U Certify Ltd

U Certify Electrics Pro

References
Requirements for Electrical Installations IEE Wiring Regulations Seventeenth Edition BS7671:2008(2015)

U CERTIFY

Contents

Overview

About the software

U Certify Electrics Pro is a software program for inputting data and printing Electrical & Fire alarm Certificates which are based on the model forms within BS7671, BS5266 Part 2 and BS5839 Part 1 & Part 6.

U Certify Electrics Pro is designed to assist users improve productivity, save time and effort and produce improved presentation of certificates as well as provide useful features.

This manual covers U Certify Electrics Pro version 1.0.1.4 or later.

Features

- Certificates displayed on screen in U Certify Electrics Pro format for easy completion.
- Smart input of information by the software, user defaults have been set.
- Smart numbering of certificates.
- Quick selection of client information, contractor and addresses.
- Automatic and mouse scrolling support.
- Quick selection of test instruments.
- Smart learning / suggestions for observations.
- Smart / automatic placing of observations in section K of the electrical installation condition report.
- Smart referencing.
- Quick auto fill of schedule of inspections.
- Quick schedule of test results defaults.
- Easy attachments of pictures.
- Easy jump to page option.
- Key Bindings to improve productivity.
- Digital Signatures and automatic placing of signatures.
- Add your company logo to certificates.
- Customising colours of certificates.
- Import certificates from other U Certify Electrics Pro Users / Companies.
- Export certificates to other U Certify Electrics Pro Users / Companies.
- Generate Distribution Board schedules from the schedule of test results. (excluding results)
- Generates PDF certificates with attachments.
- Email PDF Certificates (file size restrictions may apply)

System Requirements

Operating system

U Certify Electrics Pro Requires a PC or Laptop running one of the following Operating Systems

- Microsoft Windows 7 & 10 or later (32 & 64 bit versions)
- Apple Mac OSX using windows Parallels or running a windows based operating system stated above.

U Certify Electrics Pro will not work on earlier versions of Microsoft Windows such as Windows 95 , NT4, 98, Windows ME, Windows 8 or 8.1. It may work with Windows 2000, Windows Server 2008, Windows XP and Windows Vista, but we do not officially support these operating systems.

This manual only covers the Windows version.

Hardware Requirements

U Certify Electrics Pro requires a PC or Laptop that meets or exceeds the following specifications:

- At Least 1.44 GHz CPU
- At least 2GB of system RAM
- Approximately 500Mb of free Hard Disk Space
- An Internet connection for installation, license checking and updates. (Required to be connect minimum every 21 days.)

Screen Resolution

U Certify Electrics Pro recommends a minimum display resolution of at least 1024 x 768 pixels.
A screen resolution of 1280 x 1024 pixels or higher is recommended.

U Certify Ltd custom certificates.

U Certify Electrics Pro convert the following certificates in our own format to PDF which can then be printed onto blank paper:

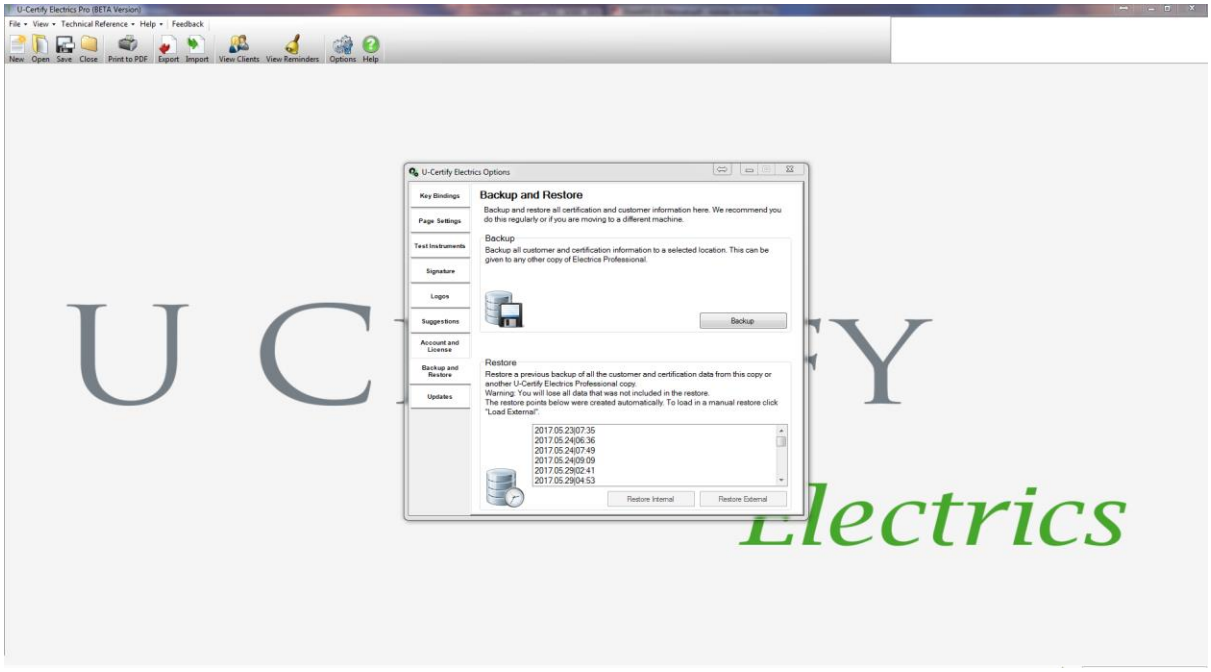
- Electrical Installation Condition Report.
- Minor Electrical Works Certificate.
- Electrical Installation Certificate.
- Electrical Danger Notice.
- Fire Alarm Log Book.
- Fire Alarm H1. Design Certificate.
- Fire Alarm H2. Installation Certificate.
- Fire Alarm H3. Commissioning Certificate.
- Fire Alarm H4. Acceptance Certificate.
- Fire Alarm H5. Verification Certificate.
- Fire Alarm H6. Inspection / Service Certificate.
- Fire Alarm H7. Modification Certificate.
- Fire Alarm E1. Design Certificate for Grade A systems – Annex E.
- Fire Alarm E2. Installation Certificate.
- Fire Alarm E3. Commissioning Certificate.
- Fire Alarm E4. Acceptance Certificate.
- Fire Alarm Certificates for Grade B, C, D, E & F Systems.
- Emergency Lights H1. Completion Certificate.
- Emergency Lights H2. Design Certificate.
- Emergency Lights H3. Installation Certificate.
- Emergency Lights H4. Verification Certificate.
- Emergency Lights Annex I Completion Certificate of Small New Installations.
- Emergency Lights Annex K Verification Certificate of Existing Installations.
- Emergency Lights Existing Verification Check List
- Emergency Lights Inspection & Testing Certificate.
- Emergency Lights Asset Register
- Job / Service Sheets

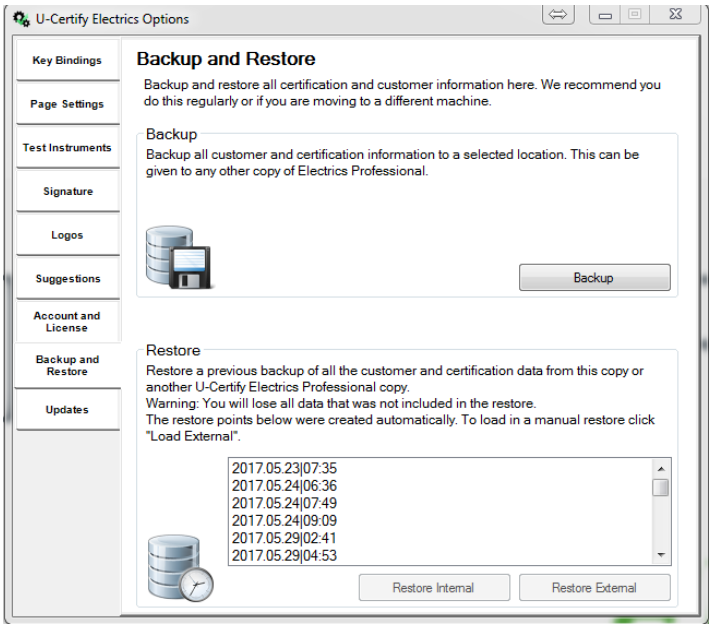
Backing Up Data

Backup and restore all certification and customer information, We Recommend you do this regularly or if you are moving your licensed software to another machine.

To create a backup, simply click **Options**, click **Backup and restore** and click **Backup.**

To restore a backup click **Restore Internal** or **Restore External**, depending on where you have stored you back up file.

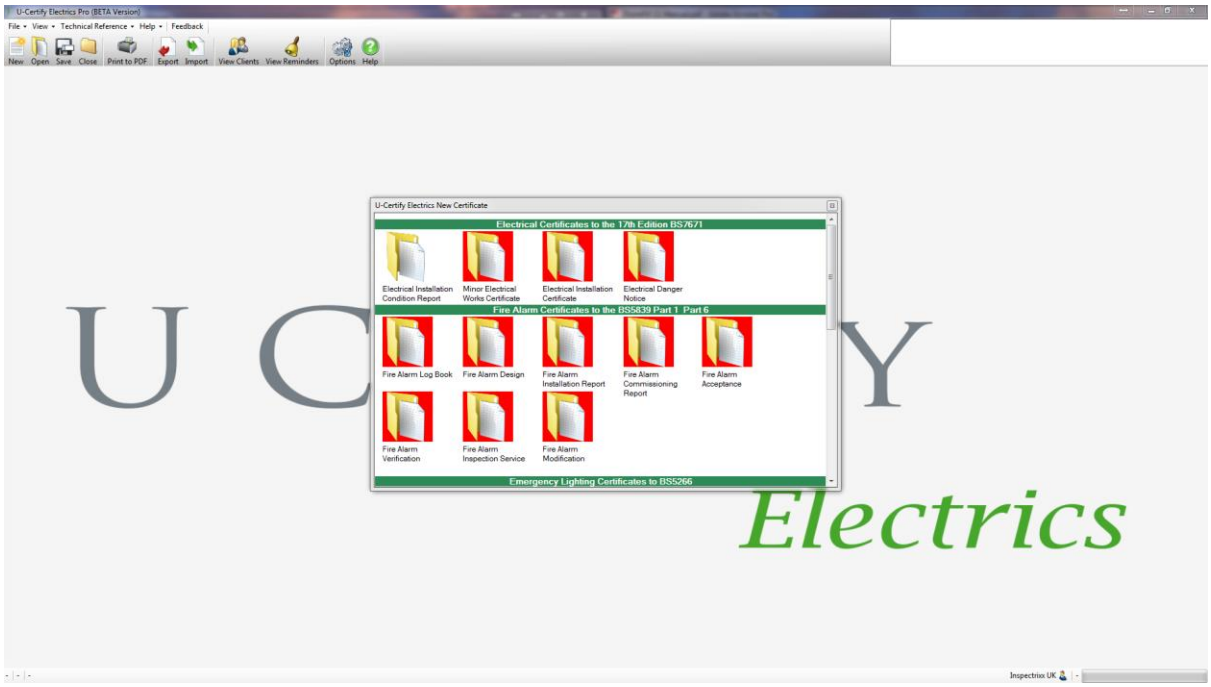




Creating a Certificate.

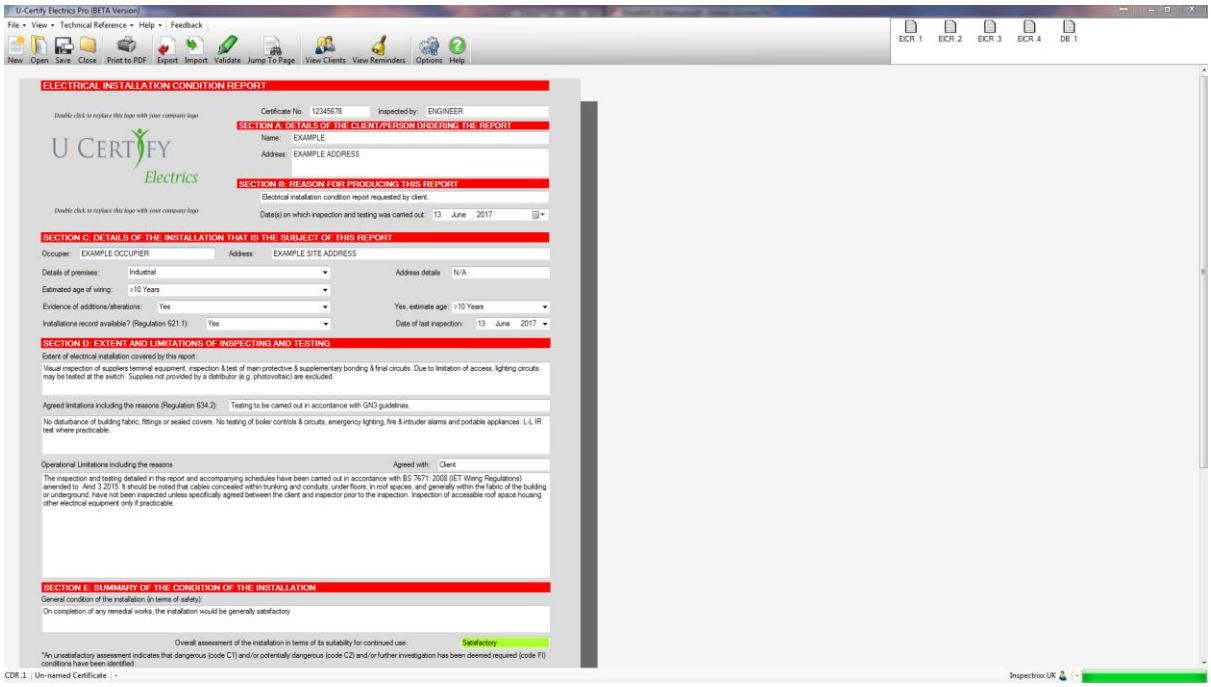
To create a new certificate simply click **New** which is located in the top left corner and a pop up menu will appear.

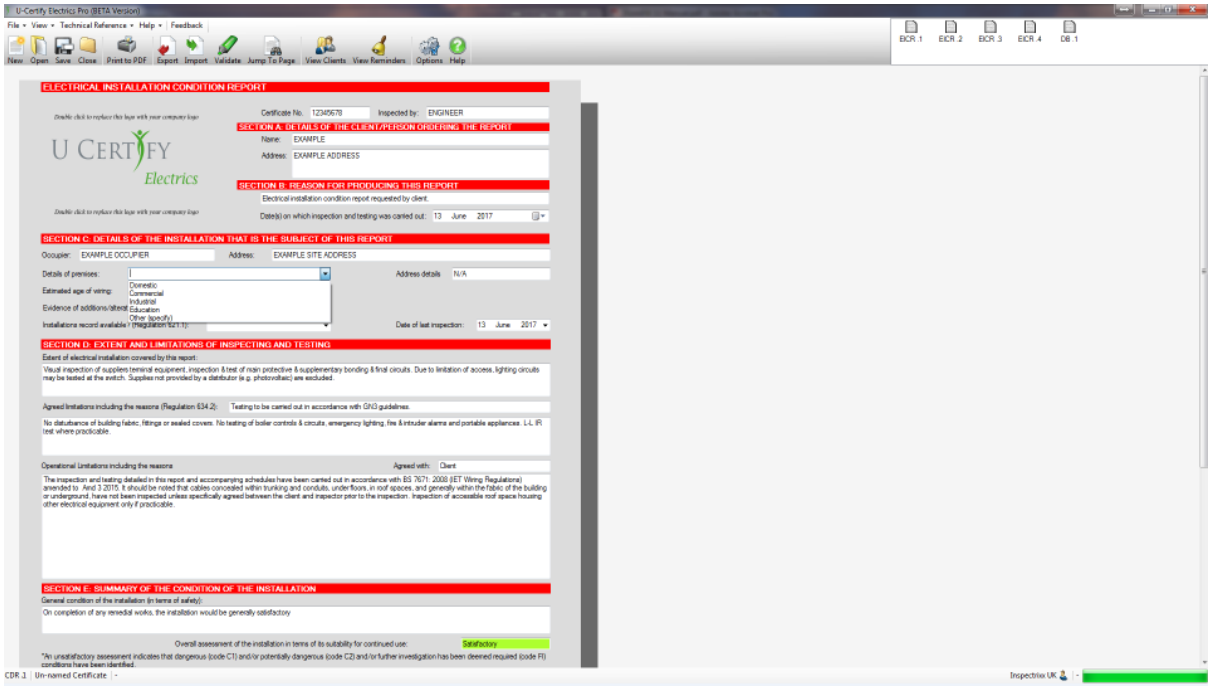
Now that the pop up menu is visible simply **select** the certificate you would like to create.



Imputing Data into Certificates

Inputting Data is a simple process. Once you have the desired certificate open and ready for completion simply type into the editable boxes. In Certain parts of the certificate you will find drop down menu's with a variety of options available.



