Operators Manual

tJRS Opta Joint Simulator Bench
(Threaded Joint Rate Simulator)

MAN 1194 - 02
Crane Electronics Ltd

C E MARKING

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CE Declares that this tJRS Joint Simulator Bench has been assessed and complies with the requirements of the relevant CE Directives.

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This manual refers to the tJRS Opta Mk III the information in this manual is not relevant to older versions of the tJRS Opta

1.0 Safety Warnings

Before using the tJRS Opta ensure you follow these instructions:

1.1 Always use protective equipment appropriate to the tool used, as well as safety boots when working around or with the tJRS.

1.2 All personnel must be trained on the tJRS before being allowed to operate it.

1.3 Make sure the tJRS is stationary and the brake is on before applying any torque.

1.4 Do not operate a tool until the green light is displayed on the readings screen as failure to do so could cause damage to the beam mechanisms and personnel.

1.5 Do not change any parts or reach your hand inside the tJRS unless it is switched off via the emergency stop button, also make sure the mains lead is disconnected before working inside the tJRS.

1.6 Make sure the tJRS is charged before operating, OMS will display the voltage in the bottom right corner, do not operate if the battery picture is red, if the picture is amber then connect the charger before operating.

1.7 Check all tools are correctly working before using them with the tJRS.

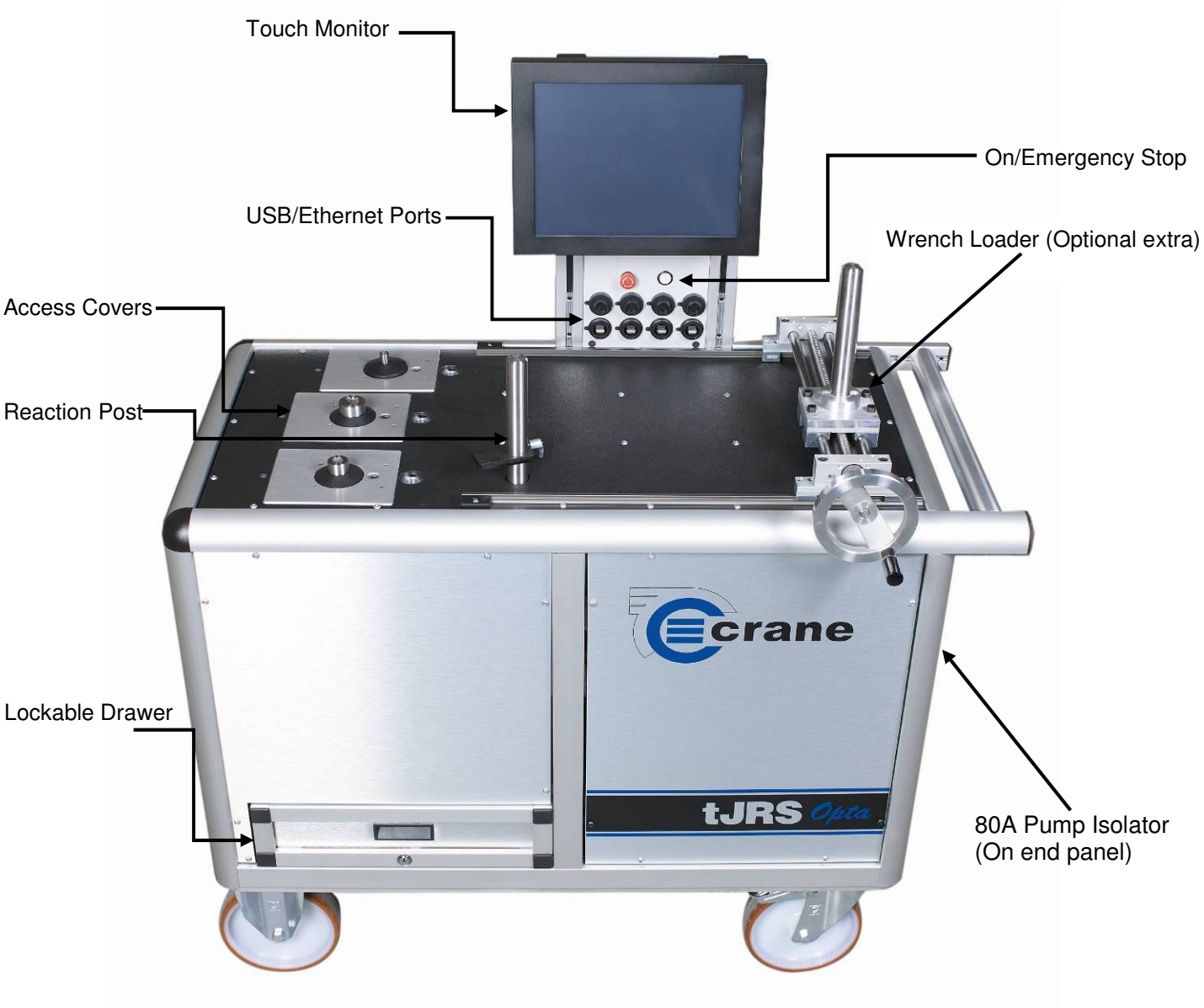
1.8 Never overload the capacity of the transducers or beams on the tJRS, doing so could cause permanent damage to the beams causing errors in results.

1.9 Do not operate the tJRS with the panels removed.

1.10 If Wrench Loader is fitted, ensure it is fully pushed to the right when using rotary tools.

1.11 If ground posts are fitted to the end of the tJRS, they should be inserted into prepared holes in the floor to prevent the tJRS rotating under high torque.

2.0 Quick Start Guide



2.1 The Torquestar is inside the tJRS as standard as it does not need any user operation. A shelf that allows the Torquestar to be on the outside of the tJRS is available as an optional extra. An external Torquestar is used for offline certifications.

2.2 The top access panels are removed for changing of the bolt; they are all fitted with switches linked to the PLC. This is to prevent using the tJRS with the access covers open. Therefore all access covers must be on to operate the tJRS.

2.3 There is also a pump isolator which cuts all power to the pump. This must be set to the 'ON' position before using the tJRS.

2.4 The Torquestar is a readout which performs bi-directional measurement of torque, angle and pulse count in track, peak, click and pulse measurement modes.

2.5 Switching on tJRS

2.5.1 The tJRS can be operated with or without the mains lead plugged in, there is a light next to the mains socket which will inform you if the mains cable is supplying power to the tJRS. It is possible to have the mains lead connected yet switched off, meaning the tJRS will not charge.

2.5.2 Ensure the Isolator is in the 'On' position before attempting to turn on.

2.5.3 Make sure the emergency stop button has **not** been engaged. Once pressed the emergency stop locks in to prevent the tJRS being accidentally turned on, in which case it needs to be rotated clockwise until it releases.

2.5.4 Press the 'Power Button' momentarily and it will become lit, you will also see the screen of the PC turn on.

2.5.5 The PC will automatically turn on.

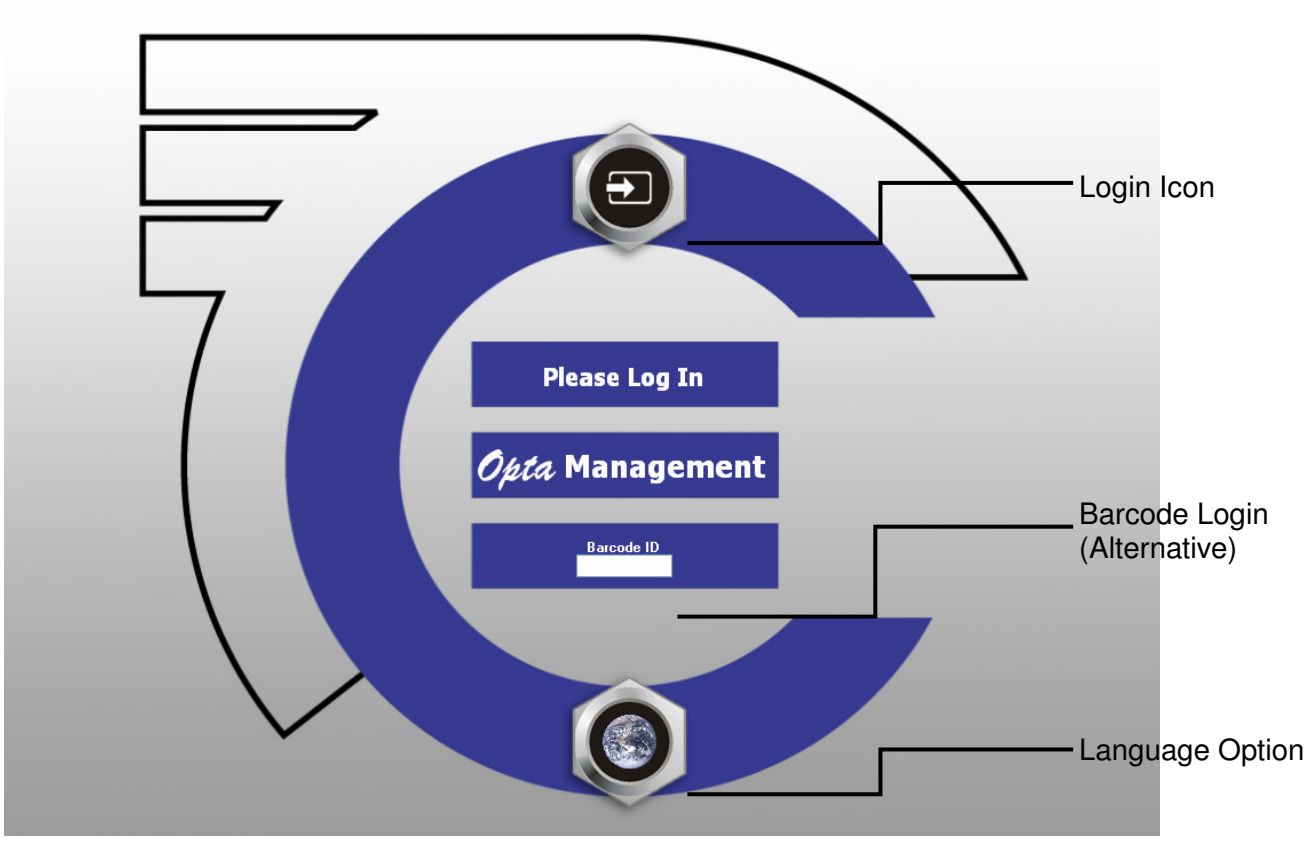
Note: If the PC is shutdown, to turn it back on you will need to press the emergency stop and leave it for 3 minutes as there is no manual way to turn the PC on without removing panels.

2.5.6 If the emergency stop is pressed in and the tJRS has shut down, then the batteries will still charge via the internal charger. If not using the tJRS it is recommended to make sure the emergency stop pressed and to have the mains lead connected so that the batteries are kept fully charged. Once charged the batteries are kept topped up with trickle charge.

3.0 Opta Management (OMS) Quick Start Guide

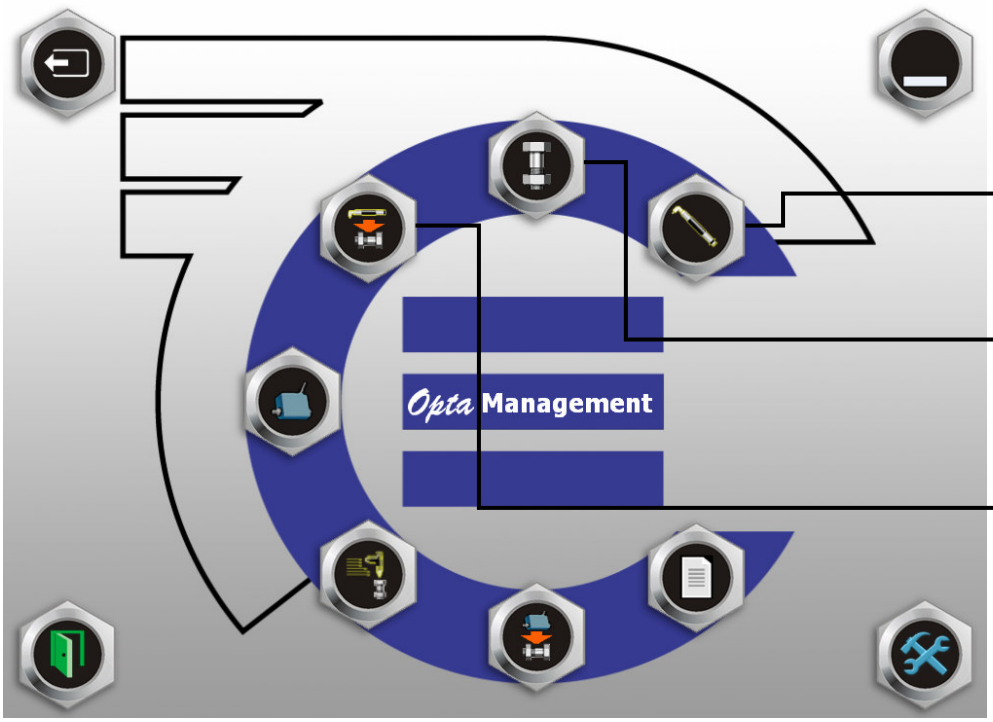
3.1 Double ‘Click’ the ‘Crane Opta Management’ shortcut.

3.2 The tJRS controller program will load and become an icon on the task bar as it runs as a background program for OMS to communicate through. The OMS login screen will then appear.



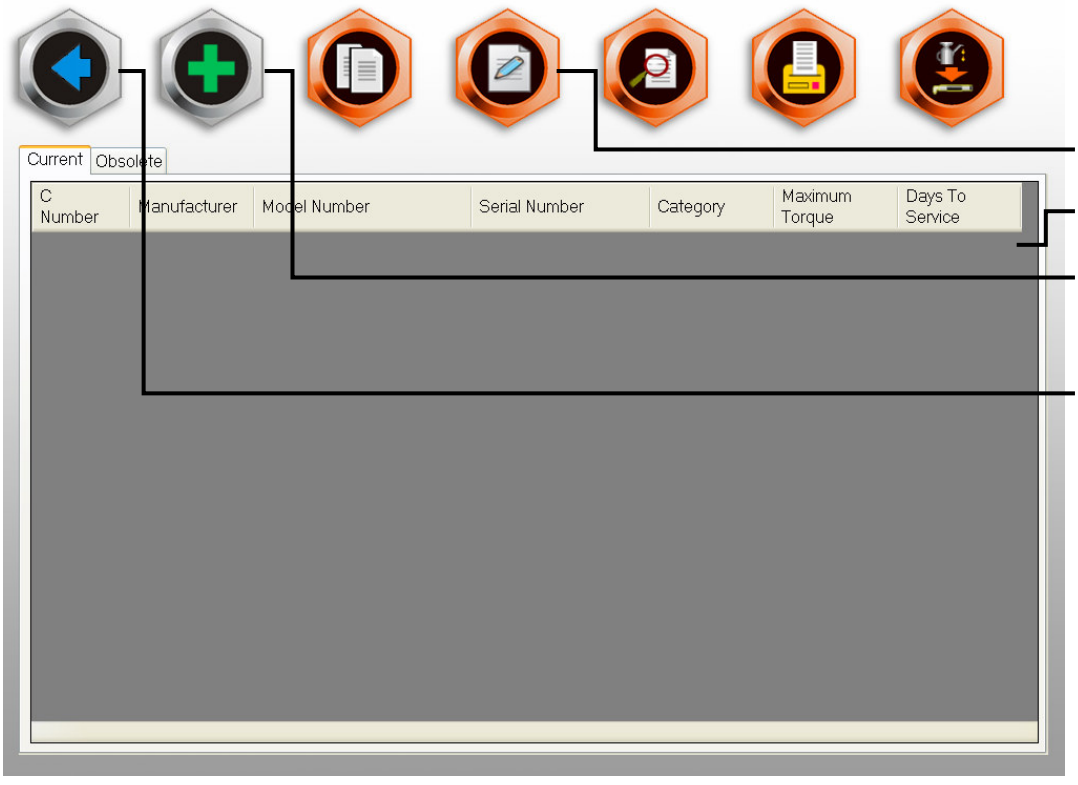
3.3 You can connect a barcode reader to one of the USB ports on the front. You have to set up the barcode login for the user prior to this. The COM port of the barcode reader is changed via the ‘Language Option’ icon.

