



User Manual







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Introduction - Software Overview

In 2008, due to the introduction of UK government legislation, there has been a requirement to inspect and report on the condition and efficiency of air conditioning systems. Initially all reports were created using word processing applications and issued to a client in PDF format. Since then, a number of changes have been made to regulate the report content and to enforce registration onto the Landmark central registers. Included in these regulations is the requirement for reports to be audited by an accreditation scheme to ensure accuracy and appropriate content.

Sterling Accreditation Limited has developed their own bespoke software (Sterling e-volve) in order to make the process of creating accurate, professional and compliant reports considerably easier for energy assessors.

Sterling e-volve incorporates many features to guide and help assessors through the report production process including: spell checking, live report validation, context-sensitive help, TM44 guidance, automatic counts on non sampled systems and automatic date entry, all of which have been designed to save time and eliminate the duplicate entries required in other similar software.

Assessors can get help and support at any stage during the installation and report production process by contacting their accreditation scheme. (Contact details are available in the Technical Support section)

Minimum System Requirements

Windows Operating Systems ONLY

Processor: 1 GHz or faster RAM: 512 MB or more

Free Disk Space: 100 MB or more

Operating System: Windows XP or later

.Net Framework version 4 (Full version) – Can be installed during the installation process

Windows Installer 3.1 or later

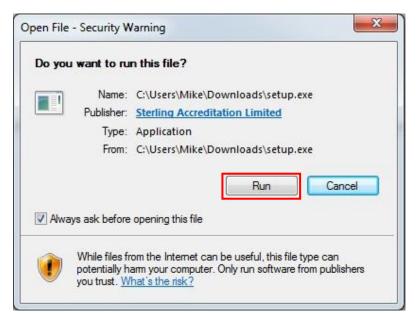
Internet Explorer Browser

Internet access (for installation & document generation)



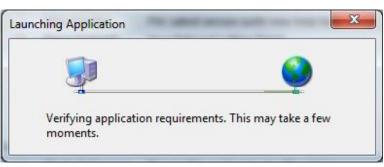


Installation



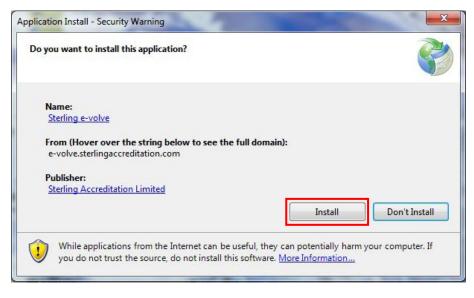
Once you have clicked on the link to install e-volve, the following screen will appear asking for you to approve the installation.

Click 'Run' to continue



As the software launches into the installation it will verify the requirements of your computer. Every time you run e-volve this screen will appear and check that the version you are running is the current version. If a newer version is available, you will be prompted

to update you installation to the latest version. Assessors should always accept the upgrade before moving to the report manager.



Once e-volve has verified your machine you will be able to proceed with the installation.

Click 'Install' to proceed.

The software will now automatically download and install.

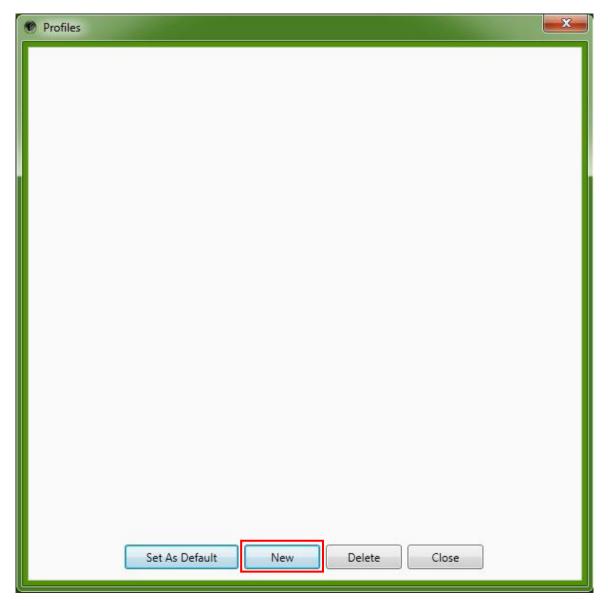






Configuration - First Launch

Once you have installed e-volve, the software will automatically launch. Once open, the first task to complete is to create a 'default' Assessor Profile.



