
Castline Systems

FormFill 10 for Mac OSX

BS 7671:2008(2013)



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References

Requirements for Electrical Installations IEE Wiring Regulations Seventeenth Edition BS7671:2008(2013)
NICEIC Inspection, Testing and Certification Practical Advice and Guidance

Castline Systems reserve the right to change specifications without notice

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Overview

FormFill is a software program for filling out and printing Castline format electrical certificates, which comply with BS7671, onto plain paper. FormFill is designed to save time and effort and to improve the presentation of the certification as well as provide a myriad of useful features and functions.

FormFill requires Mac OSX 10.7 (Lion) or later.

Level Guide

FormFill for Mac OSX is available in two levels:

- Level 2 – Prints Castline custom certificates onto blank paper as well as onto NICEIC Computer Friendly certificates (when available). Includes Minor Electrical Installation Works Certificates, Domestic and Commercial Electrical Installation Certificates and Domestic (upto 100A) and Commercial Electrical Installation Condition reports.
- Level 3 – Includes the full range of Commercial Fire Alarm certificates and Emergency Lighting certificates.

This manual covers FormFill version 10 Levels 2 & 3.

The Mac OSX version of FormFill will not overprint NICEIC Computer Friendly stationary, nor will it download data directly from test instruments.

FormFill 10 is compatible with the FormFill iPhone app, the FormFill Plus & Pro iPad apps as well as FormFill for Android.

The iPhone & iPad apps are available from the Apple App store and the Android app from the Google Play store.

Features

The following features are available for use in FormFill:

- Certificates displayed on the screen in Castline format for easy completion.
- Quick selection entries for Customer, Contractor & Installation Addresses
- Copy, renumber & delete certificates
- Automatic and mousewheel scrolling support
- Incremental certificate numbering
- Quick selection of test instrument serial numbers
- Zoom in and out on certificates
- Protective device impedance automatically entered
- Reorder circuit details
- Quick protective device & cable data selection
- Generates PDF certificates
- Digital Signatures
- Add your company logo to forms
- Customise the colour of certificates
- Print Guidance Notes for Recipients
- Generates Distribution Board schedules from circuits details
- Add photos to continuation pages

Certificates

FormFill will print the following certificates in our own format onto blank sheets of paper or PDF:

Certificate	Level 2	Level 3
Minor Electrical Works Certificate	•	•
Domestic Fire Alarm Installation Certificate	•	•
Domestic Electrical Installation Certificate	•	•
Domestic Electrical Installation Condition Report (upto 100A)	•	•
Electrical Installation Certificate	•	•
Electrical Installation Condition Report	•	•
Schedule Continuation Sheets for EICR/Installation	•	•
Continuation Sheets for EICR recommendations	•	•
Continuation Sheets for EIC/EICR comments/summary	•	•
Emergency Lighting Completion Certificate		•
Emergency Lighting Inspection Certificate		•
Fire Alarm Installation Certificate		•
Fire Alarm Inspection Certificate		•
Fire Alarm Design Certificate		•
Fire Alarm Modification Certificate		•
Fire Alarm Acceptance Certificate		•
Fire Alarm Verification Certificate		•
Fire Alarm Commissioning Certificate		•

Backing Up Data

Important: Data Backup

It is very important that you keep a regular backup of all data on your Mac. All sorts of things can cause data to be lost :- Power cuts, Operating Systems Crashes, Hard drive failure etc.

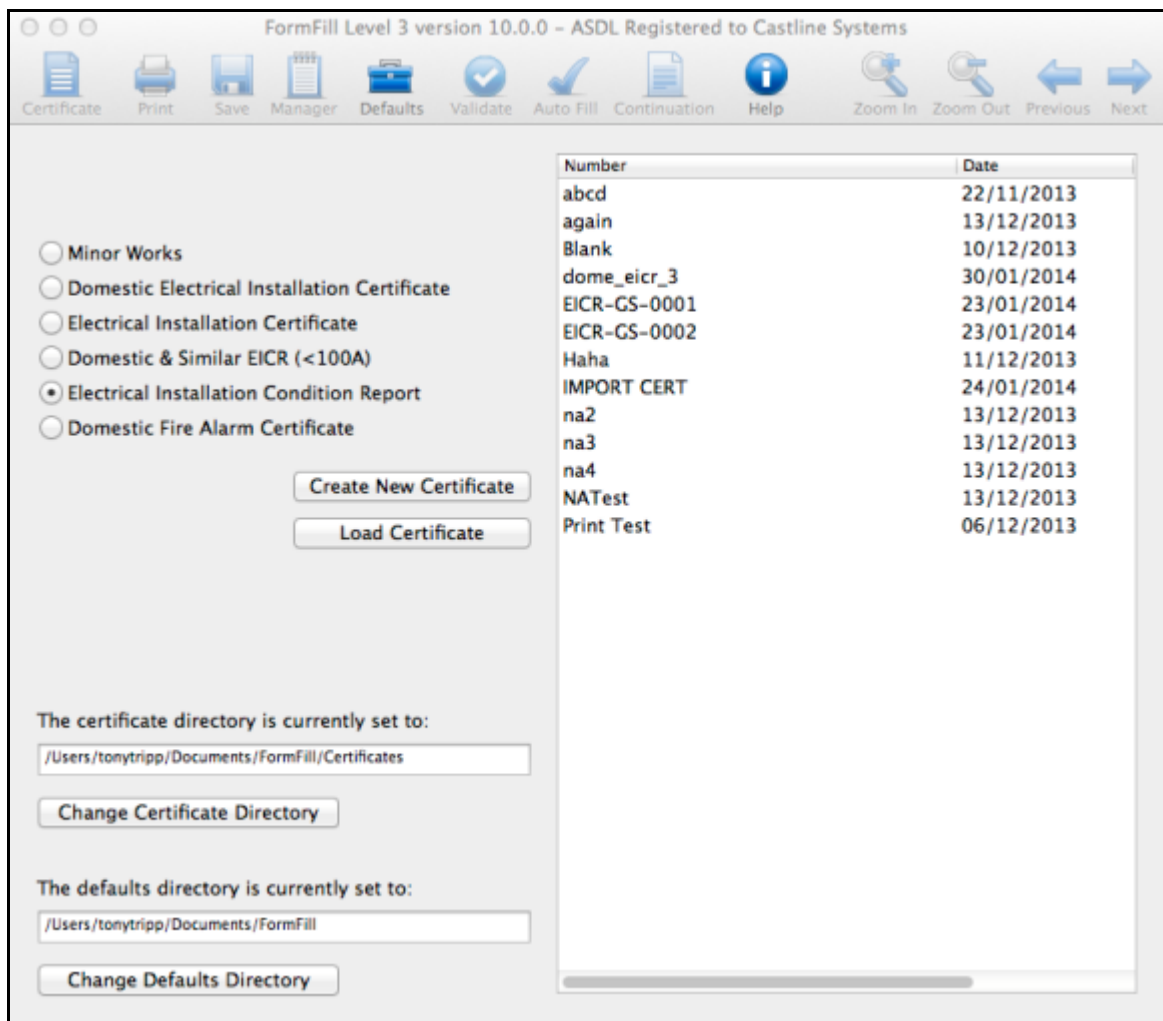
FormFill saves all the certificates that you create in the ‘~Documents\FormFill\Certificates’ folder by default, and the certificates are then sorted into folders by certificate type.