Once you have logged in the following screen will appear.



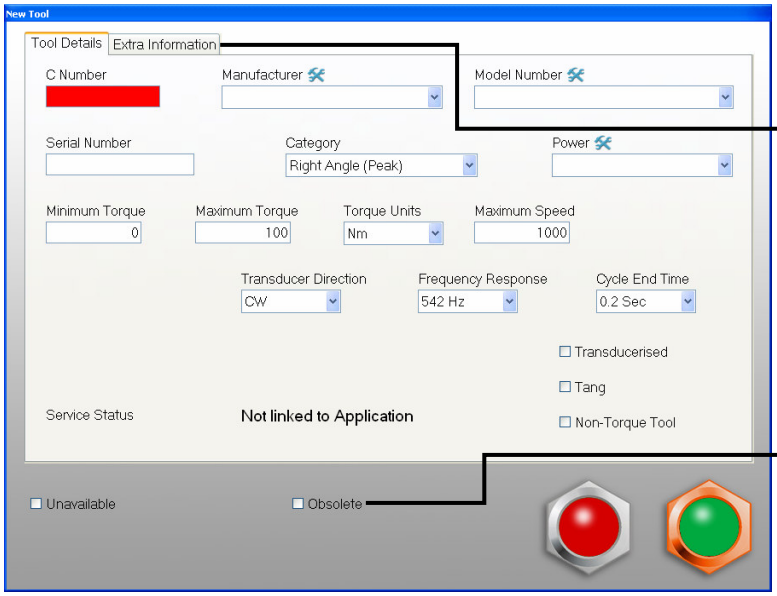
Note: For a description of each symbol please go to the Index of icons in the appendix. Before you start any certifications you must firstly create tool(s), secondly application(s) and thirdly link the tool to the application in OMS.

3.4 To create a tool 'Click' the 'Tool' icon to bring up this screen.



3.5 'Click' the '+' to add a new tool, input information about your tool on the screen, and 'Click' the 'Green' to accept and 'Red' button to cancel. Any fields highlighted red are mandatory if they stay red then the information entered is incorrect, The C number must be unique for each tool such as an asset number (this number should never be used again).

3.6 It is only possible to delete a tool if there is no data stored against it.

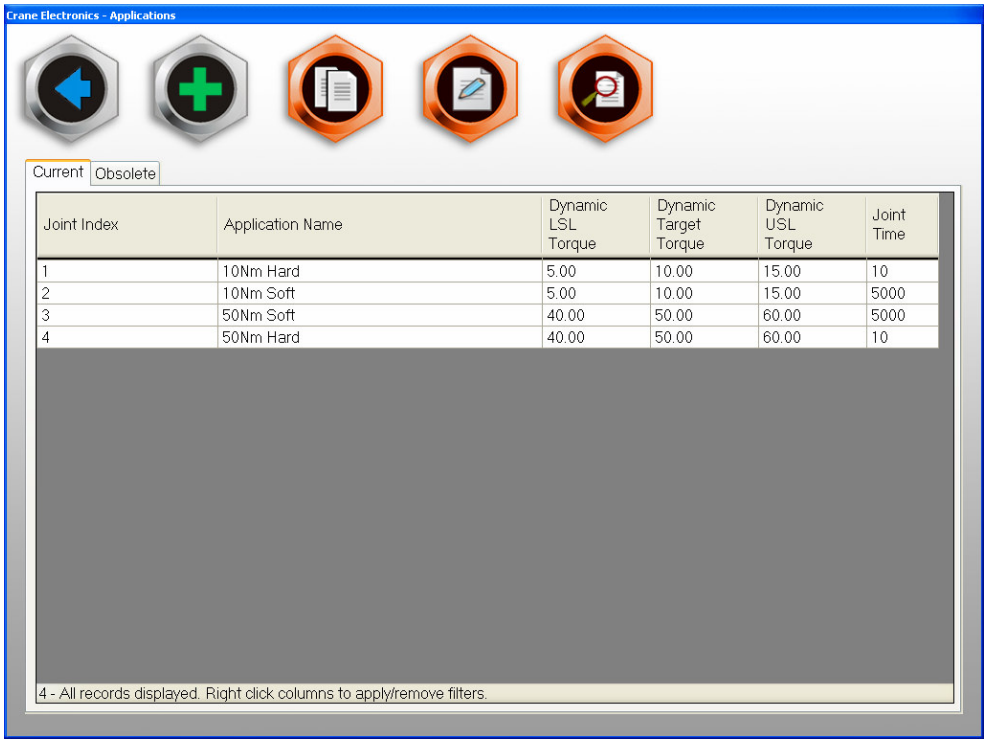


In the 'Extra Information' tab you can add information on the date you bought the product as well as the last service date

You cannot delete a tool once it has data against it. You can only make it obsolete.

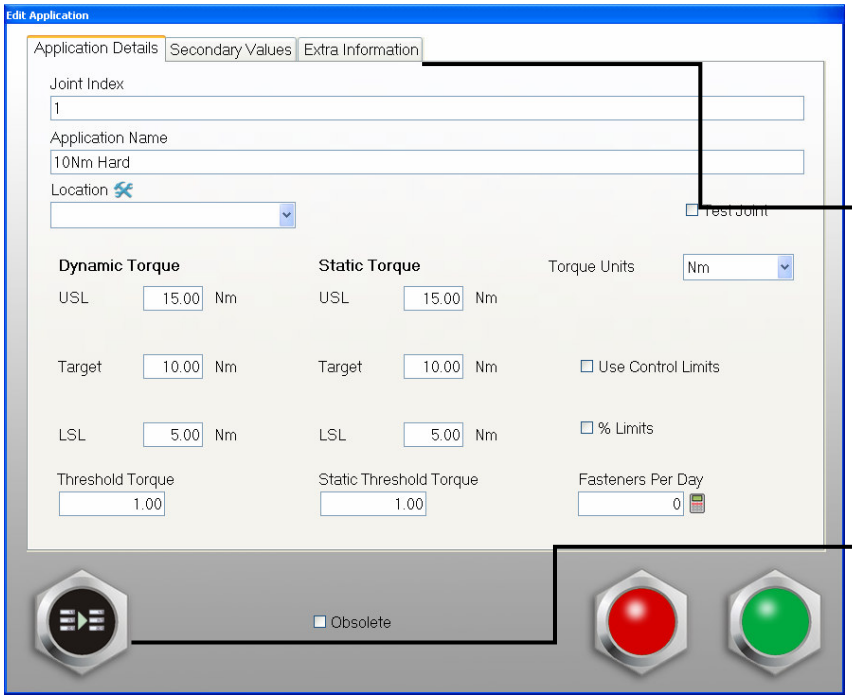
Once you have added the tool you will see it in your table.

3.7 The next step is to add some applications, ‘Click’ the ‘Left Arrow’ in the top left to return to the menu, then ‘Click’ the ‘Applications’ icon to get to the following screen.



3.8 If you ‘Click’ the ‘+’ add application icon the following window will appear allowing you to input information about each application (joint), ‘Click’ the ‘Green’ to accept and ‘Red’ button to cancel. Any fields highlighted in red are mandatory and if they stay red then the information entered is incorrect.

3.9 It is only possible to delete an application if there is no data stored against it.

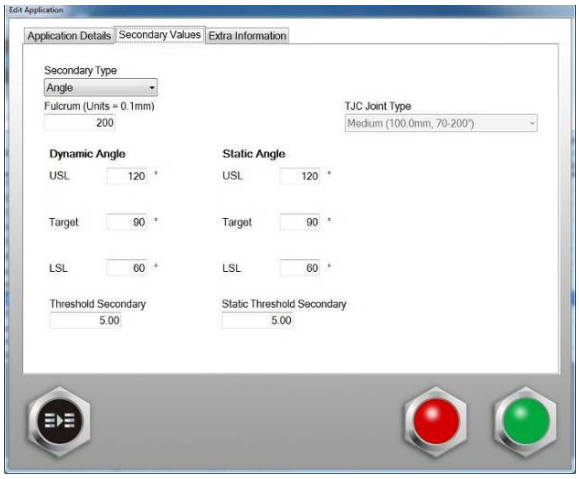


In the ‘Extra Information’ tab there is a section to write notes

Copy values from ‘Dynamic Torque’ to the ‘Static Torque’ columns

3.10 'Dynamic Angle' is for rotating tools. 'Static Angle' is for non-rotating tools such as wrenches. They can have 2 different values in a process as one may be for fastening and the other for an over check.

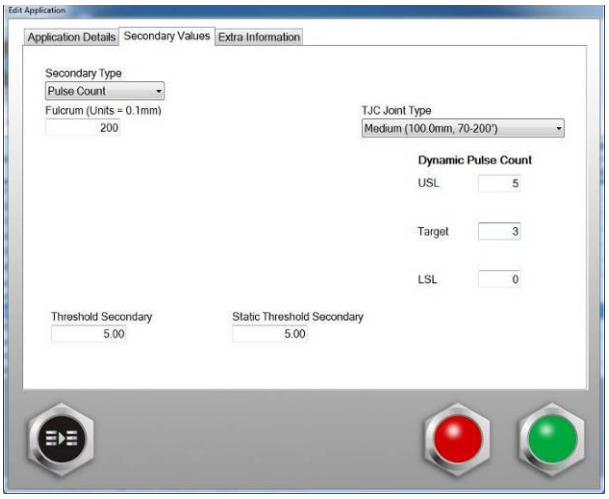
3.11 If you 'Click' the 'Secondary Values' tab then the following page will appear.



3.12 This is the circumstance when you select 'angle' as your secondary value. Here you can set your angle threshold as well as the upper and lower specification limits for the dynamic and static angle.

3.13 Fulcrum; is the distance of the fulcrum from the origin of the bolt. The further from the bolt origin the fulcrum is, the softer the joint will be. Fulcrum units are in 0.1mm therefore 200 = 20mm. Fulcrum value must be below 9999 for correct functionality.

3.14 If you set your secondary value to pulse count you will get the following screen instead.



3.15 You can now set your dynamic pulse count target as well as upper and lower specification limits. Unlike before, the TJC Joint Type dropdown menu is now available to you. There are 3 defaults set up here for a soft, medium and hard joint. The TJC Joint Type takes priority over the fulcrum units for pulse count.

3.16 If you select Angle and Pulse count you will have both Pulse Count and Angle setup available to you, in this case the fulcrum value takes priority over the TJC Joint Type.

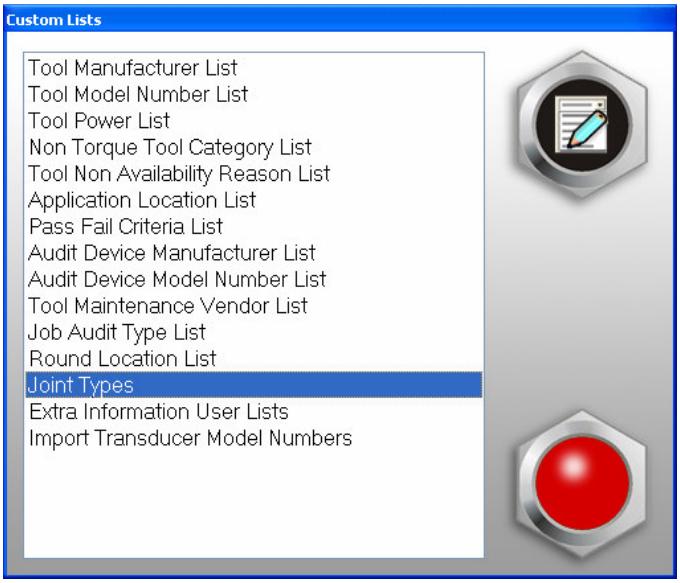
3.17 The 'TJC Joint Type' can be edited or new ones can be added via the 'Configure Custom Lists' section in 'Setup 1/3'.

3.17.1 To edit or add new 'TJC Joint Types' you will have to go into the setup menu.

3.17.2 From the home screen, you will need to 'Click' the 'Setup' icon; this will bring to you 'Setup 1/3' page.

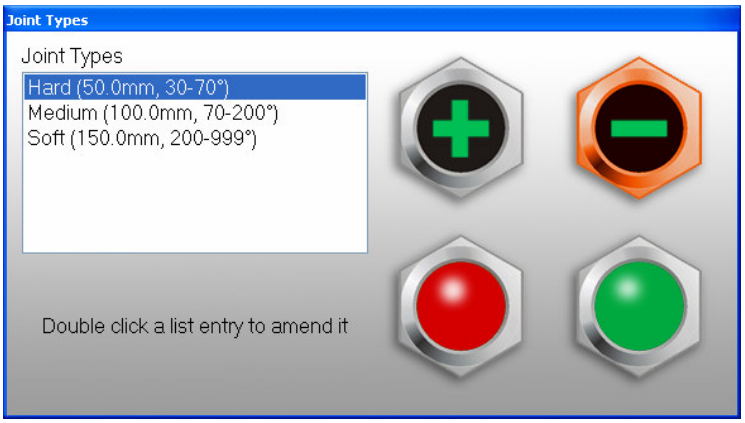
3.17.3 You will then need to press the 'Configure Custom Lists' icon.

The following window will appear.

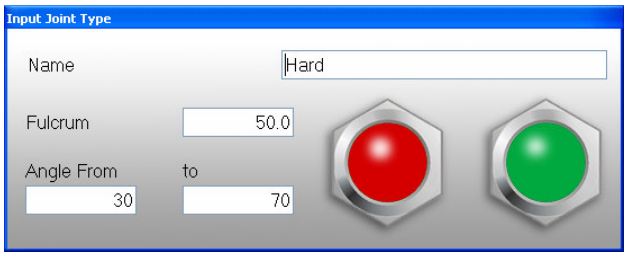


3.17.4 Highlight 'Joint Types' and press the 'Edit Custom List' icon (Top Right).

3.17.5 You will then see the following screen, from here you can add new 'TJC Joint Types' by clicking the '+' icon or edit existing ones by double clicking them.



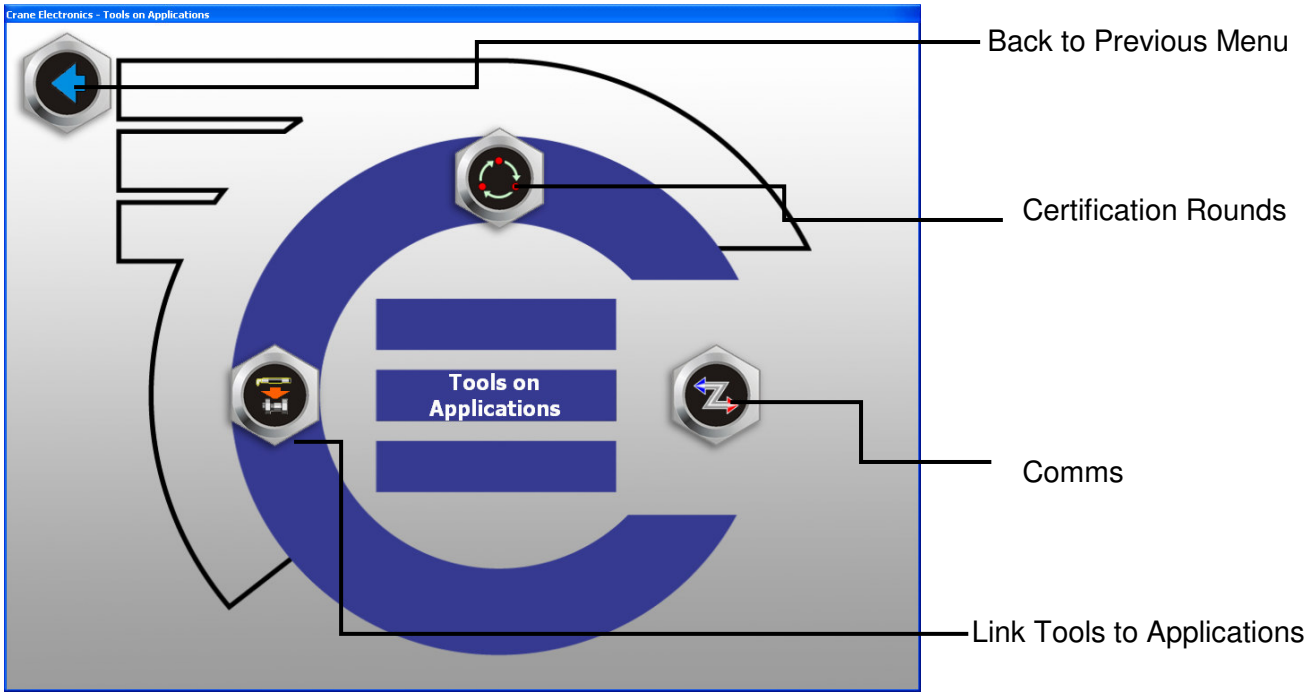
3.17.6 When adding/editing a 'TJC Joint Type' you will see the following window, from here you can change the name, the fulcrum position as well as the angle to and from.



