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TQ Soft and IP Reports Installation and Setup

IP Reports

1. Insert the IPReports CD, and when prompted select 'Open Folder to View Files'. Right click **gs.exe** and select **'Run as Administrator'** to install. Follow instructions in the setup wizard; default settings can be used.
2. Right click **IPReports_1.4_Build0008_Install.exe** and select **"Run as Administrator"** The installation procedure is fairly standard with the exception of a printer installation screen near the end; it will display a screen with a button titled **"Setup Now - Click to start printer setup."** This printer installation should be skipped and performed later.
3. Insert the **red dongle** into a USB socket on your PC. If the **dongle indicator LED** doesn't illuminate then locate and right-click on **C:\ISL\IPReports\Tools\USB_Dongle\setupdrv.exe** and select **"Run as Administrator"** to install.
4. **IMPORTANT! Right click** the IPReports logo on the desktop, then choose '**Run as Administrator**'. This will lock down the correct settings. Exit IPReports
5. Right click **IPReports_1.4_Build0015_Update.exe** on the CD and select **"Run as Administrator"** to install.
6. Run **IPReports** once then exit.
7. Make sure that you have a .pdf reader on your computer, such as **'Adobe Reader'** that can be downloaded free from the **'Adobe'** website.
8. Using windows explorer, locate and right click **C:\ISL\IPReports\Tools\IPReportWriterSetup.exe** and select **"Run as Administrator".** This installs a PDF printer that uses the ghostscript driver installed in step 1.
9. Open IPReports. Select **edit->preferences** then choose the **IPReportWriter** printer. Click **'Save'** and then '**Back'**

TQ Soft

1. Insert the TQ Soft CD and follow the installation wizard, when prompted selecting C:/Logsys as the install directory. Insert the TQSoft dongle into a free USB slot.
2. If the Dongle does not light up then locate the Dongle Driver in **C:/logsys/Dongle Driver** and run the setup

Fluke NetDAQ

1. After install finishes, explore the TQSoft CD through My Computer, open **fluke2680 Support** and then double click **NTool32_DLL** and run through setup wizard.
2. Change IP Address in **Control Panel, Network and Sharing Centre, Change Adapter Settings,** right click on **Local Area Network, properties,** highlight **Internet Protocol Version 4 (IPV4), properties,** change IP to: **198.178.246.100,** and Subnet Mask to: **255.255.255.0,** press OK and close out.

Serial Drivers (if using the Isopharm USB to Serial Converter) and general settings

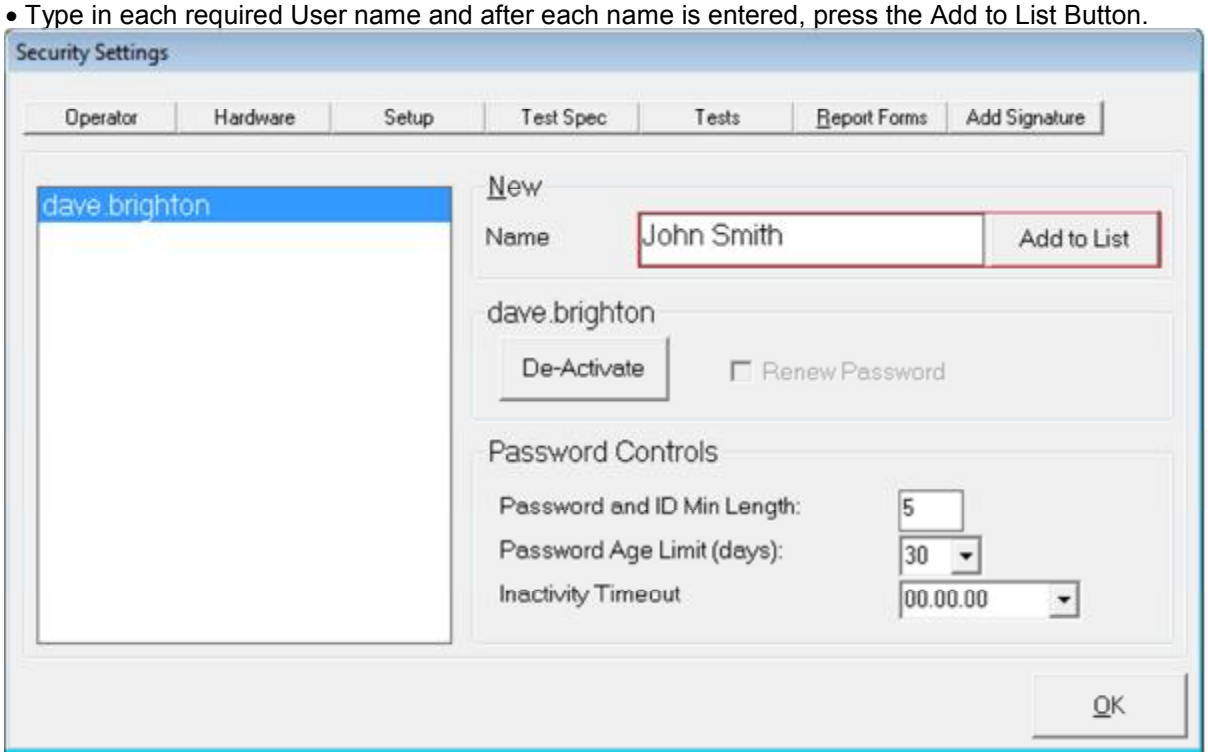
1. Double click the CDM20824_Setup application to install the serial to USB convertor drivers
2. Go to Start>Control Panel>Device Manager>Ports to see which ports Windows has allocated to the USB to Serial adapter. *Note* TQSoft requires these ports to be numbered 16 or lower.
3. Go back into **Control Panel** and then select **Hardware and Sound, Power Options, Change plan settings** on current plan, and set both **Turn off the Display** and **Put the Computer to Sleep** dropdowns to **Never.** This will prevent the Windows going into hibernation during a test cycle.

TQSoft and IPReports are now ready to use. If you have any queries on the installation, please contact Isopharm at 01709 525256 and choose the option for TQSoft/IPReports technical support.
Please note the user will also require full read/write access to the following folders on the C:\ drive as well as all subfolders and files:
C:/Logsys
C:/ISL
They will also require full use of any USB slots available

Creating a New User in TQSoft

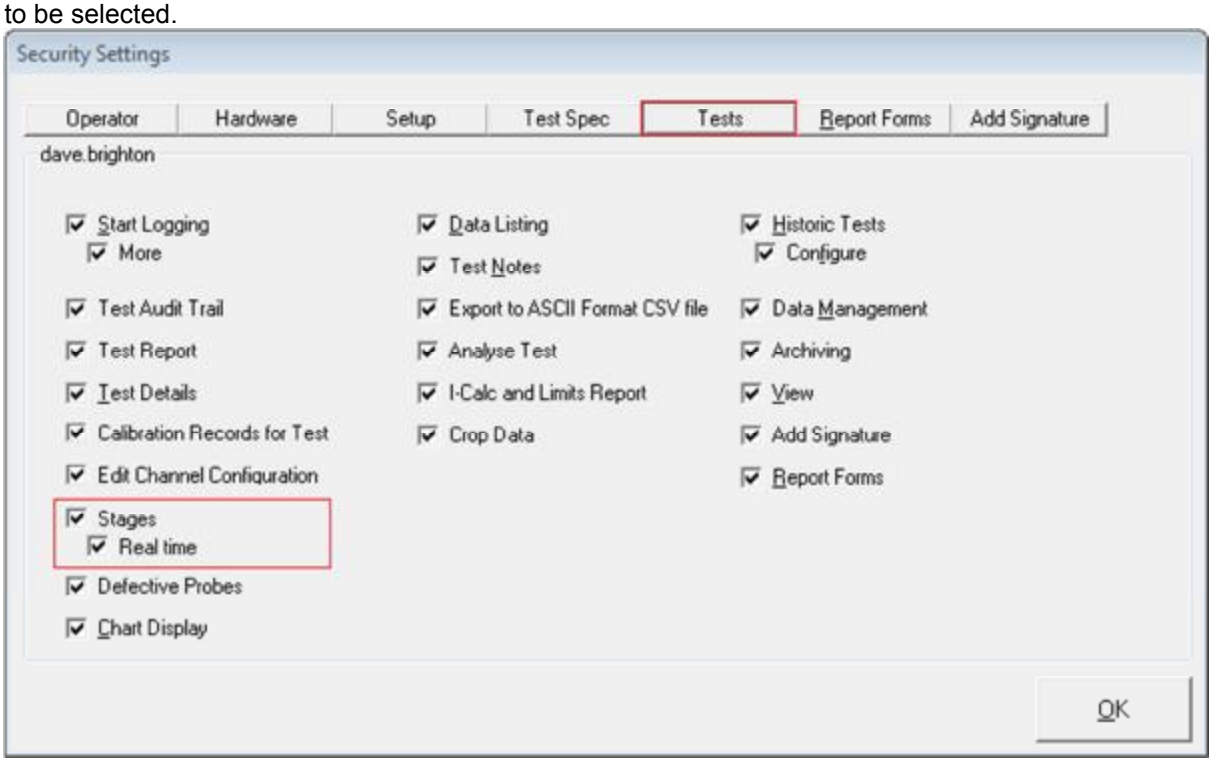
- Identify and double click on the TQSOFT icon on the computer screen.
- Go to the Setup menu in TQSoft and select **'Edit Security'**

- Type in each required User name and after each name is entered, press the Add to List Button.

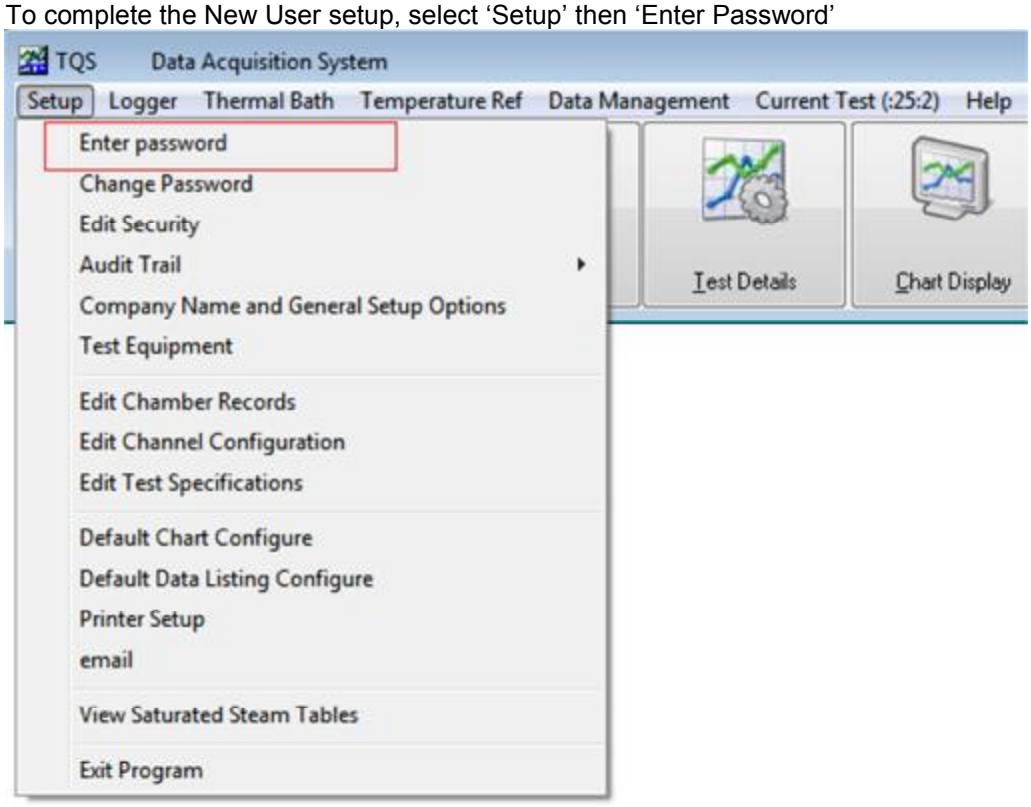


- You will be asked if the new user should be given Administrator, Manager or Operator security status. This affects which TQSoft settings the user can change, but can be amended later if required.
- The Audit Trail Reason for Change window will appear (Type in a reason if you wish) then press OK.
- The New user is added to the Left Hand Side.
- Highlight the new User. The Password Age Limit option forces the user to reset their password after the number of days set. If you do not wish to use this feature a maximum of 9999 can be entered. Inactivity Timeout is turned off (00:00:00) by default. If TQSoft does not detect any button presses or key presses for this amount of time, the password window will appear, and no other operations will be allowed until the password, or a new ID and password are correctly entered. If a test is running, TQSoft will run as normal, but a password must be entered to carry on after the test is completed.
- Highlight on the User on the left hand side. Then click on to Hardware/Setup/Test Spec/Tests to select what the user highlighted can or cannot do in TQSoft. For example if you do not want the user to have access to Edit Security (the area of the Software we are in now), un-tick the feature Edit Security in the Setup Section

• *Note* To allow stage lines to be inserted while running a cycle, the ‘Stages’ ‘Real Time’ option needs to be selected.

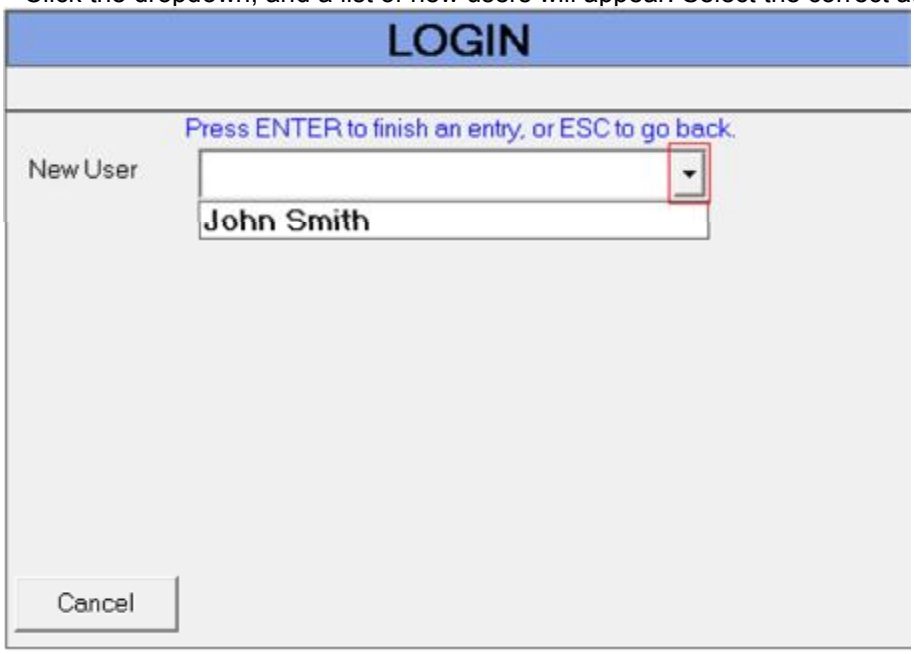


• Repeat this process for all users. Once completed press OK in the bottom right hand corner.
To complete the New User setup, select ‘Setup’ then ‘Enter Password’



• A Login box appears with a New User box. Select ‘New User’

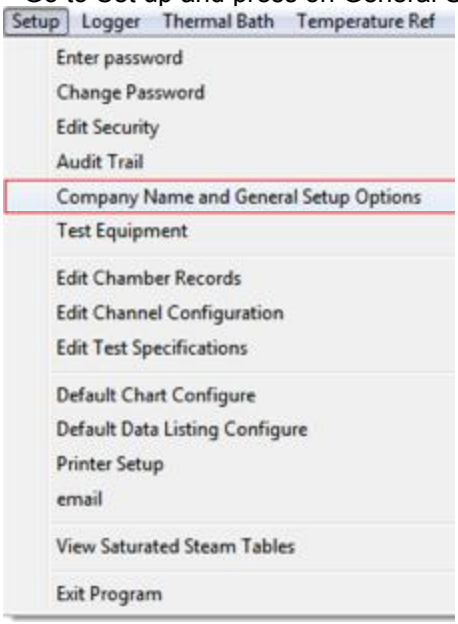
• Click the dropdown, and a list of new users will appear. Select the correct account and press ‘Enter’



• Type in a new ID (username) and press ‘Enter’. Note that this is case sensitive.
• Repeat your ID to Confirm and press ‘Enter’
• Type in a Password (again case sensitive) and press ‘Enter’
• Repeat your Password to Confirm and press ‘Enter’
• Once the ‘Password Valid Until’ date appears press ‘Enter’ again.
• Now to go Setup and Edit Security again
• Highlight the ‘Demo’ user and then press ‘De-activate’. Then Press OK.
• You can renew you Password at any time, by highlighting on the name and use the Renew Password tick box and press OK. You can also deactivate any user at any time.
• Close down TQSoft and re-open it. The login box will reappear.
• Type in your ID, then your Password to open TQSoft.

Company Name and General Setup Options

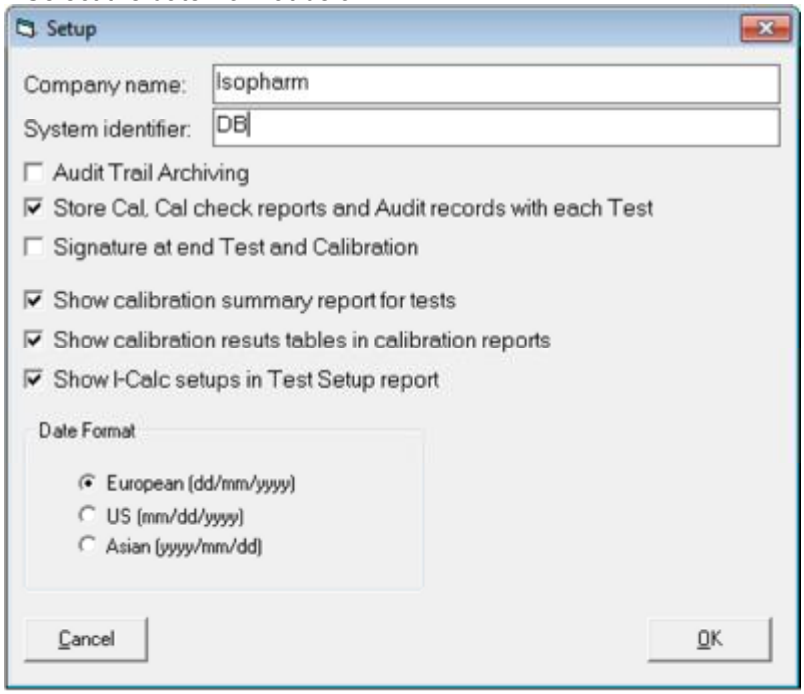
• Go to Set up and press on General Setup Options



• Type in the Company Name and this name will be printed out at the top of all the TQSoft documentation such as Charts, Data Listings etc.

• Type in the Computer Name in the System ID, so the Audit Trail knows which PC has been used for each application completed.

• Select the date Format below.

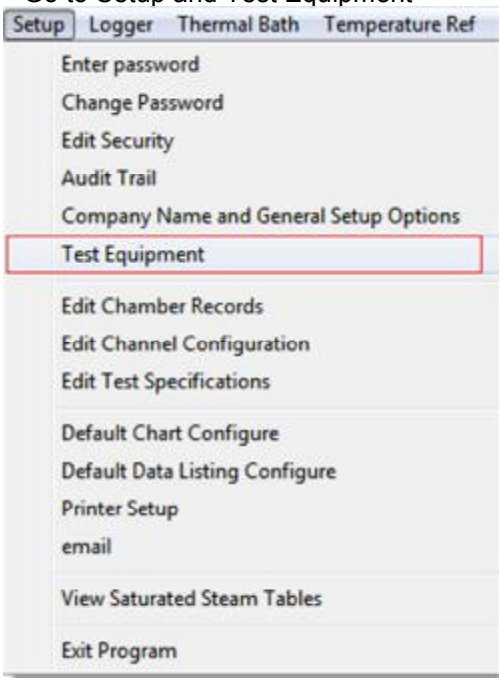


• If the option *Store Cal, Cal Check, and Audit records with Test record* in *Company Name and General Setup Options* is on, then an audit database is created and managed for each test record along with the other files for each test record. In this case the option *Audit Trail* on the *Current Test* drop down menu can be used to view and manage these audit trails. It also means that TQSoft will remember which Calibration and Calibration Check record is associated with each test when you backup the data or complete a Report.

• Audit Trail Archiving is covered in the Advanced Course.

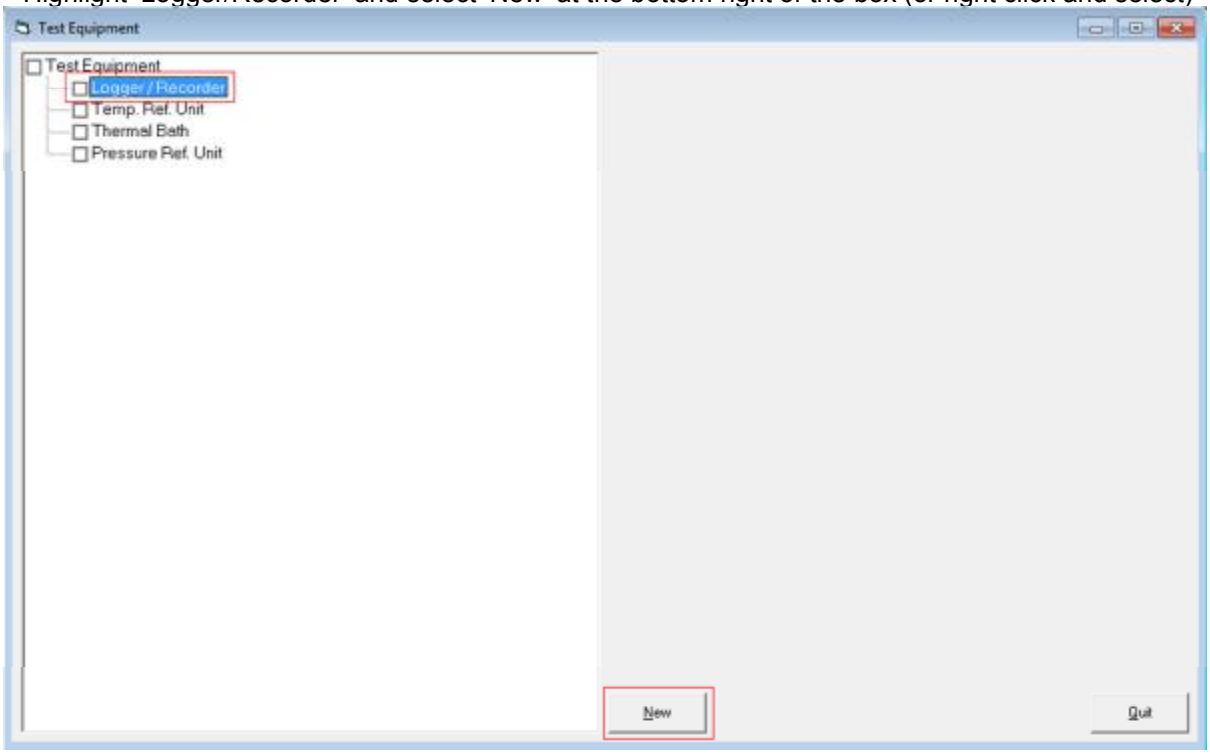
Test Equipment

• Go to Setup and Test Equipment

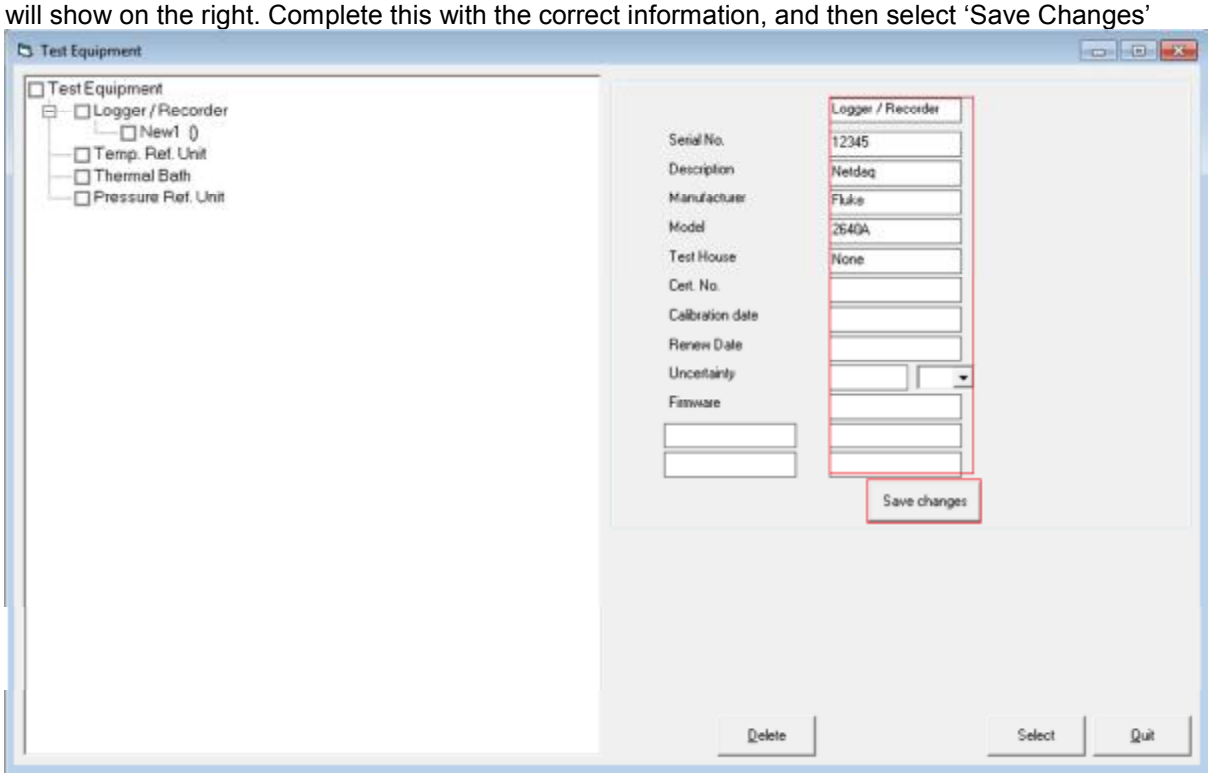


• This area allows you to fill in details of all test equipment being used – multiple types can be recorded, and the correct one selected at the start of each test.

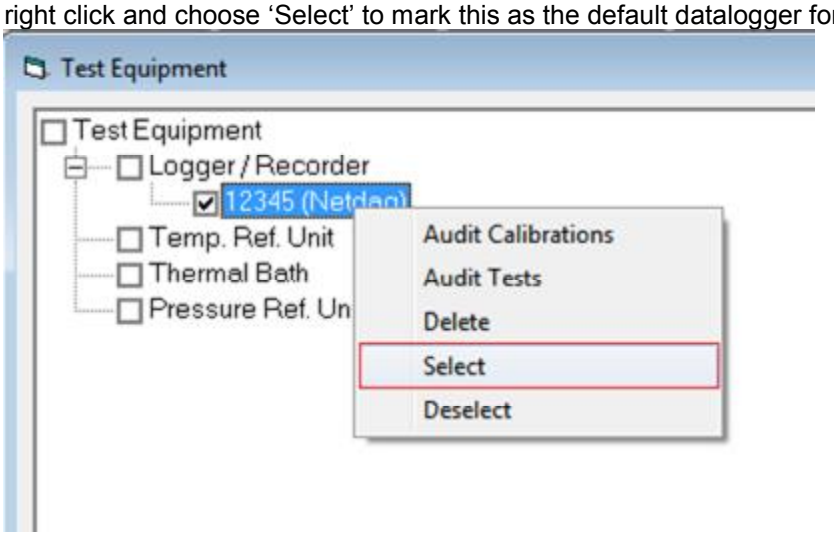
• Highlight 'Logger/Recorder' and select 'New' at the bottom right of the box (or right click and select)



• A new datalogger called ‘New1’ will appear on the left. Highlight this, and the equipment details area will show on the right. Complete this with the correct information, and then select ‘Save Changes’



• ’New1’ will now be replaced by the serial number and description of the new logger. Highlight this, right click and choose ‘Select’ to mark this as the default datalogger for future tests.

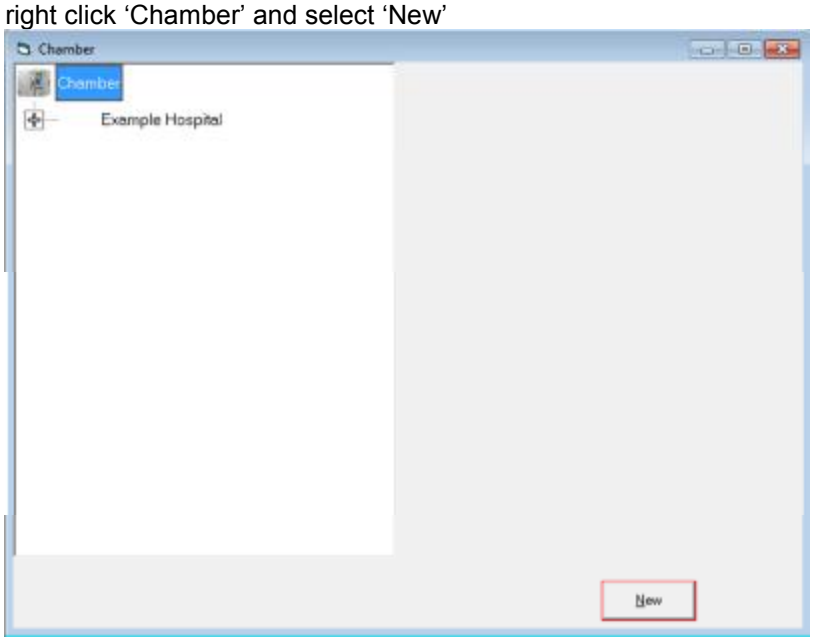


• Continue this process for all relevant equipment, then Quit

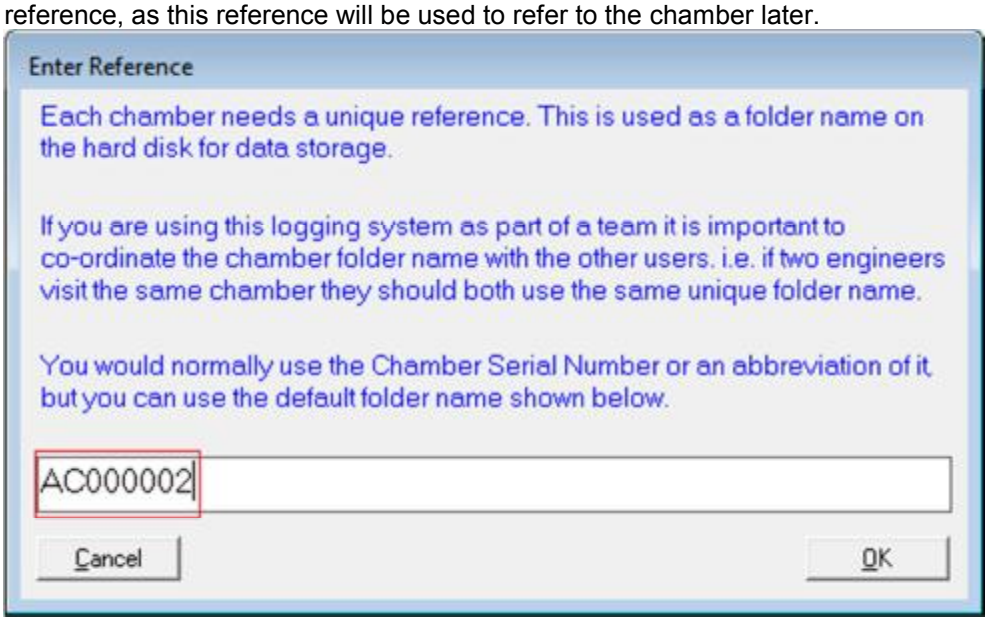
Chamber Records (formerly 'Machine Records')

• Go to Setup and Edit Chamber Records.

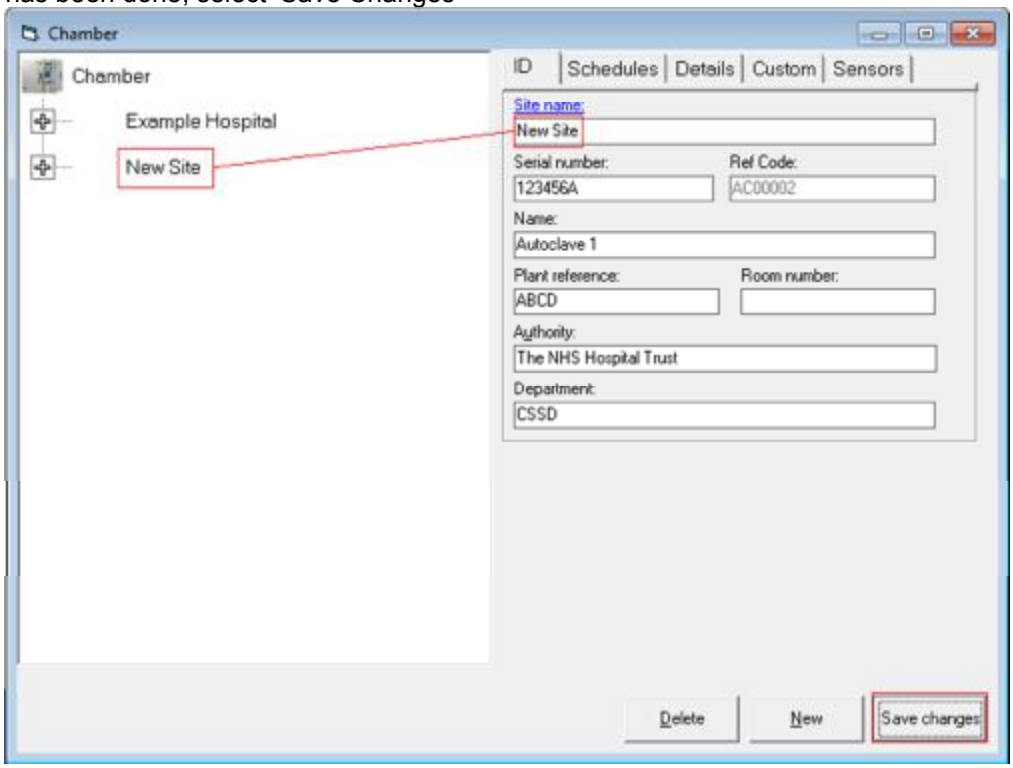
• A box showing current sites will appear. Either select 'Chamber' then 'New' at the bottom right, or right click 'Chamber' and select 'New'



• You will be asked to enter a reference number for the new chamber. The default will start AC000xxx. Isopharm would recommend changing this to either the serial number or some other recognisable reference, as this reference will be used to refer to the chamber later.



• Enter the details for the chamber. The site name, when entered, will be used to group chambers on the left side of the screen. Note that the Ref Code is greyed out and cannot be changed. Once this has been done, select 'Save Changes'

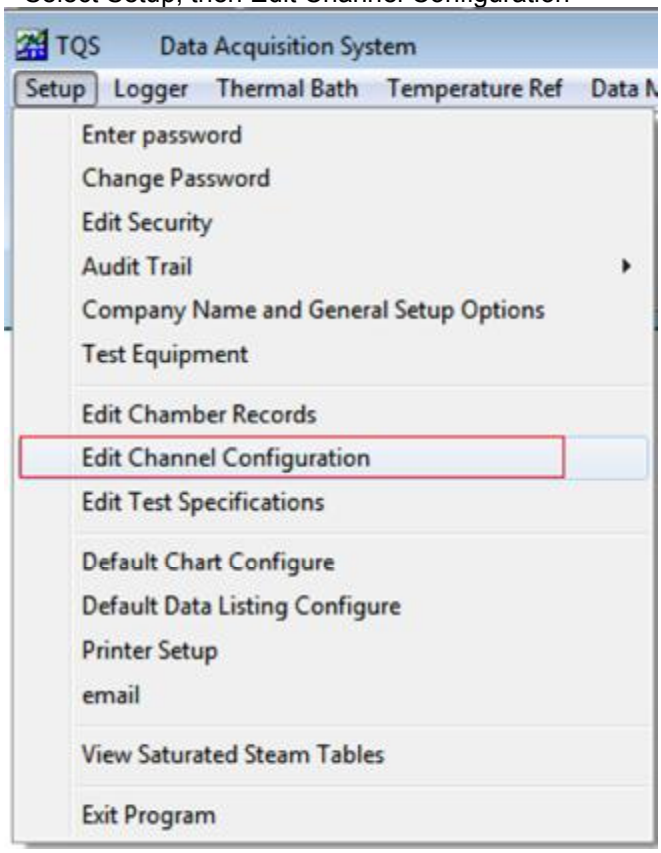


• If you have multiple chambers at the same site, you can highlight a chamber record that has already been entered, then select 'New'. This allows common details to be pre-filled for the new chamber.

Channel Configuration

• Each channel can be set to a wide range of input types depending on the application. The most common of these is Type T thermocouple.

• Select Setup, then Edit Channel Configuration



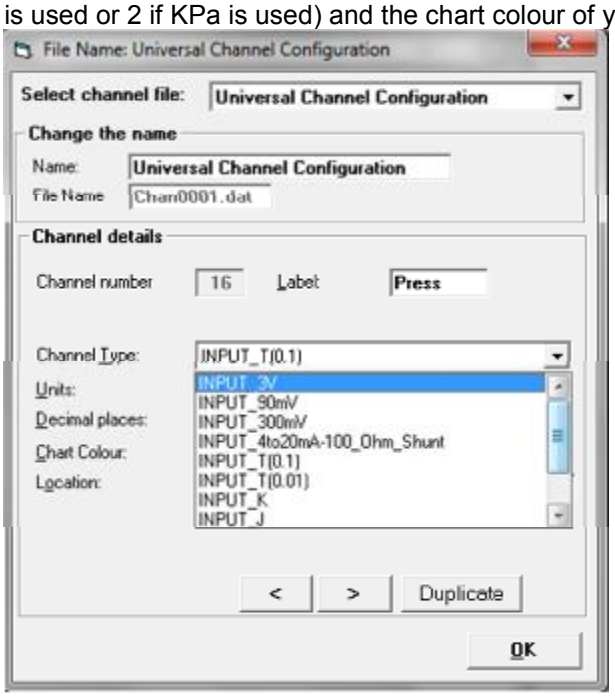
• TQSoft v6 can support up to 128 channels, but most dataloggers have either 16 or 20. Each channel that is to be used needs to be configured correctly.

• Select a Channel Configuration and give it a name of your choice. Universal Channel Configuration is the default.

• Assuming the input will be from a thermocouple, select 'Input T (0.01)' or 'Type T range 10mV'. Ensure the units (e.g. °C) and decimal places are correct for your application. It is also possible to change the Label (displayed on the chart), location and chart colour at this point. Once this is complete, press 'OK'

• If the Channel Type is changed, you will be asked if you wish to copy this configuration to all other probes with a higher number. Select Yes if all the thermocouples will be of the same type and you wish to do so

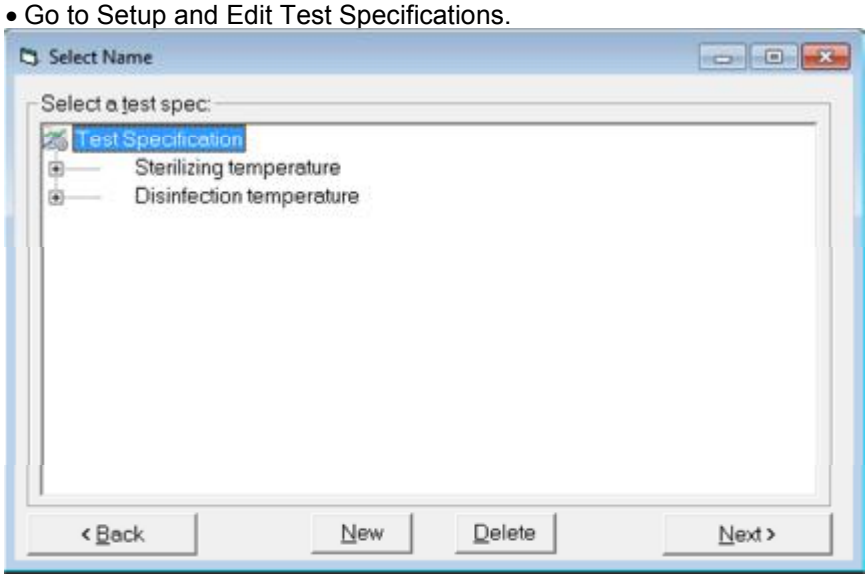
• Repeat for all other temperature channels by using the left and right arrows at the bottom
• To set up Pressure go to the last channel on your Datalogger (For Agilent is would be Channel 16, For Fluke it would be Channel 20).
• Select the correct channel Type (for Agilent it would be +/-10V, for Fluke it would be 3V Range.
• Select the units required, and Decimal Places (this should be 0 if mB or mBA is used, 3 if Bar or BA is used or 2 if KPa is used) and the chart colour of your choice. Press OK.



• *Note* You can create other devices such as Humidity etc. in exactly the same method as the Pressure Channel by typing in the Units of your choice.

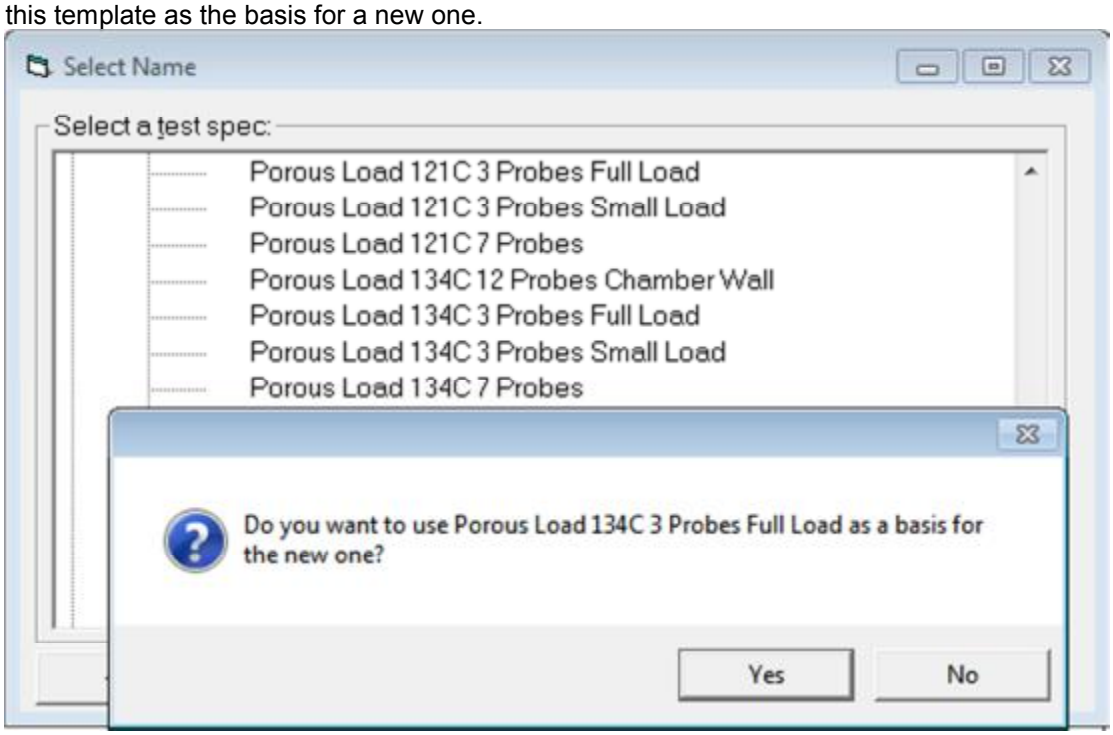
Test Specifications (Basic)

• Go to Setup and Edit Test Specifications.

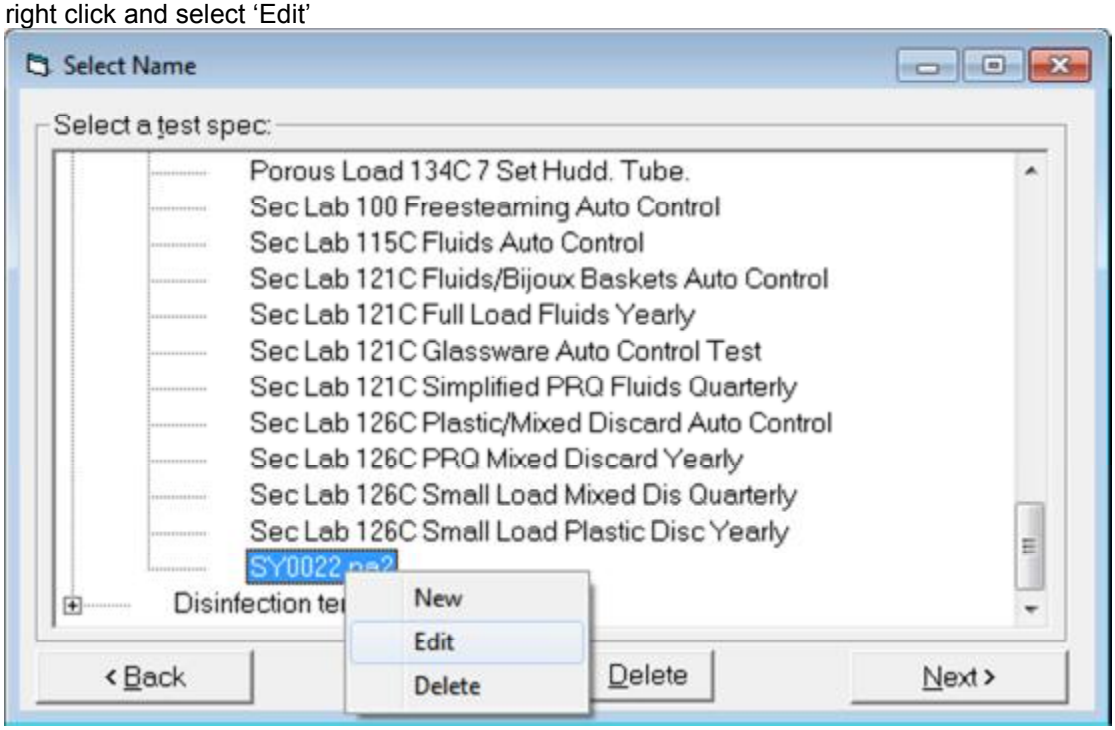


• A list of all the Test Specifications appear, divided into Sterilising and Disinfection depending on the type of test. To view or edit an existing Test Specification highlight it and click next or right click and select 'edit'

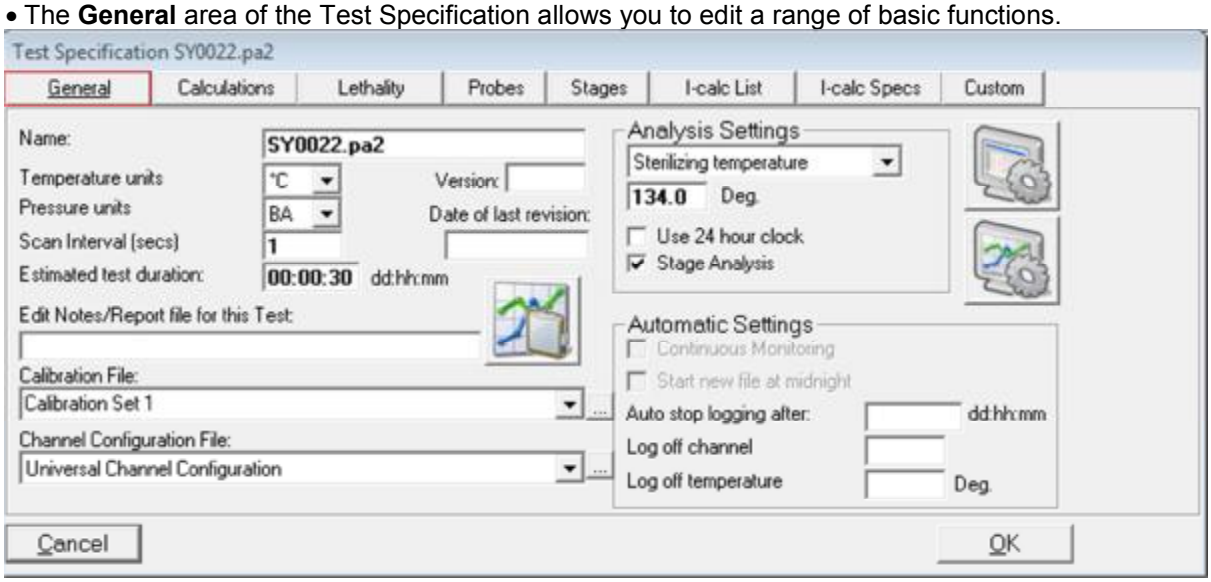
• To create a new Test Specification, press New. *Note* if you want to create a new Test Specification that is very similar to an existing template (e.g. a 2nd Test Specification which is identical to the one already created, except the Probe locations are in different positions), you can copy the existing template, and then modify the new one. For example, if you want to use the ''Porous Load 134C 3 probes' Test Specification as the basis for the
new one, highlight it on the list, then press new. A message will then appear asking if you wish to use this template as the basis for a new one.



• New Test Specifications are given a default name, for instance SY0022.pa2. Highlight this test, then right click and select 'Edit'

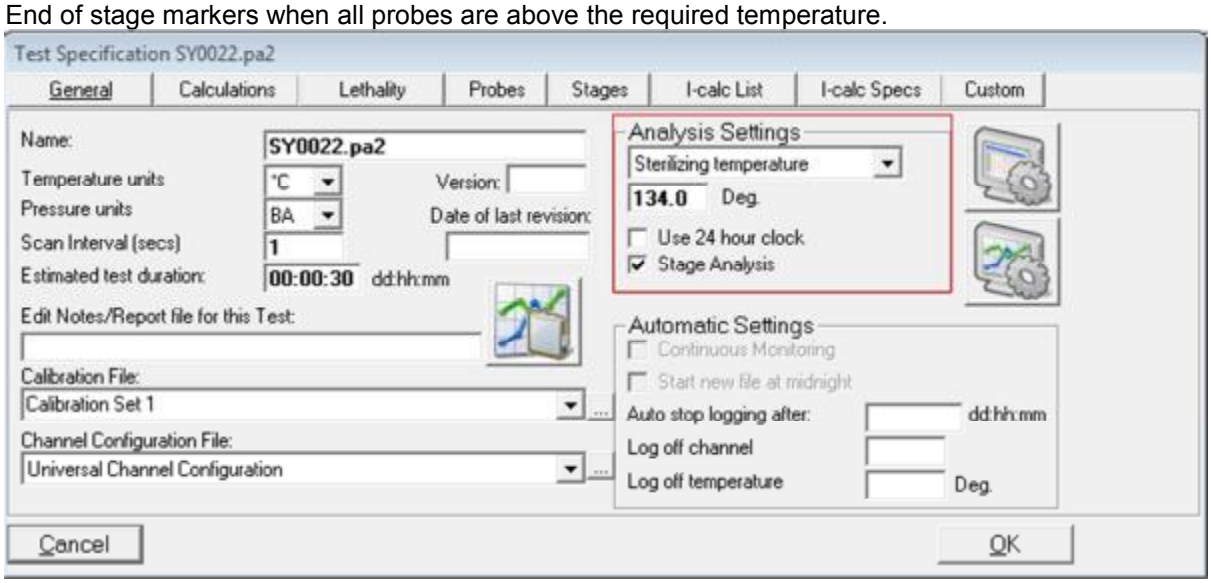


• The **General** area of the Test Specification allows you to edit a range of basic functions.



• **Name** is used to identify the test specification and should be changed to something easily recognisable.
• **Temperature Units** and **Pressure Units** are specified for each test, but should match the Channel Configuration.
• The **scan interval** is used to set the scan rate of the datalogger. It will be constant throughout the test. This should usually be set to 1 second. The amount of data shown in the data list can be modified elsewhere.
• **Estimated Test duration** is used only to size the chart for real time monitoring before the test has started. (It resizes the chart automatically for you once the test is complete regardless of the number entered here).
• **Version and date of revision** is a means of tracking modifications to test specifications.
• The **thermocouple file** specifies which set of calibration values will be activated and used when the test is started (see advanced course). This will usually be Calibration Set 1 if you have a single set of thermocouples calibrated.
• The **channel configuration** file is the channel configuration that will be loaded and used once the test is started. Select the channel configuration file before selecting probes.

• **Sterilising/Disinfection/Target temperature** sorts the Test Specifications on the first screen. If the box below marked 'Stage Analysis' is ticked, TQSoft will also automatically insert the correct Start and End of stage markers when all probes are above the required temperature.

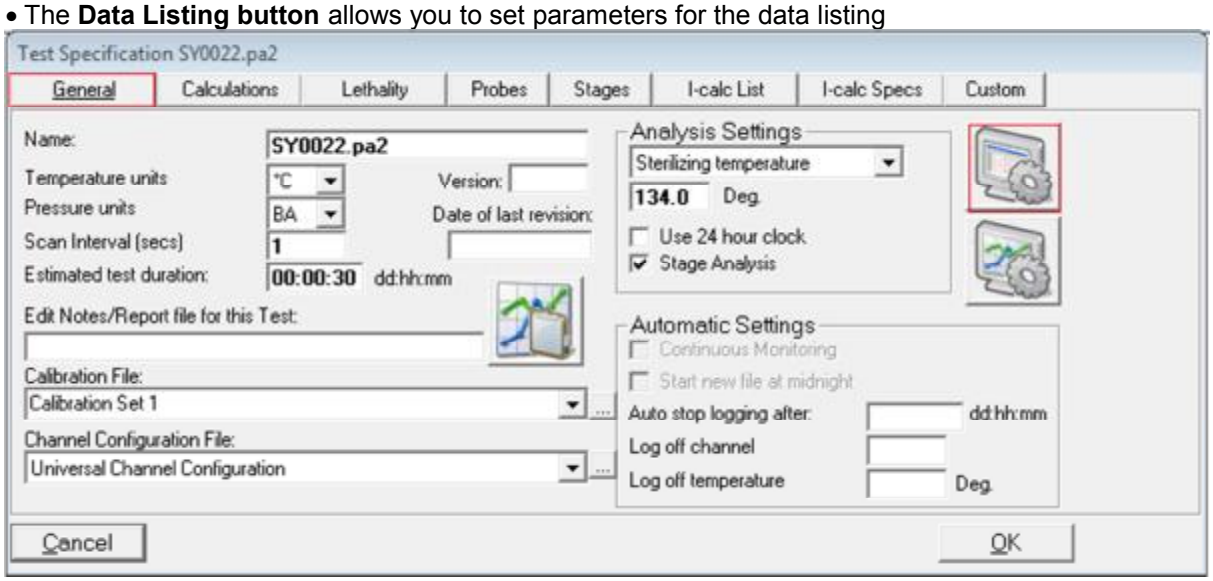


• The **Use 24 hour clock** option controls the format of time in the test record. If checked, time will be stored as actual time of day, if unchecked time will be stored as 00:00:00 at the start of the test.

• **Auto stop logging after** allows you to automatically switch off logging a set time after a test has started**. (NB** Having this checked allows the **continuous monitoring** check box to be used. This will have the effect that TQSoft will automatically re-start logging with the next incremental test number available. Having **continuous monitoring** checked allows the **start new file at midnight** option to be used.)

• **Log off channel** and **log off temperature** can be used to switch off logging when a specified channel has exceeded and then drops below the specified value. (For Fluid load type of cycles only- do NOT use on Porous Load cycles).

• The **Data Listing button** allows you to set parameters for the data listing

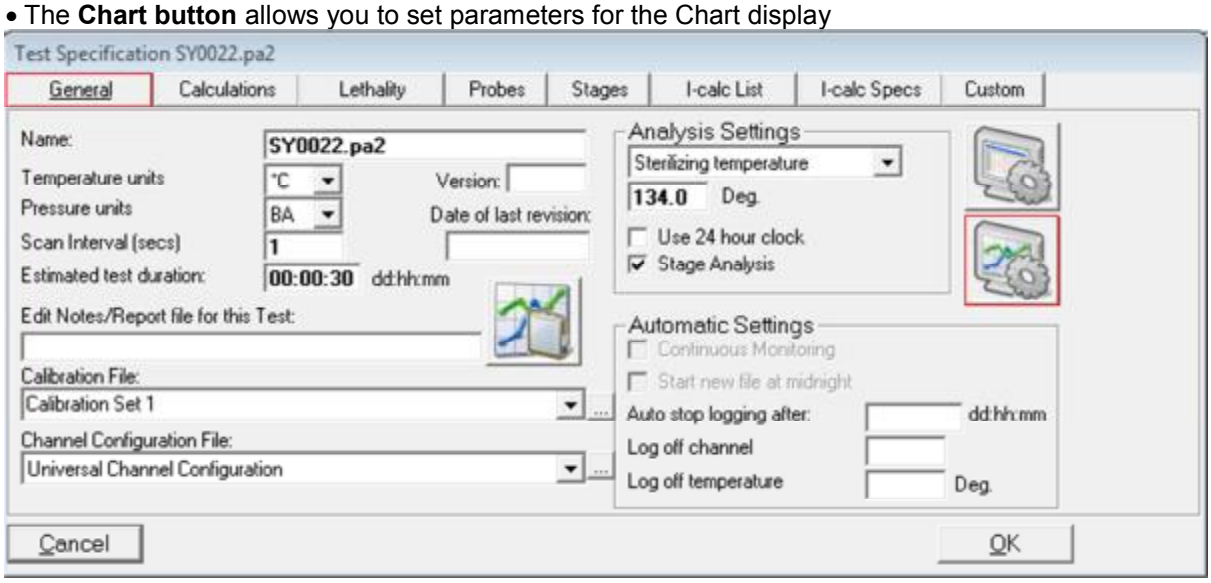


• Use Locations for Column headings is generally not ticked. It would say for example Drain instead of Tmp1 depending on the settings in the Channel Configuration

• Print Stage Information should be ticked if you wish to see stage data in the Data Listing

• Landscape should be used if more than 13 columns are used.