We recommend that you use Finder to backup your ‘~Documents\FormFill’ folder to a removable drive regularly to avoid loss of data.

Open ‘Finder’, go to the ‘Documents’ folder and right click or ctrl + click on the ‘FormFill’ folder and select the ‘Copy 1 item’ option. You should then be able to select your removable drive and ‘paste’ the folder from the edit menu.

Getting Started

When FormFill opens it shows the Certificate Manager screen. This is the main screen of the program and from here you can view, print and edit existing certificates as well as create new certificates.



The certificate manager will show a list of all the existing certificates of the currently selected type. Changing the 'Certificate Type' bullet point selection will change the list to show existing certificates of the selected type.

To open an existing certificate you can either double click on the number you wish to open or you can left click on the number to highlight the correct row and then click the button labelled 'Load certificate'.

To create a new certificate, select the bullet point for the type of certificate that you want to create and then click the 'Create new certificate' button. You will be prompted for a new number

and then the new certificate will be displayed. If you have turned on automatic numbering in the defaults section then this will automatically be filled out with the next number in the sequence.

To return to the certificate manager at any time, simply click the 'Manager' button on the toolbar.

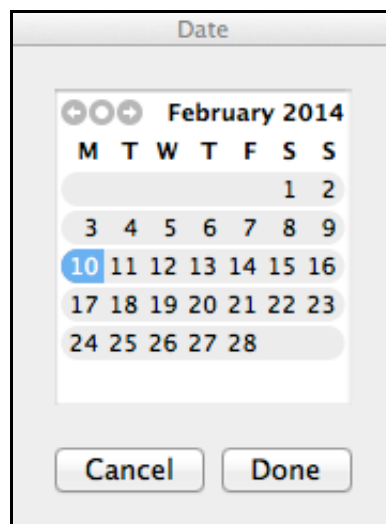
Filling in certificates

Once you have created a certificate, you can go about filling in all the information on the form. To save your work at any time, simply click the 'Save' button at the top of the screen and the report will be saved. The certificate is also saved any time that you print as well as when you return to the certificate manager.

Data is typed directly into the boxes and you can move between boxes either by clicking with the mouse or using the 'tab' key to move to the next field (Shift + 'tab' moves back a field). Certain information can be selected from quick entry lists which remember previous settings. Please note that to activate a quick entry box you must click on it with the mouse. The list will only be triggered if you click on the box when the text entry cursor is not flashing on that box. If it is then you need to click on a different box first then back on the one you want to display the quick entry dialogue. This is so that you can manually select and edit text in a box that has quick entry options but you wish to modify the entry to one not in the list.

Navigation through the certificates pages is possible by clicking the 'Next Page' and 'Prev Page' buttons on the toolbar in the top right corner. You can also click on a page in the list on the right hand edge of the screen to go directly to that page.

Ticks can be entered into appropriate boxes simply by clicking on the box. For most tick boxes you can toggle between a tick, N/A, X and LIM by clicking the box. Other similar entries may contain a 'yes' or 'no' if appropriate. 'N/A' will be filled into other entries as required.



You can also right click or ctrl click on the box to bring up a context sensitive list for that box with various typical entries.

Clicking on an applicable date entry box will display the date picker, allowing you to select the date required. To bypass the date picker, click cancel and type your own entry into the box.

For other quick entry dialogues, which will appear when you click on the appropriate boxes, simply select the required option(s) and click 'OK' for them to be entered in the correct areas of the certificate.

Schedules and Circuits

The Electrical Installation Certificate and Electrical Installation Condition Report includes circuit details and test results pages also referred to as schedules.

When filling out the circuit details, please ensure that you enter a circuit number for the circuit. Circuit numbers are limited to 7 characters by the size of the field on the form and should ideally be entered in the format 1, 2, 3 etc.

Quick entry dialogues are available for the protective device information, for the cable details and the circuit category. Just click in one of the boxes to open the dialogue. If you wish to enter an item that does not appear in the dialogue, just click cancel when the dialogue appears and type directly into the box.