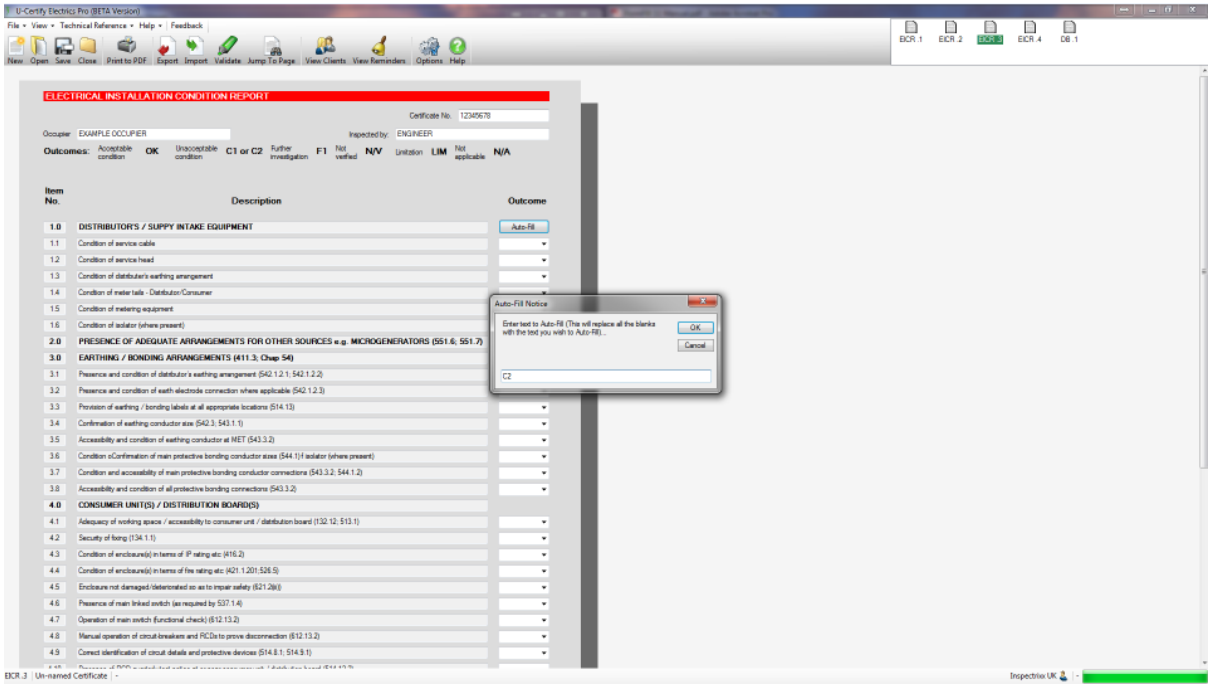


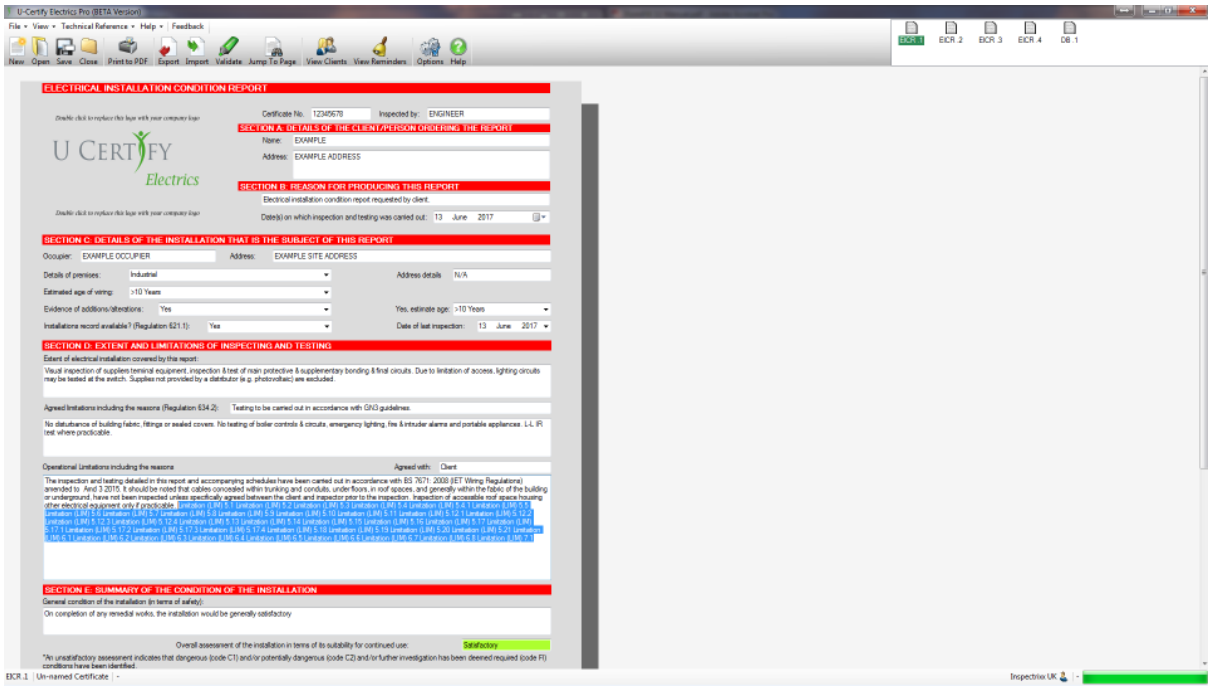
Schedule of Inspections

The quickest way to fill in all boxes in to select **Auto-Fill** and fill in the pop box and simply click **ok**.

Please note if the following combinations are used whilst typing in the editable boxes or Auto-fill, they will be automatically placed into section K Observations: **C1, C2, C3, FI**

If the word **LIM** is used, this item numbers will appear automatically on Page 1 of the Limitations

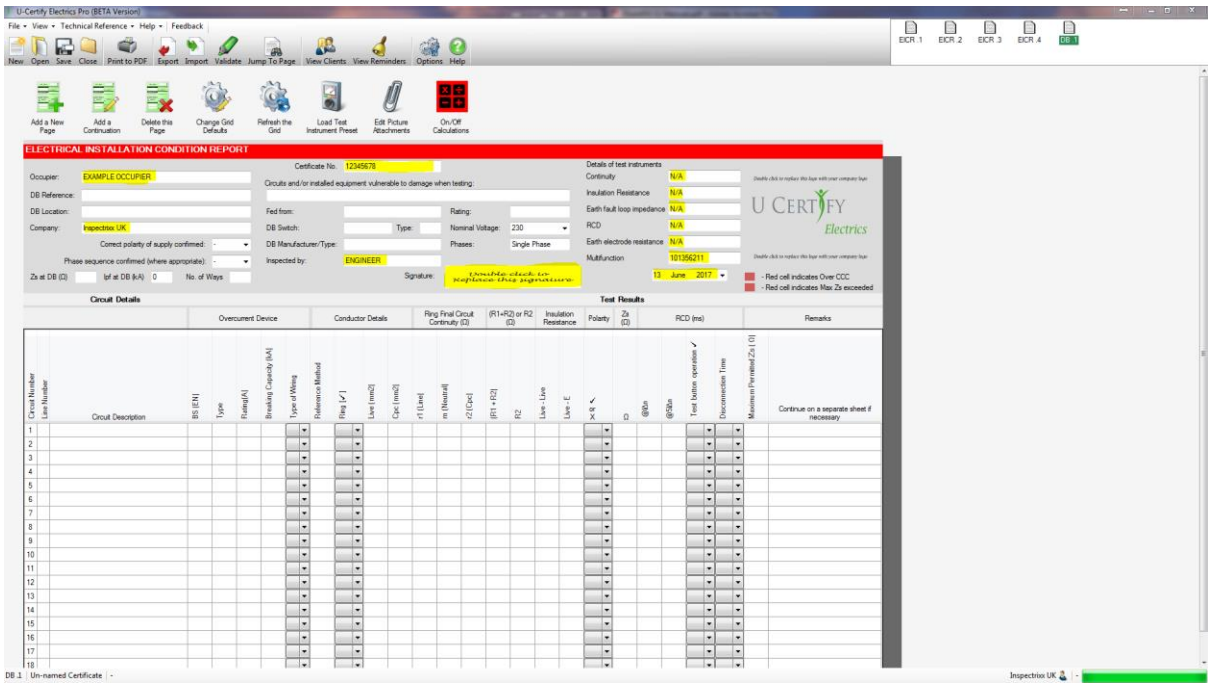




Schedule of test Results

The Schedule of test results has many useful and time saving features as stated below:

1. Automatic filling in of information for example:
   - i) Occupier fills in automatic if inputted on any other page
   - ii) Inspected by fills in automatic if inputted on any other page
   - iii) Signature box fills in automatic if inputted in default options
   - iv) Test instruments fills in automatic if inputted in default options
   - v) Date fills in automatic if inputted on page 1
   - vi) Certificate number fills in automatic if inputted on any other page

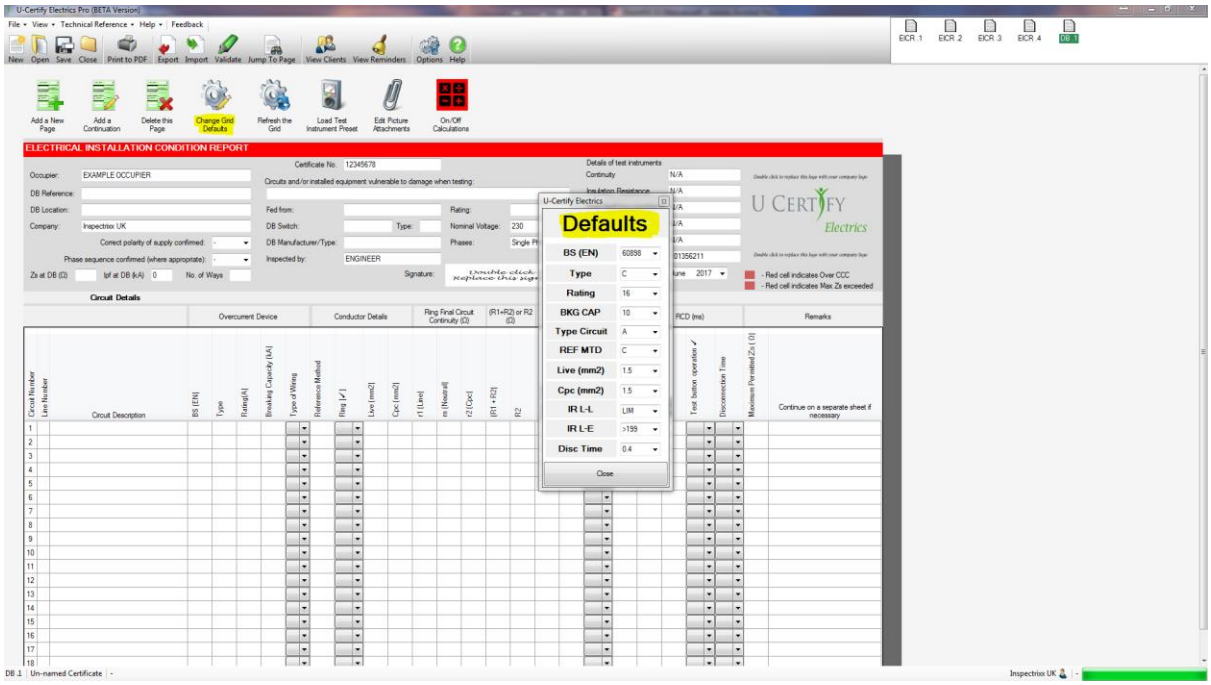


Schedule of test Results continued

2. Circuit description can trigger other inputting boxes to fill in automatically if **Change Grid defaults** are set on the schedule of test results.
   As an example if grid defaults are changed, these defaults will automatically apply to continuation pages but not new Distribution board page. If a new distribution board is selected defaults will reset.

   Once Change Grid Defaults is selected a pop up menu will appear and the following options can be set to what the user desires.

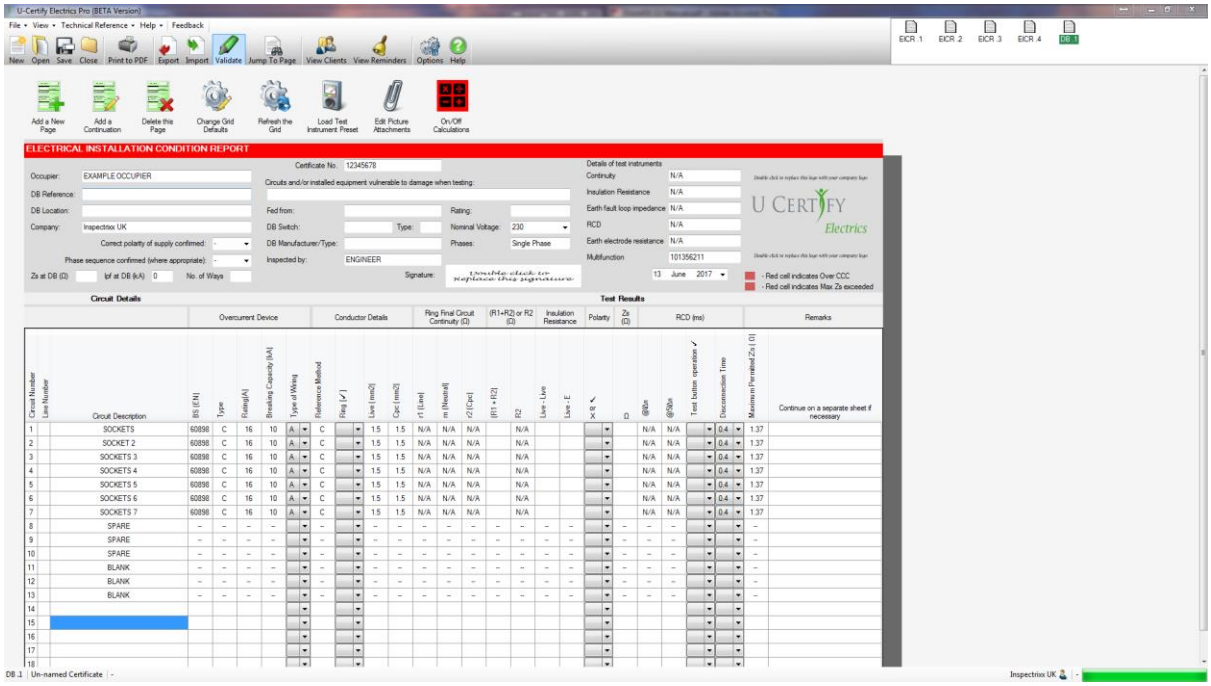
   - BS(EN)
   - Fuse / MCB Type
   - Fuse / MCB Rating
   - Fuse / MCB Breaking Capacity
   - Type of wiring
   - Reference Method
   - Live (mm2)
   - Cpc (mm2)
   - Insulation Resistance L-L
   - Insulation Resistance L-E
   - Disconnection time



Schedule of test Results continued

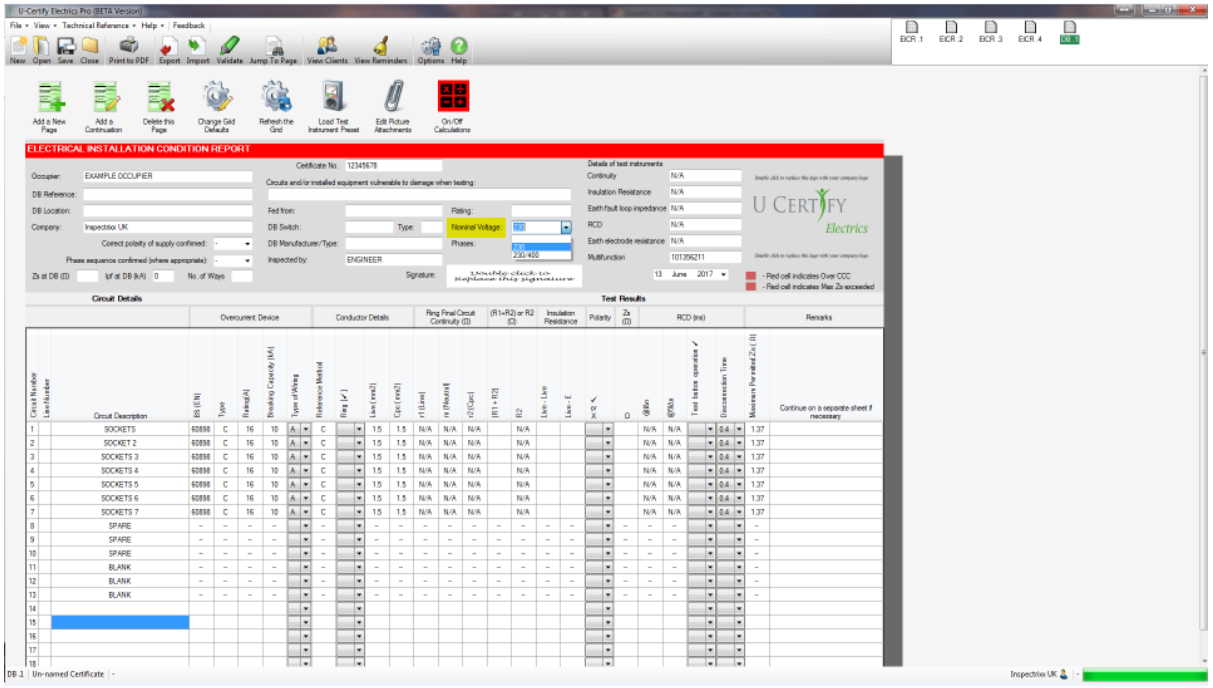
Once defaults have been set, whilst the user is inputting data into the **circuit description** the defaults which were set in the **Change Grid Defaults** will now appear automatically on each line. The quickest way to navigate between boxes is to use the arrow keys on the keyboard as you can slip move and type, rather than clicking each box and typing.

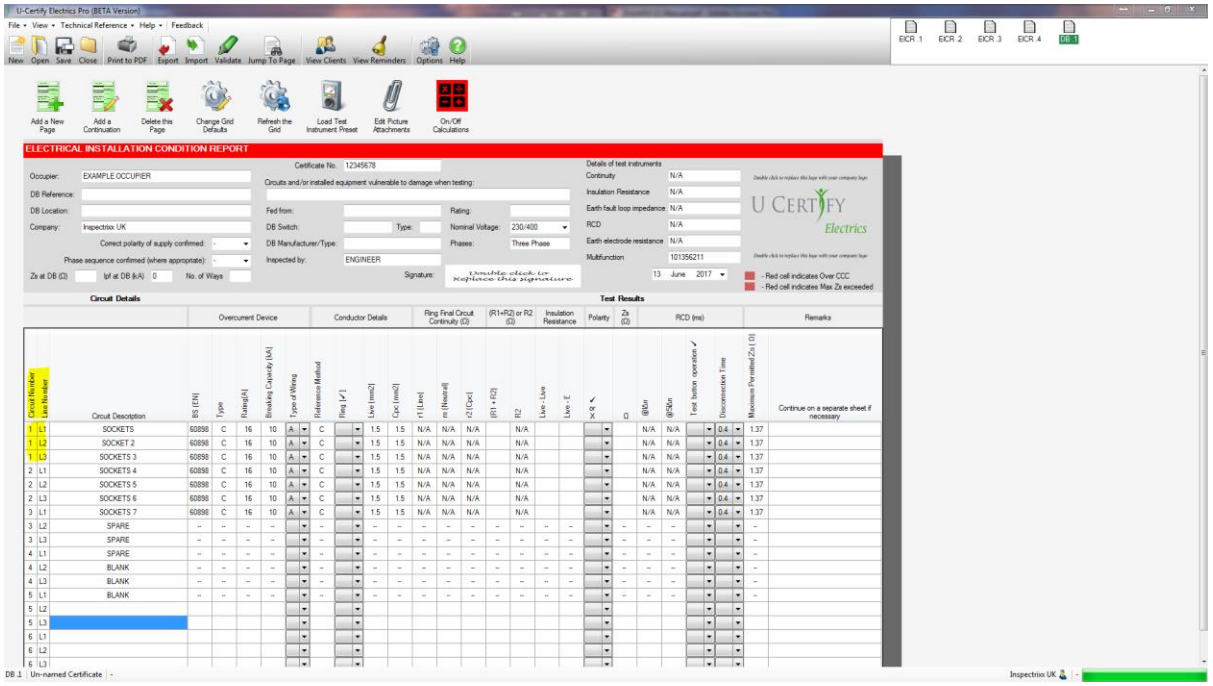
If the words **SPARE** or **Blank** are used, all of the adjacent boxes to the right will automatically fill in with **--**



Schedule of test Results continued

3. Changing from single phase to three phase distribution boards can by simply selecting the **nominal voltage box** and selecting **230/400** which will then change the **Circuit number** and **line number**

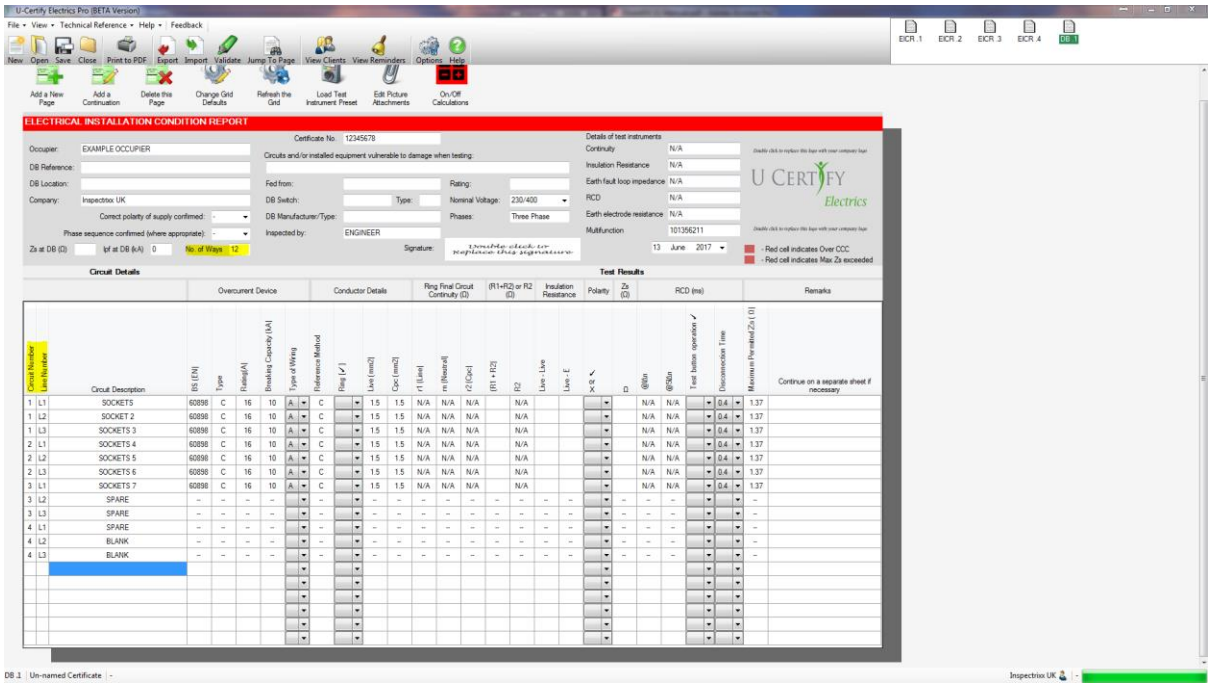




Schedule of test Results continued

4. **Adjusting Number of Ways**.