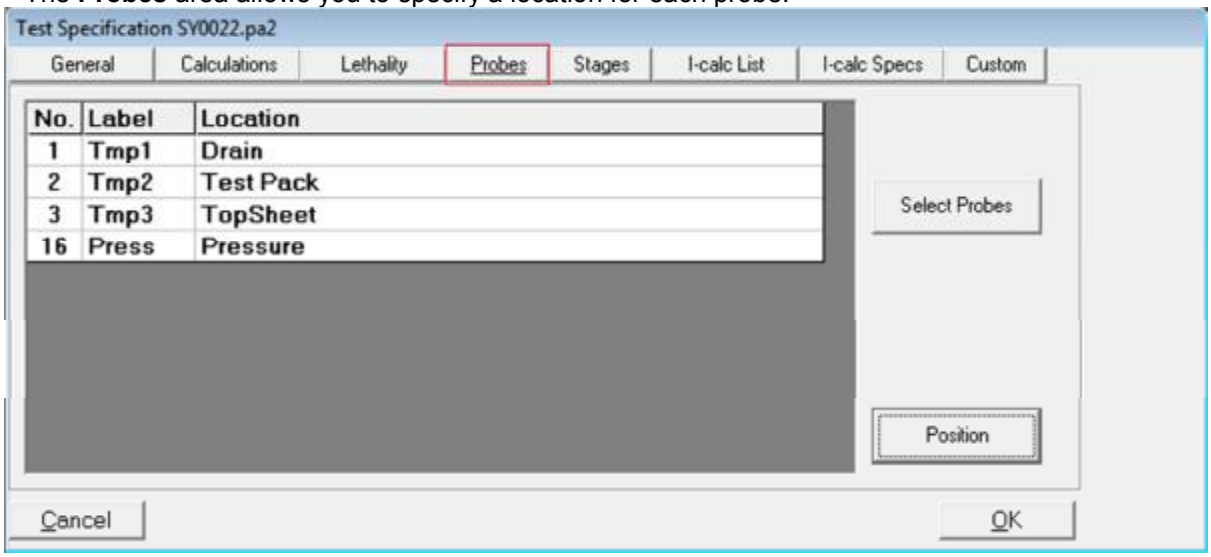
• The **Chart button** allows you to set parameters for the Chart display



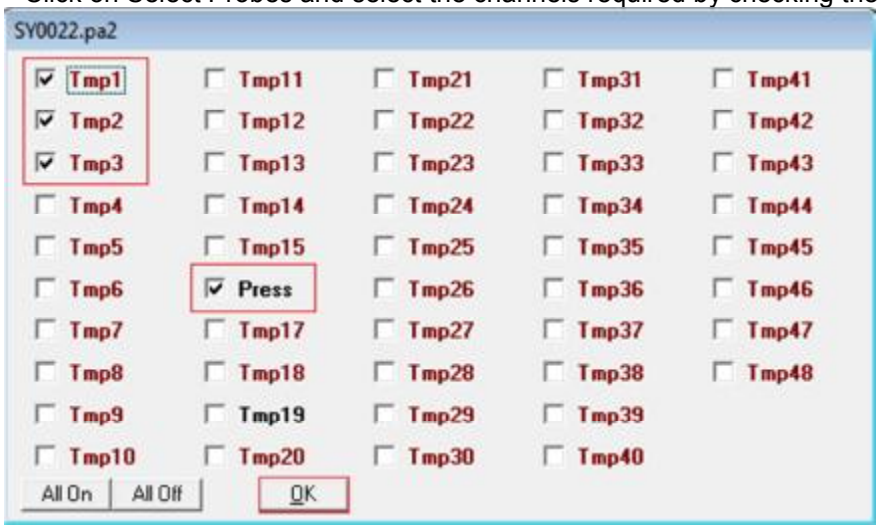
• To change the unit of the Chart select the units you want. For example if the temperature is in °C, then select these units and then enter the Maximum and Minimum Temperature Values required for the temperature axis

• If non-standard units are required, for example Humidity, you can type RH% into the units and then add your scale and this will be entered onto your chart (on the right hand side)

• The **Probes** area allows you to specify a location for each probe.

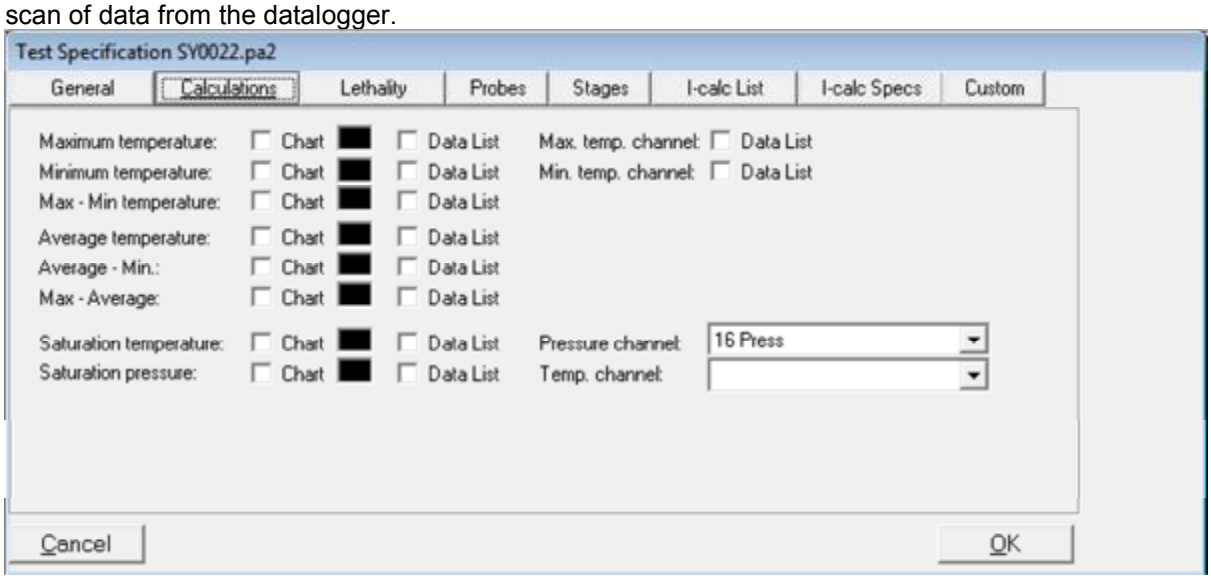


• Click on Select Probes and select the channels required by checking the box, then press 'OK'



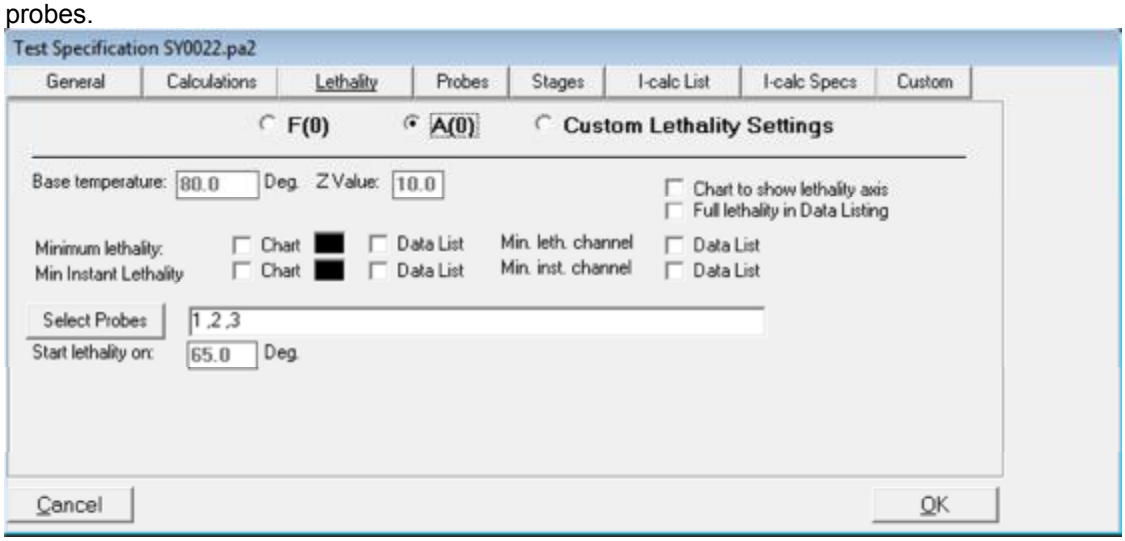
• Type in the Location for each probe and press ‘Enter’.
•For IPReports to perform some automatic thermometric analysis for you, specific naming conventions should be used - note this is only important for Autoclave Testing.
• Chamber Pressure Sensor **PRESSURE**
• Drain/Vent Sensor **DRAIN or VENT or DISCHARGE**
• Chamber Free Space Sensor **FREESPACE**
• Test Pack Sensor **PACK or LOAD**
• Top Pack Sensor (Top Sheet) **TOPSHEET**
• Bottom Pack Sensor **BOTTOM**
• Water Reservoir Sensor **RESERVOIR**

•The **Calculations** area allows TQSoft to perform a range of automatic calculations on the data and show these on the chart and/or data list. These are Scan Calculations (as opposed to Interval Calculations or I-Calcs.) and therefore are a calculation performed on each scan of data from the datalogger.

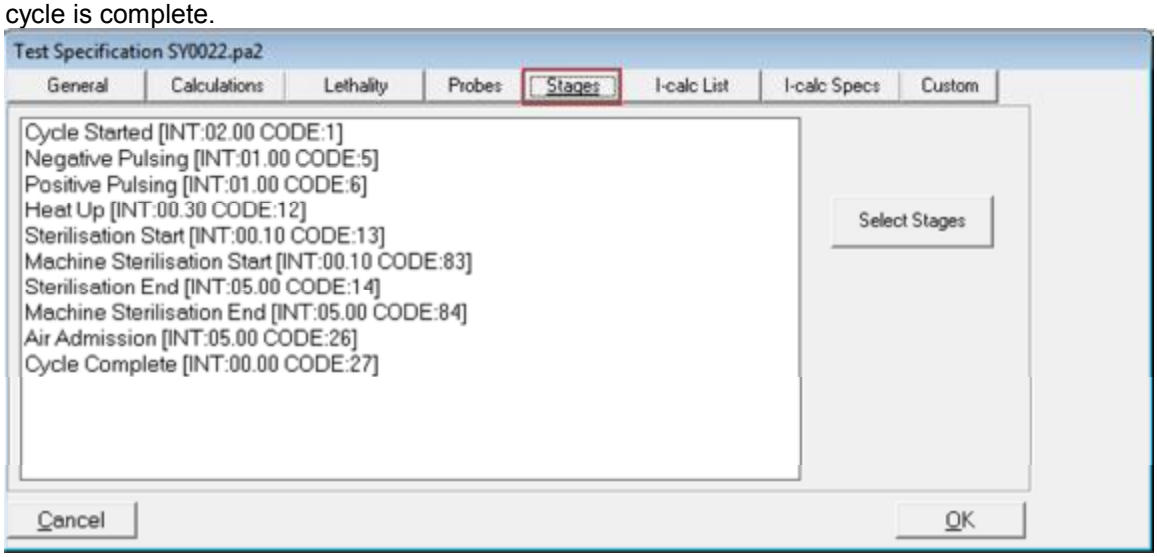


• Tick the boxes if you want these calculations to be added to your Chart and Data Listing. If they are to be displayed on the chart you can choose the colour from the box here)
• Max Temp Channel and Min Temp Channel are good information for the hottest and Coldest Channels for Washer Disinfectors.
• TQSoft includes Saturated Steam Tables. From these tables it can calculate the Theoretical Saturated Pressure from a given temperature, or visa-versa (i.e. what the Theoretical temperature from the Pressure reading assuming the steam was 100% saturated).
• For readings on the Theoretical Saturation Pressure from any given temperature click on the Saturation Pressure box (Data List as shown above) and select which temp channel to do the calculations from (usually the drain probe).
• For readings on the Theoretical Saturation Temperature from the given pressure click on the Saturation Temperature box (Data List) and select which pressure channel to do the calculations from.

•The **Lethality** area is covered in more detail in the Advanced Training Course. This allows either F(0), A(0) or a custom lethality calculation to be displayed on the chart and/or data list from any or all probes.



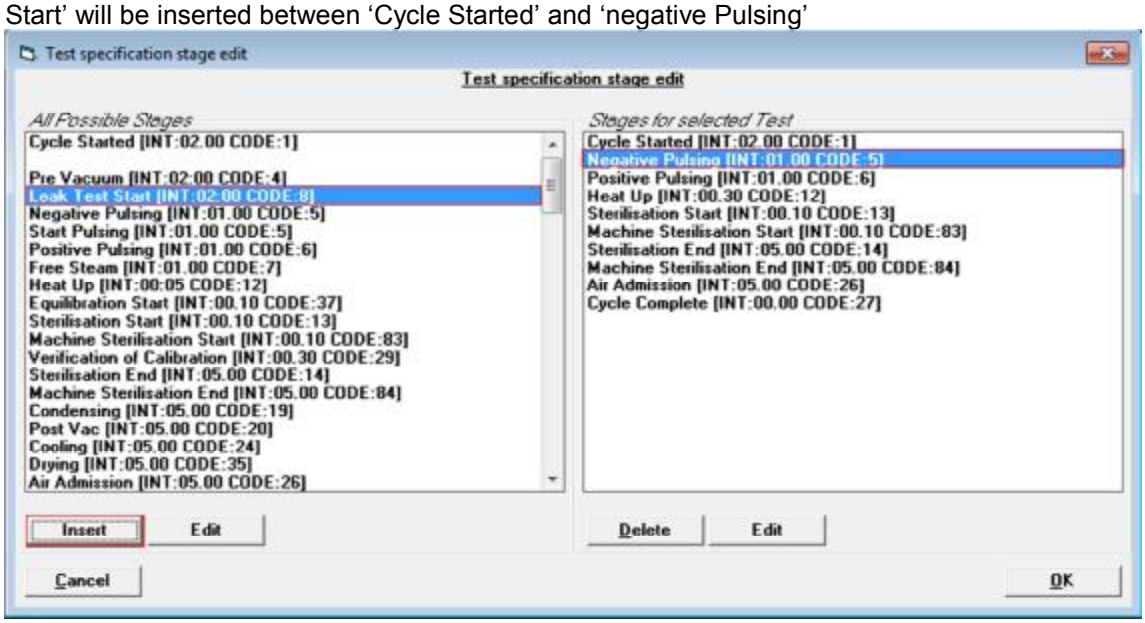
• The **Stages** area controls which Stage Lines will be available from the 'Enter Stages' button while a cycle is being logged using this Test Specification. Note that all Stage Lines are available once a cycle is complete.



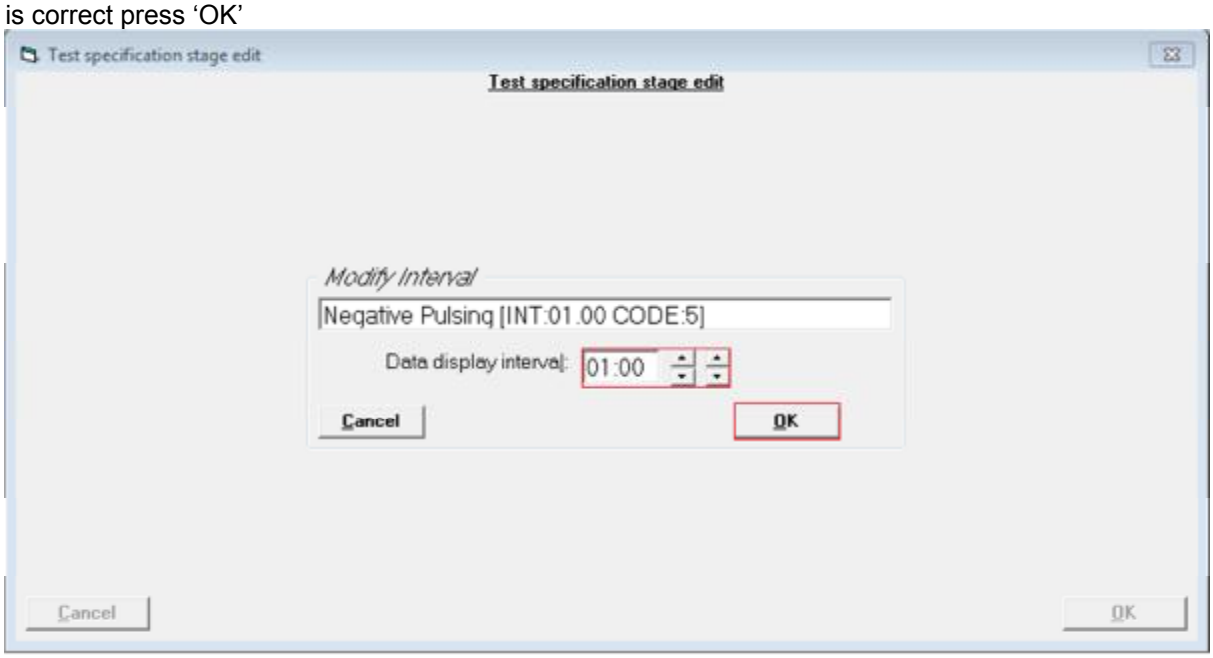
• To add or remove stage lines, press 'Select Stages'

• To delete a stage from this Test Specification, simply highlight it on the right hand side and press 'Delete'. If a stage is deleted by mistake, it can simply be added again.

• To add a stage line to the Test Specification from the library on the left, highlight the required stage on the left and the stage on the right which will follow it, then press ‘Insert. In this example ‘Leak Test Start’ will be inserted between ‘Cycle Started’ and ‘negative Pulsing’



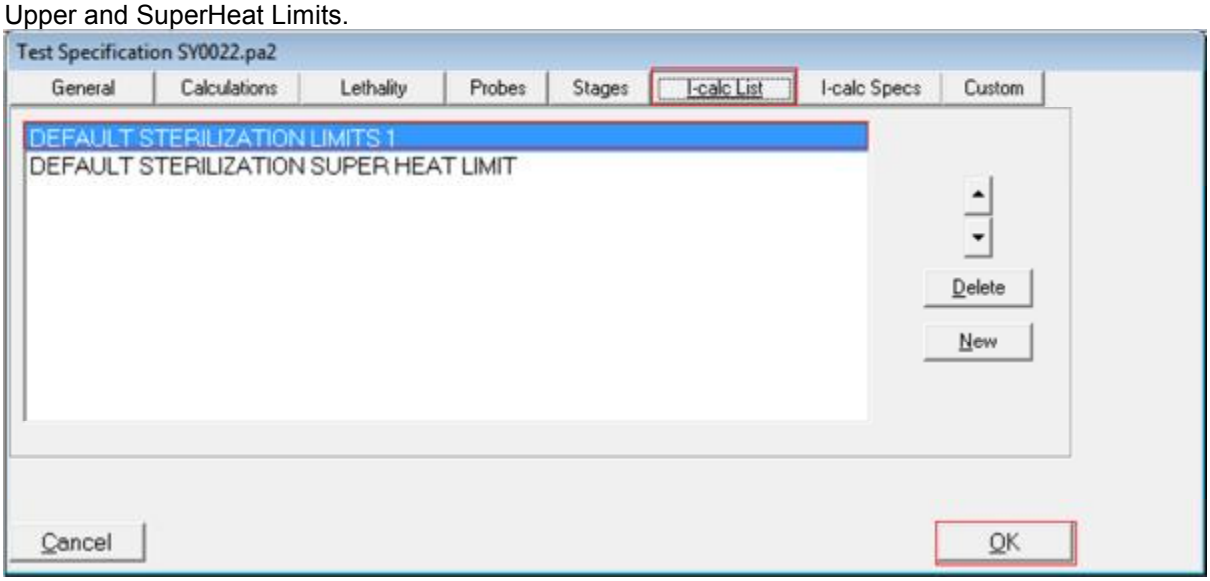
• By highlighting a stage, then selecting ‘Edit’ it is possible to change the Display Interval for the stage. This controls how frequently data is displayed on the Data List while in Summary mode. Either enter the required Interval directly, or use the arrow buttons to increase/decrease the timer. Once this is correct press ‘OK’



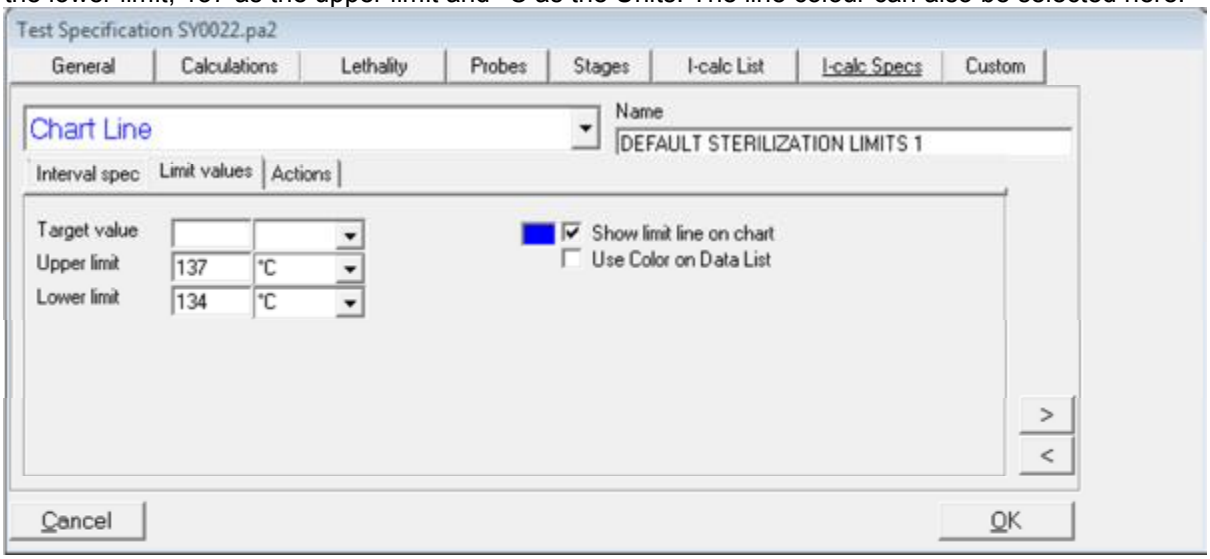
•*Note* editing the Interval on the left side changes the Interval in the stage library, while editing the Interval on the right will affect this Test Specification ONLY and the Interval in the library will remain the same.

I-Calcs List This is covered in the Advanced Training Course (except Chart Line)

- This section of the Test Specification allows you to insert a line on the chart to indicate your Lower, Upper and SuperHeat Limits.



- Highlight Default Sterilisation Limits 1, then select 'I-Calc Specs'
- Enter Start Stage as Cycle Started and End Stage as Cycle Complete
- Click on Limit Values
- Enter your Upper and Limit values. For example for a 134C Porous Load, type in 134 for the lower limit, 137 as the upper limit and °C as the Units. The line colour can also be selected here.

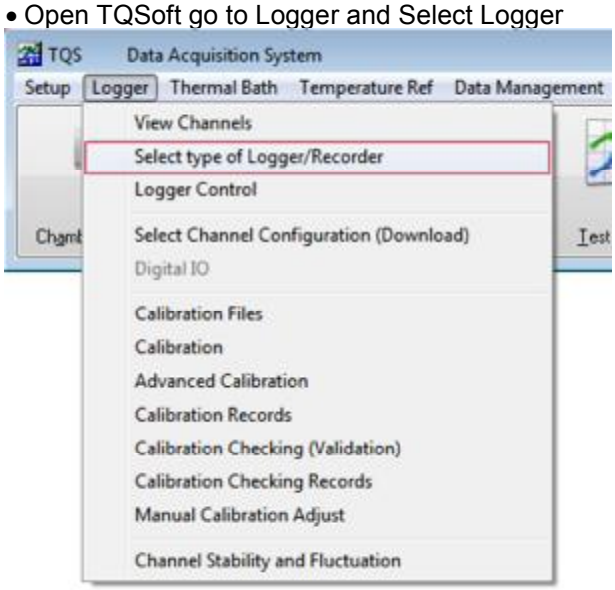


- Press on I Calcs List again and select Super Heat Limit
- If this is not required (e.g. for a Washer Disinfector), press 'Delete', otherwise follow the same procedure again, entering the appropriate Super Heat temperature (e.g. 142°C for a 134°C Porous Load cycle)

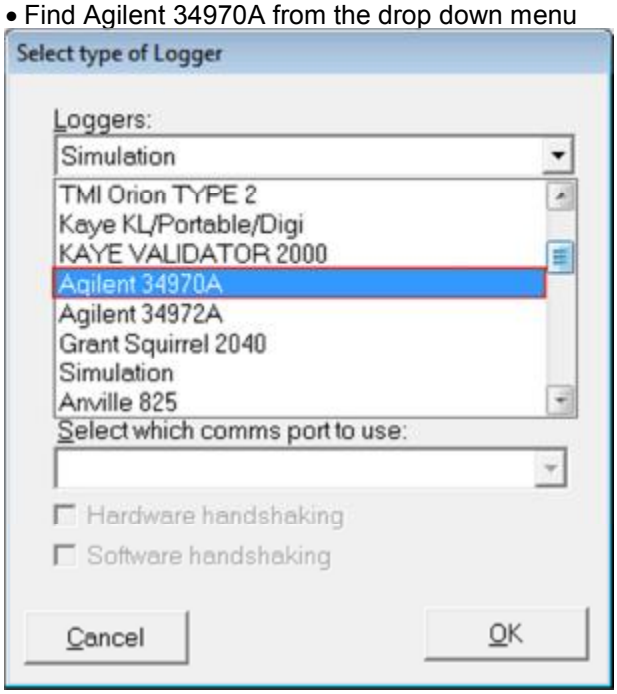
I-Calcs Specs This is covered in the Advanced Training Course (except Chart Line).

Setting Up the Agilent Logger

- Using the Agilent front panel, configure the data output as follows
- Press SHIFT STO/RCL together
- Select the RS-232 interface using rotary selector (not GPIB).
- Press STO/RCL
- Set 9600 as the baud rate
- Press STO/RCL
- Set the parity and number of data bits as None (8 data bits)
- Press STO/RCL
- Set the flow control method to None
- Save changes and Exit.
- Open TQSoft go to Logger and Select Logger

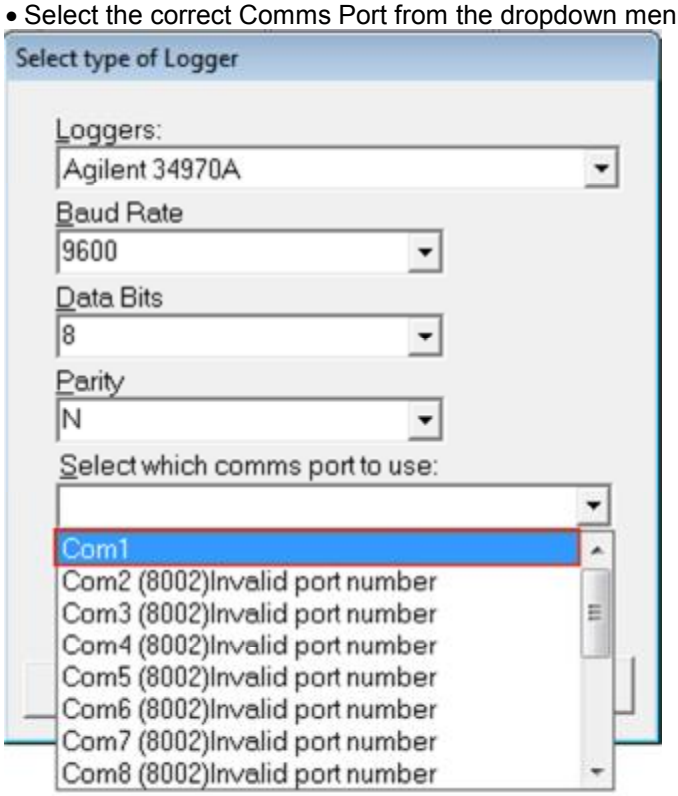


- Find Agilent 34970A from the drop down menu



- TQSoft will automatically set the correct Baud Rate, Databits and Parity

• Select the correct Comms Port from the dropdown menu and Press OK.



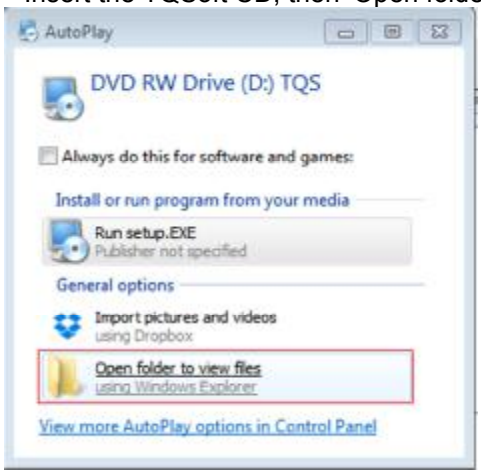
• *Note* In this example Com 1 is used, but this will vary depending on your PC. It is important that the Com port used is number 16 or below.

• Select the correct Channel Configuration and press OK.

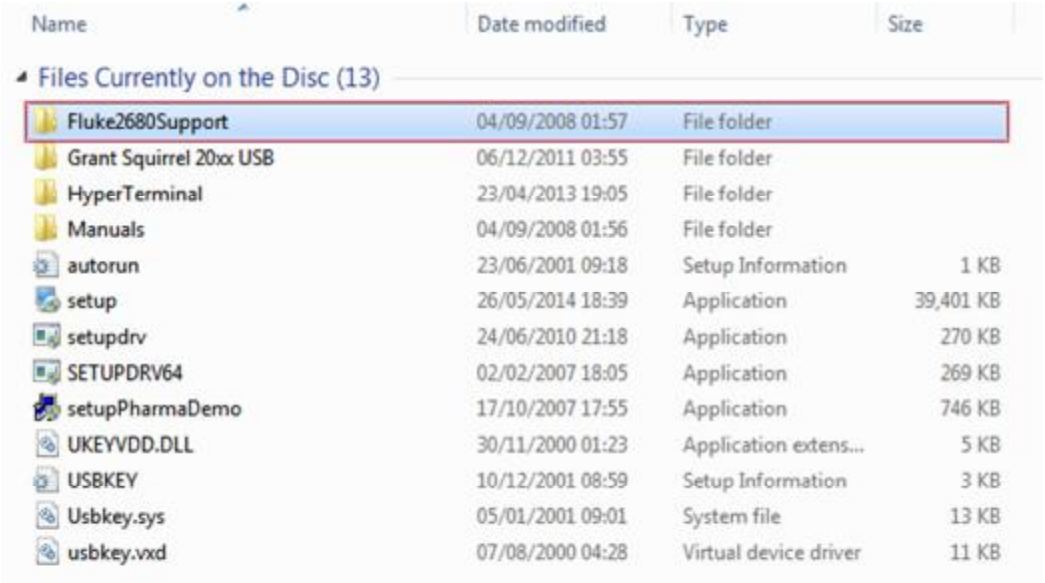
Setting Up the Fluke NetDAQ Logger

• Connect the NetDAQ to the PC using the Ethernet cable, then power on the NetDAQ. The PC now requires configuring to communicate correctly.

• Insert the TQSoft CD, then 'Open folder to view files' when prompted



• Double Click on the Fluke 2680 Folder

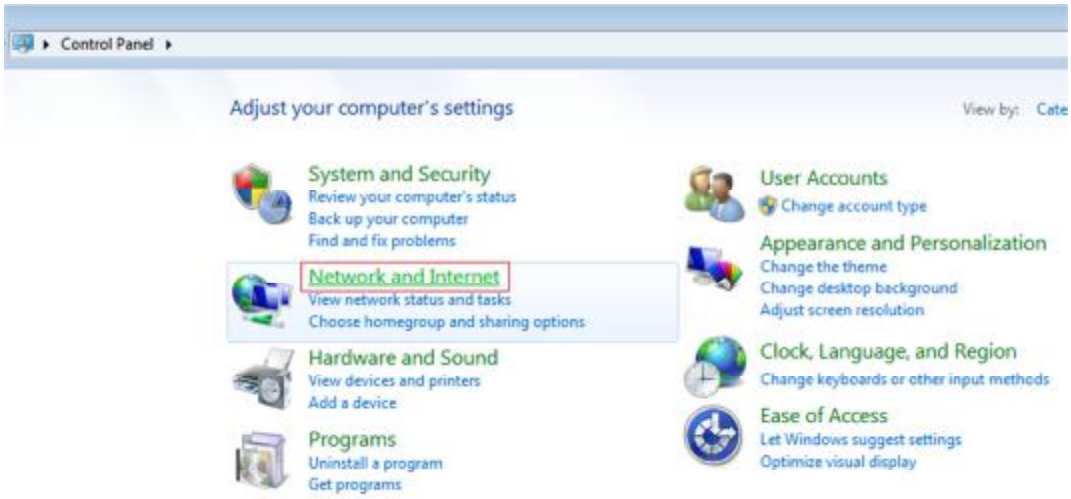


• Double Click on the NTool32.dll file to install the Fluke NetDAQ drivers and follow the installation instructions.

• When this is complete, press Finish

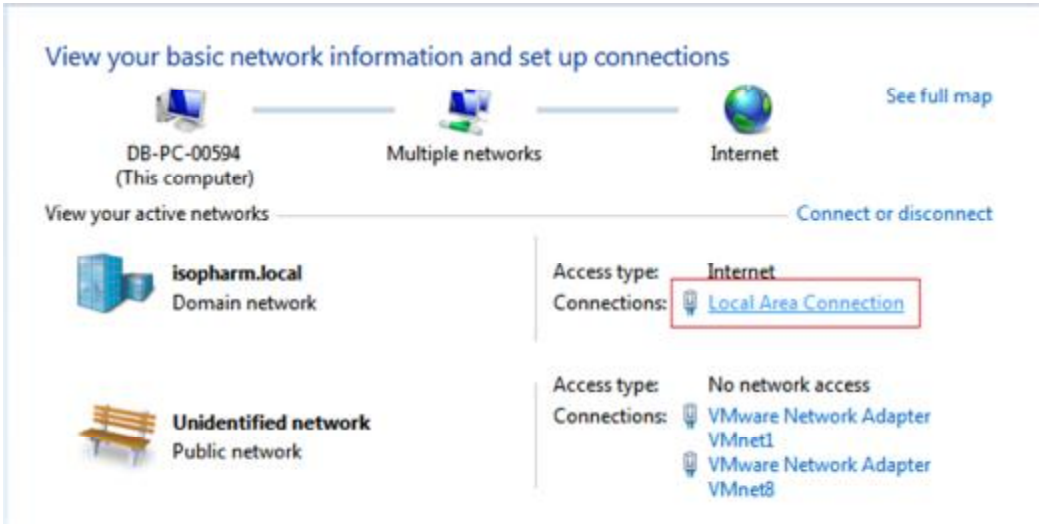
• Press the Start button and then open Control Panel

• Select 'Network and Internet'

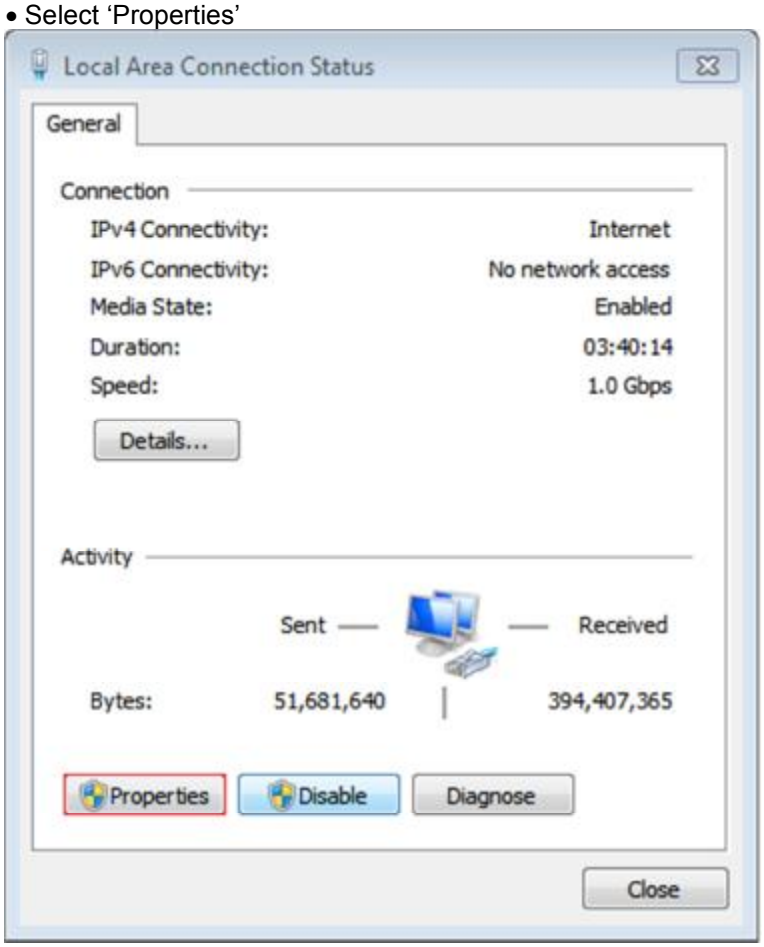


• Select ‘Network and Sharing Center’

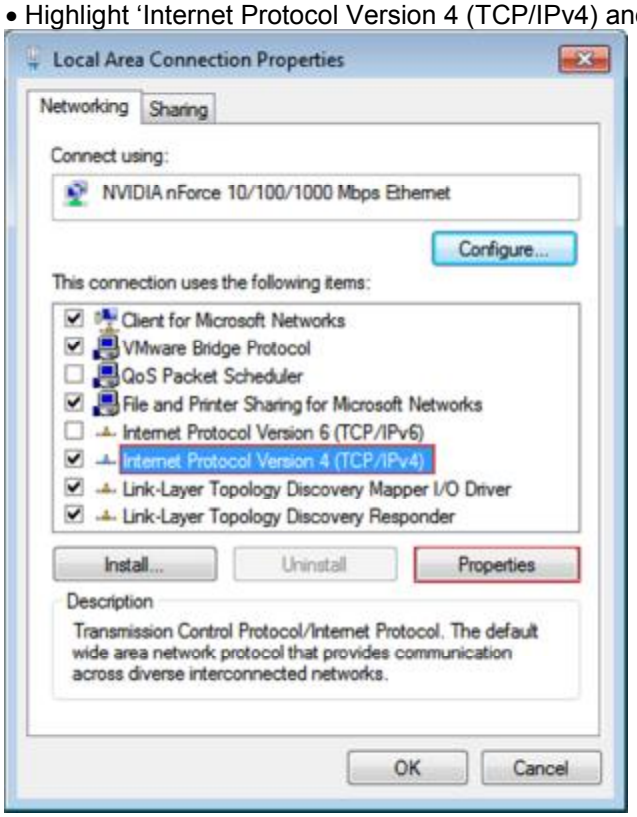
• Select ‘Local Area Connection’



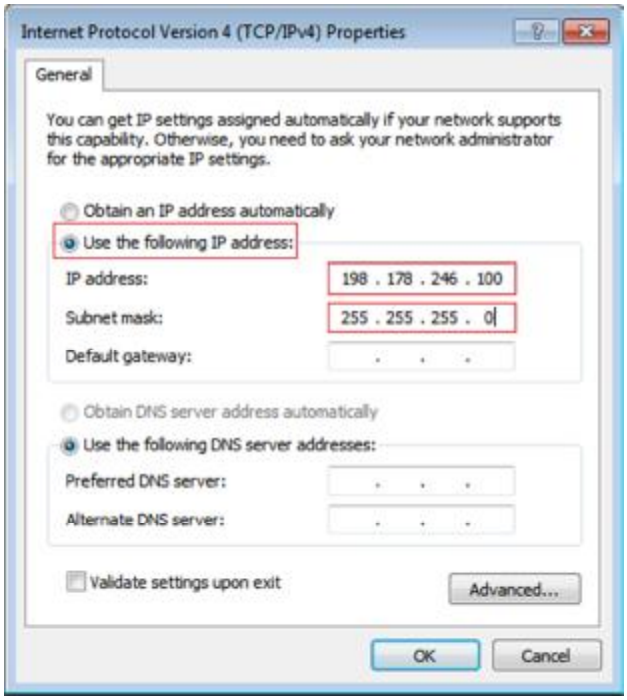
• Select ‘Properties’



• Highlight ‘Internet Protocol Version 4 (TCP/IPv4) and then select ‘Properties’

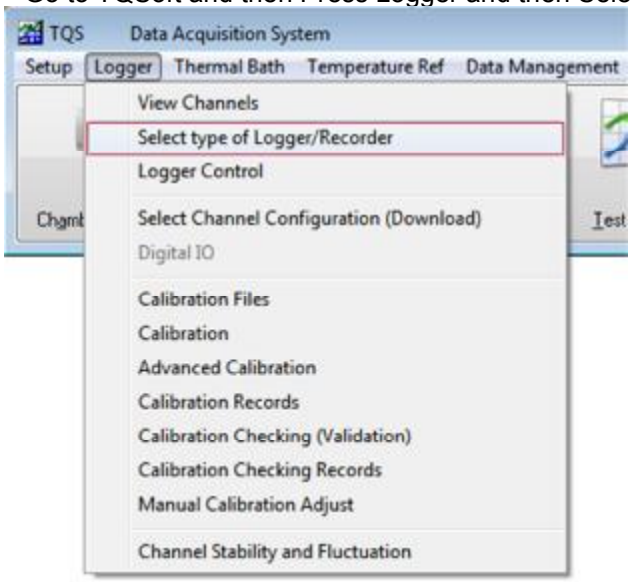


• Select ‘Use the following IP address’ and enter 198.178.246.100 as the IP address and 255.255.255.0 as the Subnet Mask.

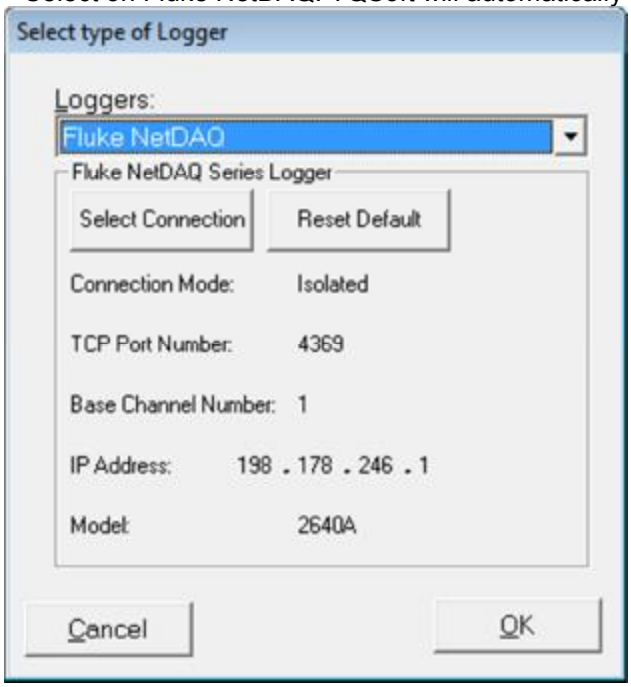


• Press OK, then OK again (at Internet Protocol window) and then close Network Connections.

• Go to TQSoft and then Press Logger and then Select Type of Logger

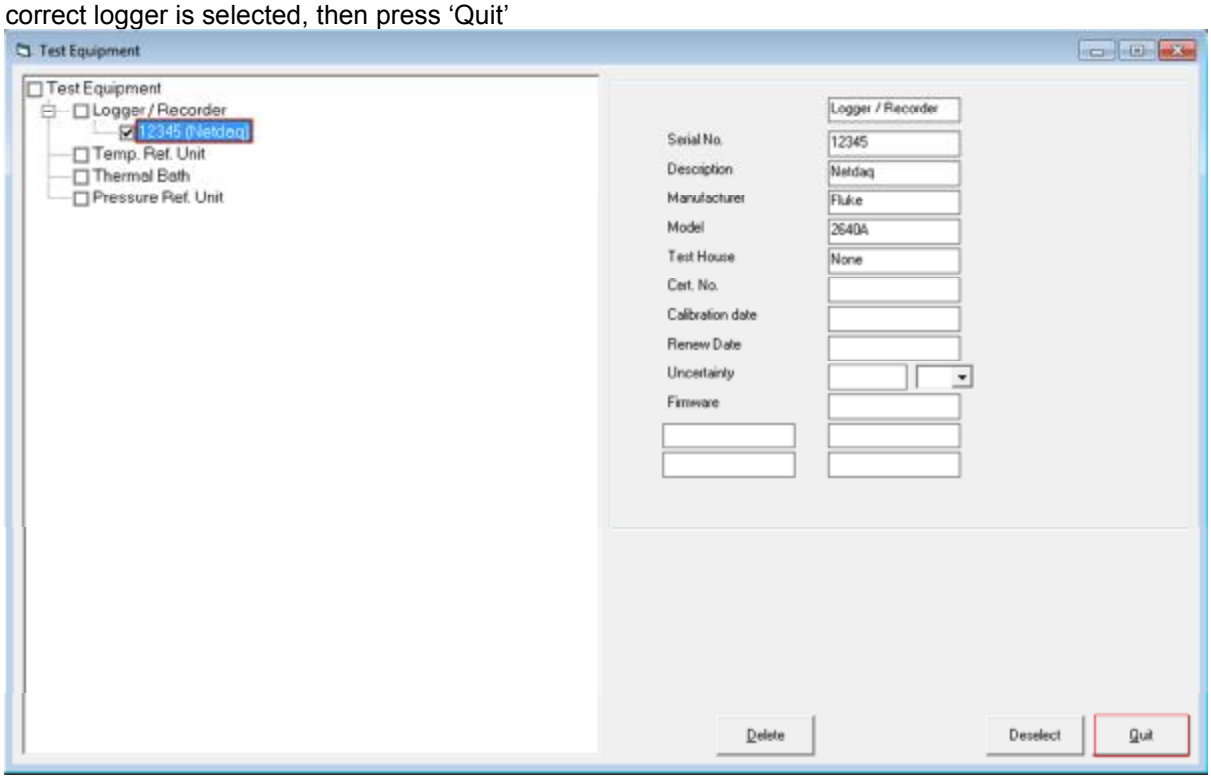


• Select on Fluke NetDAQ. TQSoft will automatically select the correct IP address and settings



• Press ‘OK’ and connection will be confirmed.
• Select the correct Channel Configuration and press OK.

• The Test Equipment Window will now open – check that the correct details are entered here and the correct logger is selected, then press ‘Quit’



• *Note* If the PC is connected to the internet through the Ethernet cable at any point, Windows will automatically attempt to create a working connection for you. This may lead to the IP settings being changed back to ‘Obtain an IP address automatically’ and preventing communication with the NetDAQ. In this case, simply follow the steps above to reconfigure the IP address to the correct settings.

Calibrating Thermocouples

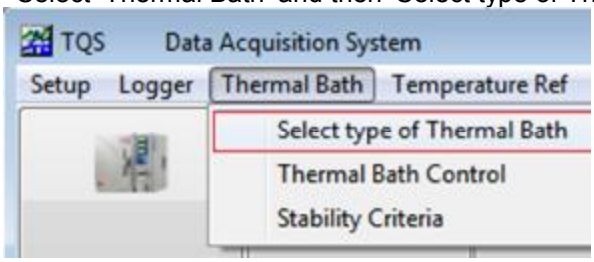
Calibration of a thermocouple requires at least three temperature points. These should be the lowest and highest temperatures likely to be relevant to a test, and a checkpoint between these to ensure that all parameters are met across the whole temperature band.

This calibration data will be used for all tests performed using this calibration file until another calibration is performed. You will require a suitable temperature calibrator or thermal bath, and, depending on the guidelines to which you are working, you may also require an independent reference probe.

TQSoft is capable of communicating with a wide range of temperature baths and thermometers. This allows TQSoft to drive the unit, controlling the temperature without requiring a manual input. If this is coupled with a temperature reference probe that also communicates with TQSoft it also allows automatic calibration of thermocouples, removing the need to enter or accept settings at each stage and allowing other work to be undertaken while calibration takes place.

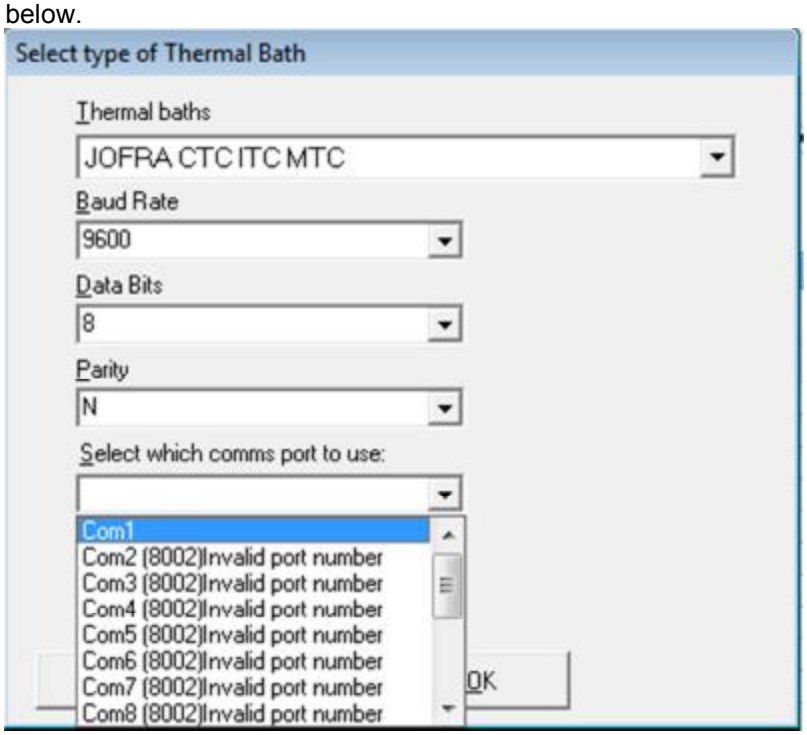
Setting up the Thermal Heat Source in TQSoft (if required)

•Select 'Thermal Bath' and then 'Select type of Thermal Bath'



• Select the correct bath type from the dropdown menu. For example for a Jofra CTC320 select 'JOFRA CTC/ITC/MTC'. TQSoft will select the correct Baud Rate, Data Bits and Parity automatically.

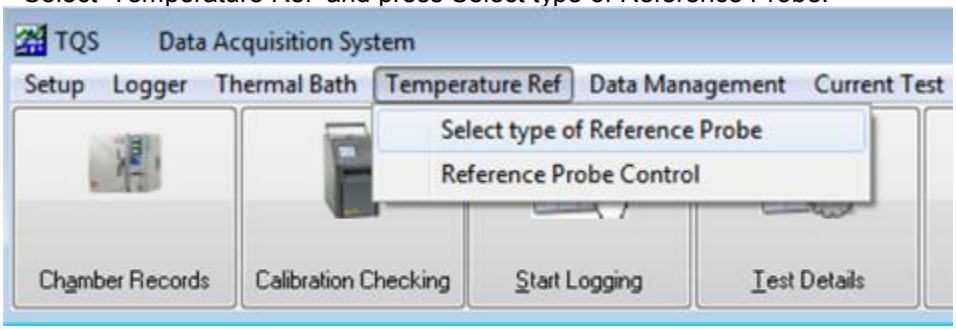
• Select the correct Comms port and press OK. *Note* The Comms port must be numbered 16 or below.



• To check communications are working correctly, select 'Thermal Bath' and 'Thermal Bath Control'. Ensure a temperature reading from the thermal bath is showing, then enter a setpoint value, send it to the bath and check that the bath changes temperature.

Setting up the Temperature Reference in TQSoft

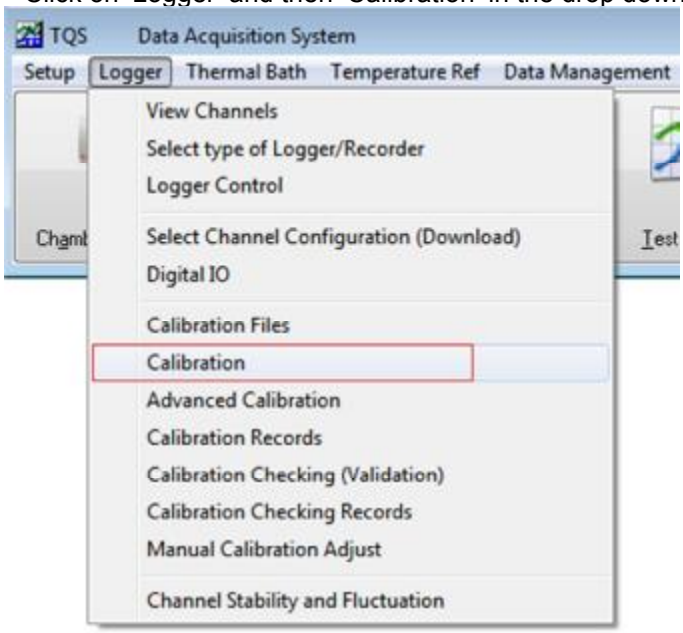
- Select ‘Temperature Ref’ and press Select type of Reference Probe.



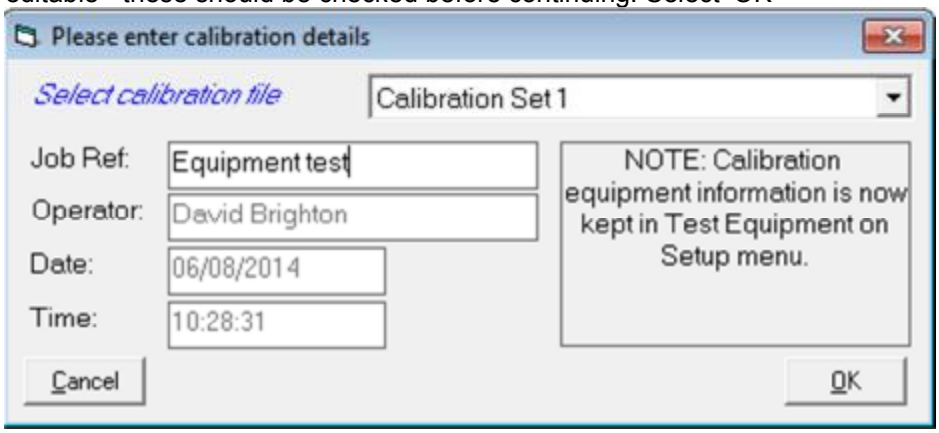
- Select the correct Reference Probe from the dropdown menu, for example Jofra DTI 50 -TQSoft will select the correct Baud Rate, Data Bits and Parity automatically.
- Select the correct Comms port and press OK. *Note* The Comms port must be numbered 16 or below.
- To check communications are working correctly, select ‘Temperature Ref’ and ‘Reference Probe Control’. Ensure a temperature reading from the Reference Probe is showing

Temperature Calibration (Automatic)

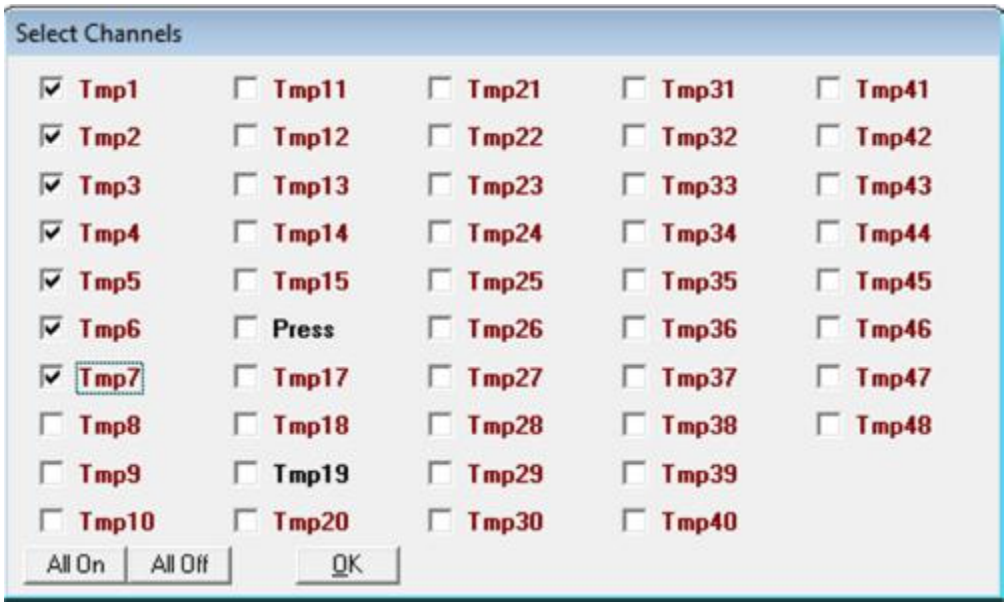
• Click on ‘Logger’ and then ‘Calibration’ in the drop down menu.



• Type a suitable name in the ‘Job Reference’ box. The calibration file should usually be left as the default. *Note* The Operator name, time and date are taken from the computer settings, and are not editable - these should be checked before continuing. Select ‘OK’

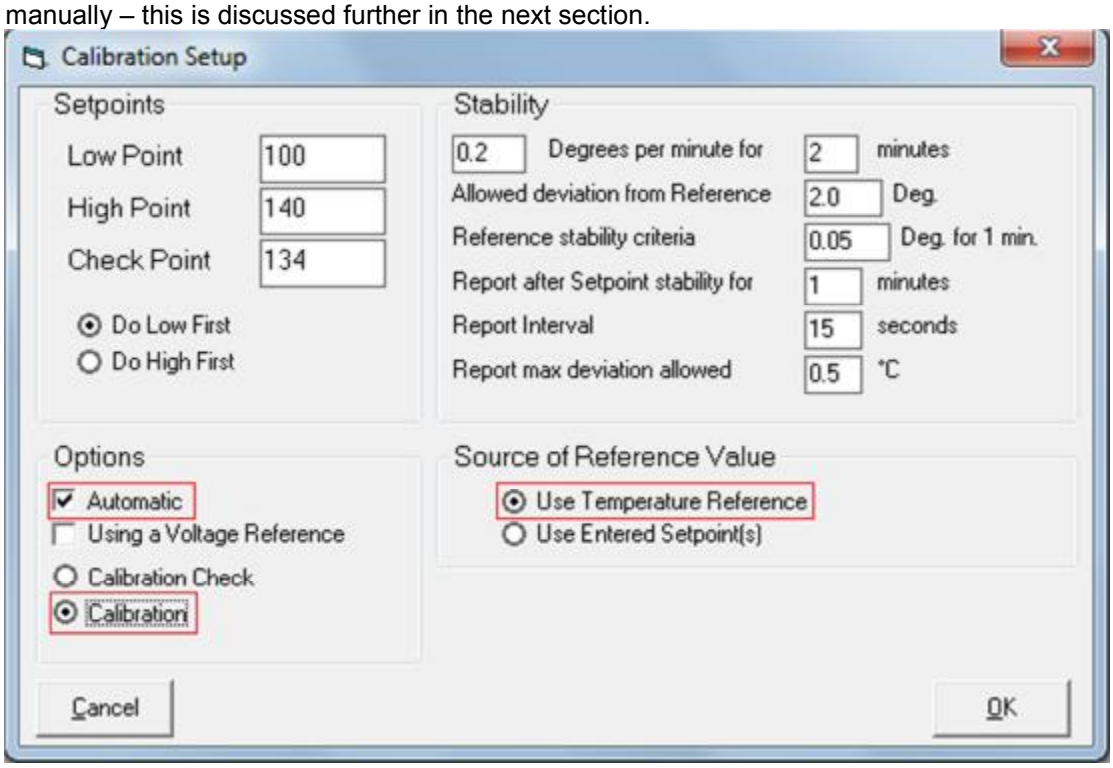


• Select which thermocouple you wish to calibrate and turn OFF the Pressure Channel, then press ‘OK’



• Enter the required setpoints and stability parameters. The example below shows the standard parameters used, along with usual checkpoints for an autoclave.

• For Automatic Calibration, ensure sure the ‘Calibration’, ‘Automatic’ and ‘Use Temperature Reference’ options are selected, then press ‘OK’. If there is no communication between the equipment and TQSoft, the ‘Automatic’ option will be greyed out, and calibration should be performed manually – this is discussed further in the next section.



• TQSoft now automatically checks the stability of all the thermocouples and the reference probe.

• ALL probes selected for calibration must achieve the stability criteria, here for example it is 0.2 degrees for 2 minutes

• The allowed deviation from Reference is applied as soon as the calibration is calculated. If the difference between any uncalibrated probe value, and the reference value, is greater than this figure, then the probe is labelled as a **BAD** probe in the calibration report and should not be used. The allowed deviation is applied at both the Low and High points.

