x})^2}{n(n-1)}}$

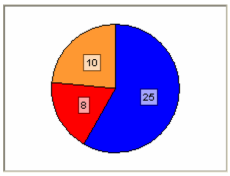
The **Preview Chart** also displays this statistic data in one of three graphically forms:

Results



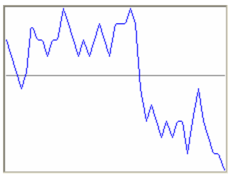
Green: Percentage Passes
Yellow: Percentage Cautions
Red: Percentage Fails

Test Types



Blue: Number of Normal Tests
Purple: Number of Repeat Readings
Red: Number of Failed Test Retests
Orange: Number of Retests Performed

RLUs

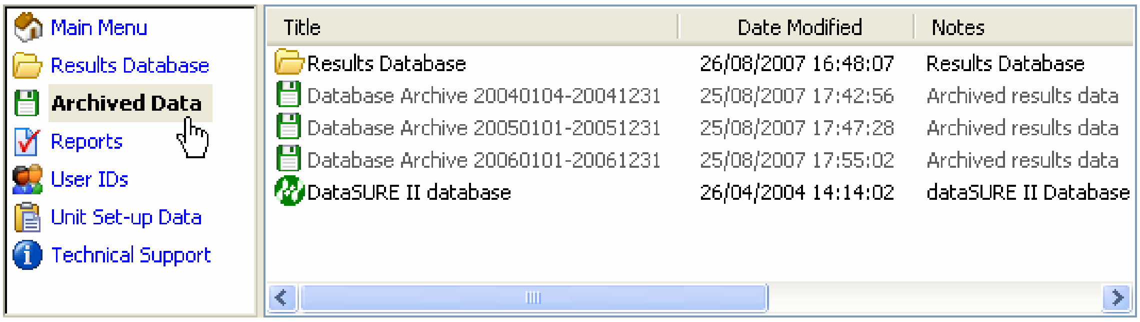


Blue: RLUs
Grey: Average RLUs
Scale: Minimum RLUs to Maximum RLUs

TIP: When you move the mouse pointer over the **Preview Chart**, the value of the pie segment or line point under the pointer is displayed. For example: 85 RLUs.

5 Archived Data

The **Archived Data** window provides a list of all database archive files and imported dataSURE II Database files:

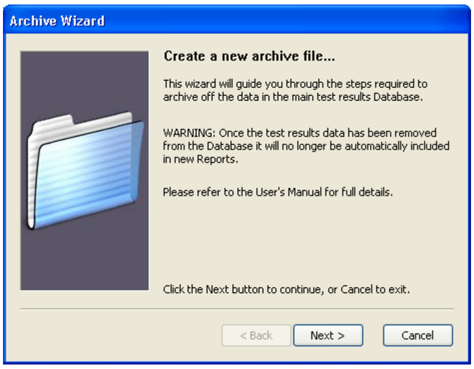


TIP: This list also includes the actual SureTrend Results Database file itself. This allows the database file to be exported and shared with other sites. See section 2.4.

5.1 Creating a New Database Archive File

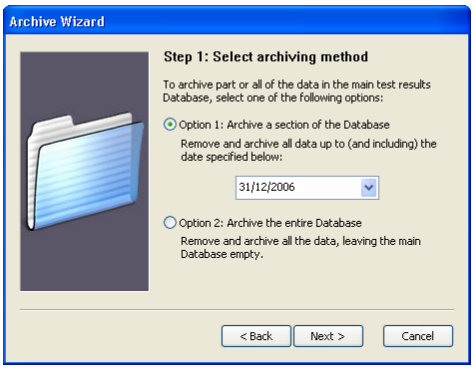
As the Results Database stores every test result ever uploaded from the SystemSURE units, it can become very large and potentially unmanageable.

Hence, older data can be removed from the database by selecting the **Results Database** window from the Navigator list, and then selecting the **Create Archive File** option from the **File** menu. This will bring up the **Archive Wizard**:



The wizard will then guide you through the simple steps required to archive data in the main results database.

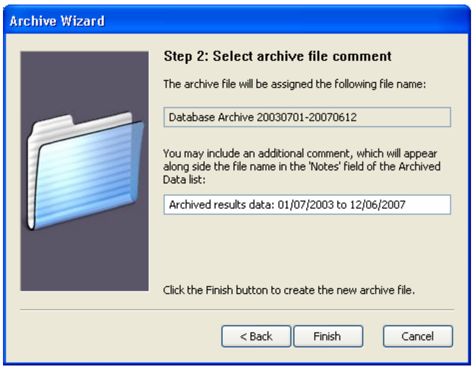
NOTE: Once test results data has been remove from the main database it can only be accessed by opening the associated archive file from the **Archived Data** window. See section 5.2 below for further details.



Step 1: Select the data archiving method.

Option 1: Select this option to archive all test results from the beginning of the database up to (and including) the date you specify.

Option 2: Select this option to archive all of the test results data and leave the database completely empty.



Step 2: Select the archive file comment.

You may include an additional text comment, which will appear in the **Notes** column on the **Archived Data** window.

Then click the **Finish** button to save the new set-up data.

5.2 Opening an Archived Data File

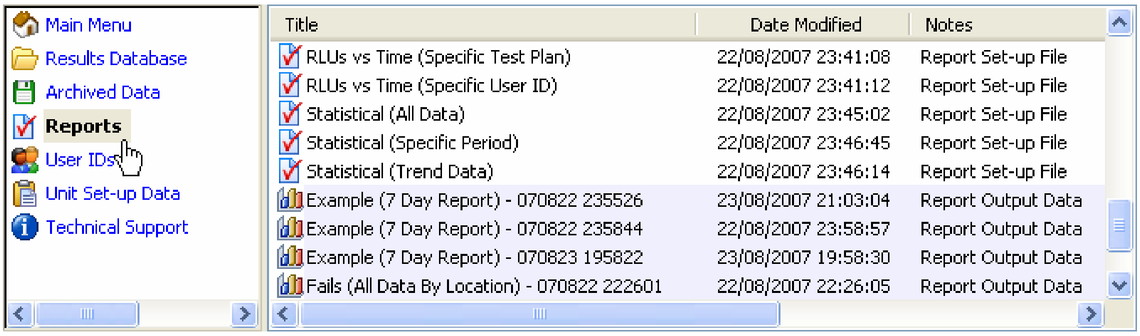
To reopen an Archived database file, simply select the file from the Archived Data list, and then select the **Open** option from the **Files** menu.

The archived data will then be read back into the Results Database, and displayed with its record result icons greyed-out (✓ ! ✗) to indicate that it is archive data – which is automatically removed when the Results Database is next opened.

The included archive data can now be re-analysed using the report generator.

6 Report Generator

The **Reports** window lists all the report set-up files and report output data files:



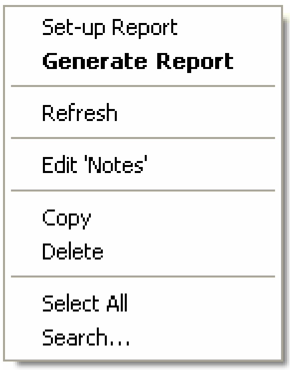
The report files types are distinguished by file icon and background colour:

File Icon	File Type	Background Colour
	Report Set-up File	White
	Report Output Data	Pale blue

The report generator allows standard reports to be defined and regularly run, to produce consistently formatted report charts and data, which can be printed or stored for review at a later date.

These reports can also include trending analysis, allowing several consecutive time periods to be compared on a single report chart. Refer section 6.4 for details on data trending.

The following right-click menu options are available for the Reports window:



Set-up Report: Modify the selected report set-up file ( )
Generate Report: Create a new report output file from the selected report set-up file (→)
Open: Open the selected report output data file ( )
Refresh: Refresh the report file list.
Edit 'Notes': Edit the 'Notes' field of the selected files.
Copy: Copy the selected data to the clipboard.
Delete: Permanently delete the selected report file.
Select All: Select all report files.
Search: Search the list for the specified text.

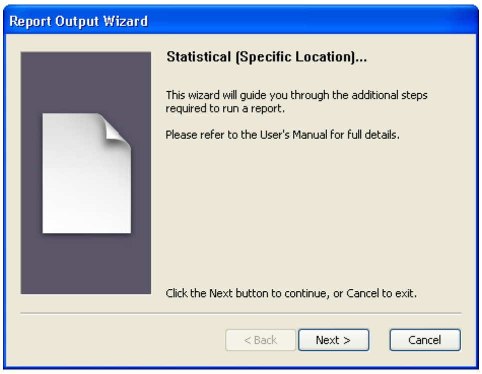
TIP: The SureTrend software is pre-loaded with numerous typical report types. These can be used as is; copied and modified; or new reports set-up. See sections 6.1 and 6.3 for details.

6.1 Generating a New Report Output File

A new report output data file is generated by selecting the required report set-up file ( ) from the **Reports** window file list, and then selecting the **Generate Report** option from the **Reports** menu.

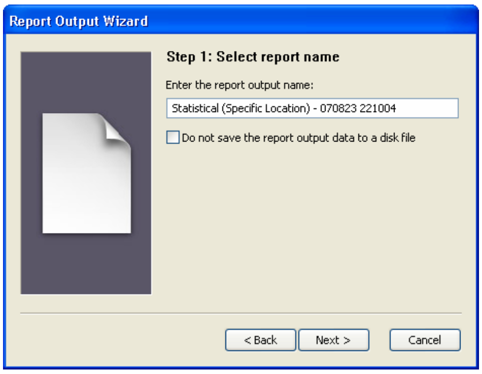
TIP: The report toolbar buttons (1, 2, 3 or F) can also be used. Refer to section 10.4 for details of how to configure these buttons to select your four most frequently used reports.