   By inputting the desired number of ways, this will automatically adjust the number of the **circuit number** and **line number.**

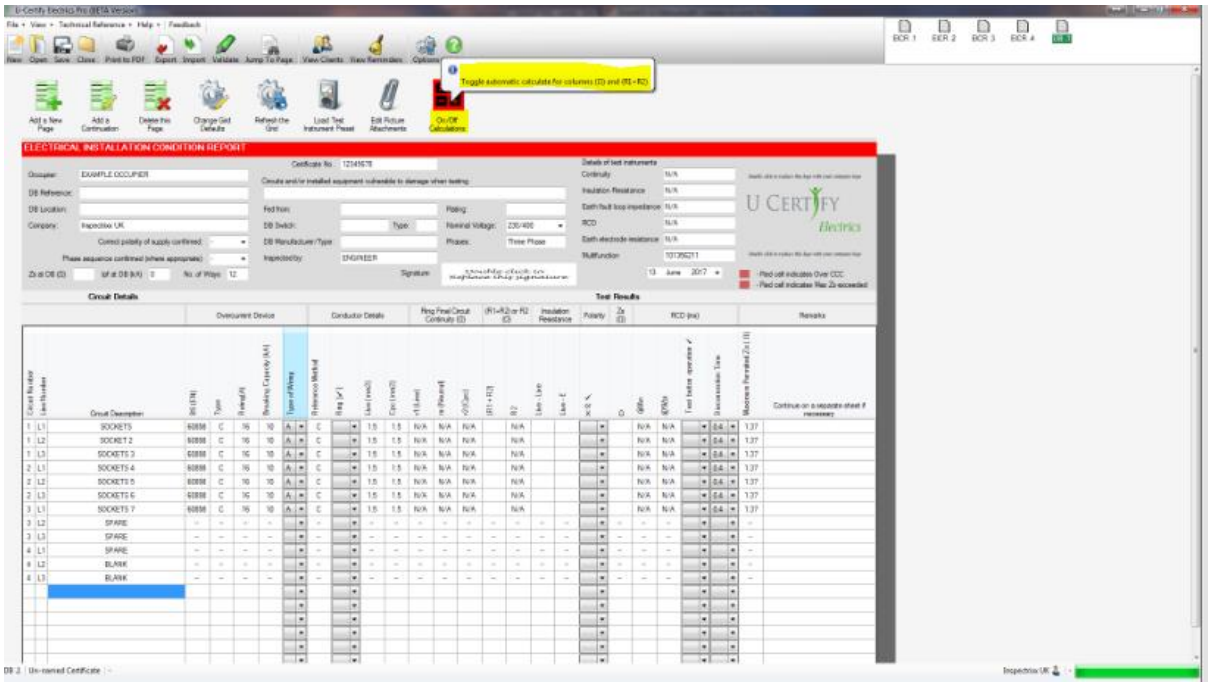


Schedule of test Results continued

5. Calculations On/Off

This is a great feature which is designed for guidance purposes only and should NOT replace actual testing of circuits.

To enable this feature simply click **the RED Calculation** symbol labelled On/Off calculations and a brief message will pop up



Now that the calculations feature has been enabled the following features will become live:

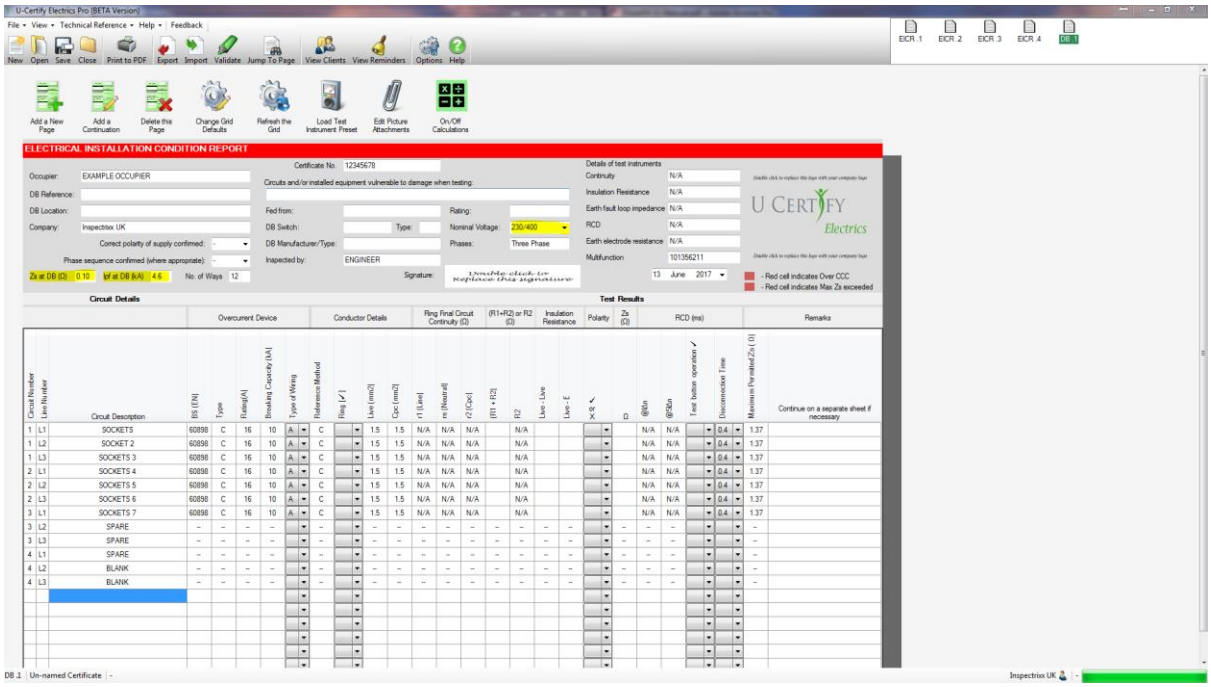
- Zs at DB (Ω) to Ipf at DB will now calculate.
- Ze + (R1+R2) will calculate Zs of each circuit
- Zs – Ze will calculate (R1 + R2) of each circuit

Schedule of test Results continued

Zs at DB:

As an example if there is a **three phase** distribution board selected from the **nominal voltage** box **230/400v** and 0.10Ω is inputted in to the **Zs at DB box** a PFC of 4.6Ka will be calculated using Ohms Law.

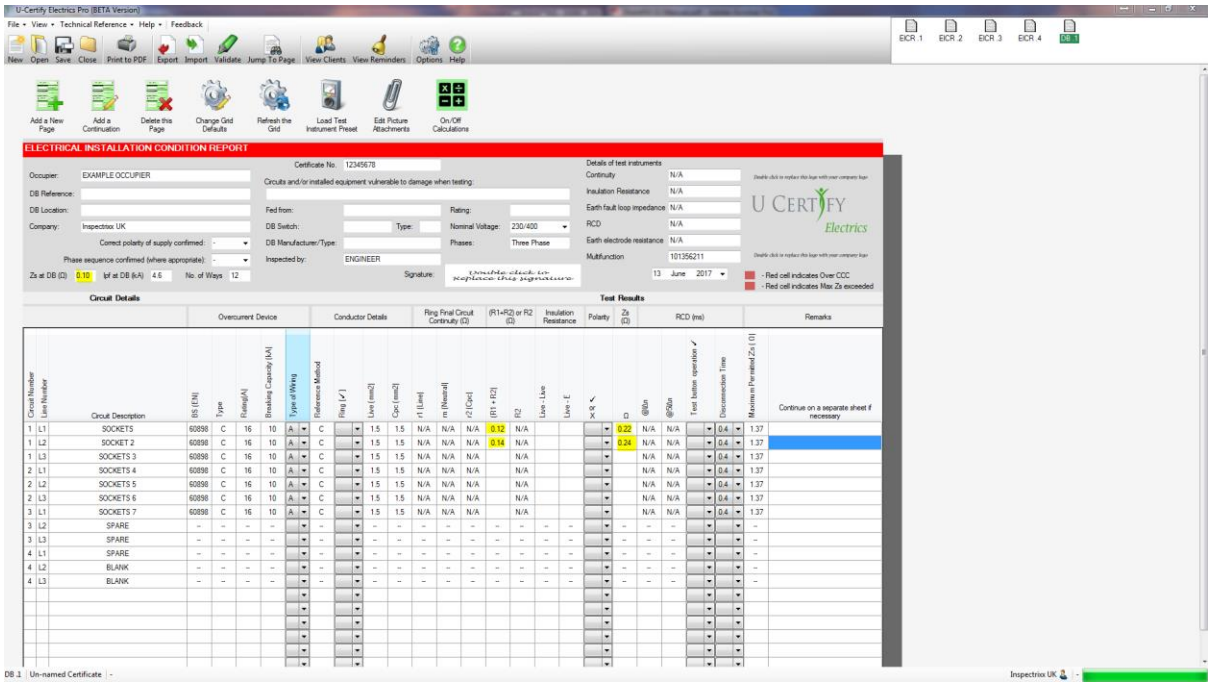
If the distribution board is **single phase** distribution board selected from the **nominal voltage** box **230v** and a Zs at DB of 0.10Ω is inputted into the **Zs at DB box** a PFC of 2.3Ka will be calculated using Ohms Law.



Schedule of test Results continued

Ze + (R1+R2) Calculation:

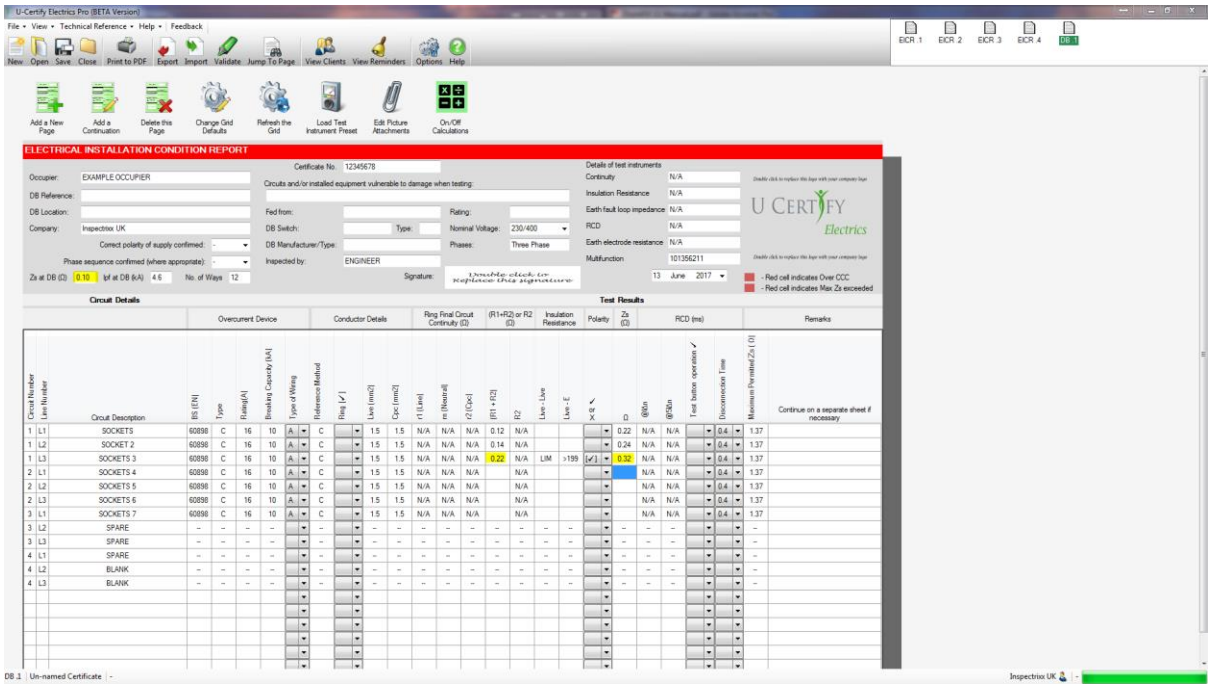
To Calculate Ze + (R1 + R2) assuming 0.10Ω has been imputed into the **Zs at DB box** and assuming a reading of 0.12Ω was obtained and entered into the **R1+R2 box** of the circuit description a Zs of 0.22Ω will be automatically placed.



Schedule of test Results continued

Zs – Ze = (R1+R2) Calculation:

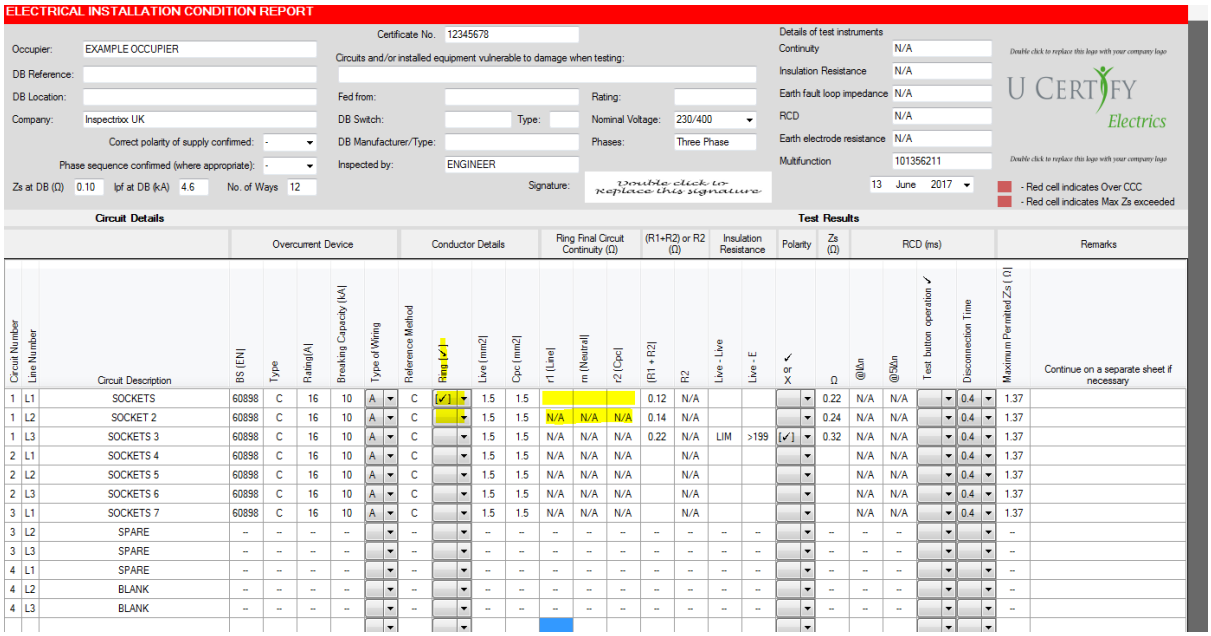
To Calculate Zs – Ze (Zs at DB) = (R1 + R2) assuming 0.32Ω has been inputted into the **Zs box** in the circuit description and assuming a **Zs at DB** of 0.10Ω was obtained, a calculation 0.22Ω will be automatically placed into the **R1 +R2 box** of that circuit.