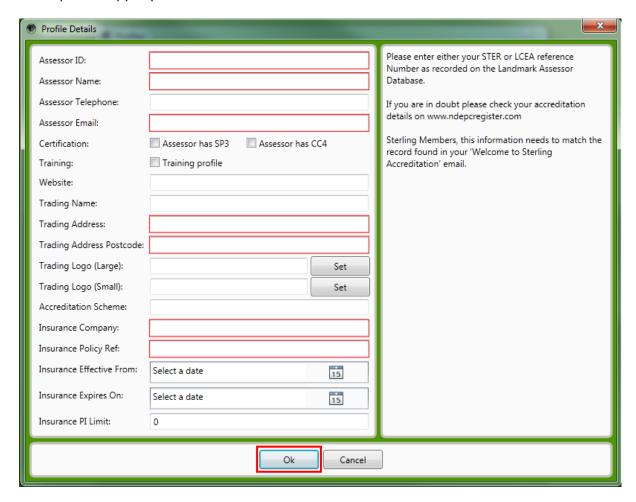
Click 'New' to proceed.





Creating a Profile

All of the details required to complete a profile, should have been confirmed to you by your accreditation scheme. For Sterling members these details can be found in your 'Welcome to Sterling Accreditation' email. If you need another copy, please email members@sterlingaccreditation.com and request a copy of your welcome email to be resent.



It is essential that the Profile details page is completed accurately. During lodgement, most accreditation schemes check your details, including Trading Name, Trading Address and all insurance details. Failure to get these details correct could result in the inability to create a report.

Assessor ID: Please enter your Membership Number – i.e. STER or LCEA
Assessor Name: Please enter your name as registered with your Accreditation

Scheme

Assessor Telephone: Optional: Enter your Telephone Number

Assessor Email: Please enter your email address

Assessor has SP3: Tick this box if you have AC Level 3 membership
Assessor has CC4: Tick this box if you have AC Level 4 membership

Website: Optional: If you have a website you can enter the URL into this field

Trading Name: Please enter your Trading Name, Note: Sterling's lodgement system

will stop if this doesn't match our Membership Records

Trading Address: Please enter your trading address; Note: Sterling's lodgement

system will stop if this doesn't match our Membership Records





Trading Address Postcode: Enter your registered business postcode

Trading Logo (Large):Required for Report Wrapper feature: COMING SOONTrading Logo (Small):Required for Report Wrapper feature: COMING SOONAccreditation Scheme:This will automatically default to your Accreditation Scheme

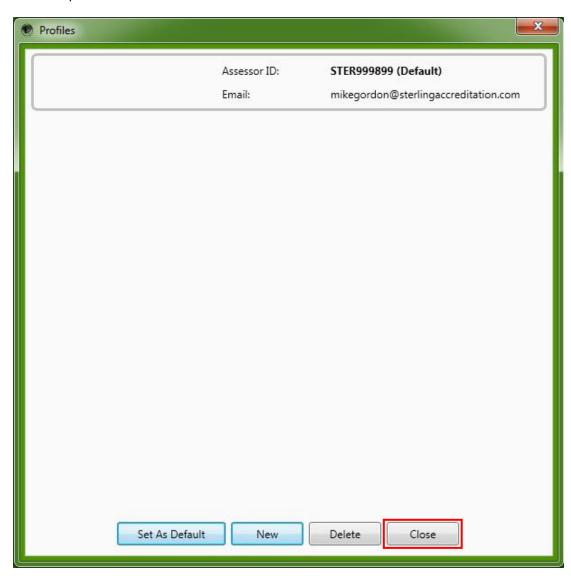
Insurance Company: Enter your insurance company name

Insurance Policy Ref: Enter your insurance Policy Number or Reference Insurance Effective from: Enter the start date of your insurance cover Insurance Valid Until: Enter the end date of your insurance cover

Insurance PI Limit: Enter your PI Value

Once all these details have been entered click 'OK' to save this profile.

If you have registered with your accreditation scheme more once you can create a profile for each Membership Number.



Your Assessor Profile is complete, Click 'Close' to continue.

If you need multiple profiles, click 'New' to create another profile.