This will bring up the **Report Output Wizard**:



The wizard will then guide you through the steps required to run the report and generate the output data file.

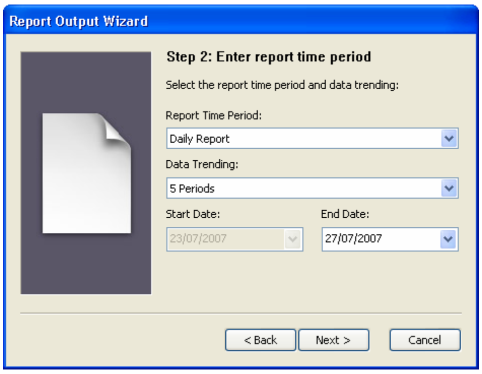
NOTE: Some reports do not need to perform all of the wizard steps, as the required input data is already pre-defined in the report set-up file or is not relevant to the type of report. In this case the unneeded steps are automatically bypassed.



Step 1: Select the report name.

Enter the name of the new report output data file. This name must be unique to the Reports list.

Do Not Save Data: Tick this option if you do not wish to save the output data to disk. This will save disk space but does prohibits the report output data from being reviewed at a later date without generating a new report.



Step 2: Enter the report time period.

Report Time Period: Select the report time period from the drop-down list.

Data Trending: Select the number of report data trending periods required.

Start and End Date: Select the start and/or end date of the total time period, as required.

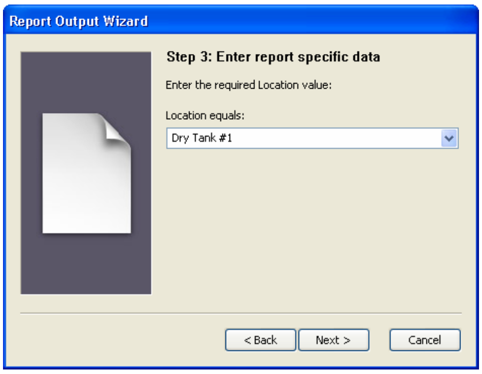
See below for further details.

The possible report time periods and durations are as follows:

Time Period	Period Duration	Data Trending Periods
None	100 years (all data)	None (1 period)
Specific	Set by Start and End date	None (1 period)
Daily	1 day	None (1) or 2 to 14 periods
Weekly	7 days	None (1) or 2 to 14 periods
Monthly	1 calendar month	None (1) or 2 to 14 periods
Quarterly	3 calendar months	None (1) or 2 to 14 periods
Yearly	1 calendar year	None (1) or 2 to 14 periods

Generally, the **End Date** of the final time period is specified (e.g. "Week Ending") and the **Start Date** is automatically calculated (from the **Time Period** multiplied by the number of **Data Trending** periods). Refer to section 6.4 for details of data trending.

NOTE: Some reports may also be set-up with a predefined **Time Period** or number of **Data Trending** periods, in which case these values are pre-selected and cannot be altered.

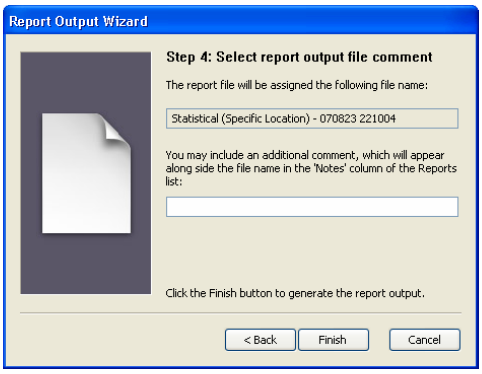


Step 3: Enter report specific data.

If necessary, additional report-specific data may be required. This will normally be a single value (such as a Location), but could also be a range of values (such as a particular Prog# range).

Value: Type in the required value or select one from the drop-down list.

If more that one set of values are required, this step is repeated for each set in turn.



Step 4: Select the report output file comment.

You may include an additional text comment, which will appear in the **Notes** column on the **Reports** window.

NOTE: This is not required if the **Do Not Save Data** box is ticked in wizard Step 1.

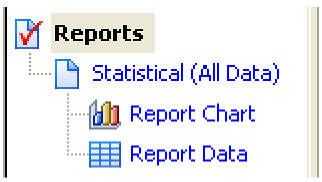
Then click the **Finish** button to generate the new report output data. See section 6.2 for details.

NOTE: Depending on the size of the Results database and the complexity of the report set-up, the report generator may take between a few seconds and a couple of minutes to filter, analysis and sort the results data to create the report output data.

6.2 Reviewing and Customising the Report Output

Having generated a report, it can reopened by selecting the report output data file ( ) from the list on the **Reports** window and then selecting the **Open** option from the **Files** menu.

The report output file is then added to the Navigator list as a sub-item under Reports, and has three data elements:



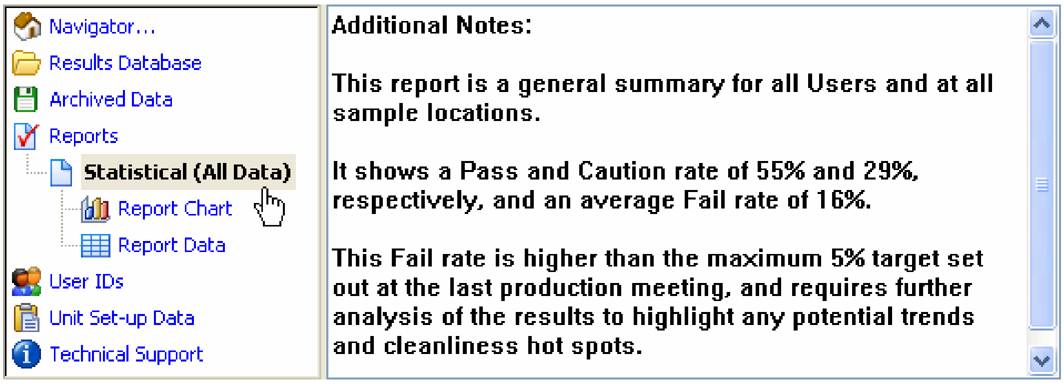
Additional Notes

Report Chart

Report Data table

6.2.1 Additional Notes Editor

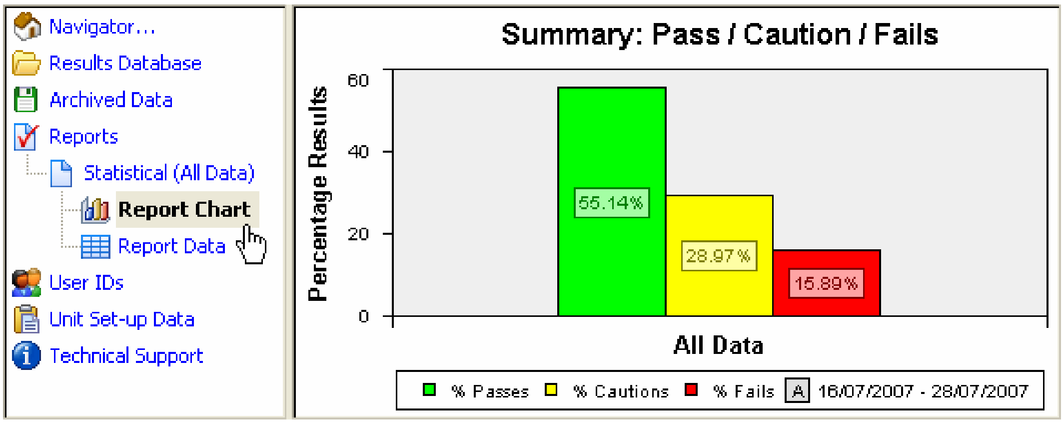
Clicking on the report output name in the Navigator list, displays the report **Additional Notes** text editor window:



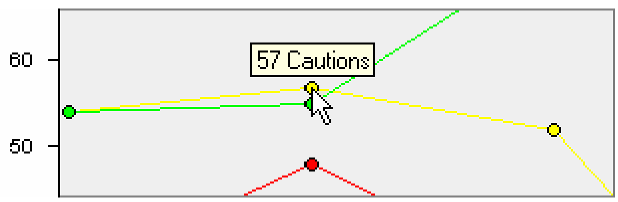
This simple text editor can be used to add any additional text information to the report output file, and printed if necessary.

6.2.2 Report Chart

Clicking on the **Report Chart** item in the Navigator list, displays the report output chart window:



When you move the mouse pointer over the **Report Chart** window graph area, the value of the data point under the pointer is displayed:

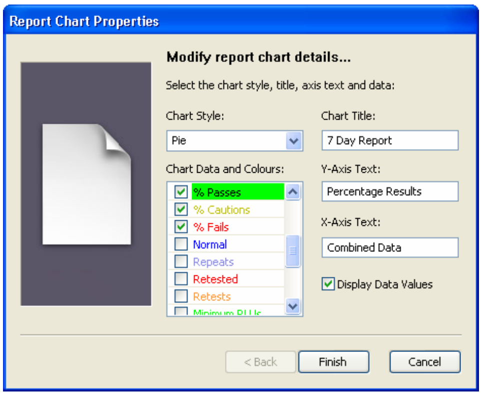


TIP: If you double-click on the data point, you will be taken to the corresponding data row in the **Report Data** window - which in turn can be double-clicked to display the associated Statistical data.

Right-clicking on the chart area provides the following context menu options:

Copy: Copy the chart bitmap to the clipboard.
Legends: Show/hide the legends box.
Markers: Show/hide line graph point markers.
Annotation: Show/hide the data value boxes.
Trend Lines: Show/hide line graph least-squares line fit.
Properties: Open the chart customisation wizard.

The chart appearance can be changed by selecting the **Properties** option from the right-click context menu:



Modify report chart details...