Schedule of test Results continued

6. Ring Final Circuits.

If ring final circuit tick box has been selected then **r1 (line), rn (neutral**) and **r2 (CPC)** boxes will remain blank. If however the ring final circuit box is left unticked then **N/A** will appear in the **r1 (line), rn (neutral)** and r2 **(CPC) boxes.**



ELECTRICAL INSTALLATION CONDITION REPORT

Occupier: EXAMPLE OCCUPIER | Certificate No. 12345678 | Details of test instruments: Continuity N/A; Insulation Resistance N/A; Earth fault loop impedance N/A; RCD N/A; Earth electrode resistance N/A; Multifunction 101356211

DB Reference: | Circuits and/or installed equipment vulnerable to damage when testing:

DB Location: | Fed from: | Rating:

Company: Inspectrixx UK | DB Switch: | Type: | Nominal Voltage: 230/400

Correct polarity of supply confirmed: - | DB Manufacturer/Type: | Phases: Three Phase

Phase sequence confirmed (where appropriate): - | Inspected by: ENGINEER

Zs at DB (Ω) 0.10 | Ipf at DB (kA) 4.6 | No. of Ways 12 | Signature: Double click to replace this signature | 13 June 2017

Double click to replace this logo with your company logo — U CERTIFY Electrics — Double click to replace this logo with your company logo

- Red cell indicates Over CCC
- Red cell indicates Max Zs exceeded

Circuit Details | **Test Results**

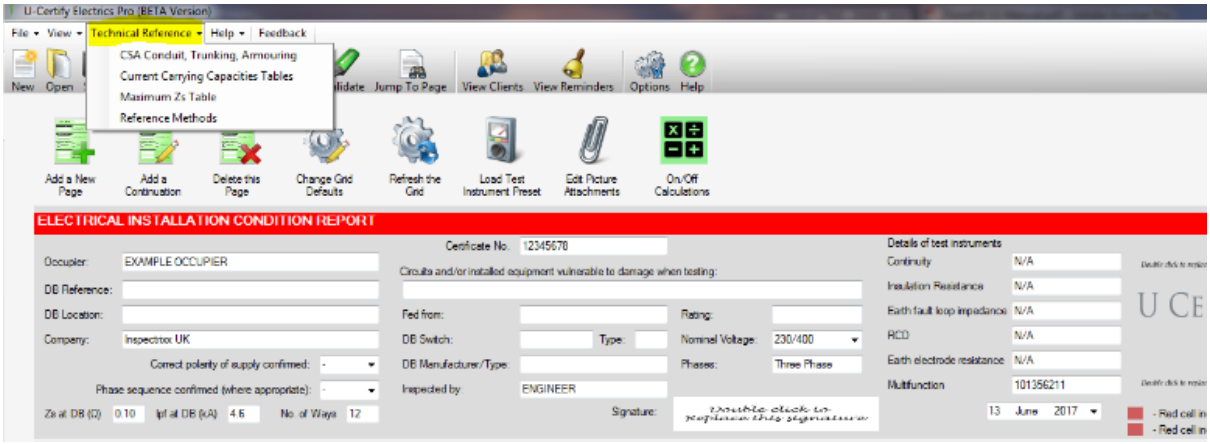
			Overcurrent Device					Conductor Details			Ring Final Circuit Continuity (Ω)			(R1+R2) or R2 (Ω)		Insulation Resistance		Polarity	Zs (Ω)	RCD (ms)				Remarks
Circuit Number	Line Number	Circuit Description	BS [EN]	Type	Rating [A]	Breaking Capacity [kA]	Type of Wiring	Reference Method	Ring [✓]	Live [mm2]	Cpc [mm2]	r1 [Line]	rn [Neutral]	r2 [Cpc]	(R1 + R2)	R2	Live - Live	Live - E	✕ ↯ ↖	Ω	@Ωn	@50n	Test button operation ✓	Disconnection Time	Maximum Permitted Zs [Ω]	Continue on a separate sheet if necessary
1	L1	SOCKETS	60898	C	16	10	A	C	[✓]	1.5	1.5				0.12	N/A				0.22	N/A	N/A		0.4	1.37	
1	L2	SOCKET 2	60898	C	16	10	A	C		1.5	1.5	N/A	N/A	N/A	0.14	N/A				0.24	N/A	N/A		0.4	1.37	
1	L3	SOCKETS 3	60898	C	16	10	A	C		1.5	1.5	N/A	N/A	N/A	0.22	N/A	LIM	>199	[✓]	0.32	N/A	N/A		0.4	1.37	
2	L1	SOCKETS 4	60898	C	16	10	A	C		1.5	1.5	N/A	N/A	N/A		N/A					N/A	N/A		0.4	1.37	
2	L2	SOCKETS 5	60898	C	16	10	A	C		1.5	1.5	N/A	N/A	N/A		N/A					N/A	N/A		0.4	1.37	
2	L3	SOCKETS 6	60898	C	16	10	A	C		1.5	1.5	N/A	N/A	N/A		N/A					N/A	N/A		0.4	1.37	
3	L1	SOCKETS 7	60898	C	16	10	A	C		1.5	1.5	N/A	N/A	N/A		N/A					N/A	N/A		0.4	1.37	
3	L2	SPARE	--	--	--	--		--		--	--	--	--	--	--	--	--	--		--	--	--			--	
3	L3	SPARE	--	--	--	--		--		--	--	--	--	--	--	--	--	--		--	--	--			--	
4	L1	SPARE	--	--	--	--		--		--	--	--	--	--	--	--	--	--		--	--	--			--	
4	L2	BLANK	--	--	--	--		--		--	--	--	--	--	--	--	--	--		--	--	--			--	
4	L3	BLANK	--	--	--	--		--		--	--	--	--	--	--	--	--	--		--	--	--			--	

Schedule of test Results continued

7. Smart Referencing.

Smart referencing is a great feature where depending on what information is inputted in to certain boxes, the software will reference specific tables within BS7671.

The tables which the software uses can be found at the top of the screen labelled **technical reference** with a drop down menu.

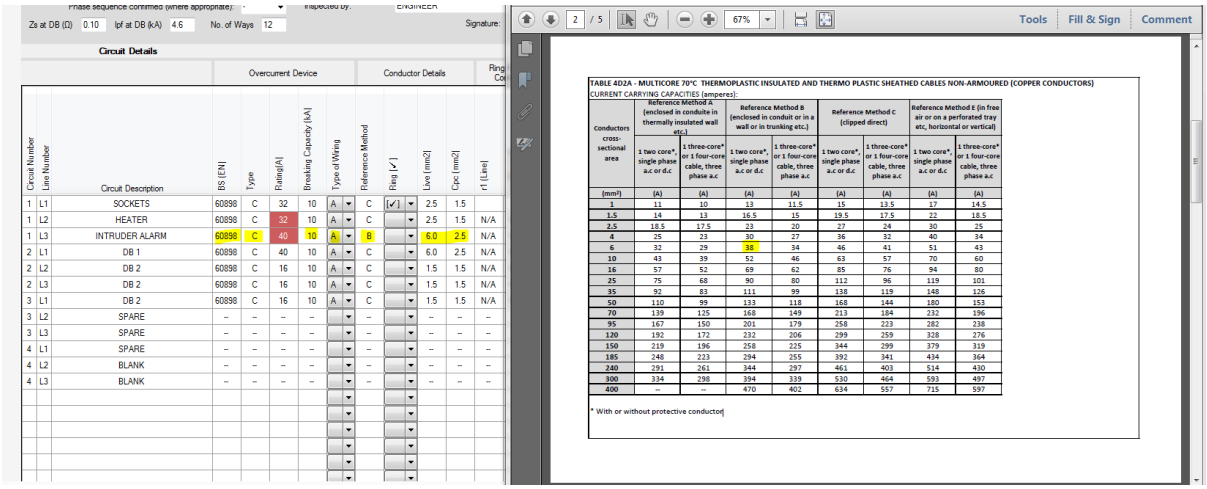


Schedule of test Results continued

Smart referencing also continued.

Another example of smart referencing is as follows:

If a circuit on a **BS (EN) 60898, type C, 40 amp** has a **type of wiring A, reference method B** the software will refer to table **4D2A from BS7671** and see that the maximum current carrying capacity for single phase is **38amp** and highlight the **Rating column box RED** and the observation is automatically placed on section **K Observations.**



Zs at DB (Ω) 0.10 Ipf at DB (kA) 4.6 No. of Ways 12 Signature:

Circuit Details

			Overcurrent Device					Conductor Details				
Circuit Number	Line Number	Circuit Description	BS (EN)	Type	Rating (A)	Breaking Capacity (kA)	Type of Wiring	Reference Method	Ring (✓)	Live (mm2)	Cpc (mm2)	r1 (Line)
1	L1	SOCKETS	60898	C	32	10	A	C	✓	2.5	1.5	
1	L2	HEATER	60898	C	32	10	A	C		2.5	1.5	N/A
1	L3	INTRUDER ALARM	60898	C	40	10	A	B		6.0	2.5	N/A
2	L1	DB 1	60898	C	40	10	A	C		6.0	2.5	N/A
2	L2	DB 2	60898	C	16	10	A	C		1.5	1.5	N/A
2	L3	DB 2	60898	C	16	10	A	C		1.5	1.5	N/A
3	L1	DB 2	60898	C	16	10	A	C		1.5	1.5	N/A
3	L2	SPARE	--	--	--	--		--		--	--	--
3	L3	SPARE	--	--	--	--		--		--	--	--
4	L1	SPARE	--	--	--	--		--		--	--	--
4	L2	BLANK	--	--	--	--		--		--	--	--
4	L3	BLANK	--	--	--	--		--		--	--	--

2 / 5 67% Tools Fill & Sign Comment

TABLE 4D2A - MULTICORE 70°C THERMOPLASTIC INSULATED AND THERMO PLASTIC SHEATHED CABLES NON-ARMOURED (COPPER CONDUCTORS)
CURRENT CARRYING CAPACITIES (amperes):

Conductors cross-sectional area	Reference Method A (enclosed in conduite in thermally insulated wall etc.)		Reference Method B (enclosed in conduit or in a wall or in trunking etc.)		Reference Method C (clipped direct)		Reference Method E (in free air or on a perforated tray etc, horizontal or vertical)	
	1 two core*, single phase a.c or d.c	1 three-core* or 1 four-core cable, three phase a.c	1 two core*, single phase a.c or d.c	1 three-core* or 1 four-core cable, three phase a.c	1 two core*, single phase a.c or d.c	1 three-core* or 1 four-core cable, three phase a.c	1 two core*, single phase a.c or d.c	1 three-core* or 1 four-core cable, three phase a.c
(mm²)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
1	11	10	13	11.5	15	13.5	17	14.5
1.5	14	13	16.5	15	19.5	17.5	22	18.5
2.5	18.5	17.5	23	20	27	24	30	25
4	25	23	30	27	36	32	40	34
6	32	29	38	34	46	41	51	43
10	43	39	52	46	63	57	70	60
16	57	52	69	62	85	76	94	80
25	75	68	90	80	112	96	119	101
35	92	83	111	99	138	119	148	126
50	110	99	133	118	168	144	180	153
70	139	125	168	149	213	184	232	196
95	167	150	201	179	258	223	282	238
120	192	172	232	206	299	259	328	276
150	219	196	258	225	344	299	379	319
185	248	223	294	255	392	341	434	364
240	291	261	344	297	461	403	514	430
300	334	298	394	339	530	464	593	497
400	--	--	470	402	634	557	715	597

* With or without protective conductor

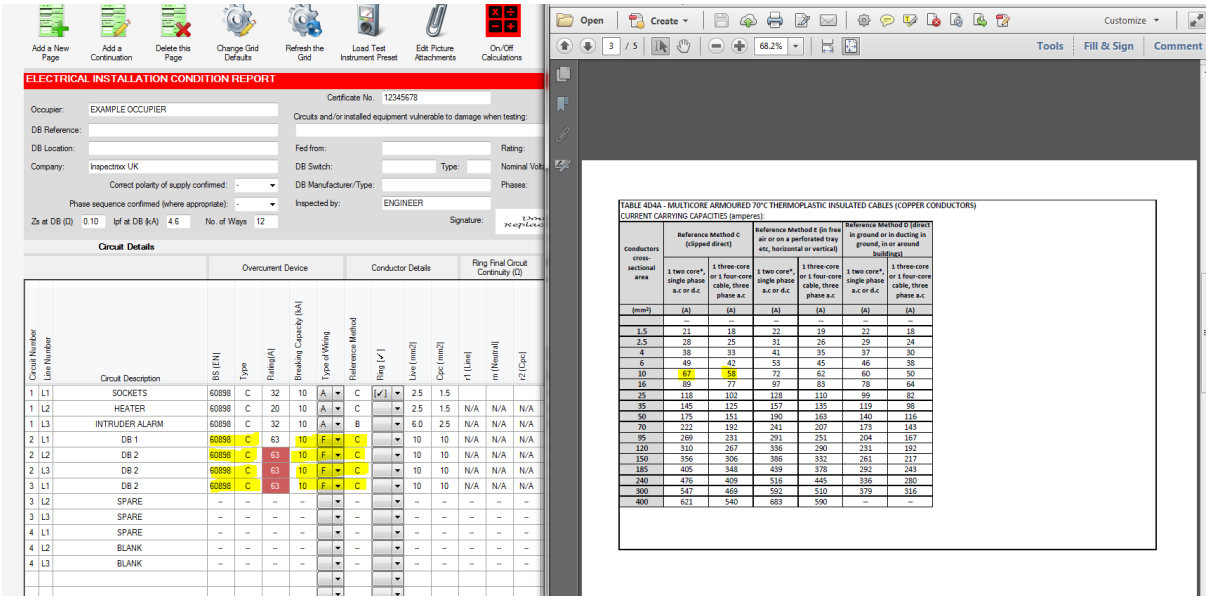
Schedule of test Results continued

Smart referencing also continued.

Another example of smart referencing is as follows:

If a **3** PHASE circuit on a **BS (EN) 60898, type C, 63 amp** has a **type of wiring F**, **reference method C** the software will refer **to table 4D2A** from **BS7671** and see that the maximum current carrying capacity for **3 phase** is **58amp** and highlight the **Rating column box RED** and the observation is automatically placed on **section K** Observations.

The software automatically refers to **3 phase** tables when the circuit name is **used 3 times** or if the words **3 TP, 3TP, TPN & Three phase** are used in the circuit box.



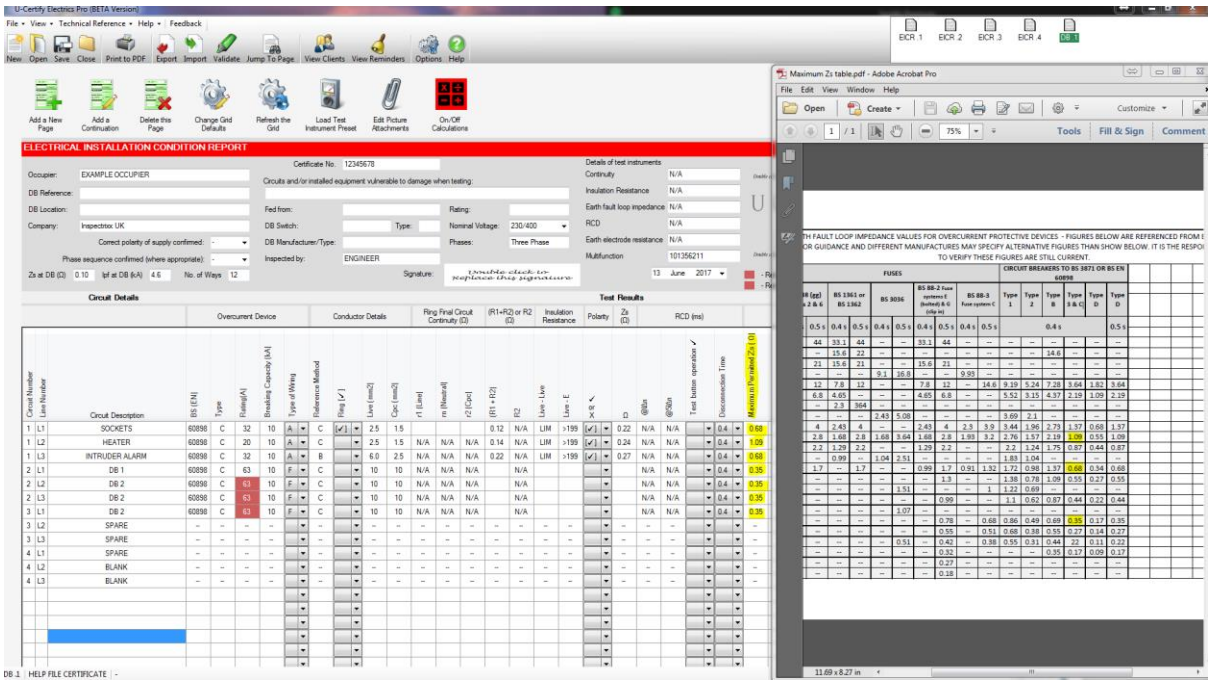
Schedule of test Results continued

Smart referencing also continued.

Another example of smart referencing is as follows:

8. Maximum permissible Zs Values

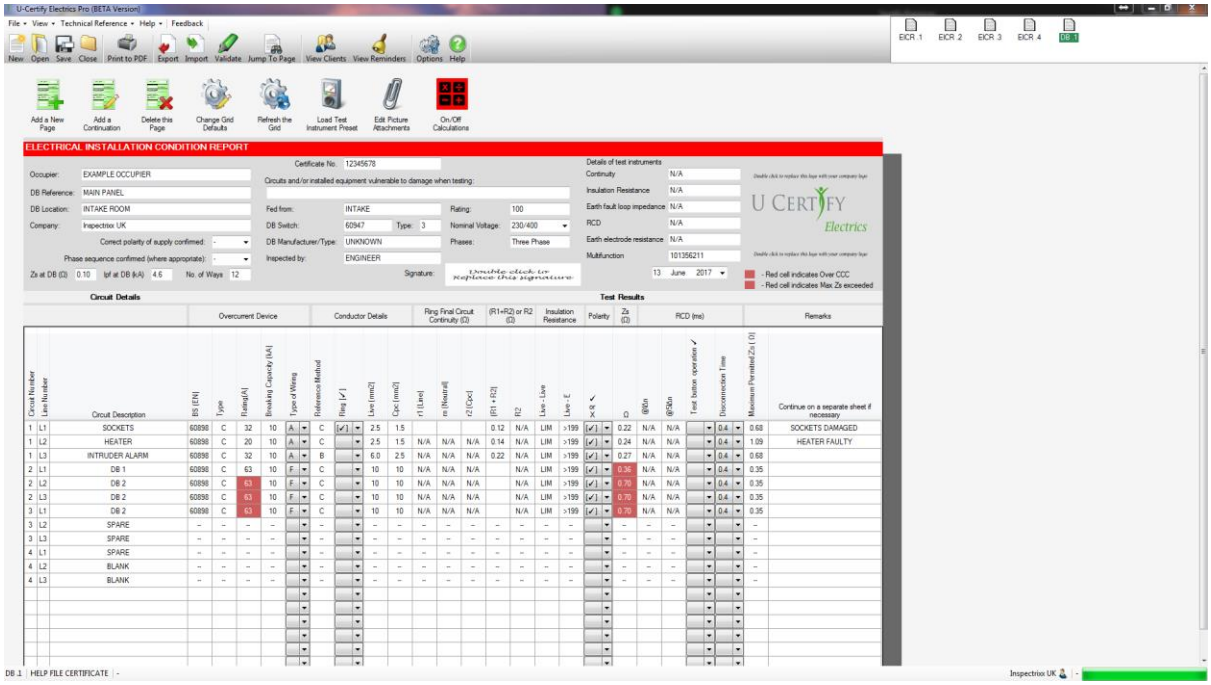
Depending on the **BS (EN)** of an MCB/Fuse and Type and disconnection time the software will automatically reference the correct **maximum permissible Zs value** of that particular type. The table which the software refers to can be located under **technical references** in the top left menu.