Entries for protective devices allow selection of BS and Type, disconnection time and kA as well as RCD rating if appropriate. The Maximum permitted Zs will be entered automatically where appropriate.

Protective Device Details

Protective Device

- ▼ Minature Circuit Breaker (MCB)
 - ▼ BS EN 60898
 - ▼ Type B
 - 0.5A
 - 1A
 - 2A
 - 3A
 - 4A
 - 5A
 - 6A
 - 8A
 - 10A
 - 13A
 - 15A
 - 16A
 - 20A
 - 25A
 - 30A
 - 32A
 - 40A

Disconnection time

0.4s
 5s
 0.2s
 1s

TN
TT

Maximum Zs

1.438 Ω

100%
 80%

RCD mA

10mA
 30mA
 100mA
 300mA
 500mA
 N/A

Breaking capacity

6 kA

Use RCD Zs for final circuits \leq 32A (reg 411.4.9)

Cancel Save

To select a device, click the '>' triangle next to the required protection, then the '>' next to the type if applicable and select the rating / BS from the list. The last options you had selected will be remembered each time.

If you select your protective device and rating from the quick selection list the program will automatically enter the correct Zs for this device in the maximum permitted Zs field. These are the 100% values from the regulations and are the correct values to use on the certificates. The 80% values on the NICEIC green card are a rule of thumb to account for operating temperature.

You may choose to have the program enter the 80% value by changing the appropriate option on the quick selection dialogue if you wish.

If you select an RCD operating time on a TN or TT System, your maximum permitted Zs will automatically be adjusted to account for regulation 411.4.9 in BS 7671:2008(2011) page 57. This regulation states that if protection is provided by a residual current device for final circuits not exceeding 32A, the maximum permitted Zs may be selected from table 41.5 which is derived from:

$$Z_s \times I_{\Delta n} \leq 50v$$

Where Zs is the earth fault loop impedance in ohms and IΔn is the rated operating current of the protective device in amperes. If you are unhappy with these values you can untick the box labelled 'Use RCD Zs for final circuits <= 32A' and the program will use the circuit breakers Max Zs.

Fill Down

On the test results page there is the facility to 'Fill down' information which is often repetitive, such as the insulation resistance tests. Fill out the top circuit with the value required in each column (e.g. >200), tick the 'Polarity' box for each circuit you want the value to be filled into (this stops it being filled in to spare circuits or similar), and then right click on the value and select the option for 'Fill Down' from the drop down menu. The information will only be completed for that column, and only if a circuit number is present and the polarity check box for that circuit is ticked.

Copying Circuits

It is possible to copy the contents of a whole circuit from the line above, excluding the circuit number and description. To do this, type the circuit number for the new circuit, then hold down Control (CTRL) and press the apostrophe ' or hash # key. This will copy the circuit above into the currently selected circuit. You need to have the circuit number field selected to do this.

Moving Circuits

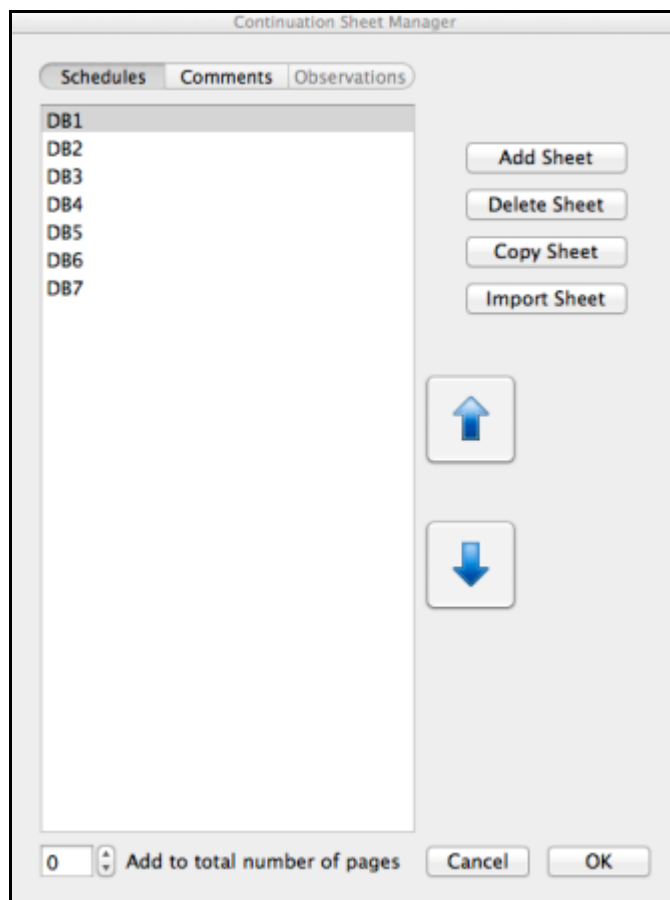
In the event you need to move a circuit up and down the order, simply select the circuit and, holding down the shift key, press either the up or down arrows to move the circuit up or down the order.

Adding Continuation Sheets

FormFill includes continuation sheets for circuit schedules, comments sheets and observations sheets for appropriate certificates. Circuit continuation schedules and comments sheets are available for Electrical Installation Certificates and Electrical Installation Condition Reports while Observations sheets are only for use with the Electrical Installation Condition Reports.

To add a continuation sheet to an existing certificate, first load the certificate from the certificate manager so it is displayed on the screen.

Click the 'Continuation' button on the toolbar to open the continuation sheet window. You can then select the type of continuation sheet to display using the tabs at the top.



To add a continuation sheet, click the 'Add Sheet' button and a new sheet of the currently selected type will be added. You can also delete a continuation sheet or make a copy of an existing sheet.