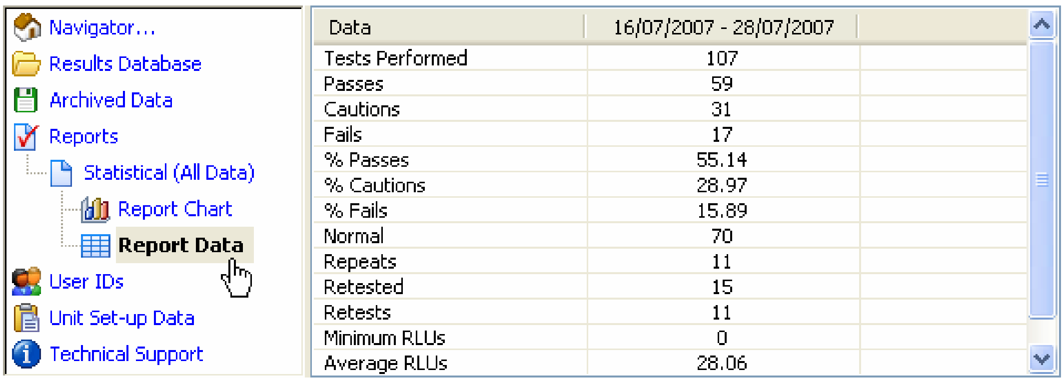
This mini-wizard allows customisation of:

- The chart style
- Chart title
- Y-axis and X-axis labels
- Y-axis traces, colours and names
- Displaying of Y-data values.

Refer to section 6.3 step 3 for full details of the available options.

6.2.3 Report Data Table

Clicking on the **Report Data** item in the Navigator list, displays the report data table window:



Data	16/07/2007 - 28/07/2007
Tests Performed	107
Passes	59
Cautions	31
Fails	17
% Passes	55.14
% Cautions	28.97
% Fails	15.89
Normal	70
Repeats	11
Retested	15
Retests	11
Minimum RLUs	0
Average RLUs	28.06

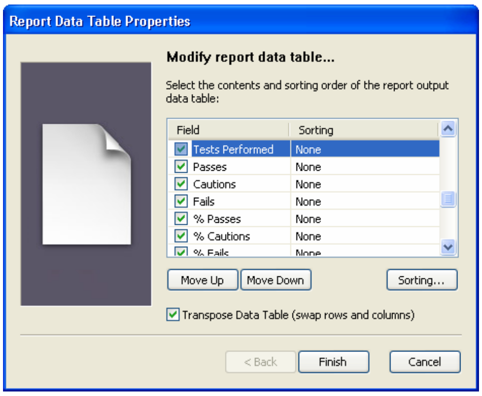
Right-clicking on the table data provides the following context menu options:

Statistics: Display statistical data for selected rows.
Export: Export the data table to a Microsoft Excel file.
Copy: Copy the select data to the clipboard.
Select All: Select all table rows.
Search: Search the table for the specified text.
Properties: Open the data table customisation wizard.

TIP: For statistical data, where each output row that was generated from the analysis and combination of several database records, double-clicking on the table row will open the **Statistics** dialog window (see section 4.2) with a graph showing each of the original database data points.

TIP: Using the **Export** option from the **File** menu allows the entire contents of the data table to be saved as a Microsoft Excel file. See section 2.4.1 for details.

The format of the table's rows and columns are pre-defined by the report set-up file, according to the desired report data style and contents. This can be customised by selecting the **Properties** option from the right-click context menu:



Modify report data table...

This mini-wizard allows customisation of:

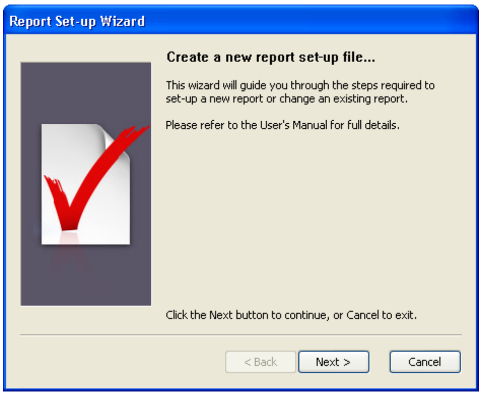
- Which data Fields are included
- The arrangement of the columns
- Column data sorting

Refer to section 6.3 step 4 for full details of the available options.

6.3 Creating a New Report Set-up File

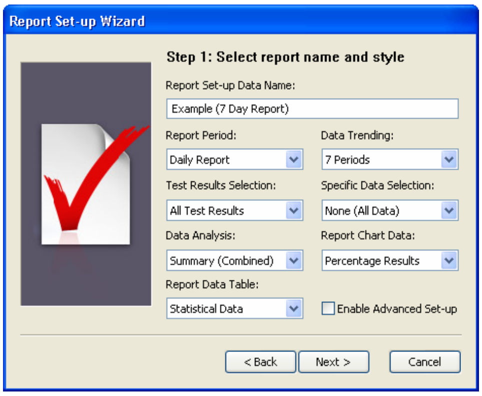
To create a completely new report set-up file, select the **Create New Report** options from the **Reports** menu. Otherwise, to modify an existing **Report Set-up** file, select the file from the **Reports** list and then select the **Set-up Report** option from the **Reports** menu.

This will bring up the **Report Set-up Wizard**:



The wizard will then guide you through the steps required to set-up a new report or change an existing set-up file.

NOTE: Wizard Steps 2, 3 and 4 are only required if the **Advanced Set-up** box is ticked in wizard Step 1, otherwise these set-up parameters and automatically configured and wizard steps are bypassed.



Step 1: Select the report name and style.

Enter the name of the new report set-up data file. This name must be unique to the Reports list.

The other set-up parameters define: the time period and data trending of the report; how the database results are filtered and analysed; and style of the report chart and data table.

See below for more details.

NOTE: Some combinations of these set-up parameters can produce peculiar or meaningless report charts, or may fail to create any output data at all.

The **Report Period** defines the time period of the report, such that only those database test results that fall within this period are included in the report analysis and output:

Report Period	Period Duration
None	The start and end dates are those of all the data in the test Results Database
Specific	The start and end dates are defined by the user when the report is run
Daily	1 day
Weekly	7 days
Monthly	1 calendar month
Quarterly	3 calendar months
Yearly	1 calendar year
Custom...	Any of the above (selected by the user when the report is run)

For **Daily**, **Weekly**, **Monthly**, **Quarterly**, **Yearly** and **Custom** time periods (above), a number of consecutive **Data Trending** periods can also be set specified, as follows:

Data Trending	Allowable Trending Periods
None	No trending (single Time Period only)
2 to 14	Between 2 and 14 consecutive Time Periods, allowing report durations such as: • 5, 7 or 14 days • 2, 4, 8 or 12 weeks • 3, 4, 6 or 12 months • 2 or 4 quarters
Custom...	Any of the above (selected by the user when the report is run)

Refer to section 6.4 for further information about data trending.

The **Test Results Selection** option defines the primary database test results filtering:

Selection	Database Filtering Performed
All test Results	None
Passes only Cautions only Fails only	Data records are selected according to the test Result field: Pass, Caution or Fail
Fails and Retests	Data records are selected according to the Test Type field: Retested or Retest Result (see section 4 for Test Type descriptions)

The **Specific Data Selection** option defines whether the user is required to select a specific data field value when the report is run:

Specific Data	Database Filtering Performed
None	None (no additional filtering performed)
Unit# User ID Test Plan Prog# Location Surface Group	When the report is run, the user must select a value for the specified database record field. Only those database test results that relate to the selected field value will be included in the report analysis and output.

The **Data Analysis** option defines how the filtered data is analysed (for <u>each</u> data trending period) to produce a more concise set of report output data values:

Data Analysis	Chart X-Axis Data
None	Chronologically (all filtered data is output)
Summary	The data is combined into a single set of statistical values (see section 4.2)
Time of Day	Hour: 12AM, 1AM, 2AM, 3AM, etc
Date	Individual dates (chronologically)
Day of Week	Day: Sun, Mon, Tue, Wed, Thu, Fri, Sat
Week	Calendar week date (chronologically)
Month	Calendar month date (chronologically)
Unit# User ID Test Plan Prog# Location Surface Group	Unit serial number User ID name Test Plan name Prog# number Location name Surface name Group name
Test Type Result	Test Type (see section 4) Result type (Passes, Cautions and Fails)

The **Report Chart Data** option defines what data appears on the Y-axis of the Report Chart, and the style of chart (see step 3):

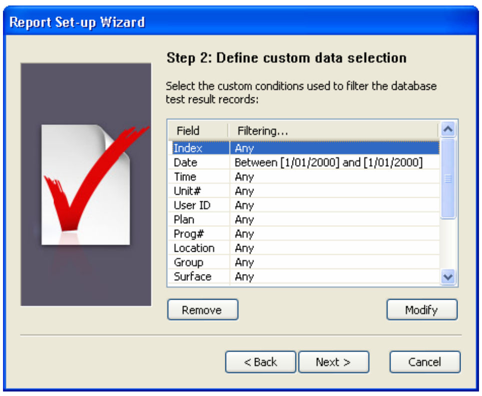
Chart Data	Style	Y-Axis Data

Tests Performed	Bar	Number of test results
Passes	Bar	Number of Pass results
Cautions	Bar	Number of Caution results
Fails	Bar	Number of Fail results
Results	Pie	Number of Pass results Number of Caution results Number of Fail results
Percentage Results	Pie or Stacked	Percentage of Pass results Percentage of Caution results Percentage of Fail results
Test Types	Pie or Bar	Number of Normal test result Number of Repeat Reading results Number of Retested Fail results Number of Retest results
RLUs	Line	RLUs (or average)
RLUs with thresholds	Line	RLUs (or average) Lower thresholds (or average) Lower thresholds (or average)
Min / Average / Max	Linked	Minimum RLUs Average RLUs Maximum RLUs

The **Report Data Table** options define what data is included in the Report Data table:

Table Type	Data Fields Included
Chart Data	As per chart output traces (see below)
Database Data	All database fields (see section 4)
Statistical	All statistical data values (see section 4.2)
Custom	As defined by wizard Step 4 (see below)

Advanced Set-up: Normally the set-up options for wizard Steps 2, 3 and 4 are automatically pre-defined by the options specified in Step 1. However, ticking this option allows those setting to be overridden and more tailored report output to be defined.