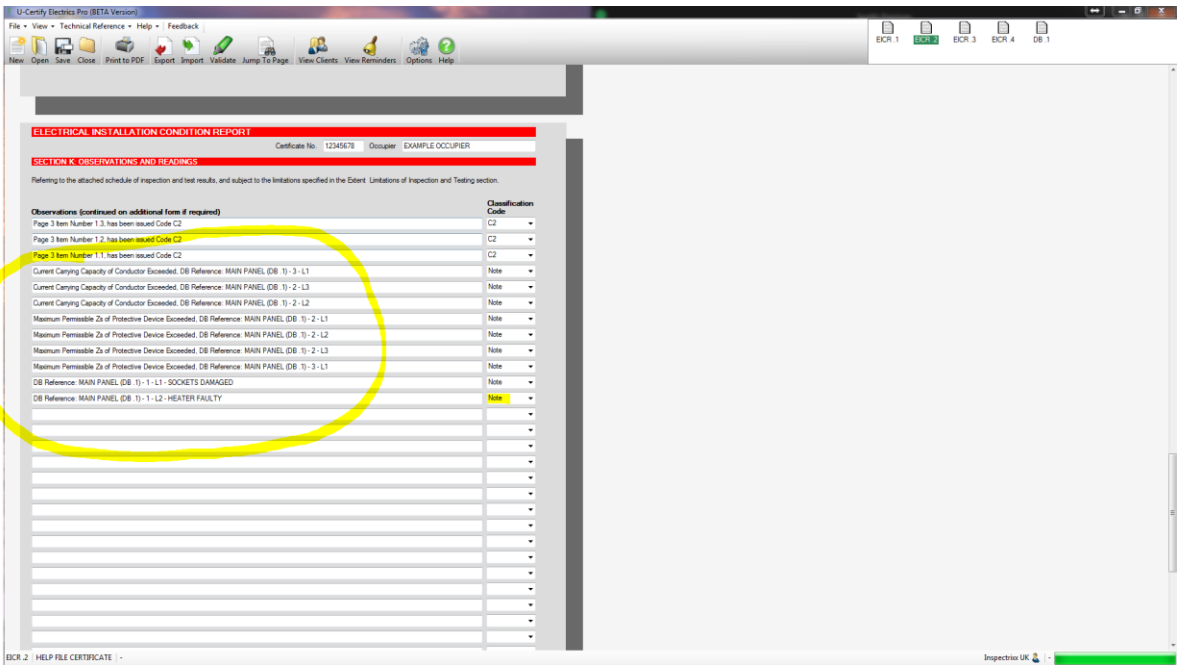
Schedule of test Results continued

Smart Observations for schedule of test results.

The schedule of test results has a clever feature which automatically placed Observations which have been highlight in **RED cells** as well as remarks made on the schedule of test results.

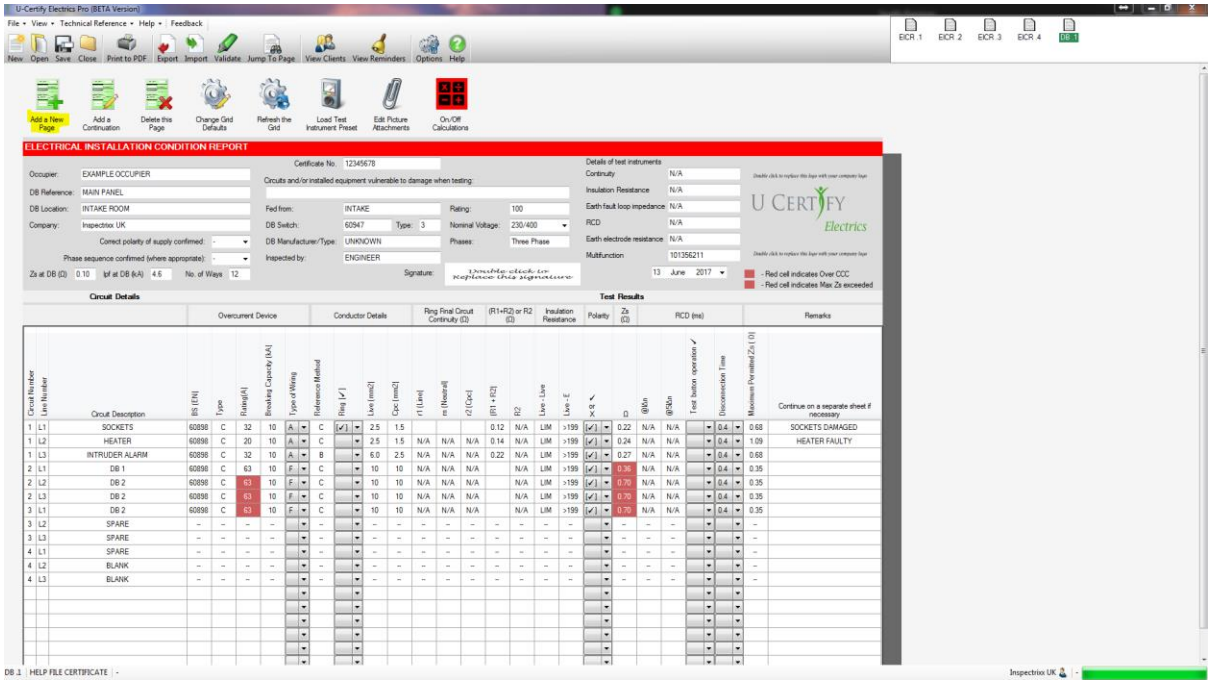


Once the Observations have automatically been placed in **section K**, the software will leave the code as a note which allows the user to automatically choose the desired Code e.g. **C1, C2, C3 or FI**



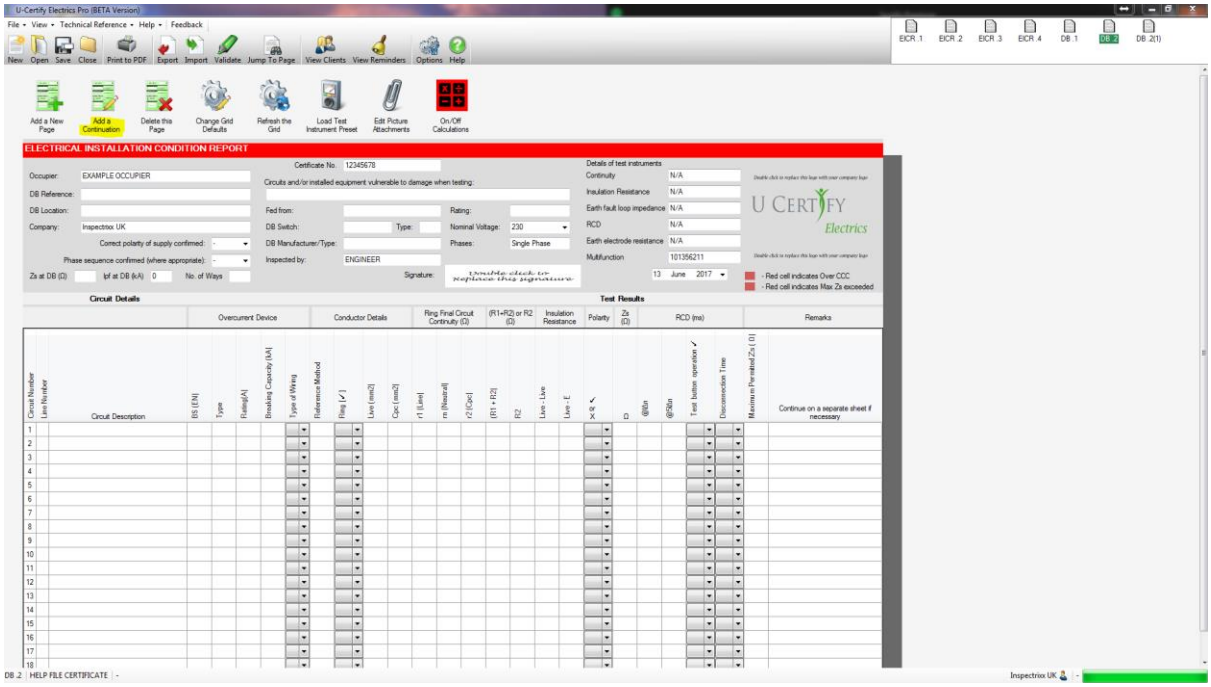
Adding Distribution Boards

Adding a New distribution can simply be done by clicking **Add a New Page**.



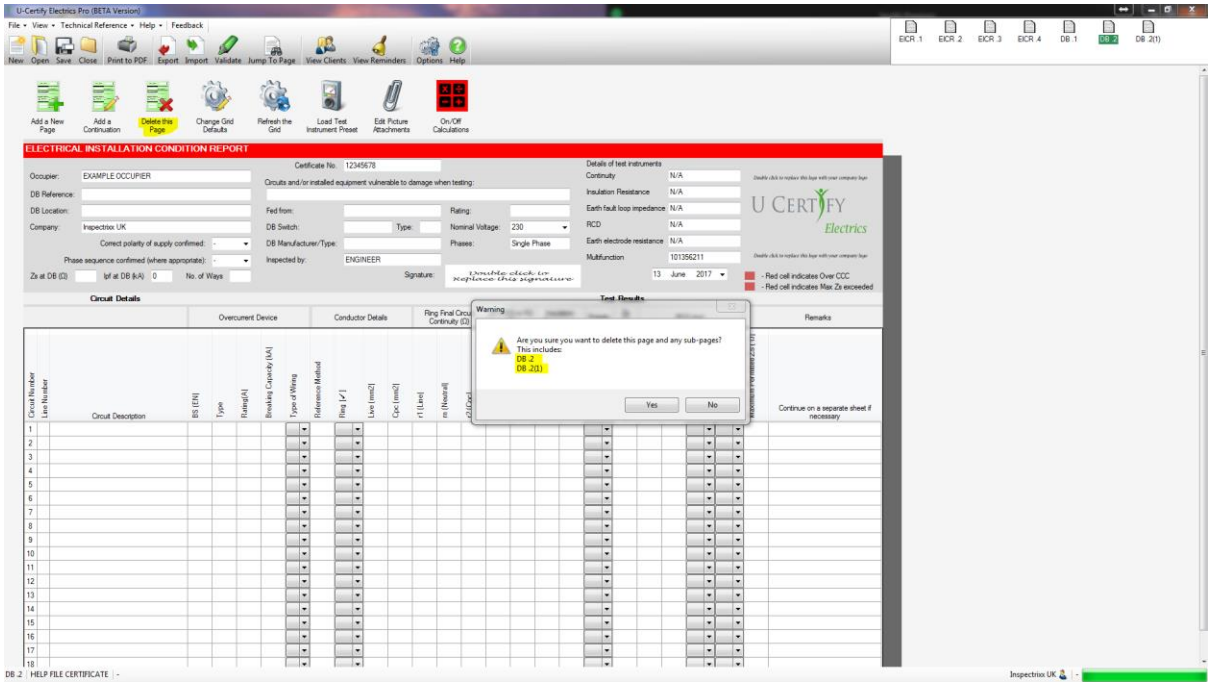
Adding Continuation Pages

Adding a Continuation page for the same Distribution Board can simply be done by clicking **Add a Continuation.**



Deleting Distribution Boards

To Delete a Distribution Board ensure you are on the Schedule of Test Results page for the correct Distribution Board you wish to delete and click **Delete this Page**. Please note if this distribution board has continuation pages these will also be deleted as they formed part of the same distribution board.

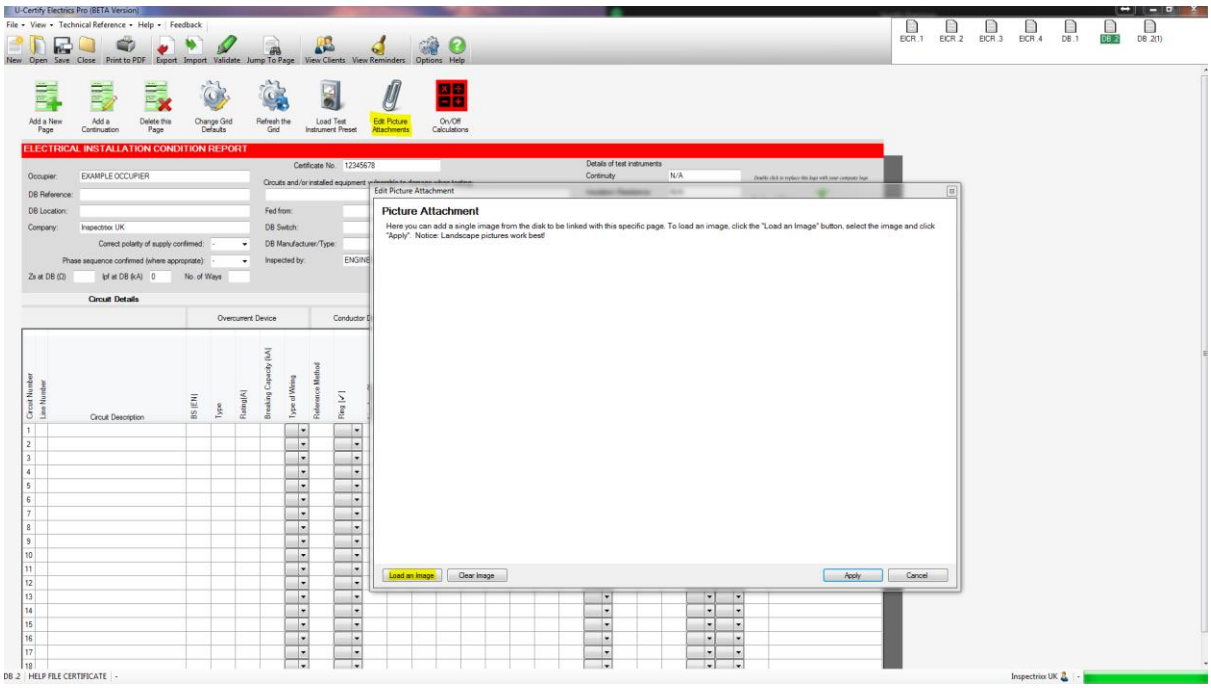


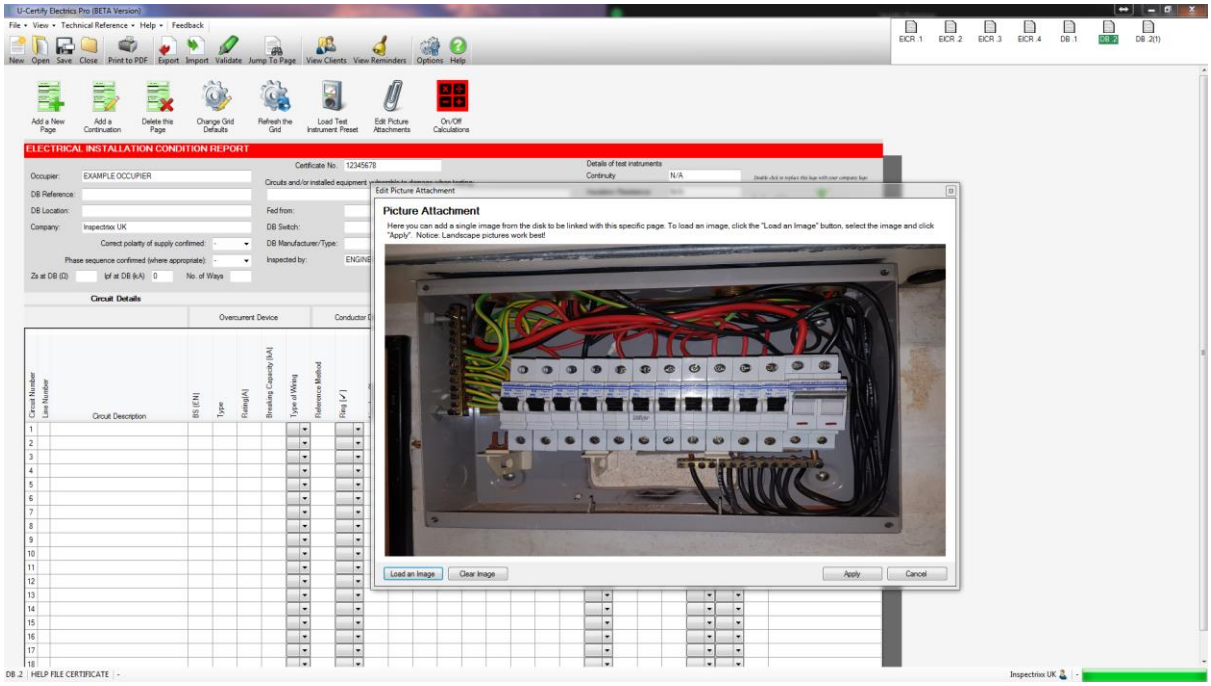
Deleting Continuation Pages.

This can be done follow the same steps as above.

Adding Attachments

To add attachments to the certificate simply click **add attachments** and a pop box will appear where you click **Load an Image** and select a Picture of your choice from your PC/Laptops Storage.





View Clients

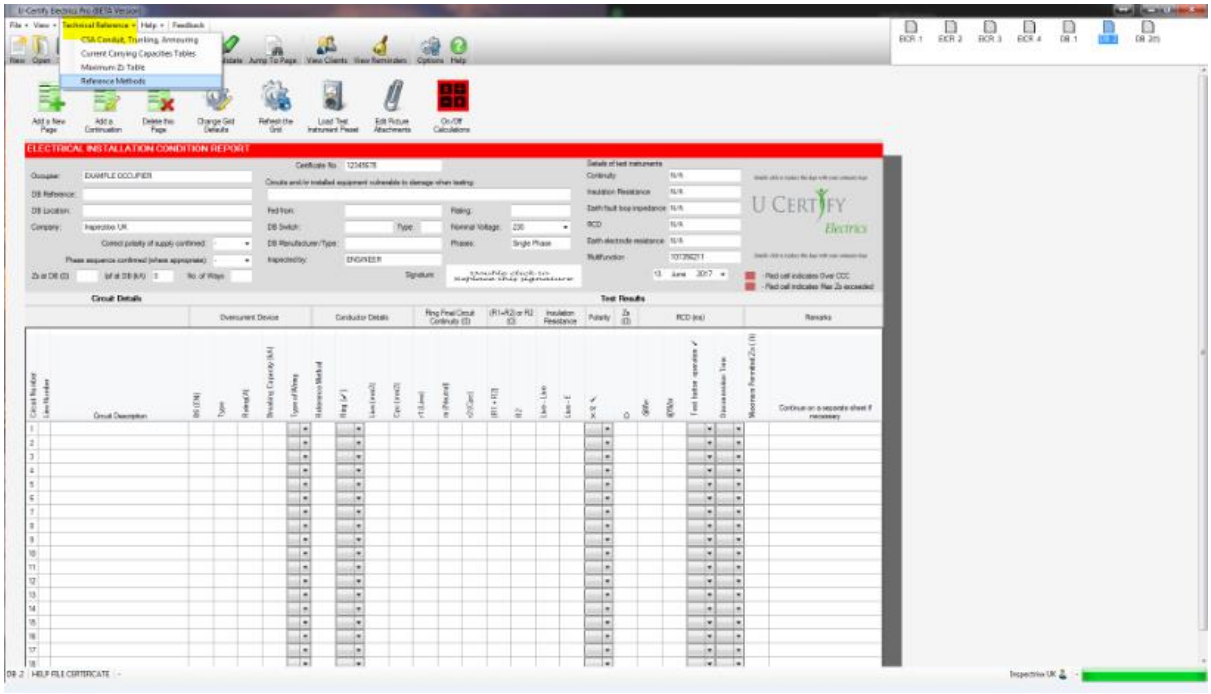
Coming soon!!!!

View Reminders

Coming soon!!!!

Technical References.