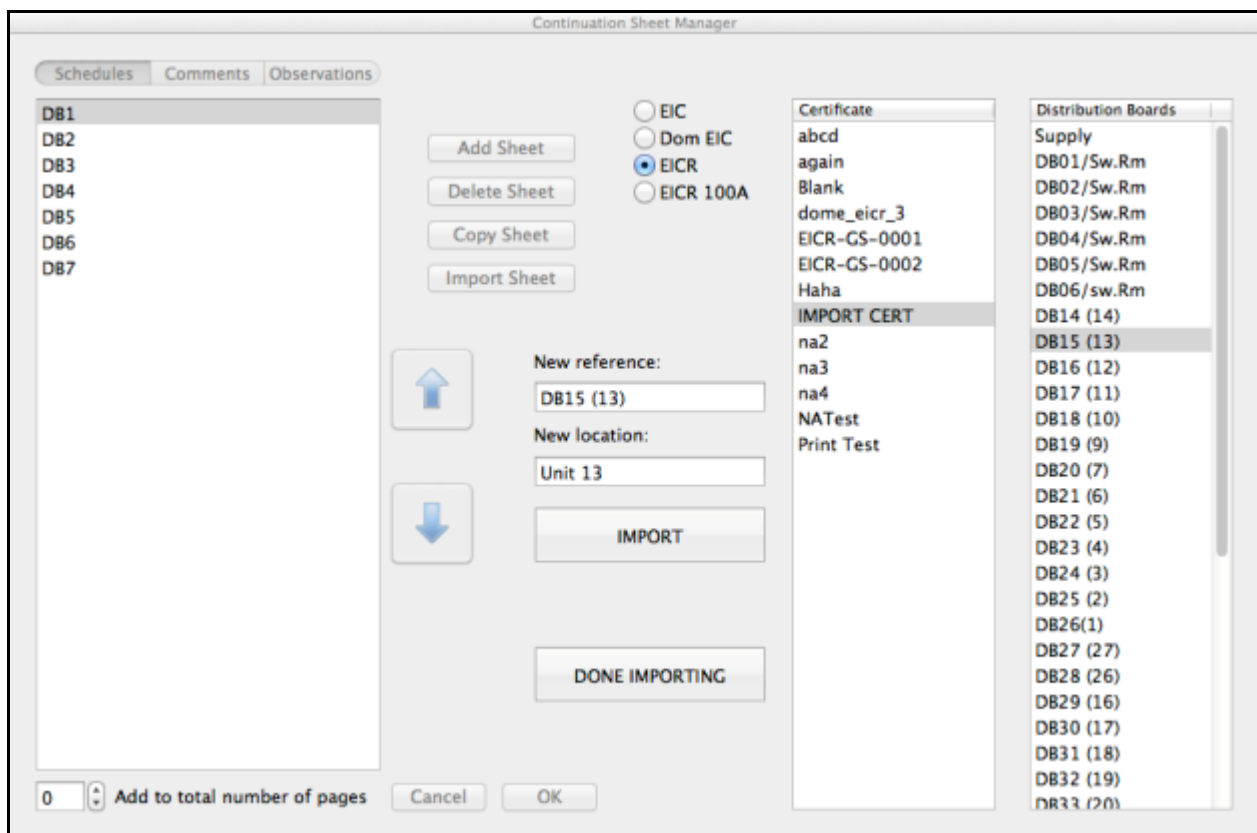
You can change the order of the sheets as well by selecting the sheet that you want to move and clicking the up and down arrows on the right hand side.

When you are finished adding sheets, click 'OK' and the continuation sheet window will close. The certificate will be reloaded and any additional pages you have added will be available from the page list on the right hand side.

When creating Summary / Comments continuation sheets, you also have to option to allow space for 3 photos on each sheet. Three staggered picture boxes will be created on the page with corresponding text areas next to them. To add a photo to the report, simply click on a photo box on the screen then find and select the image that you want to add to the report. The picture will be automatically sized and scaled to the available area. To add text, click the blank area next to photo and type the required text into the box.

Import Continuation Sheets

You can also import or copy continuation sheets from one certificate to another. Open the continuation screen for the certificate that you wish to import or add the sheets to and click the 'Import Sheet' button. Only Circuit Details/Test Results schedules can be imported.



Select the bullet point for the type of certificate that you wish to import the sheets from and the select the number of the certificate from the 'Certificate' list. The 'Distribution Boards' list will then display a list of all of the schedule continuation sheets for that certificate.

Click on the Schedule that you want to copy across and alter the reference and location in the boxes if required then click 'IMPORT' to transfer the schedule in to the current certificate. Once you are finished importing click on the button labelled 'DONE IMPORTING' to close the import lists.

Changing Certificate Numbers

To change the number of an existing certificate, first open the certificate from the certificate manager, then click on the 'Certificate Files' dropdown in the top left corner and select 'Re-number this certificate' from the list. Click 'Add New Number', type the new number required into the box and click 'OK'. The number will be changed and should appear on the certificate.

Copying a Certificate

To make a copy of an existing certificate, click on the 'Certificate Files' menu in the top left hand corner and select 'Copy As...' option and the the selection for the type of certificate that you wish to copy it as. You will be prompted for a new number for the certificate and a new report with all the details from the current one will be created and opened.