Step 2: Define custom data selection.

Field Filtering: This specifies how the database records are filtered. See below for details.

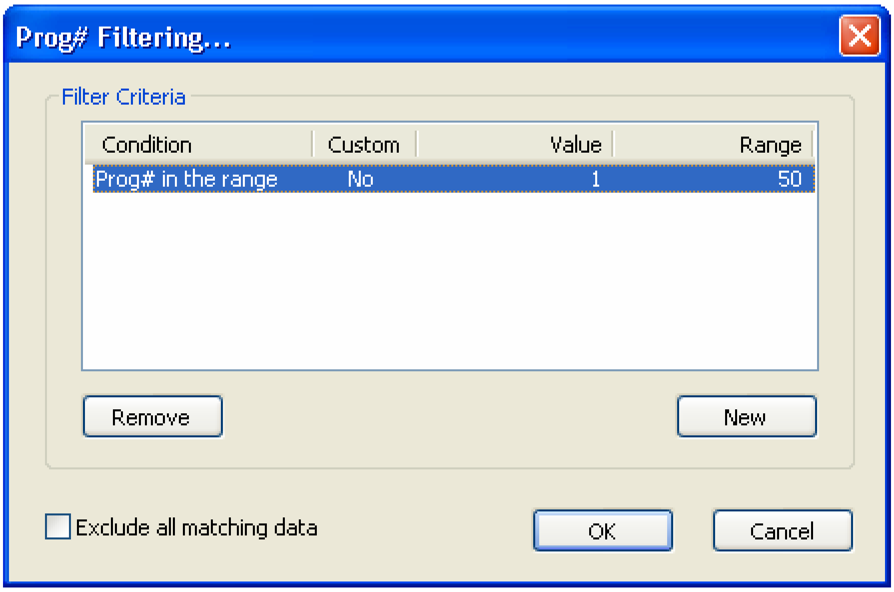
Remove: Deletes the selected filter condition.

Modify: Opens the Filter Criteria definition window for the selected database field.

See below for further details.

The **Filter Conditions** list shows the database **Field** (see section 4) and the associated **Filtering** condition.

The filter condition can be modified by double-clicking on the required field row, or by selecting the row and clicking the **Modify** button. This brings up the specific Filter Criteria definition window:



The **Filter Criteria** table has the following field and button options:

Field/Option	Purpose
Condition	The comparison to be made when filtering the data (see below)
Custom	No: The Value (and Range) is pre-define by this condition Yes: The Value is specified by the user when the report is run
Value	The value against which the data is compared
Range	The limit value against which data is compared
Remove	Remove the selected filter criteria
New	Add a new filter criteria
Exclude...	Exclude (rather than include) all data which matches this filter
OK	Accept any changes made to the filter definition and exit
Cancel	<u>Discard</u> any changes made to the filter definition and exit

The **Condition** defines how the database record field data is compared against the **Value** and **Range** values. The available conditions depend upon the database **Field** type:

Field	Value Conditions	Range
Index	Equals / Not equals / Less than / Greater than	In the range
Date	Equals / Not equals / Before / After	Between
Time	Equals / Not equals / Before / After	Between
Unit#	Equals / Not equals / Less than / Greater than	In the range
User ID	Equals / Not equals / Contains	
Plan	Equals / Not equals / Contains	
Prog#	Equals / Not equals / Less than / Greater than	In the range
Location	Equals / Not equals / Contains	
Group	Equals / Not equals / Contains	
Surface	Equals / Not equals / Contains	
Test Type	Equals / Not equals	
Result	Equals / Not equals	
RLUs	Equals / Not equals / Less than / Greater than	In the range
Lower	Equals / Not equals / Less than / Greater than	In the range

Upper	Equals / Not equals / Less than / Greater than	In the range
Notes	Equals / Not equals / Contains	

TIP: Time ranges can be specified such that the first **Value** is later then the second value in the **Range** to include the midnight rollover. For example: **Between 17:00** and **8:30**.

To add a new filter **Condition**, click on the **New** button, select the **Condition** type from the drop-down list, then enter the **Value** (and **Range**, if applicable).

TIP: For **Custom** values (i.e. data that must be specifically entered by the user when the report is run - see section 6.1 step 3), use the default data **Value**s and then double-click on the **Custom** column value to change it from **No** to **Yes**.

NOTE: All dates and times must be entered in the format specified by the **Time and Date Format** in the software Preferences window (see section 10.3).

The **Exclude all matching data** option can be useful if you want to exclude specific test results from your analysis. For example, if you have QC test results which all have the letters "QC" in the Group name, you can set-up the filter to "Exclude all data for Groups containing QC":

Condition	Custom	Value	Range
Group contains	No	QC	

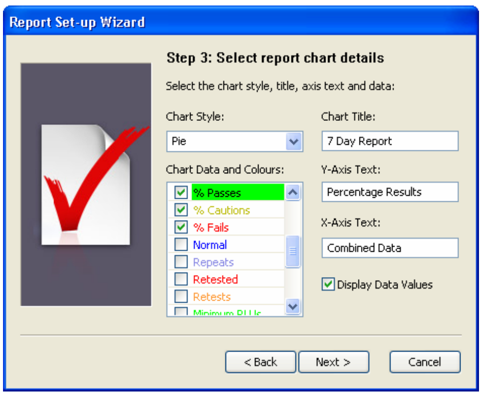
Exclude all matching data

If more than one **Condition** is defined, a logical **OR** is performed. For example, the following would be read as "Before 1/02/2007; **OR** Between 1/04/2007 and 30/04/2007; **OR** After 31/05/2007":

Condition	Custom	Value	Range
Date before	No	1/02/2007	
Date between	No	1/04/2007	30/04/2007
Date after	No	31/05/2007	

Conversely, when more than one Field Filters are defined, a logical **AND** is performed. For example, the following would be read as "Between 1/01/2004 and 21/12/2004; **AND** Between 9:00 and 17:00":

Field	Filtering...
Index	Any
Date	Between 1/04/2007 and 30/04/2007
Time	Between 9:00 and 17:00
Unit#	Any



Step 3: Select report chart details.

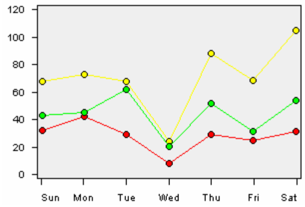
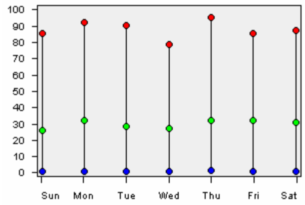
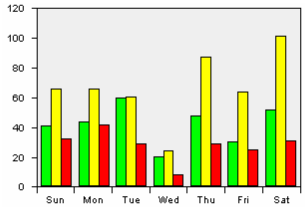
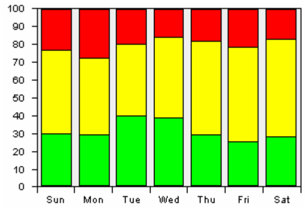
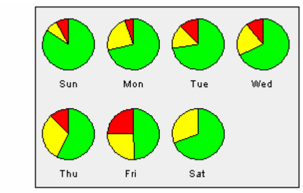
Chart Style: Selects the chart type: Line, Bar or Pie. See below for examples.

Title and Text: Optional text for the chart title, and the x-axis and y-axis labels.

Chart Data: Selects the chart data, colours and legend names. See below for full details.

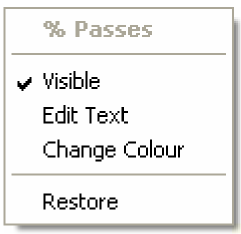
Display Data: Tick this option to annotate the chart with all of the chart y-axis data values.

The **Chart Style** selects the way in which the data is presented on the chart:

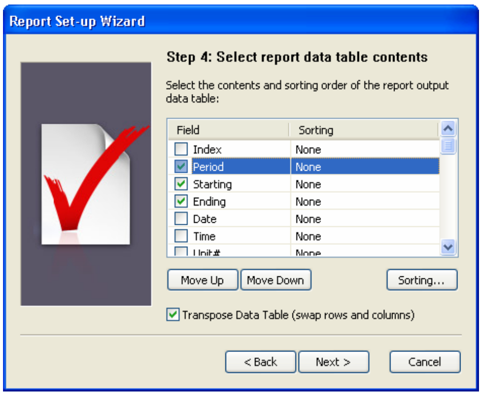
Example	Chart Style and Data
	None: No chart is generated
	**Line**: Related data points horizontal joined by lines
	**Linked**: Related data points linked by vertical lines
	**Bar**: Related bars, grouped side-by-side
	**Stacked Bar**: Related bars, stacked on top of each other
	**Pie**: Related pie segments in one pie

The x-axis type and data is pre-determined by the **Data Analysis** option in wizard step 1 above.

The chart y-axis data series are defined by the **Chart Data** list, which allows the chart y-axis data fields, colours and legend text to be selected and customised. This is done by right-clicking on the required list item and then selecting the appropriate option from the following context menu:



Field Name: This is the data table field name.
Visible: Show/hide the selected data series.
Edit Text: Edit the data series legend name.
Change Colour: Select the colour of the data series.
Restore: Reset the series name and colour settings.



Step 4: Select the report data table contents.

Field Sorting: This defines which data Fields are including in the Report Data table, the order in which they appear, and how each column is to sorted. See below for details.