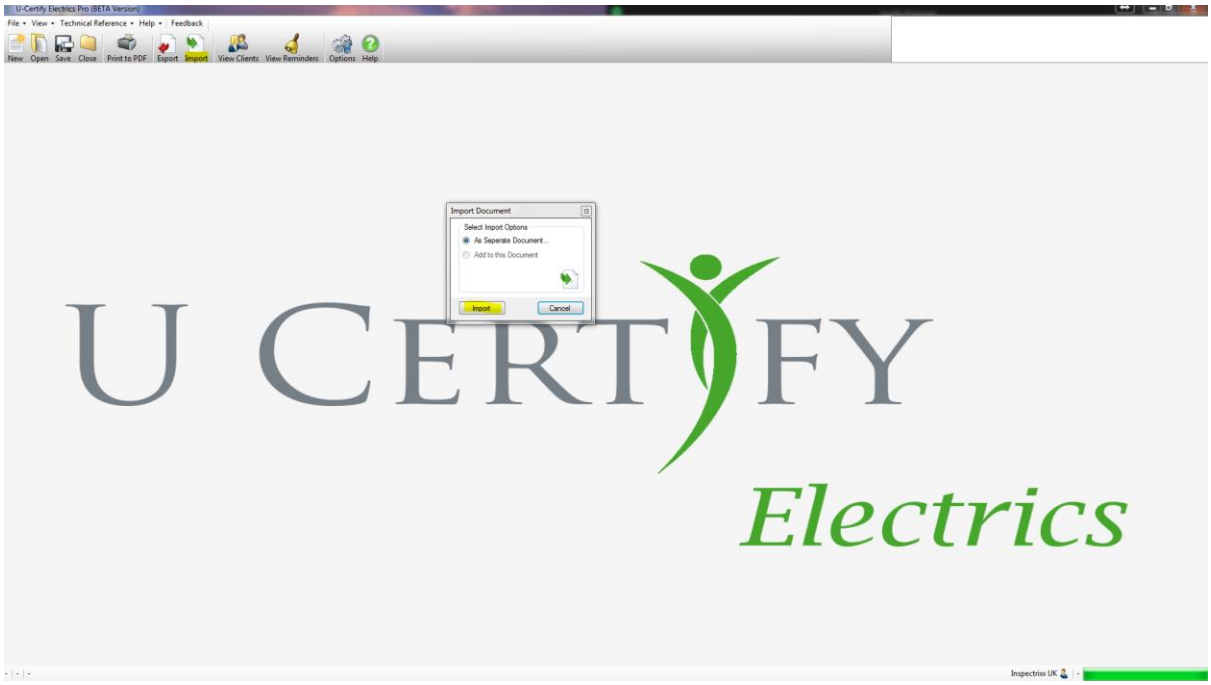
To assist the user we have created a section called **technical references** which can be found in the top left corner of the software. This can be used to open PDF files which contain lots of relevant and useful technical information.



Exporting and Importing Certificates.

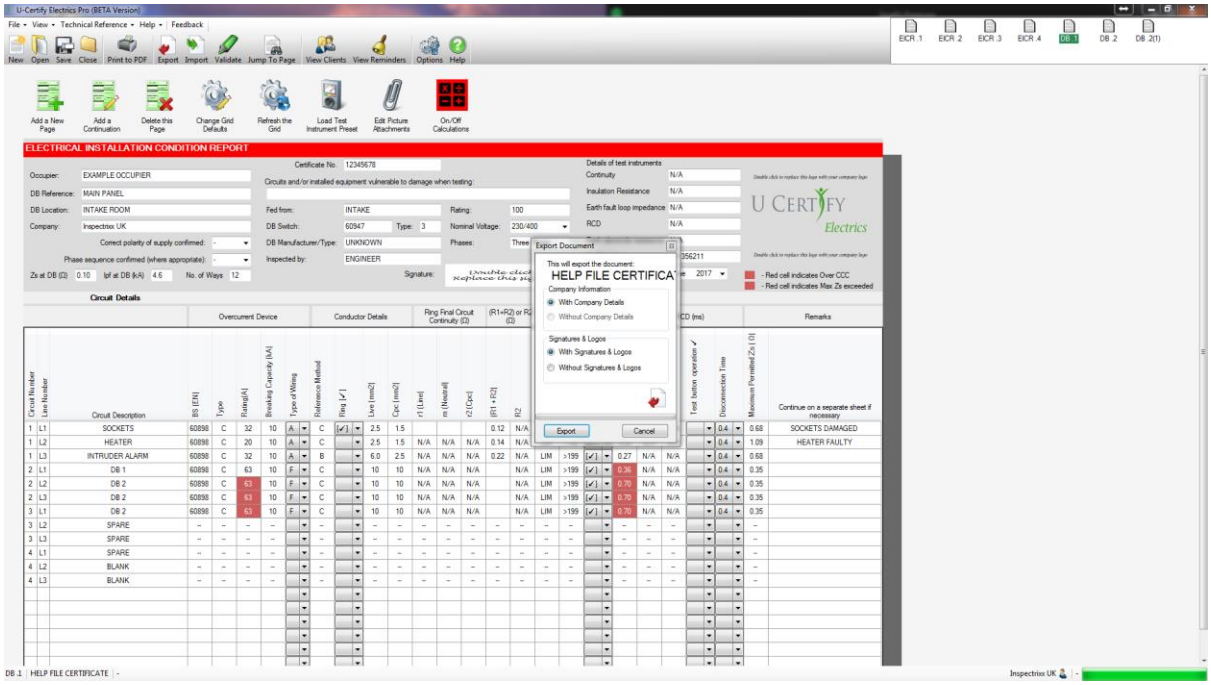
This is a great feature if you plan to complete the certificates on a laptop whilst on site and once finished on site you can export your certificate to another machine which has a licensed copy of U Certify Electrics Pro.

To import a file simply click **Import** which can be found at the top of the software. Once this has been clicked a pop box will appear and you can then follow the instructions and import.



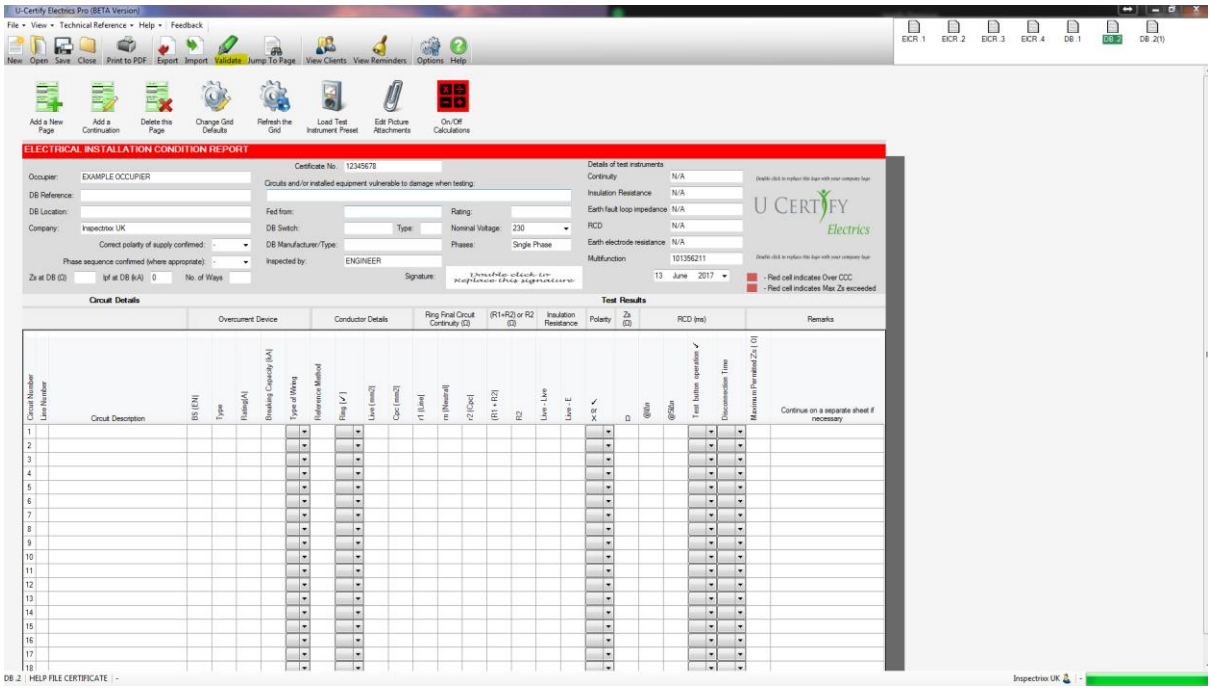
Exporting and Importing Certificates continued.

To export a file simply click **Export** which can be found at the top of the software. Once this has been clicked a pop box will appear and you can then follow the instructions and import.

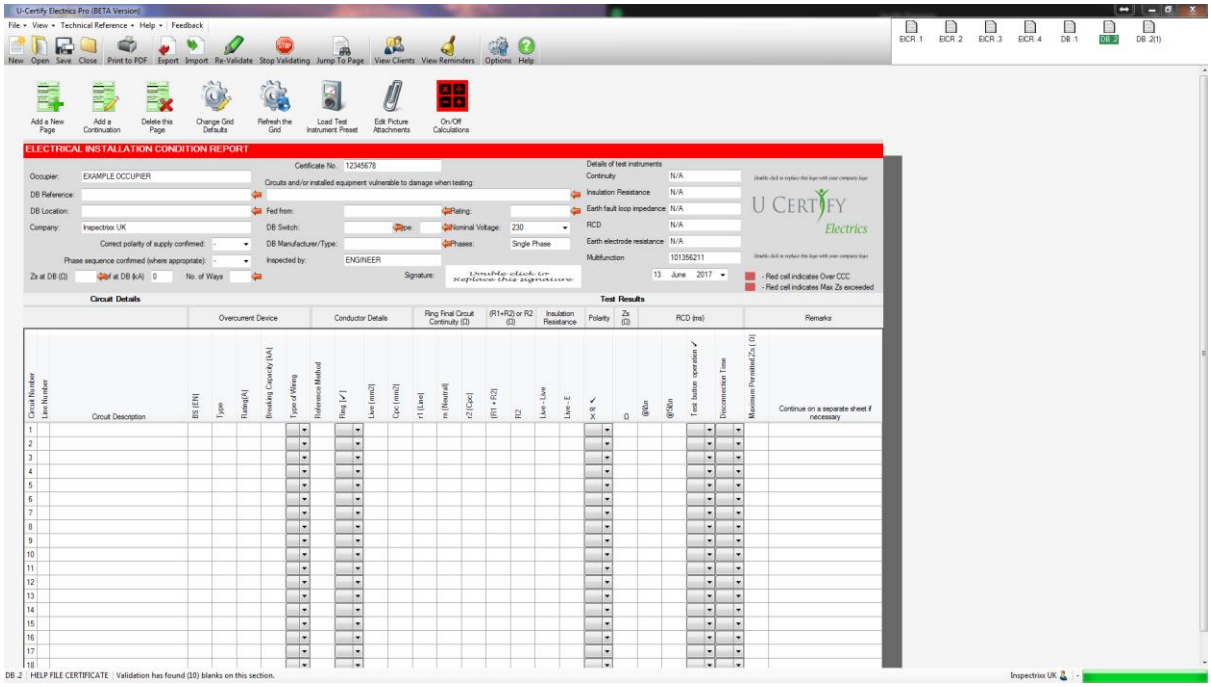


Validating

To Validate a certificate simply click **Validate** at the top of the software.

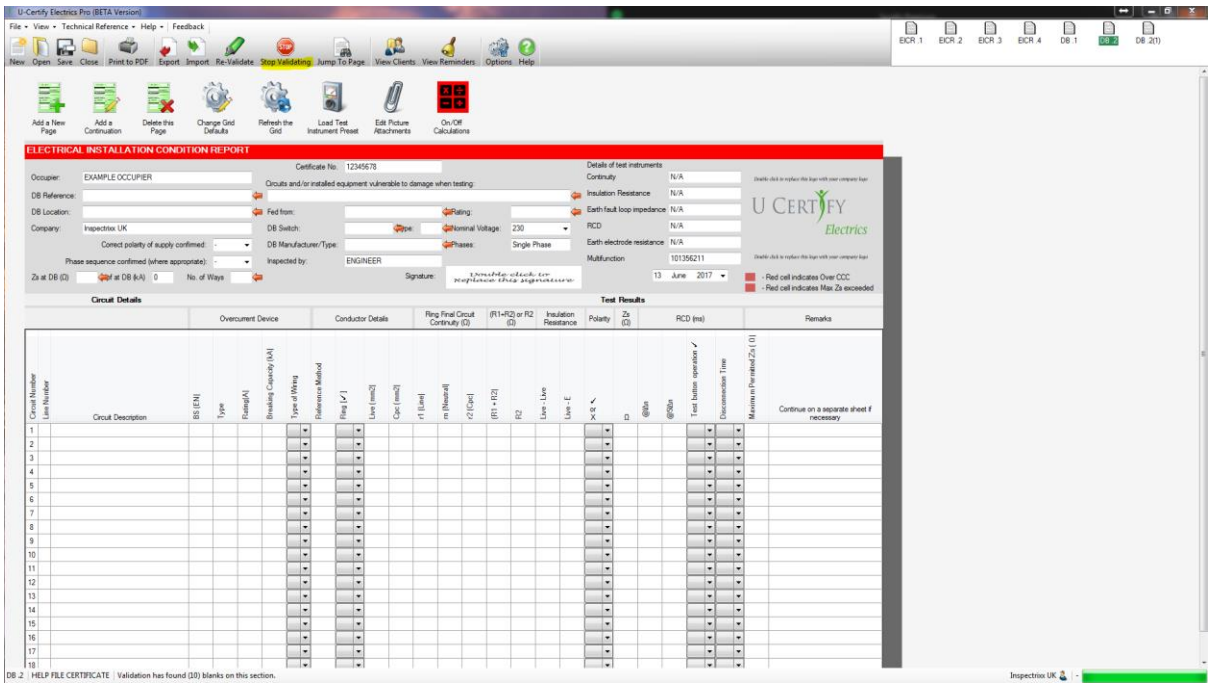


Once Validate has been selected, red arrows will begin to flash around any empty boxes throughout the certificate.



Validating continued.

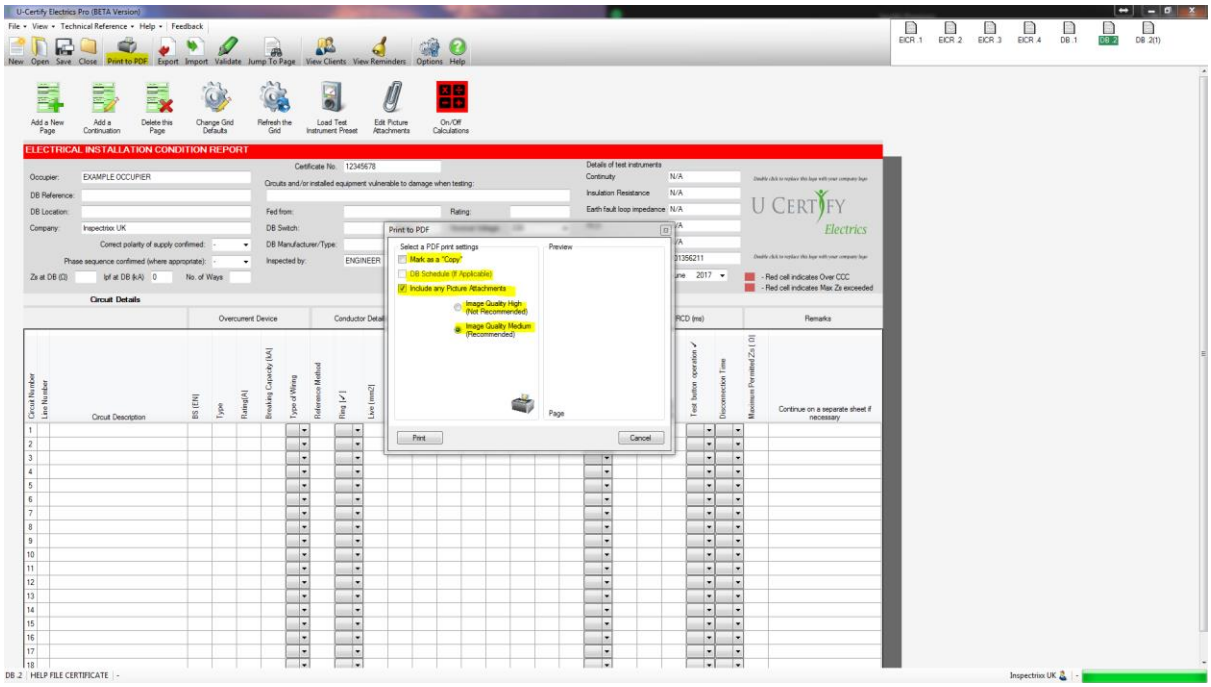
To stop validating simply click **Stop Validating** found at the top of the software.



Printing.