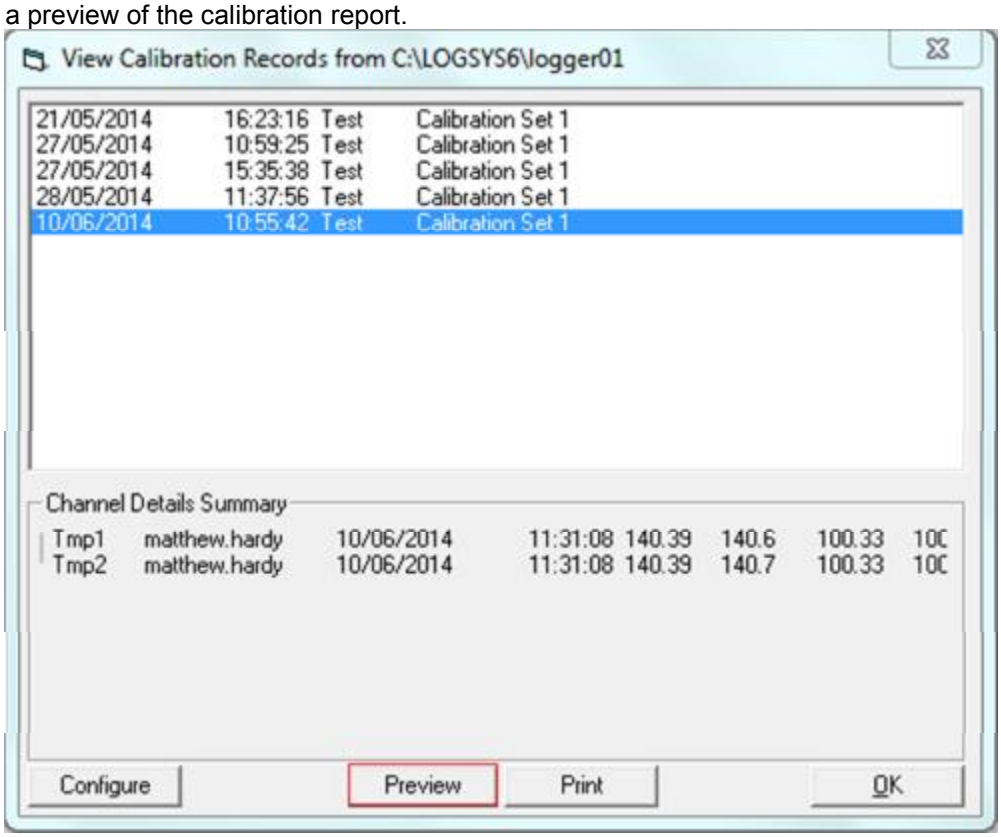
• The reference stability criteria is simply the biggest drift allowed for the reference value over one minute. A countdown is provided for this too, and is reset as soon as the reference value drifts too far. If entered set points are being used as reference values then this criteria is irrelevant.

• Once stability has been met, TQSoft then calibrates all thermocouples at the same time and then carries out the tracking run.

• The report duration and interval are used to generate a (post calibration) report on the calibrated values after High and Low point calibrations. The *report max. deviation* allowed is a limit on the difference between each channel’s value and the reference value during the report interval (i.e. after the probe has been calibrated). If the difference is exceeded the channel will have a **FAIL** notice appear in the calibration report results section.

• After the reporting is completed, TQSoft then sends a command to the thermal bath to go to the next set point temperature, and the process is repeated.

• Once calibration has been completed on all setpoints, a new screen will appear to allow you to view a preview of the calibration report.



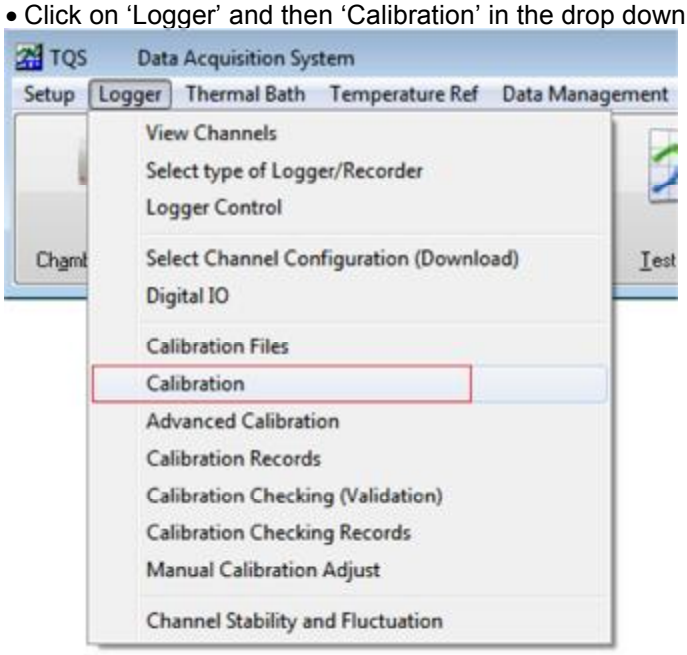
• Once you have viewed the calibration report, press ‘OK’. A prompt will appear asking if calibration is now complete. If you require pressure, it is important to select ‘No’ and proceed to pressure calibration – this allows both sets of calibration data to appear on the same document.

• Note If you are using IPReports it is unnecessary to print the calibration report, as this can be imported automatically into your completed Validation Report.

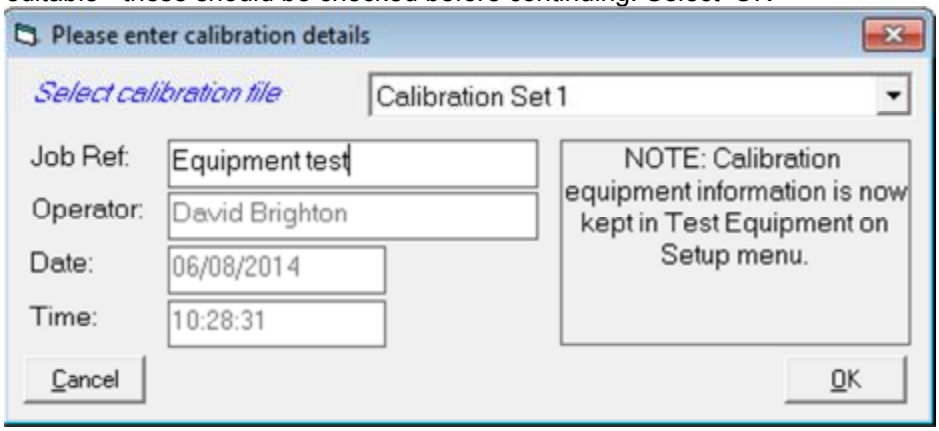
Temperature Calibration (Manual)

If there is no communication between available between TQSoft and your temperature bath and/or reference probe, information about each stage of calibration should be entered manually.

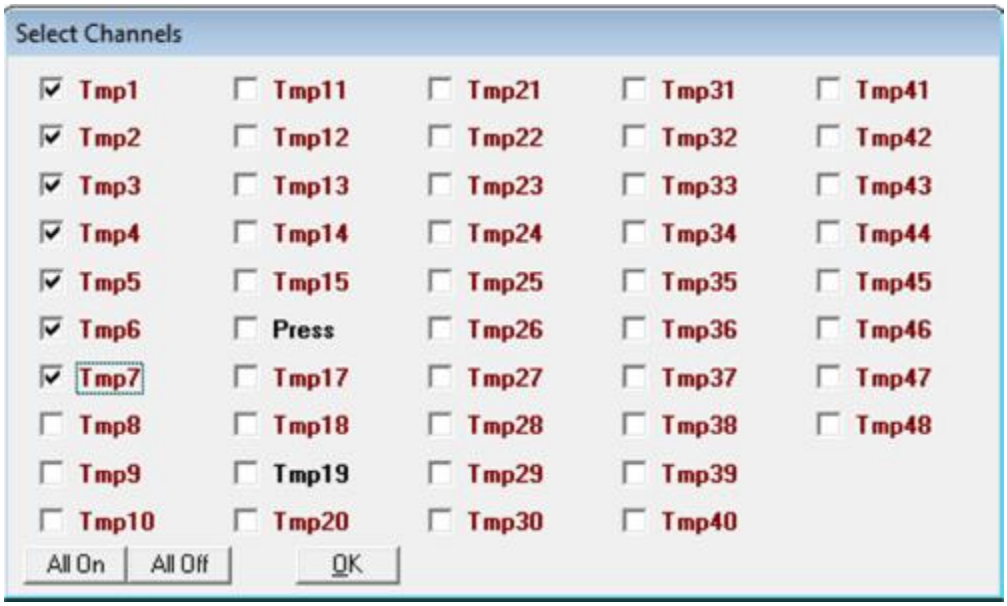
- Click on 'Logger' and then 'Calibration' in the drop down menu.



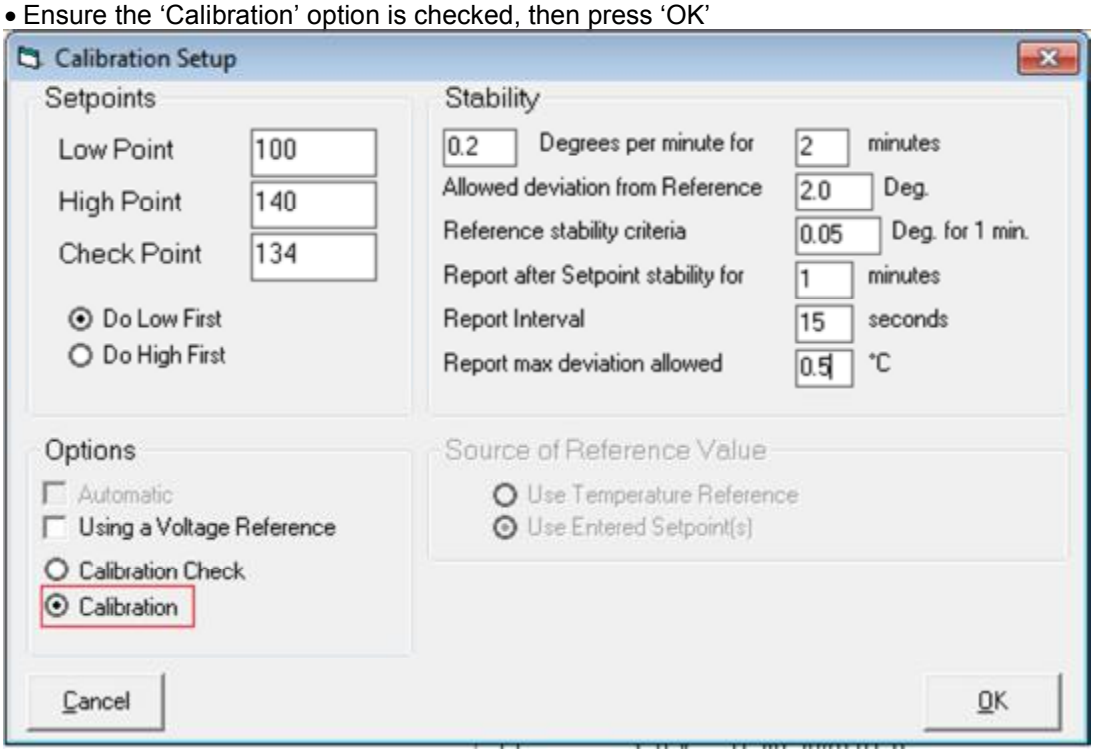
- Type a suitable name in the 'Job Reference' box. The calibration file should usually be left as the default. *Note* The Operator name, time and date are taken from the computer settings, and are not editable - these should be checked before continuing. Select 'OK'



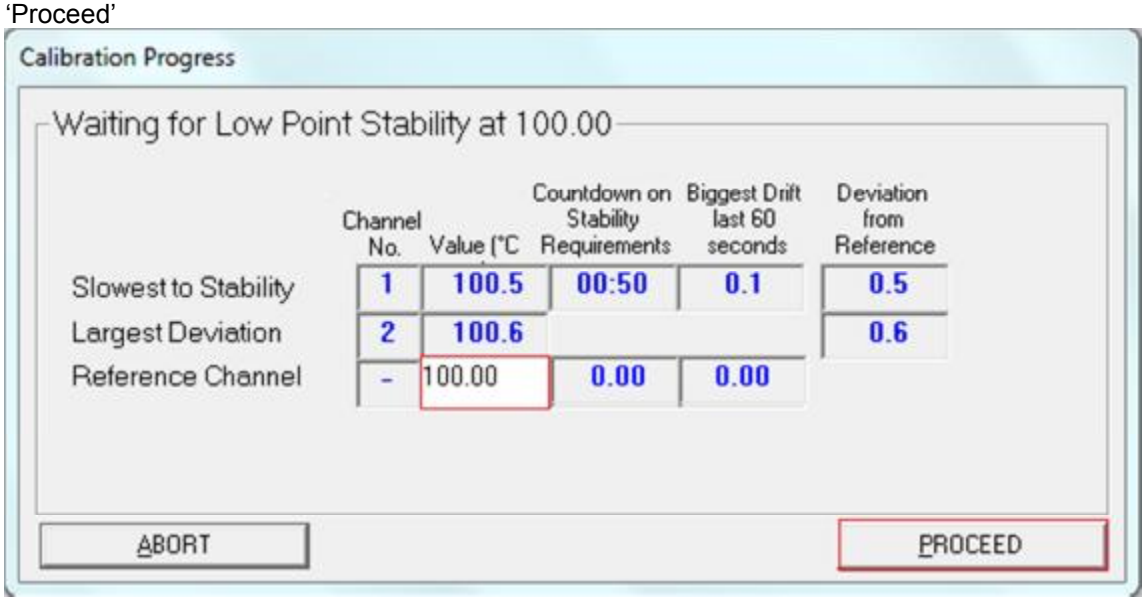
- Select which thermocouple you wish to calibrate and turn OFF the Pressure Channel, then press 'OK'



• Enter the required setpoints and stability parameters. The example below shows the standard parameters used, along with usual checkpoints for an autoclave.
• Ensure the 'Calibration' option is checked, then press 'OK'

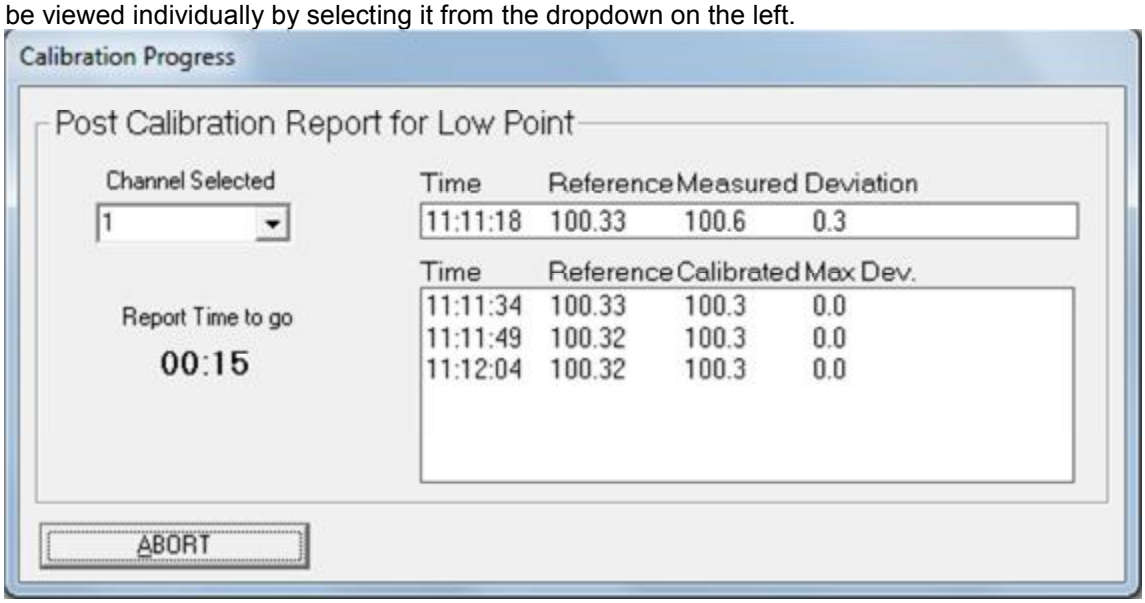


• TQSoft now automatically checks the stability of all the thermocouples and the reference probe at the first calibration point
• ALL probes selected for calibration must achieve the stability criteria, here for example it is 0.2 degrees for 2 minutes. Once stability is achieved, a countdown will start. It is important to wait for this to reach zero.
• The reference stability criteria is simply the biggest drift allowed for the reference value over one minute. A countdown is provided for this too, and is reset as soon as the reference value drifts too far. If entered set points are being used as reference values then this criteria is irrelevant.
• Once both countdowns have reached zero, enter the reading from the Reference, and press 'Proceed'

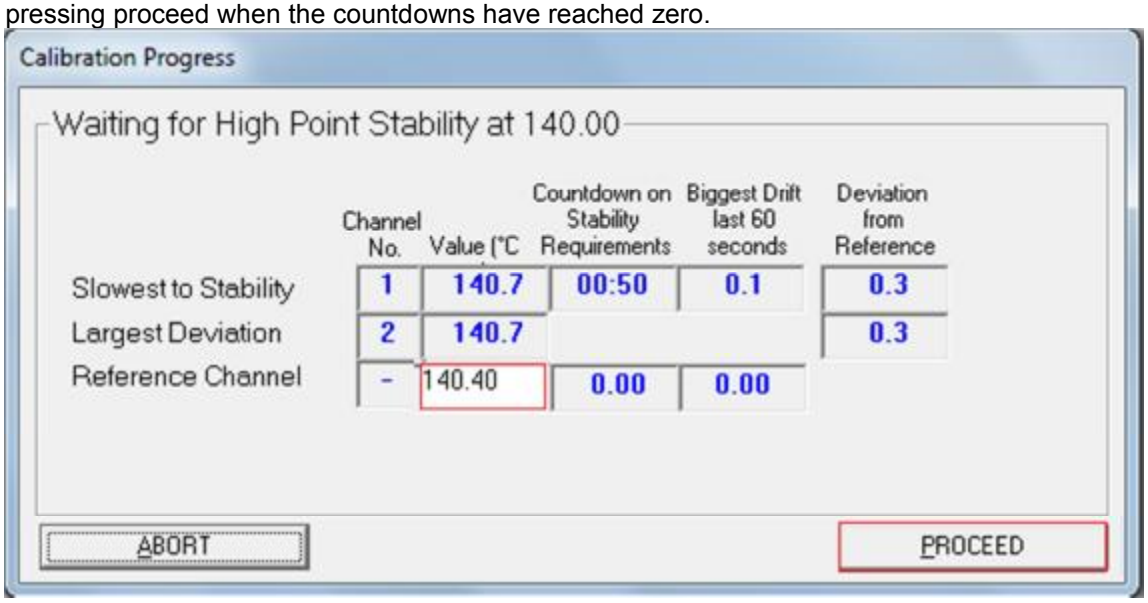


• The allowed deviation from Reference is applied as soon as the calibration is calculated. If the difference between any uncalibrated probe value, and the reference value, is greater than this figure, then the probe is labelled as a **BAD** probe in the calibration report and should not be used. The allowed deviation is applied at both the Low and High points.

• TQSoft will now perform a tracking run for the time previously specified. During this period the (uncalibrated) deviation from the reference will be displayed at the specified interval. Each probe can be viewed individually by selecting it from the dropdown on the left.



•Once the Report timer has counted down to zero, TQSoft will automatically begin calibration at the next setpoint. The Temperature bath should now be set to this temperature. Once stability is achieved, the same procedure can be followed, again entering the reading from the Reference and pressing proceed when the countdowns have reached zero.



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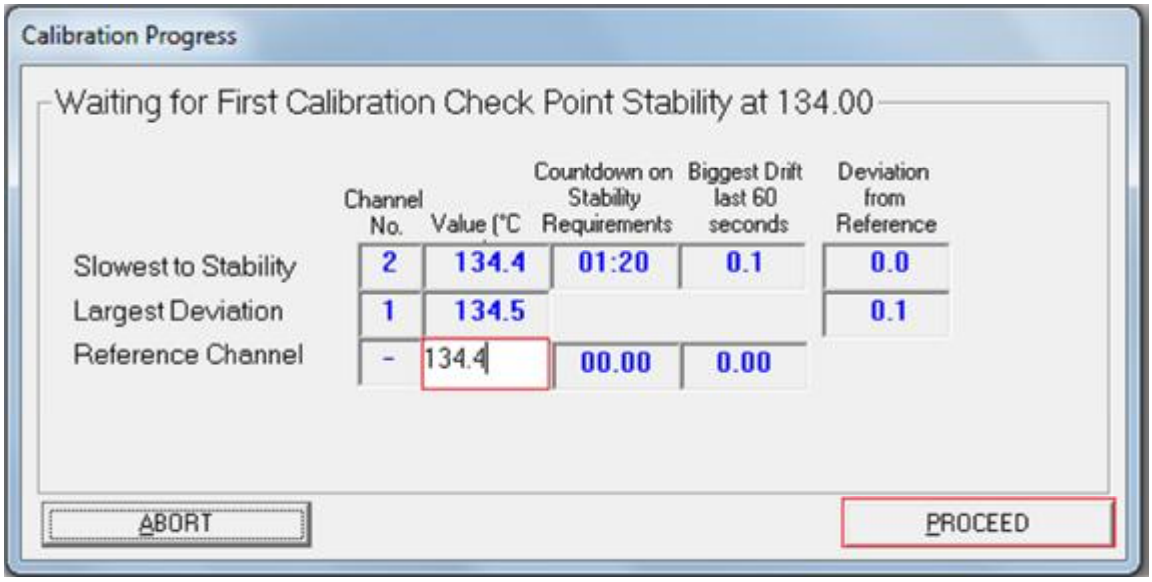
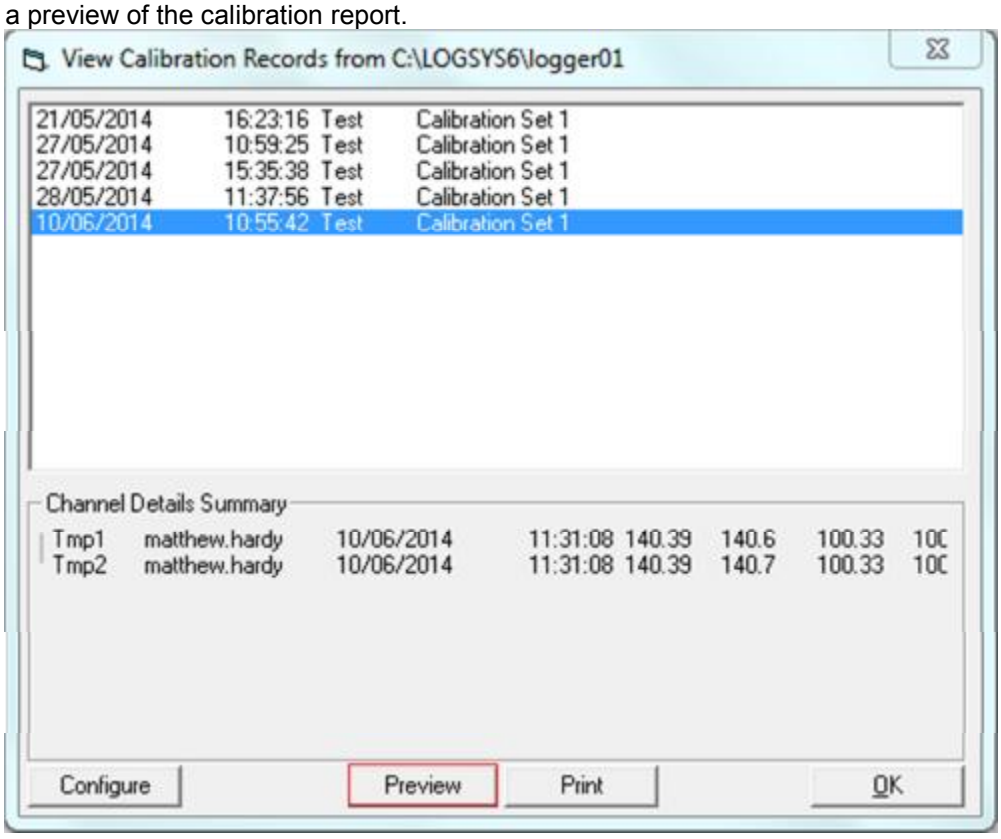
• A second tracking run report will run, and then TQSoft will move to the Calibration Check Point.

• At this stage the thermocouples have now been adjusted to take into account any temperature variation between the Reference and measured temperature. Adjust the Temperature bath to the correct temperature and wait for the temperature to stabilise.

• Again, enter the correct reading from the Reference – as the thermocouples are now calibrated this is now simply a check to ensure that they are within the required parameters. Once the stability countdowns have both reached zero, press ‘Proceed’ to enter the final tracking report.



• Once calibration has been completed on all setpoints, a new screen will appear to allow you to view a preview of the calibration report.

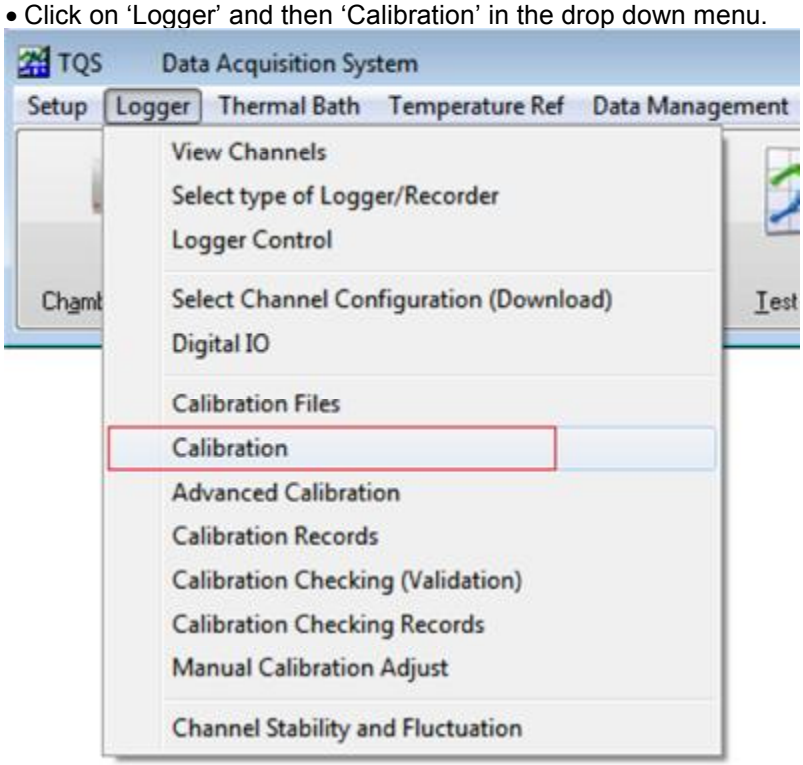


• Once you have viewed the calibration report, press ‘OK’. A prompt will appear asking if calibration is now complete. If you require pressure, it is important to select ‘No’ and proceed to pressure calibration – this allows both sets of calibration data to appear on the same document.

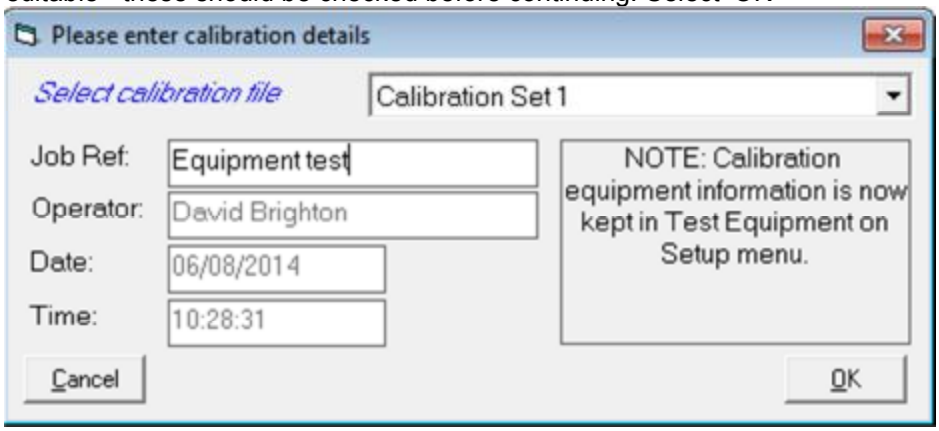
• Note If you are using IPReports it is unnecessary to print the calibration report, as this can be imported automatically into your completed Validation Report.

Pressure Calibration
Calibration of a pressure transducer requires measurement at at least three pressure points. These should be the lowest and highest pressure likely to be relevant to a test, and a checkpoint between these to ensure that all parameters are met across the whole pressure band.
This calibration data will be used for all tests performed using this calibration file until another calibration is performed. You will require a suitable pressure transducer and pressure reference unit.

- Click on 'Logger' and then 'Calibration' in the drop down menu.

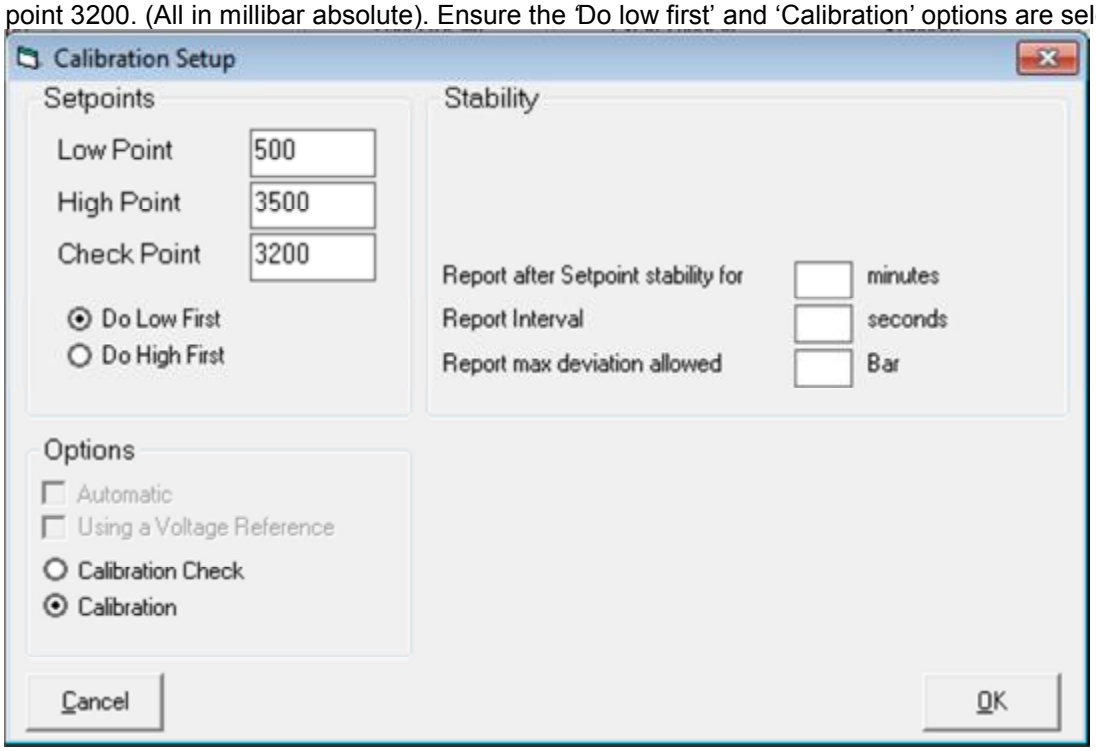


- Type a suitable name in the 'Job Reference' box. The calibration file should usually be left as the default. *Note* The Operator name, time and date are taken from the computer settings, and are not editable - these should be checked before continuing. Select 'OK'

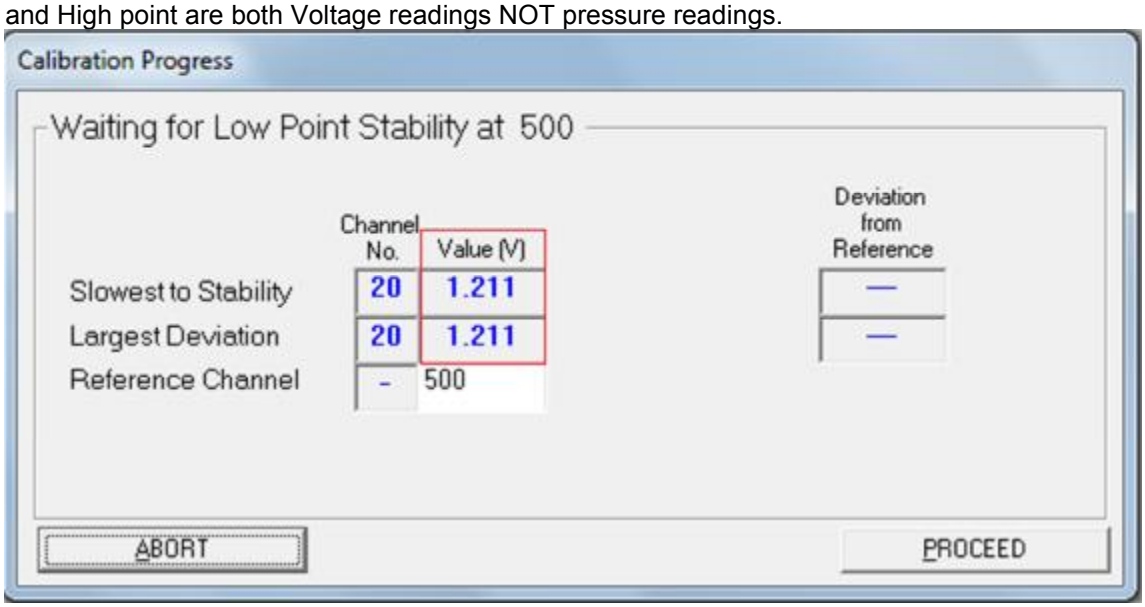


- Click OK, then deselect all the temperature channels and select the pressure channel.
- *Note* In this example we are using millibar. If you are different units ensure you select accordingly.

• Standard pressure set points are as follows: - Low point 500, High point 3500, Check point 3200. (All in millibar absolute). Ensure the 'Do low first' and 'Calibration' options are selected.

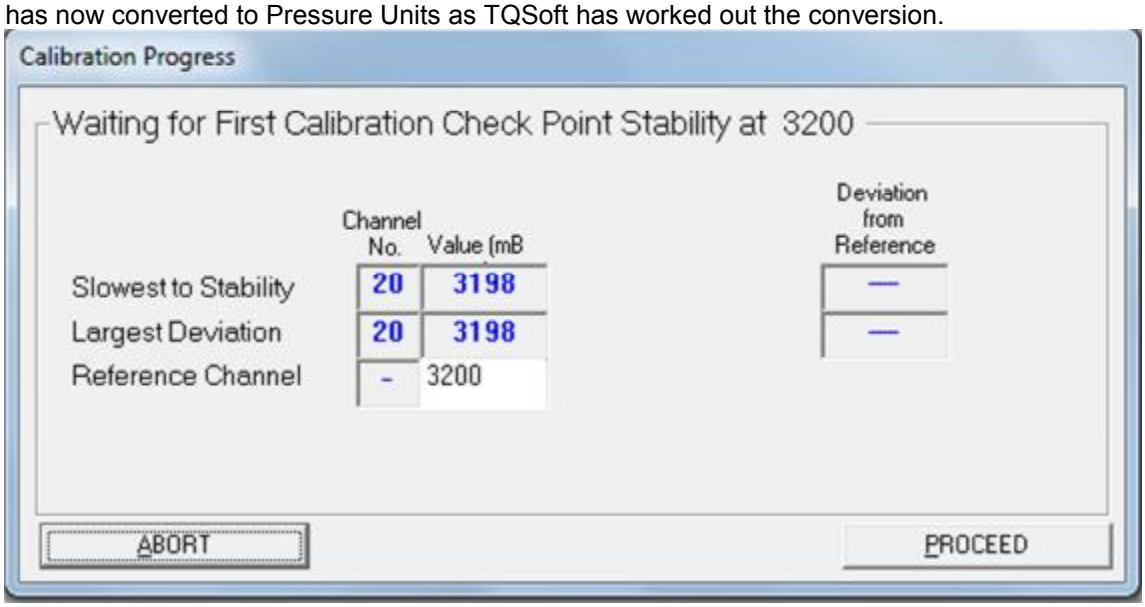


• For the low point of 500, select vacuum on the pressure calibrator and use the pump to apply 500 mBA. Once the reading is stable press PROCEED and wait for approximately 10 seconds while TQSoft performs the required calculations. *Note* the values displayed in TQSoft for both the Low point and High point are both Voltage readings NOT pressure readings.



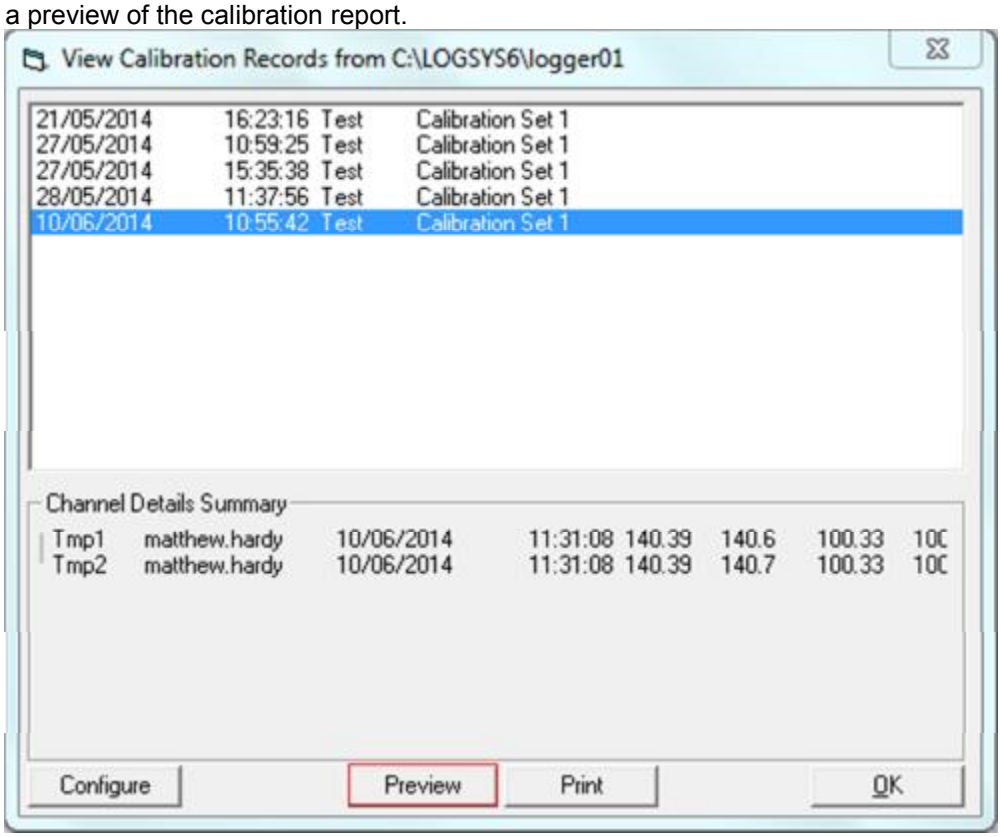
• Select pressure on the pressure calibrator and use the pump to apply 3500 mBA. Once stable again press PROCEED and wait approximately 10 seconds while TQSoft performs the required calculations.

• Repeat the procedure for the Check Point (3200 mBA). Note that the displayed reading in TQSoft has now converted to Pressure Units as TQSoft has worked out the conversion.



• When 'View Calibration Records from' is displayed with a new date/time/group click on print preview to preview a copy of your pressure calibration report.

• Once calibration has been completed on all setpoints, a new screen will appear to allow you to view a preview of the calibration report.

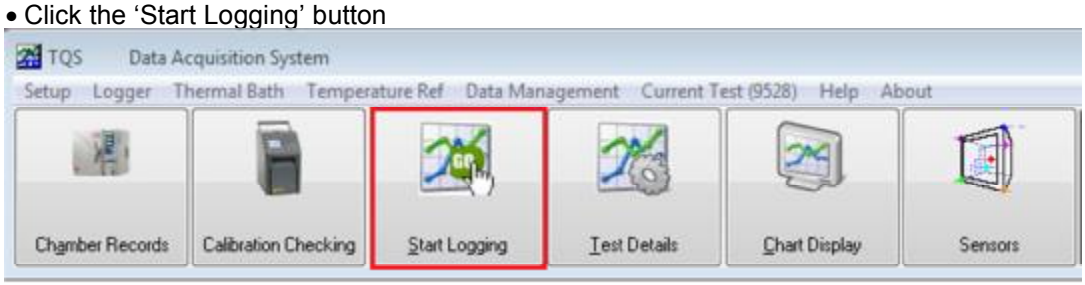


• Once you have viewed the calibration report, press 'OK'. A prompt will appear asking if calibration is now complete

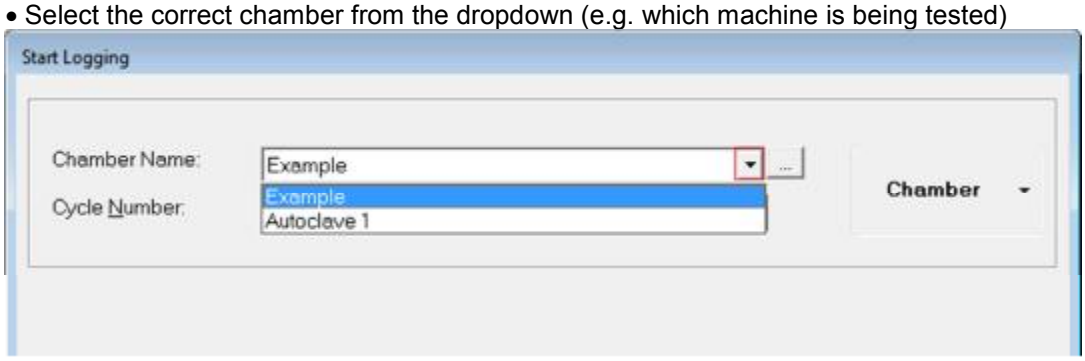
• Note If you are using IPReports it is unnecessary to print the calibration report, as this can be imported automatically into your completed Validation Report.

Performing a Test

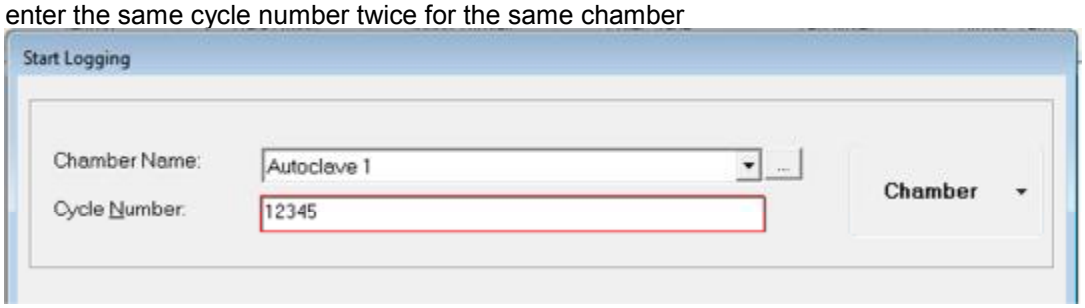
• Click the ‘Start Logging’ button



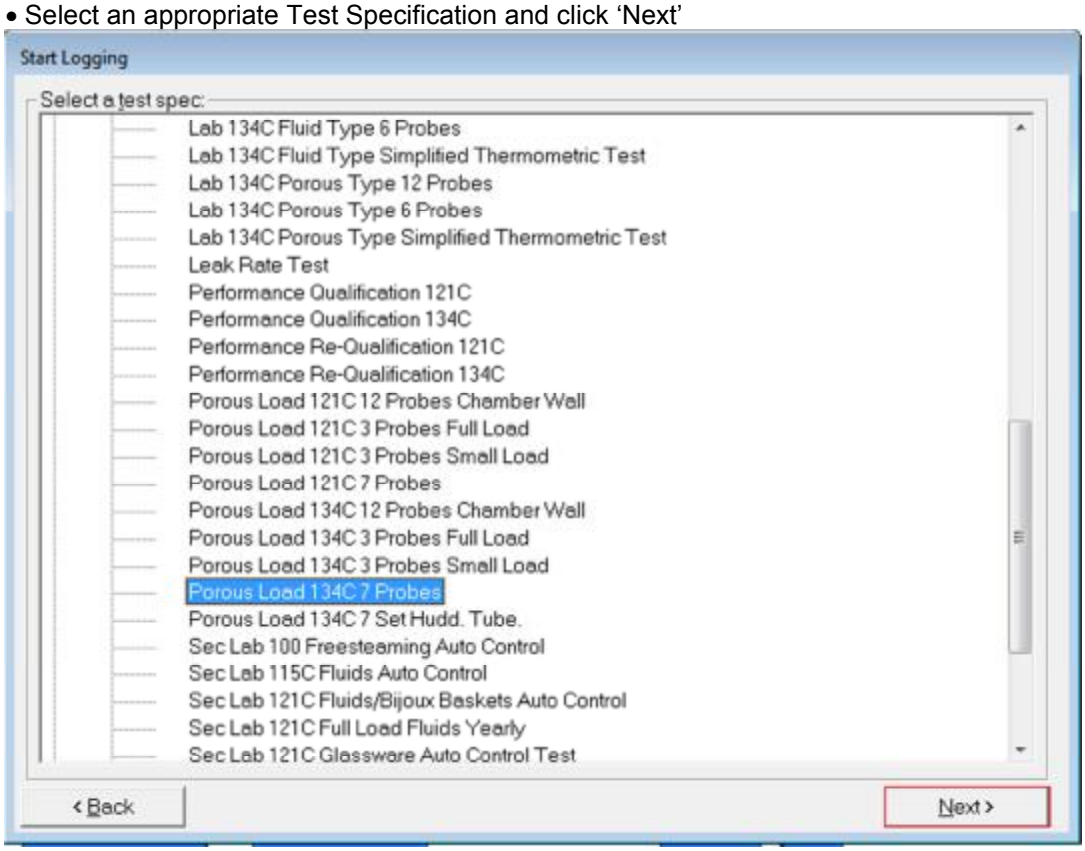
• Select the correct chamber from the dropdown (e.g. which machine is being tested)



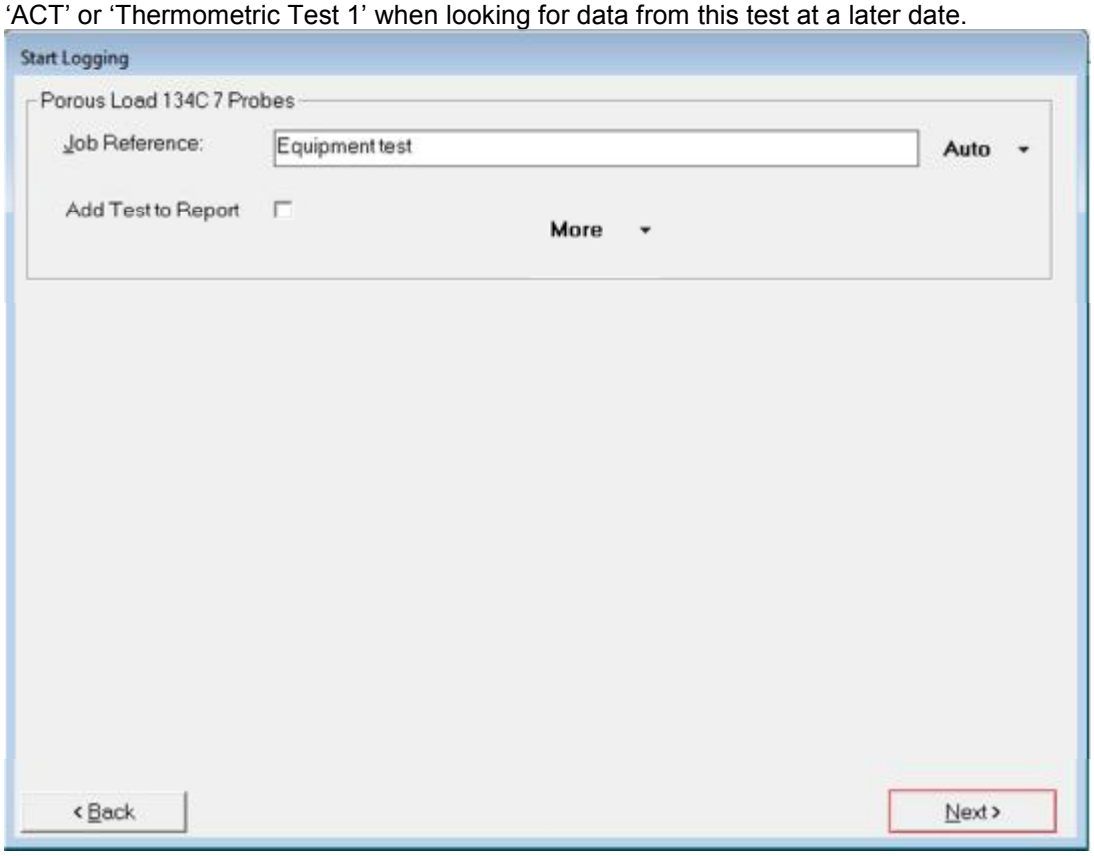
• Enter the correct cycle number for the cycle about to be run. *Note* TQSoft does not allow you to enter the same cycle number twice for the same chamber



• Select an appropriate Test Specification and click ‘Next’

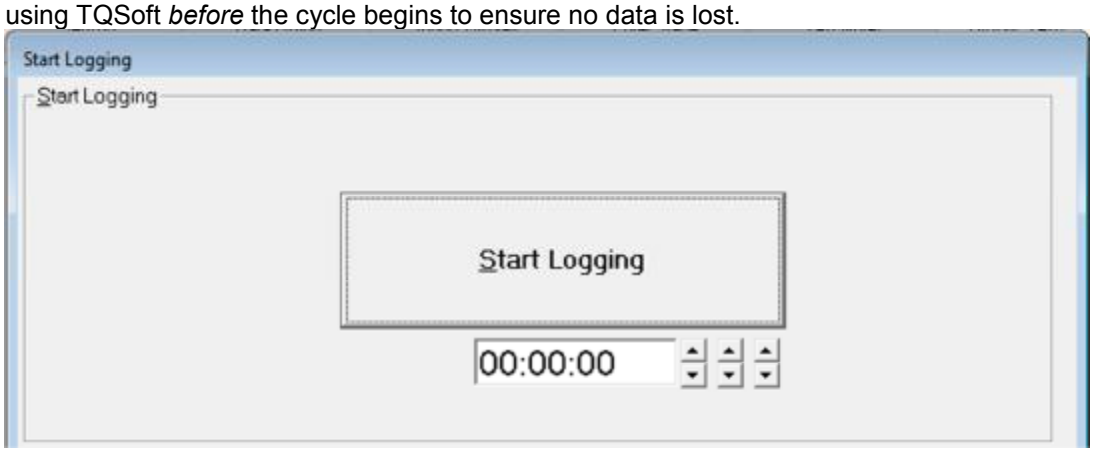


• Enter an appropriate Job Reference, then press ‘Next’. A reference to the type of test is useful (e.g. ‘ACT’ or ‘Thermometric Test 1’ when looking for data from this test at a later date.



•The ‘Start Logging’ button now appears. The timer below can be used to delay the start of logging if required.

• When you are ready to start the cycle, click ‘Start Logging’. *Note* Logging should always be started using TQSoft *before* the cycle begins to ensure no data is lost.



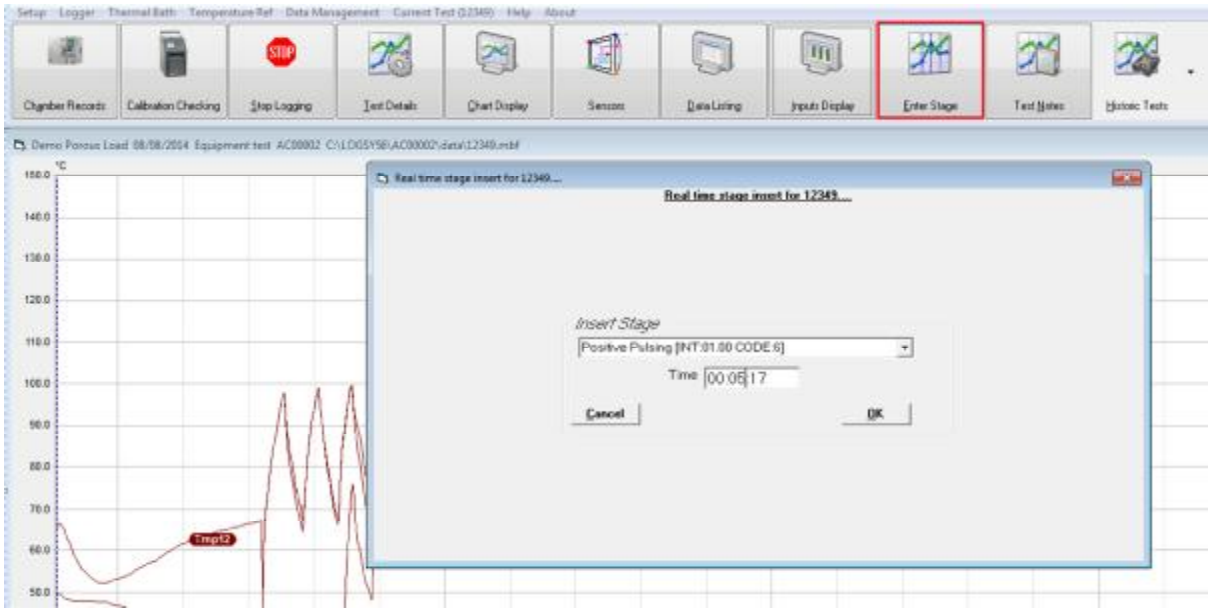
• Now the test has started, select Inputs Display and watch the cycle appear on the chart.

Entering Stage Lines While Logging

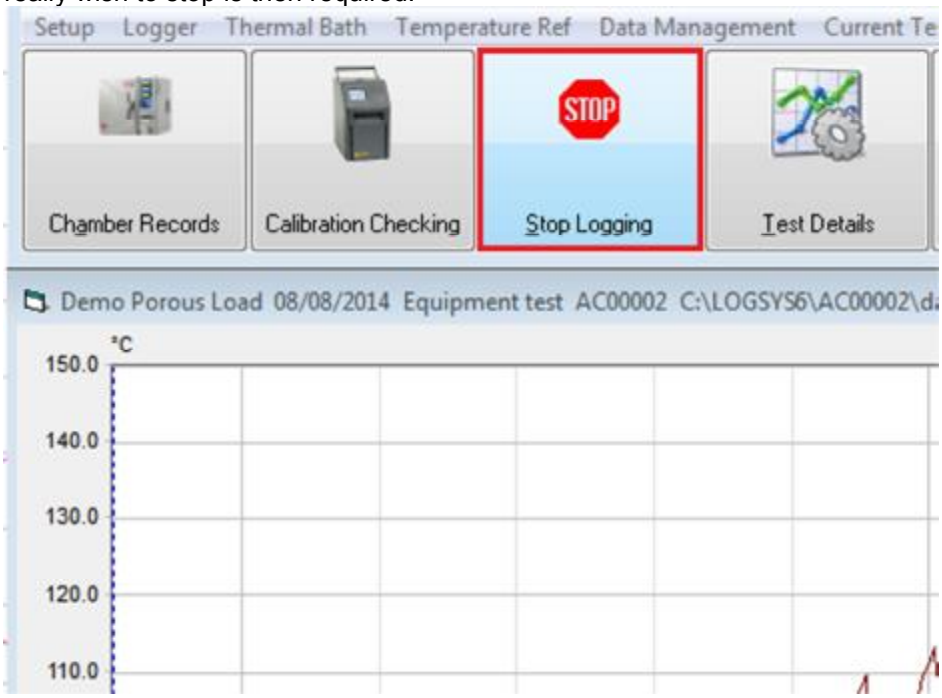
• Stage lines can be entered either whilst logging a cycle, or once the cycle has completed. However, entering stage lines into TQSoft in real time removes the need to manually record machine stages using a separate stopwatch and notepad.

• When the machine reaches the start of a new stage, select the ‘Enter Stage’ button

• A box will be displayed, and the next stage line programmed into the Test Specification will be automatically selected, along with the time at which ‘Enter Stage’ was pressed. If this is correct press ‘OK’



- If you wish to select a different stage line select the correct one from the dropdown.
- If the time is incorrect (e.g the button was not pressed at the correct time), it can also be amended here.
- *Note* If a stage is missed, or you wish to insert them after the test has finished, a full choice of all possible stage lines is available once the cycle is complete.
- The Stage line will now appear on both the Chart and Data List
- This can now be repeated for all the other Stages. Please see the Appendix to see what Stages need to be inserted into the test for different types of Cycles for templates to work correctly in IPReports.
- Once inserted, stage lines can also be moved manually by hovering the mouse over the required line, and then clicking and dragging using the 'Values at Pointer' reading to drop it at the correct time
- Once the machine has completed the cycle, press the 'Stop Logging' button. A confirmation that you really wish to stop is then required.



- The Chart will be resized to fill the entire screen, regardless of the original x-axis parameters.

Viewing the Data List

- To view the datalist either during a cycle or for a historic test, select the 'Data Listing' button

- The datalist for the current cycle will be displayed.
- Full data (i.e. all scans recorded) or Summary data (based on the time intervals selected through the Stage Line) can be selected.