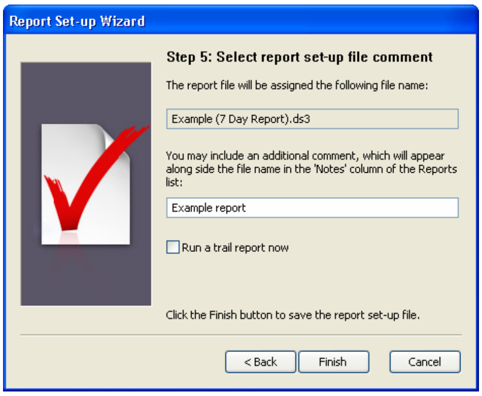
Transpose Table: Tick this option to swap-over the data table rows and columns - thus turning a short-wide table into a long-thin table.

The data fields are displayed in the **Report Data** table in the order they are listed in the selection table (see above). To change the order of the columns, select a field from the list and then use the **Move Up** and **Move Down** buttons to reposition the column within the table.

Use the tick box next to the **Field** name to add or remove it from the data table.

The **Sorting** method defines the way in which the **Field** data is sorted. This is changed by selecting the field row, clicking the **Sorting** button, and then selecting the new sorting method from the drop-down list:

Sorting Method	Data Order
None	As defined by the **Data Analysis** setting (see wizard step 1 above)
Ascending order (0-9, A-Z)	Lowest values first
Descending order (Z-A, 9-0)	Highest values first



Step 5: Select the report set-up file comment.

You may include an additional text comment, which will appear in the **Notes** column on the **Reports** window.

Run Trial Report: Tick this option to tryout the new report set-up by running a trail report without saving the report output data.

Then click the **Finish** button to save the new report set-up file to disk.

6.4 Report Data Trending

The report can be set-up to include data trending, whereby the report output data for the specified report **Time Period** is compared against two or more previously time periods of the same time span, and displayed on the same chart.

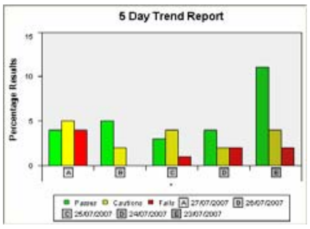
For example: The previous five days worth of Pass, Caution and Fail test results can be directly compared against each other by creating a report with the following settings:

Report Period:	Daily Report
Data Trending:	5 Periods
Test Result Selection:	All Test Data
Specific Data Selection:	None (All data)

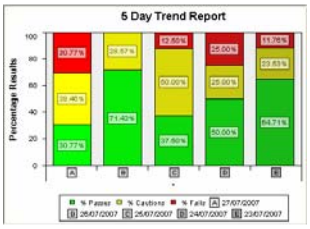
Data Analysis: Summary (Combined)
Report Chart Style: Percentage Results
Report Data Table: Statistical

The overall duration of the report is determined as the **Report Period** interval multiplied by the number of **Data Trending** periods. In this case "Daily" times "5" = "5 Days".

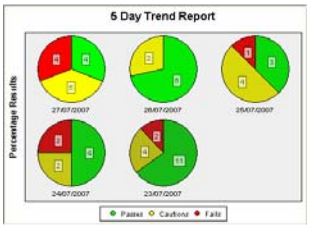
Running this report would produce typical Report Charts such as:



Bar



Stacked



Pie

The five data trending periods are represented on the chart as [A], [B], [C], [D] and [E].

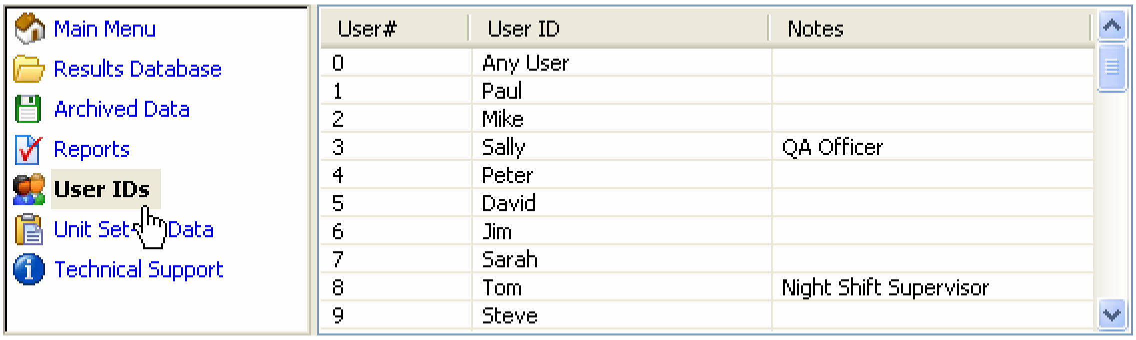
TIP: The period colours are slightly graduated, with the most recent data [A] appearing the lightest and brightest, and the oldest data [E] appearing the dullest.

The associated output data table for this report would be:

Data	27/07/2007	26/07/2007	25/07/2007	24/07/2007	23/07/2007
Period	A	B	C	D	E
Tests Performed	13	7	8	8	17
Passes	4	5	3	4	11
Cautions	5	2	4	2	4
Fails	4	0	1	2	2
% Passes	30.77	71.43	37.50	50.00	64.71
% Cautions	38.46	28.57	50.00	25.00	23.53
% Fails	30.77	0.00	12.50	25.00	11.76
Normal	8	6	6	4	12
Repeats	0	1	2	0	1
Retested	3	0	0	2	2
Retests	2	0	0	2	2
Minimum RLUs	10	10	10	2	0
Average RLUs	32.54	23.86	26.25	28.38	23.41
Maximum RLUs	54	42	43	56	79
Average Lower	23.08	22.86	22.50	23.13	25.00
Average Upper	41.54	40.71	40.63	40.00	41.76
SD	15.25	10.73	9.81	17.66	23.92

7 User IDs

The **User IDs** window displays the table of up to 50 User names, which can be stored in the SystemSURE Plus unit:



The single **User IDs** list is common to all of the SystemSURE Plus units that have been added to the SureTrend software. Hence, if you change the User ID list, you should download it to all of your units.

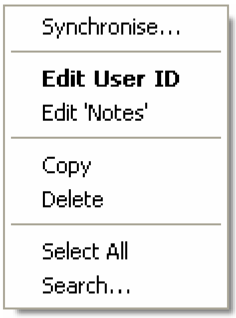
NOTE: User IDs are not support by the systemSURE II unit.

The **User ID** field is limited to 16 characters, as this is the name what is displayed on the SystemSURE Plus screen. Please refer to the SystemSURE Plus Operator's Manual for detail of how to select the User ID on the unit.

TIP: If longer user names are required, you could use the **User ID** field for the user's Initials and the **Notes** field to store their full name.

To add or change a single User ID, simply double-click on the required cell and type in the new name or select one from the drop-down list.

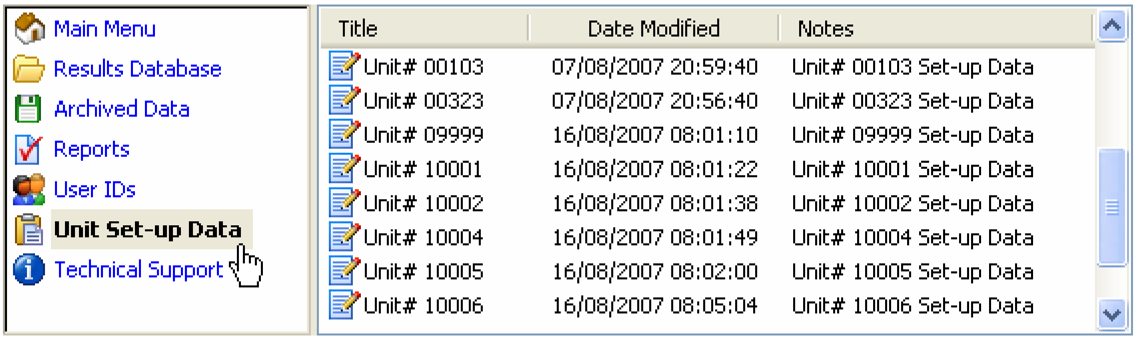
To add or change several User IDs, you can select a range of rows and then select the **Edit User ID** option from the right-click context menu:



Synchronise: Download the User IDs list to the SystemSURE unit.
Edit User ID: Edit the User ID field of the selected rows.
Edit 'Notes': Edit the Notes field of the selected rows.
Copy: Copy the selected data to the clipboard.
Delete: Remove the selected User IDs.
Select All: Select all User ID rows.
Search: Search the User ID list for the specified text.

8 Unit Set-up Data

The **Unit Set-up Data** window provides a list of unit set-up data files, one for each SystemSURE unit added to the SureTrend software:

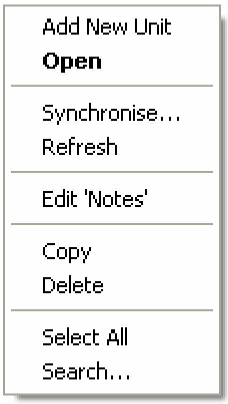


Each Unit Set-up Data file consists of a set of up to 251 Program Locations and Result Thresholds, plus up to 20 associated Test Plans.

To modify the set-up data for a particular unit, simply double-click on the **Unit#** in the **Title** column to open the data file. Refer to section 8.3 for further details.

TIP: The file list can be sorted by clicking on the appropriate column header. See section 2.2.1 for details.