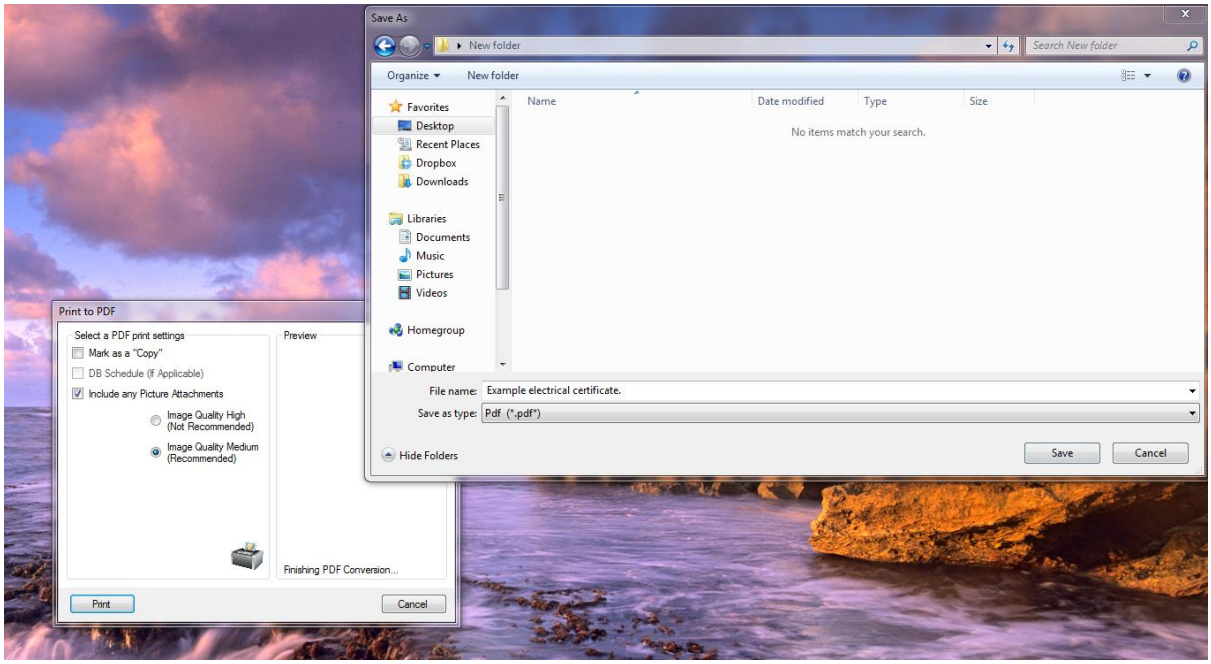
Once you have finished the current certificate and are ready to print to PDF, Click **Print PDF** and a pop up box will appear and there are a few options to choose from as follows:

- Mark as a “Copy” (if this is not selected original will be printed to PDF)
- DB Schedule
- Included any Picture Attachments



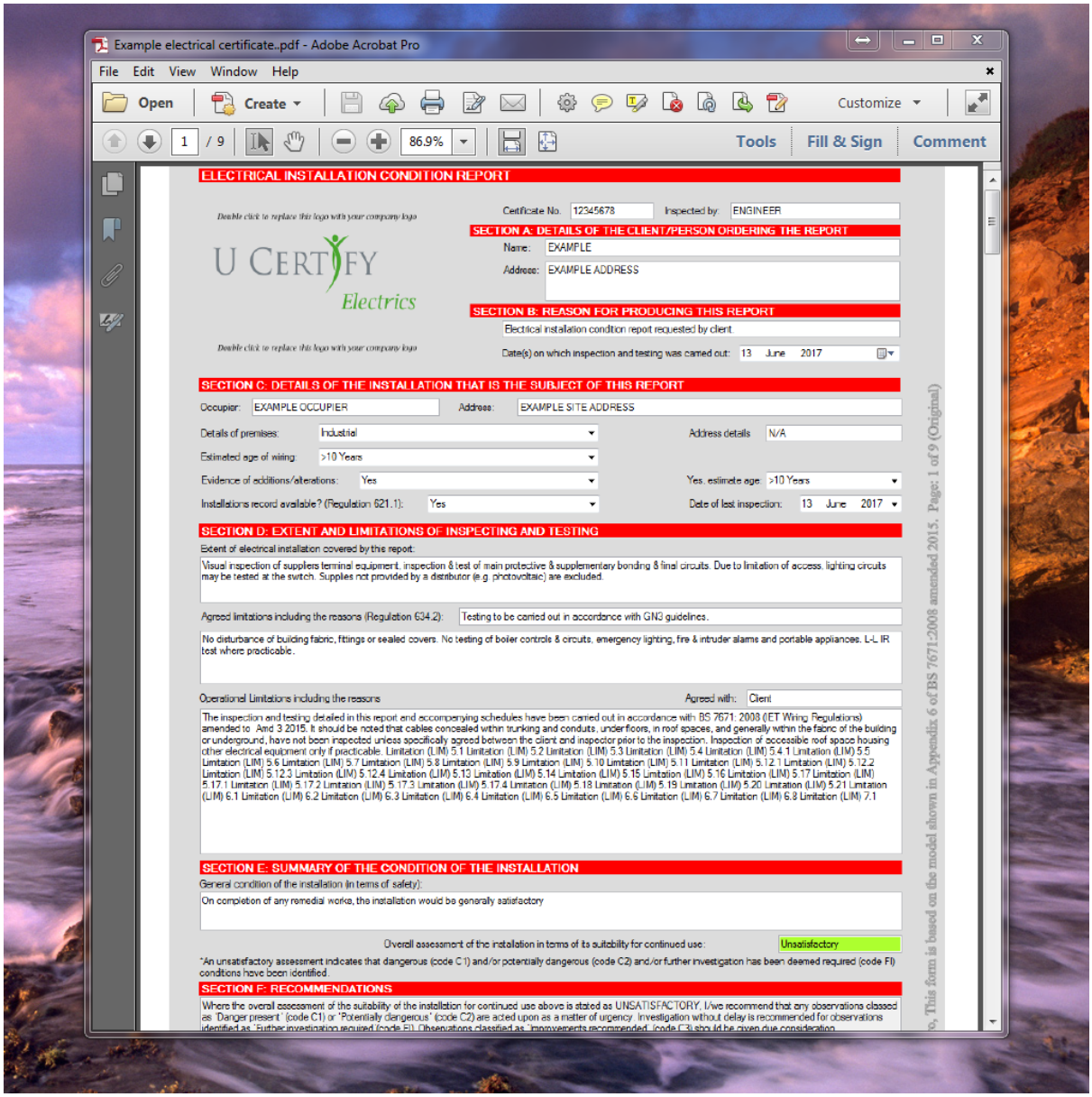
Printing continued.

Once the software has finished converting the certificate to PDF, you can choose where to save the PDF and name it.



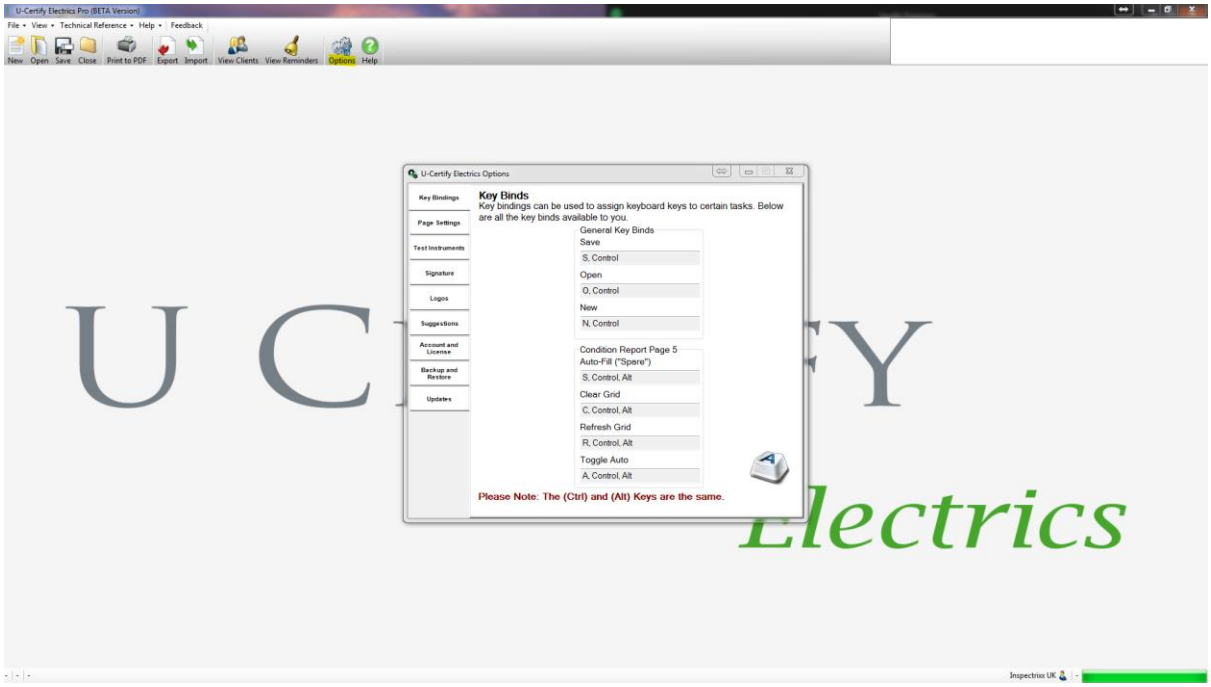
Printing continued.

Now that the Certificate is in PDF, you can print using your PC's PDF viewer and your printer.



User Defaults

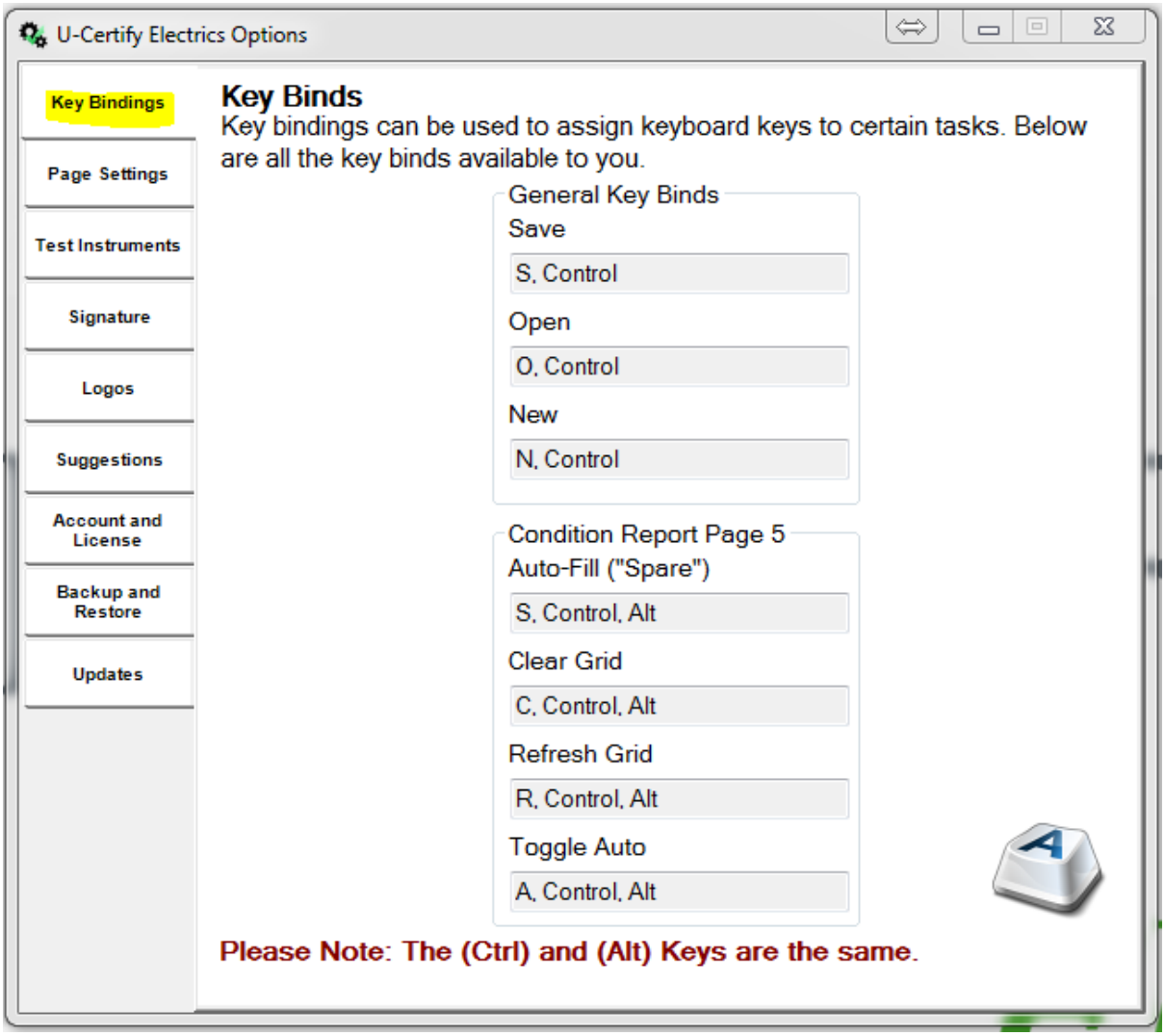
To adjust user defaults click **options** at the top of the software and a pop menu will appear with many options which can be managed.



User Defaults Continued.

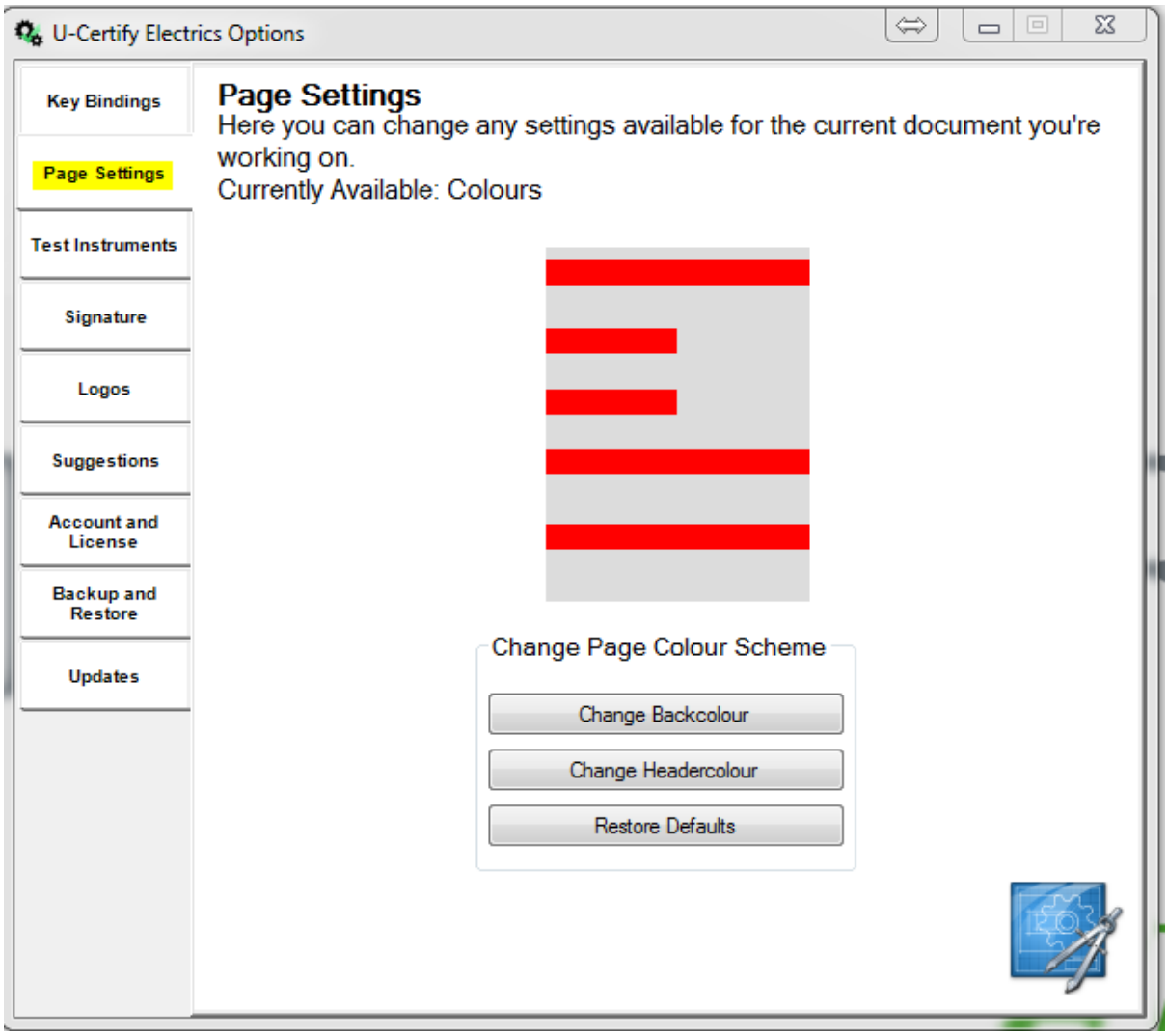
Key Bindings

Key bindings can be used to save the user time whilst using the software and a list available to you are below.



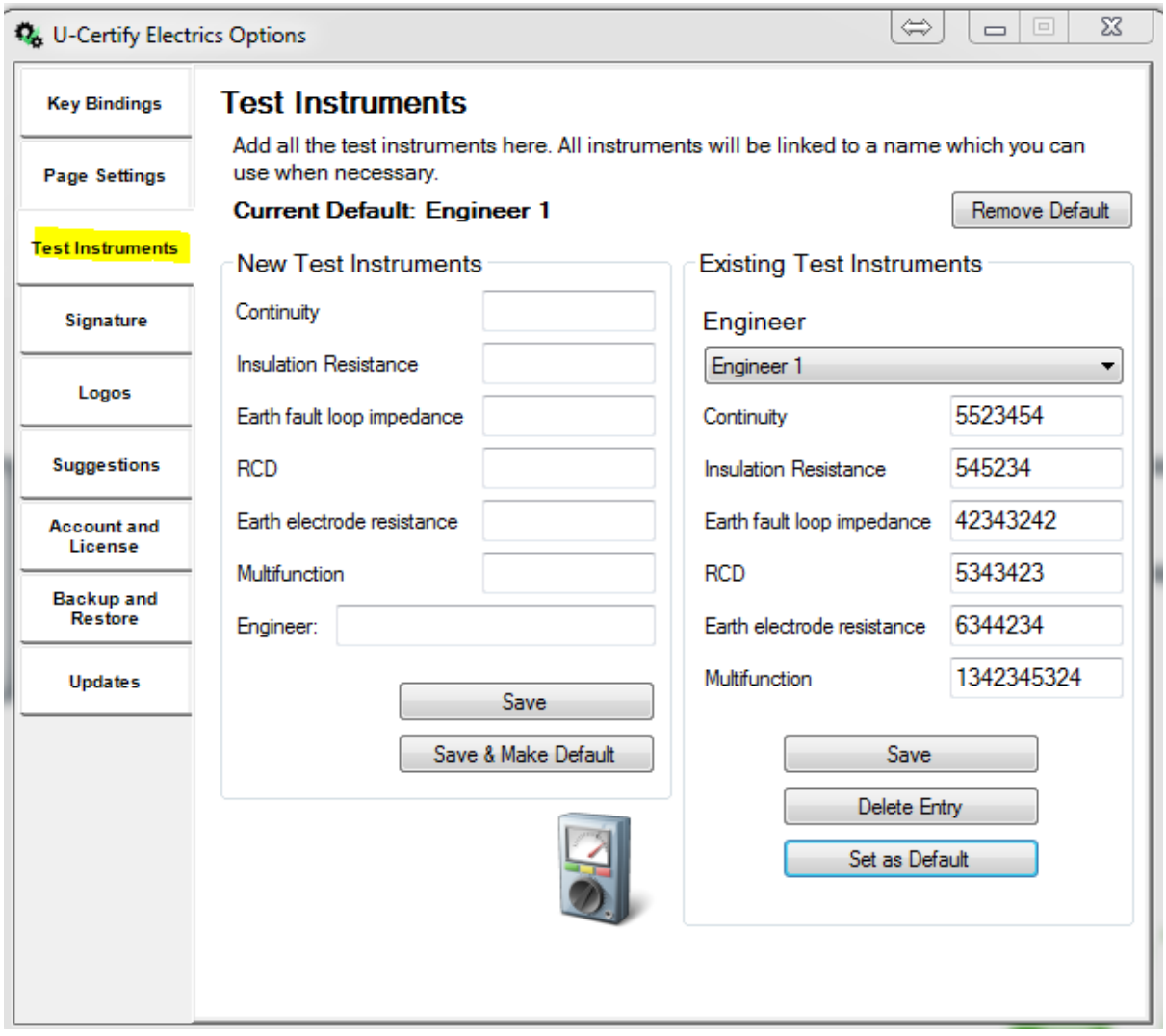
User Defaults Continued.