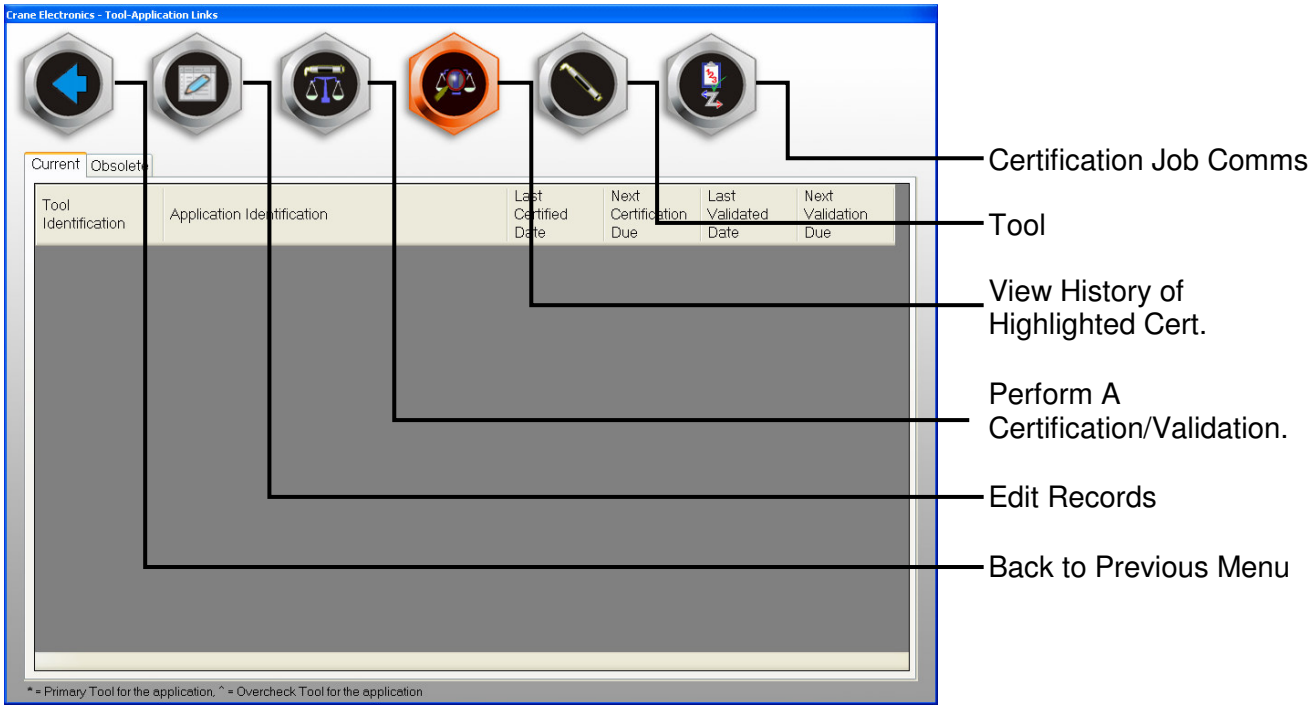
3.17.7 After you have added a new 'TJC Joint Type' it will appear in the dropdown box when creating a tool with secondary values of pulse count.

After you have created an application you can link tools to that application and perform a certification.

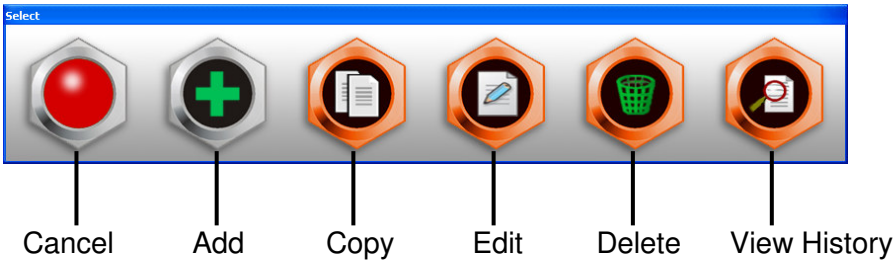
3.18 'Click' the back to previous menu arrow in the top left and then 'Click' the 'Link Tools to Applications' icon and the following screen will appear.



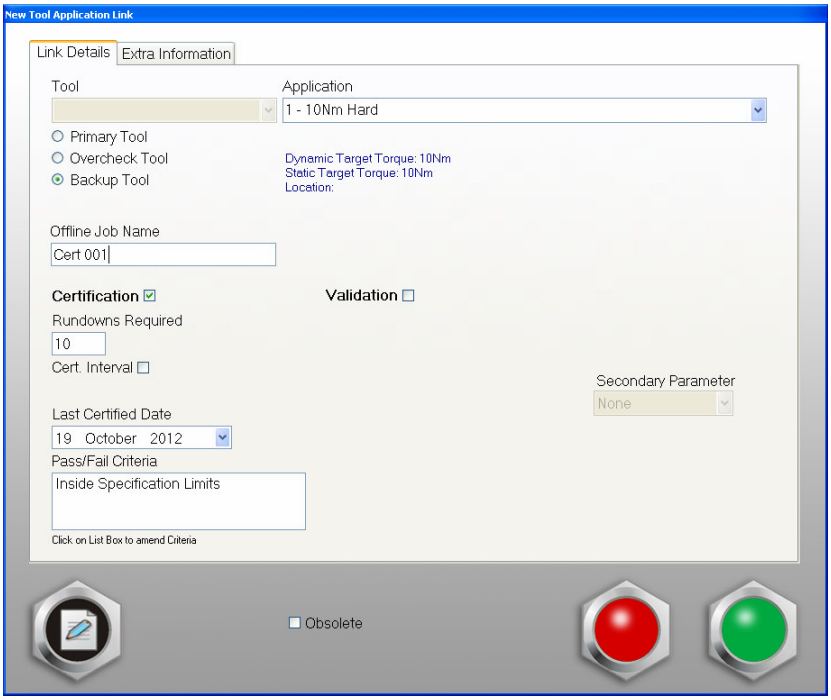
3.18.1 You will then need to 'Click' the 'Link Tools to Applications' icon again to bring up this screen.



3.19 To add any new certification jobs then you need to 'Click' the 'Edit Records' icon which will cause this menu to appear.



3.20 If you then 'Click' the '+' add icon then the following menu will appear.



3.21 If the application has a 'second parameter' you can choose if used as part of certification and whether it is displayed on graph.

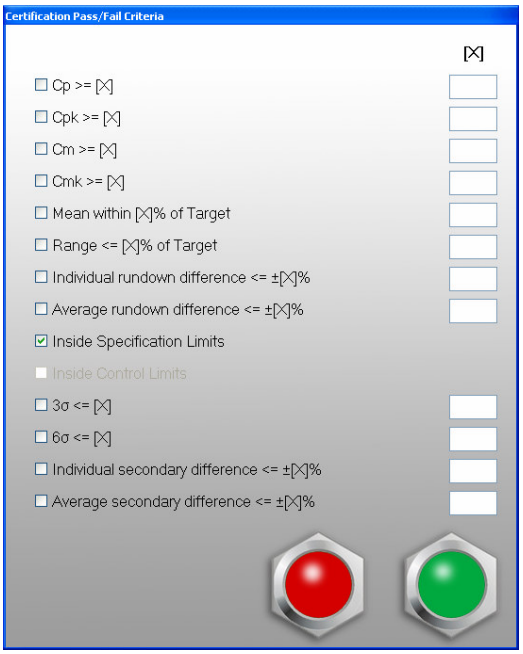
3.22 'Certifications' are typically used to prove a tool could be put on the production line.

3.23 'Validations' are typically used to prove a tool could remain on the production line.

3.24 Certification and/or Validations can be specified with different Pass/Fail criteria, different number of rundown required and different intervals for checking, if required.

3.25 There can be several tools specified as backup tools but only one tool can be specified as the 'Primary Tool' which is the tool currently in use.

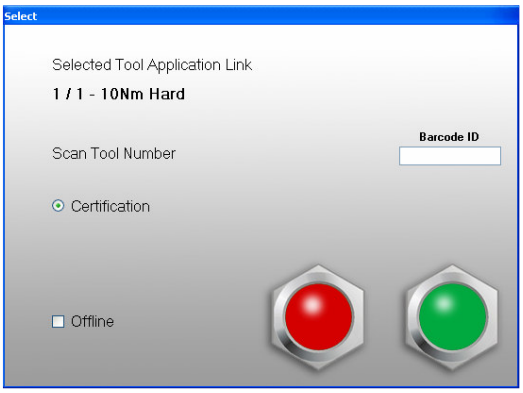
3.26 On this screen you can also select the tool you are going to use, and whether it is the Primary, Overcheck or Backup Tool. If you press the Pass/Fail criteria box then the following menu comes up.



3.27 You can tick the checkboxes and input your own values for ‘x’. The certification will fail if it does not conform to the Pass/Fail criteria set.

3.28 After selecting your pass/fail criteria as well as your other specifications press the green icon to confirm your tools application.
Your ‘Tools on Application Link’ you just created will now be seen in the list.

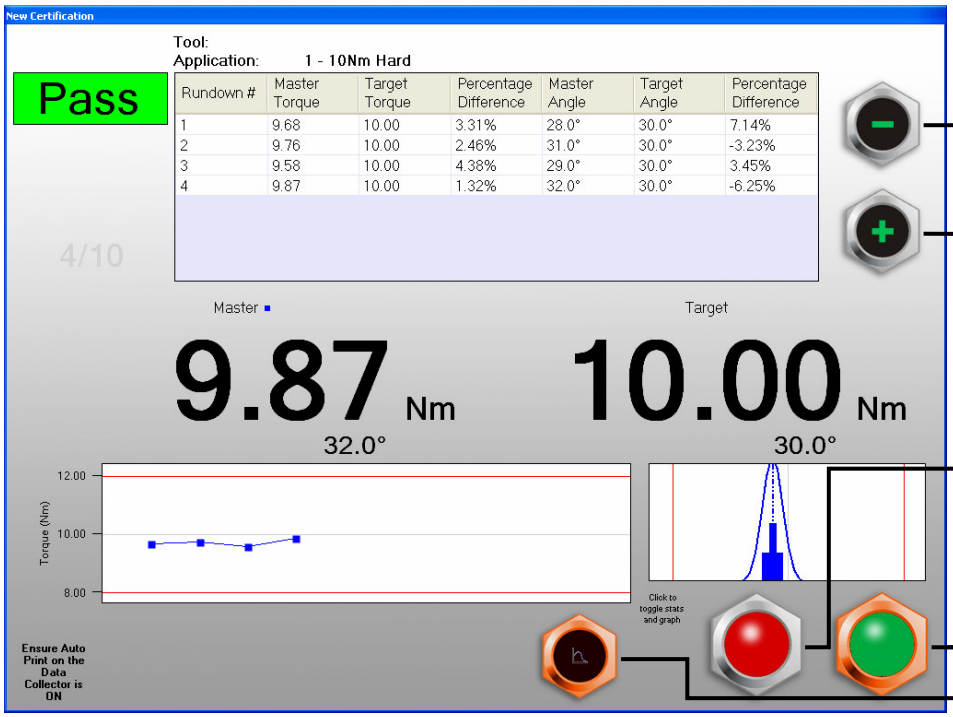
3.29 To perform a certification/validation, you need to highlight the application you would like to perform a certification on and ‘Click’ the ‘Perform Certification’ icon.
This window will appear.



3.30 If you ticked the Certification and Validation checkbox when creating your tool application then you will need to select whether you are doing a Certification or Validation at this point.

3.31 You can also scan the barcode number on a tool to automatically select it, if you specified a barcode for the tool.

3.32 This is an example screen of what will appear during the Certification.

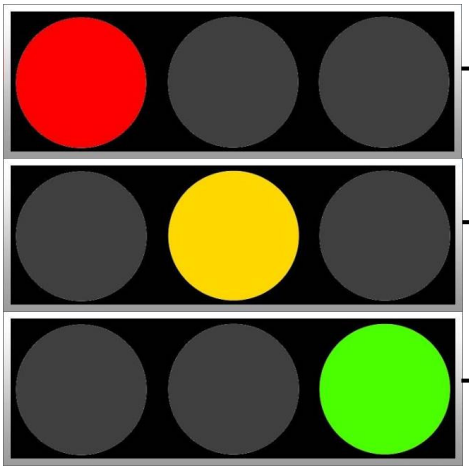


3.33 The bar chart and graph show your priority value which is specified during the application setup.

3.34 Before working on the tJRS please take note of the following to ensure correct use and selection of beam.

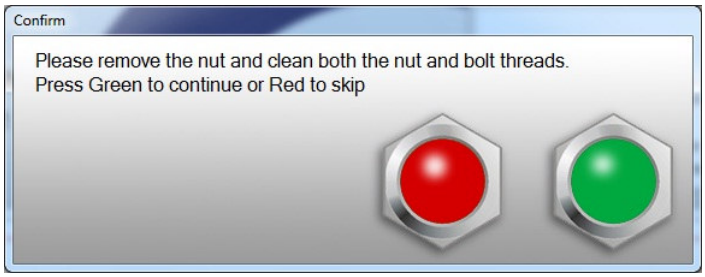
3.35 On the top surface of the tJRS there is a blue LED indicator next to each beam which will become lit to indicate which beam is being used as to prevent pulling torque on the wrong beam.

3.36 At the start of every reading there is a traffic light sequence that appears on the screen to indicate to the user what to do.



Red light indicates reading set has finished or there is a fault. Do not perform any rundowns.	
Yellow light indicates that the tJRS is currently preparing the beam for the next reading. Do not perform a rundown at this time.	
Green light indicates that the beam is fully prepared and a rundown can now be performed.	

3.37 At the start of a set of rundowns, dependant on your greasing interval you may be prompted to grease the nut, you will know by the appearance of this window.