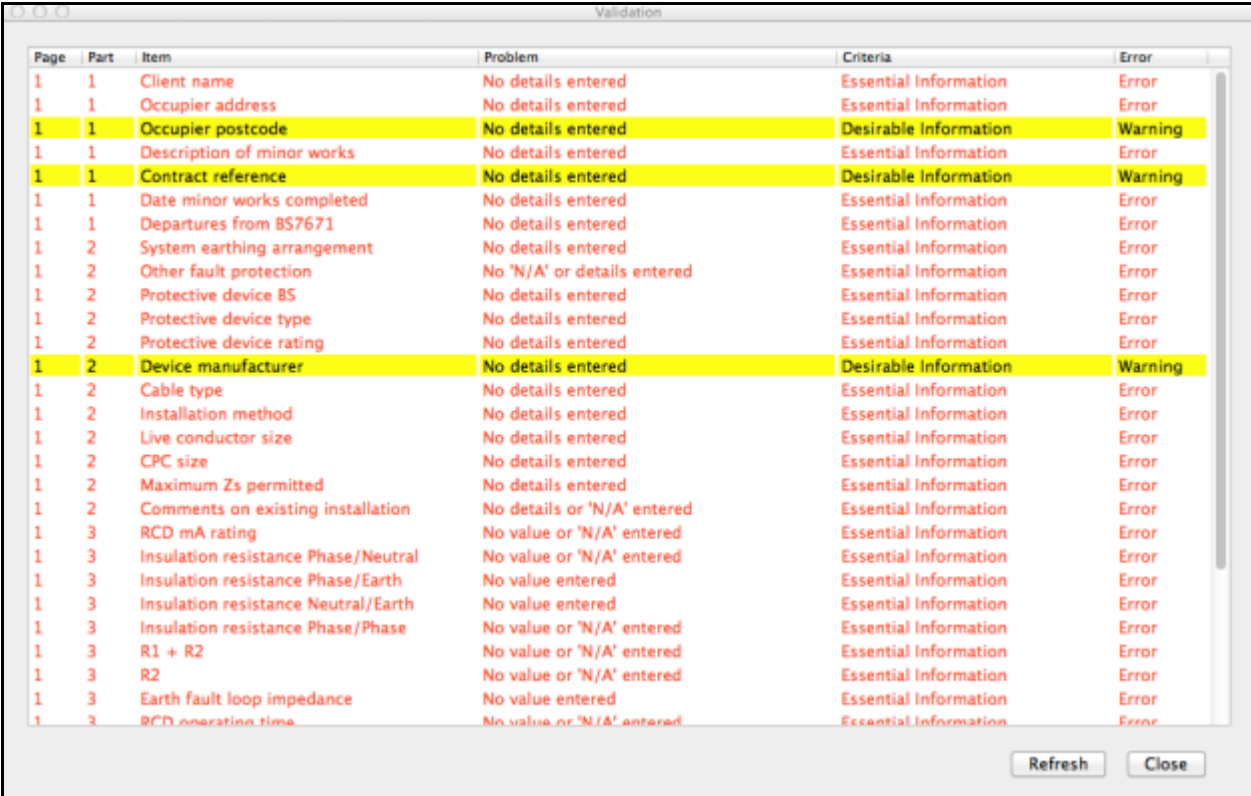
Deleting Certificates

To delete an existing certificate, first open the certificate you wish to delete by double clicking on it in the certificate manager. Now click on the menu for 'Certificate Files' in the top left corner and select the option for 'Delete this Certificate'. You will be asked to confirm that you wish to delete the certificate and the certificate will be sent to the system recycle bin.

Validation

Once you have completed your certificate, you may use the programs built in validation system to check the information on the certificate for possible errors. Please note that the validation process is merely a guide and in no way alters the appearance of certificates or stops certificates from being printed.

To validate a certificate, click the 'Validation' button on the toolbar at the top of the screen and select 'Validate this certificate'. The list of possible errors for that certificate will be displayed in page order.



The screenshot shows a window titled "Validation" containing a table with the following columns: Page, Part, Item, Problem, Criteria, and Error. The table lists various items with their corresponding problem descriptions, criteria, and error types. Some rows are highlighted in yellow.

Page	Part	Item	Problem	Criteria	Error
1	1	Client name	No details entered	Essential Information	Error
1	1	Occupier address	No details entered	Essential Information	Error
1	1	Occupier postcode	No details entered	Desirable Information	Warning
1	1	Description of minor works	No details entered	Essential Information	Error
1	1	Contract reference	No details entered	Desirable Information	Warning
1	1	Date minor works completed	No details entered	Essential Information	Error
1	1	Departures from BS7671	No details entered	Essential Information	Error
1	2	System earthing arrangement	No details entered	Essential Information	Error
1	2	Other fault protection	No 'N/A' or details entered	Essential Information	Error
1	2	Protective device BS	No details entered	Essential Information	Error
1	2	Protective device type	No details entered	Essential Information	Error
1	2	Protective device rating	No details entered	Essential Information	Error
1	2	Device manufacturer	No details entered	Desirable Information	Warning
1	2	Cable type	No details entered	Essential Information	Error
1	2	Installation method	No details entered	Essential Information	Error
1	2	Live conductor size	No details entered	Essential Information	Error
1	2	CPC size	No details entered	Essential Information	Error
1	2	Maximum Zs permitted	No details entered	Essential Information	Error
1	2	Comments on existing installation	No details or 'N/A' entered	Essential Information	Error
1	3	RCD mA rating	No value or 'N/A' entered	Essential Information	Error
1	3	Insulation resistance Phase/Neutral	No value or 'N/A' entered	Essential Information	Error
1	3	Insulation resistance Phase/Earth	No value entered	Essential Information	Error
1	3	Insulation resistance Neutral/Earth	No value entered	Essential Information	Error
1	3	Insulation resistance Phase/Phase	No value or 'N/A' entered	Essential Information	Error
1	3	R1 + R2	No value or 'N/A' entered	Essential Information	Error
1	3	R2	No value or 'N/A' entered	Essential Information	Error
1	3	Earth fault loop impedance	No value entered	Essential Information	Error
1	3	RCD operation time	No value or 'N/A' entered	Essential Information	Error

At the bottom right of the window, there are two buttons: "Refresh" and "Close".