C:\LOGSYS\WDEXAMP.mbf

Time	Tmp 1	Tmp 2	Tmp 3	Tmp 4	Tmp 5	Tmp 6	Tmp 7	Tmp 8	Tmp 9	Tmp10	Tmp11	Tmp12
23/07/01	°C	°C	°C	°C	°C	°C	°C	°C	°C	°C	°C	°C
00:00:00	Cycle Started [INT:02.00]											
00:00:05	33.9	35.3	32.5	30.8	31.2	29.5	30.7	33.3	35.4	33.6	34.2	34.8
00:00:32	Prewash [INT:00.30]											
00:00:33	35.2	35.6	33.1	30.8	32.1	30.6	30.8	33.4	35.7	33.8	34.8	35.2
00:01:03	36.7	35.8	34.2	29.7	33.0	30.8	31.7	33.9	36.2	33.5	35.5	35.3
00:01:33	36.4	35.8	34.2	27.4	33.4	30.7	31.7	34.1	36.6	32.9	35.5	35.2
00:02:03	19.5	19.2	20.5	22.0	19.8	20.0	19.5	19.9	25.4	20.8	21.0	23.8
00:02:33	19.4	19.4	19.4	19.5	19.4	19.5	19.3	18.7	20.8	20.1	20.1	20.5
00:03:03	19.3	19.2	19.2	19.2	19.2	19.3	19.2	18.6	20.6	20.0	19.9	19.9
00:03:05	Rinse [INT:00.30]											
00:03:07	19.3	19.3	19.2	19.2	19.3	19.3	19.2	18.6	20.7	20.1	20.0	20.0
00:03:37	19.7	19.7	19.7	19.8	19.7	19.8	19.6	19.0	21.0	20.4	20.4	20.3
00:04:07	20.1	19.9	19.9	20.1	19.9	19.9	19.8	19.2	21.2	20.7	20.9	20.5
00:04:38	20.6	19.9	20.5	20.8	20.5	20.1	19.8	19.2	21.8	21.2	21.2	20.6
00:05:09	21.0	19.9	20.7	21.4	20.9	20.3	20.1	19.2	22.7	21.7	21.8	20.8
00:05:40	21.3	20.1	21.2	21.7	21.2	20.6	20.3	19.3	23.4	22.1	22.1	20.9
00:06:10	21.5	20.1	21.1	20.8	20.9	20.1	20.5	19.4	23.8	21.8	21.7	20.9
00:06:40	21.5	20.2	21.4	20.8	20.9	19.9	20.6	19.6	24.1	21.8	21.8	20.9
00:07:10	16.0	16.0	16.0	16.2	16.0	16.0	15.8	15.2	17.5	16.6	16.6	16.8
00:07:40	15.9	15.8	15.8	15.8	15.8	15.9	15.7	15.0	17.2	16.6	16.4	16.4
00:08:10	16.2	16.3	16.2	16.3	16.2	16.3	16.1	15.4	17.5	16.9	16.8	16.8
00:08:40	16.6	16.6	16.4	16.5	16.5	16.6	16.4	15.7	17.9	17.3	17.1	17.1
00:09:10	16.8	16.8	16.8	16.8	16.8	16.9	16.8	16.1	18.1	17.6	17.5	17.5
00:09:40	17.2	17.2	17.0	17.1	17.1	17.1	17.0	16.3	18.4	17.9	17.7	17.7
00:10:10	17.4	17.4	17.4	17.4	17.4	17.4	17.3	16.6	18.7	18.1	18.0	18.0
00:10:40	17.7	17.8	17.7	17.7	17.7	17.8	17.6	16.9	19.1	18.5	18.4	18.4
00:11:10	18.0	18.0	17.9	17.9	17.9	18.0	17.9	17.2	19.3	18.7	18.7	18.6
00:11:40	18.3	18.4	18.2	18.3	18.2	18.3	18.2	17.6	19.6	19.0	18.9	18.9
00:12:10	18.5	18.5	18.5	18.5	18.5	18.5	18.4	17.8	19.8	19.2	19.1	19.1
00:12:40	18.7	18.7	18.6	18.7	18.6	18.7	18.5	18.0	20.0	19.4	19.3	19.3
00:13:10	18.8	18.8	18.7	18.9	18.8	18.9	18.7	18.1	20.1	19.5	19.5	19.4
00:13:40	19.0	18.9	19.0	19.3	19.0	19.0	18.9	18.2	20.4	19.7	19.7	19.5
00:13:56	Pre Rinse [INT:00.30]											
00:13:56	Acid Rinse [INT:00.30]											
00:13:57	19.1	18.9	19.0	19.5	19.0	19.0	18.9	18.2	20.6	19.8	19.9	19.6
00:14:27	19.3	18.9	19.2	19.7	19.1	19.0	19.0	18.3	20.9	20.1	20.2	19.6

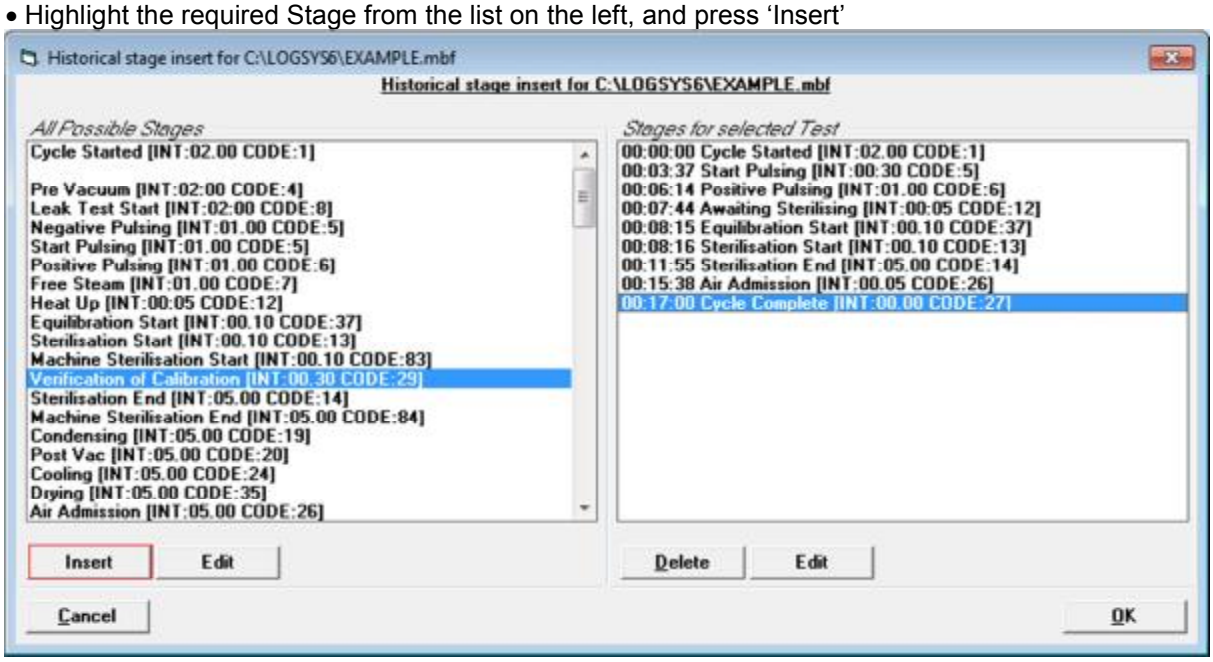
All Data | Leth full | Intervals | Print | Preview | Quit

Entering Stage Lines After Completing a Cycle

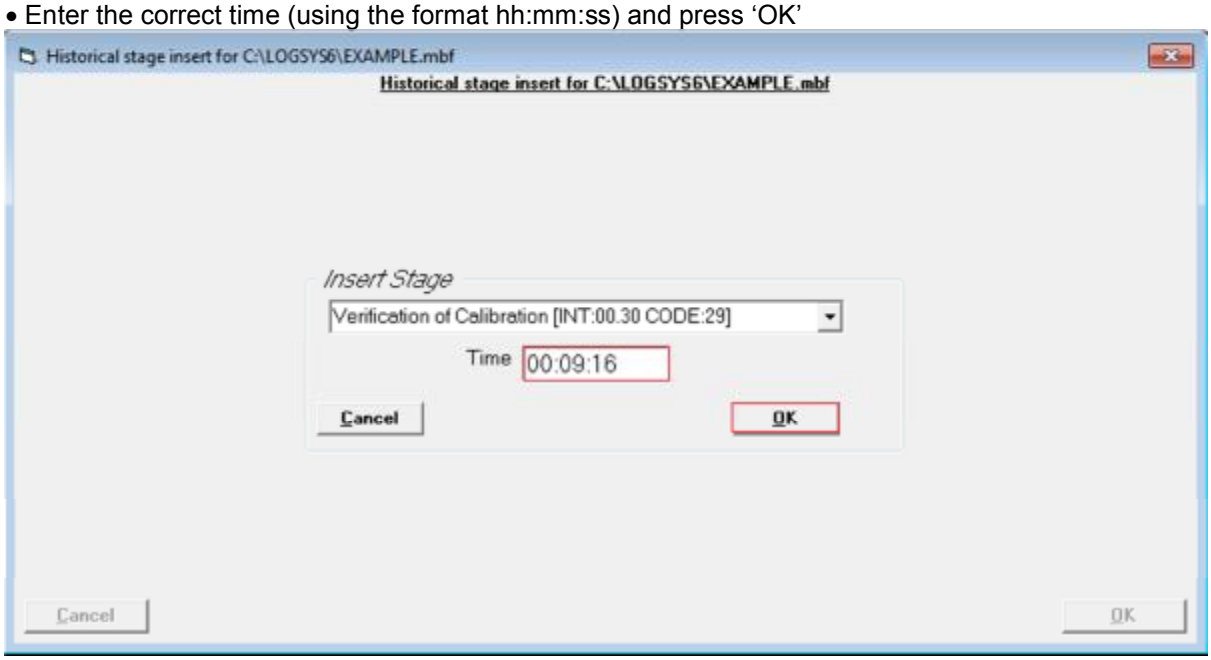
• Once a cycle is complete (or an older cycle has been selected through the Historic Tests menu), press the 'Chart Display button to bring up the graph.

• Press 'Enter Stage' and a list of all possible stages will appear (on the left), along with all stages entered for this cycle (on the right).

• Highlight the required Stage from the list on the left, and press 'Insert'



• Enter the correct time (using the format hh:mm:ss) and press 'OK'

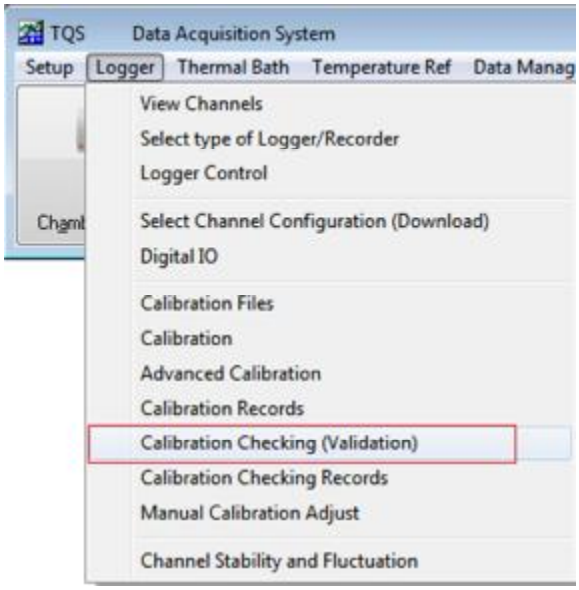


• As well as showing the time and temperature at the pointer position, the Chart Toolbar can also be used to zoom in to a specific area of the graph, create a blank stage line, and edit the frequency at which the line labels are displayed on the chart.

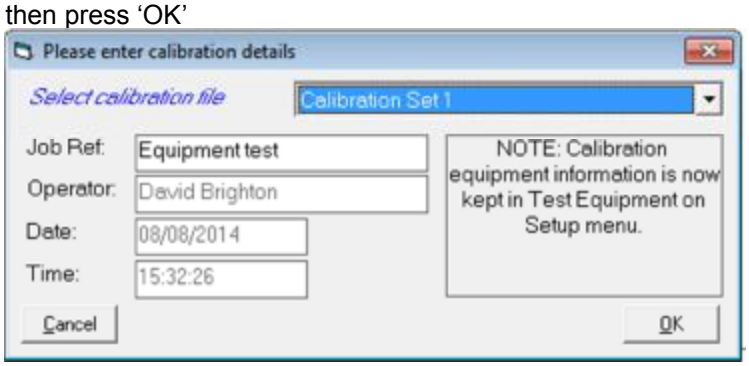
Calibration Checking (Validation)

Once a test is complete, the equipment used should have its calibration checked to ensure that it is still within the required parameters. Thermocouples should be placed in the same holes as for Calibration to improve accuracy.

• Click on 'Logger' and then 'Calibration Checking (Validation)' in the drop down menu.



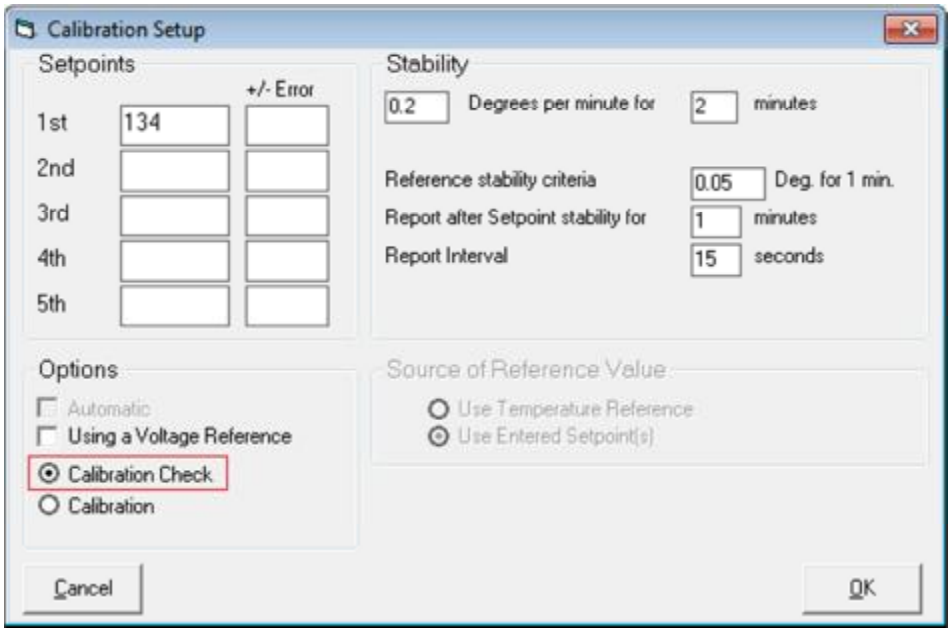
• Enter a suitable job reference and ensure the Calibration File is the same as that used for the test, then press 'OK'



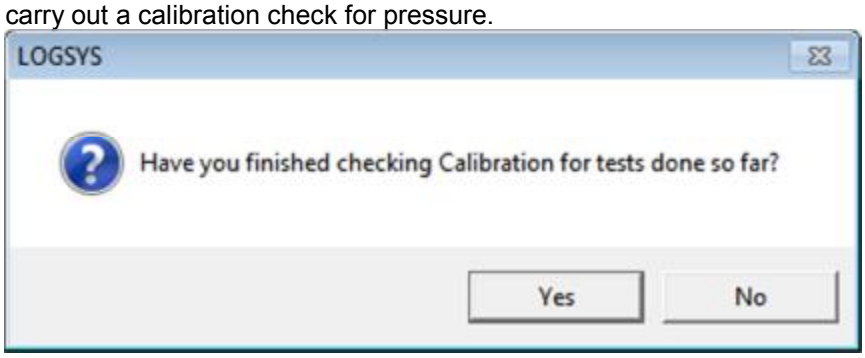
• Select the correct channels and press 'OK'

• Enter a suitable check point and stability parameters. *Note* These should normally be the same as the check point used for Calibration.

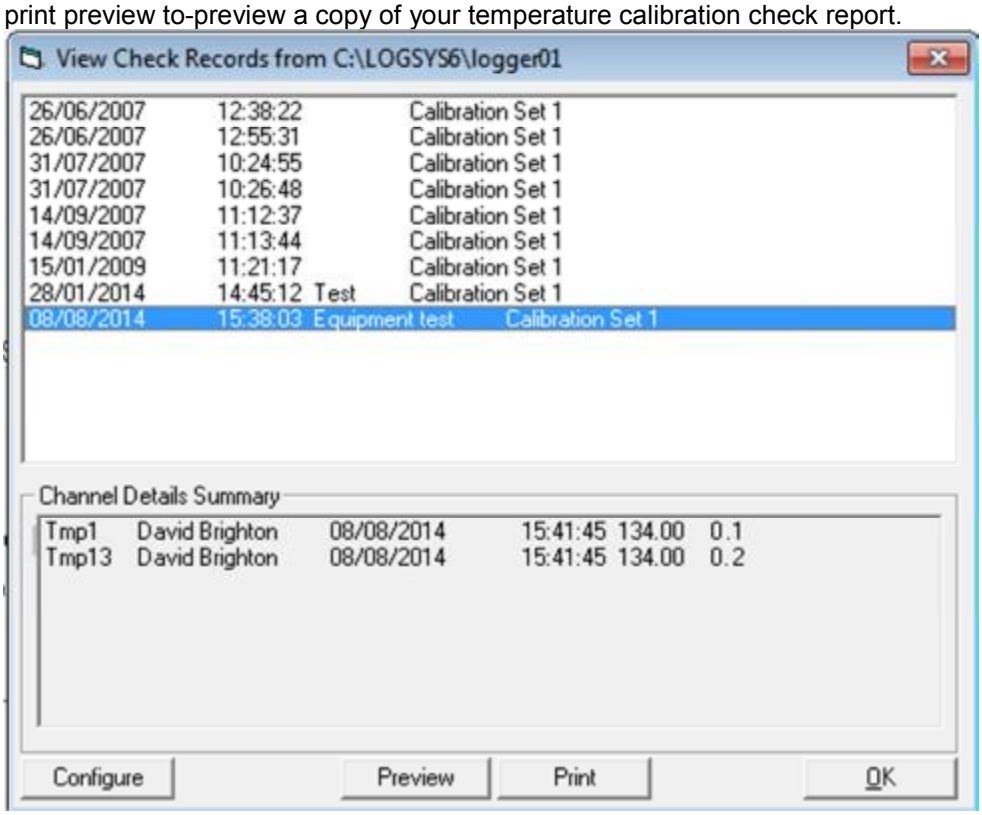
• Ensure the 'Calibration Check' option is selected, as well as the 'Automatic' if required, and press 'OK'



• Follow the same procedure as Calibration (see above). For a Calibration Check, however, no low and high point calculations are carried out – the check is simply to ensure that no significant drift has occurred since the calibration was carried out.
• When TQSoft prompts you to say if you have finished checking calibration, select 'No' if you wish to carry out a calibration check for pressure.

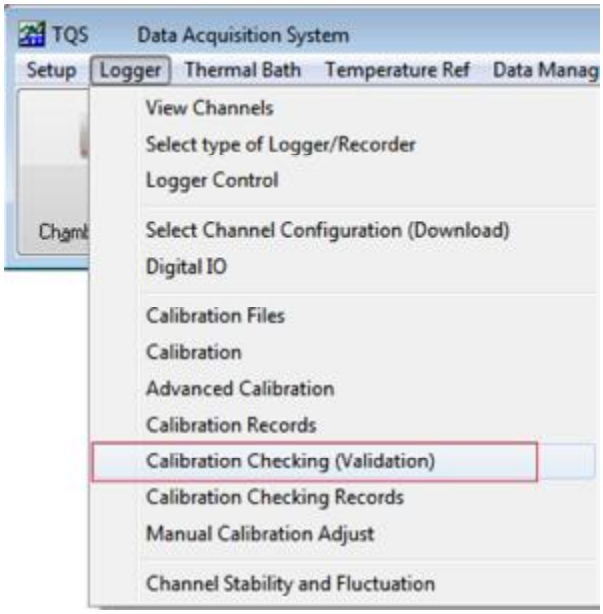


• Press OK
• When 'View Calibration Records from' is displayed with a new date/time/group click on print preview to-preview a copy of your temperature calibration check report.

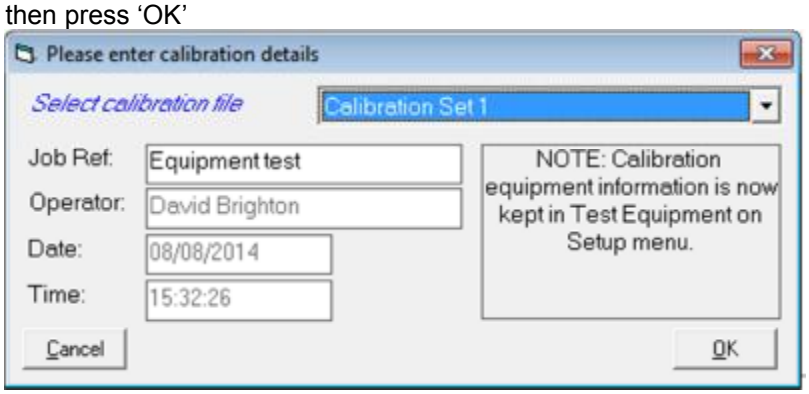


Pressure Calibration Check

• Click on ‘Logger’ and then ‘Calibration Checking (Validation)’ in the drop down menu.



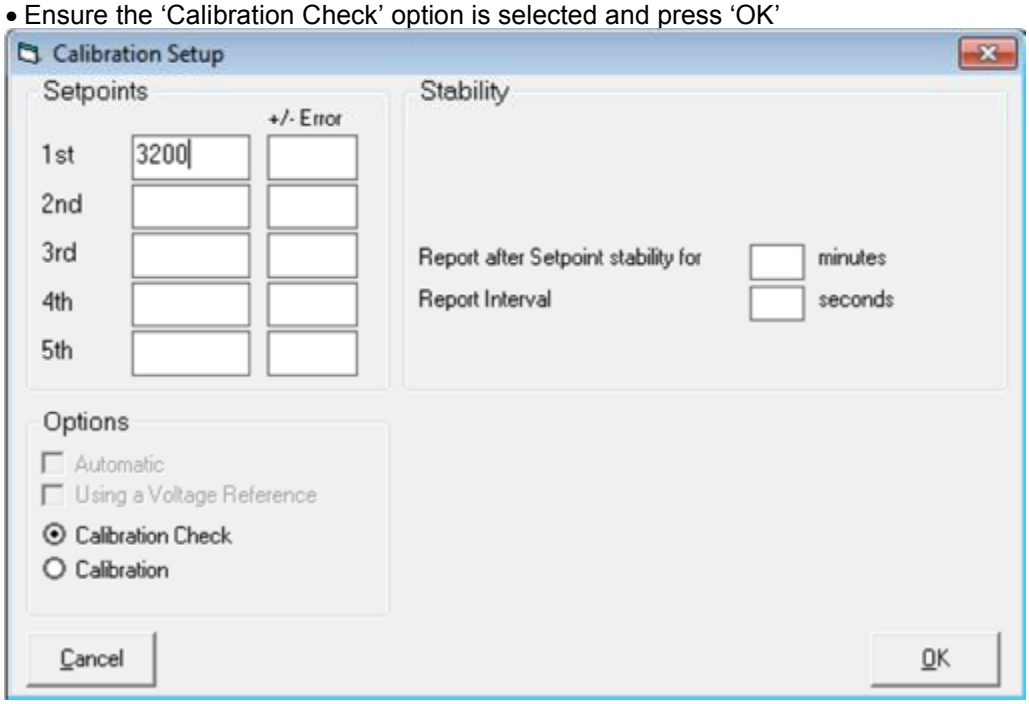
• Enter a suitable job reference and ensure the Calibration File is the same as that used for the test, then press ‘OK’



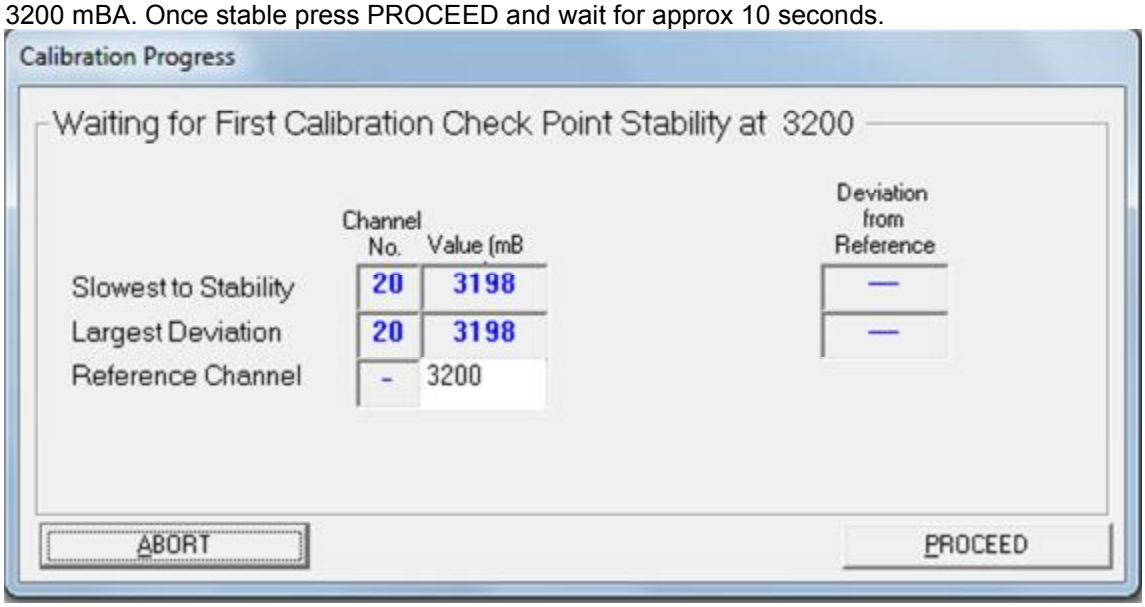
• Select the correct pressure channel and press 'OK'

• Enter a suitable check point. *Note* This should normally be the same as the check point used for Calibration.

• Ensure the ‘Calibration Check’ option is selected and press ‘OK’



• For the check point of 3200, select pressure on the pressure calibrator and use the pump to apply 3200 mBA. Once stable press PROCEED and wait for approx 10 seconds.

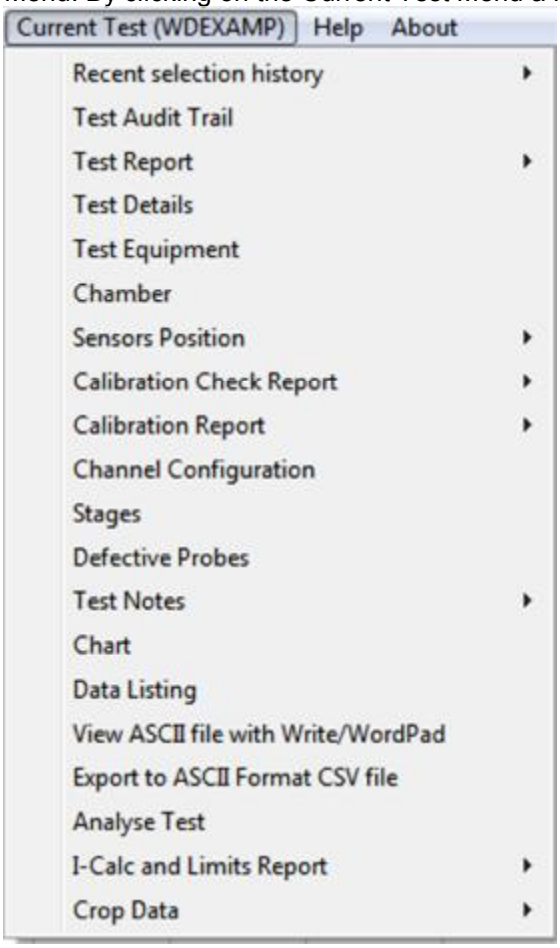


• TQSoft will ask have you finished Calibration Checking. Press Yes.
• Press OK
• When 'View Calibration Records from' is displayed with a new date/time/group click on print preview-to-preview a copy of your pressure calibration check report.

Once a Calibration Check has been performed, the test is complete.
A new test can either be performed, or you can move on to IPReports.

The Current Test Menu

• After the Test is completed the cycle number of the test appears next to the Current Test Menu. By clicking on the Current Test Menu a number of options are available



• **Test Audit Trail.** The Test Audit Trail shows the Audit Trail that is created when the test is started, but is only associated with this test. When the Test is backed up the Test Audit Trail if requested (see Company Name and General set up options) is also backed up so this audit trail follows the test around and is added to no matter which computer you are working from.

• **Test Report Print/Preview** This allows usual information about the Test such as Machine Details, Channel Configurations etc. to be printed out (this may also be imported into IPReports later)

• **Test Details.** Test Details shows Test Specification information specific to this Test. Once a test is completed, critical information such as the cycle number, machine name, date and time cannot be changed and are greyed out. However, non-critical details can be changed.
• In the **General section** for example, the Sterilisation temperature can be changed to Disinfector or Target Temperature. The Data Listing or Chart can also be reconfigured
• In the **Calculations section** all options can be selected or deselected.
• In the **Probes section** locations of probes can be renamed.
• In the **I-calcs section** new I-calcs can be created and applied

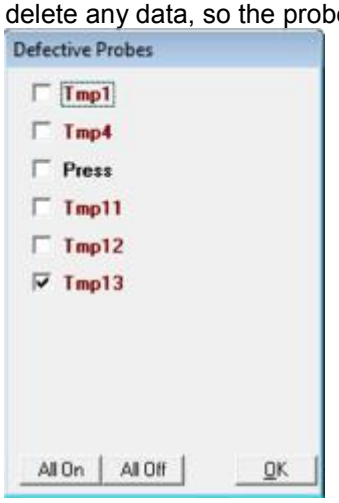
• **Chamber** allows basic details (but not test critical ones) to be amended

• **Calibration Report** and **Calibration Check Report** allow these to be viewed at any time

• **Channel Configuration** allows the chart label and colour to be amended

• **Stages** performs the same function as pressing the 'Stages' button (see above)

• **Defective Probes.** If a probe goes open circuit or is redundant (e.g. a duplicate), this can be marked as ‘Defective’. This removes the probe from the chart, data list and all calculations. *Note* this does not delete any data, so the probe can be removed from the ‘Defective’ list at any point.



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• **Analyse Test.** If any changes are made that affect calculations made on the data (for example in the lethality settings), the test should be reanalysed. Select ‘Analyse Test’ and all calculations will be refreshed.

• **Crop Data.** Selecting ‘Crop Data’ gives two options

• **Crop on Cycle Start Cycle Complete** removes unwanted data from your test results. This is particularly useful if a delayed start is used, or for very long cycles that may be left running unattended.

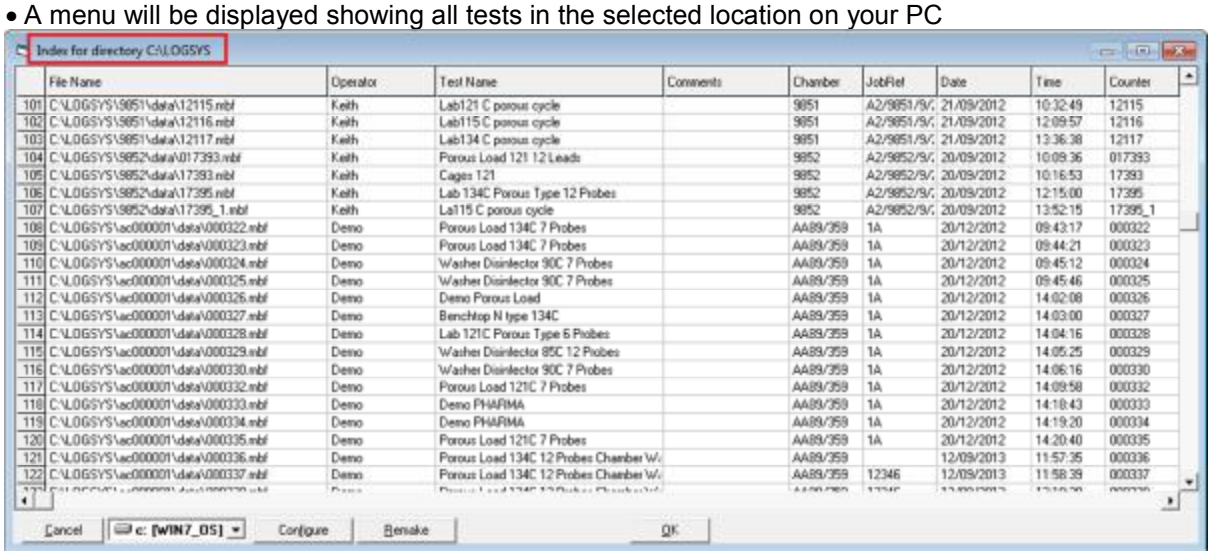
• **Crop and Split after Cycle Complete** removes data recorded after the Cycle Complete stage line, moving it to a new file which can be accessed through the Historic Tests menu. The same file name is used with the additional suffix _s1. Multiple splits can be performed on the same test by moving the ‘Cycle complete’ stage line – the suffix will then reflect this by using _s2, _s3 etc.

Note – if you crop any test cycles, the test should be reanalysed

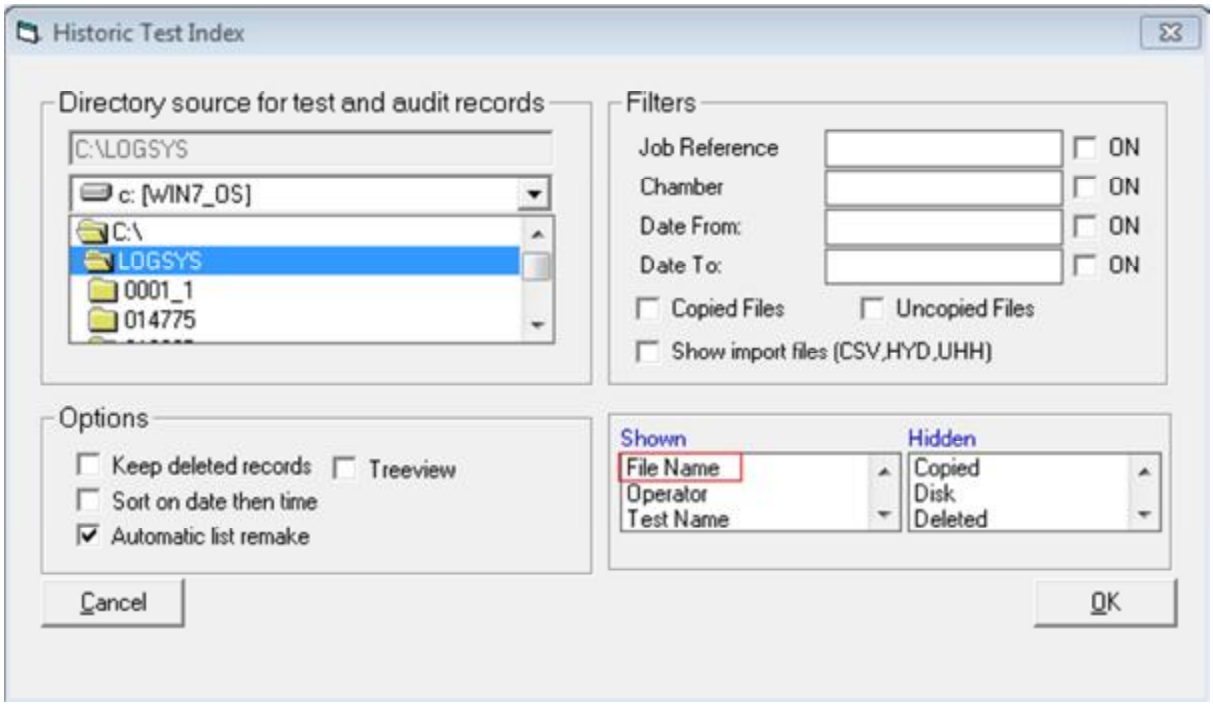
Historic Tests

- After a test is completed it is automatically added to the Historic Tests folder.
- Press the 'Historic Tests' button

- A menu will be displayed showing all tests in the selected location on your PC



- To filter these results, or change the heading selection, press 'Configure'. From this menu a different source file can be selected, and headings can be selected as either 'Shown' or 'Hidden'.
- Note For IPReports to import data, the 'File Name' header must be in the 'Shown' column. Double click the header name to move it from one column to the other.

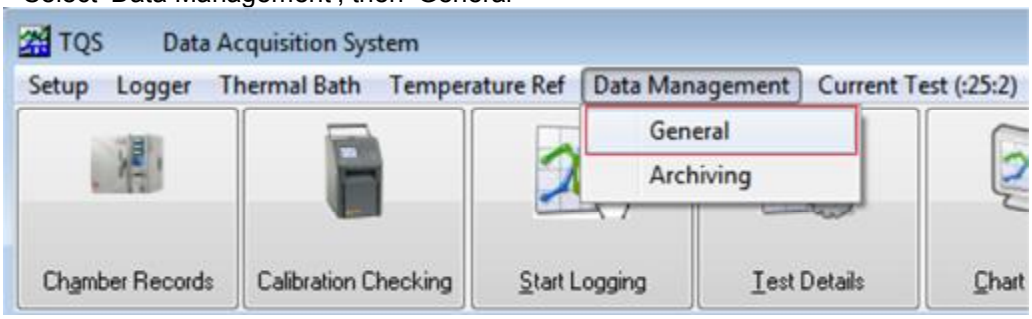


- To view a previously run test, either double click the required cycle or select it and then press 'OK'
- The cycle number will appear next to the 'Current Test' menu at the top of the page. To view information on this cycle, use the 'Chart' and 'Data List' buttons, or select 'Current Test' to view the entire menu.

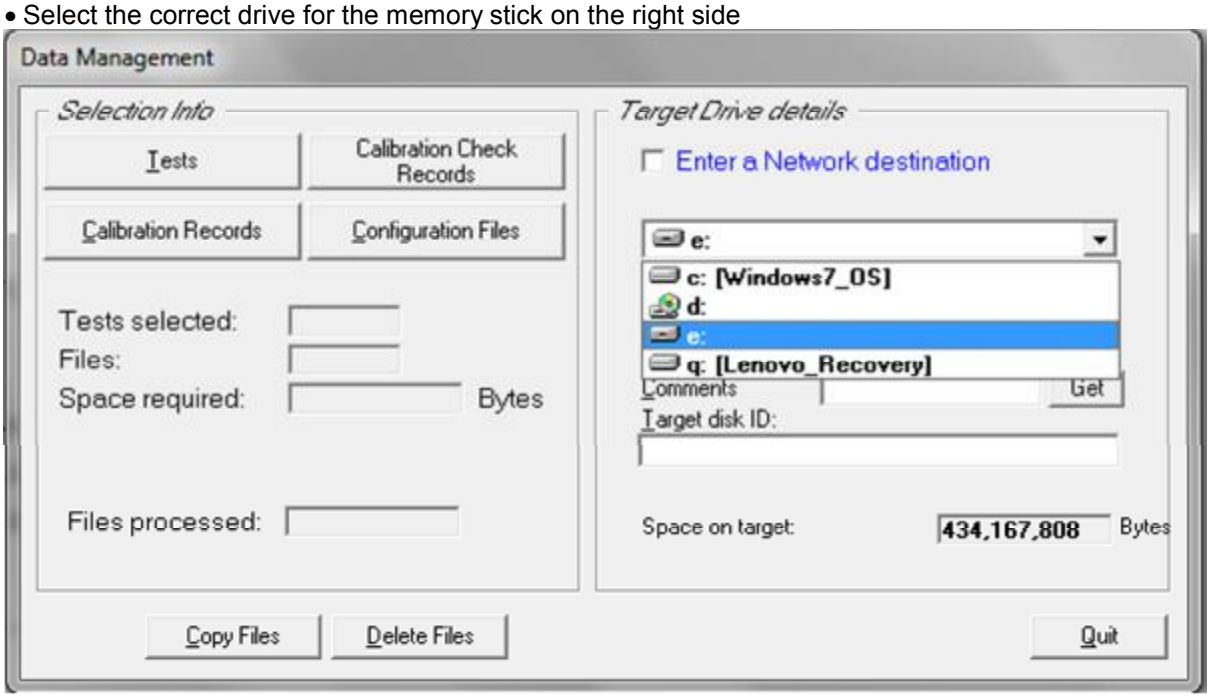
Data Management (Migrating to a new PC)

On the old PC

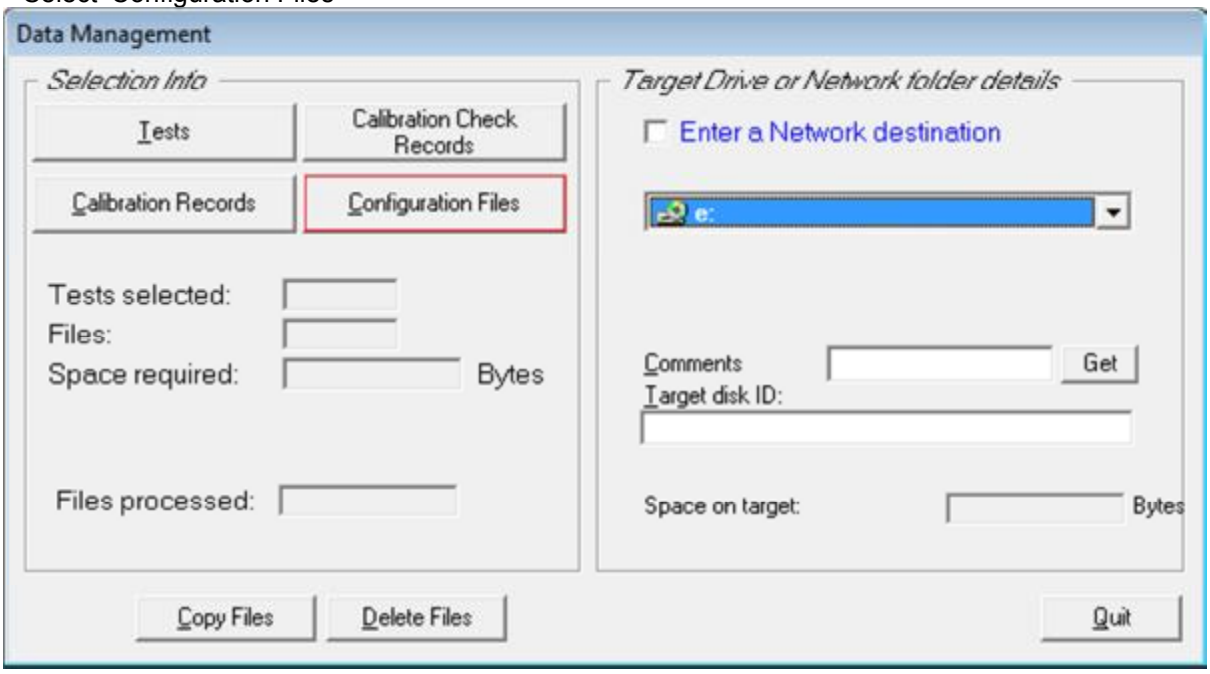
- Insert a memory stick into an available port
- Select ‘Data Management’, then ‘General’



- Select the correct drive for the memory stick on the right side

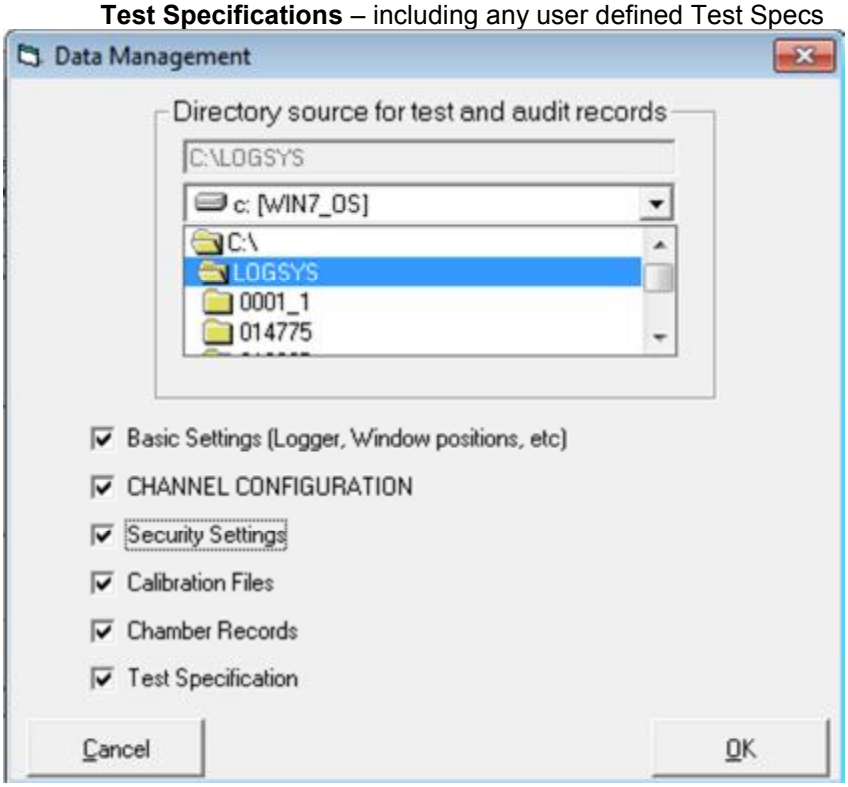


- Select ‘Configuration Files’



- Choose which files you wish to copy across

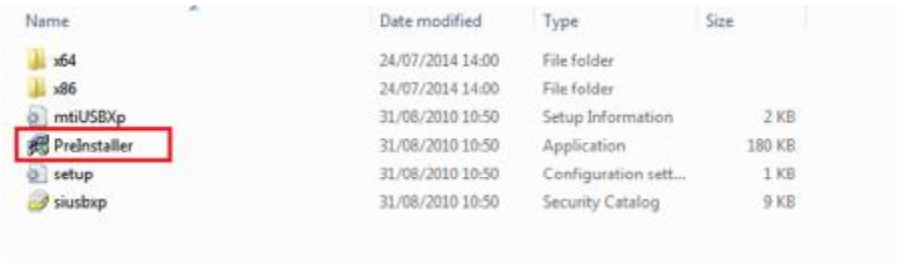
Basic Settings – which logger, heat bath is set to default etc.
Channel Configurations - including labels etc.
Security Settings – user IDs and passwords
Calibration Files – historic calibration data
Chamber Records – copies chamber records (but not historic data)
Test Specifications – including any user defined Test Specs



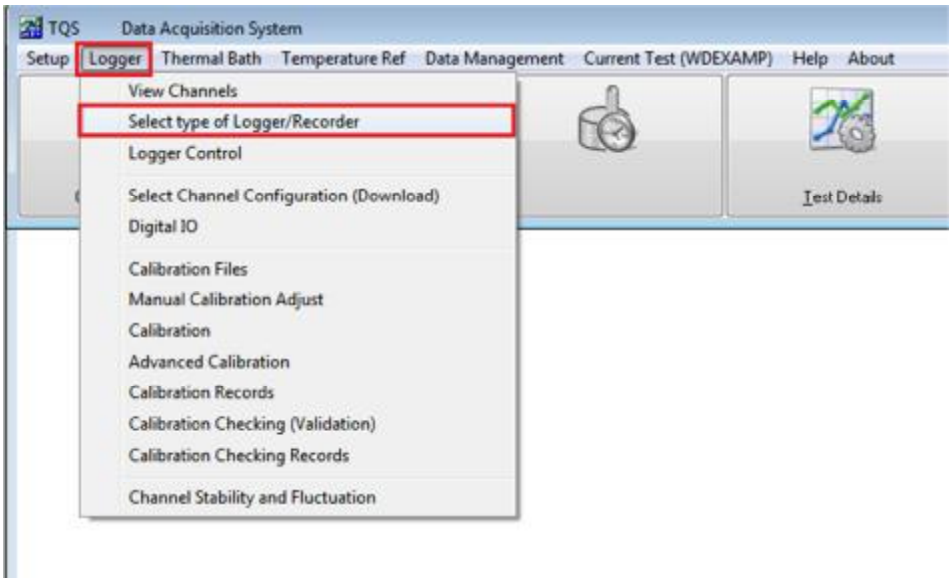
- Press OK. A folder called 'Logsys will be created on your memory stick.
- Safely eject the memory stick from the first PC, and insert it into a spare slot on the destination PC
- Copy the Logsys folder from your memory card and paste into your C:/ drive. When warned that a file with this name already exists, choose 'Copy & Replace'

Setting Up Wireless Loggers In TQS v6

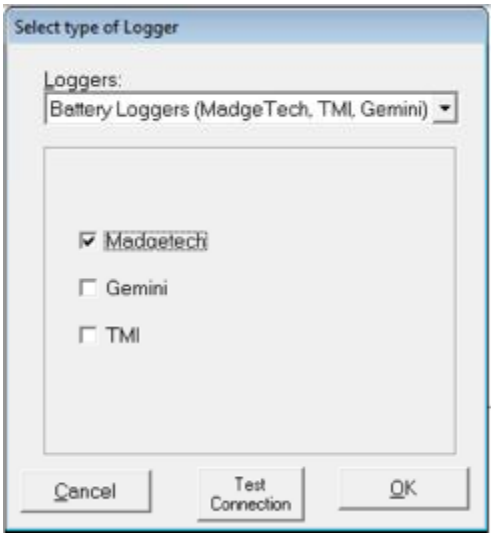
- Install the Madgetech driver by running the 'PreInstaller.exe' application supplied (found in the 'USB' folder)



- Open TQSoft and select 'Logger', then 'Select type of Logger/Recorder



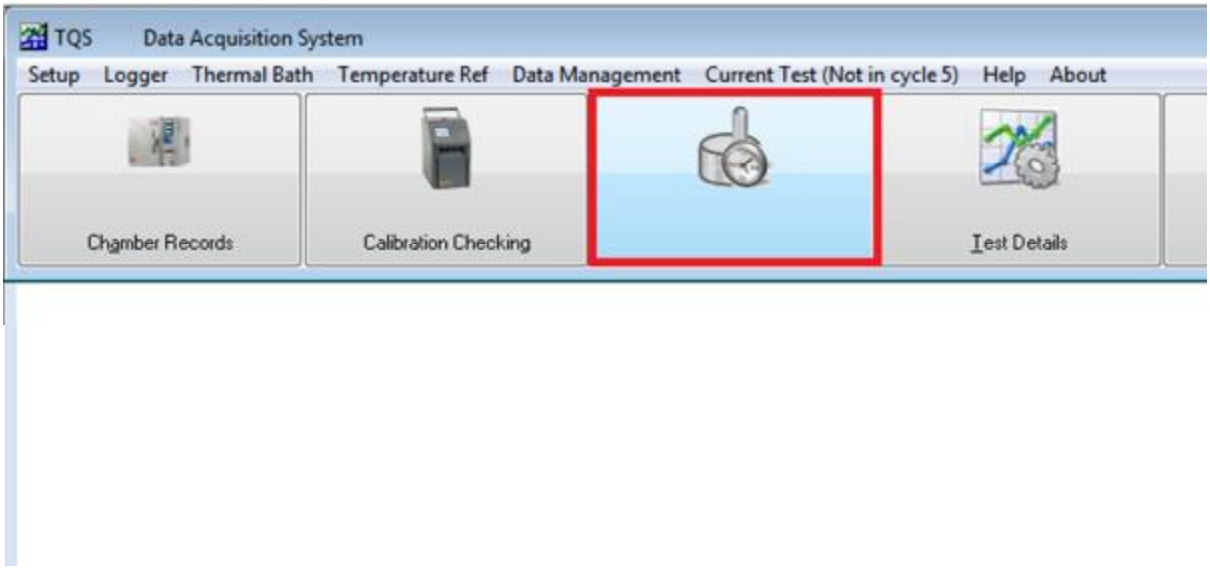
- From the dropdown box, select 'Battery Loggers (Madgetech, TMI, Gemini), ensure 'Madgetech' is ticket, then 'OK'



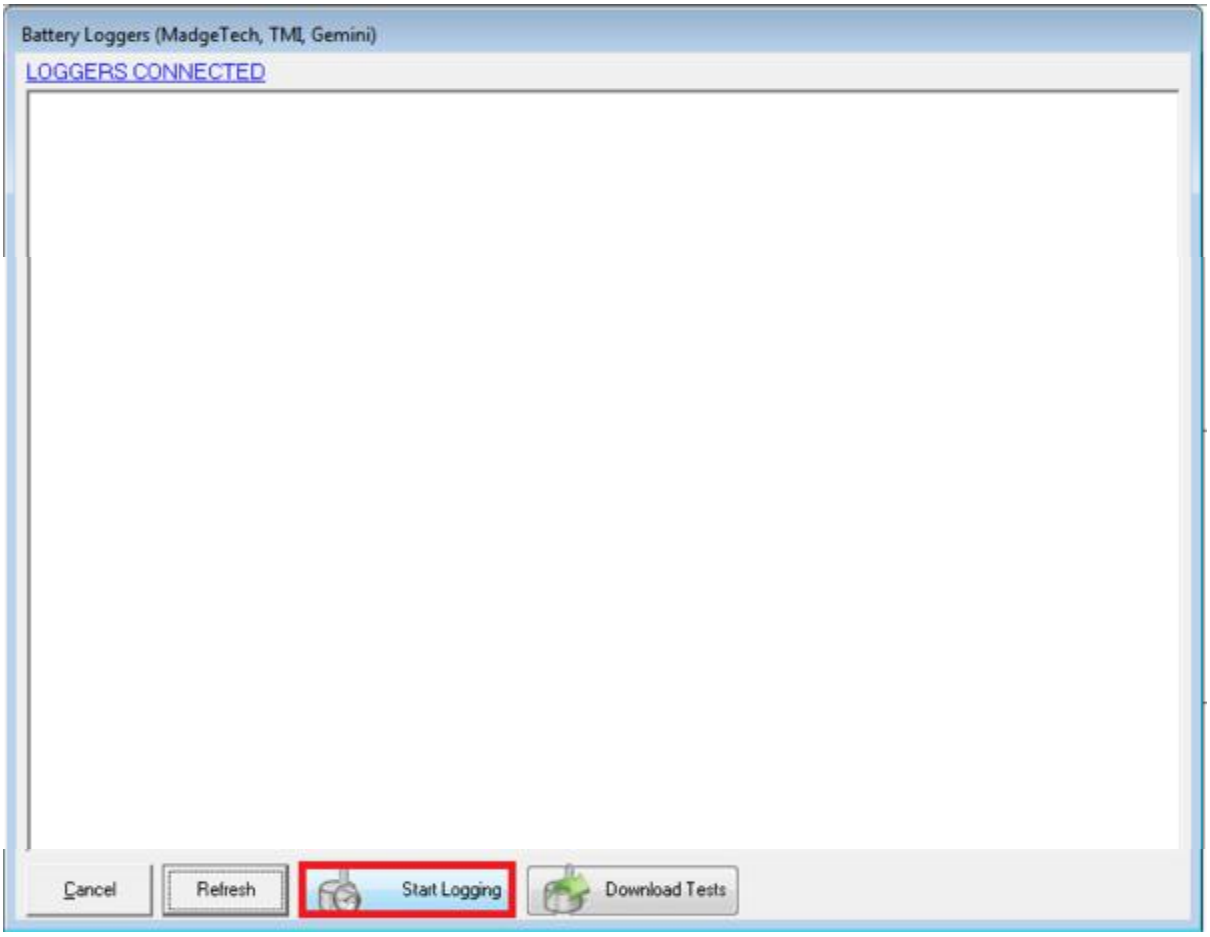
The 'Start Logging' button will be replaced with a new icon. Please see 'Programming Wireless Dataloggers' for more information on performing a test.