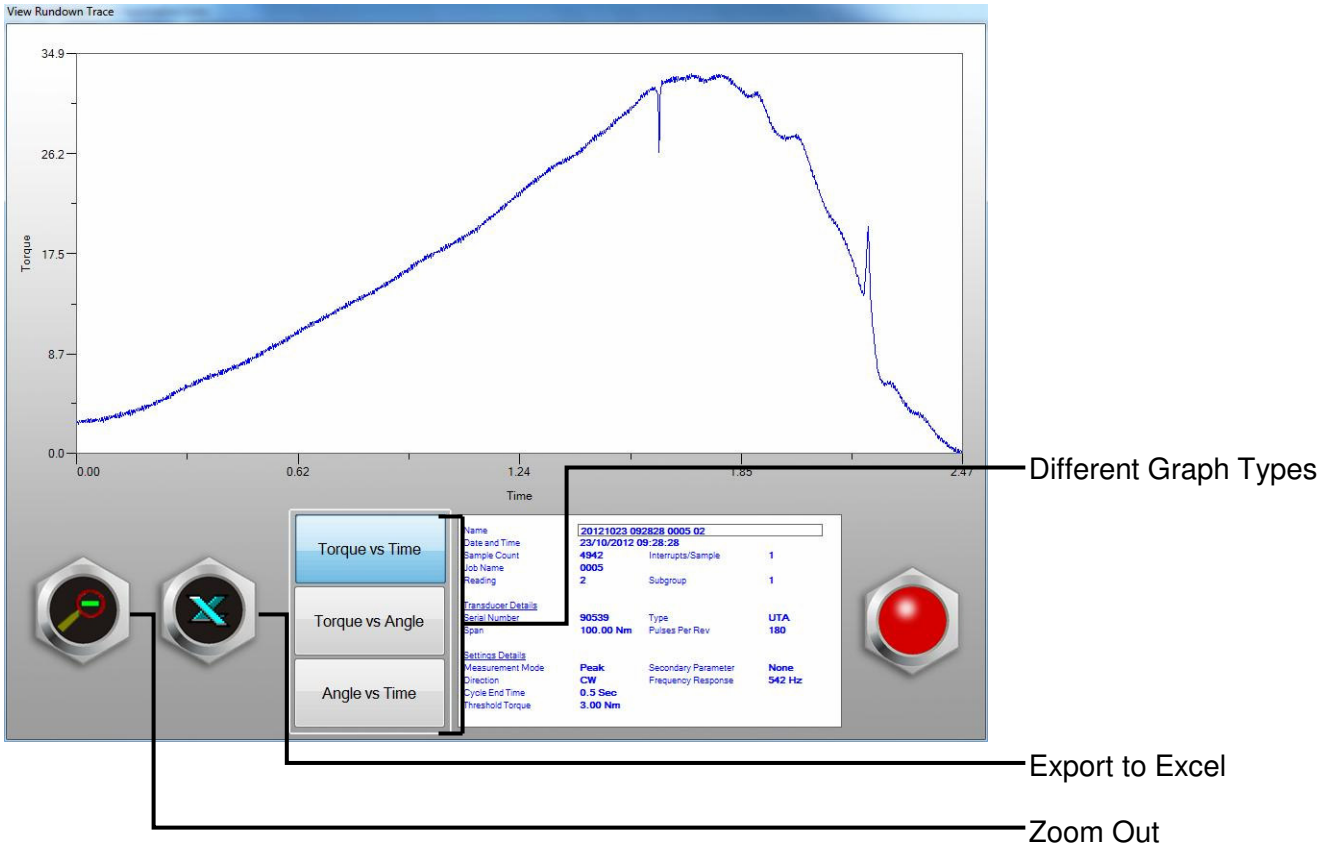


3.37.1 You need to remove the access cover of the appropriate beam, disconnect and remove the Checkstar Opta as detailed in the maintenance manual.

3.37.2 Wind the nut off of the bolt. Wipe all excess grease off of both the nut and bolt threads.

3.37.3 Once suitably clean, replace the nut on the bolt, reinstall the Checkstar Opta. Place the access cover back on and press the green icon to start the greasing sequence.

3.38 After a rundown you can view a trace of your previous reading by 'Clicking' the 'Trace' icon, an 'Uploading Trace' progress bar will appear and once completed will bring up a trace screen as below.

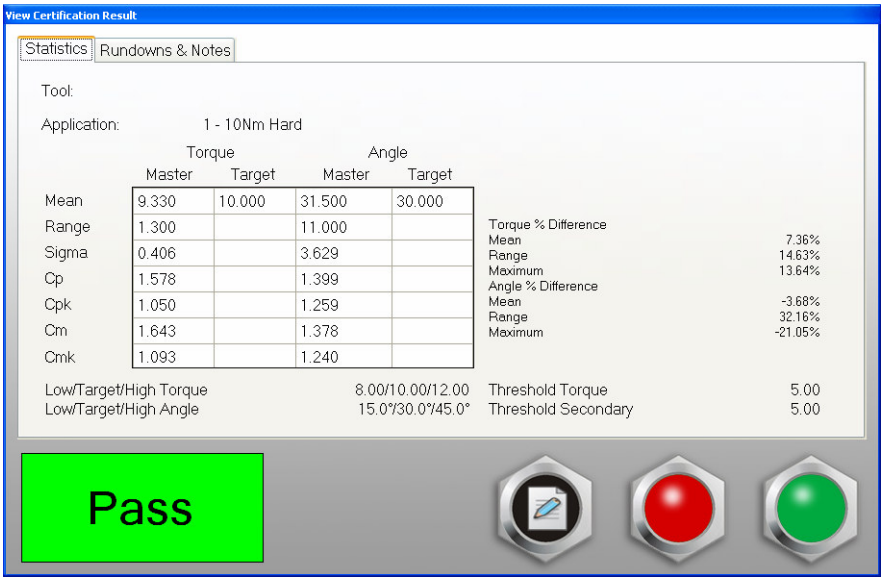


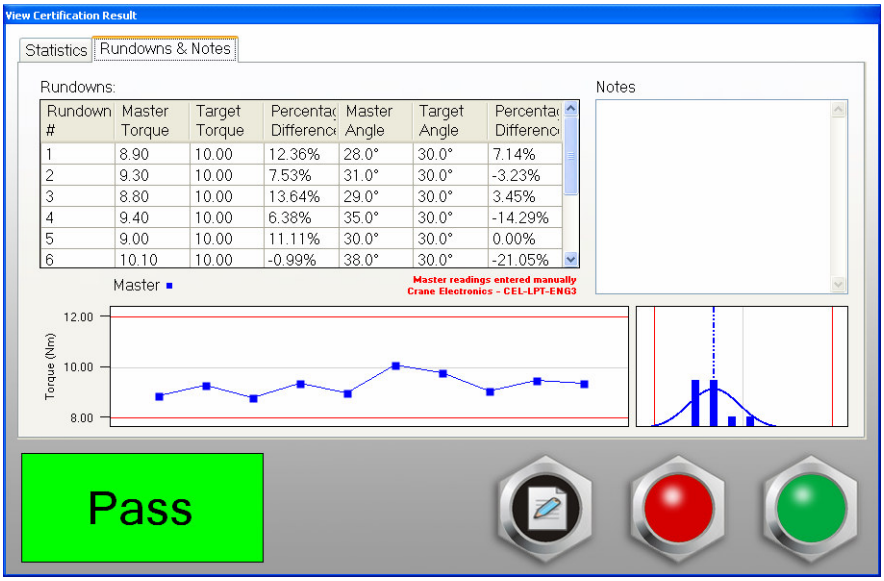
3.39 From here you can select the various different graph types depending on what you need to investigate.

3.40 You also have the option to export to excel which takes all the data for the trace that you have just completed and puts it straight into an excel spread sheet, you can now save and transfer it externally of the tJRS.

3.41 By clicking and dragging over sections of the graph you can zoom in to look at points in more detail. You return to normal view of the graph by 'Clicking' the 'Zoom Out' icon.

3.42 After you 'Click' the 'Green' icon to finish the certification this screen will appear as a report of your certification.





3.43 These are the same screens that will appear if you 'Click' the 'View Previous Cert.' icon as all passed certifications are saved to the database, if a certification fails you need to choose whether to save the certification or not.
You will then be returned to the tools applications menu where you can do the next certification.

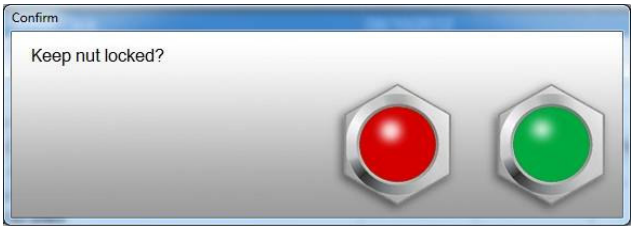
3.44 If you are using a click tool application, then the tJRS will prepare the setup for 'Click on beam' which allows you to use the tJRS beam continuously as a click plate, without have to wait between rundowns.

3.44.1 When you start a certification with a click tool. During the beam preparation the following window will appear.

3.44.2 Ensure you follow the instructions displayed exactly to ensure accurate readings and to prevent damage to the beams and bolts.

3.44.3 You can then perform readings as normal, but unlike normal rundowns there will be no pump cycle between each one so you can continuously perform readings.

3.44.4 Once you have finished all your rundowns and returned to the previous menu then this window will appear.



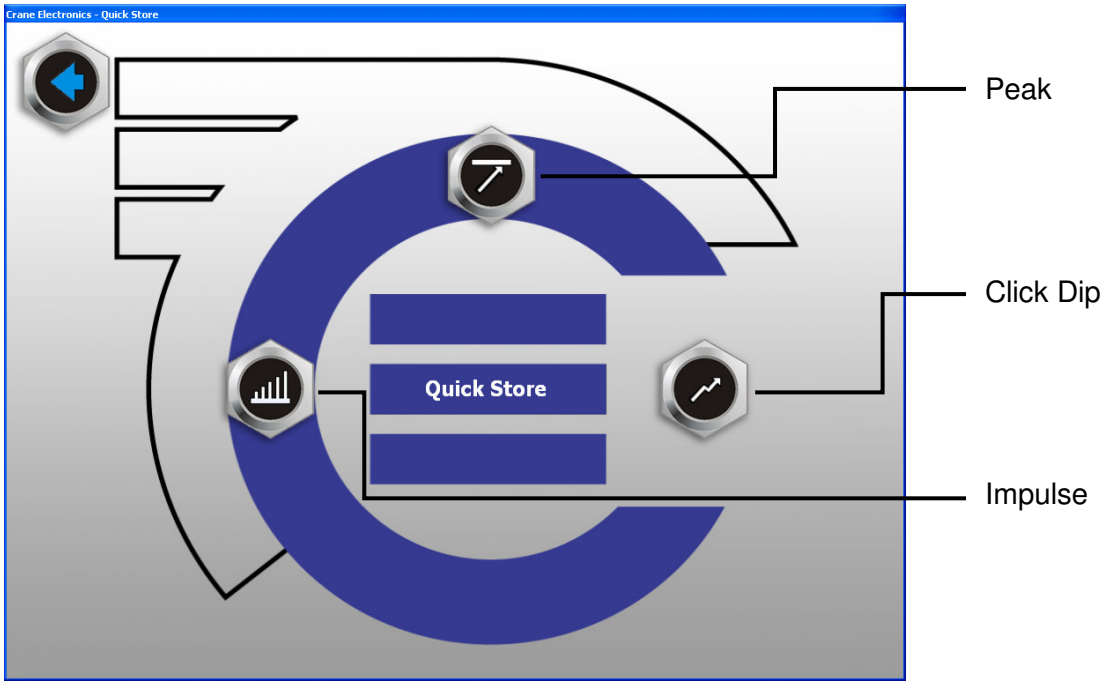
3.44.5 If you are going to perform another click tool application then press the 'Green' icon as this will not release the pressure in the beams and will speed up setup time.

3.44.6 If you are going to perform an application which is not a click application then press the 'Red' icon and this will depressurise the beams and release the bolt.

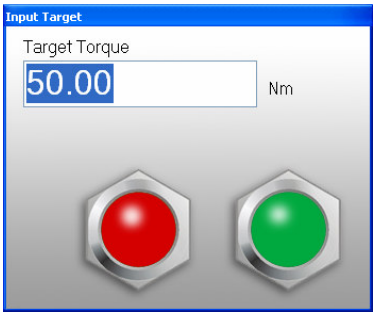
4.0 Quick Store Guide

4.1. From the main menu, ‘Click’ the ‘Quick Store’ icon.

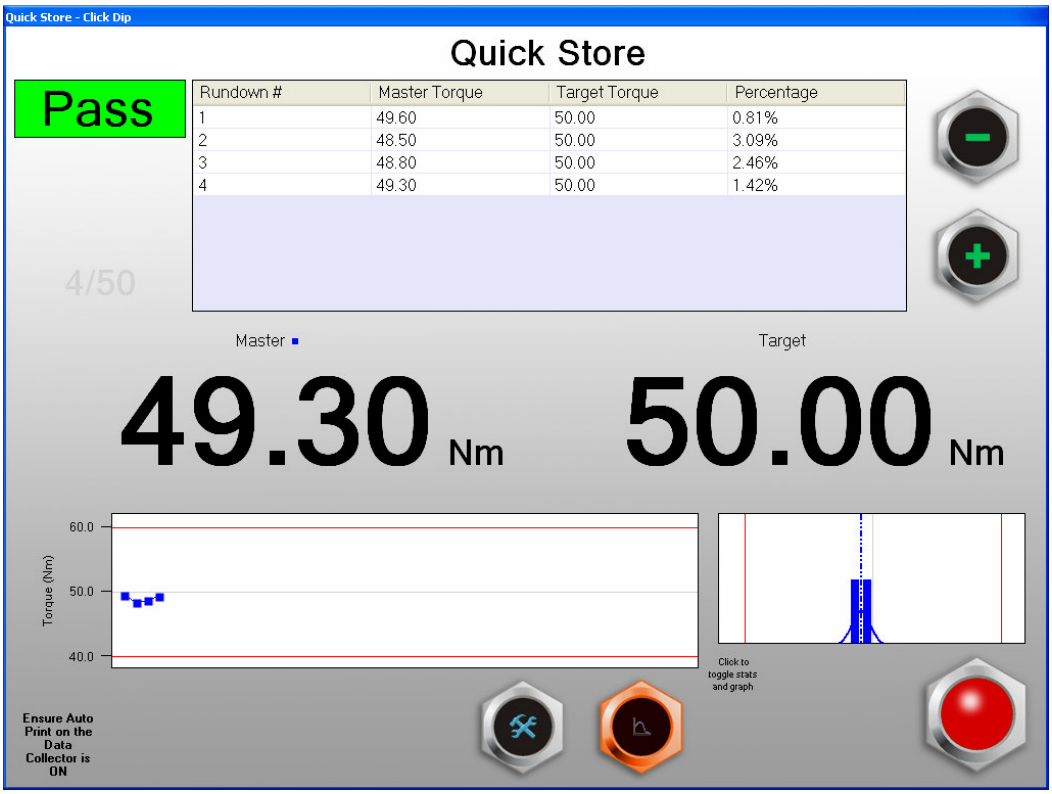
The following screen will appear.



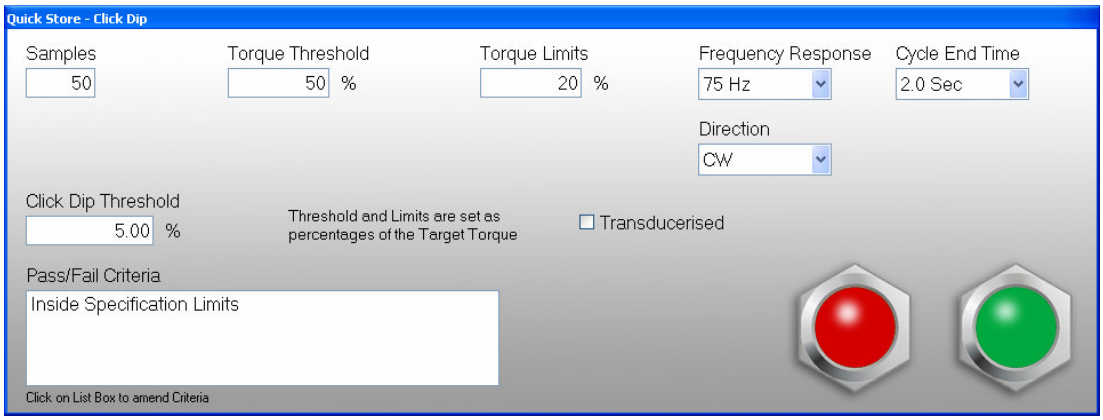
4.2. Select any of these modes and the target torque box will appear.