The validation windows can be left open while you adjust any items that you feel are in error and the certificate can be re-validated by clicking the 'Refresh' button at the bottom of the validation window.

The validation window will close automatically when you return to the certificate manager.

Printing

Once you have completed your certificate, and validated it if applicable, you will want to print it. Certificates are first generated as a PDF file which can then be printed onto plain paper or saved to disk.

To print a certificate, first load the certificate on the screen by going to the certificate manager, selecting the type of certificate on the left hand side and double clicking on the certificate number from the list on the right.

Once the certificate is displayed on the screen, click on the print button at the top of the screen, select 'custom' then the status of the print, either Draft, Copy or Original.

You can also print the certificate directly from the certificate manager without opening it by highlighting the number in the list and selecting the appropriate print option from the menu.

The program will go through the process of converting the certificate to a PDF file and will then open the certificate in Preview, where you can print the certificate onto paper or save an electronic copy for your records or to email to your client.

The last copy of every certificate printed is saved in the '~Documents/FormFill/PDF' folder by default.

FormFill Keystrokes

There are a number of keystrokes built into the program to make the entering of certain details easier and less time consuming.

Numeric Keypad (the numeric keys are situated on the right hand side of the keyboard)

+ (plus sign)

This will input a tick where appropriate

- (minus sign)

This will input a 'cross' where appropriate

*** (Asterix)**

This will input the abbreviation 'N/A'

/ (Front slash)

This will input the abbreviation 'LIM'

Standard Keys

Tab

This will move to the next entry box

Shift + Up Arrow

Moves the currently selected circuit up one line (Schedule of circuit details/test results Only).

Shift + Down Arrow

Moves the currently selected circuit down one line (Schedule of circuit details/test results Only).

Shift + Delete

Pressing the delete key while holding down the shift key will delete an entire circuit entry (Schedule of circuit details/test results Only).

Control + # (hash) or Control + ' (apostrophe)

Pressing the hash key (#) or the apostrophe (') key while holding down the control key will copy the whole of the circuit above the currently selected circuit into the current circuit, with the exception of the circuit number. (Schedule of circuit details/test results only).

N/A, Lim and X can also be added by right clicking and selecting from the drop down list that appears where appropriate.

User Defaults

Company Information

To open the Company Information screen, select the 'Defaults' button on the and the the selection for 'Company Information'.

In the window that appears you can enter your company name, address, and registration details for easy selection when completing certificates.

Company Information

Castline Systems

Friday Street
Rusper
Horsham
West Sussex

RH12 4QA

01293 871751 01293 871551

support@castlinesystems.com

NAPIT 123456 N/A

Cancel OK

Test Instruments

FormFill can store the serial numbers of your test instruments to enable you to easily select them from a quick entry list when completing certificates. To open the test instruments screen, select the 'Defaults' button from the toolbar then the selection for 'Test Instruments'.

The screenshot shows a dialog box titled "Test Instrument Serial Numbers". At the top, there is a section labeled "Instrument Set:" with a dropdown menu currently set to "Default", and two buttons: "New" and "Remove". Below this, the dialog is organized into two columns of instrument types. Each type has a text input field for a serial number and a checkbox labeled "Include".

Instrument Type	Serial Number	Include
Continuity	Con1234	<input checked="" type="checkbox"/>
RCD	RCD1234	<input checked="" type="checkbox"/>
Other	OT_1234	<input checked="" type="checkbox"/>
Other 2		<input type="checkbox"/>
Earth electrode resistance	Elec1234	<input checked="" type="checkbox"/>
Earth fault loop impedance	EFLI1234	<input checked="" type="checkbox"/>
Insulation resistance	IR_1234	<input checked="" type="checkbox"/>
Multi Function		<input type="checkbox"/>

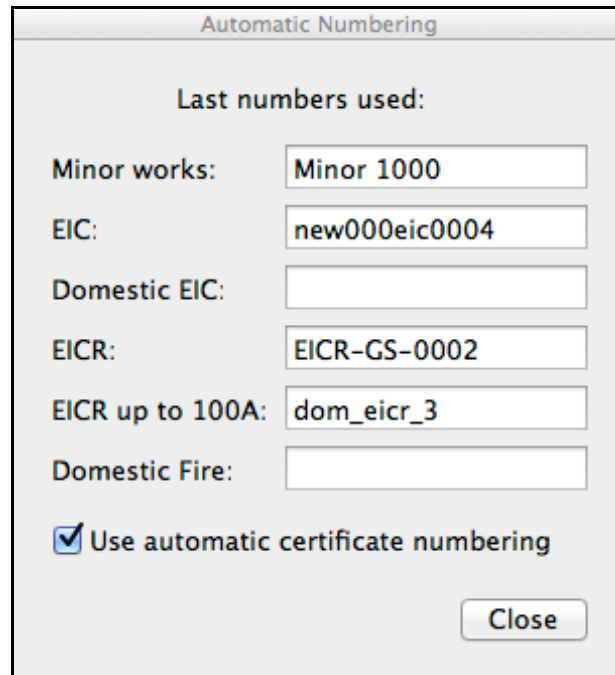
At the bottom right of the dialog are two buttons: "Cancel" and "OK".

Multiple sets of instruments can be saved if required. To create a new set, click the 'New' button and enter a name for the set. You can then choose which types of instrument will be included in this set and enter their serial numbers into the applicable boxes.

To remove a set, select the set and then click the 'Remove' button.

Autonumber

You can set the program to automatically increment the certificate number when you create a new certificate. FormFill will remember the last number used for each type of certificate and automatically generate the next number in the sequence for you if you have the 'use automatic certificate numbering' box checked.