Page Settings



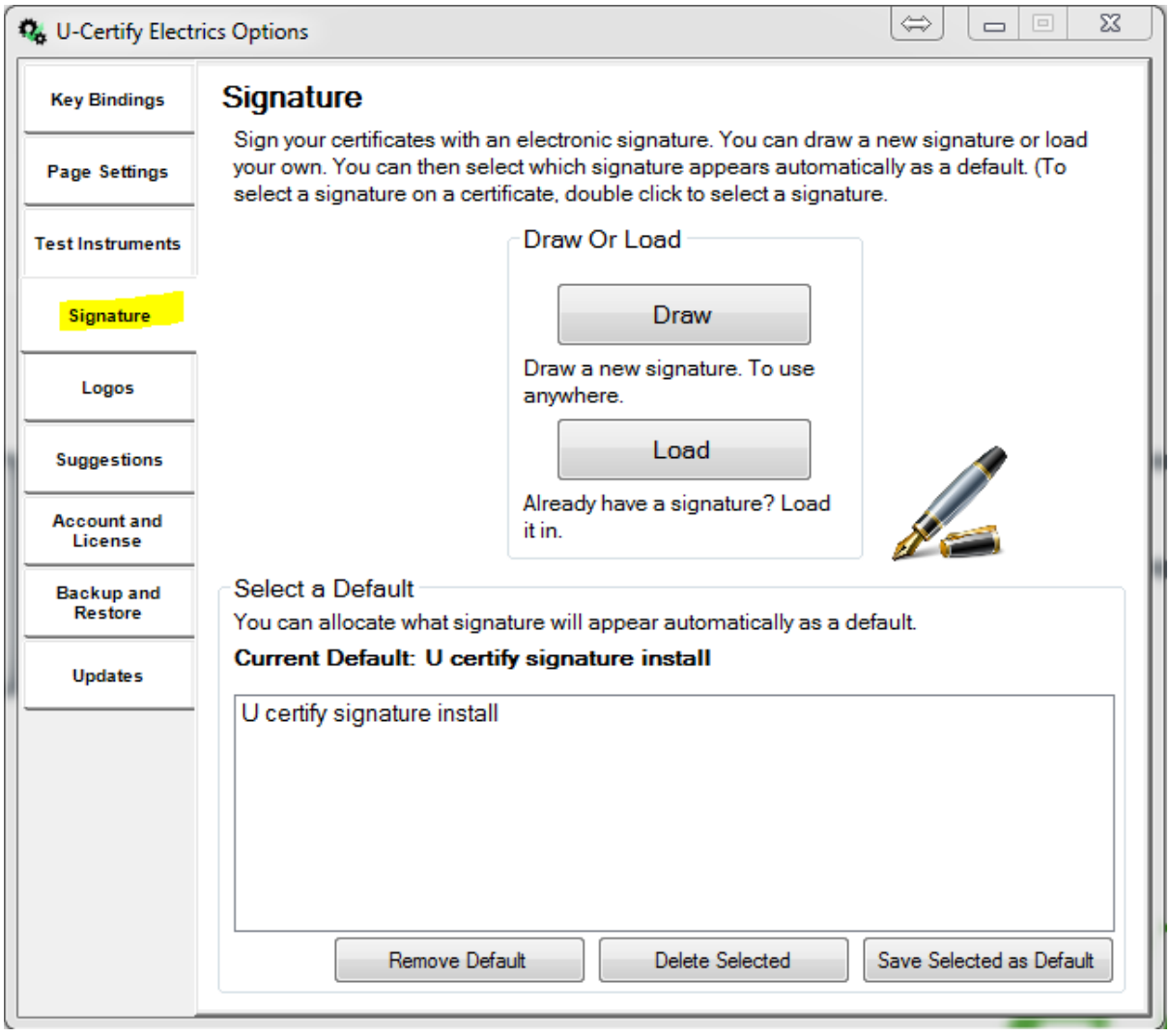
User Defaults Continued.

Test instruments



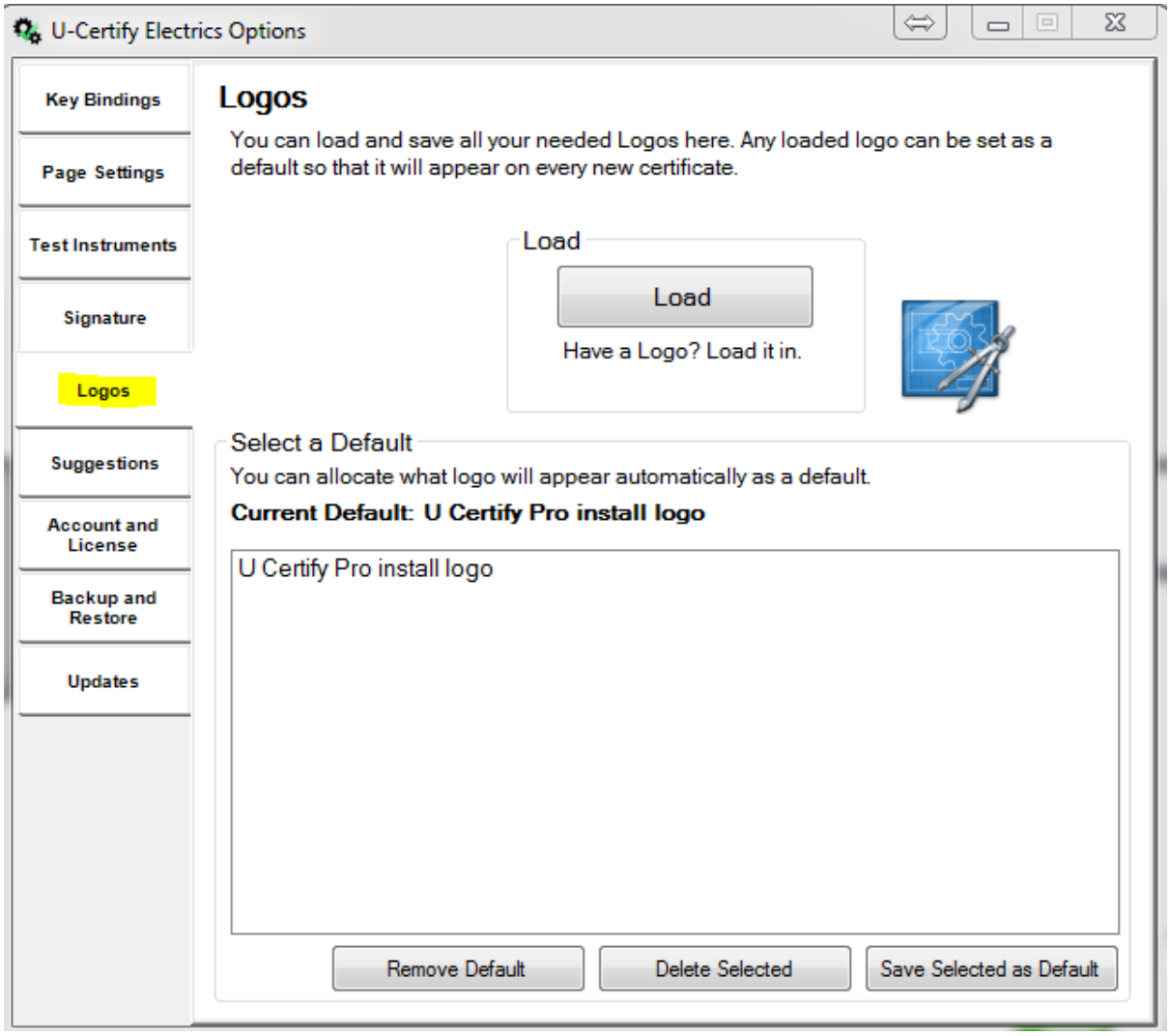
User Defaults Continued.

Signature



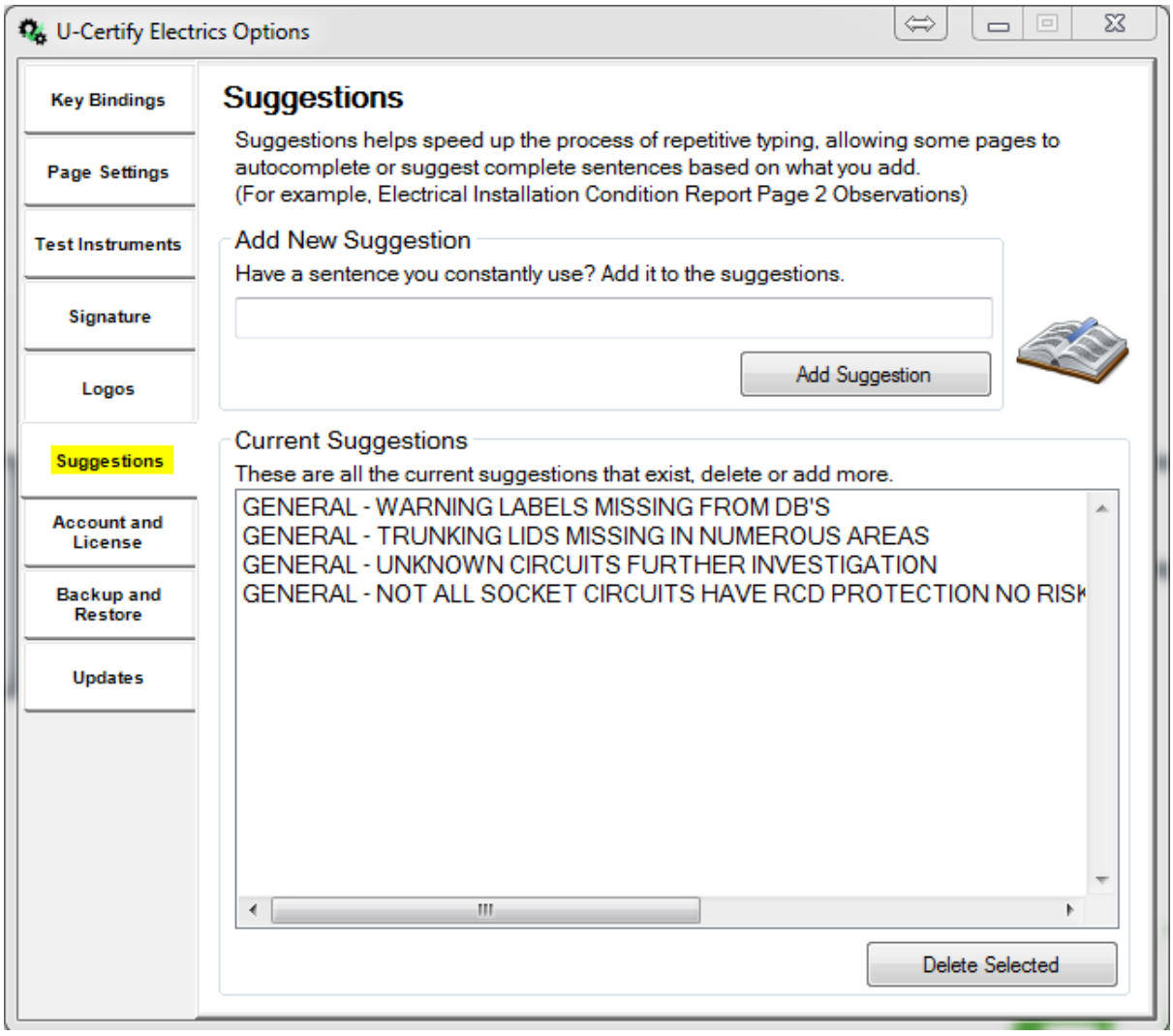
User Defaults Continued.

Logos



User Defaults Continued.

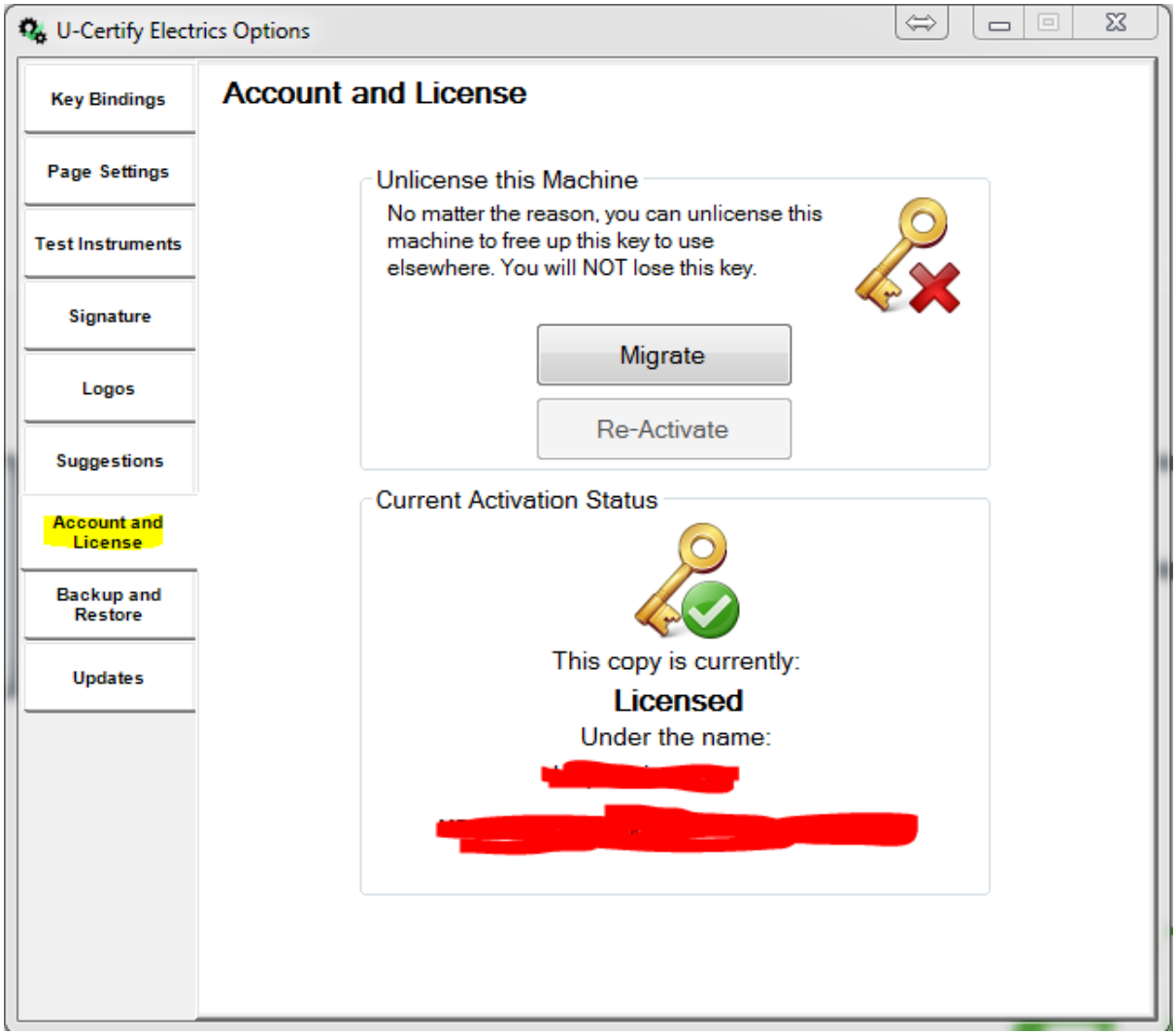
Suggestions



Internet Facilities

Accounts and License

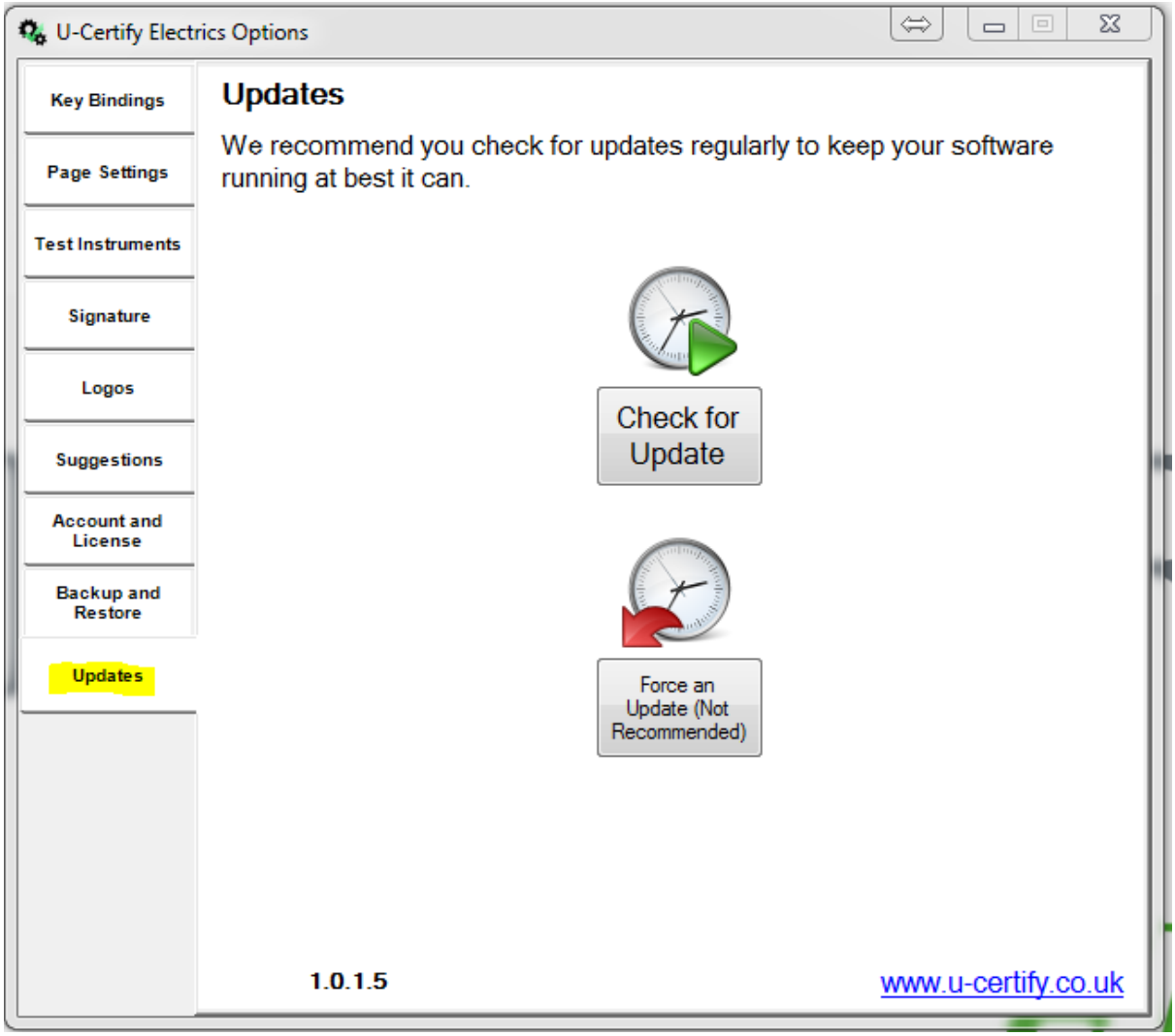
In this section it will display the Company name the software is registered to and what license key is currently being used.



Internet Facilities continued.

Updating the Software.

To check for updates and update the software click **check for update**. Please note it is **very important** to either disable any firewall or antivirus or add the U Certify updater to the list of exceptions to stop the Antivirus software from interrupting the update.



Internet Facilities continued.

Updating the Software.

Once the Update has been found and has begun a message will appear and it will warn you that it **is very Important** to **either disable any firewall or antivirus or add** the U Certify updater to the list of exceptions to stop the Antivirus software from interrupting the update.