Programming wireless dataloggers through TQS v6

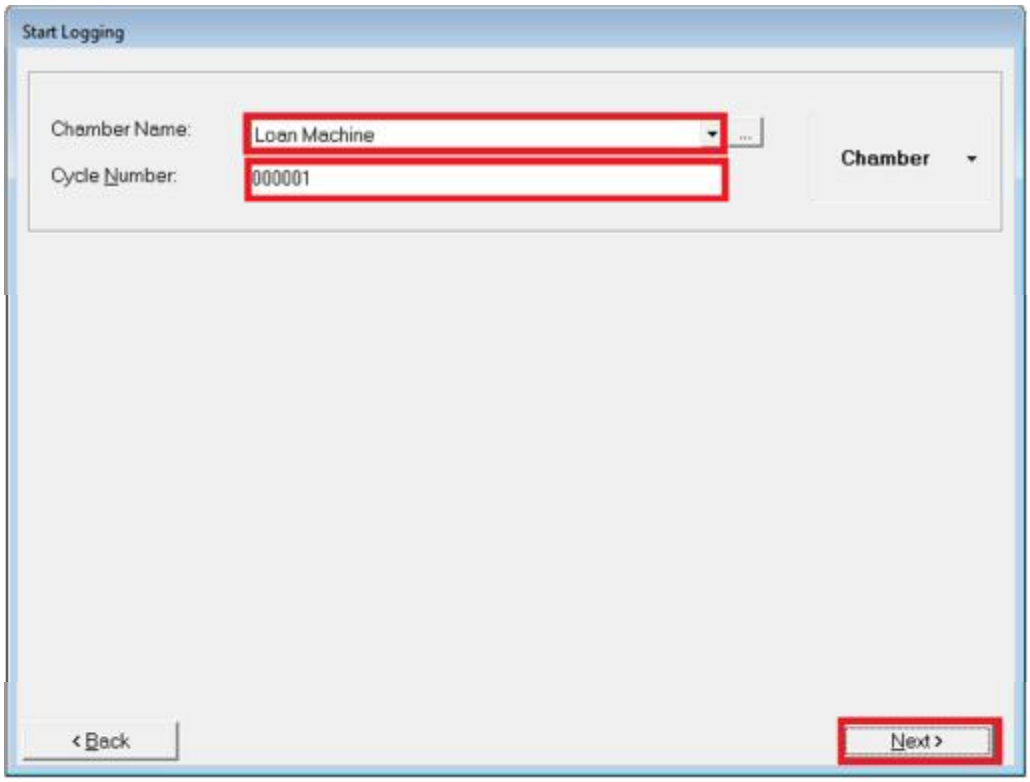
- Select the Wireless Logger button



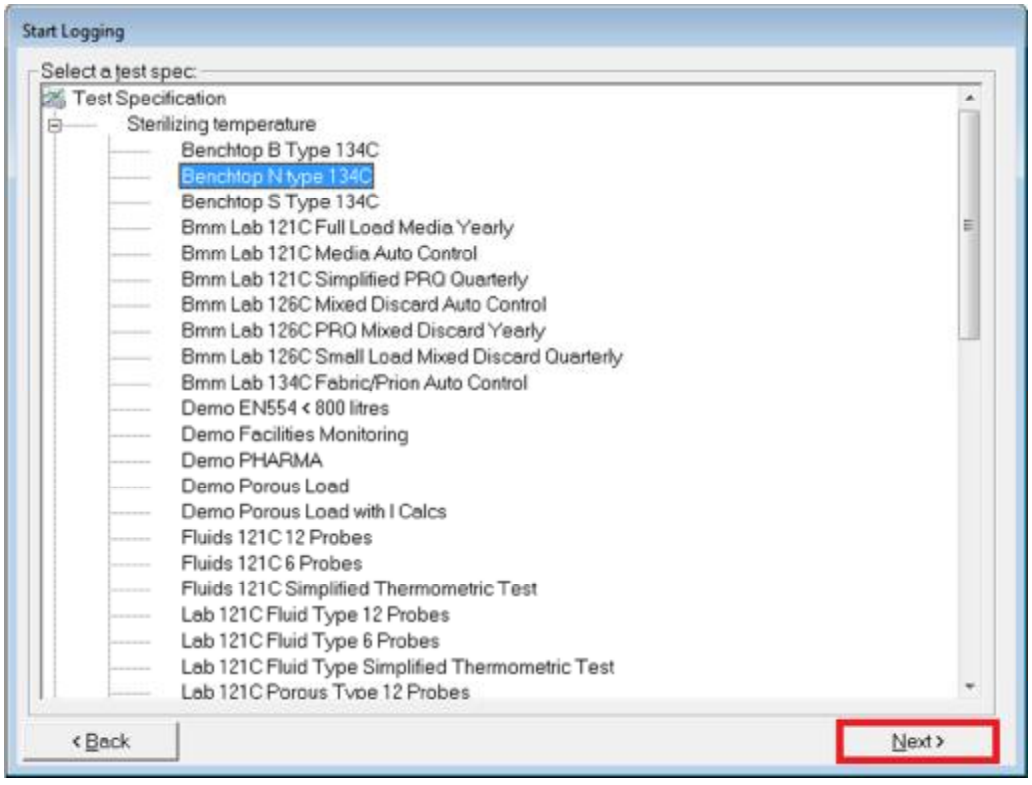
•Select ‘Start Logging’



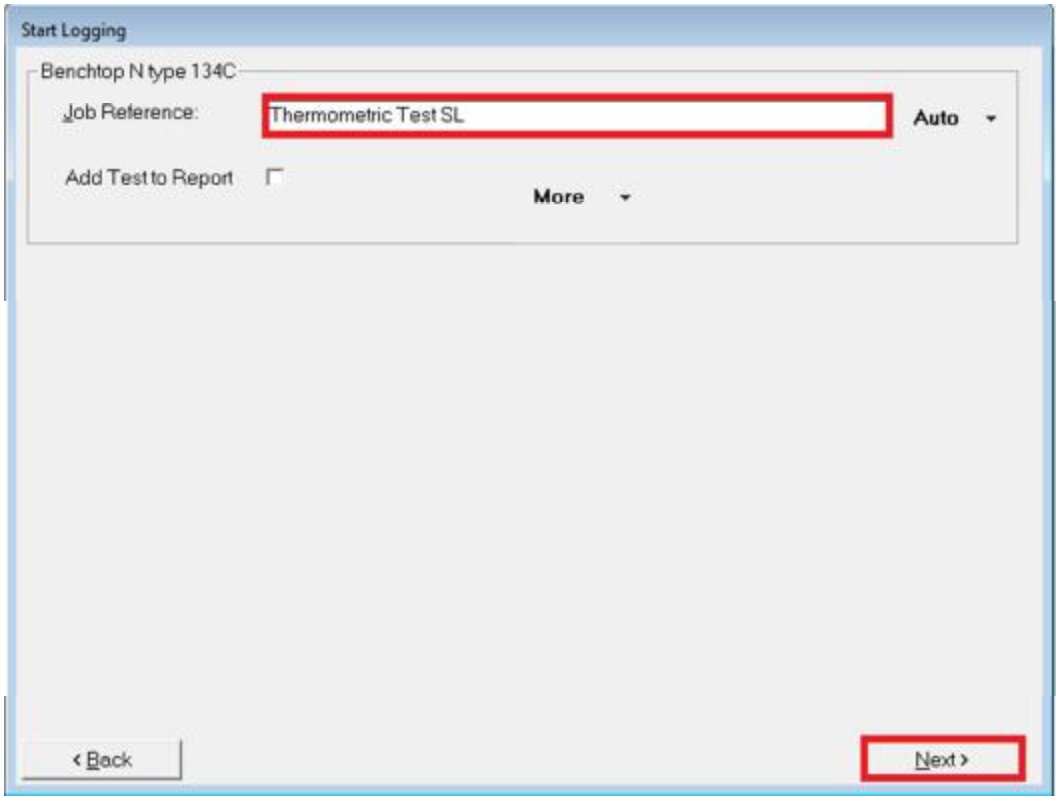
• Select the correct chamber from the dropdown menu (previously set up through ‘Chamber Records’, and ensure the cycle number is correct, then press ‘Next’



• Select the correct test specification, then press ‘Next

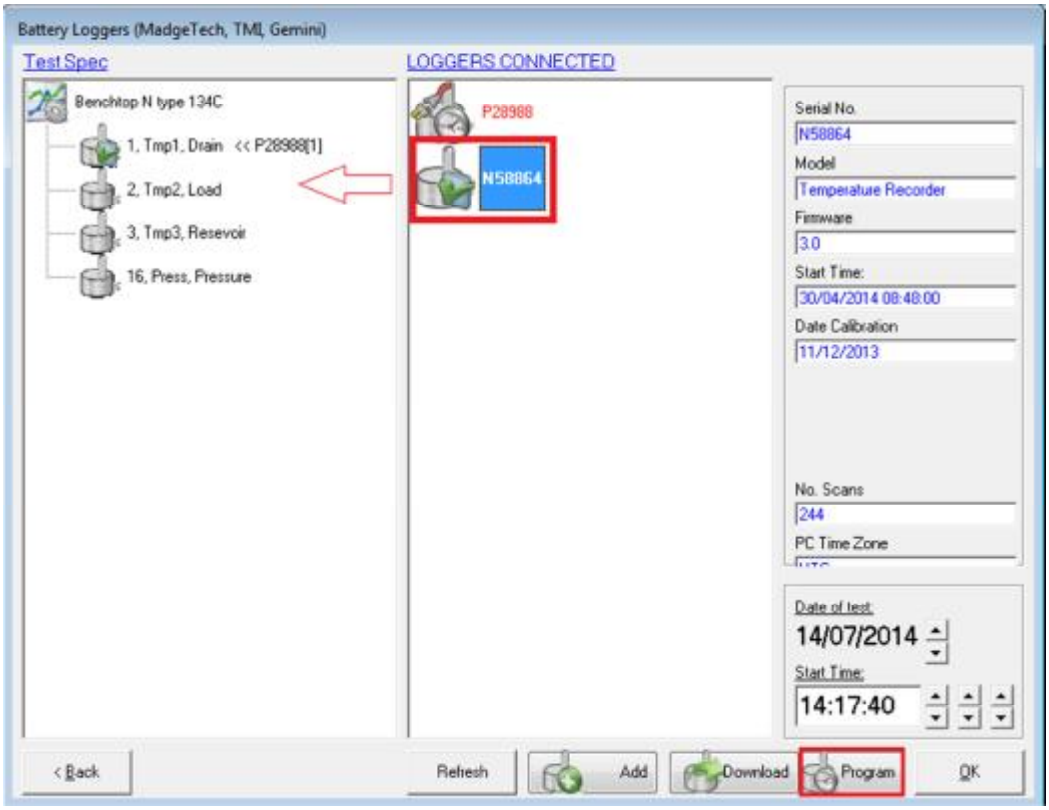


• Enter a suitable Job Reference, then press ‘OK’



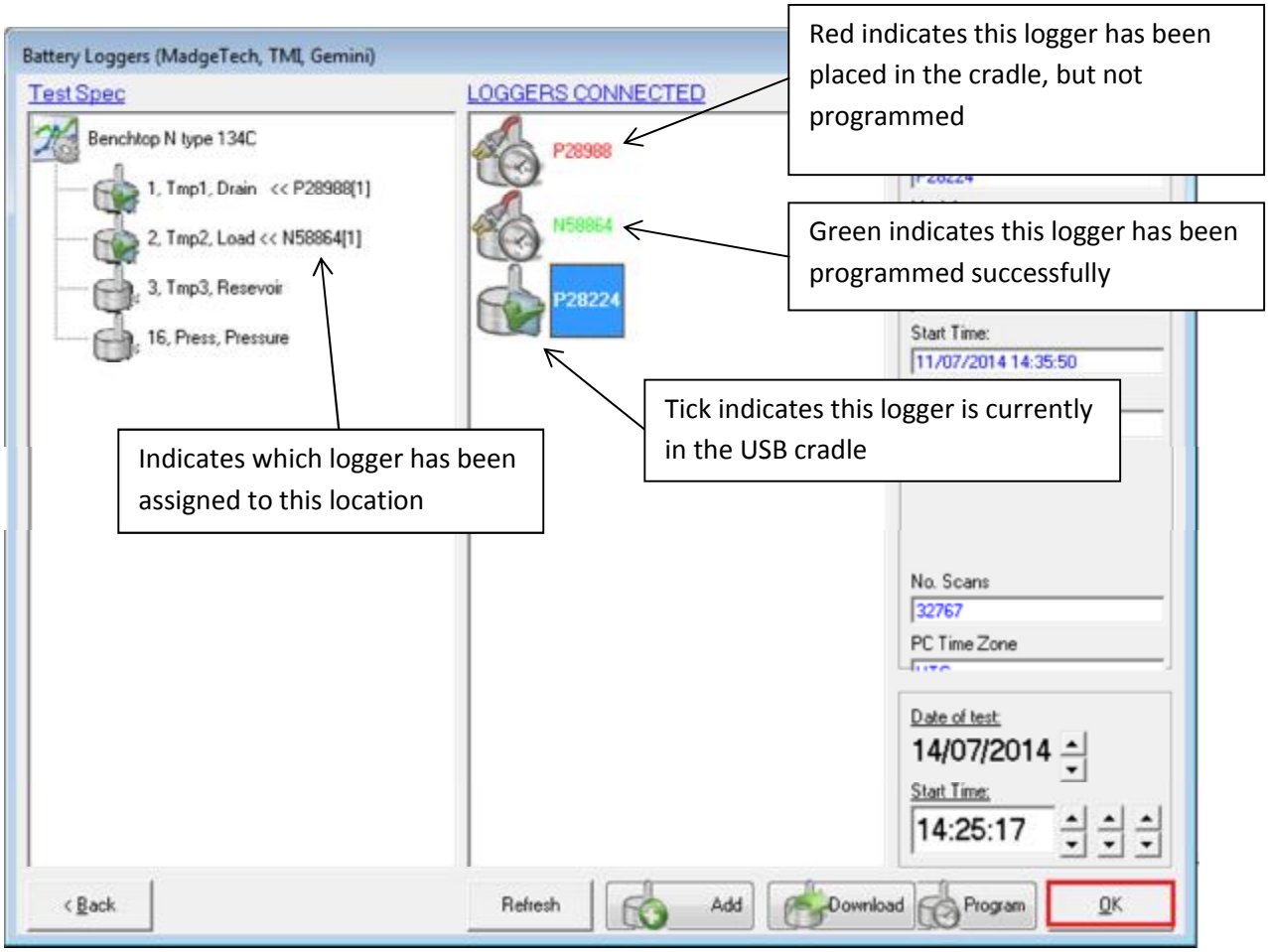
• Highlight the logger in the USB cradle (showing the green tick). Drag and drop into the required location on the left.

• Set the start time as required, then press ‘Program’ to send this information to the logger



• Put the next logger in the cradle and repeat steps 5 and 6.

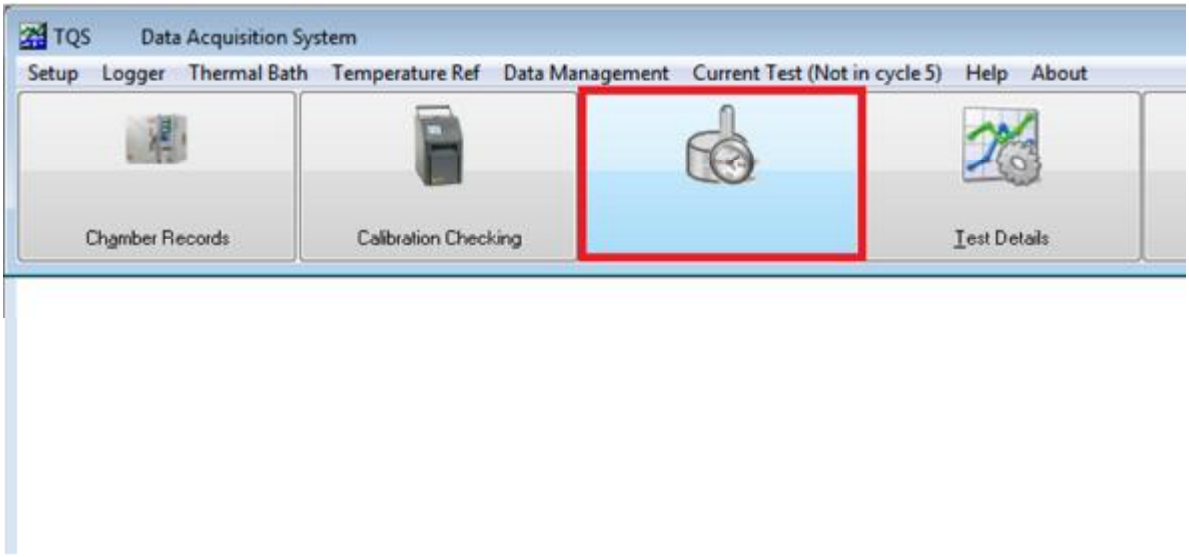
• Repeat steps 5 and 6 until all loggers have been programmed and allocated to a location, then press ‘OK’



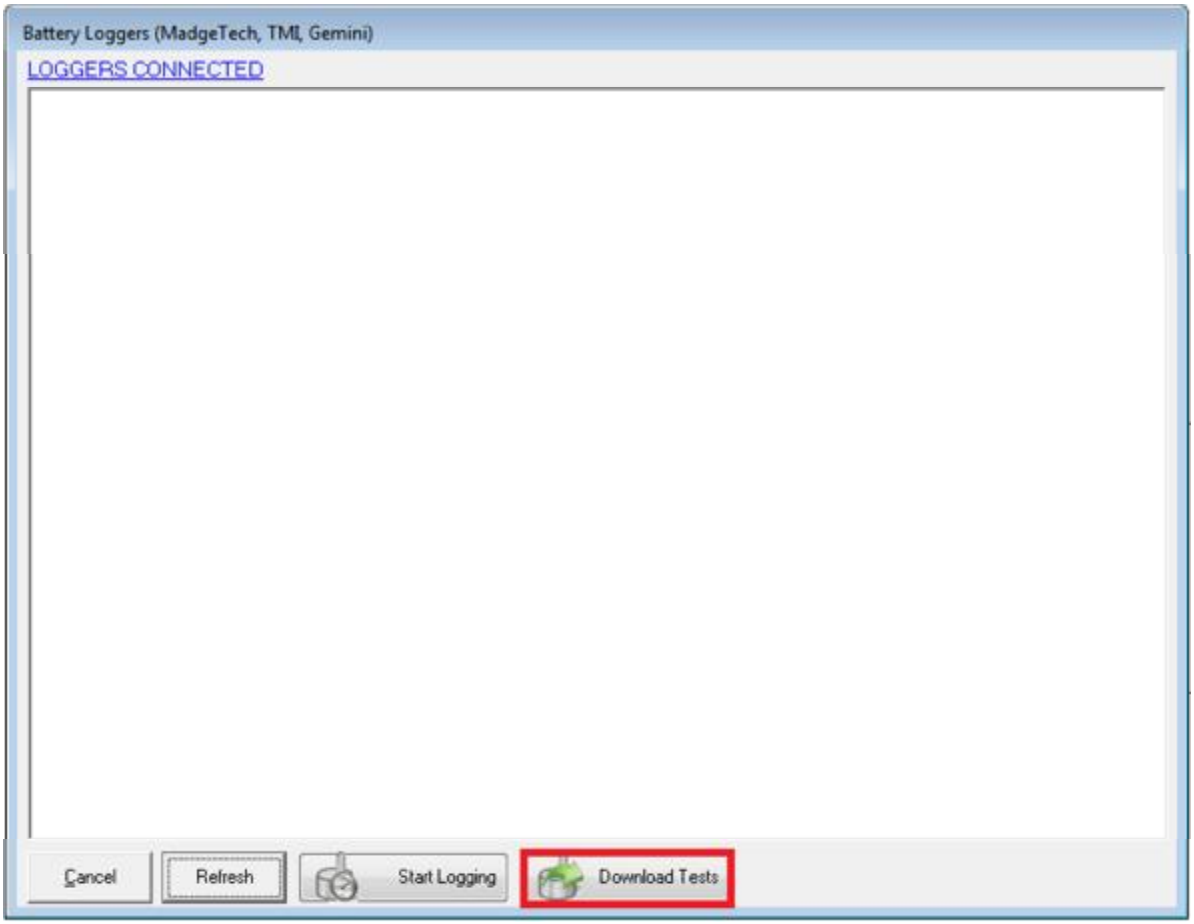
• The screen will revert back to the TQSoft home screen. Your loggers are now programmed and ready to put into the chamber. Logging will start at the time specified, so ensure that the cycle is started after this.

Downloading data from wireless loggers through TQS v6

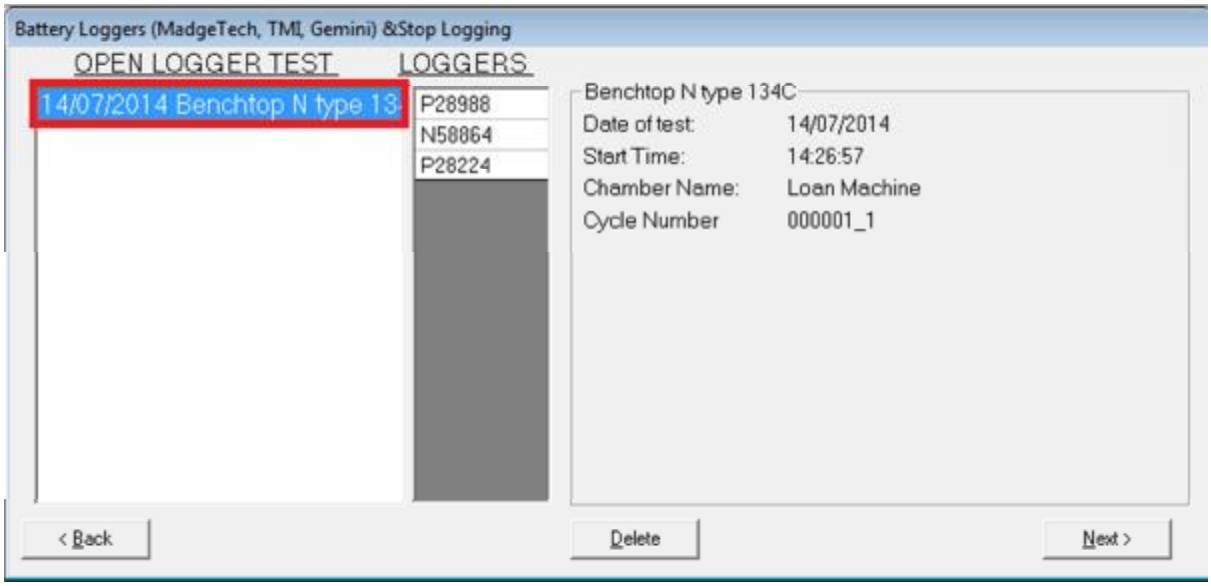
- Select the Wireless Logger button



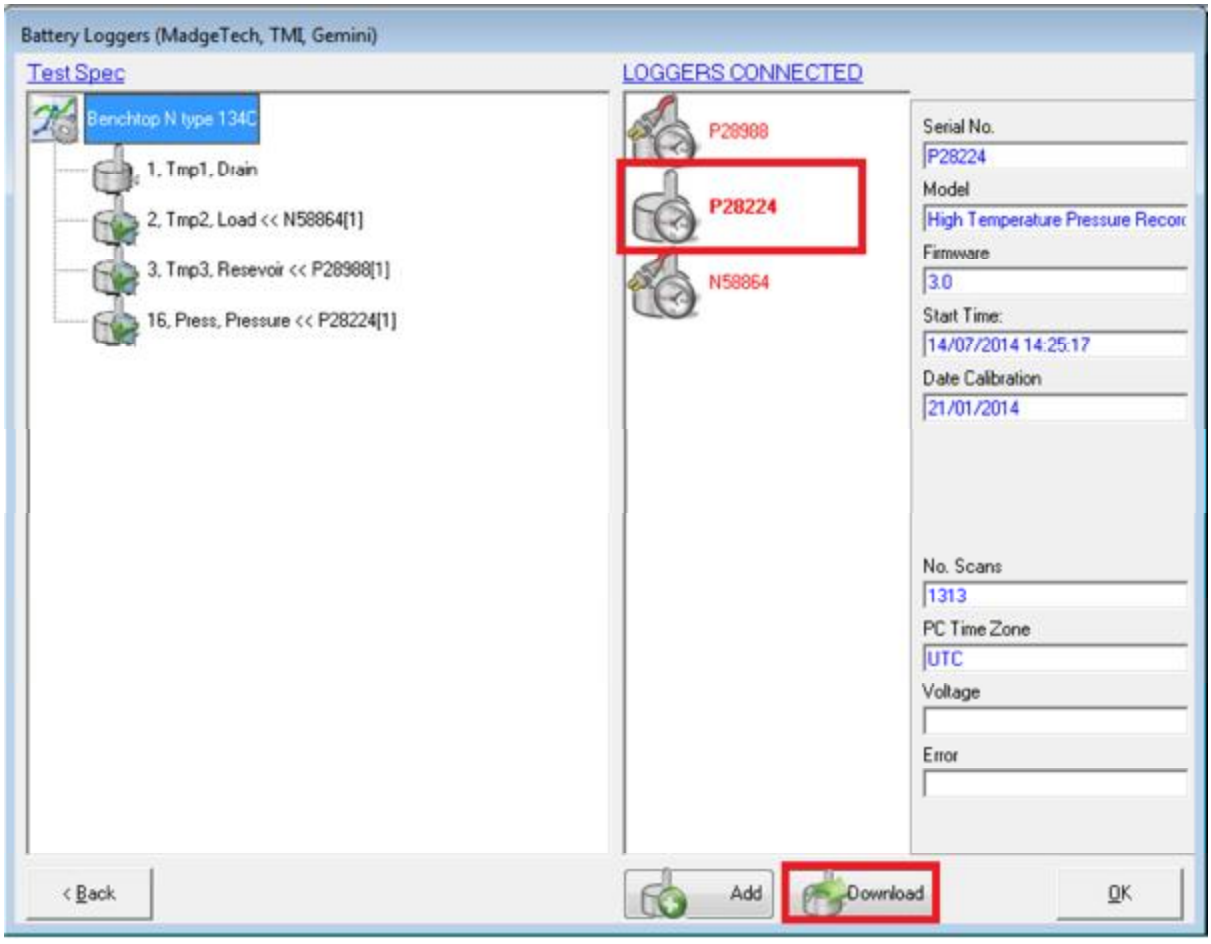
- Select 'Download Tests'



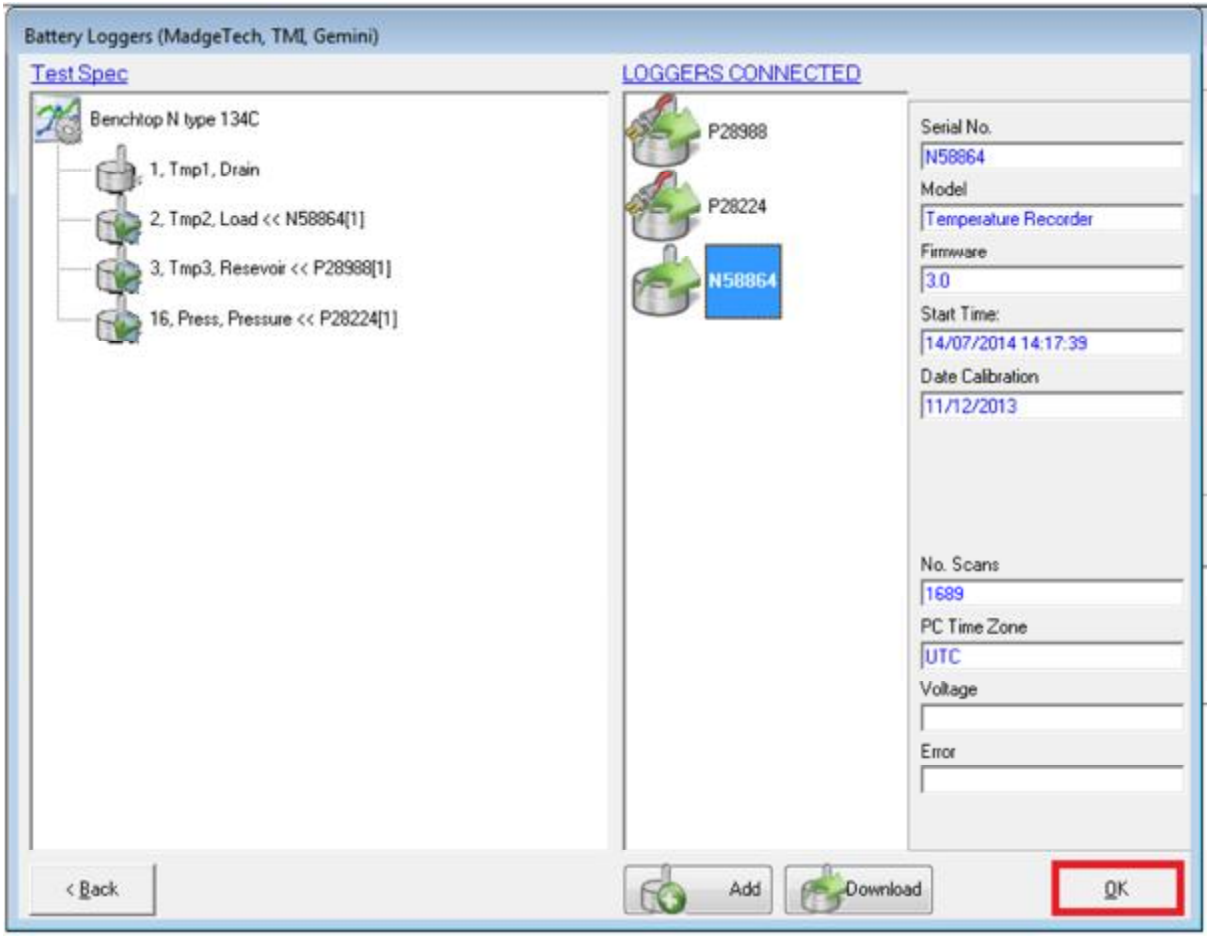
- Highlight the test you wish to download. This will also show you which loggers have been allocated to this test. If you have started multiple tests with different loggers, these will all show on the left column. Click 'Next'



• Highlight the connected logger (shown in bold type), and select ‘Download’



• Change the logger in the USB cradle and repeat the process until all loggers show the green ‘Downloaded’ arrow, then press ‘OK’ to collate the data from all loggers.



• You can now display the chart or datalist in TQSoft by selecting the ‘Chart Display’ or ‘Data Listing’ button as normal, and enter any required stage lines using the ‘Enter Stage’ button.

APPENDIX 1 – Required stage lines for use in IPReports

- **For all Sterilisers, the Verification of Calibration Stage is optional.**

For Porous Load the following Stages must be used

- **Cycle Started**
- **Negative Pulsing**
- **Positive Pulsing**
- **Heat Up**
- **Equilibration Start**
- **Sterilisation Start**
- **Machine Sterilisation Start**
- **Machine Sterilisation End (Drying)**
- **Sterilisation End**
- **Air Admission**
- **Cycle Complete**

For Fluid Load the following stages must be used

- **Cycle Started**
- **Free Steaming**
- **Heat Up**
- **Equilibration Start**
- **Sterilisation Start**
- **Machine Sterilisation Start**
- **Machine Sterilisation End (Cooling)**
- **Sterilisation End**
- **Vent**
- **Cycle Complete**

For Laboratory Loads the following stages must be used

- **Cycle Started**
- **Negative Pulsing (if applicable)**
- **Positive Pulsing (if applicable)**
- **Free Steaming (if applicable)**
- **Equilibration Start**
- **Sterilisation Start**
- **Machine Sterilisation Start**
- **Machine Sterilisation End (Cooling/Drying)**
- **Sterilisation End**
- **Air Admission**

For N Type Autoclaves the following stages must be used

- **Heat Up**
- **Equilibration Start**
- **Sterilisation Start**
- **Machine Sterilisation Start**
- **Machine Sterilisation End (Condensing)**
- **Sterilisation End**
- **Cycle Complete**

For B Type Autoclaves the following stages must be used.

- **Cycle Started**
- **Start Pulsing**
- **Heat Up**
- **Equilibration Start**
- **Sterilisation Start**
- **Machine Sterilisation Start**
- **Machine Sterilisation End (Condensing)**
- **Sterilisation End**
- **Drying**
- **Cycle Complete**

For Washer Disinfectors the following stages must be used

- **Cycle Started**
- **Disinfection Start**
- **Machine Disinfection Start**
- **Machine Disinfection End**
- **Disinfection End**
- **Cycle Complete**

For LTS the following Stages must be used

- **Cycle Started**
- **Leak Rate**
- **Negative Pulsing**
- **Heat Up**
- **Sterilisation Start**
- **Machine Sterilisation Start**
- **Machine Sterilisation End (Drying)**
- **Sterilisation End**
- **Air Admission• Cycle Complete**

APPENDIX 2 – Frequently asked questions

My Fluke Netdaq is not communicating with TQSoft – but it was working yesterday!

The issue is probably with the IP address which Windows uses to communicate with the logger. Windows usually assigns this automatically to communicate with the internet, so Windows may have reassigned your IP address to do this rather than communicate with the logger (this is will certainly happen if you use the Ethernet cable to attach to a modem). To re-establish communication, follow the 'Setting up the Fluke Netdaq Logger' guide on page 25 (N.B there is no need to install the driver again)

My pressure calibration looks wrong! I am getting a reading of 1.2 in TQSoft when my gauge reads 1 bar.

Note that both the low and high point during calibration of pressure are displayed in Volts rather than as a pressure scale. The correct pressure reading will be displayed when you reach the check point. Note that, depending on the pressure transducer power supply you are using, the voltage received at 1 bar (atmospheric pressure) is approximately 1-1.2 volts.

I am getting a reading of -327.67 degrees on one of my thermocouples – why is this?

-327.67 is the lowest value possible from a thermocouple (equating to 000000 in a binary output). This therefore indicates an open circuit thermocouple, which should therefore be replaced or repaired, and then recalibrated.

One of my thermocouples is marked as 'OFF' when it should be ON – why is this?

If a thermocouple fails calibration, TQSoft will automatically turn this thermocouple off so it cannot be used. You should therefore remake and recalibrate this thermocouple.
Ensure the channel is turned on in the Channel Configuration (under 'Setup')

I am trying to log into TQSoft, and a message has appeared telling me the login details are not valid. Help!

TQSoft will only allow 3 incorrect attempts to log in before the user account is locked out to maintain security. To log in again you will need to reset your user accounts – please contact Isopharm for information on how to do this.

I am getting fluctuating temperature readings when the temperature should be constant/temperatures are spiking during calibration.

This is probably due to electrical interference, either from a 'dirty' electrical supply or an unshielded magnetic source around the site (water or pressure pumps are common sources, in much the same way as hairdryers etc. used to interfere with old TV sets). This can usually be corrected by earthing the datalogger (using the earth point at the rear of the logger) to a suitable earth point.

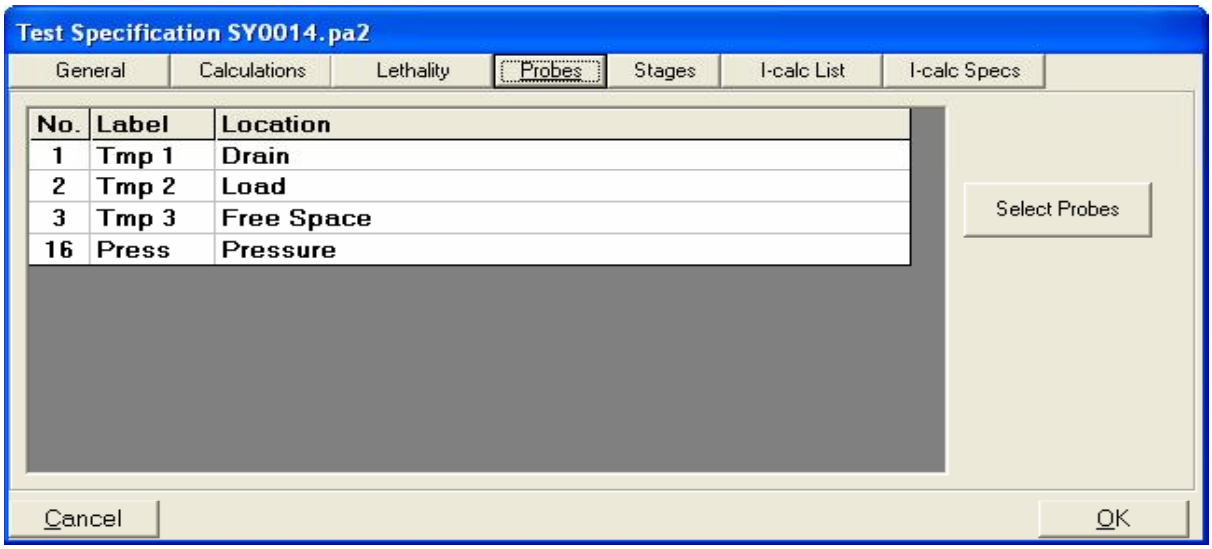
TQReports Training Course

Reminders from TQSoft Training

- For TQReports to work correctly and do the thermometric analysis for you, we have to use the 'string' of letters to identify where the thermocouple is. Please note this is only important for Autoclave Testing. You can still describe the Pressure as Chamber Pressure if you wish, but you must have the word Pressure in the location description to work.

• Chamber Pressure Sensor	**PRESSURE**
• Drain/Vent Sensor	**DRAIN or VENT or DISCHARGE**
• Chamber Free Space Sensor	**FREESPACE**
• Test Pack Sensor	**PACK or LOAD**
• Top Pack Sensor (Top Sheet)	**TOPSHEET**
• Bottom Pack Sensor	**BOTTOM**
• Water Reservoir Sensor	**RESERVOIR**

- This is done in the location area in the Test Specification OR the Test Details area of TQSoft under the Probes selection.



- **For the Automatic Control Test Templates to work correctly the following stages have to be inserted into TQSoft.**

For Porous Load the following Stages must be used

- **Negative Pulsing**
- **Positive Pulsing**
- **Heat Up**
- **Machine Sterilisation Start**
- **Sterilisation Start**
- **Machine Sterilisation End (Drying)**
- **Sterilisation End**
- **Air Admission**

For Fluid Load the following stages must be used

- **Free Steaming**
- **Heat Up**
- **Machine Sterilisation Start**
- **Sterilisation Start**
- **Machine Sterilisation End (Cooling)**
- **Sterilisation End**
- **Vent**

For Laboratory Loads the following stages must be used

- **Negative Pulsing (if applicable)**
- **Positive Pulsing (if applicable)**
- **Free Steaming (if applicable)**
- **Machine Sterilisation Start**
- **Sterilisation Start**
- **Machine Sterilisation End (Cooling/Drying)**
- **Sterilisation End**
- **Air Admission**

For N Type Autoclaves the following stages must be used

- **Heat Up**
- **Machine Sterilisation Start**
- **Sterilisation Start**
- **Machine Sterilisation End (Condensing)**
- **Sterilisation End**

For B Type and S Type Autoclaves the following stages must be used.

- **Start Pulsing**
- **Heat Up**
- **Machine Sterilisation Start**
- **Sterilisation Start**
- **Machine Sterilisation End**
- **Sterilisation End (Condensing)**
- **Drying**

For LTS the following Stages must be used

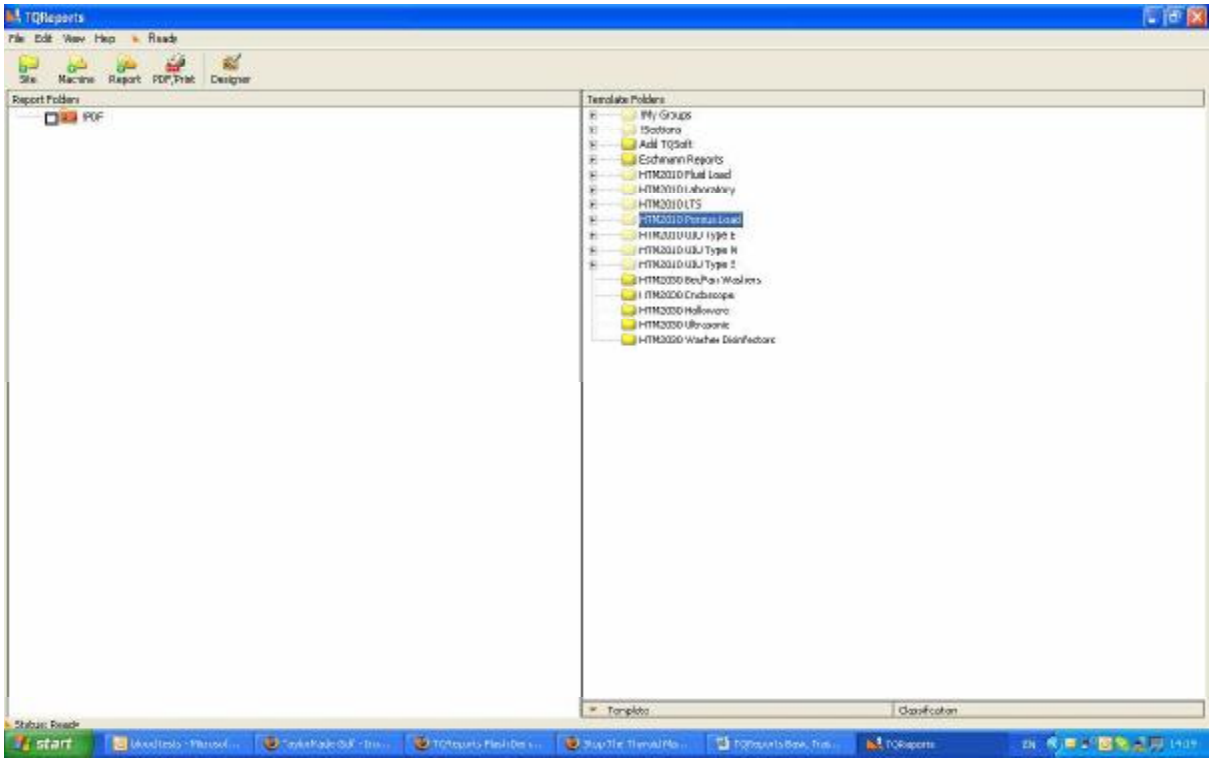
- **Leak Rate**
- **Negative Pulsing**
- **Heat Up**
- **Machine Sterilisation Start**
- **Sterilisation Start**
- **Machine Sterilisation End (Drying)**
- **Sterilisation End**
- **Air Admission**

For Washer Disinfectors the following stages must be used

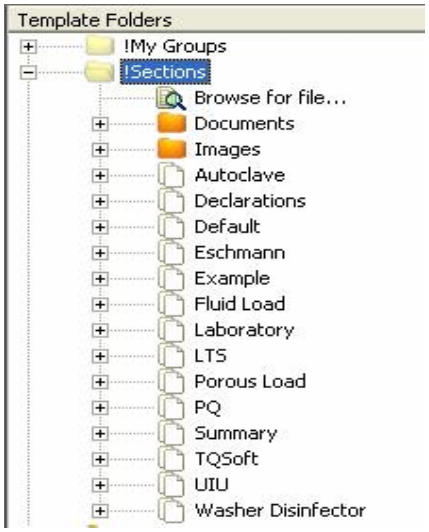
- **Disinfection Start**
- **Machine Disinfection Start**
- **Disinfection End**
- **Machine Disinfection End**

- To Start TQReports click on

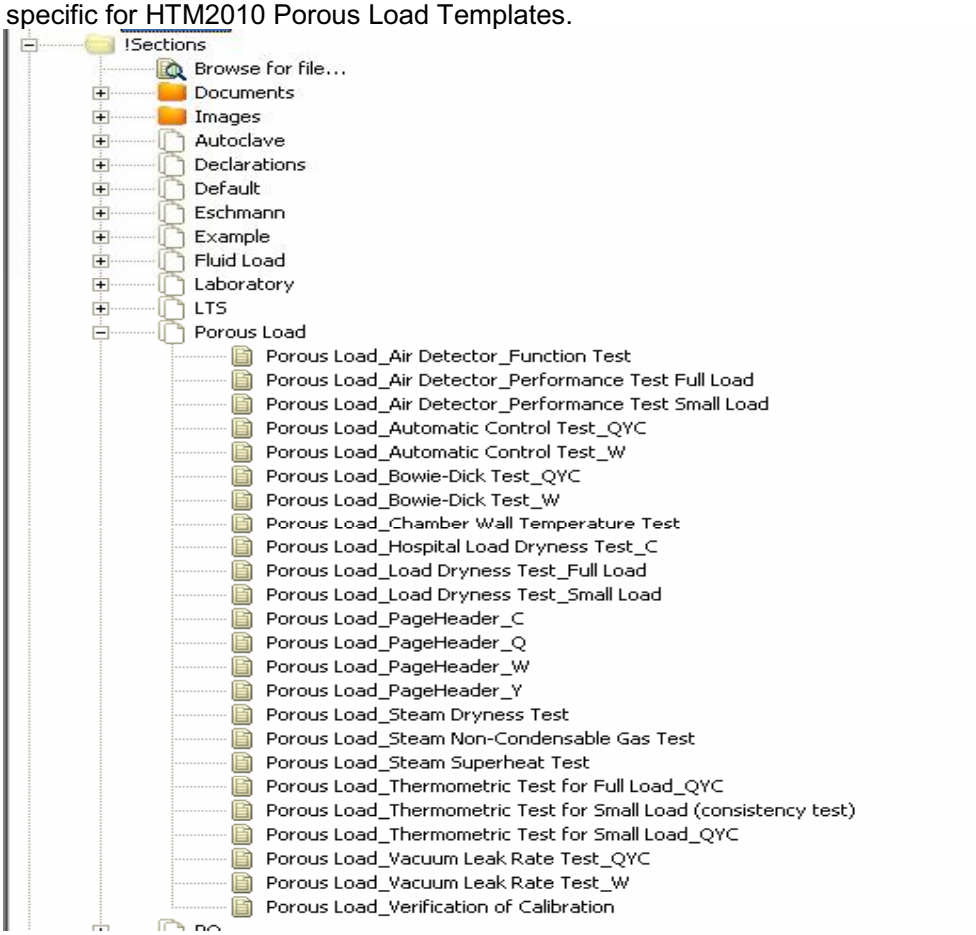
- It then loads the software.



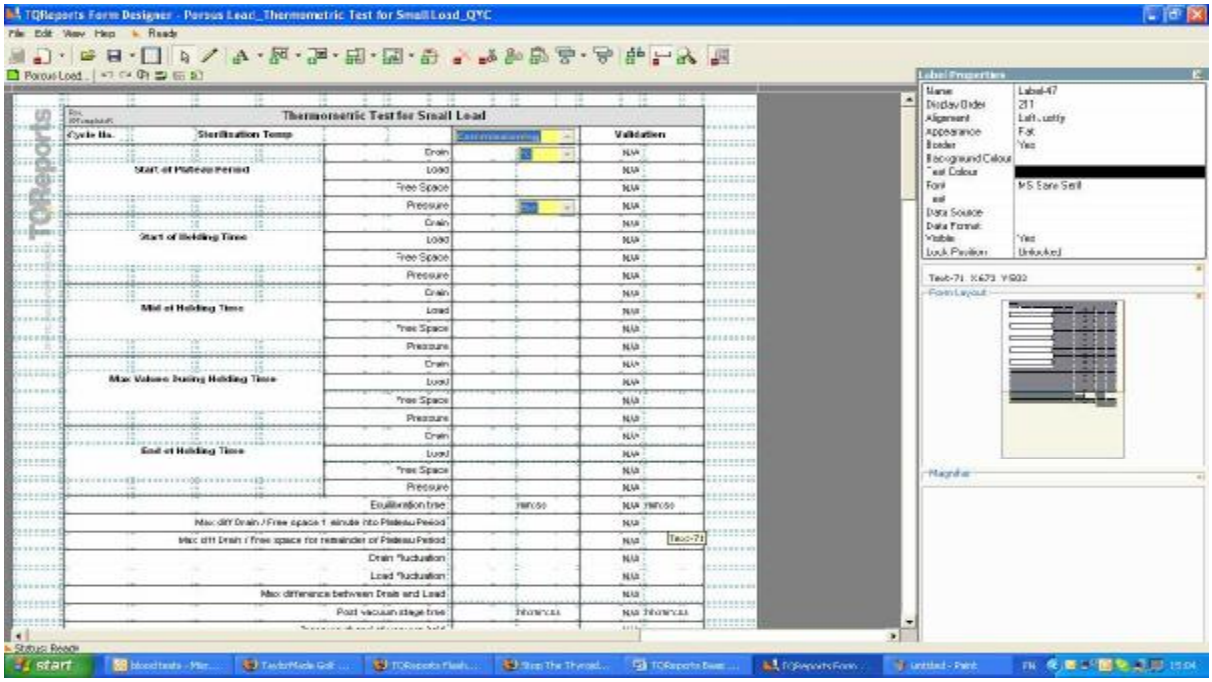
- On the Left hand side is your own ACTION area where you actually store and compile reports.
- On the right hand side is the TEMPLATE area, where all the templates are stored for all HTM2010 and HTM2030 applications and TQSoft information such as charts, data listings and calibration reports. You also store all your own pictures, images, word and excel documents and PDF documents here.
- If we go to the Templates side and double click on the !Sections folder in the template area.



- If for example we double click on the Porous Load folder, we can see all the templates that are specific for HTM2010 Porous Load Templates.



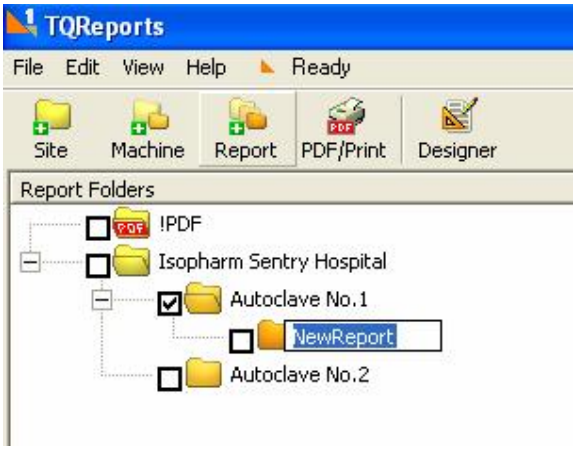
- NB Notice how the title of template starts with Porous Load_ xxxxx. This is how the templates are grouped together.
- If you have TQReports Designer you can double click on the template and it will open up the designer software with that template you have chosen.
-



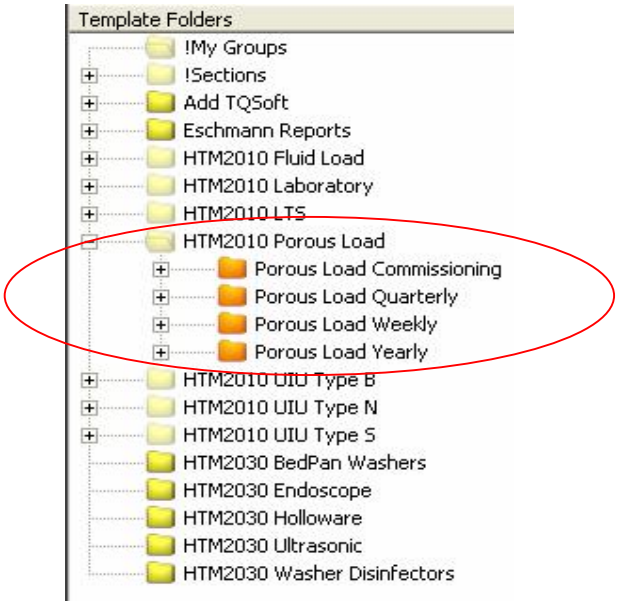
- Now go to the ACTION side of the screen.
- Click on the Site button. 

- Type in the location of your machine such as the Hospital Name or the Department of the hospital.
- Click on the Machine button. 

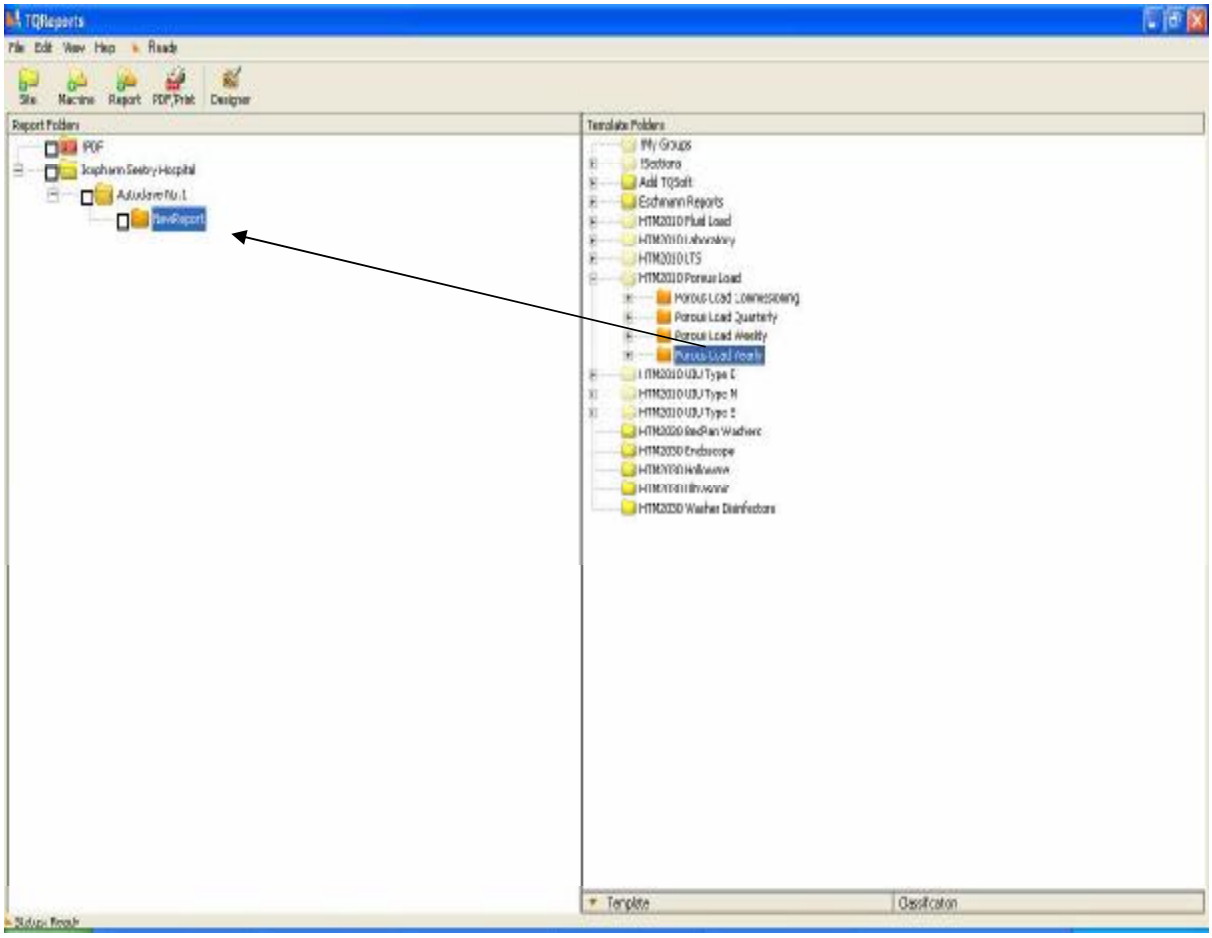
- Type in the serial number or the name of the Autoclave/Washer Disinfector.
- You will repeat the process every time you want to add a new site or add a machine to that site
- Click on the Report button to start a new Report. 



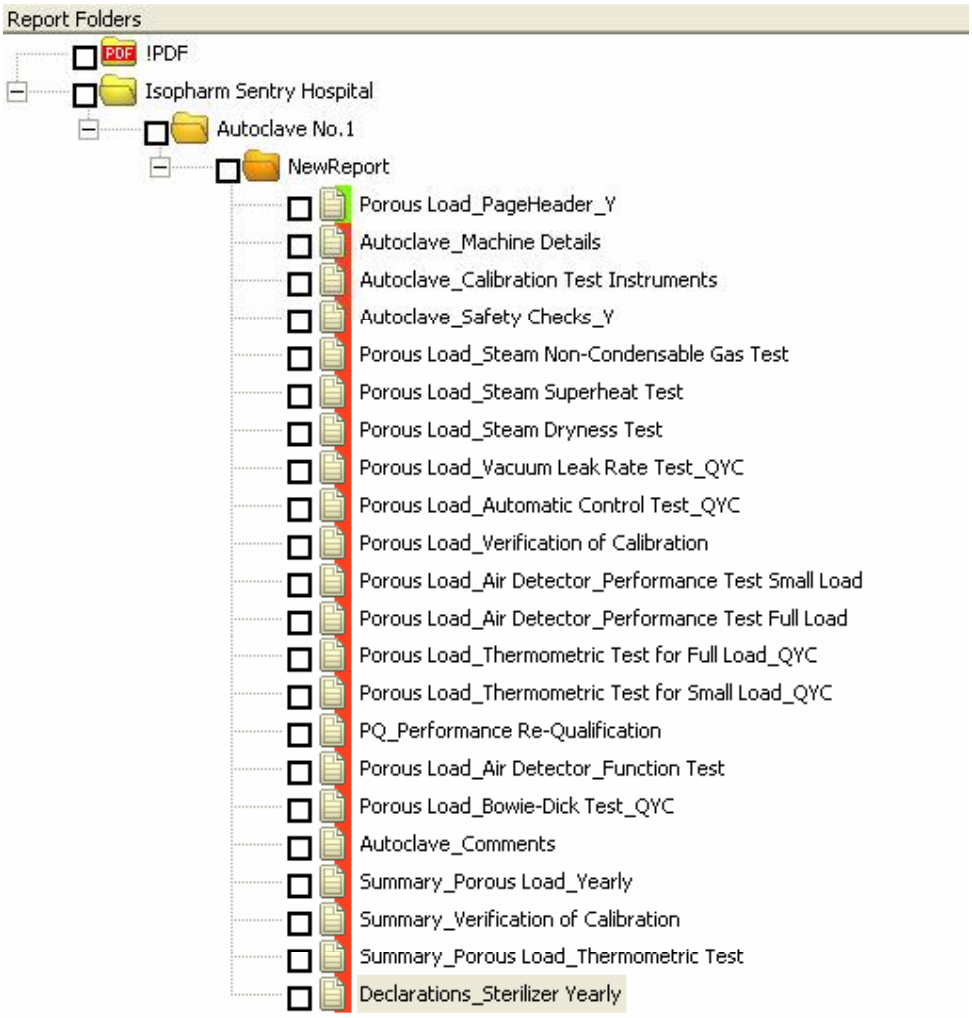
- Now for this example we are going to use a Porous Load Yearly Report however the same approach applies for any type of report.
- Go to the Template Area and Double Click on HTM2010 Porous Load Folder.



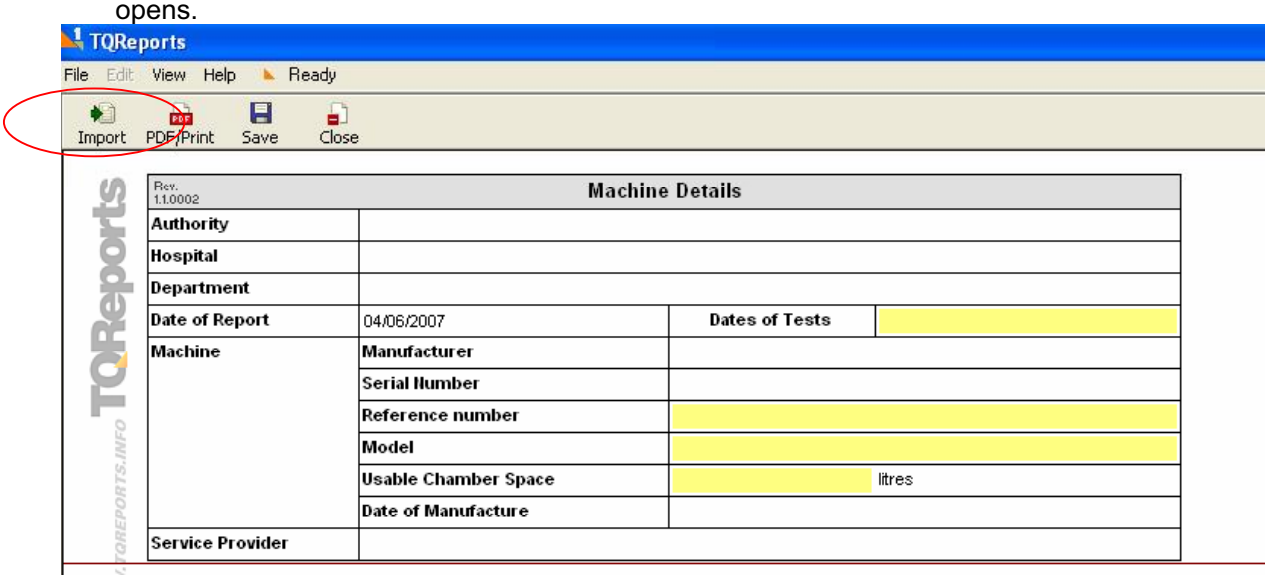
- Now Click on the Porous Load Yearly and drag and drop to the Action Area into the New Report



- A list of empty templates that are required to be filled in with appear.

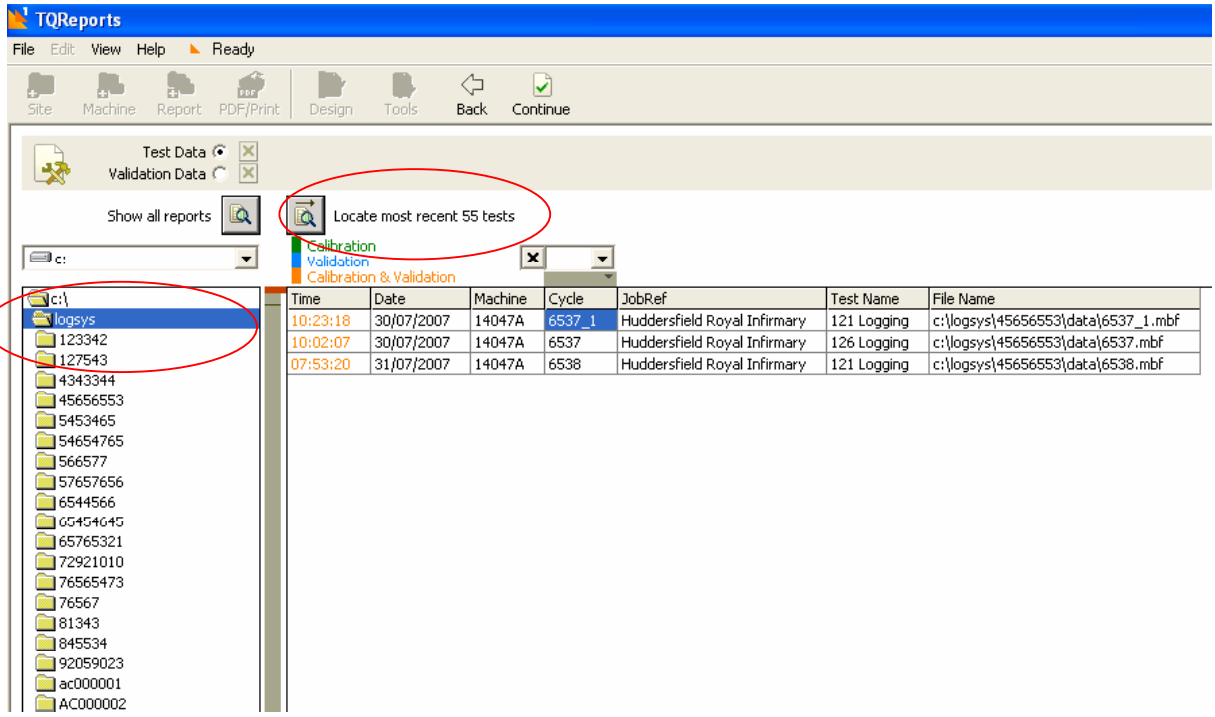


- Now double Click on the Autoclave Machine Records. The Machine Records Template opens.