Automatic Numbering

Last numbers used:

Minor works: Minor 1000

EIC: new000eic0004

Domestic EIC:

EICR: EICR-GS-0002

EICR up to 100A: dom_eicr_3

Domestic Fire:

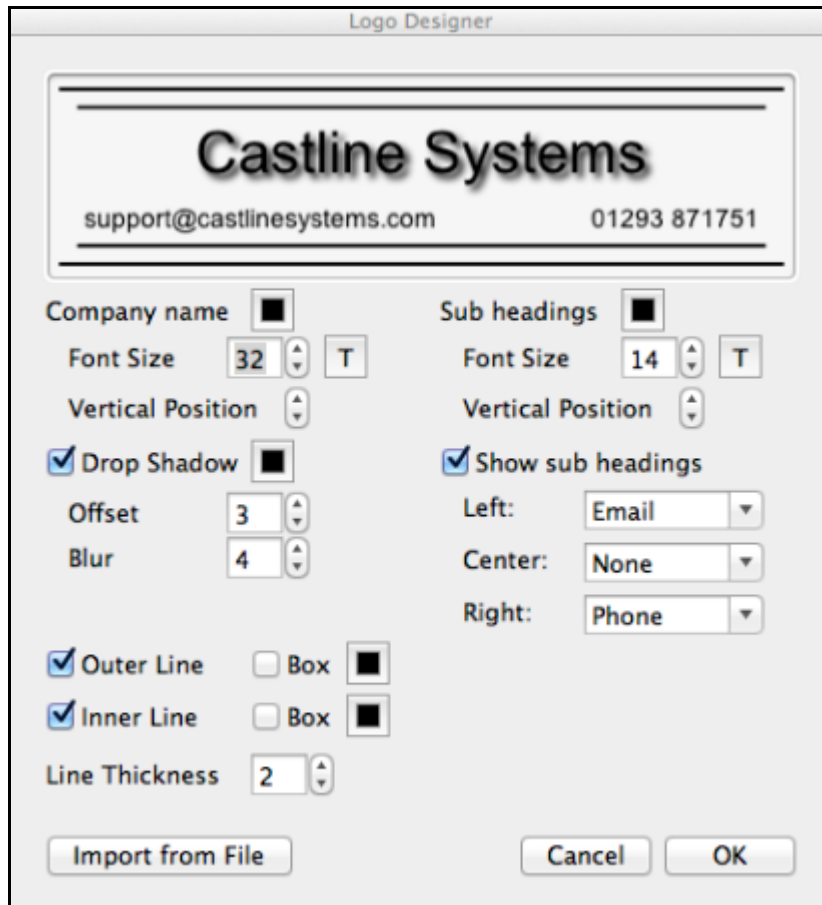
Use automatic certificate numbering

Close

The numbers displayed are always the **last** number used so if you wish to set the numbers to start at 0001, set the last number used to 0000.

Company Logo

It is possible to add your own company logo to print on BS Standard certificates. There are two ways of adding your logo to the forms. The first is to use the programs built in logo generator which will create a simple logo incorporating your company name and details and can be customised for colour, font and style. Options are available for putting borders and drop shadows on the text as well. To open the logo generator, select the 'Defaults' button from the toolbar and then the option for 'Company Logo'.



If you have your own logo saved as a file then you can click 'Import from File' button and select the image that you wish to use as your logo. The program will scale the image to the area available whilst maintaining the aspect ratio of the image to is it best to use a rectangular shaped logo if possible.

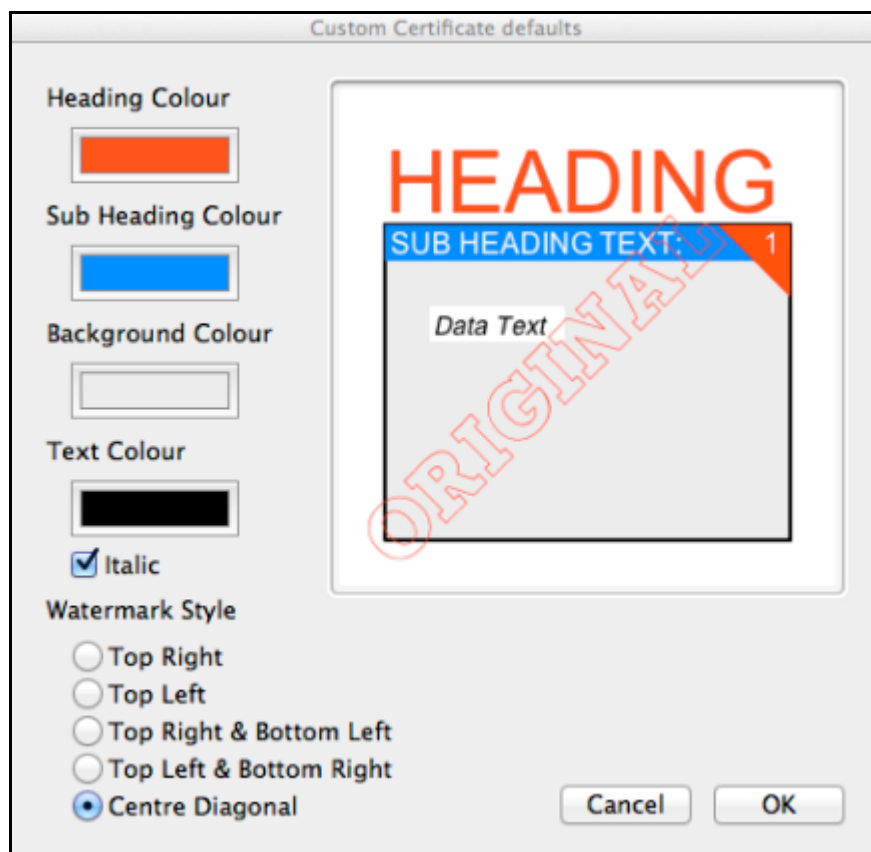
Be careful not to change any of the logo generator settings after you select your own logo as the generator will recreate the logo and you will then need to import it from the file again.