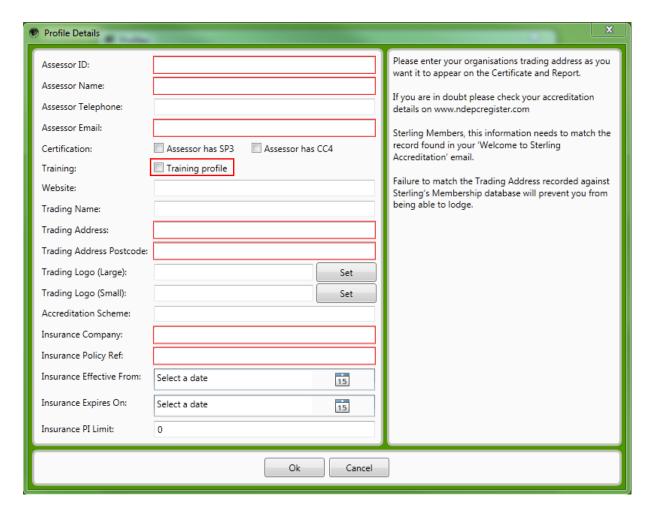






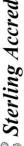
Training Environment - Configuration

Sterling e-volve has the ability to create a dedicated Training Profile which allows Energy Assessors who are taking Qualification or APEL validation routes to create AC reports in a TEST Environment. The Training Profile should ONLY be selected by individuals who need to create reports for their portfolio or as part of a recognised training program.



All Candidates that require a training profile should contact Sterling Accreditation to get the information required to create a Training Profile. You will receive an email confirming all the details needed to complete this profile screen. Note: You will need to select an appropriate level of qualification that reflects the training that you are completing.

Contact details for Sterling Accreditation can be found in the Technical Support section of this manual.



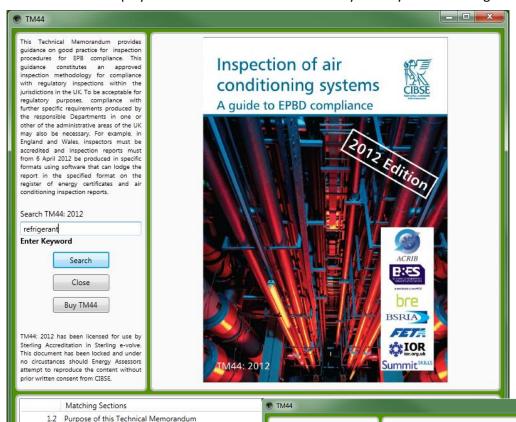




TM44: 2012 - Guidance and Advice

TM44

Sterling e-volve includes a TM44: 2012 search facility to enable you to review all of the guidance on completing Air Conditioning Inspections. Click on the TM44 button on the Top Menu Bar to launch the search facility shown below. Type your keyword into the search box and press enter or click search to display sections of TM44 that include your keyword. Clicking on each section in the



matching sections window will display the section of TM44 with your keyword highlighted.

You can switch between sections of TM44 by clicking different on а heading.

Relevant sections of TM44: 2012 have also been included in the Standard Help Text pane, to assist answering a specific question in report.

If you would like to

purchase a copy of TM44 from CIBSE, please click on the 'Buy TM44' button to be taken to the CIBSE publications website.

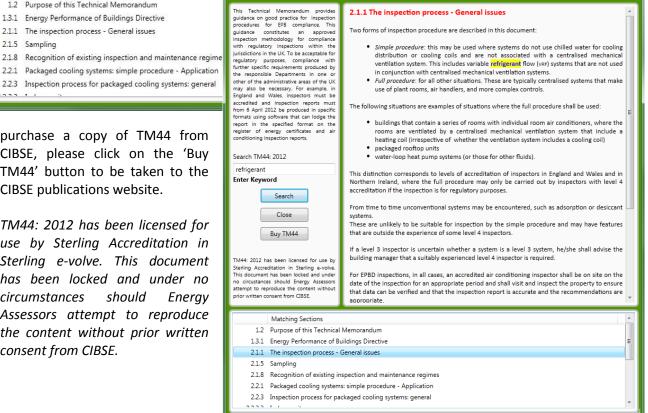
2.2.1 Packaged cooling systems: simple procedure - Application

2.2.3 Inspection process for packaged cooling systems: general

1.3.1 Energy Performance of Buildings Directive 2.1.1 The inspection process - General issues

2.1.5 Sampling

TM44: 2012 has been licensed for use by Sterling Accreditation in Sterling e-volve. This document has been locked and under no circumstances should Energy Assessors attempt to reproduce the content without prior written consent from CIBSE.









New Features in this release

All of the features for creating the mandatory Certificate and Report have not changed, but we have bolted on some additional features which will allow you to create a fully branded report in your own corporate logos.

Project Management

Create a new Project based on an Existing Report, simply select this feature from the Project Manager and select the report/template that you want to use as the base and modify the report to suit.

Close Project

New Button on the top Menu bar. Close the active project and return to the project manager.

Add Photos

Add photos throughout the report, all added photos are included in an appendix when the Report Wrapper feature is used. See page 33.