4.3. After selecting your target torque, ‘Click’ the ‘Green’ icon. That will take you through to the readings screen.



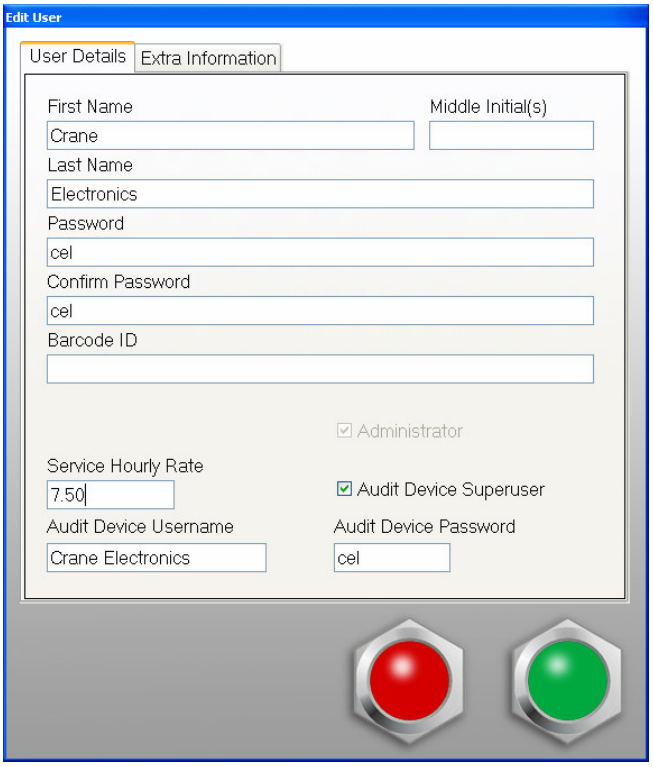
4.4. From here you can ‘Click’ the ‘Settings’ icon to select the various different parameters you can change.



4.5. After you have performed a reading you can ‘Click’ the ‘Trace’ icon which is to the right of the ‘Settings’ icon, this will bring up a torque vs. time graph for the reading you have just performed.

5.0. Opta Management (OMS) Detailed Setup (Administrator Only)

5.1. The first time you run OMS you will need to add an initial user, this user by default is made an 'Administrator' the following screen will appear. Once the Administrator has been created then you can add ALL your other uses of OMS.(see section 5.13)



5.2. Input your information into the fields. Fields marked in red are mandatory and have to be completed, otherwise the user cannot be created.

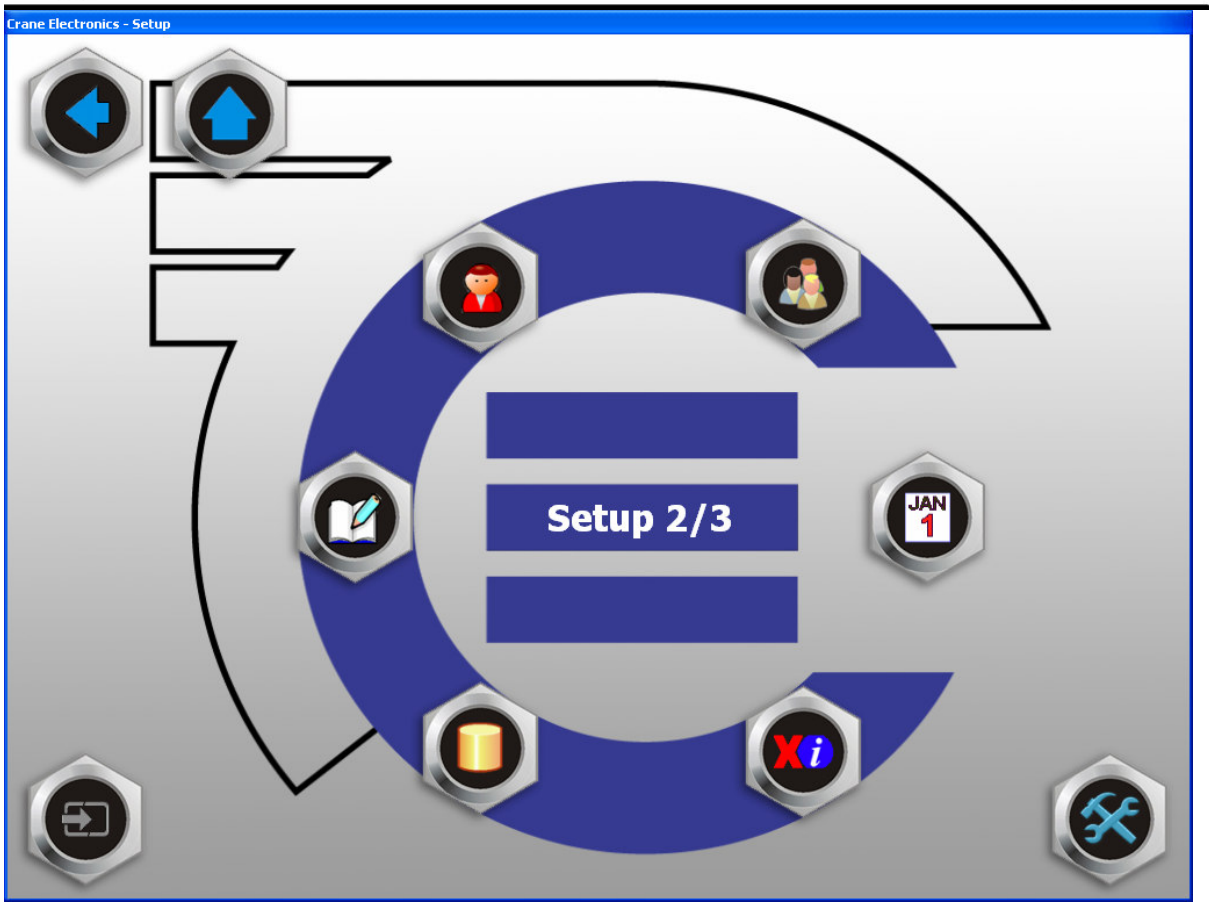
5.3. Audit devices are only relevant if performing offline certifications.

5.4. Barcode ID is the barcode on your ID badge that can be scanned, could also be an RF scanner.

5.5. You will then be taken to the login screen as usual. If you wish to create more users then enter setup mode.

5.6. To enter setup mode you need to 'Click' the 'Setup' icon.

5.7. This will take you to screen 1/3, 'Click' the 'Setup' icon again to access page 2/3.




Go Back one page


Go Back to Main Menu

Configure Custom Calendar


Purge Orphaned Logins
(Only required if program closes without logging out)


Configure User Groups


Configure Users


Logging

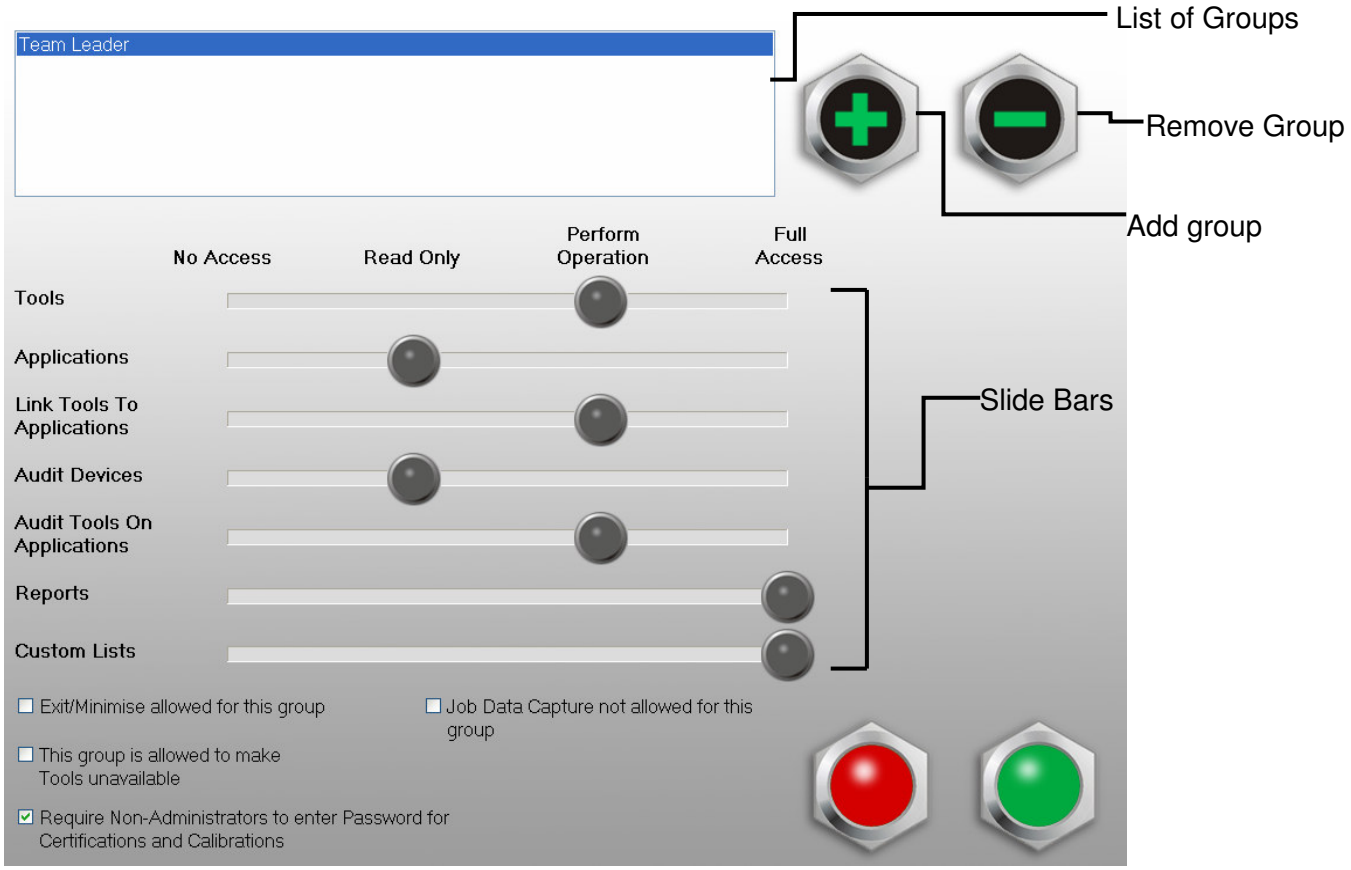

Configure Database

Extra Information Fields

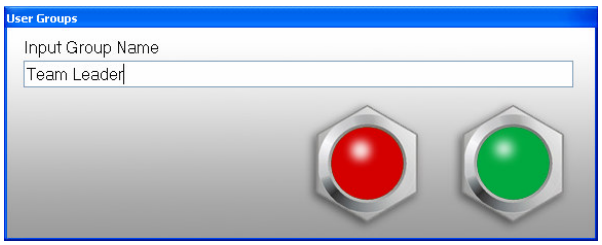
5.8. User Groups

Before setting up users you should first set up your user groups, a user group contains settings to allow any of its member's access to certain areas of the software. A system Administrator must set up 'User Groups' so that users requiring restricted access can be assigned to them.

5.8.1 After pressing the 'User Groups' icon the following window will appear.



5.8.2 To add a new User Group 'Click' the '+' add icon, the following window will appear.



5.8.3 Once you have entered a suitable group name press the 'Green' icon and it will be added into your list of User Groups.

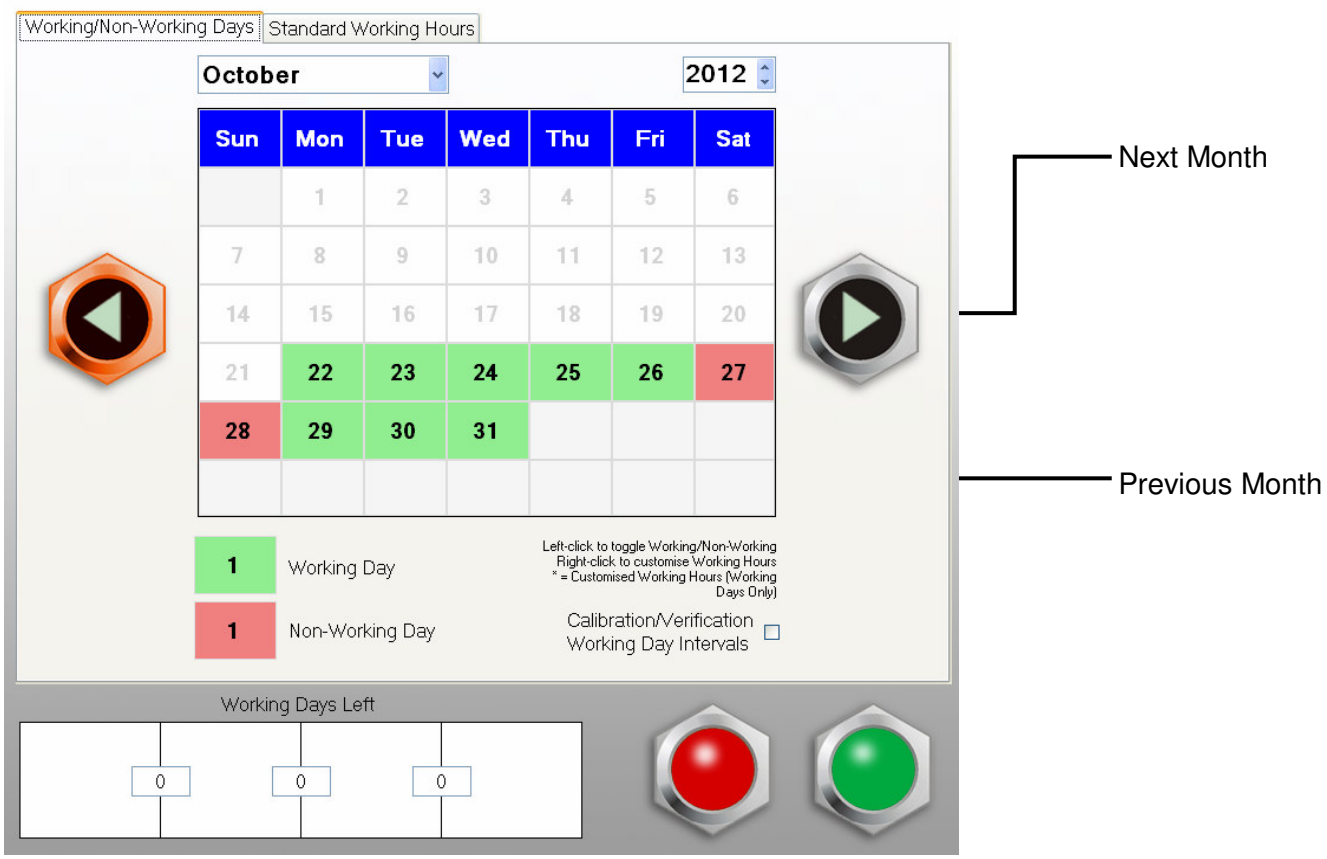
5.8.4 When you have one or more groups, ‘Click’ the group to highlight it. You can then ‘Click’ the slider bars to pick the access each User Group has to each specific section. You can also tick the checkboxes that will not allow the user to ‘Exit or Minimise the program’, will allow them to ‘Make Tools unavailable’, ‘Require non-administrators in the group to enter a password before performing certifications’ also will not allow them to capture job data. (Job data capture is not used with the tJRS)

5.8.5 Full access means the group can read data, perform operations and edit records.

5.9 Custom Calendar

OMS features a user definable calendar which allows the user to configure which days are working and non-working. Non working days are disregarded from any timers such as tool service interval or job scheduling.