Customising Certificate Colours and Watermark

You can customise the colour and style of custom printed certificates. This will also alter the way they are displayed on the screen.

To open the customise screen, select the 'Defaults' button from the toolbar and then select the option for certificate colours.

Simply click the colour button for the item you wish to change and select the colour that you want to use from the palette. You can customise the heading text colour, the sub heading text colour and also the colour of the data text and whether it is italic or not.



You are also able to change the type of watermark that will be printed on the certificates. Simply select the bullet point for the option you require. A preview of that style watermark will be shown on the window to the right.

Since the regulations require a verifiable method of indicating the status of a software printed certificate, it is not possible to print a certificate without some kind of watermark.

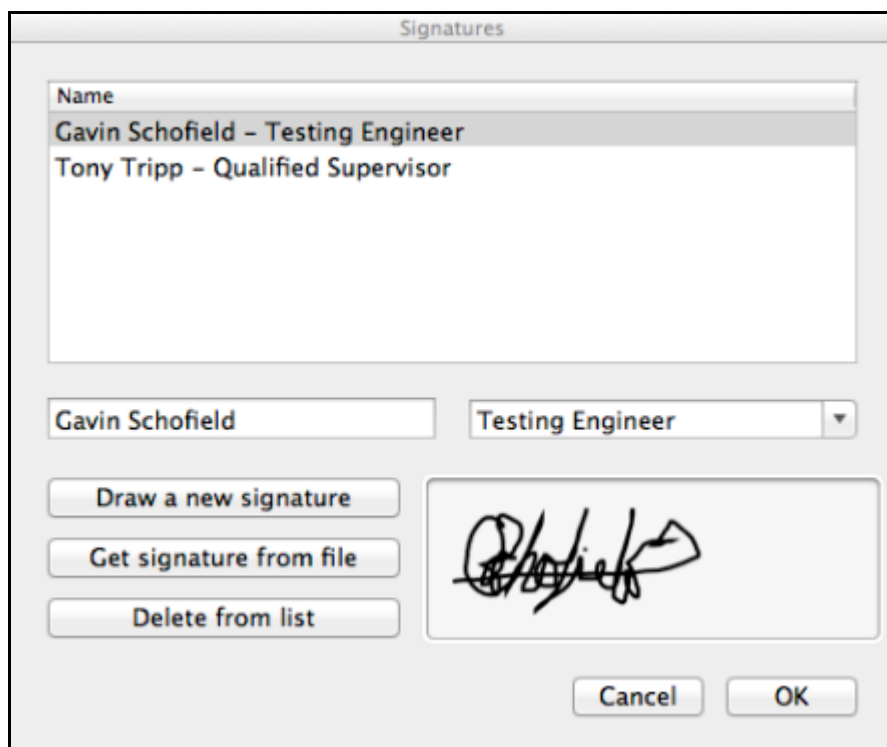
Digital Signatures

FormFill has the ability to add your digital signature to certificates.

To add your signature to the software, you must have access to and know how to use a scanner, or have a digital copy of your signature already stored on your computer.

When scanning in your signature it is important that it is scanned in true black and white (1 bit) colour and saved as either a bitmap (.bmp) file, PNG (.png) file or a Jpeg (.jpg) file. We recommend that you use a good quality black ink pen that leaves an even trail of ink on the paper for best results. Biro or rollerball pens tend to produce poorer results.

To open the signatures section, select the 'Defaults' button from the toolbar and select the option for 'Digital Signatures'.



To add a new signature first click the 'Get New Signature' button. A screen will appear asking you to select the name of the file containing your signature. Click on your signature file from the list and click the 'OK' button.

The signature should now appear in in the box on the right. Enter a name and position to relate to this signature and click 'Add to list'. The signature will now appear in the list and you will be able to select it from the quick entry menu when filling out certificates.

You can also 'write' a signature using the mouse (or a stylus if using a touch screen). To do so, click the 'Draw a new Signature' button, 'Draw' your signature using the mouse, then click 'OK'. Type in the name of the person whos signature it is when prompted and click 'OK'. Select a position from the drop down list, or type one in, then click 'OK'. The signature will be automatically added to the list for re-use.

FormFill for Mobile Devices

General Information

We also have apps available for data collection using Android based phones and tablets as well as iPhones and iPads. The apps are free to download from the relevant app store and the program includes license to use the apps on up to 3 devices. If you wish to use more than 3 devices then you will need to purchase a number of extra users from the program equal to the number of additional devices that you wish to install it on. See our website for details on extra users and how to purchase them.

Data is sent from the devices by email and the files are in the format used by FormFill (.txt files). You will need to save the files from the email into your certificate folder into a sub folder for the type of certificate.

For example, assuming that you retain the default certificate folder, you would save an Electrical Installation Certificate to '~Documents/FormFill/Certificates/Electrical Installation Certificate'.

Once saved the certificate should then show up in your certificate list in FormFill.

Internet Facilities

Updating Over The Internet

If your computer is connected to the internet and you have an Upgrade, Maintenance and Support subscription or subscribe to one of our annual license schemes, FormFill will check for updates every time it is run and inform you if there is a later version available.

Simply click 'Yes' if you wish to update the software and the update will download. Follow any on screen prompts to complete the update process. FormFill should close and then reopen itself once the update is complete.

It is also possible to check for updates manually by selecting the button on the toolbar labelled 'Help' and 'Check for updates'.

Technical Support

If you require assistance, please email support@castlinesystems.com and provide as much information as possible about the problem or the assistance required.