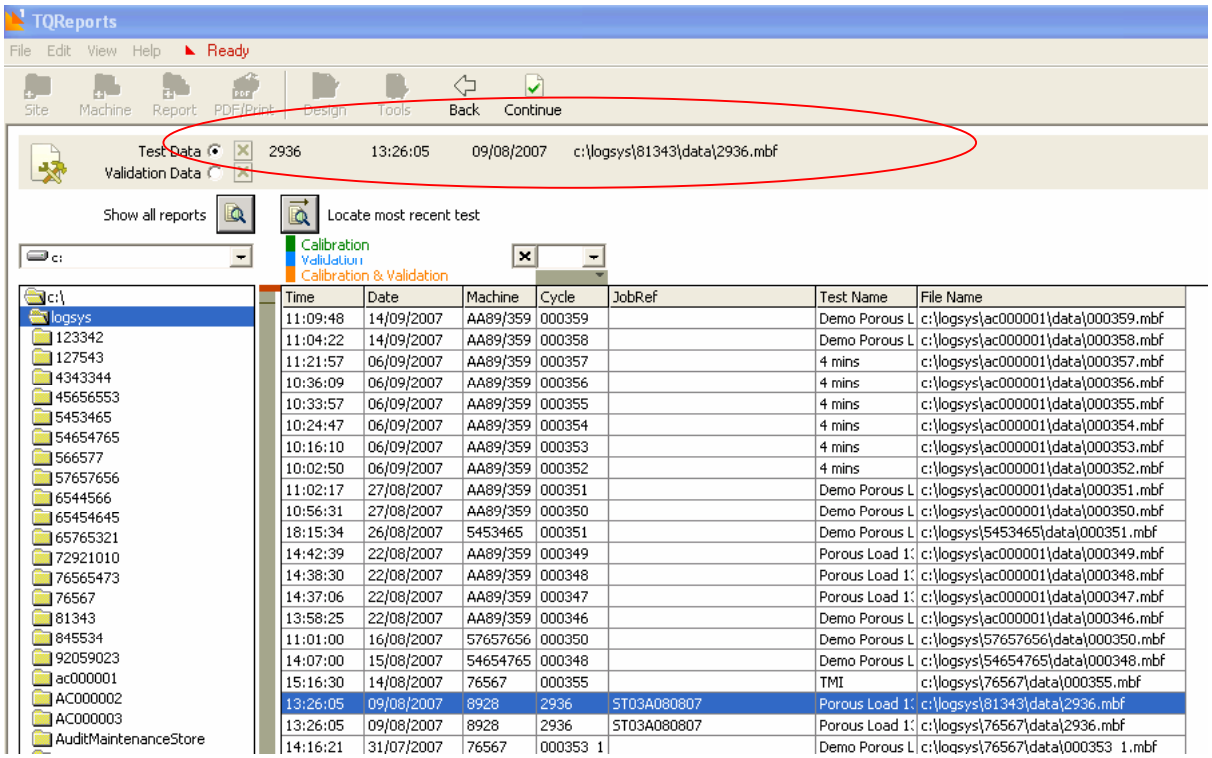


- Click on the Import Button

- This brings up a list of TQSoft's Historical Test

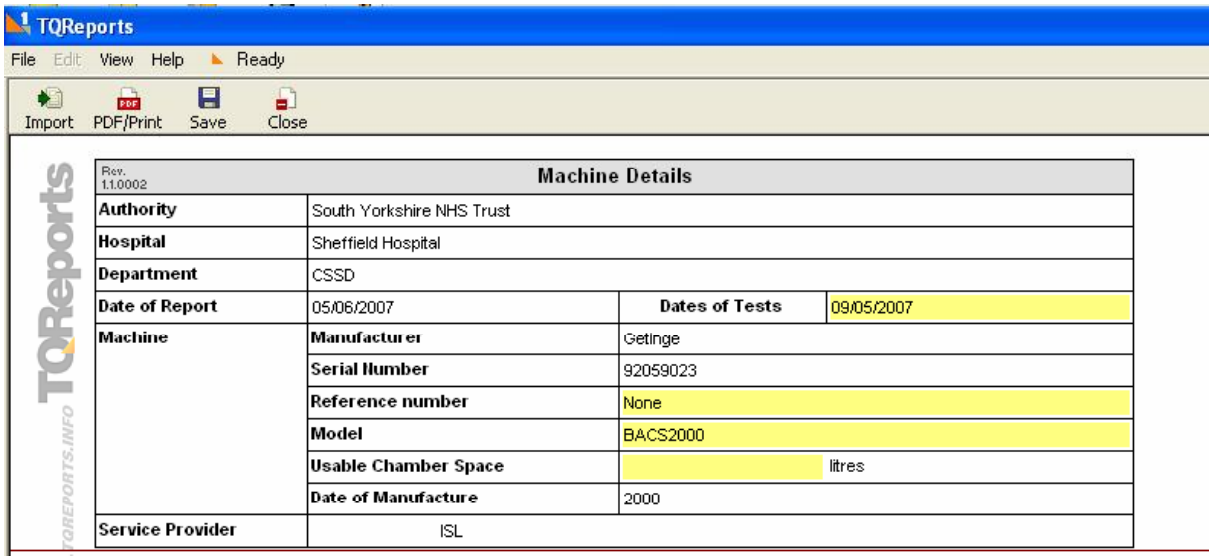


- On the left hand side you will see a directory list of your entire test from TQSoft.
- For example, if you double click on the logsys folder, you will see a list of all the machine serial numbers. If you double click on one of the serial number folders of your machines you will the tests completed for that machine only.
- If you press on Locate most recent test button, and with the left mouse button drag it towards the right, it will show a list of the most recent tests which is very handy if you're completing a report on your recent tests just completed.

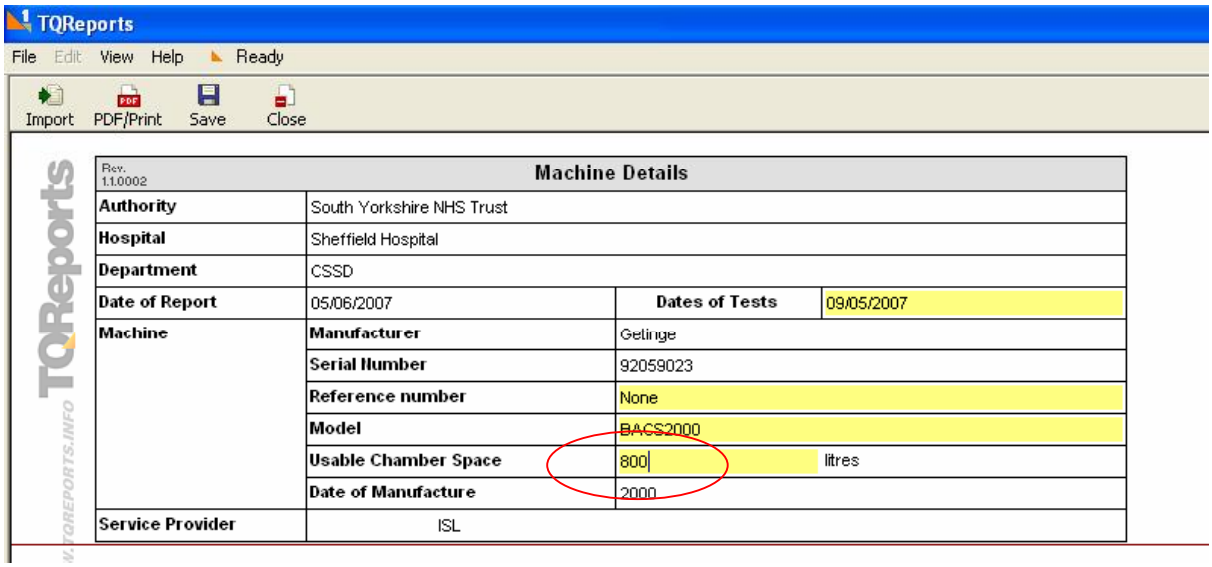


- Once you have selected your test, it will then show the test your have selected next to Test Data. Then Press OK.

- Then the template is filled in. It takes the information selected from your Machine Details you entered in TQSoft

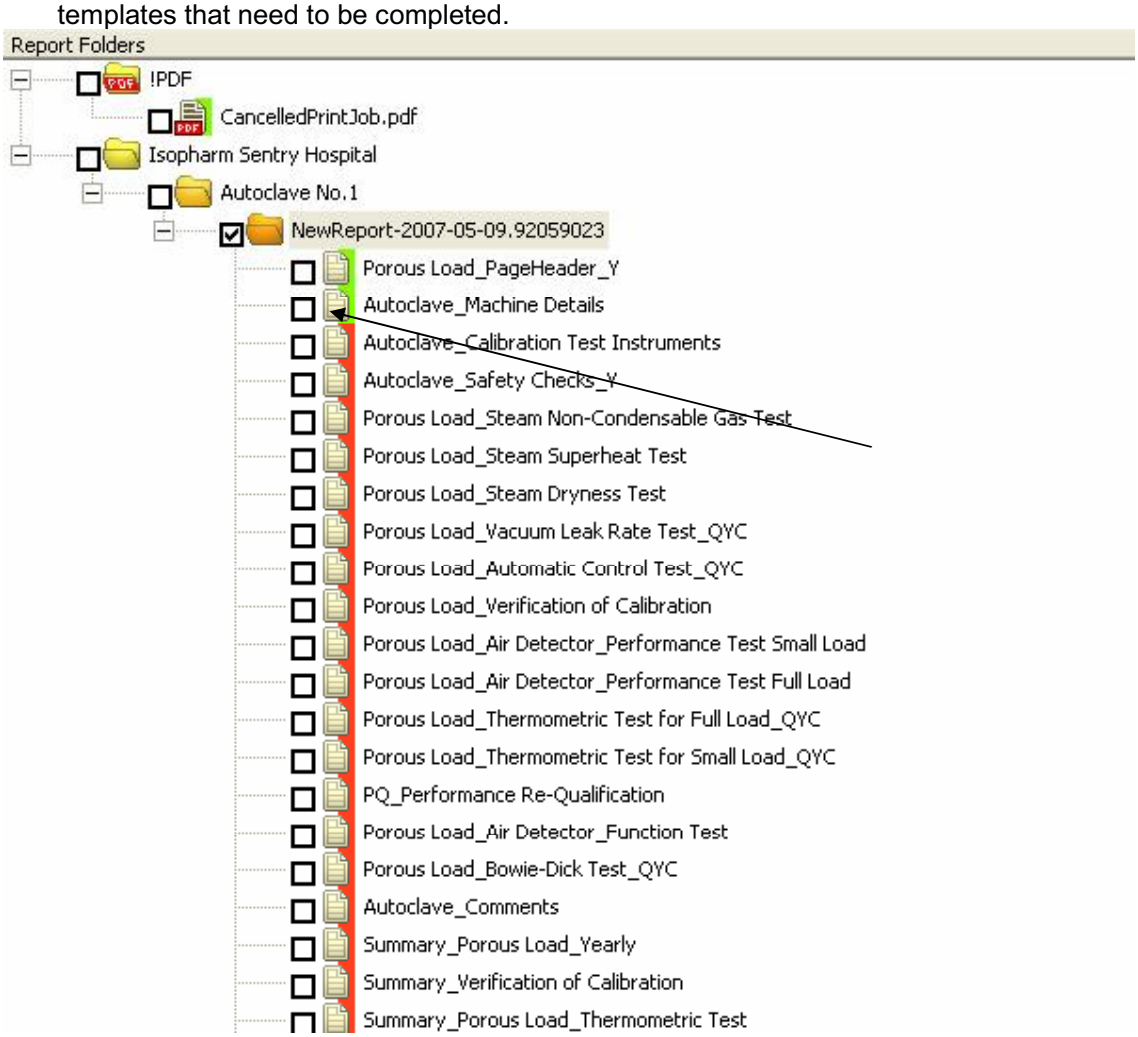


- The Yellow fields means that data can be entered manually here. For example you will notice that the Usable Chamber Space field is empty, but a yellow colour. This means we can now enter manually the Usable Chamber space details.

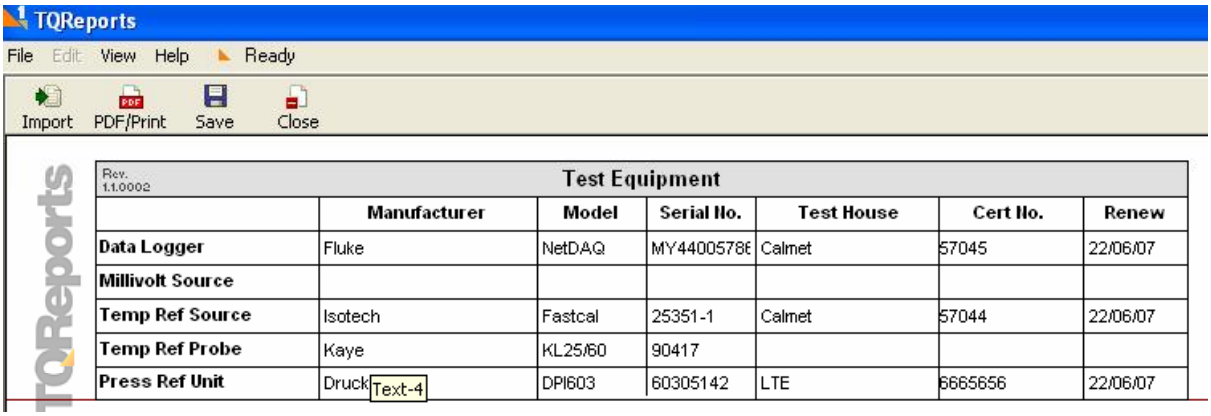


- NB. Please note that you can click on the PDF/Print button if you wish just to print off this template only.
- Now Press Save and Close to complete the template.

- Also notice now that as you have completed (saved) the template the colour in the list goes green, indicating you have completed the template. The red ones are obviously unsaved templates that need to be completed.



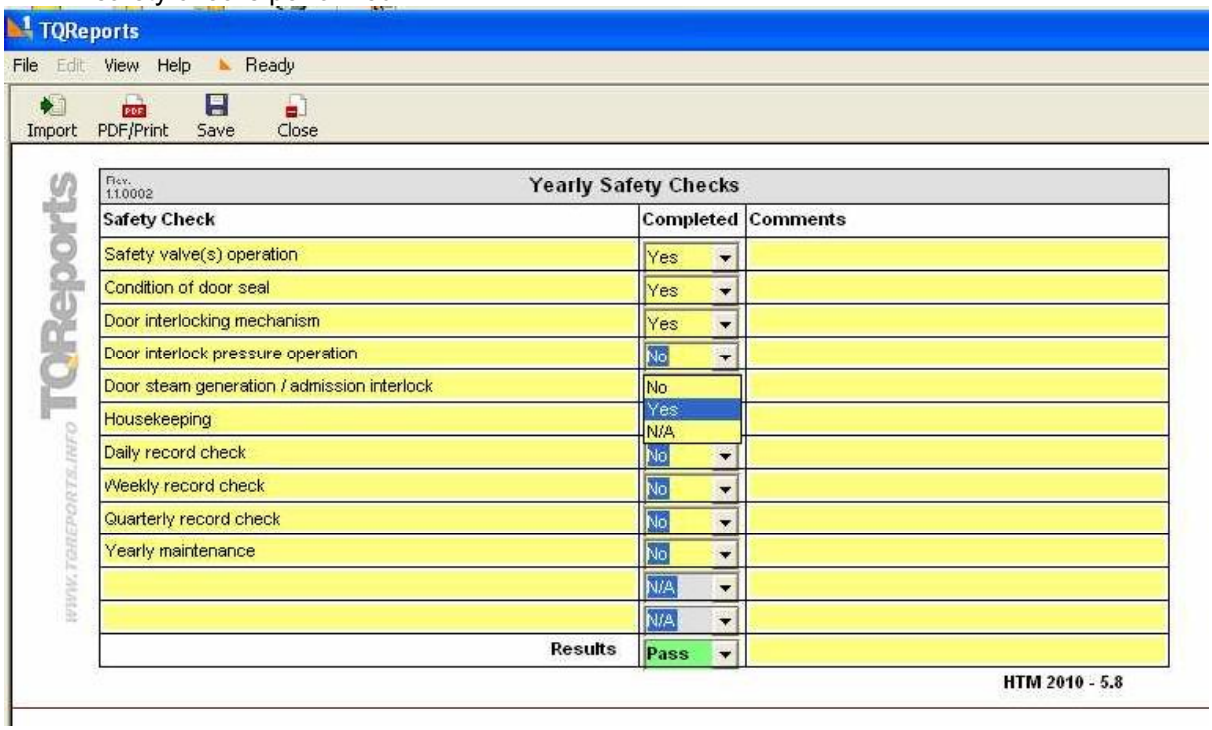
- Now repeat the Process for the Autoclave Calibration of Test Instruments
- Double click on the template, then click import and select the test.
- Now watch the details import which comes from your Test Equipment selected in TQSoft.
- Now Save and Close as before.



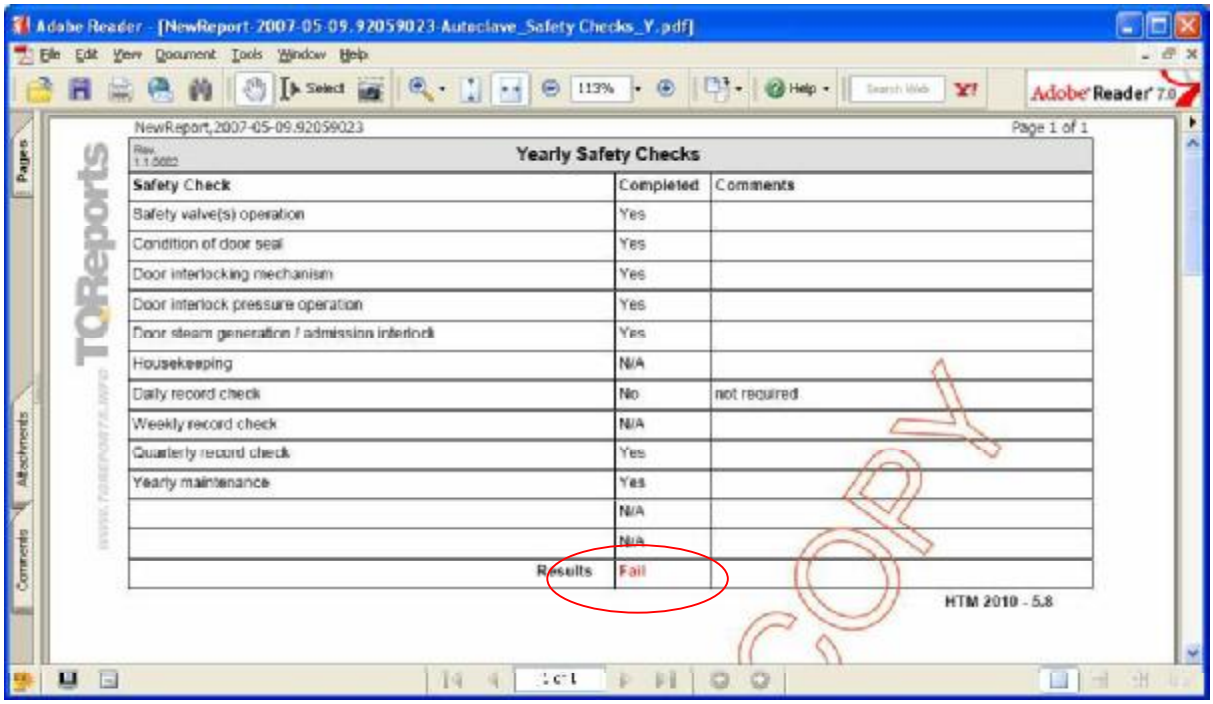
	Manufacturer	Model	Serial No.	Test House	Cert No.	Renew
Data Logger	Fluke	NetDAQ	MY4400578	Calmet	57045	22/06/07
Millivolt Source						
Temp Ref Source	Isotech	Fastcal	25351-1	Calmet	57044	22/06/07
Temp Ref Probe	Kaye	KL25/60	90417			
Press Ref Unit	Druck Text-4	DPI603	60305142	LTE	6665656	22/06/07

- Again the template now goes Green as it has been saved and completed.

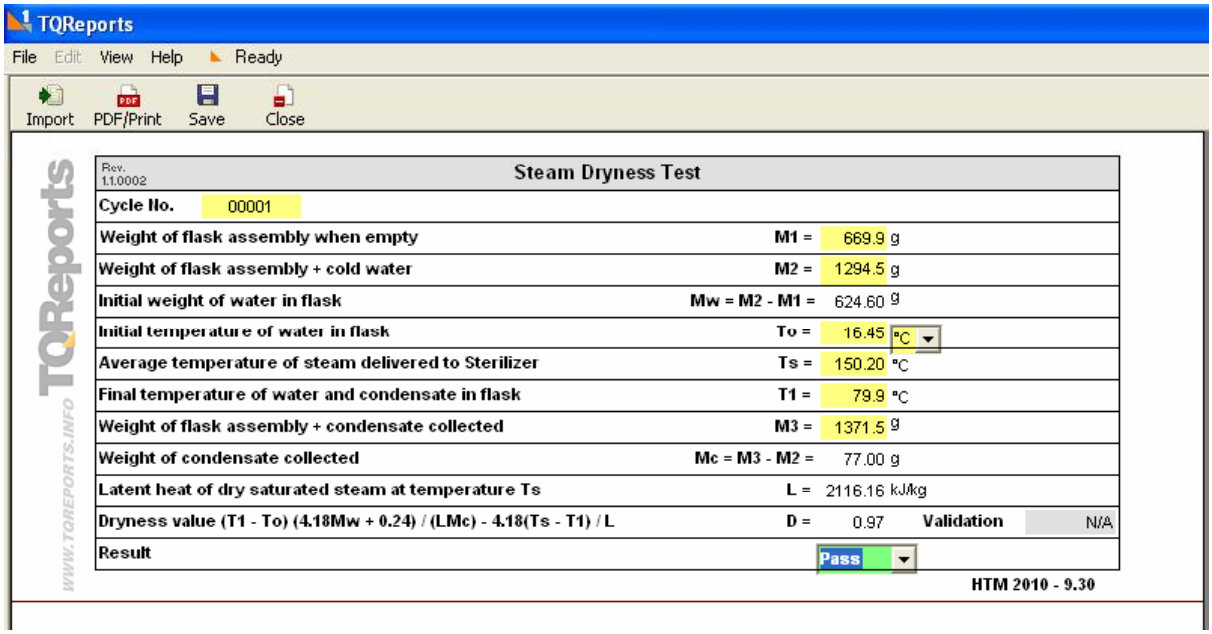
- Double Click on the Autoclave Safety Checks template.
- From the drop downs you can select N/A, Yes or No. (or you can TAB through and make the changes with the keyboard)
- Also as all templates are in yellow, you can change or even add to the descriptions of the safety checks performed.



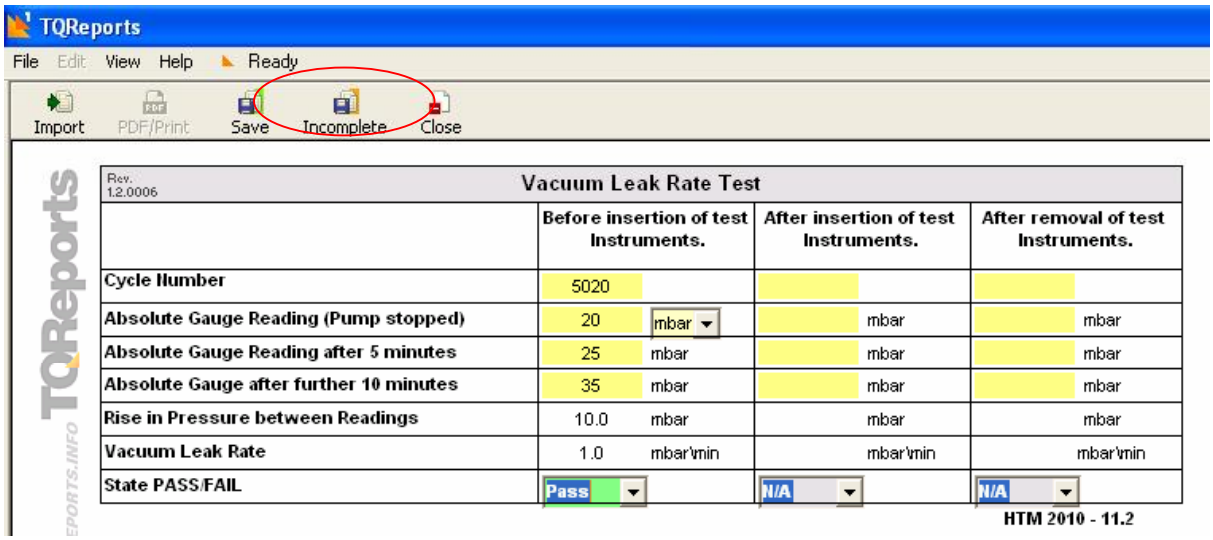
- Also note that the results section has Green text for Pass and Red text for Fail. The fail will be printed out in RED when this is printed out on a colour printer.



- Now go to the Porous Load Steam Dryness Test Template
- What you will see here is an example of how TQReports can calculate the Dryness Value for you.

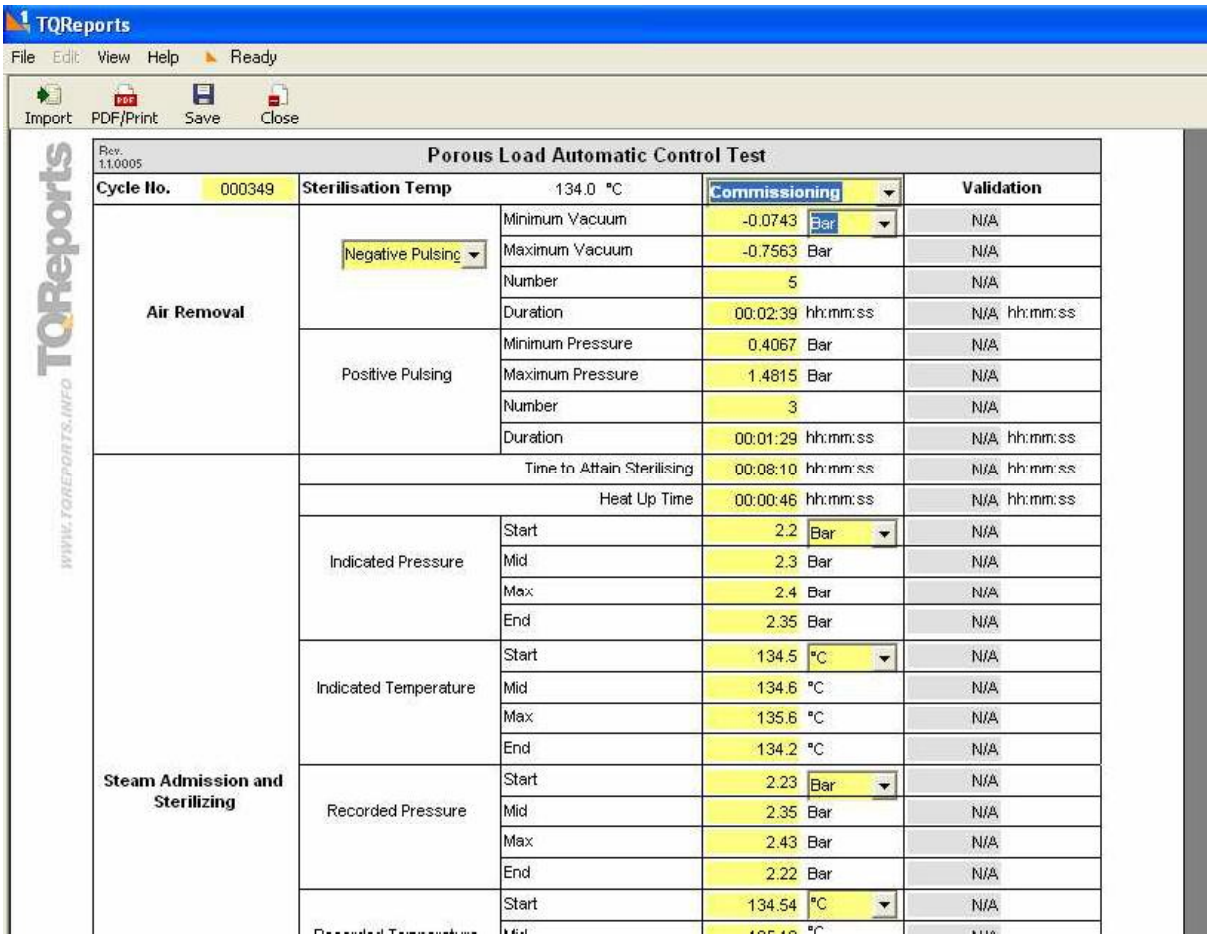


- You can see that if you put in the values shown in the yellow boxes for example, the calculation fields in white are then calculated for you. These are known as function calculations.
- You can repeat these processes for templates such as Vacuum Leak Rate Test, Steam Superheat and Non Condensable Gasses.



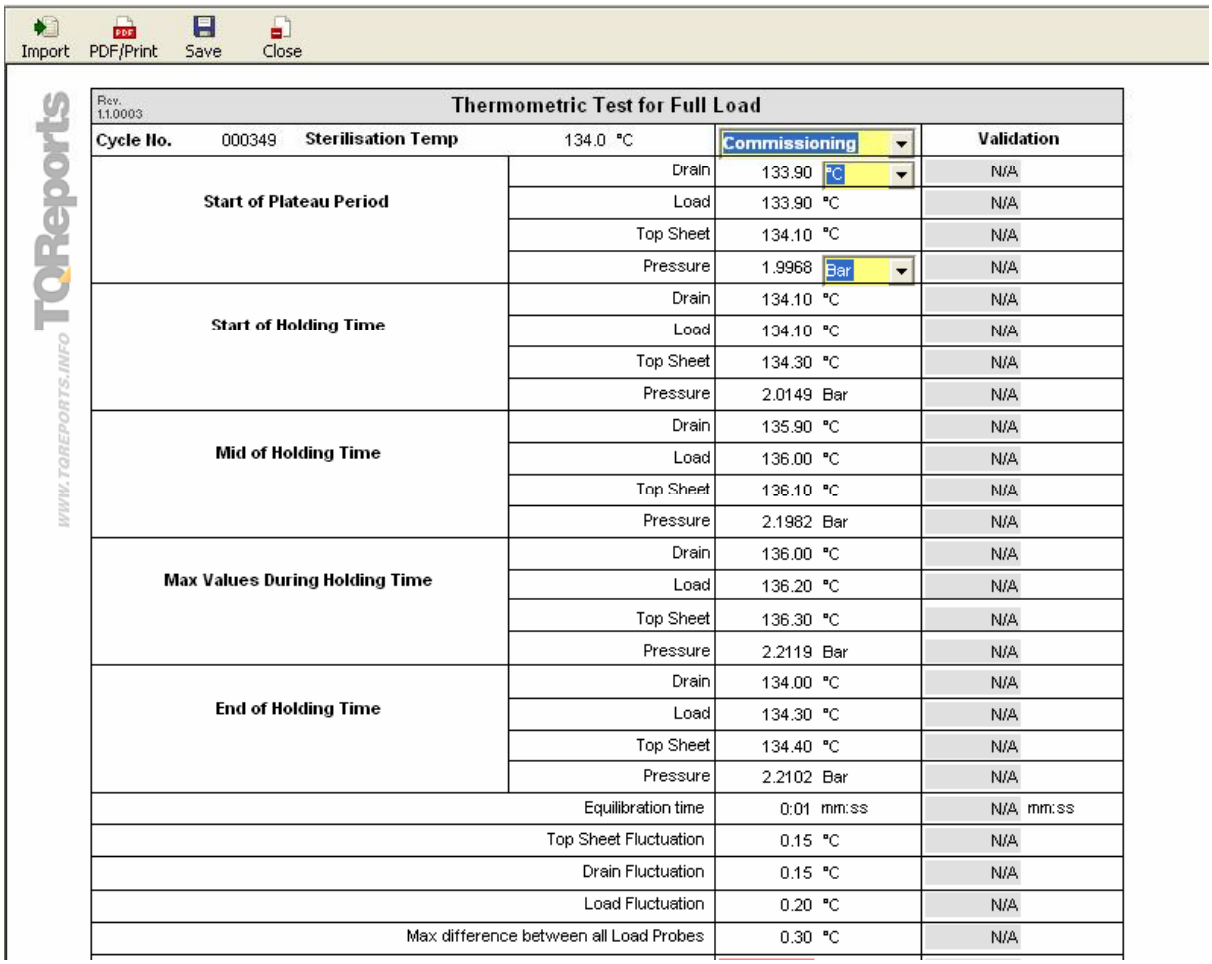
- This is a good example of a template that is partially complete. Here we can save the template by pressing Incomplete.
- This will save the template, but the template in the list is Amber showing it needs to be returned to later, to complete the template.

- Double Click on Porous Load Automatic Control Test.
- Press the import button and select a TQSoft cycle known to have the following stages in. (If you don't have a porous load cycle pick one you do have and make sure it has the correct stages in (See page 1)).
- Porous Load for example has
- **Negative Pulsing**
- **Positive Pulsing**
- **Heat Up**
- **Machine Sterilisation Start**
- **Sterilisation Start**
- **Machine Sterilisation End (Drying)**
- **Sterilisation End**
- **Air Admission**



- You notice that all the time durations and the max and min pressures and vacuums for the air removal stage and the measured temperature and pressure for the sterilising stages have been automatically filled in for you.
- To complete the template all you have to fill in are the recorded and indicated temperatures and pressure saving time completing the template.
- Press Save and then Close.
- Complete the templates Verification of Calibration, Air Detector Performance Test full load and Air Detector Performance Test small load.
- NB for Air Detector Performance Test full load and Air Detector Performance Test small load templates you can you the import button to calculate the temperature depression.

- Now double click on the Thermometric Test for Full Load.
- Press Import Data and pick the correct cycle.



Rev. 1.1.0003

Thermometric Test for Full Load

Cycle No. 000349	Sterilisation Temp 134.0 °C	Commissioning	Validation
Start of Plateau Period	Drain	133.90 °C	N/A
	Load	133.90 °C	N/A
	Top Sheet	134.10 °C	N/A
	Pressure	1.9968 Bar	N/A
Start of Holding Time	Drain	134.10 °C	N/A
	Load	134.10 °C	N/A
	Top Sheet	134.30 °C	N/A
	Pressure	2.0149 Bar	N/A
Mid of Holding Time	Drain	135.90 °C	N/A
	Load	136.00 °C	N/A
	Top Sheet	136.10 °C	N/A
	Pressure	2.1982 Bar	N/A
Max Values During Holding Time	Drain	136.00 °C	N/A
	Load	136.20 °C	N/A
	Top Sheet	136.30 °C	N/A
	Pressure	2.2119 Bar	N/A
End of Holding Time	Drain	134.00 °C	N/A
	Load	134.30 °C	N/A
	Top Sheet	134.40 °C	N/A
	Pressure	2.2102 Bar	N/A
Equilibration time		0:01 mm:ss	N/A mm:ss
Top Sheet Fluctuation		0.15 °C	N/A
Drain Fluctuation		0.15 °C	N/A
Load Fluctuation		0.20 °C	N/A
Max difference between all Load Probes		0.30 °C	N/A

- Again as you can see all the fields are calculated.
- Repeat the process for a Thermometric Test Small Load.
- Just to repeat. For these templates to work correctly you must have the correct name in the location area under Probes in the Test Specification. If these are not correctly entered you can go to TQSoft, and select the correct cycle using Historical Tests. Then click on the Test Details Tab, go to Probes and edit the locations from there.
- For example The Full load has to have a Top Sheet probe and the Small load must have a free space probe. Obviously both tests have to have a drain and centre of pack probe.
- Use these Locations listed below, and TQReports does the rest.

- Chamber Pressure Sensor **PRESSURE**
- Drain/Vent Sensor **DRAIN or VENT or DISCHARGE**
- Chamber Free Space Sensor **FREESPACE**
- Test Pack Sensor **PACK or LOAD**
- Top Pack Sensor (Top Sheet) **TOPSHEET**
- Bottom Pack Sensor **BOTTOM**
- Water Reservoir Sensor **RESERVOIR**

- Repeat the process for the Performance Re-Qualification Template

- Complete the Air Detection Function Test and the Bowie Dick Test and fill in any comments in the Autoclave Comments template.

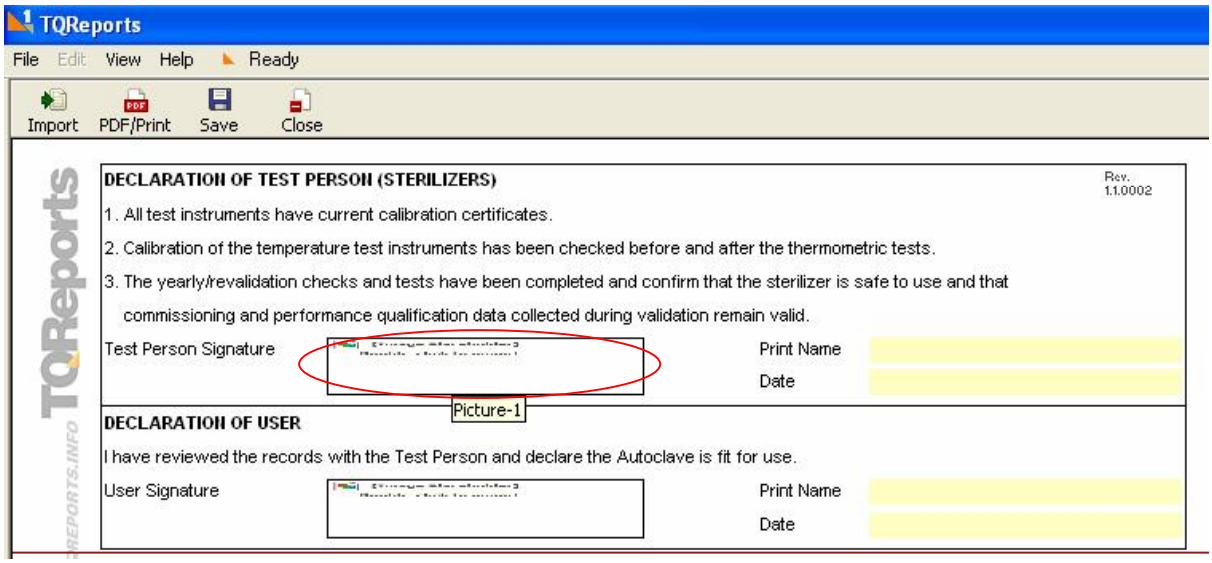
- The Summary Reports are optional.
- The Machine Details can be imported from the machine details information in TQSoft by using the Import button as before.
- The rest is filled in manually giving a pass or fail criteria and a summary of the results.

Rev. 1.1.0002	Porous Load Yearly Summary		
Authority	South Yorkshire NHS Trust		
Hospital	Sheffield Hospital		
Department	CSSD		
Date of Report	05/06/2007 15:24:22	**Dates of Tests**	09/05/2007
Steriliser	**Manufacturer**	Getinge	
	Serial Number	92059023	
	Reference number	None	
	Model	BACS2000	
	Usable Chamber Space	800 litres	
	Date of Manufacture	2000	
Service Provider	ISL		

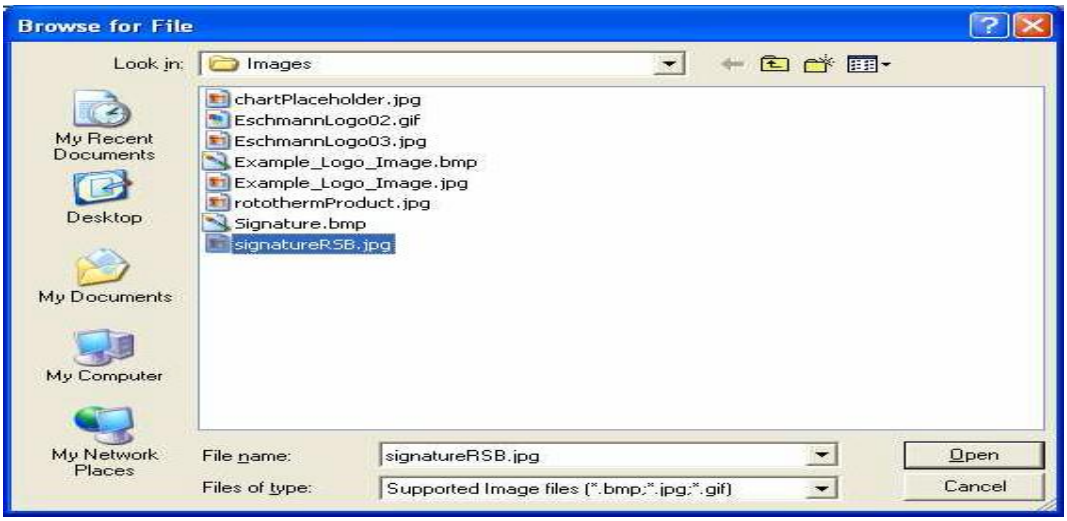
Results of Yearly Tests

Tests as Specified in HT2010	Ref	Pass/Fail	Cycle No.	Result			
Safety checks	5.8	Pass	N/A				
Steam non-condensable gas test	9.4	Pass	0001/02/03	Concentration of NCG	3.2	%	
Steam superheat test	9.20	Pass	0004	Superheat	22		
Steam dryness test	9.30	Pass	0005	Dryness Value	0.97		
Vacuum leak test (before sensors)	11.2	Pass	0006	Leak rate	2	mbar\min	
Vacuum leak test (sensors inserted)	11.2	Pass	0007	Leak rate	3	mbar\min	
Automatic control test	12.1	Pass	0008	ST selected	134	ST hold time	00:03:00
Verification of calibration	12.2	Pass	0008	See below			
Air detector performance test small load	11.45	Pass	0009	Leak rate	5	mbar\min	
Air detector performance test full load	11.53	Pass	0010	Leak rate	4	mbar\min	
Thermometric test full load	13.15	Pass	0011	See below			
Thermometric test small load	13.7	Pass	0012	See below			
Performance Re-Qualification	8.64	Pass	0013	See Performance Re-Qualification Test (if applicable).			
Vacuum leak test (sensors removed)	11.2	Pass	0015	Leak rate	4	mbar\min	
Air detector function test	11.60	N/A	0016	Air Detector Setting		mbar	
Bowie-Dick test for steam penetration	13.39	Pass	0017	Type of Test Pack	Brownes		

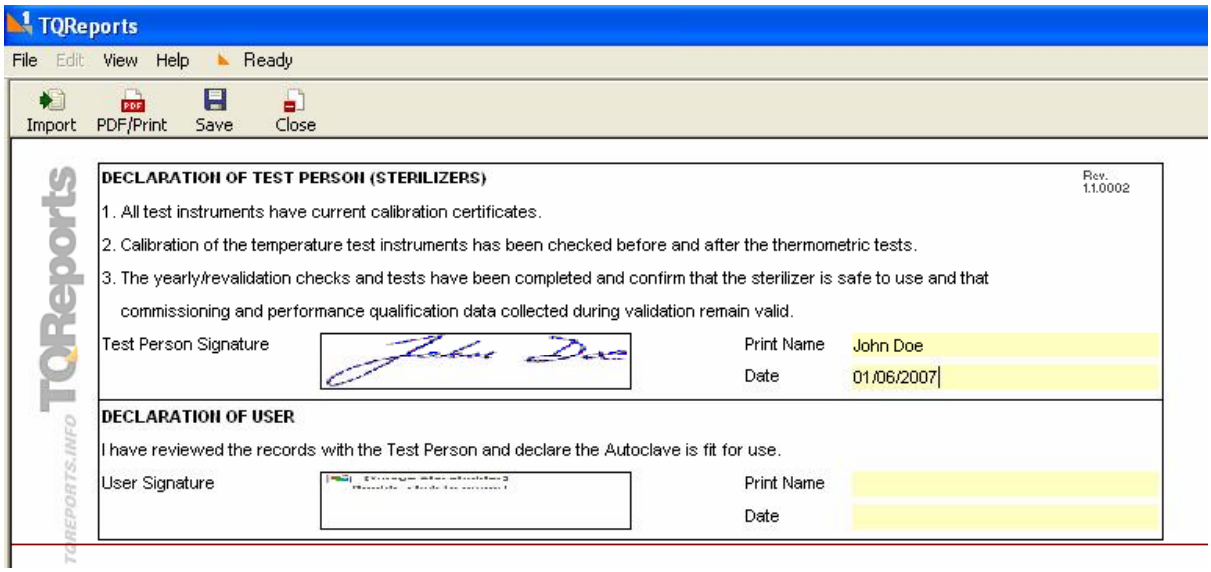
- You can repeat this process for the Summary Thermometric Test and the Summary of the Verification of Calibration.
- Now double click Declarations Steriliser Yearly.
- Click in the box were it has a Test Person Signature



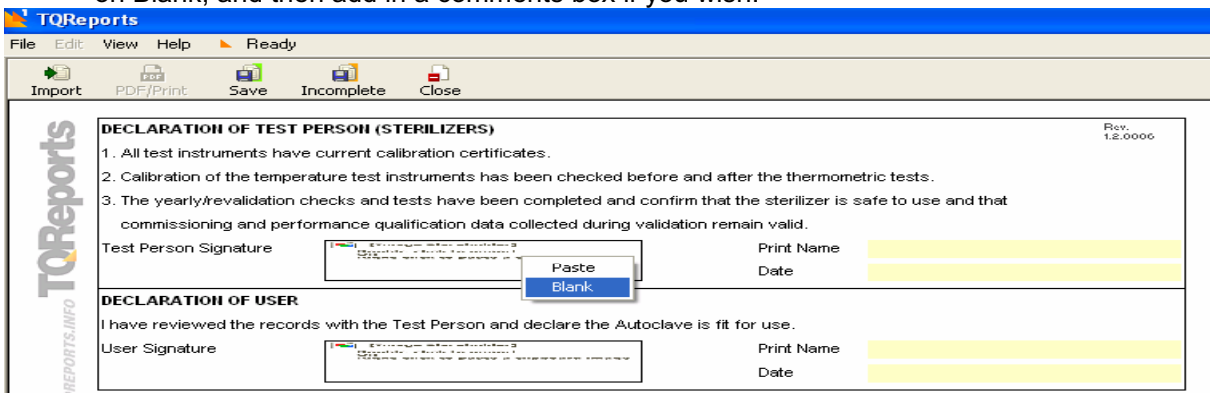
- You have just click on an image Box so the images window opens.



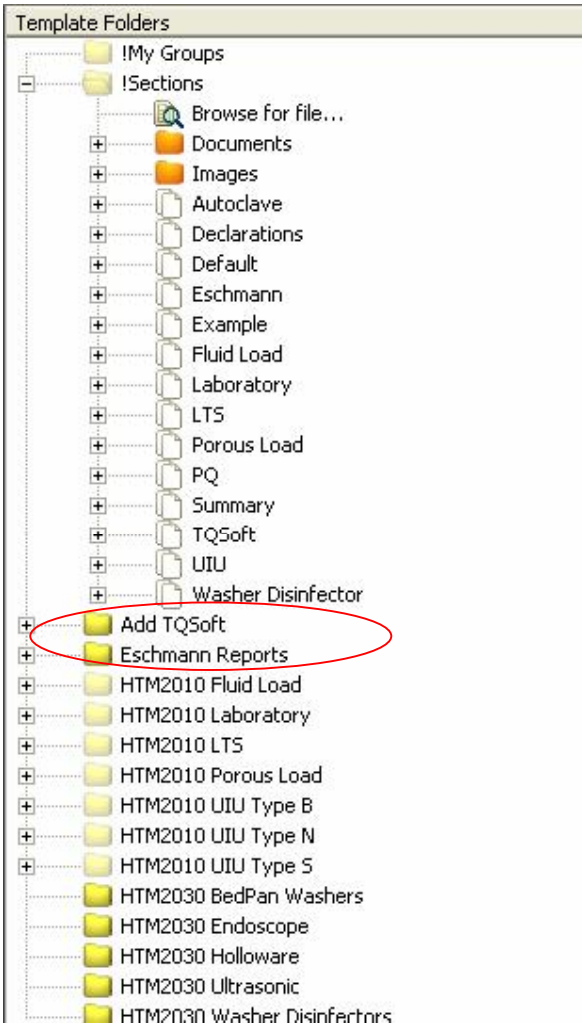
- So for example you can bring in a jpeg of your signature, so you will not even have to print out your report when you make the Report into a PDF.
- This process can be done if you wish to import any images into your report, for example maybe a digital picture of a schematic diagram of the thermocouple layout in your autoclave or for the cleaning efficacy test of your washer disinfector
- To create templates of your own like this you can purchase TQReports Designer package, so you can design your own template to allow importing your own images.
- The Signature will appear in a signature box as shown.



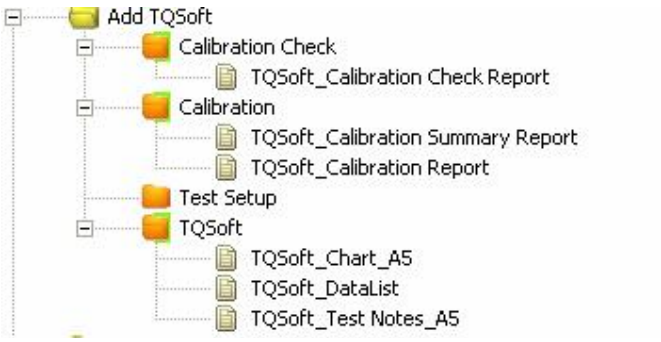
- If you do not wish to do this and wish to create a blank box, right click in the box and click on Blank, and then add in a comments box if you wish.



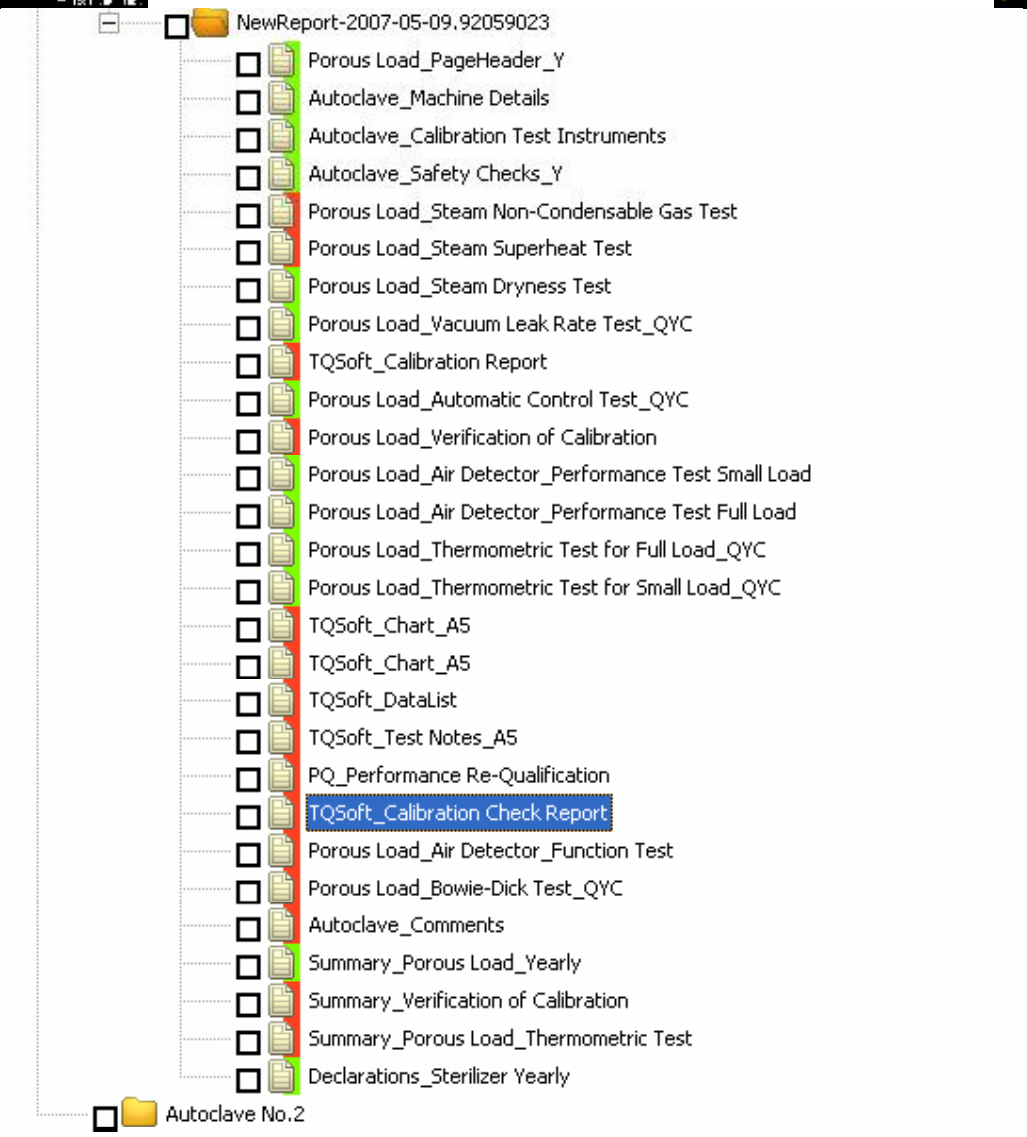
- Now we are going to import TQSoft information into our report
- In the Template section double click on Add TQSoft



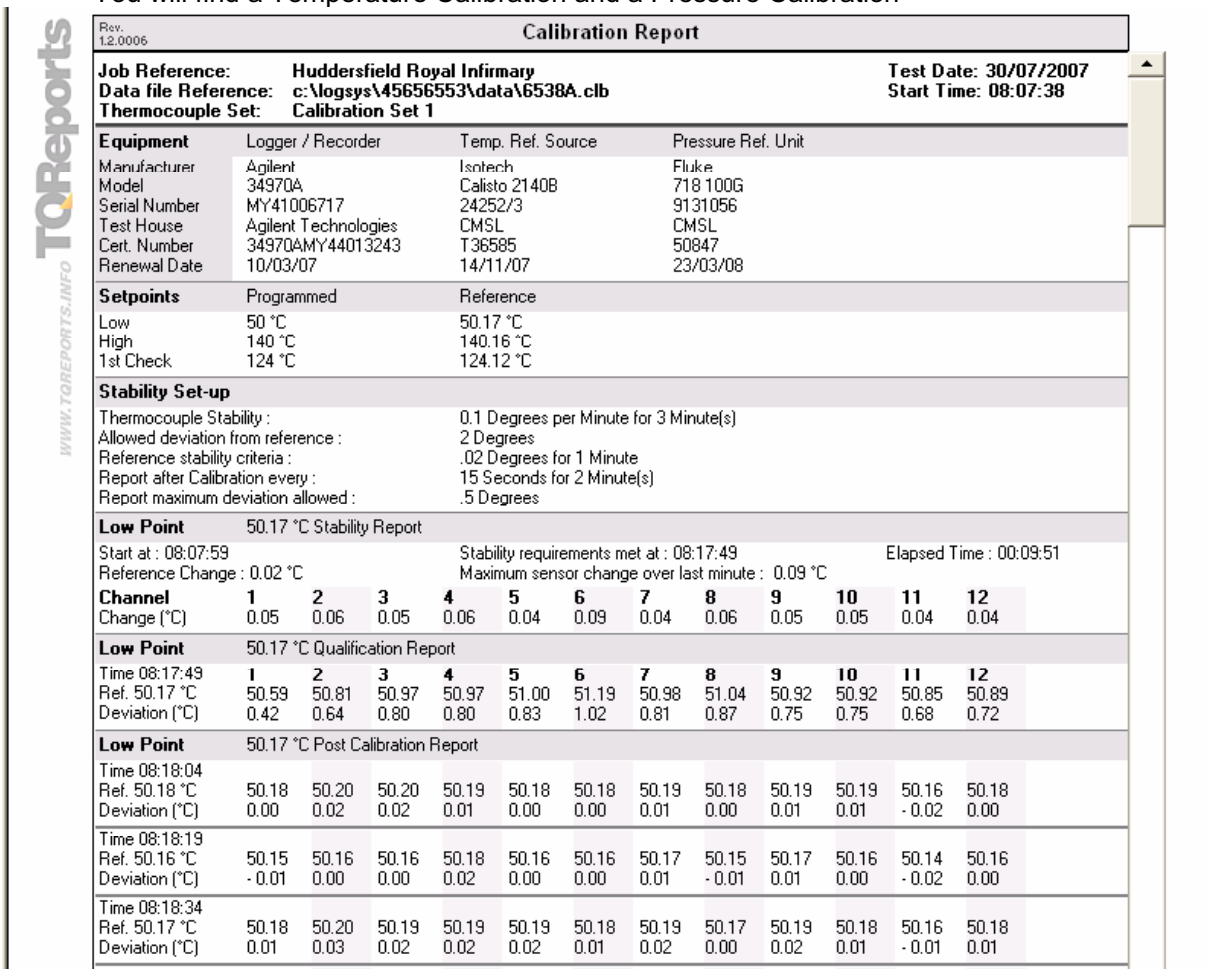
- Now double click on all the Sub Folder such as Calibration Check, Calibration and TQSoft.



- Now for example drag over the TQSoft Calibration Report and position it just above the Automatic Control Test and drag over TQSoft Chart A5 under the thermometric test for small load **twice** and also move over the TQSoft DataList and Test Notes underneath the charts. Also put the Calibration Check underneath the Performance Re-Qualification so it looks something like this.