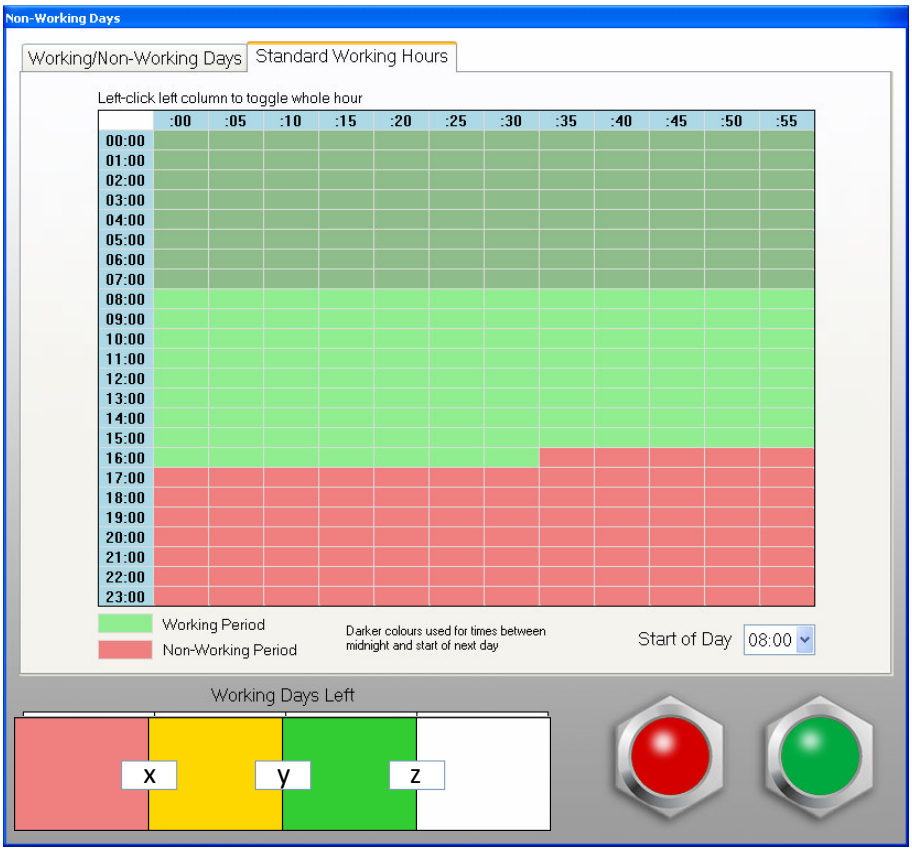
5.9.1 If you 'Click' the 'Configure Custom Calendar' Icon then the following window will appear.



5.9.2 Calibration/Verification of tools can be either based on working days or every day depending whether or not the box is checked.

5.9.3 The drop down lists can be used to view desired month and year or the left and right arrow buttons can be used to go to next/previous month.

5.9.4 The other tab is ‘Standard Working Hours’, this is where you set the regular amount of hours worked. This is taken into account with timers such as tool service interval etc.



5.9.5 If you left click a specific day/date then it will change its state from working to non-working.

5.9.6 Right ‘Clicking’ a specific day will bring up a window the same as the standard working hours so you can alter the specific hours for each working day.

5.9.7 For working days left you can enter values into each of the columns that show the tools in different colours to identify how many working days they have left before they need to be verified.

5.9.7.1 Red is no working days left. Either due that day or overdue.

5.9.7.2 Amber is due between ‘x’ and ‘y’ days’ time.

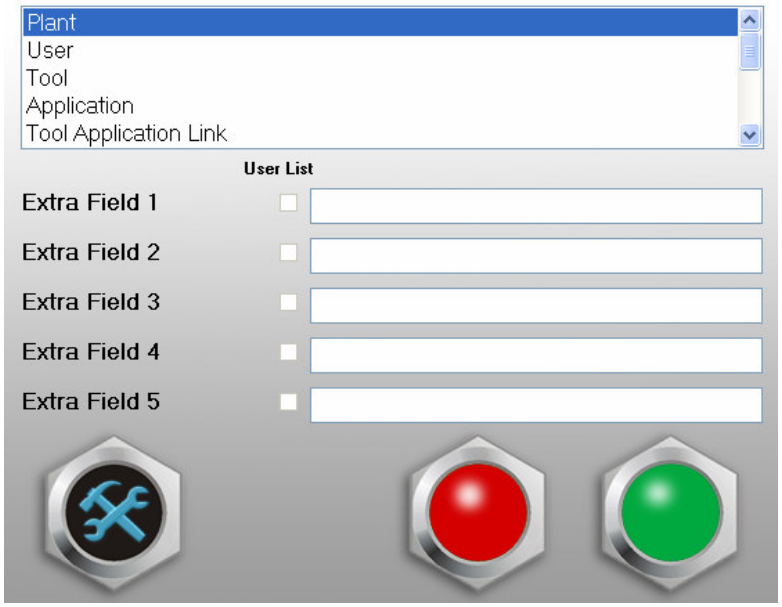
5.9.7.3 Green is due between ‘y’ and ‘z’ days’ time.

5.9.7.4 White is more than ‘z’ days time.

5.10. Extra Information Fields

Up to 5 additional fields for each record type can be configured by an administrator.
These fields are named by the user and are designed to cater for customer specific information which is not covered in the standard fields.
The 5 additional “application” fields are available for each record type and each set of five are separate from other record type extra info fields.
Any fields which are not configured for use do not appear in the respective record entry screens.

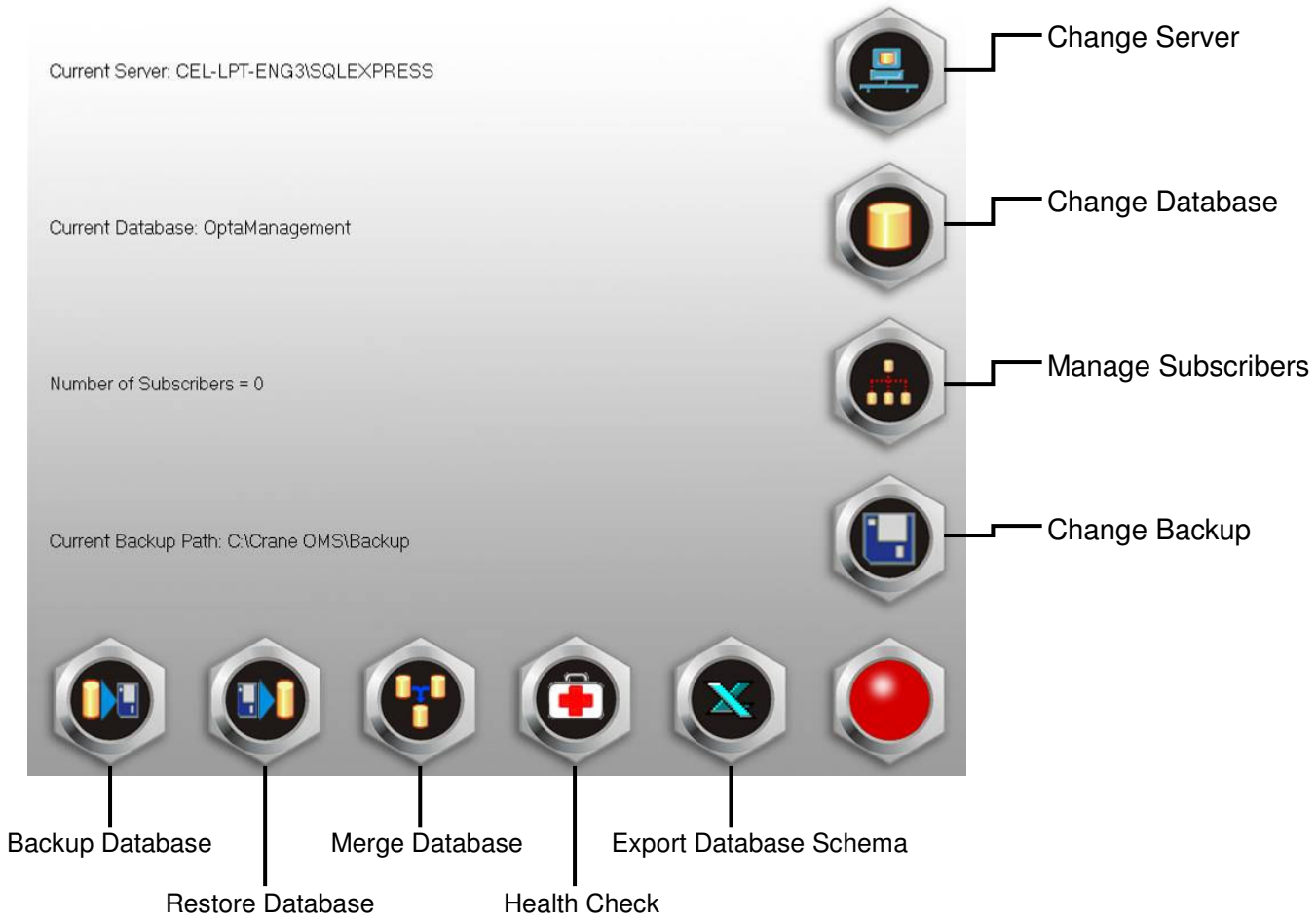
5.10.1 ‘Click’ the ‘Extra Information Fields’ icon to access the following screen.



5.11 Database

The database is where all the tables of information are kept within the Microsoft SQL Server.

5.11.1 If you press the 'Configure Database' icon then the following window will appear.



5.11.2 The server is the SQL program inside the tJRS computer, inside this server is the tJRS databases that have been pre loaded, these will have been setup for you already for when your tJRS arrives.

5.11.3 The Backup path is where a backup of the database will be saved if there is a problem with the database, also 'Clicking' the backup database will force a save of the database to the specified location. A backup to an external location such as a USB flash drive is recommended.

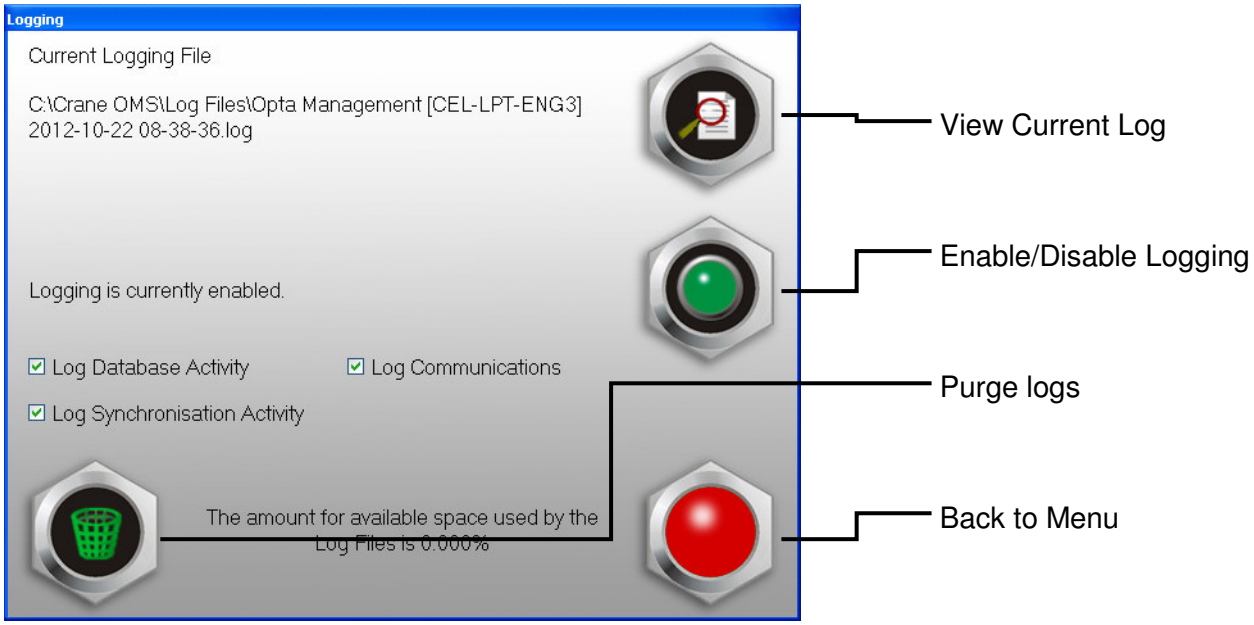
5.11.4 Health Check searches through your database for any errors which it will then report on at the end in a notepad format.

5.11.5 Export Database Schema exports all the field descriptions and their state to excel.

5.12 OMS Logging

Logging is where a continuous real time log is made. Logging is important as when an error occurs it leaves its data in the log files, meaning that Crane engineers can look through the log files and determine the error.

5.12.1 If you 'Click' the 'Database Logging' icon then the following menu will appear.



5.12.2 Do not 'Purge' the log files unless it is absolutely necessary due to space or instructed to by a Crane Engineer.

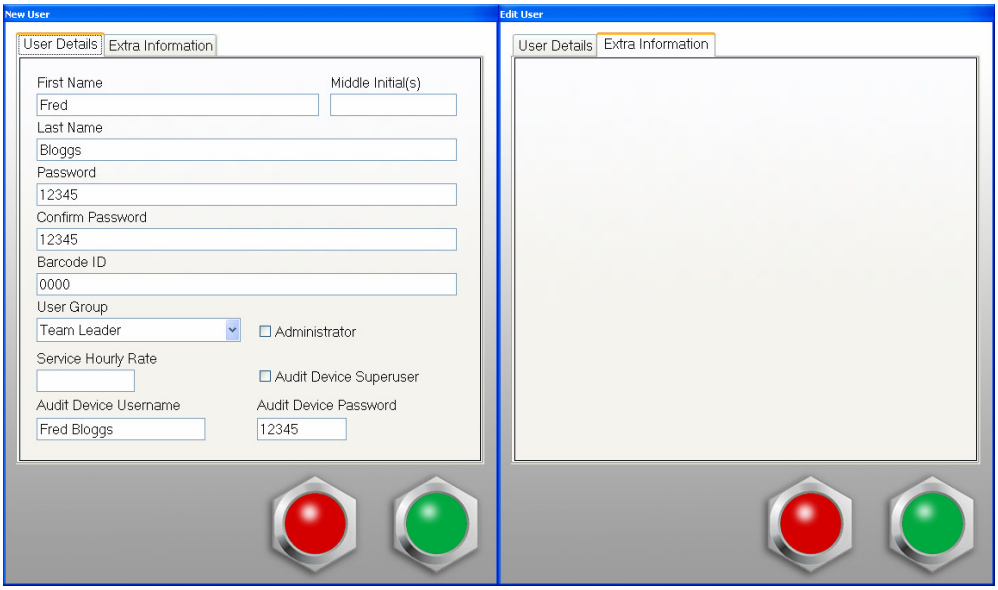
5.12.3 Leave the settings the same as when the tJRS arrives to you, the tick boxes determine certain events that are logged and should not be altered.

5.12.4 Log files older than 10 days are automatically deleted.

5.13 User Details

User details contain information used both within OMS and measurement devices.

5.13.1 If you ‘Click’ the ‘Configure Users’ icon then the following menu will appear.



5.13.2 The details are entered as if you were creating a first user. You can select the User Group to add the User to, as well as selecting whether or not they are an Administrator.

5.13.3 For Barcode ID, OMS has the functionality to allow logging in to the software by scanning a barcode, such as those found on personnel ID cards. This field sets the barcode value for doing so.

5.13.4 The service hourly rate is the chargeable value for a user when they are performing a tool service/repair. This value is used by OMS to calculate the labour costs for tool service/repair/maintenance.

5.13.5 The Audit Device Username is the username to be displayed on Crane hardware devices only. This name has a fewer number of characters available and so is different to the OMS user name.

5.13.6 Up to 5 additional fields (not shown in screen shot) can be configured by an administrator. These fields are named by the user and are designed to cater for customer specific information which is not covered in the standard fields. The 5 additional “User” fields are separate and not related to the extra info fields in other areas of the software.