Create a Branded front page

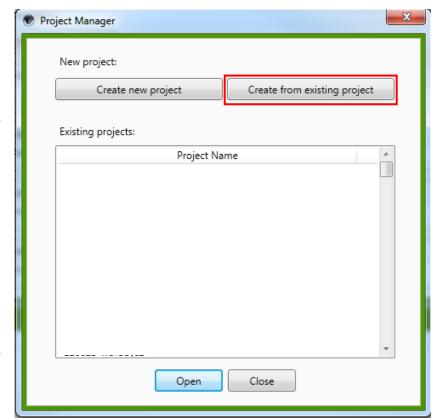
This feature will automatically create a front page for your report, including your company logo and an image of the building inspected. Note: Requires you to add your logos to your profile and add a photo to Building/Site Name. See Page 34.

Enhanced Executive Summary Editor

A MS Word-like editor that allows you to import your Report Executive Summary and add photos, tables and charts or you can simply cut and paste from other documents. This summary is included when Generate Wrapper is selected at Document creation. See Page 35.

Key Recommendations

Provide your Client with a list of recommendations in priority order. This feature in included when Generate wrapper is selected at Document Creation. See Page 36.

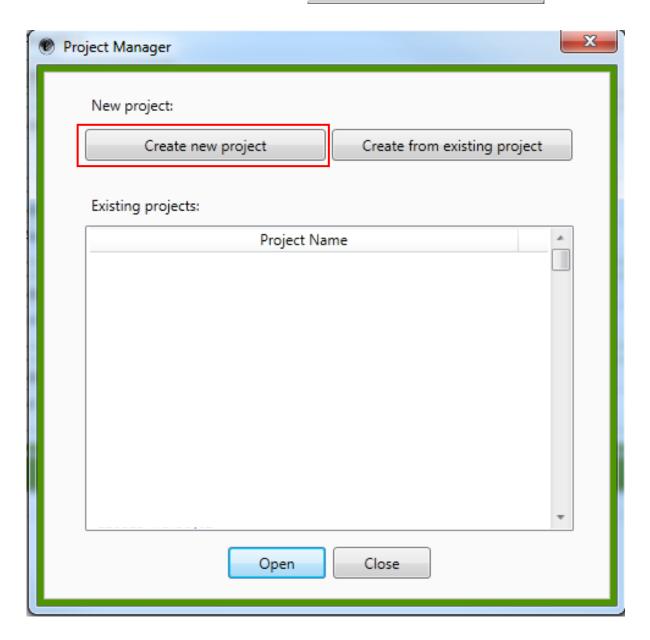




Creating a Report

Now you have created your Assessor Profile we are ready to start writing a report.

Click 'Project Manager' from the Menu Bar. Project Manager



Click on 'Create New Project'

Enter a Name for the Project: Example: Sterling Accreditation – Havant Office





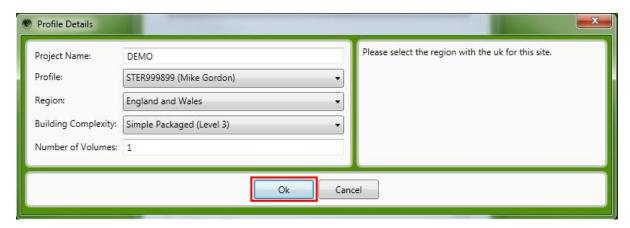


If you have more than 1 Assessor Profile configured please select the profile you wish to use to write this report. Note: If you have assigned the wrong assessor profile when creating a report you can change this when you come to create the Certificate and Report Documents for Lodgement.

Select the Region that the report is being created for. Drop down menu selection for 'England & Wales' or 'Northern Ireland'.

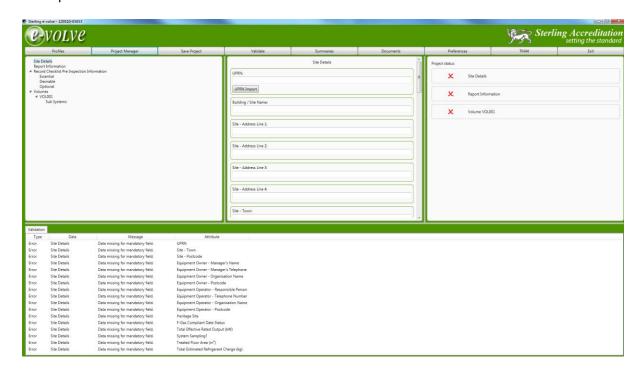
Specify the building Complexity using the drop down menu provided.