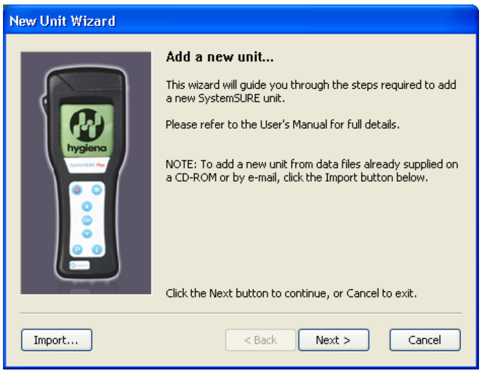
If the **Unit#** is displayed in **RED** text, it indicates that the set-up data stored in the associated SystemSURE Unit is now out-of-date, and can be updated by right-clicking on the Unit# and then selecting the **Synchronise** option from the context menu:



Add New Unit: Create a new unit set-up file (see section 8.1).
Open: Open the selected unit set-up data file.
Synchronise: Write the set-up data to the SystemSURE unit.
Refresh: Refresh the Unit Set-up Data file list.
Edit 'Notes': Edit the Notes field of the selected set-up file.
Copy: Copy the selected data to the clipboard.
Delete: Erase the selected set-up file.
Select All: Select all unit set-up files.
Search: Search the table for the specified text.

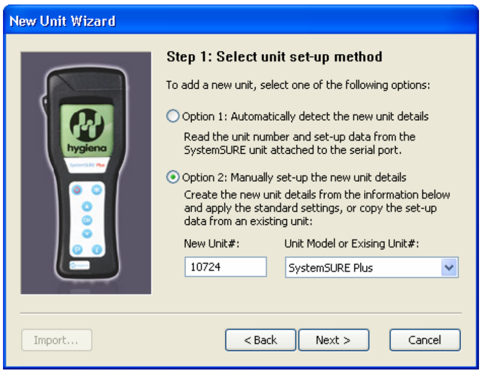
8.1 Adding a New Unit

To add a new **Unit Set-up Data** file to the SureTrend software, select the **Add New Unit** option from the **Set-up** menu. This will bring up the **New Unit Wizard**:



The wizard will then guide you through the steps required to add a new SystemSURE Plus or systemSURE II unit.

NOTE: To add a new unit from data files already supplied to you on CD-ROM or by e-mail, click the **Import...** button at the bottom of the dialog window, and then refer to section 2.4 for further details.

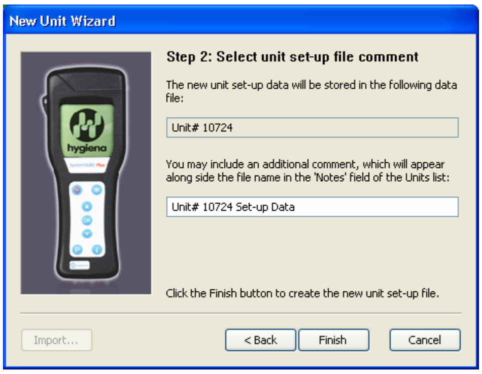


Step 1: Select the unit set-up method.

Option 1: Select this option to automatically read the new unit's serial number and set-up data by connecting the unit to the PC's serial port and clicking the **Next >** button.

Option 2: Select this option if you wish to manually specify the unit serial number and model type, or copy the set-up data from an existing unit.

TIP: To add a unit that has already been set-up with Program data (such as an older systemSURE II unit), select **Option 1** to automatically upload the set-up data from the unit. Alternatively, to duplicate the set-up data of an existing unit, select **Option 2**, enter the New Unit#, and the select the Existing Unit# from the drop-down list.



Step 2: Select the set-up file comment.

You may include an additional text comment, which will appear in the **Notes** column on the **Unit Set-up Data** window.

Then click the **Finish** button to save the new set-up data.

Depending on the model type, the unit will have the following storage capabilities:

Storage Feature	SystemSURE Plus	systemSURE II
User IDs	50 users	*Not supported*
Program Locations	251 (0-250)	100 (0-99)
Location Names	20 characters max	*Not supported*
Test Plans	20 plans	*Not supported*
Results Memory	2000 tests	500 tests

8.2 Writing the Set-up Data to the SystemSURE Unit

To download the Unit Set-up Data to the SystemSURE unit, open the Unit Set-up Data file (see section 8.3) and select the **Synchronise** option from the **File** menu. Refer to section 2.5 for further connection details.

The software will then download the following unit set-up data to the SystemSURE unit, depending on its model type and capabilities:

Set-up Data	SystemSURE Plus	systemSURE II
User IDs	✓	
Location Names	✓	
Program Thresholds	✓	✓
Test Plans	✓	

WARNING: This will overwrite all of the set-up parameters currently stored in the SystemSURE unit. Once overwritten, the old values cannot be recovered.

8.3 Program Locations and Result Thresholds

For each SystemSURE Unit, the software maintains a table of programmable sample locations and associated test result thresholds and group and surface names.

When you open a **Unit#** data file from the **Unit Set-up Data** window (see 8 for details), the unit's Program Data table is displayed:

Each table row represents a different Prog# location, and has the following data fields:

Column	Data Field
Prog#	The PROG number, as used on the SystemSURE unit. Refer to the SystemSURE Operator's Manual for details.
Location	The location name (of up to 50 characters) associated with the PROG number. This name will appear in the database record listing when new test results are uploaded from the SystemSURE unit. Refer to section 4.1. **NOTE**: On the SystemSURE Plus, the first 20 characters of the location name are also displayed on the unit's screen.
Group	An optional group name (of up to 50 characters) which can be used to categorise the location into a further sub/super group. This name also appears in the database record listing when new test results are uploaded from the SystemSURE unit. Refer to section 4.1.

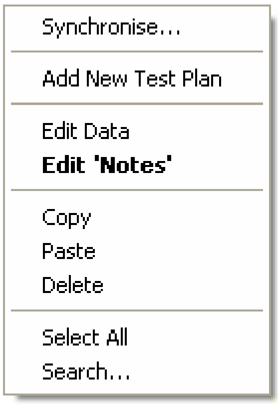
Surface	An optional surface name or type (of up to 50 characters) which can be used to further categorise the location. This name also appears in the database record listing when new test results are uploaded from the SystemSURE unit. Refer to section 4.1.
Lower	The program lower (⇩) threshold, as defined on the SystemSURE unit. This data is sent to the SystemSURE unit to define its programmable result thresholds. Refer to section 8.2
Upper	The program upper (⇧) threshold, as defined on the SystemSURE unit. This data is sent to the SystemSURE unit to define its programmable result thresholds. Refer to section 8.2
Notes	Additional comments text, as required.

The value of program **Location**, **Group** and **Surface** names, and the **Lower** and **Upper** threshold values are all editable. See section 2.2.3 for additional information.

TIP: **Prog#0** has a special function, whereby its Lower and Upper threshold values are used as the default values when setting-up all of the other **Prog#** thresholds. Thus, setting **Prog#0** with your typical threshold values may save time when setting-up the other program locations that have similar threshold values.

NOTE: Please refer to the SystemSURE Operator's Manual for details of how the Programmable Result Thresholds are used on the unit, and how they are applied to the sample test RLU reading to give an over all Pass, Caution or Fail result.

The following right-click context menu options are available:



Synchronise: Write the set-up data to the SystemSURE unit.
Add New Test Plan: Add a new test plan (see section 8.4.1).
Edit Data: Edit all of the data fields in the selected Prog#s.
Edit 'Notes': Edit the Notes field of the selected Prog#s.
Copy: Copy the selected data to the clipboard.
Paste: Paste the copied data back into the data table.
Delete: Erase the contents of the selected Prog#s.
Select All: Select all Prog# rows.
Search: Search the table for the specified text.

NOTE: If a program **Location** name, or **Lower** or **Upper** threshold value is changed, the new set-up data must be written back to the SystemSURE unit to keep it up-to-date (see section 8.2). Hence, the program data table is displayed with **RED** text to warn you that the data held on the associated unit is now out-of-date.

8.3.1 Advanced Copy and Paste Functions

The **Edit** menu allows the program data to be copied and pasted, enabling initial default values to be quickly set-up or the same set-up values to be duplicated across several units.

To copy a complete row of data, select the row by clicking on it, then select the **Copy** option from the **Edit** menu.

TIP: Several rows can be selected by holding down the **Ctrl** key and clicking individual additional rows, or by holding down the **Shift** key and clicking a range of rows. Refer to section 2.2.2 for details.

To paste the copied data back into the table, select either a single row, several rows or all rows, and then select the **Paste** option from the **Edit** menu.

Some typical copy and paste operations are:

Operation	Copy/Paste Sequence
Copy a single row of program data to another location.	(1) Select row to be copied (2) Select the **Copy** option (3) Select row to be replaced (4) Select the **Paste** option
Duplicate a single row of data to all other data rows in the table.	(1) Select row to be copied (2) Select the **Copy** option (3) Select the **Select All** option (4) Select the **Paste** option
Copy several rows of program data to another location. **Note**: The copy and paste selections must both be the same size.	(1) Select rows to be copied (2) Select the **Copy** option (3) Select rows to be replaced (4) Select the **Paste** option
Duplicate one unit's program data to another unit.	(1) Open the **Unit#** to be copied (2) Select the **Select All** option (3) Select the **Copy** option (4) Open the **Unit#** to be replaced (5) Select the **Select All** option (6) Select the **Paste** option

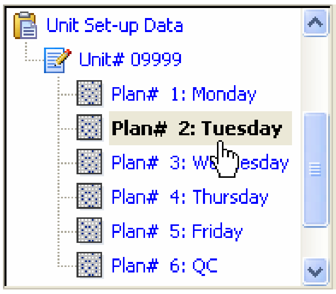
8.4 Sample Test Plans

The SystemSURE Plus unit can be programmed with up to 20 individual sample Test Plans, each consisting of a sequence of up to 251 program locations, listed in the order in which they would normally be tested.

NOTE: Test Plans are not supported by the systemSURE II unit.