NewReport-2007-05-09.92059023
Porous Load_PageHeader_Y
Autoclave_Machine Details
Autoclave_Calibration Test Instruments
Autoclave_Safety Checks_Y
Porous Load_Steam Non-Condensable Gas Test
Porous Load_Steam Superheat Test
Porous Load_Steam Dryness Test
Porous Load_Vacuum Leak Rate Test_QYC
TQSoft_Calibration Report
Porous Load_Automatic Control Test_QYC
Porous Load_Verification of Calibration
Porous Load_Air Detector_Performance Test Small Load
Porous Load_Air Detector_Performance Test Full Load
Porous Load_Thermometric Test for Full Load_QYC
Porous Load_Thermometric Test for Small Load_QYC
TQSoft_Chart_A5
TQSoft_Chart_A5
TQSoft_DataList
TQSoft_Test Notes_A5
PQ_Performance Re-Qualification
TQSoft_Calibration Check Report
Porous Load_Air Detector_Function Test
Porous Load_Bowie-Dick Test_QYC
Autoclave_Comments
Summary_Porous Load_Yearly
Summary_Verification of Calibration
Summary_Porous Load_Thermometric Test
Declarations_Sterilizer Yearly
Autoclave No.2

- Double click on the TQSoft Calibration (if you have done one).
- Click Import and select the test.
- You will find a Temperature Calibration and a Pressure Calibration



Rev. 1.2.0006

Calibration Report

Job Reference: Huddersfield Royal Infirmary
Data file Reference: c:\logsys\45656553\data\6538A.clb
Thermocouple Set: Calibration Set 1
Test Date: 30/07/2007
Start Time: 08:07:38

Equipment	Logger / Recorder	Temp. Ref. Source	Pressure Ref. Unit
Manufacturer	Agilent	Isotech	Fluke
Model	34970A	Calisto 2140B	718 100G
Serial Number	MY41006717	24252/3	9131056
Test House	Agilent Technologies	CMSL	CMSL
Cert. Number	34970AMY44013243	T36585	50847
Renewal Date	10/03/07	14/11/07	23/03/08

Setpoints	Programmed	Reference
Low	50 °C	50.17 °C
High	140 °C	140.16 °C
1st Check	124 °C	124.12 °C

Stability Set-up

Thermocouple Stability :	0.1 Degrees per Minute for 3 Minute(s)
Allowed deviation from reference :	2 Degrees
Reference stability criteria :	.02 Degrees for 1 Minute
Report after Calibration every :	15 Seconds for 2 Minute(s)
Report maximum deviation allowed :	.5 Degrees

Low Point 50.17 °C Stability Report

Start at : 08:07:59 — Stability requirements met at : 08:17:49 — Elapsed Time : 00:09:51
Reference Change : 0.02 °C — Maximum sensor change over last minute : 0.09 °C

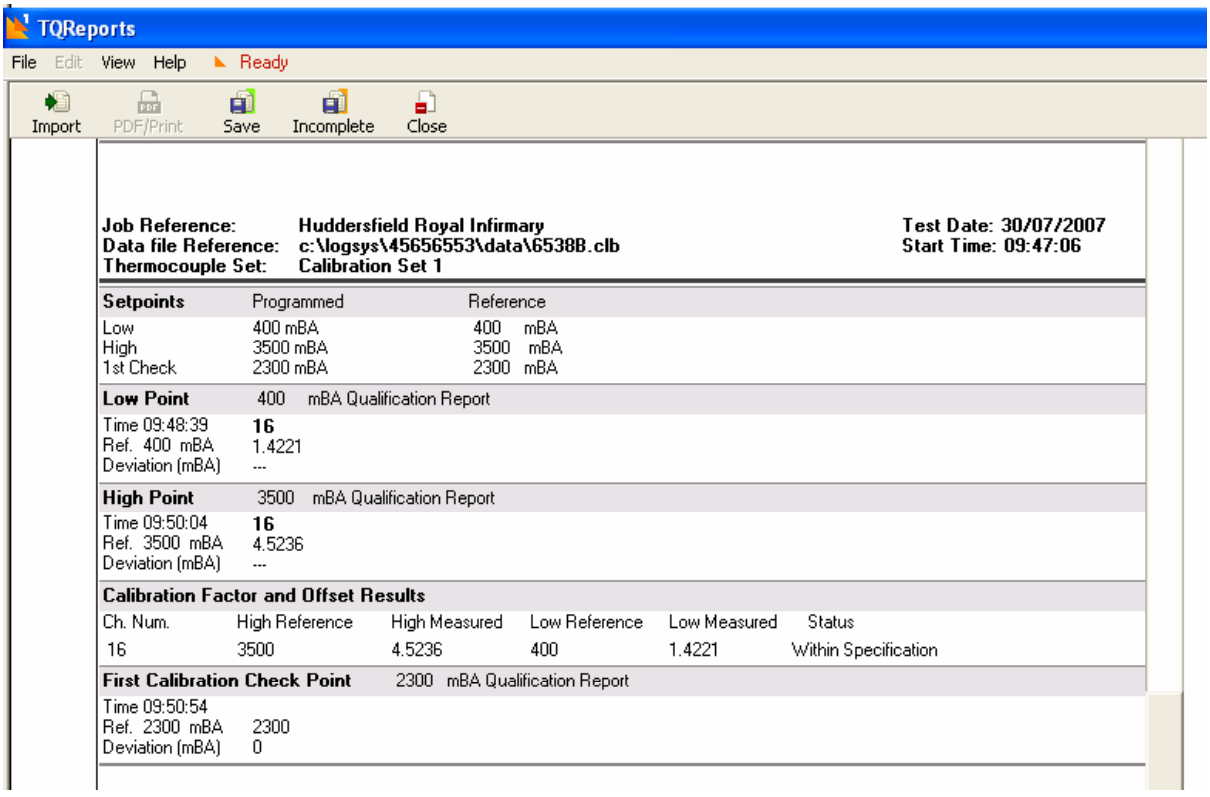
Channel	1	2	3	4	5	6	7	8	9	10	11	12
Change (°C)	0.05	0.06	0.05	0.06	0.04	0.09	0.04	0.06	0.05	0.05	0.04	0.04

Low Point 50.17 °C Qualification Report

Time 08:17:49	1	2	3	4	5	6	7	8	9	10	11	12
Ref. 50.17 °C	50.59	50.81	50.97	50.97	51.00	51.19	50.98	51.04	50.92	50.92	50.85	50.89
Deviation (°C)	0.42	0.64	0.80	0.80	0.83	1.02	0.81	0.87	0.75	0.75	0.68	0.72

Low Point 50.17 °C Post Calibration Report

Time 08:18:04												
Ref. 50.18 °C	50.18	50.20	50.20	50.19	50.18	50.18	50.19	50.18	50.19	50.19	50.16	50.18
Deviation (°C)	0.00	0.02	0.02	0.01	0.00	0.00	0.01	0.00	0.01	0.01	- 0.02	0.00
Time 08:18:19												
Ref. 50.16 °C	50.15	50.16	50.16	50.18	50.16	50.16	50.17	50.15	50.17	50.16	50.14	50.16
Deviation (°C)	- 0.01	0.00	0.00	0.02	0.00	0.00	0.01	- 0.01	0.01	0.00	- 0.02	0.00
Time 08:18:34												
Ref. 50.17 °C	50.18	50.20	50.19	50.19	50.19	50.18	50.19	50.17	50.19	50.18	50.16	50.18
Deviation (°C)	0.01	0.03	0.02	0.02	0.02	0.01	0.02	0.00	0.02	0.01	- 0.01	0.01



TQReports

File Edit View Help Ready

Import PDF/Print Save Incomplete Close

Job Reference: Huddersfield Royal Infirmary
Data file Reference: c:\logsys\45656553\data\6538B.clb
Thermocouple Set: Calibration Set 1
Test Date: 30/07/2007
Start Time: 09:47:06

Setpoints	Programmed	Reference
Low	400 mBA	400 mBA
High	3500 mBA	3500 mBA
1st Check	2300 mBA	2300 mBA

Low Point 400 mBA Qualification Report

Time 09:48:39	**16**
Ref. 400 mBA	1.4221
Deviation (mBA)	---

High Point 3500 mBA Qualification Report

Time 09:50:04	**16**
Ref. 3500 mBA	4.5236
Deviation (mBA)	---

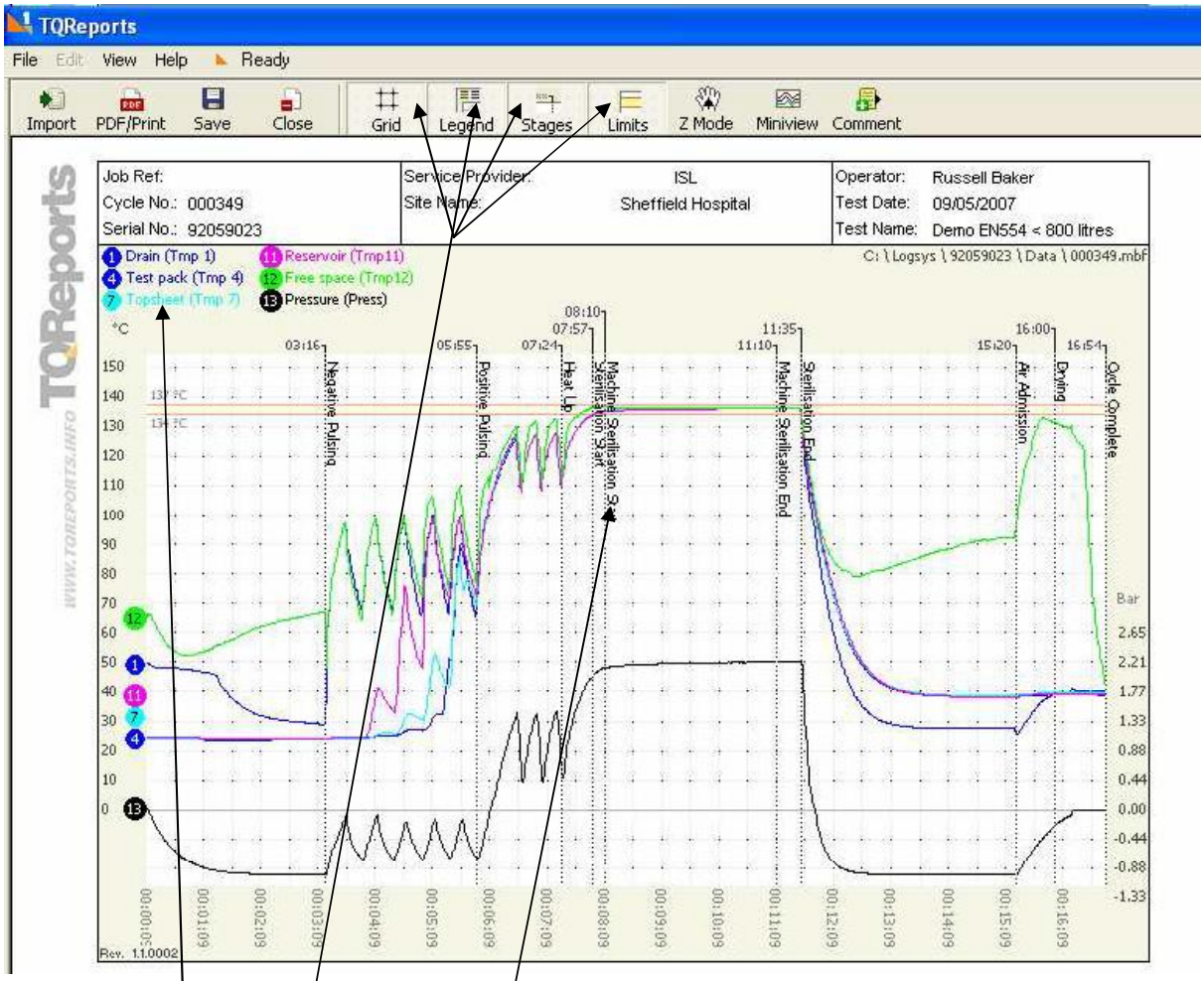
Calibration Factor and Offset Results

Ch. Num.	High Reference	High Measured	Low Reference	Low Measured	Status
16	3500	4.5236	400	1.4221	Within Specification

First Calibration Check Point 2300 mBA Qualification Report

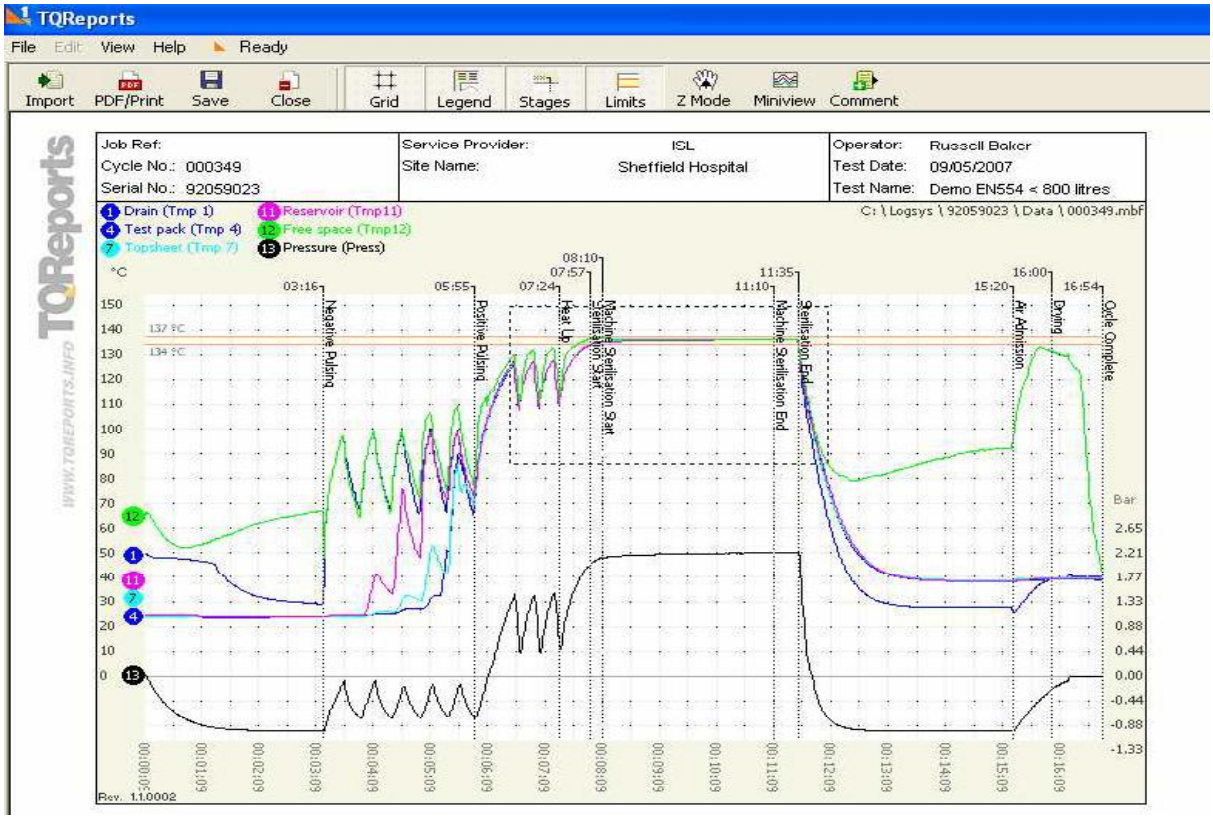
Time 09:50:54	
Ref. 2300 mBA	2300
Deviation (mBA)	0

- Double Click on TQSoft Chart A5
- Import a recent test by using the import button.

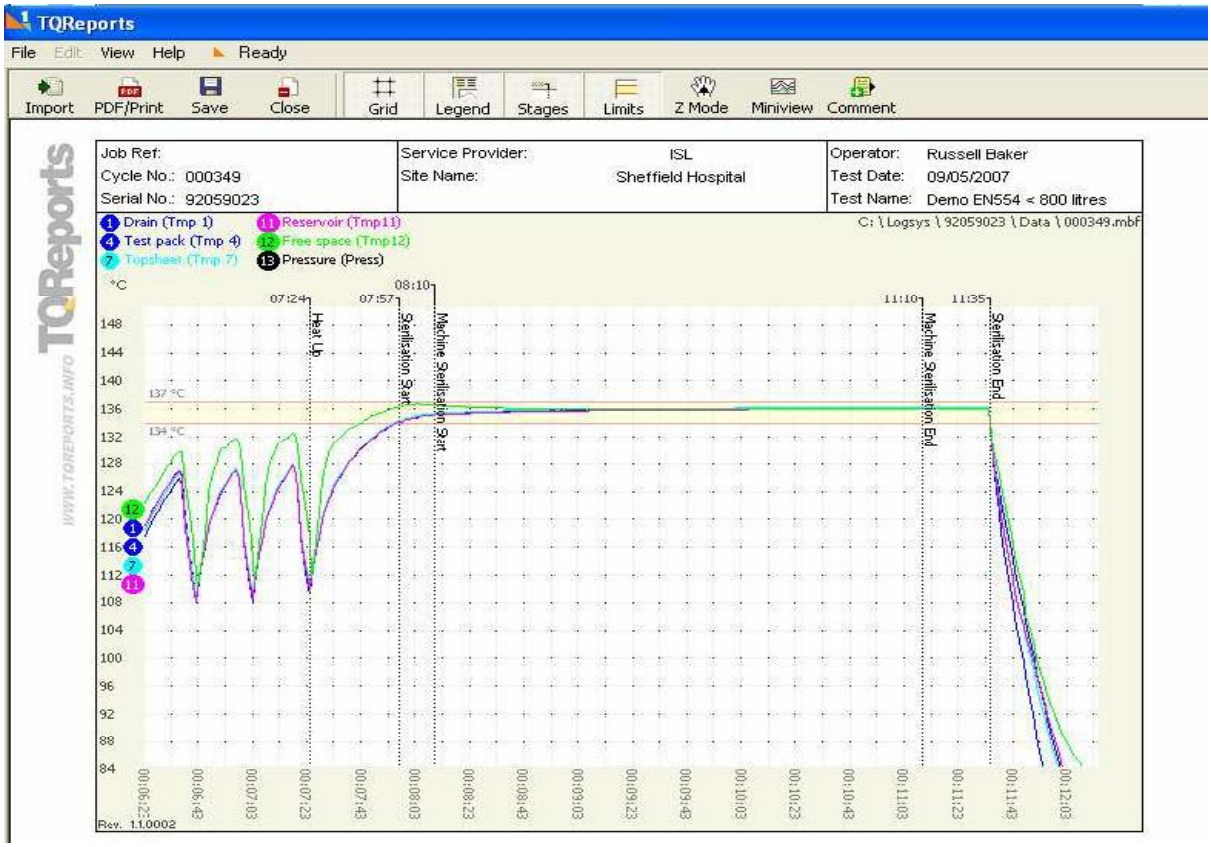


- By clicking on the Probe Icons in the Top Left you can toggle On or Off the Probes.
- You can also Toggle On or Off the Grid, Legends, Stages and Limit Lines by clicking these buttons here.
- You notice that Stages times are staggered so they do not overwrite each other.
- Also you can move the Stage Descriptions up and down the Stage Line to eliminate the stage descriptions overlapping.
- Save and Close the Chart.

- Double click on the next TQSoft Chart A5
- Import the same chart as before.
- With the left mouse button, draw a zoom box over the area of the chart you wish to zoom into.

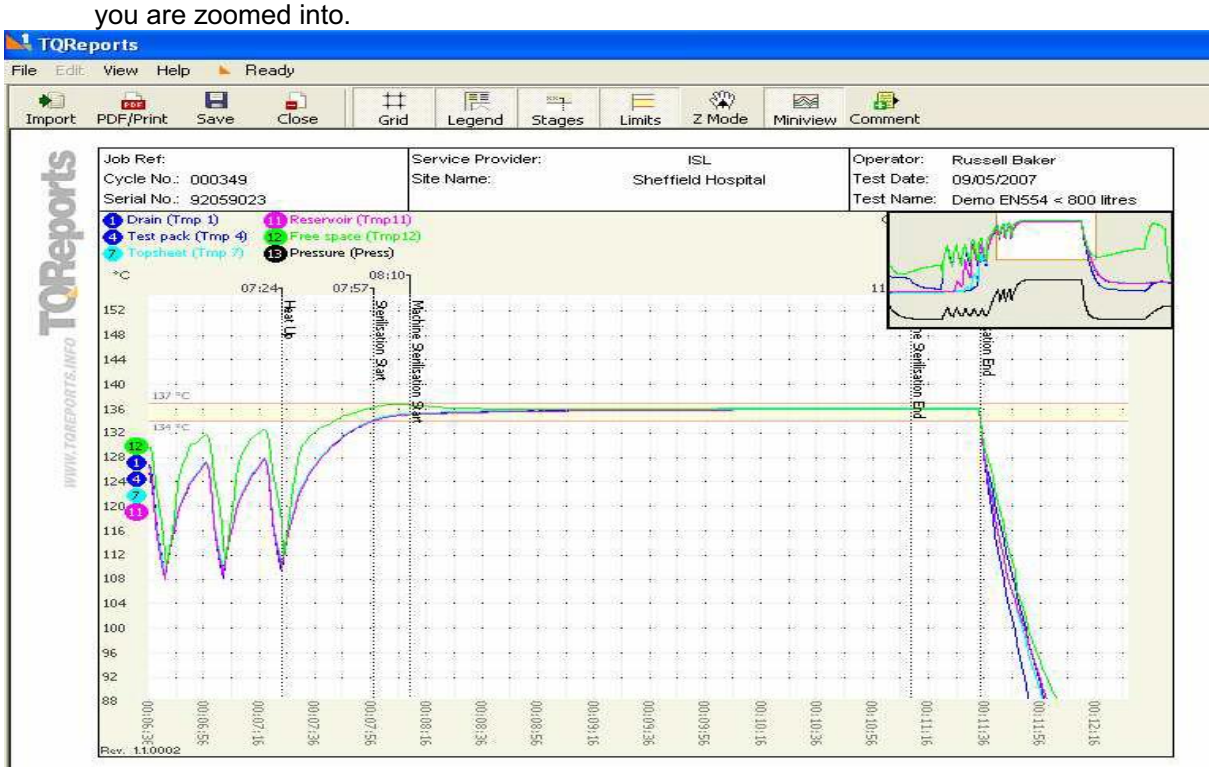


- Then click the left mouse button to zoom in.



- Click on Miniview Button 

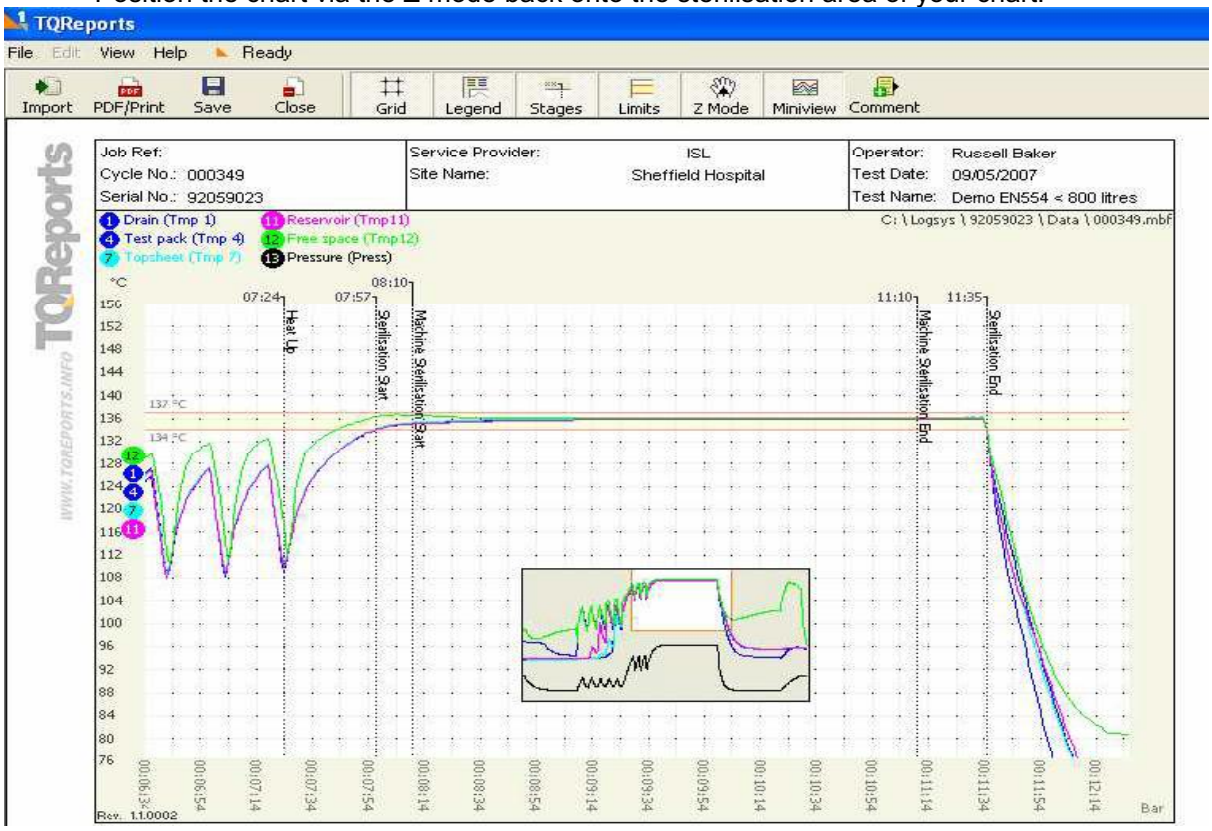
- This brings up a Miniview of the graph but most importantly shows you the area of the chart you are zoomed into.



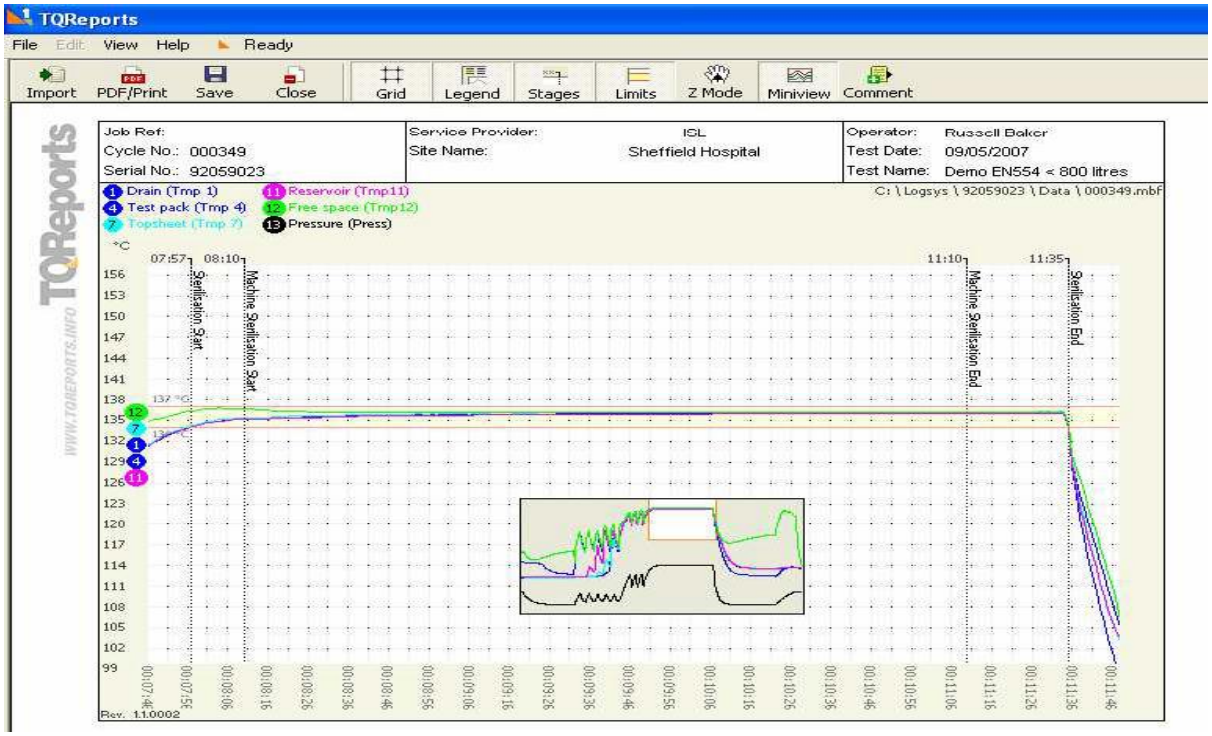
- You can reposition the Miniview and also move the zoom box within the Miniview to move the zoom box around the chart.

- If you click on Z Mode 

You can move the zoom area to a position of your choice within the main window by keeping the left mouse button down. (You know when this is selected as you will see a hand appear as your cursor position).
- Position the chart via the Z mode back onto the sterilisation area of your chart.



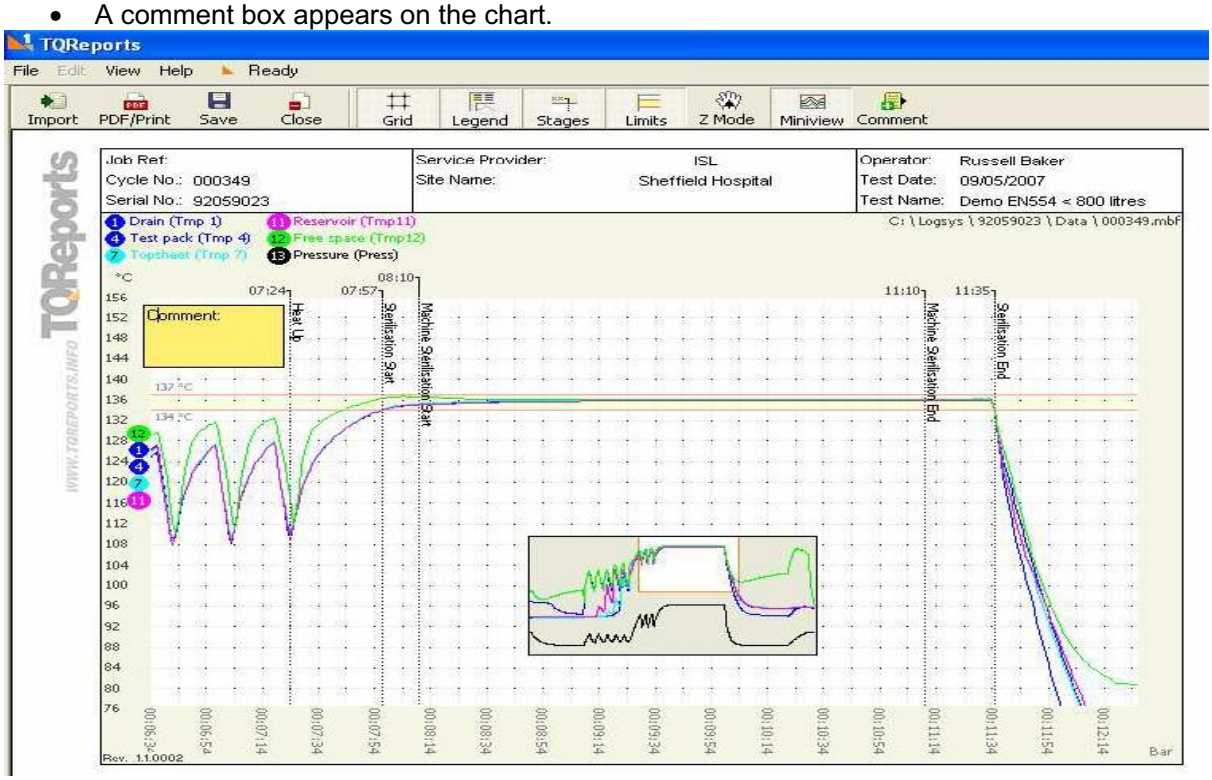
- NB Please note that if you now turn off the Z mode you can now zoom into the chart even further. Also note the cursor has a number on it telling you how many times you have zoomed in.



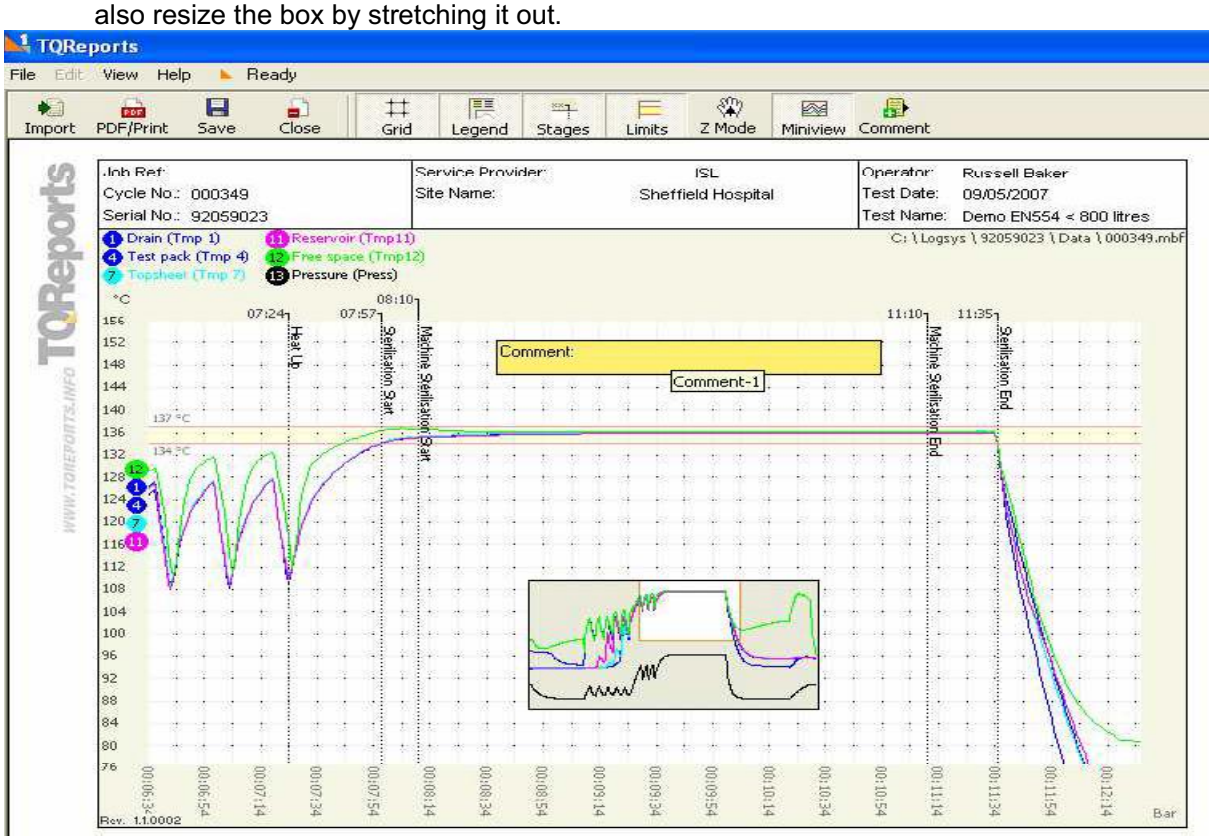
- Press the right mouse button to zoom back out.

- Again make sure you are now zoomed in the sterilisation area of the chart and hit the Comment button 

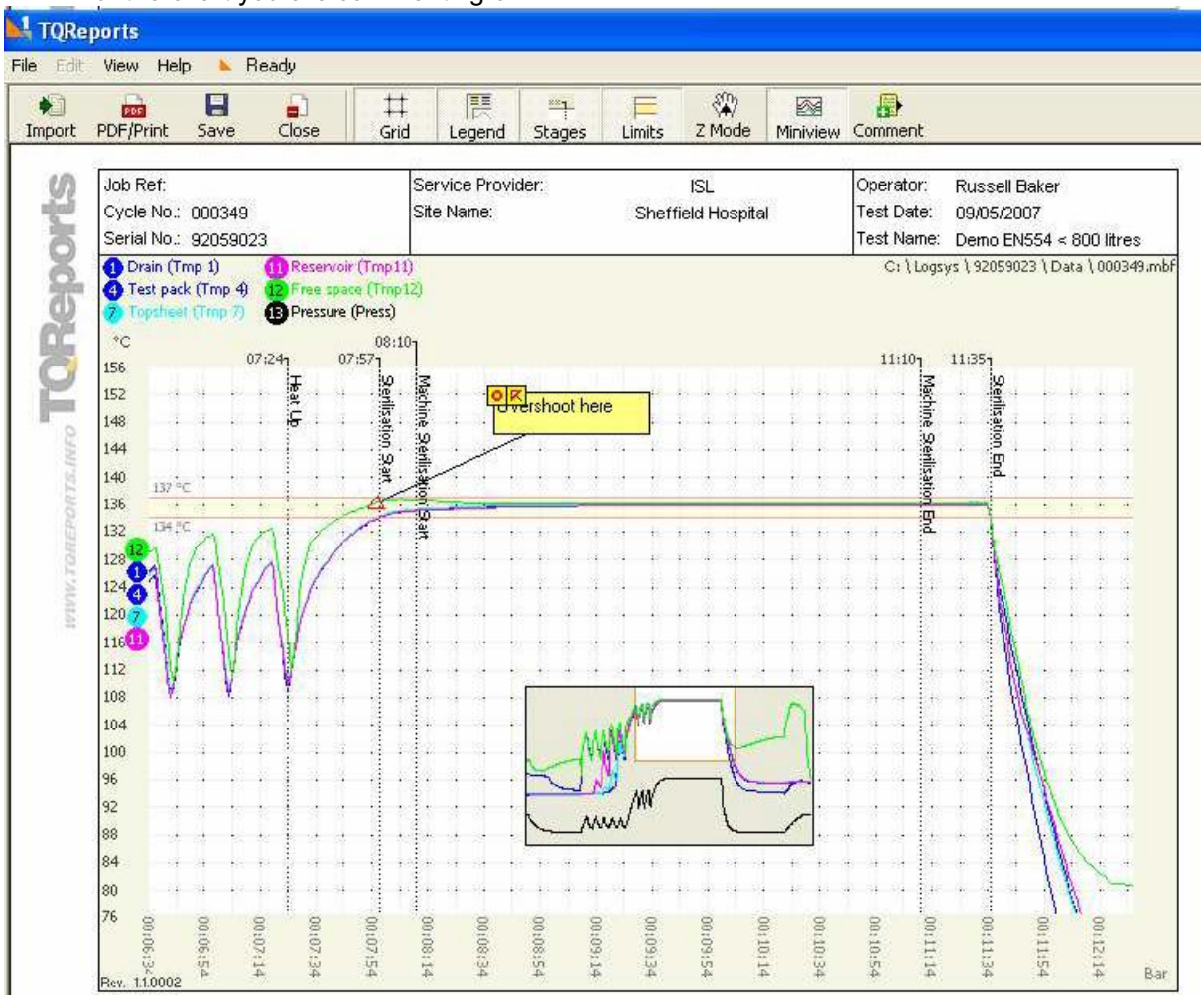
- A comment box appears on the chart.



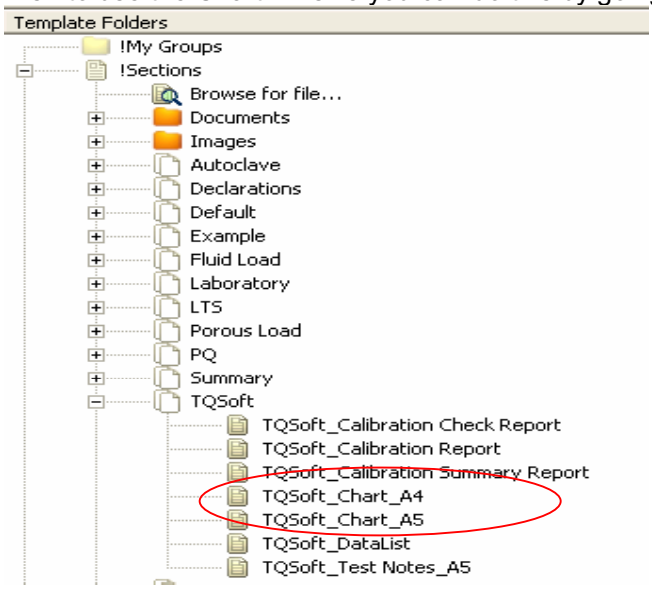
- Grab the comment box and by using the left mouse button, re-position the box and you can also resize the box by stretching it out.



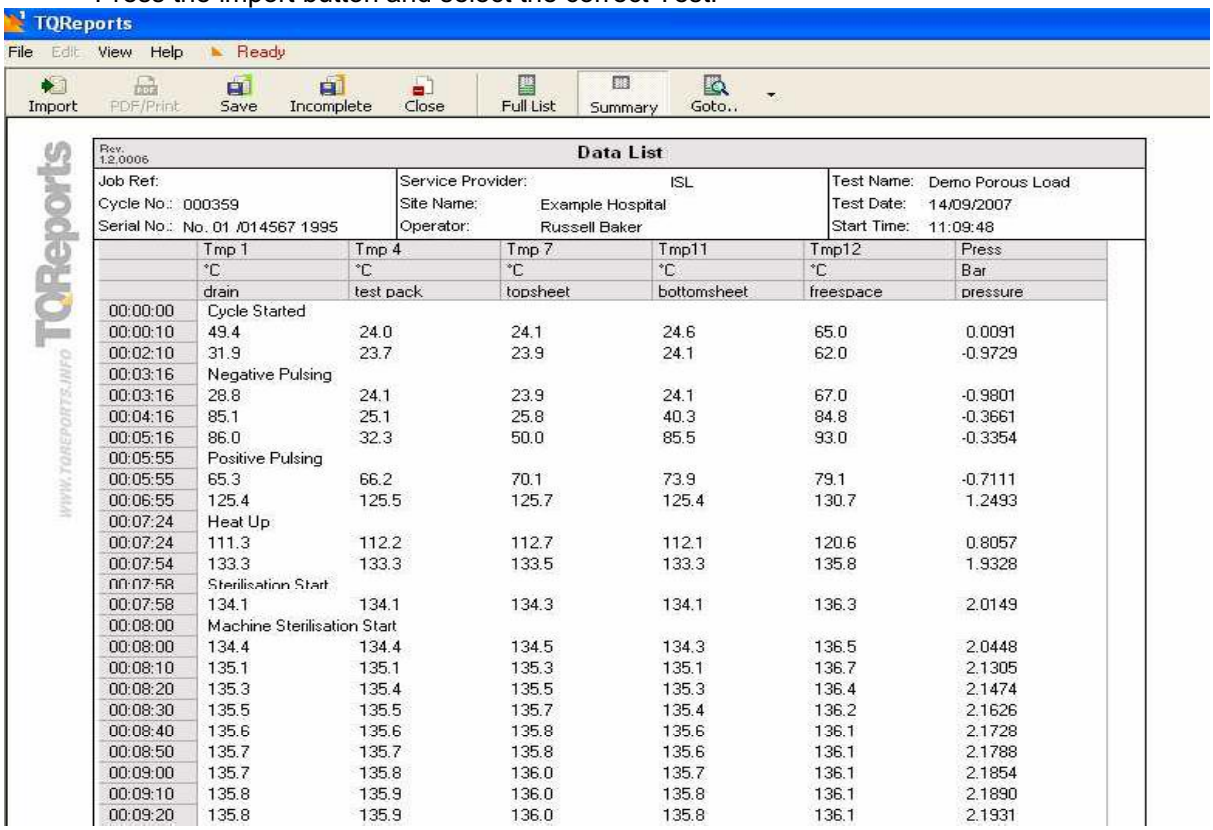
- Now type a message in the box.
- Then by clicking to the top left hand corner of the box, you can position or point to the area of the chart you are commenting on.



- Now Save and Close
- Please Note that when you come to print off your report the Charts are A5 size . Therefore you will have the full blown chart and the Zoom in Chart on one A4 size page.
- However if you wish to use the Chart A4 size you can do this by going here.

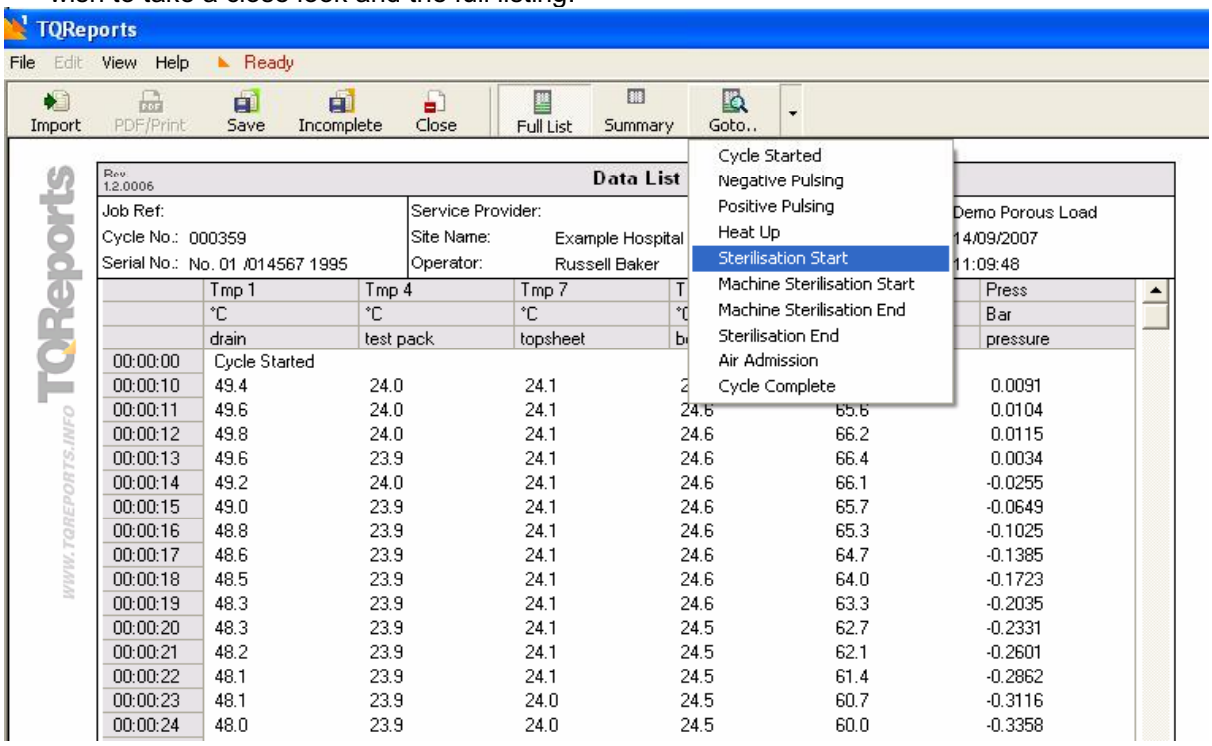


- Now Double Click on the TQSoft DataList.
- Press the import button and select the correct Test.



	Tmp 1	Tmp 4	Tmp 7	Tmp11	Tmp12	Press
	°C	°C	°C	°C	°C	Bar
	drain	test pack	topsheet	bottomsheet	freespace	pressure
00:00:00	Cycle Started					
00:00:10	49.4	24.0	24.1	24.6	65.0	0.0091
00:02:10	31.9	23.7	23.9	24.1	62.0	-0.9729
00:03:16	Negative Pulsing					
00:03:16	28.8	24.1	23.9	24.1	67.0	-0.9801
00:04:16	85.1	25.1	25.8	40.3	84.8	-0.3661
00:05:16	86.0	32.3	50.0	85.5	93.0	-0.3354
00:05:55	Positive Pulsing					
00:05:55	65.3	66.2	70.1	73.9	79.1	-0.7111
00:06:55	125.4	125.5	125.7	125.4	130.7	1.2493
00:07:24	Heat Up					
00:07:24	111.3	112.2	112.7	112.1	120.6	0.8057
00:07:54	133.3	133.3	133.5	133.3	135.8	1.9328
00:07:58	Sterilisation Start					
00:07:58	134.1	134.1	134.3	134.1	136.3	2.0149
00:08:00	Machine Sterilisation Start					
00:08:00	134.4	134.4	134.5	134.3	136.5	2.0448
00:08:10	135.1	135.1	135.3	135.1	136.7	2.1305
00:08:20	135.3	135.4	135.5	135.3	136.4	2.1474
00:08:30	135.5	135.5	135.7	135.4	136.2	2.1626
00:08:40	135.6	135.6	135.8	135.6	136.1	2.1728
00:08:50	135.7	135.7	135.8	135.6	136.1	2.1788
00:09:00	135.7	135.8	136.0	135.7	136.1	2.1854
00:09:10	135.8	135.9	136.0	135.8	136.1	2.1890
00:09:20	135.8	135.9	136.0	135.8	136.1	2.1931

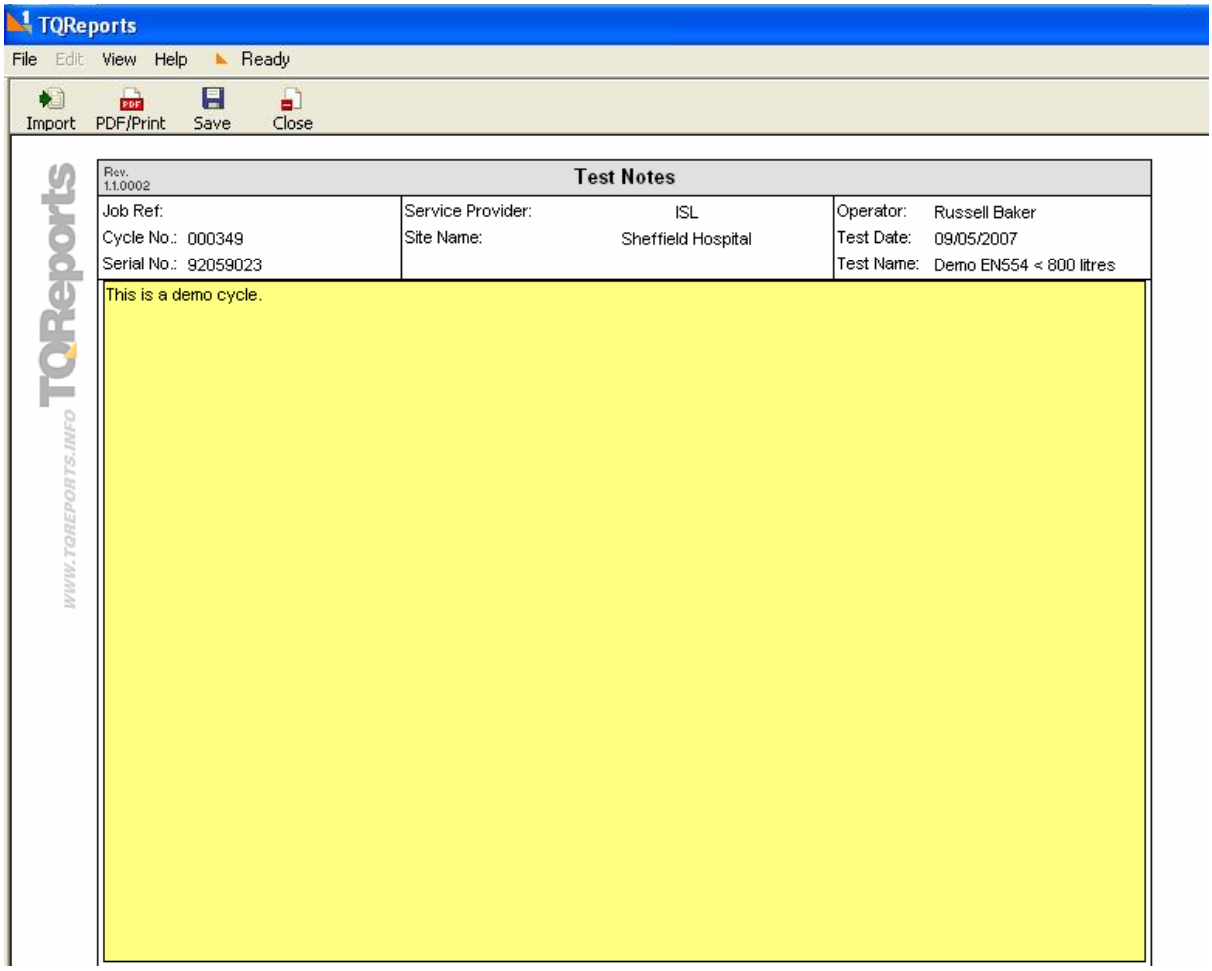
- The default Data List shown is the one with the Intervals Showing. You can click on full list if you wish to print that or you can press Intervals button again to revert back to the default listing.
- You can also click on the “Goto” button and select which stage you wish do go to if you wish to take a close look and the full listing.



	Tmp 1	Tmp 4	Tmp 7	T		Press
	°C	°C	°C	°(		Bar
	drain	test pack	topsheet	b		pressure
00:00:00	Cycle Started					
00:00:10	49.4	24.0	24.1	2		0.0091
00:00:11	49.6	24.0	24.1	24.6	65.6	0.0104
00:00:12	49.8	24.0	24.1	24.6	66.2	0.0115
00:00:13	49.6	23.9	24.1	24.6	66.4	0.0034
00:00:14	49.2	24.0	24.1	24.6	66.1	-0.0255
00:00:15	49.0	23.9	24.1	24.6	65.7	-0.0649
00:00:16	48.8	23.9	24.1	24.6	65.3	-0.1025
00:00:17	48.6	23.9	24.1	24.6	64.7	-0.1385
00:00:18	48.5	23.9	24.1	24.6	64.0	-0.1723
00:00:19	48.3	23.9	24.1	24.6	63.3	-0.2035
00:00:20	48.3	23.9	24.1	24.5	62.7	-0.2331
00:00:21	48.2	23.9	24.1	24.5	62.1	-0.2601
00:00:22	48.1	23.9	24.1	24.5	61.4	-0.2862
00:00:23	48.1	23.9	24.0	24.5	60.7	-0.3116
00:00:24	48.0	23.9	24.0	24.5	60.0	-0.3358

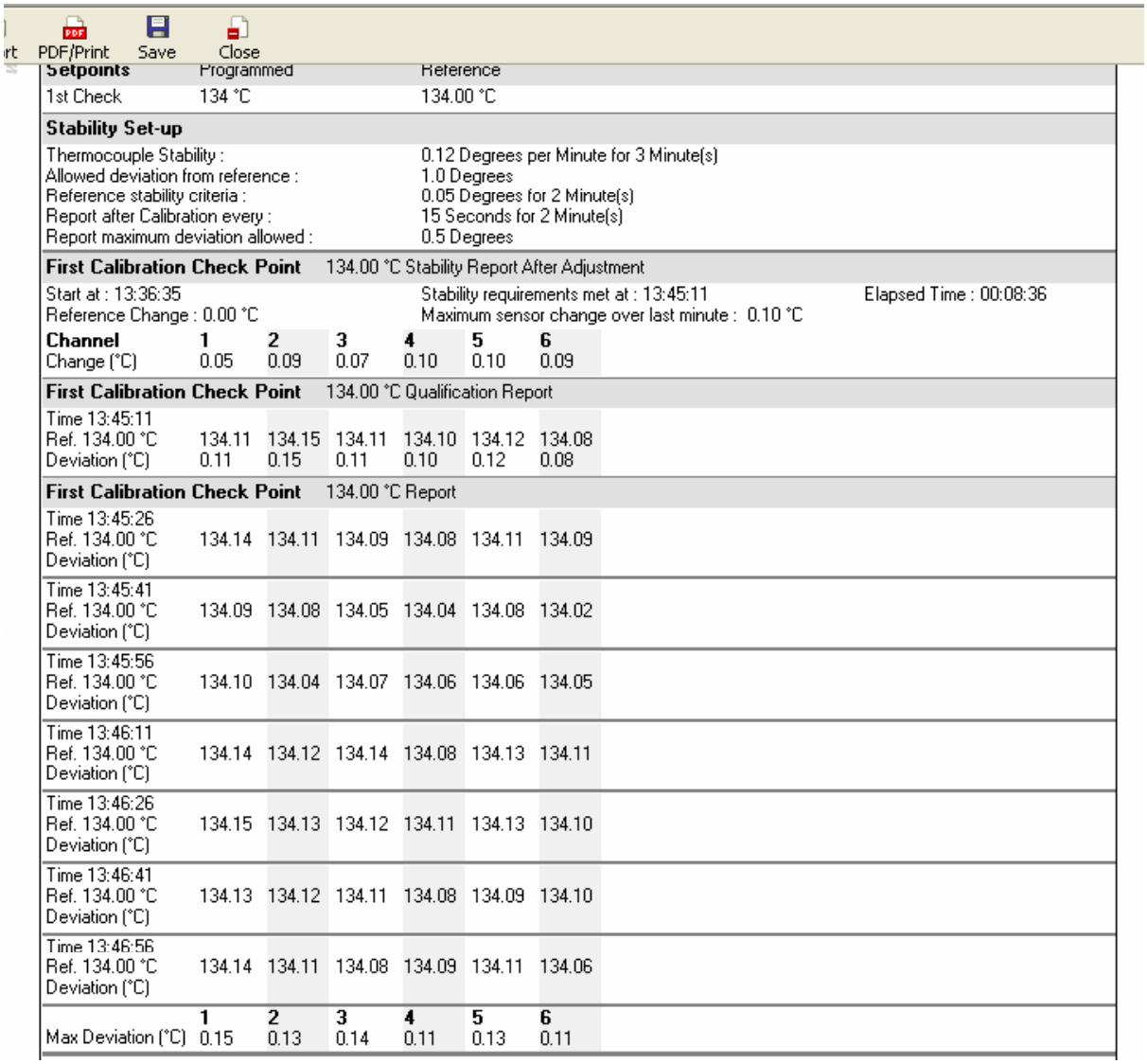
- Click on Summary
- Save and Close

- Double click on TQSoft Test Notes
- Press the import button and select the correct Test.
- It brings in any Test Notes you made during the test.



- You can also add to the text if you want, in case you saw any further observation while compiling the report as the text box is yellow.
- Save and close.
- You will repeat this process of importing Charts, Data Listings and Test Notes (if applicable) for every cycle that you have logged.

- Double click on TQSoft Calibration Check
- Press the import button and select the correct Test.



Setpoints	Programmed	Reference
1st Check	134 °C	134.00 °C

Stability Set-up

Thermocouple Stability :	0.12 Degrees per Minute for 3 Minute(s)
Allowed deviation from reference :	1.0 Degrees
Reference stability criteria :	0.05 Degrees for 2 Minute(s)
Report after Calibration every :	15 Seconds for 2 Minute(s)
Report maximum deviation allowed :	0.5 Degrees

First Calibration Check Point 134.00 °C Stability Report After Adjustment

Start at : 13:36:35 — Stability requirements met at : 13:45:11 — Elapsed Time : 00:08:36
Reference Change : 0.00 °C — Maximum sensor change over last minute : 0.10 °C

Channel	1	2	3	4	5	6
Change (°C)	0.05	0.09	0.07	0.10	0.10	0.09

First Calibration Check Point 134.00 °C Qualification Report

Time 13:45:11						
Ref. 134.00 °C	134.11	134.15	134.11	134.10	134.12	134.08
Deviation (°C)	0.11	0.15	0.11	0.10	0.12	0.08

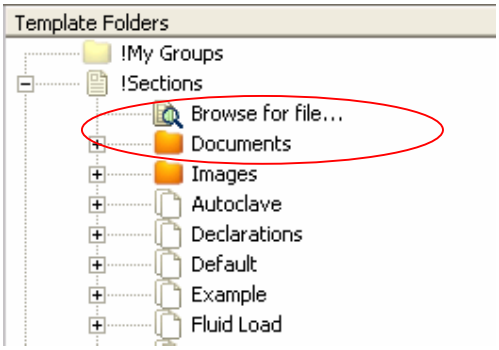
First Calibration Check Point 134.00 °C Report

Time 13:45:26						
Ref. 134.00 °C	134.14	134.11	134.09	134.08	134.11	134.09
Deviation (°C)						
Time 13:45:41						
Ref. 134.00 °C	134.09	134.08	134.05	134.04	134.08	134.02
Deviation (°C)						
Time 13:45:56						
Ref. 134.00 °C	134.10	134.04	134.07	134.06	134.06	134.05
Deviation (°C)						
Time 13:46:11						
Ref. 134.00 °C	134.14	134.12	134.14	134.08	134.13	134.11
Deviation (°C)						
Time 13:46:26						
Ref. 134.00 °C	134.15	134.13	134.12	134.11	134.13	134.10
Deviation (°C)						
Time 13:46:41						
Ref. 134.00 °C	134.13	134.12	134.11	134.08	134.09	134.10
Deviation (°C)						
Time 13:46:56						
Ref. 134.00 °C	134.14	134.11	134.08	134.09	134.11	134.06
Deviation (°C)						

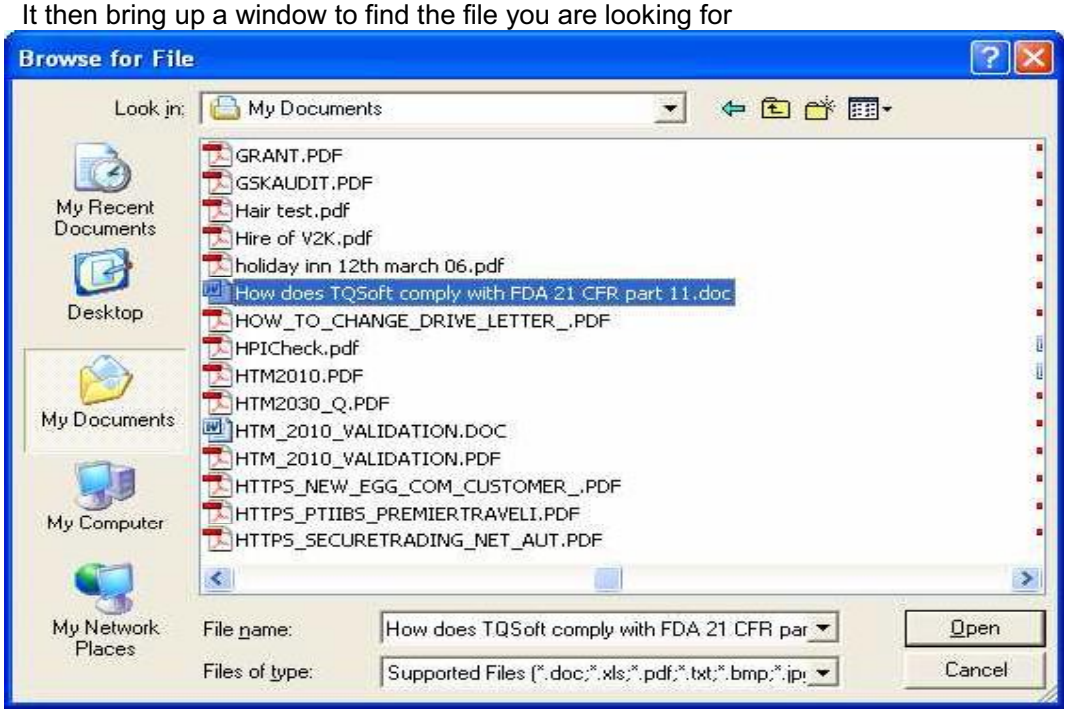
	1	2	3	4	5	6
Max Deviation (°C)	0.15	0.13	0.14	0.11	0.13	0.11

- It brings in Calibration Check(s) for the tests you have done so far. If you have done more than one calibration Check, don't forget to bring in more reports.
- Save and Close the template.