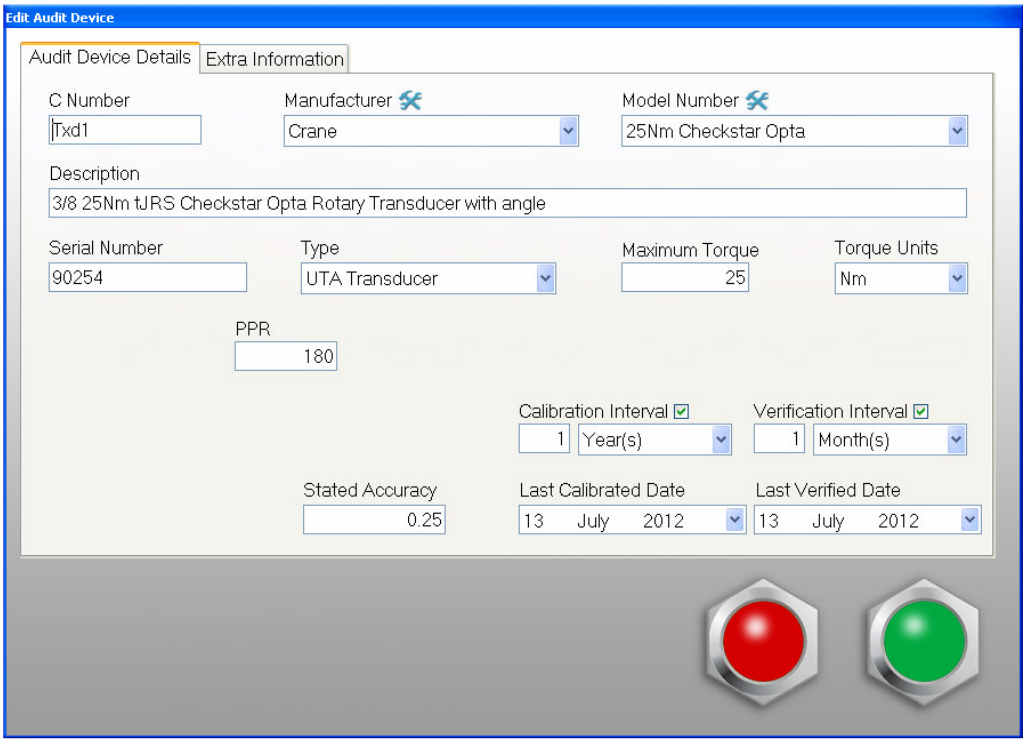
5.14 Certification Transducers

Certification transducers are the transducers being used for Tool Certifications/Validations. Before they can be registered as a certification transducer and added to their respective transducer groups they must be added into the Audit Devices field first. The 3 transducers installed in the tJRS will have already been added as UTA transducers. Adding extra audit devices is only relevant if you have external audit devices.

5.14.1 To set up the Checkstars in OMS you first need to go back to the home menu page. From here you need to 'Click' the 'Audit Devices' icon.

5.14.2 Once you have 'Clicked' this icon you then need to press the '+' add icon.

Once you have clicked the '+' icon then this window will appear.

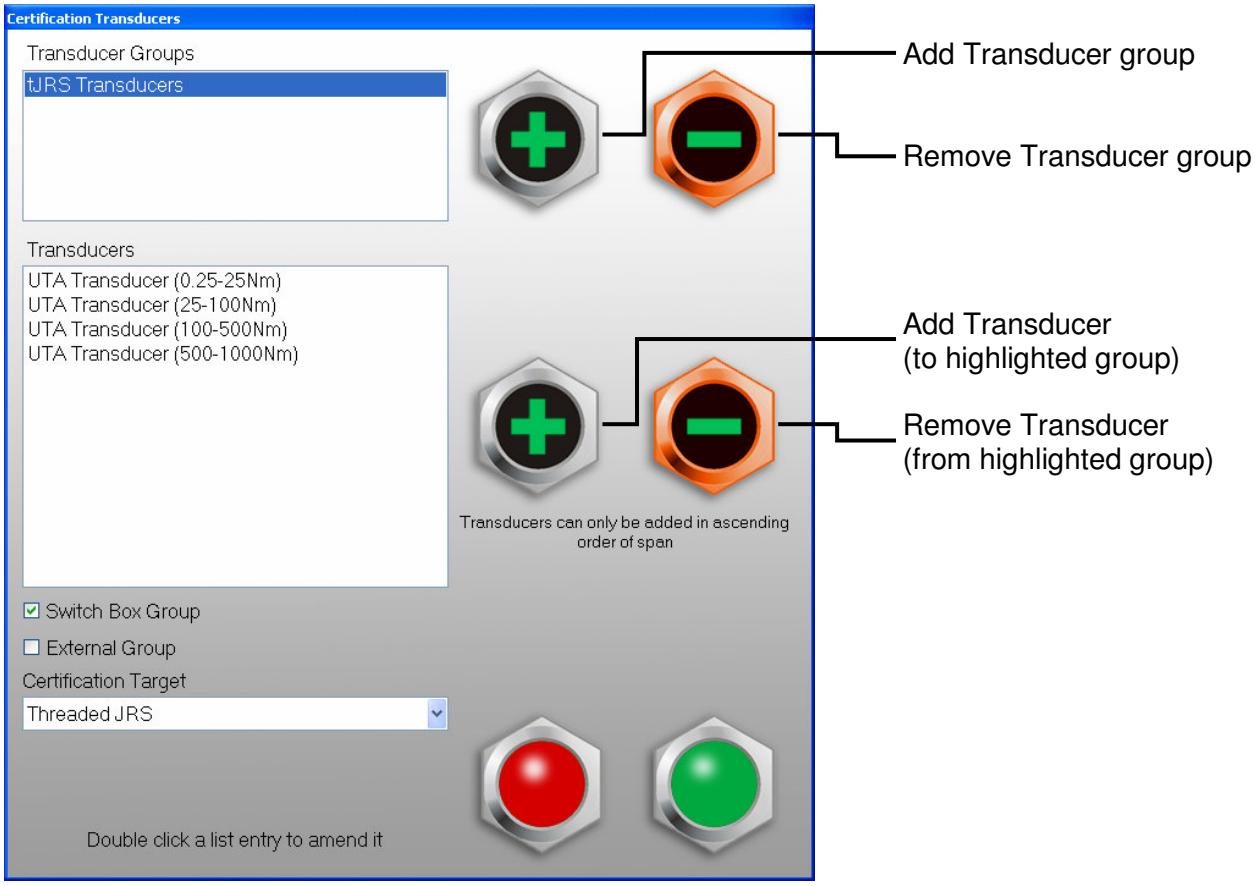


5.14.3 Once you have entered information about your transducer, 'Click' the 'Green' icon and you will see it appear in your list of audit devices.

5.14.4 When finished, ‘Click’ the ‘Back to Menu’ icon, followed by the ‘Setup’ icon, this will take you to setup 1/3.

5.15 From here you need to ‘Click’ the ‘Certification Transducers’ icon.

This window will appear after clicking the ‘Certification Transducers’ icon.



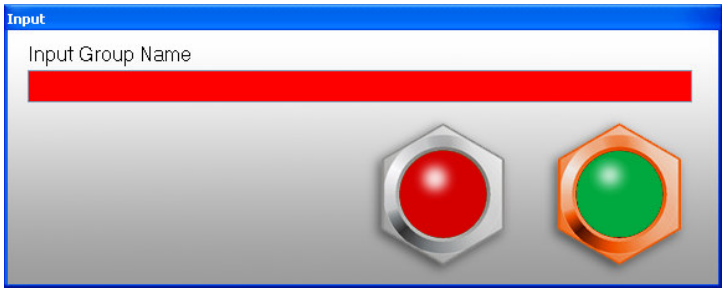
5.15.1 The tJRS will already have a transducer group for the transducers inside already set up so you do not need to add the transducer group for the tJRS, any transducer group added is only for further external transducer groups.

5.15.2 The tJRS uses a switch box to automatically select the correct transducer which is why it becomes a switch box group.

5.15.3 The transducers for a transducer group are selected from the Audit Devices list which will contain the transducers you have previously added to the list. The transducers are added in sequence starting with the smallest span first. You can adjust the range for each transducer as long as it is within the transducers limits. This will be used to select the correct transducer for the job.

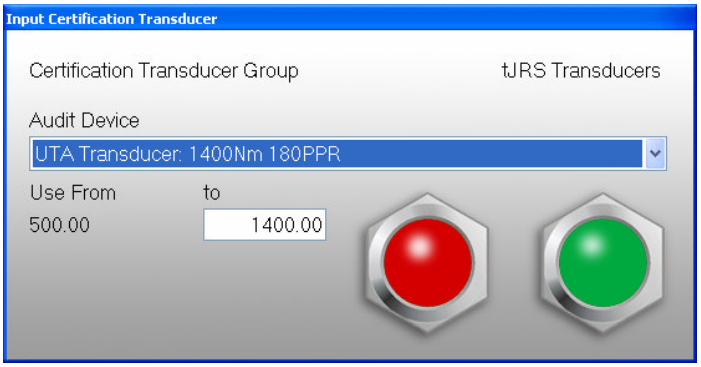
5.15.4 You need to add a transducer group before you can add any transducers to it.

If you 'Click' the 'Add Transducer Group' icon then this window will appear.



5.15.5 Once you input the transducer group name and press the 'Green' icon then it will appear in your transducer group list.

5.15.6 If you then highlight a transducer group then you can add specific transducers to that group by 'Clicking' the 'Add Transducer' icon. When you click the 'Add Transducer' icon then this window will appear.



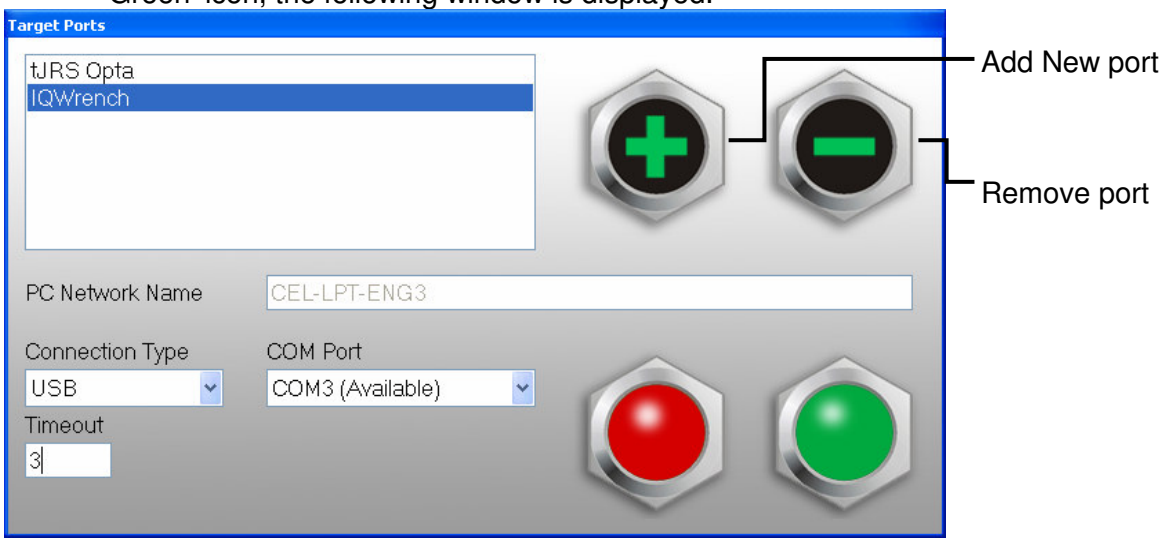
5.15.7 You can then select a transducer from the drop down list and press the 'Green' icon; this will add the transducer to that group.

5.16 Target Ports

Target ports are found in setup screen 1/3. This sets up your communications between the OMS PC and your target devices, such as Torquestar/Controllers/Cradles etc.

5.16.1 'Click' the following icon to access the 'Target Ports' screen.

5.16.2 In the window displayed, make sure 'This PC Only' is selected and 'Click' the 'Green' icon, the following window is displayed.



5.16.3 A target port for the tJRS will already be set up by Crane engineers prior to shipping.

5.16.4 If you 'Click' the '+' add new port icon you will be asked for an input target device name, when you have entered the name of the target device 'Click the 'Green' icon, this will then appear in your list of target devices.

5.16.5 If you highlight one of the names then you can edit the connection type. USB, Serial, Network, tJRS Port and Voltmeter.

5.16.6 You can also select which COM Port that device is talking through for USB and serial, it will show which COM Ports are available to select.

5.16.7 For Network and tJRS Port it will come up with a port number rather than a COM Port. (The tJRS Port will default to 8989 which is the standard port used).

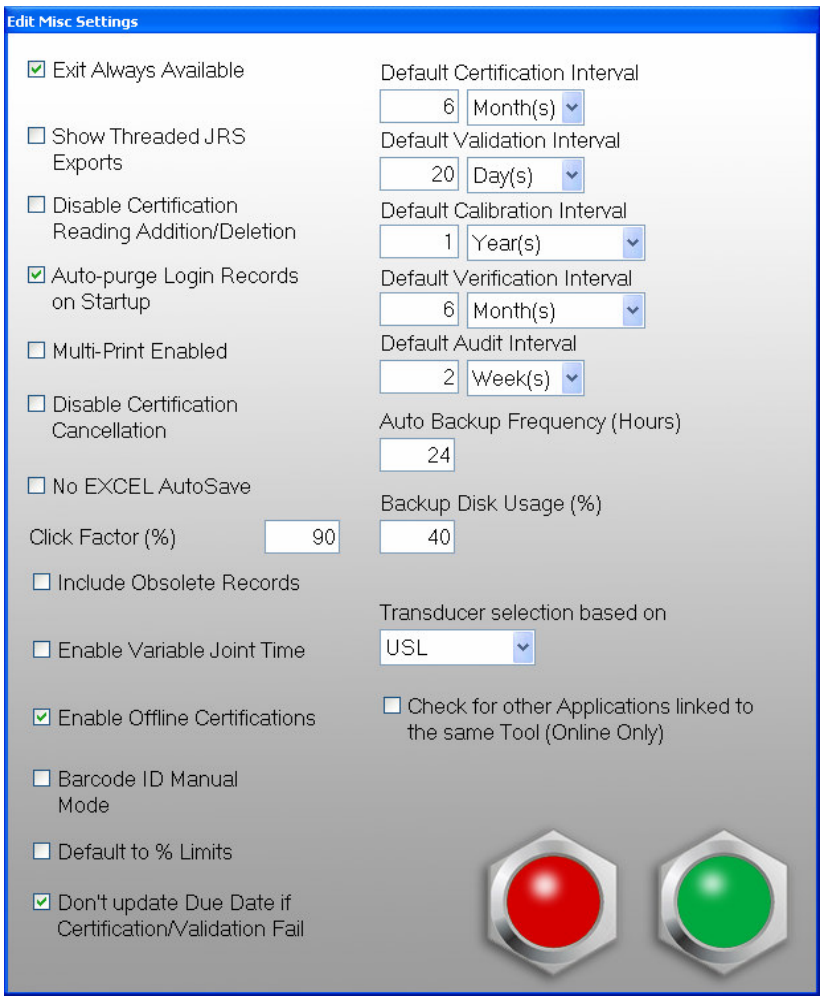
5.16.8 The Timeout value is the length of time for which the software will allow without receiving a reply from the device before deciding there is a connection problem.

5.16.9 Important for connecting OMS to tJRS the target port is tJRS Port, a target port for the Torquestar is not required as it communicates to the Torquestar via tJRS controller.

5.17 Misc Settings

From the main menu, ‘Click’ the ‘Setup’ icon until you get to ‘Setup 3/3’. Press the ‘Misc. Settings’ icon. The majority of the misc. settings will be set before the tJRS is sent to you.

5.17.1 ‘Clicking’ the ‘Misc. Settings’ and it will bring up the menu as shown below.



5.17.2 The default intervals are what specify when a new certification/validation etc. is due and it will alert you when it needs to be done.

5.17.3 The ‘Auto Backup Frequency’ (hours) will back up the database every ‘x’ hours to prevent data loss if the program is suddenly closed.

5.17.4 The ‘Backup Disk Usage’ is how much of the hard drive will be allocated by database backup and will not use anymore then this percentage.