A new unit set-up file initially contains no associated test plan data. Each test plan must be added and configured using the **Add New Test Plan** option from the **Set-up** menu (see section 8.4.1).

As each new test plan is added to the unit, it is listed under the associated **Unit#** program data in the Navigator list:



Step#	Program	Location	Group	Surface
0	Prog# 0	Default		
1	Prog# 9	Dry Tank #1	Hoppers	Access Door
2	Prog# 10	Dry Tank #2	Hoppers	Access Door
3	Prog# 4	Conveyer 1	Glazer	Mesh
4	Prog# 5	Spray Head	Glazer	Stainless Steel
5	Prog# 6	Delivery Shoot	Glazer	Stainless Steel
6	Prog# 7	Conveyer 2	Oven	Mesh

NOTE: The Test Plan sequence table stores a list of Prog#s only. The **Location**, **Group** and **Surface** names associated with each Prog# are shown purely for reference and cannot be directly edited, as they are common to all Test Plans for a particular unit.

Refer to section 8.4.2 for details of how to modify the test plan Prog# sequence list.

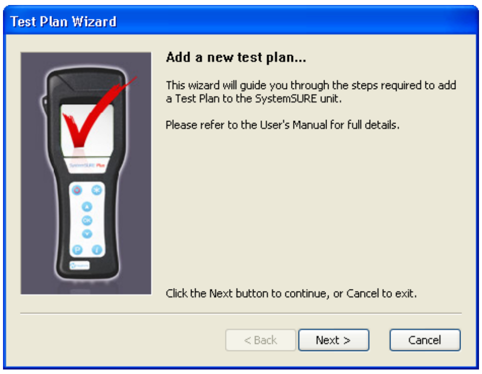
The following right-click context menu options are available:

Synchronise: Download the set-up data to the SystemSURE unit.
Cut: Move the selected test plan steps to the clipboard.
Copy: Copy the selected test plan steps to the clipboard.
Paste: Insert the copied/cut test plan steps at the selected point.
Delete: Remove the selected test plan steps.
Select All: Select all test plan steps.
Search: Search the list for the specified text.

8.4.1 Adding a New Test Plan

The SystemSURE Plus unit can store up to 20 individual Test Plans (numbered **Plan# 1** to **20**), each of up to 251 program locations steps.

To add a new test plan to the unit, select the **Add Test Plan** option from the **Set-up** menu. This will bring up the **Test Plan Wizard**:

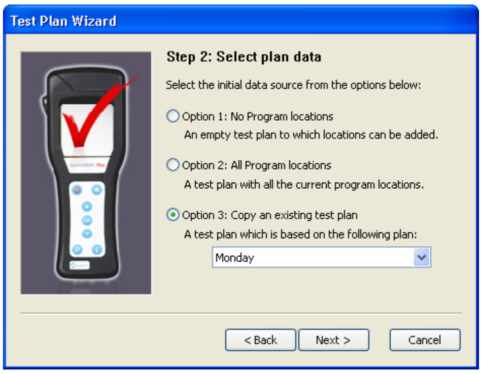


The wizard will then guide you through the steps required to add a new test plan to the unit.

Step 1: Select the new plan name.

First enter the name of the new test plan, which must be unique to that unit.

This is the name that will appear on the SystemSURE Plus display when selecting the Test Plan.

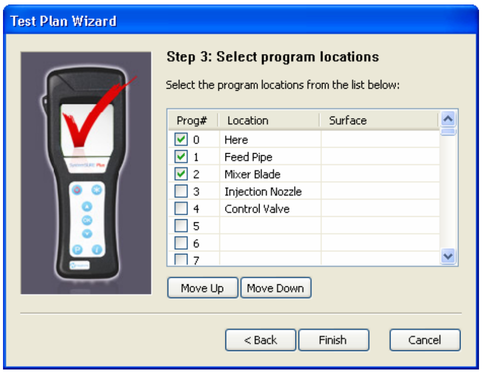


Step 2: Select the initial plan data.

Option 1: Select this option to create a new empty test plan to which program locations can be added later.

Option 2: Select this option to create a new test plan with all the unit program locations pre-selected.

Option 3: Select this option to create a copy of an existing test plan that can then be modified.



Step 3: Select the initial program locations.

Finally the program list can be modified: locations added, removed and reordered.

Then click the Finish button to save the new test plan data.

NOTE: The test plan can be further modified later. See section 8.4.2 below for details.

8.4.2 Changing an Existing Test Plan

The test plan data table contents cannot be directly edited, as it simply stores a list of Prog#s. The associated Location, Group and Surface details are as defined in the Program data list for the associated Prog#. Refer to section 8.4.2 for details.

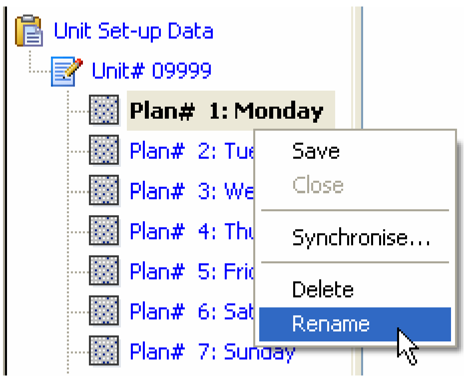
WARNING: You should always finish setting-up all of the program data before starting to define the test plan sequences. This is important as each test plan is linked directly back to the program data table.

A test plan can be modified as follows:

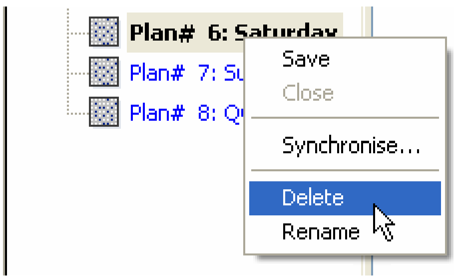
Required Action	Steps Performed
Add new program locations to the test plan sequence	(a) Select the **Unit#** window from the Navigator. (b) Select required Prog# locations (c) Select the **Copy** option from the **Edit** menu. (d) Select test **Plan#** window from the Navigator. (e) Select the position in the list where you wish to place the new locations. (f) Select the **Paste** option from the **Edit** menu.
Delete program locations from the test plan sequence	(a) Select test **Plan#** window from the Navigator. (b) Select the Prog# locations you wish to remove from the list. (c) Select the **Delete** option from the **Edit** menu.
Change the order in with program location appear in the test plan sequence	(a) Select test **Plan#** window from the Navigator. (b) Select the Prog# locations you wish to move. (c) Select the **Cut** option from the **Edit** menu. (g) Select the position in the list where you wish to place the removed locations. (d) Select the **Paste** option from the **Edit** menu.

8.4.3 Renaming or Deleting a Test Plan

To change the name of a **Test Plan**, right-click on the plan name in the Navigator list, then select the **Rename** option and type in the new test plan name:



Likewise, to delete a **Test Plan** from the unit set-up data, right-click on the plan name in the Navigator list and select the **Delete** option:



9 Technical Support

The **Technical Support** window provides direct access to Hygiena's online Technical Support and Documentation Internet pages.

NOTE: This feature requires an active Internet connection.

Whenever the Technical Support window is selected, the following standard Internet Explorer toolbar buttons become available instead:

Button	Action
	Back
	Forward
	Go back to Technical Support home page
	Print page
	Refresh page
	Stop
	Display the SureTrend User's Manual

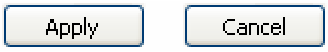
Please refer to the Technical Support web page for further assistance.

10 Software Set-up Preferences

The SureTrend software set-up window is opened by selecting the **Preferences** option for the **Set-up** menu. The numerous set-up options are arranged into groups, and are explained in detail in the following sections:

Options Group	Section
Password Protection	10.1
General Options	10.2
Time Format	10.3
Date Format	10.3
Report Set-up and Printing Options	10.4
SystemSURE Unit Communications Options	10.5
SureTrend Data File Options	10.6

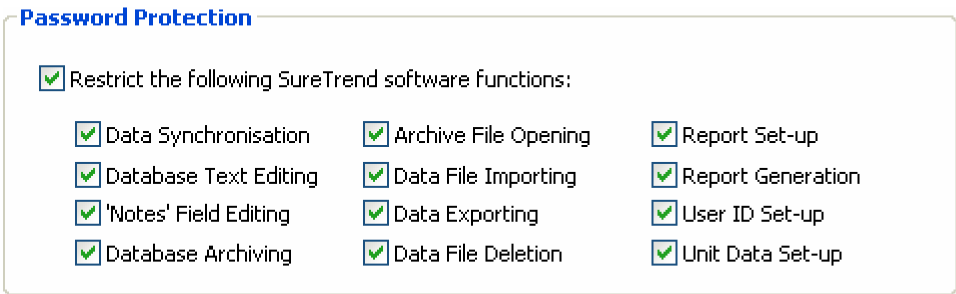
If any of the set-up options are modified, you must save the changes before they will take affect, by clicking the **Apply** button at the bottom of the **Preferences** window:



NOTE: Certain set-up options require the SureTrend software to be restarted in order for their new setting to take affect. This is automatically performed when necessary.