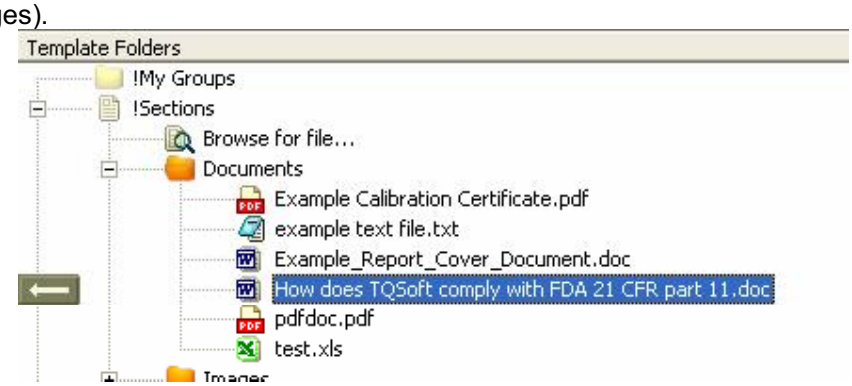
- We can also import any Word or Excel documents, Text Files or PDF's and images into your reports. For example these could be your calibration certificates.
- These could be your own spreadsheets, or a Cover Sheet Word Document with a Company Logo on it or a Digital Picture of the layout of the positions of the thermocouples, or PDF documents of your Calibration Certificates.
- These documents should be saved in the C:\TQ Reports\Templates\!Sections\Documents
- The images folder is C:\TQ Reports\TQTemplates\!Sections\Images
- However, you can search you're your file by using the Browse for file option.
- Click to Browse for file



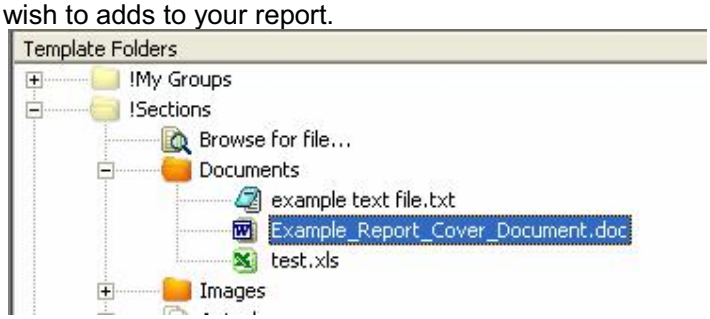
- It then bring up a window to find the file you are looking for



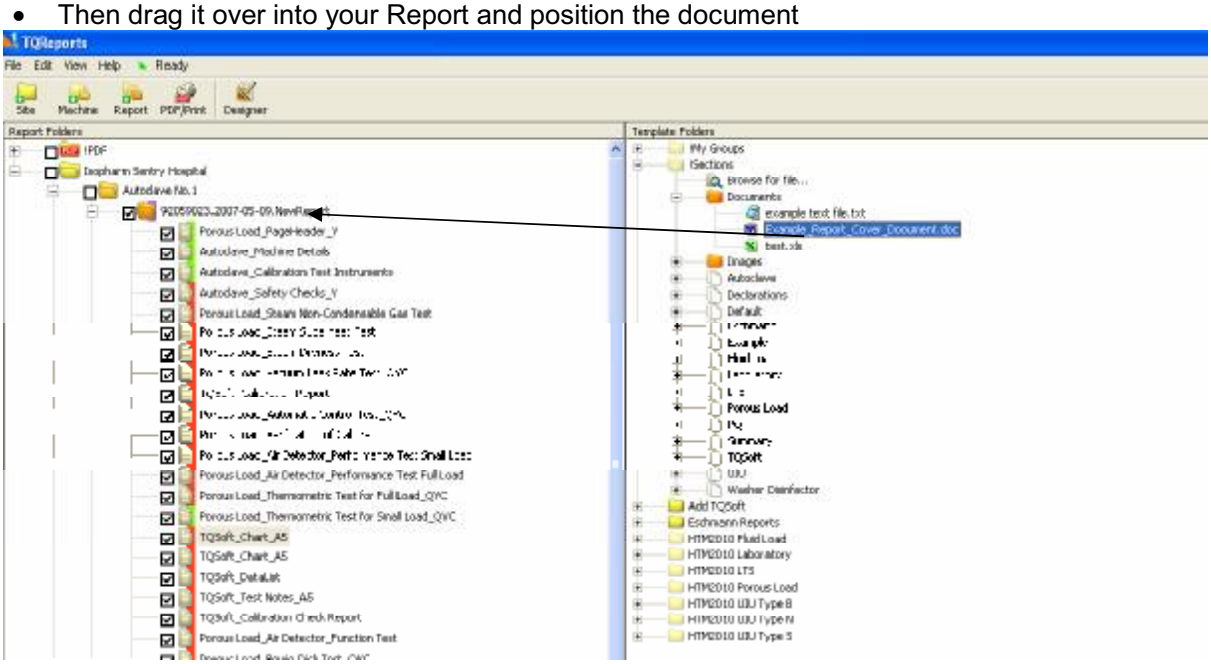
- The it finds the document for you and imports it in your documents. (The prcess is identical for images).



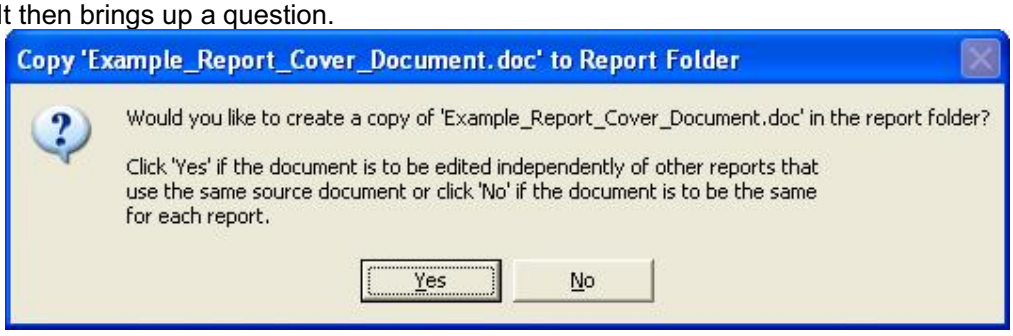
- To import the document in the Template side double click on !Sections and select the document you wish to adds to your report.



- Then drag it over into your Report and position the document

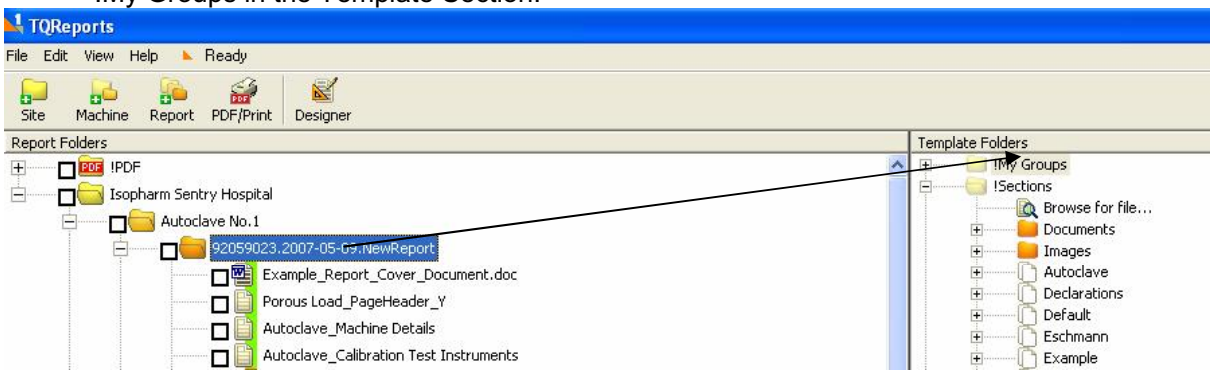


- It then brings up a question.

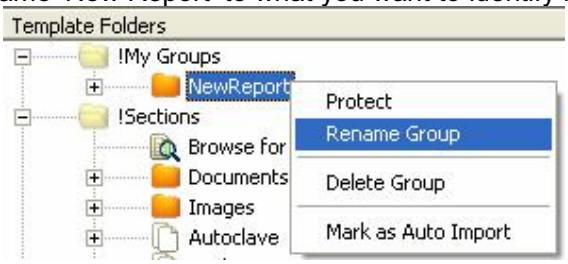


- If Yes is selected you can then edit the document independently in your report, but the original document is not changed.
- If No is selected then any changes that are made to the word document in your report changes the original document you have just imported
- Again we can position the document to where you wish to put it.

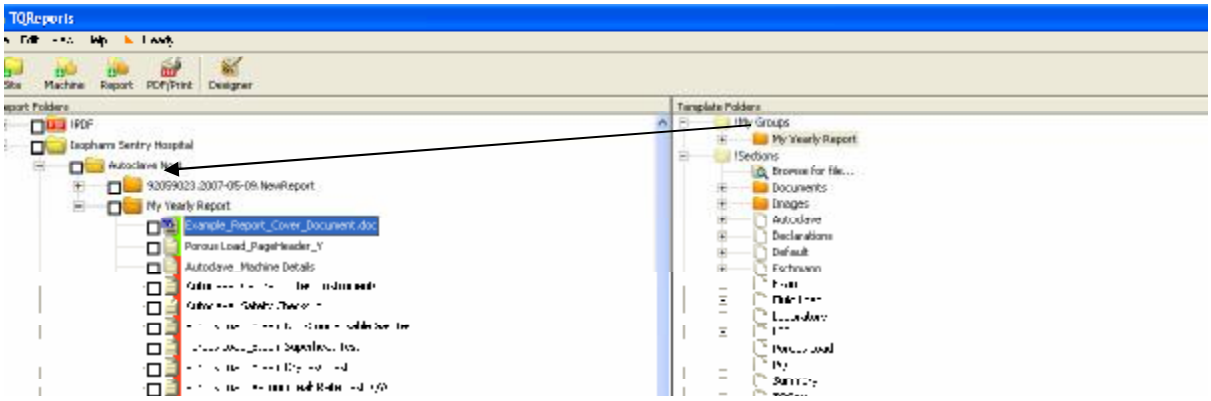
- Now we have completed our report, we have also positioned our templates and other documents in the right order, and we have also imported and positioned our TQSoft Charts, Data Lists, Calibration Reports and Test Notes in the correct order. We may have even added templates or deleted templates from the list. For example we may not require to do a Performance Re-Qualification.
- However next time we compile a report we don't have to add in the templates, documents and Charts, Calibration Reports etc and position them every time.
- If we are happy that the way the report is compiled and is going to be a Standard we can make that so.
- Click on the title of your report in the Action area of your report and drag and drop it over to !My Groups in the Template Section.



- It now adds your compiled report to this Section
- Right click and rename 'New Report' to what you want to identify it to.

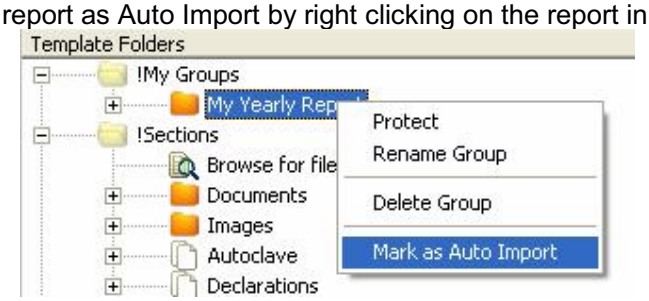


- You can also (by right clicking) Protect your new Folder of templates so you don't accidently delete it.
- Now move the Report in !My Groups in the Templates section and drag and drop it over to the Machine on the Action side.

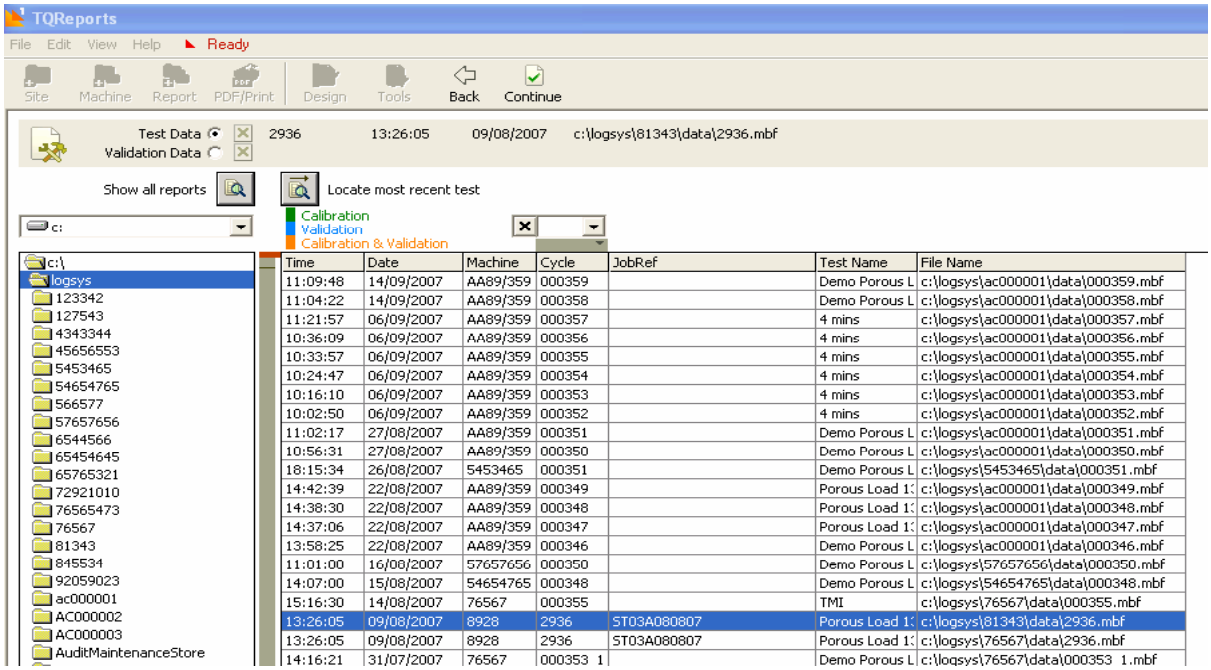


- Now as you can see we have created a new Report BUT this time it has all the templates, documents, charts, data lists, test notes and calibration reports all in the correct positions.

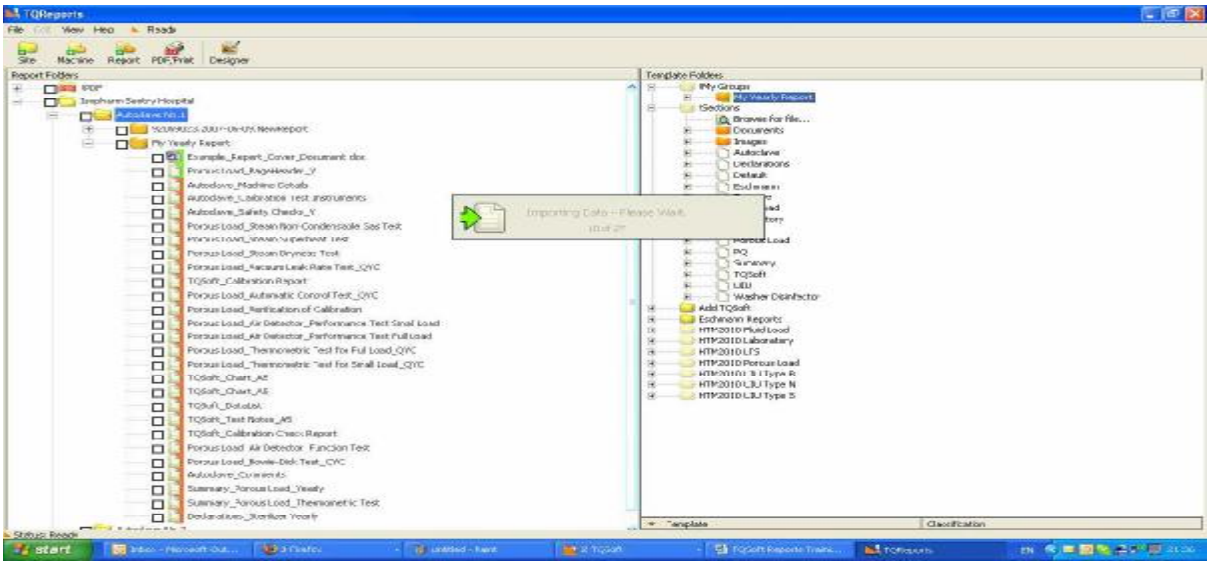
- For small reports such as Quarterly Reports, where we may only have one cycle as we use the same one for the Automatic Control Test and the Thermometric Tests for a small Load we can mark the report as Auto Import by right clicking on the report in !My Groups



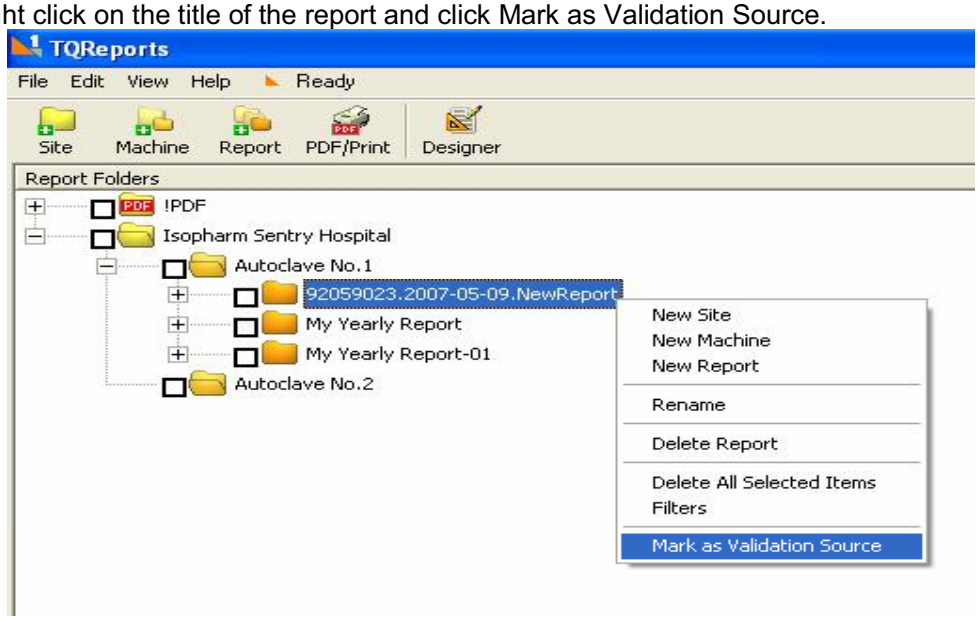
- Now move the Report in !My Groups in the Templates section and drag and drop it over to the Machine on the Action side.
- It then asks to pick a cycle from our Historical Tests.



- It now imports the analytical data to all the templates that can be automatically filled in from the cycle selected, so therefore we only have to fill in the manual information required in the templates.

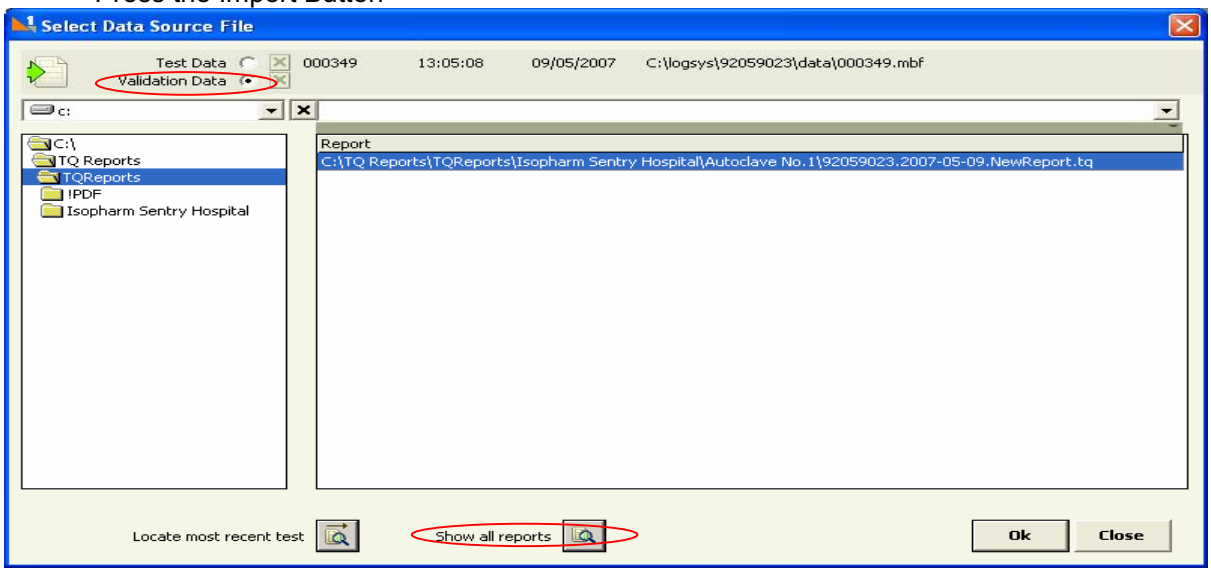


- Now the Report has been completed we can if we wish, make this Report a Source of Validation Data for all future Reports. So we can compare all future Reports data to the data in this report.
- Right click on the title of the report and click Mark as Validation Source.



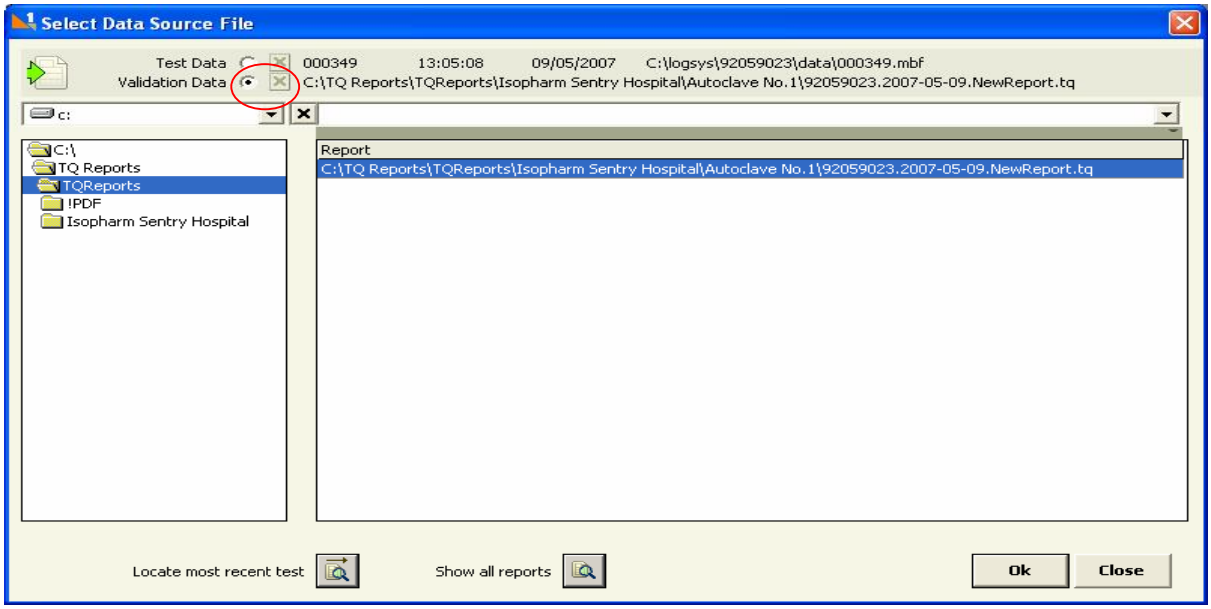
- A Purple box then appears behind the folder of the report.

- Now create on a new report and go to the Thermometric Test for a Small Load
- Press the Import Button



- Click on the Validation Data icon
- Now you can see the Reports that have been selected as a source of Validation Data.
- If you cannot see your Report click on the show all reports button

- Select a report and you will see the name of the report appear next to the validation data icon.



- This report will stay in there until you click on the X button, so you don't have to keep on selecting the Source of the Validation Data for every template.

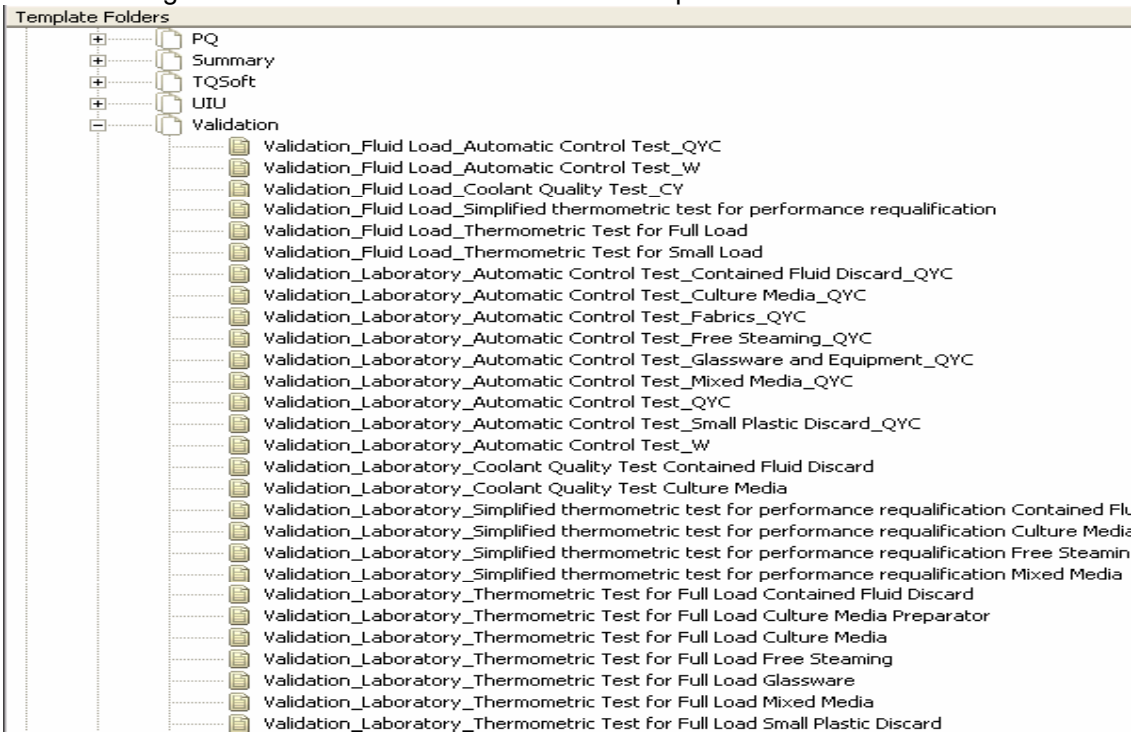
Rev. 1.1.0002

Thermometric Test for Small Load

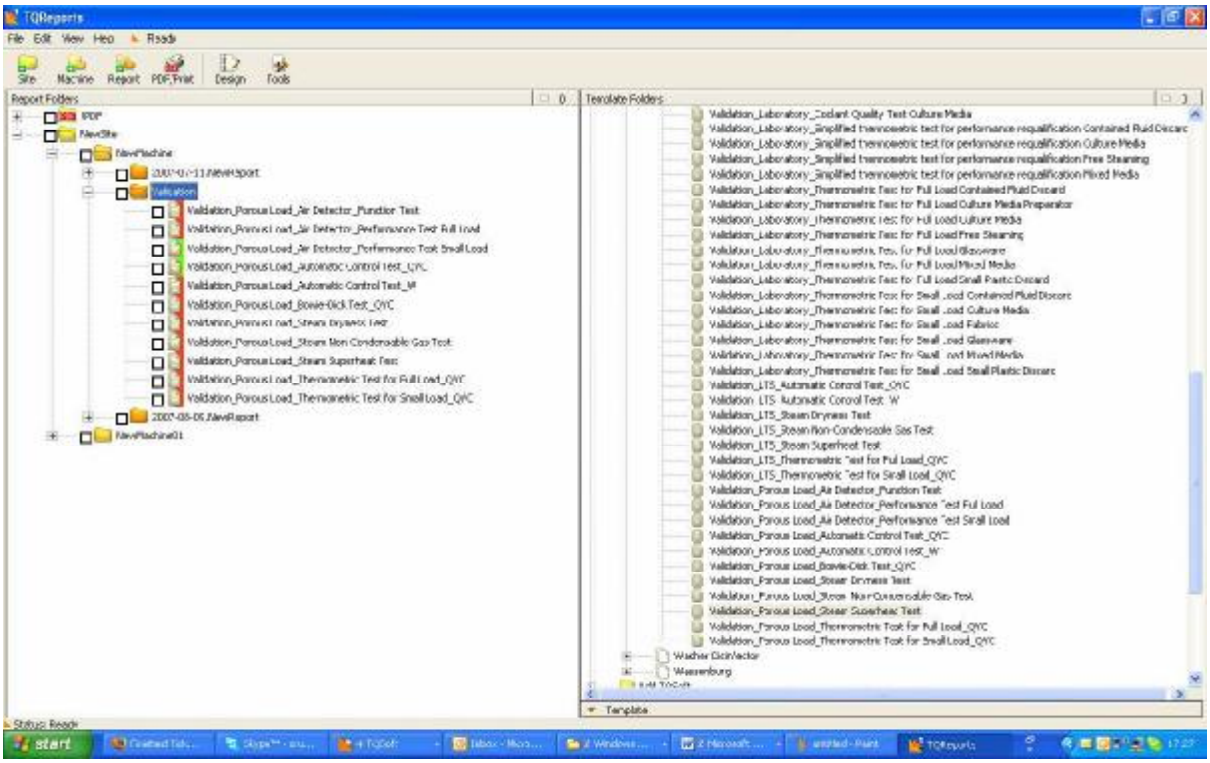
Cycle No.	Sterilisation Temp	°C	Commissioning	Validation
Start of Plateau Period		Drain	°C	126.01 °C
		Load	°C	99.99 °C
		Free Space	°C	129.38 °C
		Pressure	Bar	1943 Bar
Start of Holding Time		Drain	°C	135.42 °C
		Load	°C	134.58 °C
		Free Space	°C	135.37 °C
		Pressure	Bar	3113 Bar
Mid of Holding Time		Drain	°C	135.68 °C
		Load	°C	135.36 °C
		Free Space	°C	135.63 °C
		Pressure	Bar	3142 Bar
Max Values During Holding Time		Drain	°C	135.79 °C
		Load	°C	135.44 °C
		Free Space	°C	135.73 °C
		Pressure	Bar	3151 Bar
End of Holding Time		Drain	°C	126.12 °C
		Load	°C	127.21 °C
		Free Space	°C	126.01 °C
		Pressure	Bar	2366 Bar
		Equilibration time	mm:ss	18:03 mm:ss
		Max diff Drain / Free space 1 minute into Plateau Period	°C	3.37 °C
		Max diff Drain / Free space for remainder of Plateau Period	°C	1.18 °C
		Drain Fluctuation	°C	4.64 °C
		Load Fluctuation	°C	3.93 °C
		Max difference between Drain and Load	°C	1.32 °C
		Post vacuum stage time	hh:mm:ss	01:06:33 hh:mm:ss
		Pressure at end of vacuum hold	Bar	471.0000 Bar

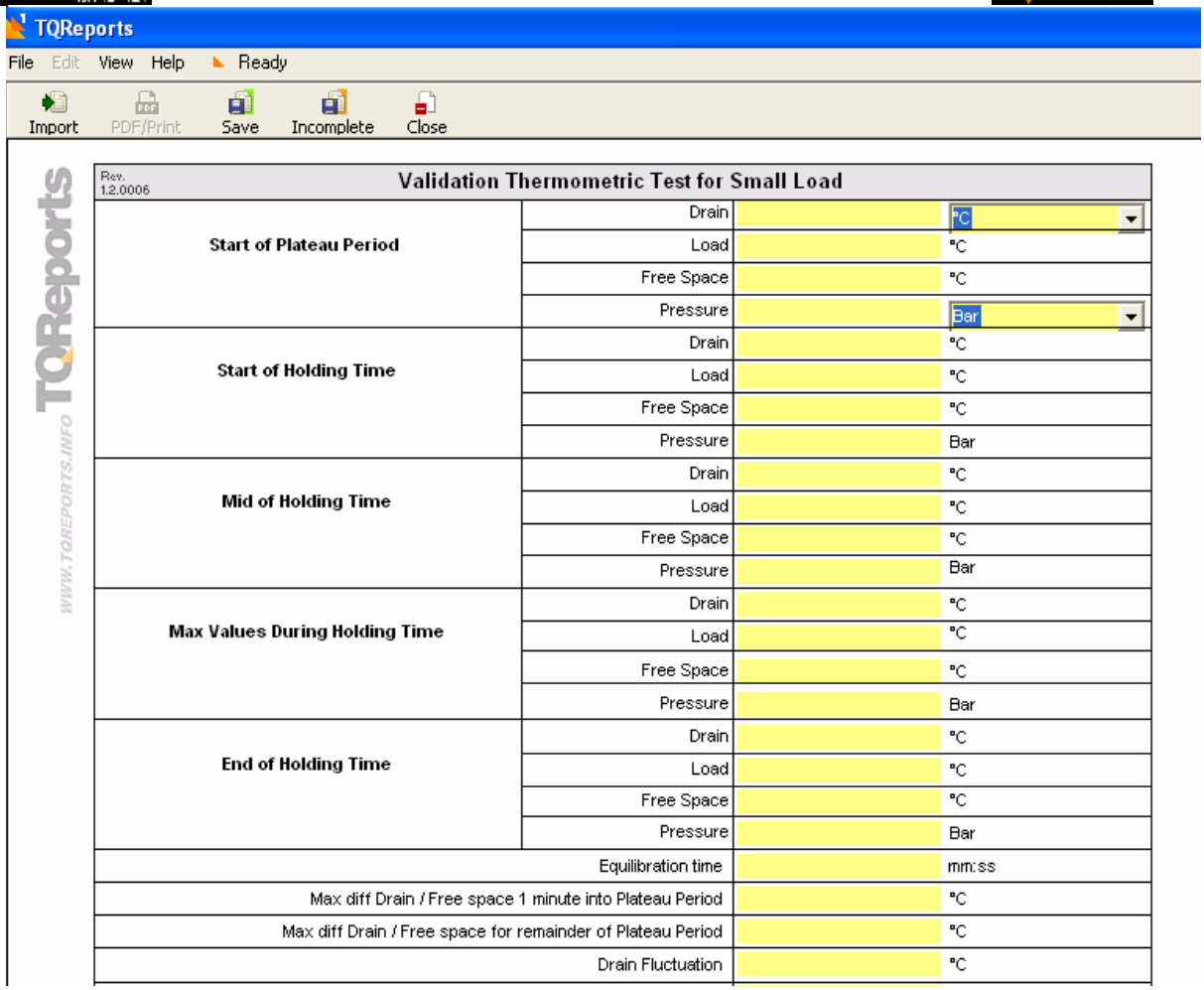
- Also note we can still at the same time import the Current Test Data so you can fill in the Current Data and the Validation Data at the same time.

- If however you have old validation data that is not included in the Report, we can still enter this manually.
- On the right hand side we have the Validation Templates



- If we create a new Report and add in the validation template in the machine we can enter the validation templates manually (as the templates are yellow entry fields)and then mark that as a source of validation data.



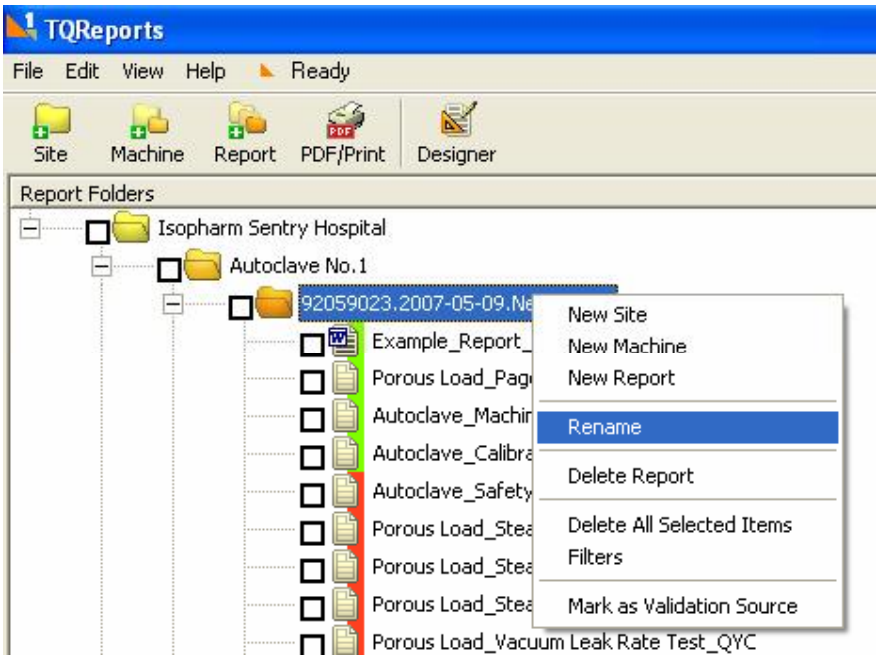


Rev. 1.2.0006

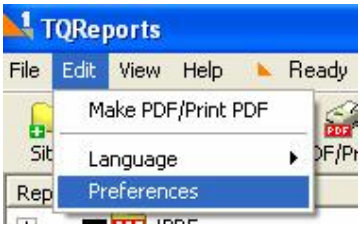
Validation Thermometric Test for Small Load

Start of Plateau Period	Drain		°C
	Load		°C
	Free Space		°C
	Pressure		Bar
Start of Holding Time	Drain		°C
	Load		°C
	Free Space		°C
	Pressure		Bar
Mid of Holding Time	Drain		°C
	Load		°C
	Free Space		°C
	Pressure		Bar
Max Values During Holding Time	Drain		°C
	Load		°C
	Free Space		°C
	Pressure		Bar
End of Holding Time	Drain		°C
	Load		°C
	Free Space		°C
	Pressure		Bar
Equilibration time			mm:ss
Max diff Drain / Free space 1 minute into Plateau Period			°C
Max diff Drain / Free space for remainder of Plateau Period			°C
Drain Fluctuation			°C

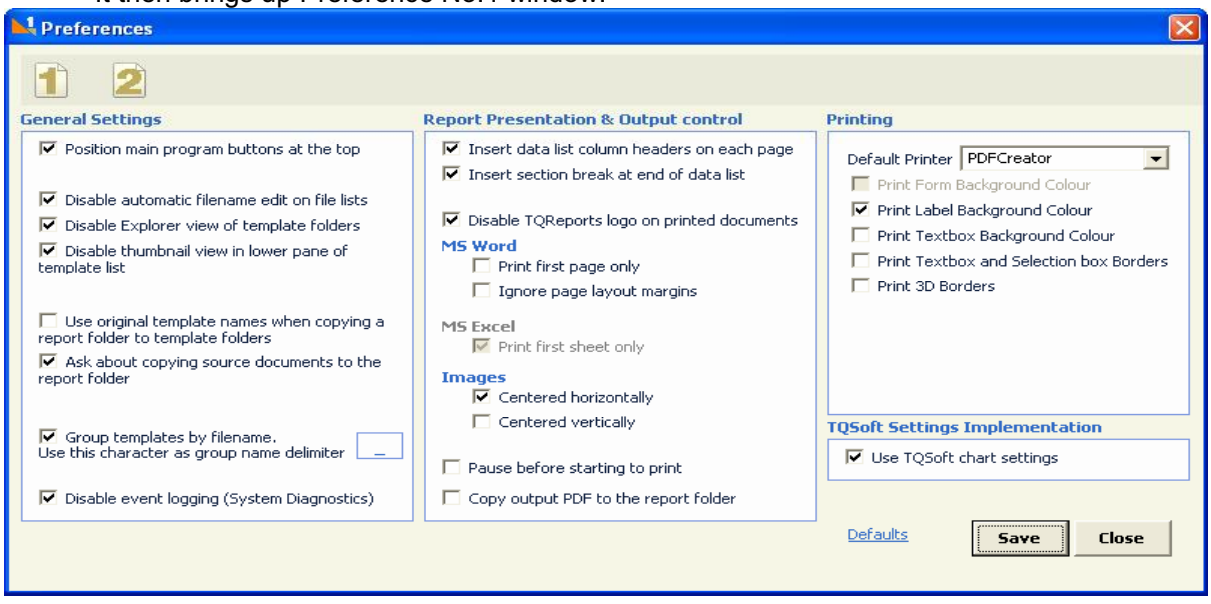
- You may have noticed that the title of my report is 92059023.2007-05-09.NewReport.
- You can if you wish rename the title on the report by Right clicking on the title name.



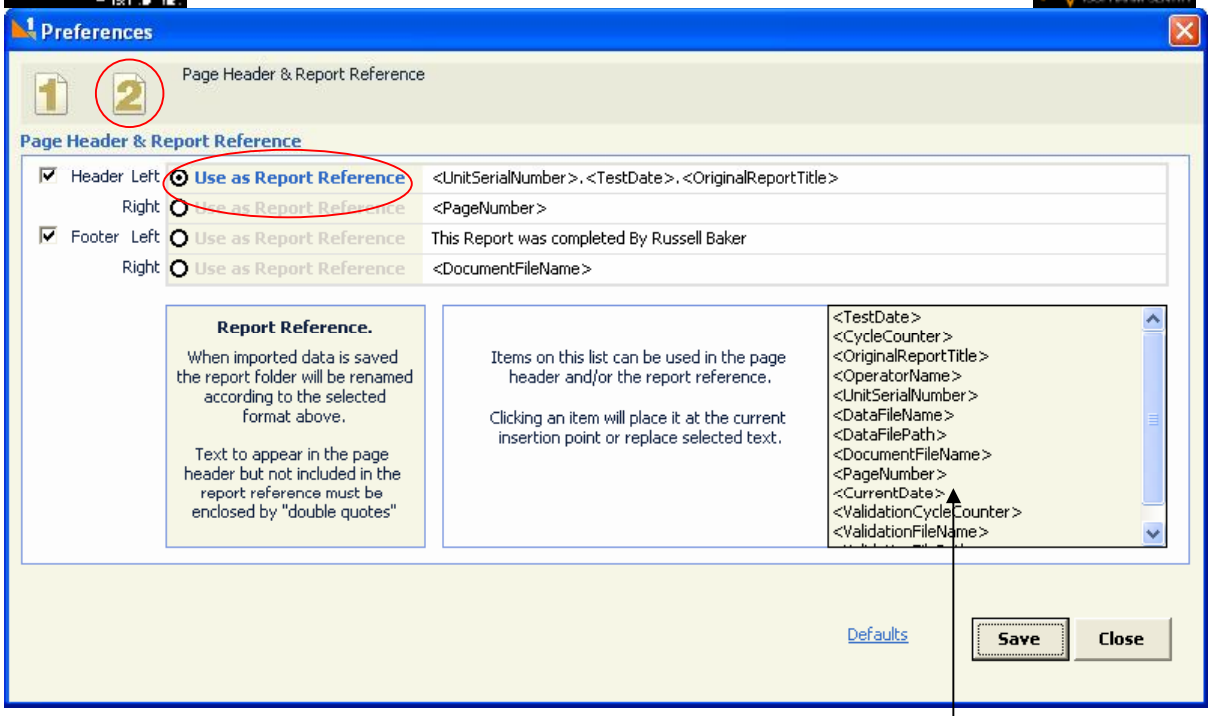
- You can also deleted reports and delete selected templates/documents from here as well.
- However to name your report automatically every time you start a new report you can set this up in Preferences.
- Go to Edit and then Preferences.



- It then brings up Preference No.1 window.

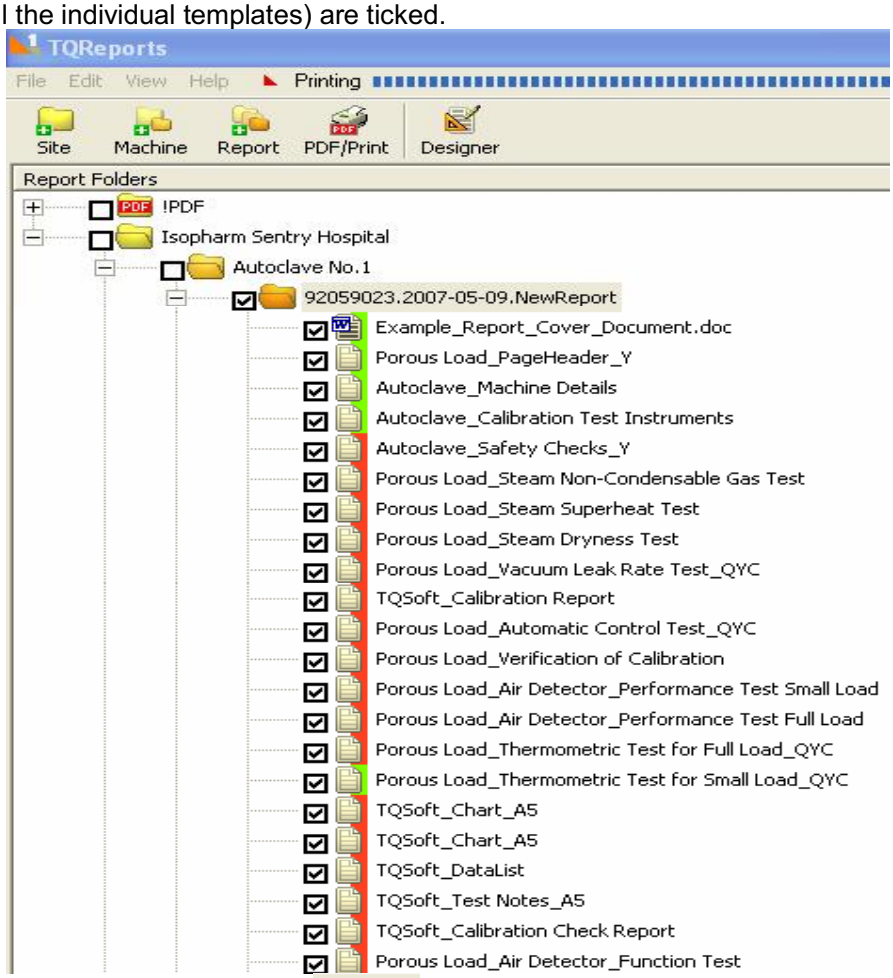


- Here you have many options to help configure your report.
- No press on the No.2



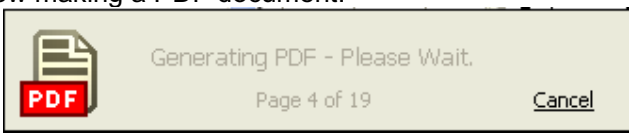
- The Use as a Report Reference Option selects how you want to give your Report a name when you start to import test data.
- For example Here I have <UnitSerialNumber>.<TestDate>.<OriginalReportTitle>. So I have the following 92059023.2007-05-09.NewReport named when I start to import data so the report has a unique name. Again you can put what you like here from the list here.
- This will also be put in the top left hand corner of the report.
- In the top right hand corner will be the <PageNumber>
- In the bottom left hand corner will be This Report was completed By Russell Baker
- In the bottom right hand corner will be <DocumentFileName>
- However all these are selectable from the same list.

- Now we have completed our Report we can print it. To do this make sure the Report title (and all the individual templates) are ticked.

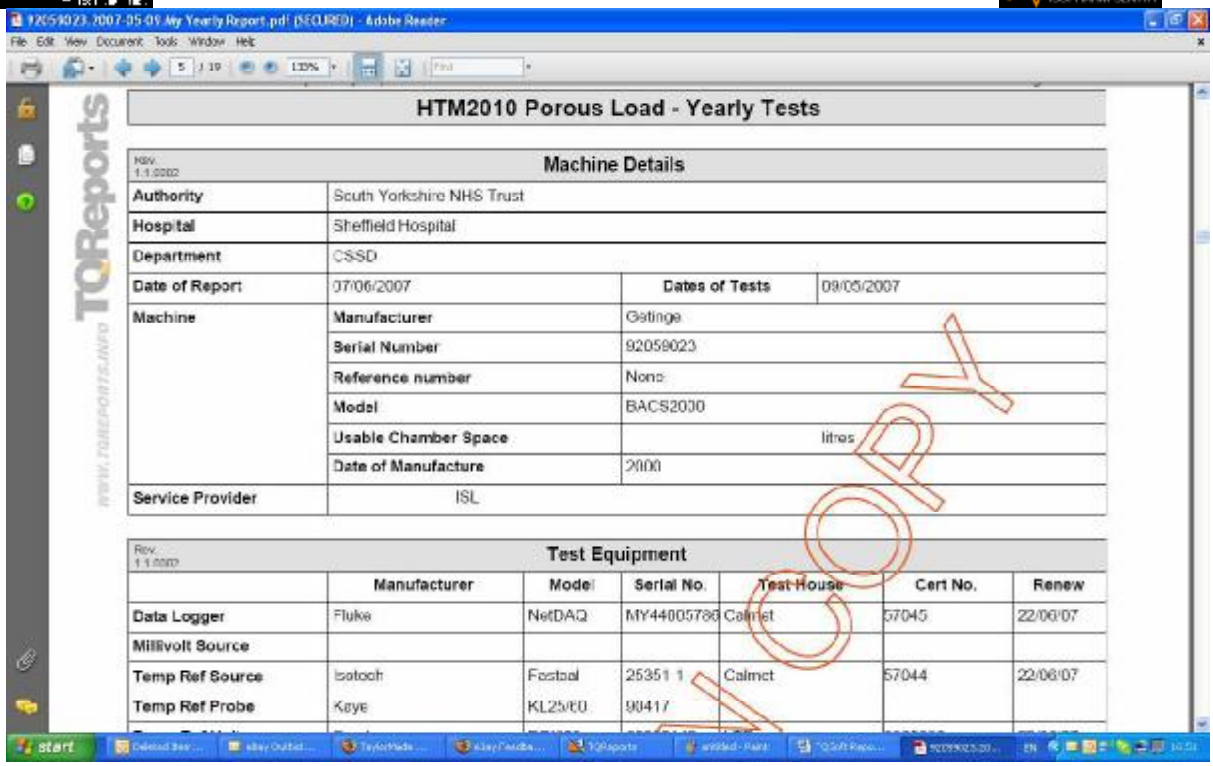


- Now press the PDF/Print button 

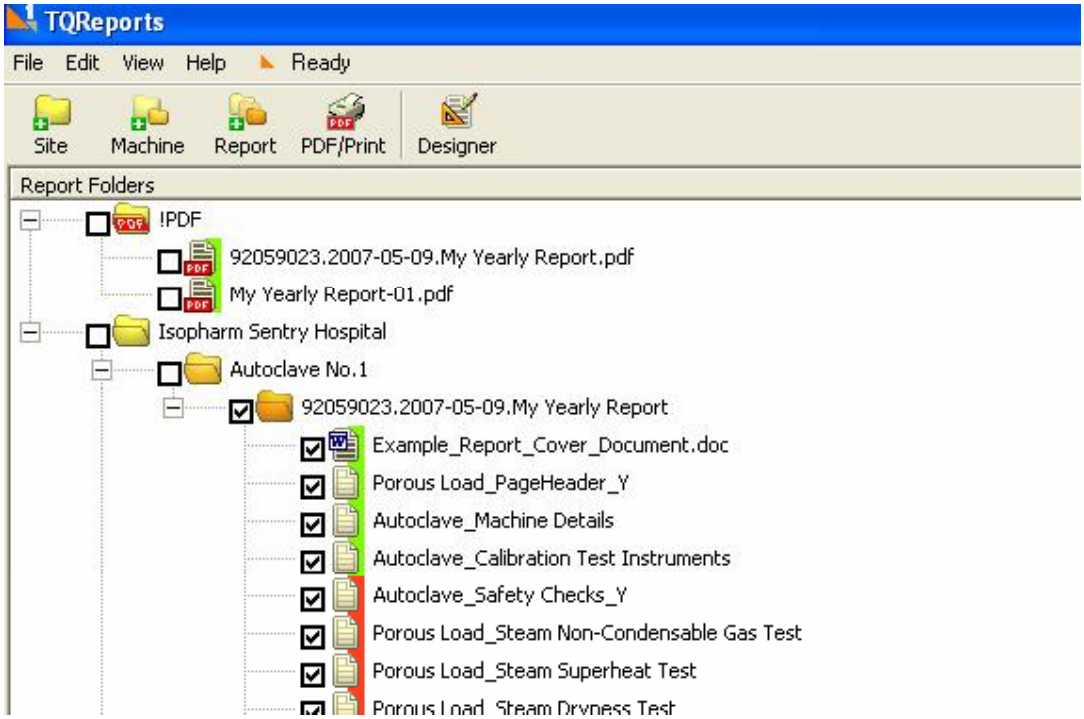
- The Report is now making a PDF document.



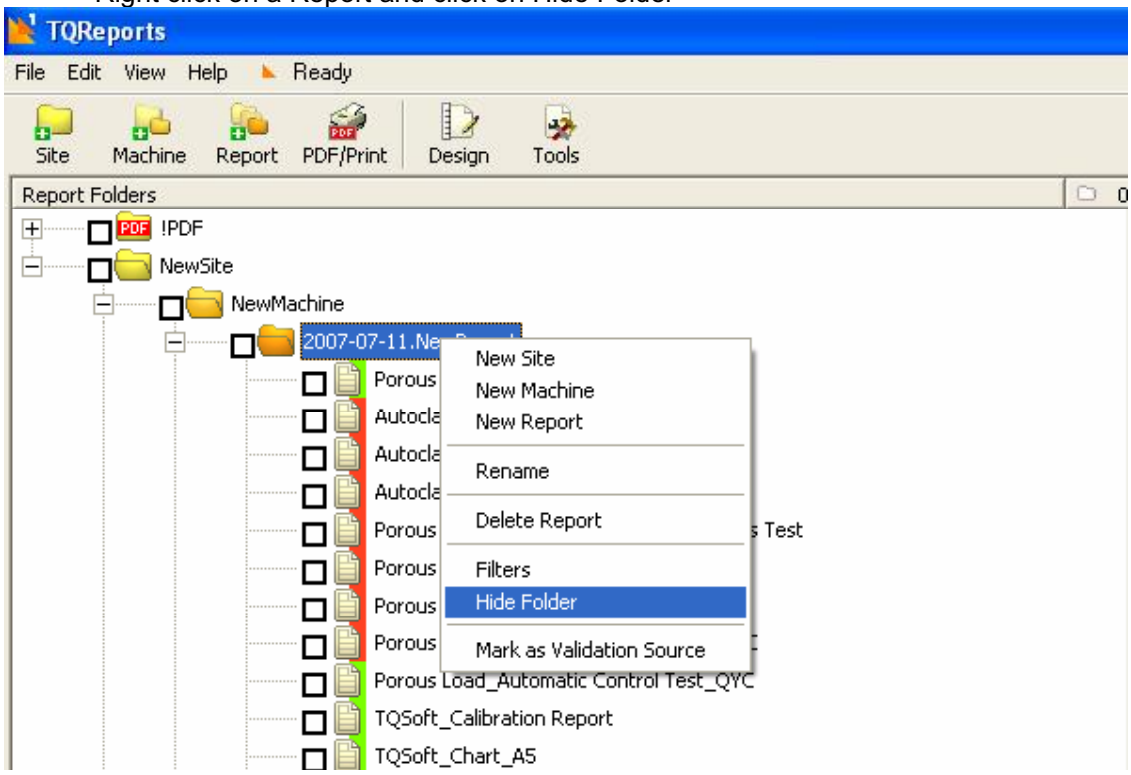
- Once this has finished a copy of the completed report will be as a PDF document.
- If you have imported your signature as an image and have included information such as your calibration certificates, you can save the PDF and/or email it without the need to even print it out.



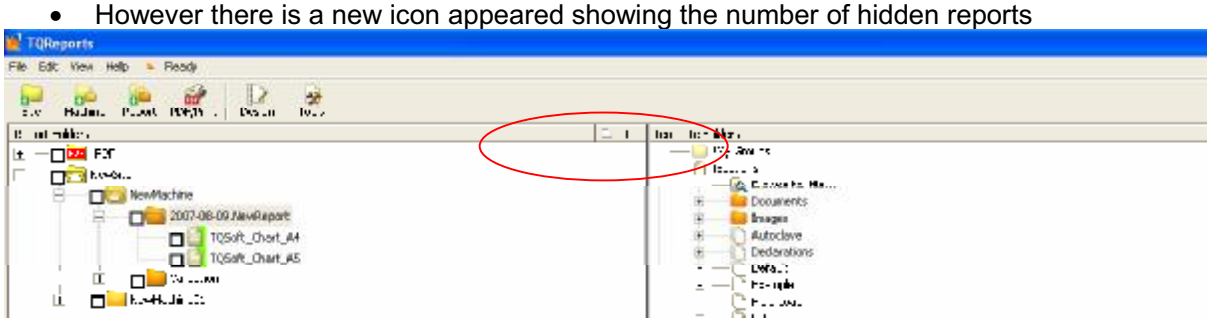
- You can now Save a copy of your PDF document.
- TQReports will also store all your PDF's in the PDF folder in the Action area of the template.



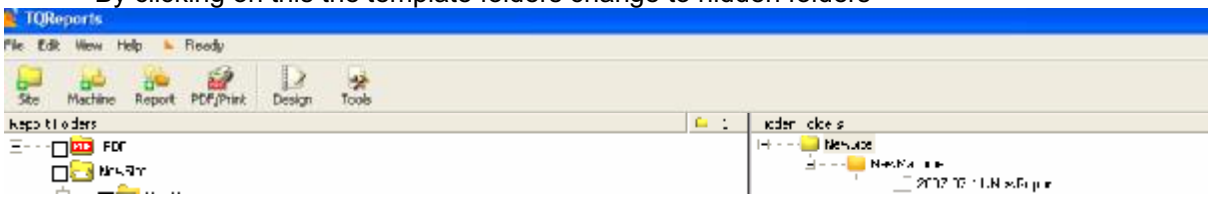
- Another feature is that as the number of reports rise, you can hide them, so your Action area of TQReports do not get overcrowded with reports and can be retrieved at any time
- Right click on a Report and click on Hide Folder



- The Reports has now disappeared
- However there is a new icon appeared showing the number of hidden reports



- By clicking on this the template folders change to hidden folders



- If you wish to make a Hidden Report ACTIVE again just right click on the report and click on the  button to put in back into the Action area of the template.

- That completes the training. If you require any further information please contact 00441709811460.