5.17.5 You can adjust what the transducer selection is based on. Select between USL and target. This means if your USL is over the span of your transducer it will ask you to use the next size up, even if the target is under span.

5.17.6 'Multi-Print Enabled' allows multiple prints of the same labels at one time rather than having to go back in to the certification to print more than one.

5.17.7 'Disable Certification Reading Addition/Deletion' if checked prevents users from removing values or adding new values. This stops the user having the ability to influence the results to make a tool look correct when it isn't properly functioning.

5.17.8 When 'Disable Certification Cancellation' is ticked, it prevents the user from being able to cancel the certification if they do not like it, which prevents the same problem cause by the deletion/addition of results.

5.17.9 If the 'Include Obsolete Records' checkbox is ticked then it opens up a new tab in certification viewing which allows you to view previous/obsolete records.

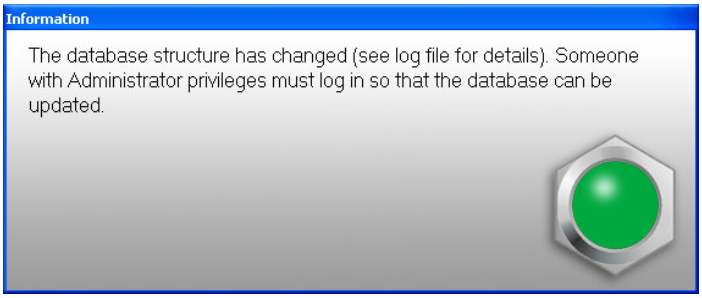
5.17.10 'Default to % Limits' means that when you are setting up a certification then rather asking you for the USL/Target/LSL in Nm it will ask you it in a % of the full span.

5.17.11 The click factor is a safety factor that has been put in to stop the Checkstar being pulled above its torque range. For example, if the click factor is set to 80% and the beam Checkstar Opta is 100Nm then it won't let you use a click wrench above 80Nm on that Checkstar Opta and will tell you to change for a Checkstar Opta with greater span.

6.0. First time running OMS/After Upgrade

6.1 Open ‘Opta Management’ using the shortcut created by the installation process on the desktop

6.2 You may see the following messages if the database structure has changed.



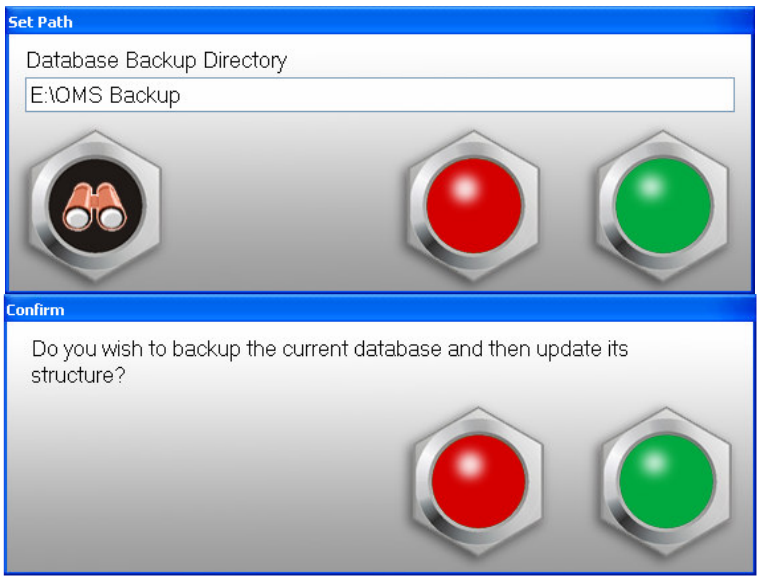
6.3 ‘Click’ the ‘Green’ icon.

6.4 ‘Click’ the ‘Green’ icon again.

6.5 Before OMS starts up you will be asked to backup the database directory.

6.6 Select the folder to back up to and ‘Click’ the “Green Bolt”.

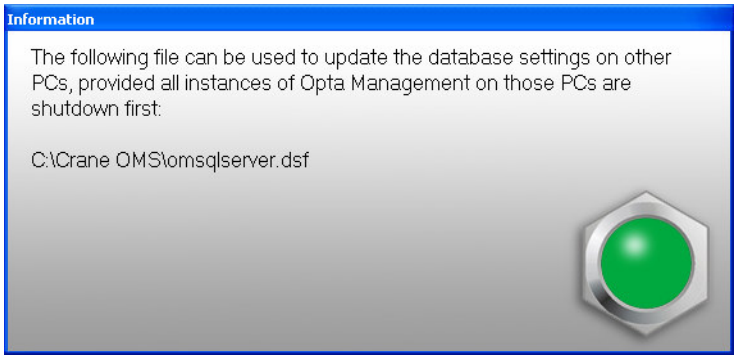
6.6.1 It is advisable to backup to an external device such as a USB memory stick.



6.6.2 ‘Click’ the ‘Green’ icon.

Note: If you cancel the backup, OMS will not start.

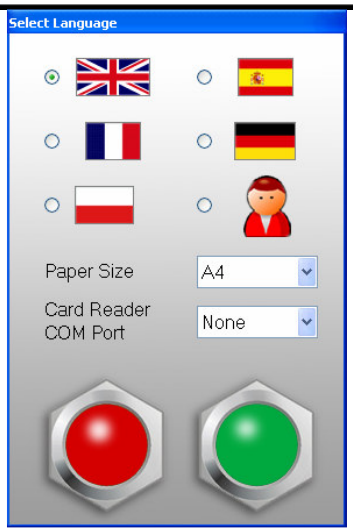
6.7 The following message may also be seen before start-up.



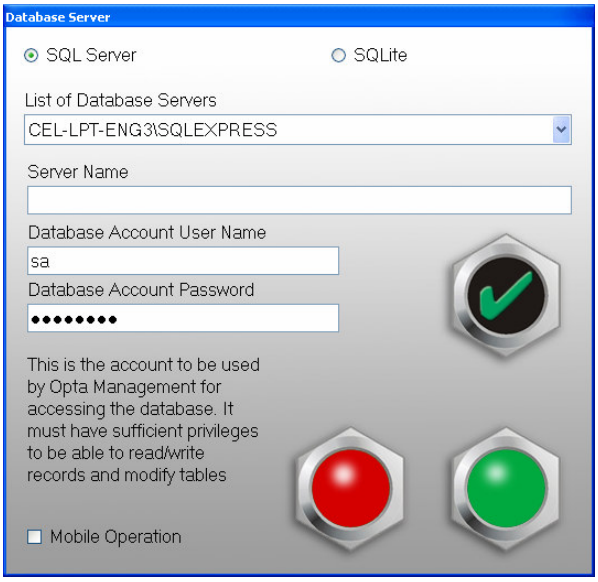
6.8 ‘Click’ the ‘Green’ icon. You have successfully Installed/Upgraded OMS.

6.9 On the first instance of running the program it carries out some checks.

6.10 Firstly you will see a screen like this, select the Language and paper size you require and then ‘Click’ the ‘Green’ icon.

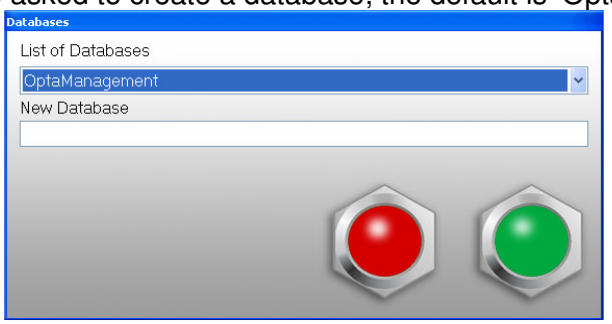


6.11 In the ‘Server Name’ space you need to enter *yourcomputername*\sqlexpress and then ‘Click’ on the ‘Black Bolt’ icon.

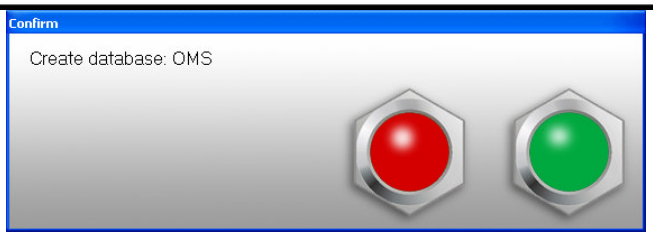


6.12 This should only take a few minutes, when the connection has been established you will see a green tick appear. ‘Click’ the ‘Green’ icon to move on.

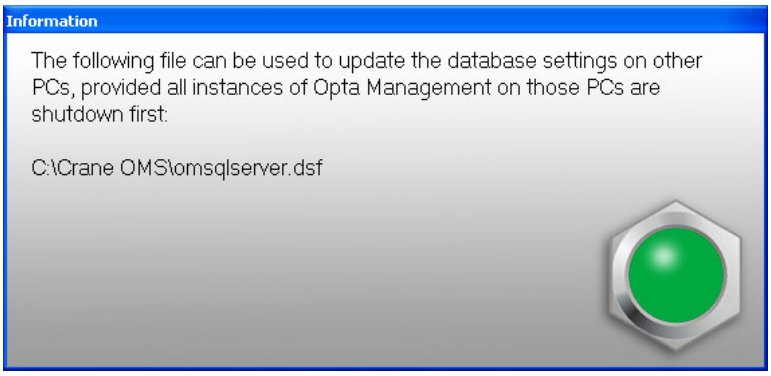
6.13 You will now be asked to create a database; the default is ‘OptaManagment’.



6.14 ‘Click’ the ‘Green’ icon to move on.



6.15 ‘Click’ the ‘Green’ icon to move on.



6.16 ‘Click’ the ‘Green’ icon to move on to where you will create the first user.

7.0 Restoring a Database

7.1 **Must ONLY be carried out by an IT/Database support person, or under direction from a Crane Engineer.**

7.2 **You will need to be an Administrator within OMS and have local administration rights on the server/computer you are working on.**

7.3 There are 2 ways in which you can restore/attach an OMS database from one server to another, you can either create a .bak files using OMS or SQL Management Studio Express or attaching the original .mdf (database) & .ldf (logging record) to a new server.

7.3.1 What type of file are they trying to restore? Database files (.mdf & .ldf) or a Backup File (.bak)

7.4 If attaching a database file then the Database needs to be attached to the SQL Server, using SQL Server Management Studio Express:

7.4.1 Make sure Opta Management is not running

7.4.2 Connect to SQL Server using SQL SMSE

7.4.3 Navigate to Databases page

7.4.4 If the Database being attached is the same name as an existing Database, right-click and rename the existing database

7.4.5 Right-Click blank part of Databases List and select ’Attach...'

7.4.6 Select 'Add...', browse to and select the .mdf file, then click ‘OK’

7.4.7 Click ‘OK’ again to attach the database

7.4.8 An OMS Administrator should now be able to use the Database Functions with Opta Management to select the newly attached Database

7.4.9 An OMS Administrator will then need to re-run Opta Management. Opta Management will update the database structure if necessary.

7.5 If starting with a Backup file, then the Database needs to be restored into SQL Server, using either SQL Server Management Studio Express or OMS:

7.5.1 Using SQL Server Management Studio Express

7.5.2 Make sure Opta Management is not running

7.5.3 Connect to SQL Server using SQL SMSE

7.5.4 Navigate to ‘Databases’ page

7.5.5 If the Database being restored is the same name as an existing Database, right-click and rename the existing database

7.5.6 Right-Click blank part of Databases List and select 'Restore Database...'

7.5.7 Set 'To Database' to the name of the Database being restored (leave 'To a point in time' set to 'Most recent possible')

7.5.8 Select 'From Device' option and click '...' to specify backup

7.5.9 Leave 'Backup Media' set to 'File

7.5.10 Select 'Add', browse to and select the .bak file, then click ‘OK’

7.5.11 Click the check box in the Restore column to make sure it is checked

7.5.12 Click ‘OK’ to restore the database

7.5.13 An OMS Administrator should now be able to use the Database Functions with Opta Management to select the newly restored Database

7.5.14 An OMS Administrator will then need to re-run Opta Management. Opta Management will update the database structure if necessary.

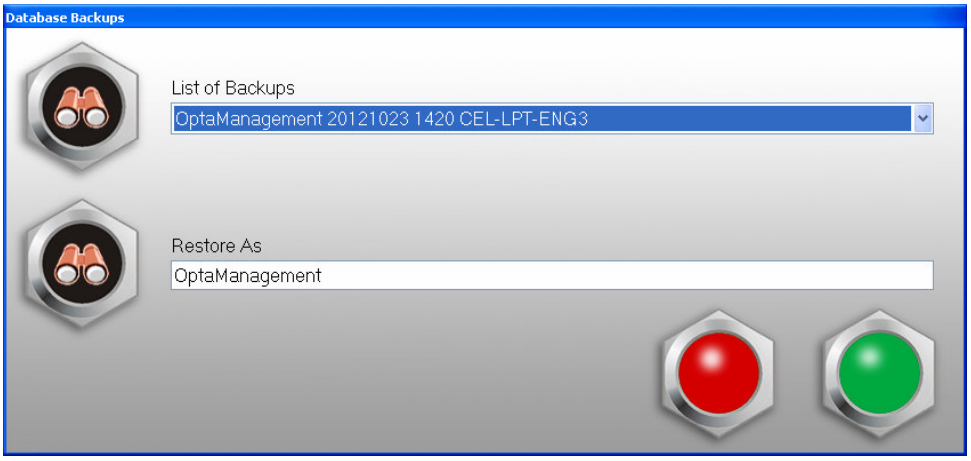
7.6 Using Opta Management (OMS) to restore a database

7.6.1 Open OMS with Administrator Credentials.

7.6.2 Navigate to ‘Setup 2/3’ Page

7.6.3 ‘Click’ on ‘Database’ Icon

7.6.4 ‘Click’ on ‘Restore Database’ Icon



7.6.5 From here ‘Click on’ the ‘Browse Button’ at the top and locate your .bak file

7.6.6 Then either Enter a ‘Restore As’ name for your database or browse to the one you want to over write using the ‘Browse Button’ on the left.

7.6.7 Once you have completed both tasks then ‘Click’ the ‘Green’ icon and wait for the restore to complete (this may take some time depending on the size of the database)

7.6.8 When completed you will be asked “Would you like to use this database”

Appendix A – General Icons


The outside of the bolt head Icon(s) turns green when the cursor passes over it


The outside of the bolt head Icon(s) turns orange when it is disabled Disabled Icons indicate a selection elsewhere on the page needs to be made OR modified before the icon can be used.


OK / Accept / Enter


NOK / Discard / Cancel


Go Back one page


Go Back home (Main Menu)


Select Language


Log Out


Log In


Minimise


Close Program

Appendix B – Main Menu Icons


Tools Menu


Applications (joints) Menu


Link Tools to Applications (assigning tools to joints)


Audit Devices Menu


Audit devices on Applications (Jobs and Rounds area)


Custom Report Menu


Settings Menu

Appendix C – Settings Icons

Appendix D – Comms Menu Icons


Enter Communications Menu


Test Communications Link with Device


Download Users to Device


Capture Date from Device via Auto Print


Upload / Download Jobs


Upload / Download Rounds


Upload / Download Groups


Upload Traces from Device


Download to Device


Upload from Device

Appendix E – Navigation Icons


Add Record


Delete Record


Copy Record


Edit Record


View Record History


Print


Copy Dynamic Fields to Static Fields


Go to First


Previous


Next


Go to Last


Move Up


Move Down


Zoom Out (Traces)


View Job Data


View Subgroup Data

Appendix F – Audit Devices on Applications Icons


Jobs Menu


Rounds Menu


Groups Menu


Traces Menu


Configure Auto ID Heads
(IQ Wrench)

Appendix G – Misc Icons


Configure Custom Report


Booktool in to Service


Run Tool Count Report


Booktool out of Service


Tool Maintenance/Service


Perform Audit Device Calibration / Verification


View Calibration / Verification


Perform Tool Certification

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