10.1 Password Protection

The password protection options provide a level of Administrator control, to protect the SureTrend data from unauthorised or accidental modification and deletion:



Restrict Software Functions: Each of the following SureTrend software functions can be individually selected to prevent the user from modifying the results database, reports or unit set-up data:

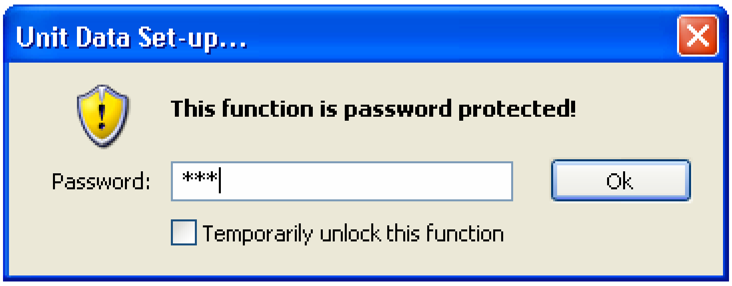
Function	Protection Against	Section
Data Synchronisation	SystemSURE Unit data interchange	4.1
Database Text Editing	Editing of database text fields	4
‘Notes’ Field Editing	Editing of any ‘Notes’ fields	2.2.3
Database Archiving	Archiving of Database test results data	5
Archive File opening	Importing of Archived test results data back into the Results Database	5
Data File Importing	Importing of data files from other sites	2.4
Data Exporting	Exporting of data	2.4.1

☑ **Data File Deletion**	Deletion of any SureTrend data file	
☑ **Report Set-up**	Creation or modification of report set-up files	6
☑ **Report Generation**	Generation of new report output	6
☑ **User ID Set-up**	Modification of the USER ID list	7
☑ **Unit Data Set-up**	Modification of Program and Test Plan data	8

The associated protection password is set or changed by selecting the **Password** option from the **Set-up** menu:

NOTE: If you forget the password, please contact your local distributor for assistance.

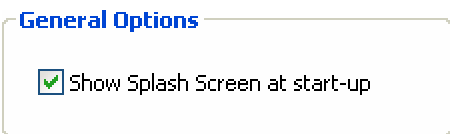
Thereafter, attempting to perform any of the above protected software functions will display the following password dialog:



TIP: The protected function can be temporarily *unlocked* (unprotected) by ticking the check box. The function can then be freely used without having to enter the password each time, and will become protected again next time the SureTrend software is run.

10.2 General Options

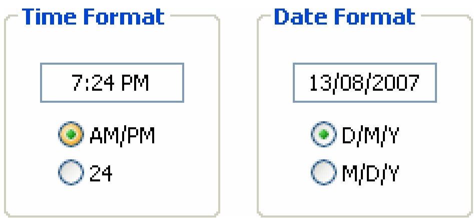
The following general set-up options are available:



☑ **Splash Screen**: The SureTrend start-up splash screen can be disabled by unticking this check box.

10.3 Time and Date Format

These options allow you to define the way in which times and dates are displayed:



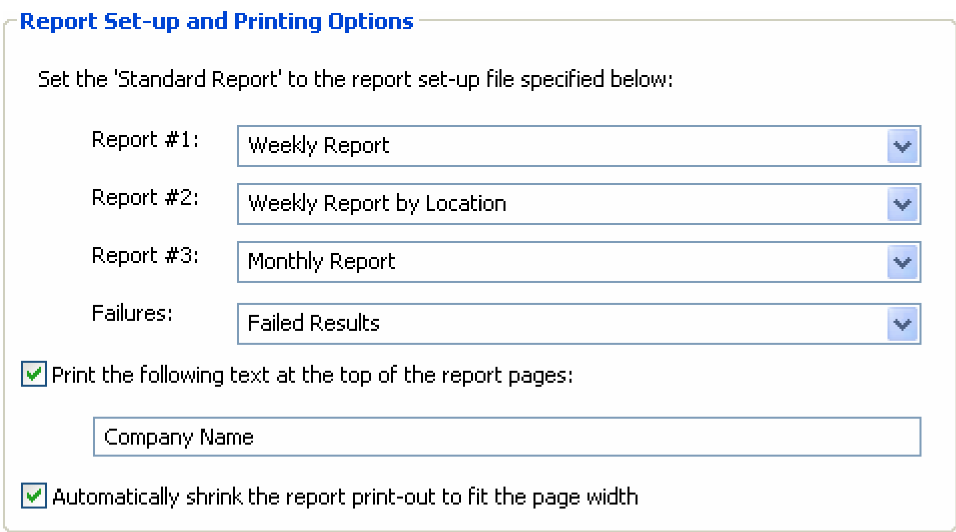
The format options are the same as those available on the SystemSURE unit:

AM/PM:	Selects 12 Hour clock format	(e.g. 9:41 PM)
24:	Selects 24 Hour clock format	(e.g. 21:41)
D/M/Y:	Selects Date/Month/Year format	(i.e. DD/MM/YYYY)
M/D/Y:	Selects Month/Date/Year format	(i.e. MM/DD/YYYY)

TIP: The software can be set-up to automatically set the unit's internal clock to the current PC time and date, using the above time and date formats. Refer to section 10.5 for details.

10.4 Report Set-up and Printing Options

The following general report set-up and printing options are available:



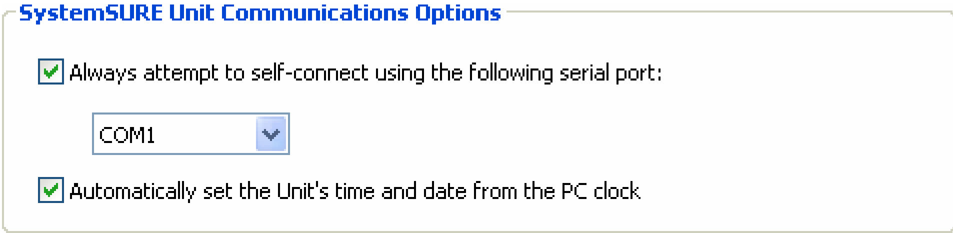
Standard Reports: The four quick-selection report toolbar buttons (1, 2, 3 and F) can be configured to link to any of the Report set-up files, by selecting the report name from the appropriate drop-down list.

Report Page Header: By default, the words "SureTrend - Data Analysis Software" are printed at the top on each output page. This can be replaced with your Company Name, for example, or other text.

Shrink To Fit Page: When printing report data tables will lots of columns that would normally be too wide to fit on the printer paper, this option allows the output to be automatically reduced in size to fit the actual width of the paper.

10.5 SystemSURE Unit Communications

The following unit communications options are available:

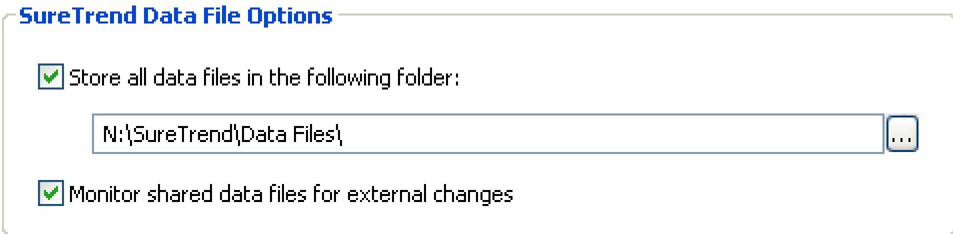


Attempt to Self-Connect: Tick this option to specific which PC serial port should be used to communicate with the SystemSURE unit and to automatically attempt to connect with the unit, without having to click the **Connect** button (see section 2.5).

Set Unit's Clock: Tick this option to automatically set the Unit's internal real-time clock from the PC's clock and set the time and date format (see section 10.3) each time the software communicates with the unit.

10.6 SureTrend Data Files Options

The following data file options are available:



Data File Location: By default, all of the SureTrend data files are stored with in the software installation folder, under the **Data Files** sub-folder. This option can be used to specify an alternative location for these data files, such as a shared network drive. Refer to sections 1.1 and 2.3 for additional information and consideration.

Monitor Shared Files: Tick this option to automatically monitor the status of 'open' shared data files and prompt the user when the file has been changed by another user.

NOTE: This feature can be troublesome when used with some networked file servers and operating systems (such as Windows 98).

11 Troubleshooting Tips

This section lists typical problems that might be encountered when using this software, and their possible causes.

For problems relating to the SystemSURE Unit, please refer to the Troubleshooting section in the SystemSURE Operator's Manual.

Some problems and causes can be rectified by the operator, whilst others may require technical assistant:

Severity	Action Required
✓	This indicates a cause which can be rectified by the user.
✗	This indicates a cause which may require technical attention for rectification. Contact your local distributor for further assistance.

The following table lists typical symptoms and their possible causes.

Symptom	Possible Causes
RS232 interface does not appear to be working	✓ Wrong interface cable being used ✓ Cable connector incorrectly inserted into unit ✓ Cable connected to wrong serial port on PC ✓ SureTrend software incorrectly installed or wrong options selected ✗ Cable or connectors damaged or broken ✗ PC serial port or system software faulty ✗ Unit damaged or faulty
Unable to read data from disk file	✓ Wrong data file location specified (see section 10.6) ✓ Data file is already open by another user ✓ Data file has been moved or the disk removed ✗ Data file has been deleted or has been corrupted ✗ Disk drive is damaged or faulty
Unable to write data to disk file or create a new data file	✓ Wrong data file location specified (see section 10.6) ✓ Disk drive or user does not have write permissions ✓ Data file is already open by another user ✓ Existing file is write protected ✓ Disk drive is full ✗ Disk drive is damaged or faulty
Unit has an invalid serial number	✗ SystemSURE unit memory fault (contact your local distributor for assistance)
The Help file does not load	✓ SureTrend software incorrectly installed (see section 1.1) ✓ Adobe® PDF Reader is not installed on your PC ✗ Help file is damaged or missing

12 Technical Specifications

General:

Minimum PC system requirements	Pentium series PC 1 RS232 port / adapter
Recommended Operating System	Windows XP (SP2) 512MB RAM

Results Database:

Maximum number of database records	Unlimited *

Reports:

Maximum number of Report set-up files	Unlimited *
Maximum number of Filter Conditions	Unlimited *
Maximum number of Report output files	Unlimited *

Unit Set-up Data:

Maximum number of SystemSURE Units	Unlimited*
Other limitations	Refer to section 8.1

* Although these items have no imposed limit, PC processor speed, memory size and hard disk capacity will ultimately limit the overall performance and usability of the SureTrend software.