Enter the number of Volumes that you are reporting on. Note if you need to increase or decrease the number of volumes this can be done at any point during the report writing stage.



When all fields have been completed click 'OK' to Continue

The report writer should now be visible on screen.





Overview of Report writing Features



Navigating through the reporting elements

Site Details Report Information Record Checklist Pre Inspection Information Essential Desirable Optional Volun Add Volume 4 V(Expand entire tree

Clicking on each of the items on the menu shown (left) will change the Centre Panel of the Screen to allow vou to input the necessary information required.

If you 'Right Click' with your mouse on the menu Note: you can expand the entire tree in a single click.

Once you have added a sub System a new section of the tree menu will appear allowing the input for

Cooling Plant, Air Handling Units, Terminal Units and Sub System Controls.



Feature – HELP when you need it

Whenever you place your mouse cursor into a field or hover the cursor over a question, the right hand panel of e-volve changes to context sensitive help. TM44: 2012 has now been included in these help sections to assist with answering the questions or to jog your memory and save you from needing to

wait for a feedback from a Technical Query placed through technical support.

Site Details

Report Information

- Record Checklist Pre Inspection Information
 - Essential
 - Desirable
 - Optional
- Volumes
 - VOL001
 - Sub Systems
 - VOL001/SYS001

Cooling Plants

Air Handling Systems

Terminal Units

System Controls

All of the required elements for input are covered in the following pages of this User Manual.

e-volve provides a number of additional features and at a glance information.

At the bottom of the report writing screen, you'll see a LIVE validation guide, clicking on each element of the menu tree will reduce this validation items to just this section of the menu.

Note: You can double click on a validation error to jump to that specific question.







In the right hand panel of the reporting writing screen there is a quick glance section complete menu, once each section of the report has all the mandatory elements entered the 'red cross' will turn to a 'green tick'





Feature - Spell checking included as standard.

As part of the Quality Auditing requirement, reports must be assessed for the number of spelling mistakes on any given section of 10 pages. If the number of spelling mistakes is deemed as more than the set acceptable level, this will score towards an audit failure.

e-volve, much like a word processing application, underlines your spelling mistakes using a red line. 'Right click' the word for a suggestion to be made and replace by clicking the correct word in the menu. If the word is correct but still underlined, you can add your word to your custom dictionary so that when you use this word again it doesn't get underlined.



Feature - Certificate

To save you valuable time and reduce the frustration of having to key in information multiple times, e-volve takes the information from the report and auto-populates the certificate. When you generate your documents for lodgement you'll notice that a draft certificate has been produced. Always

check through your documents for accuracy prior to lodgement.

Site Details

In this section of the report you will need to input all the information about the Building.

Fields requiring Input:

UPRN or Import UPRN
Building Site Name
Site Address Line 1
Site Address Line 2
Site Address Line 3
Site Address Line 4
Site Town

Mandatory Entry – 12 Numbers Required
Optional Entry – Text Description of Site/Building
Optional – cut & paste or imported from Landmark
Optional – cut & paste or imported from Landmark
Optional – cut & paste or imported from Landmark
Optional – cut & paste or imported from Landmark
Mandatory – Enter Town or import from Landmark







Site Postcode

Equipment Owner – Managers Name

Equipment Owner – Managers Telephone

Equipment Owner – Organisation Name

Equipment Owner Address 1

Equipment Owner Address 2

Equipment Owner Address 3

Equipment Owner Address 4

Equipment Owner Town

Equipment Owner Postcode

Equipment Operator – Responsible Person

Equipment Operator – Telephone Number

Equipment Operator – Organisation Name

Equipment Operator Address 1

Equipment Operator Address 2

Equipment Operator Address 3

Equipment Operator Address 4

Equipment Operator Town

Equipment Operator Postcode

Heritage Site

F-Gas Compliant Date

Total Effective Rated Output

System Sampling

Treated Floor Area

Air Conditioning sub systems metered **Total Estimated Refrigerant Charge**

Mandatory – Enter Postcode or import

Mandatory – Enter the Name of the Manager

Mandatory – Enter the Managers Telephone No.

Mandatory – Enter the Owners Company

Optional – See Note on Copy Feature below

Mandatory - Enter Name

Mandatory – Enter Phone Number

Mandatory – Enter Organisation

Optional – See Note on Copy Feature below

Mandatory - Answer Yes / No

Optional – Enter Date if available

Mandatory – Enter Maximum calorific output

specified and guaranteed by the systems

manufacturer

Mandatory - Specify Yes/No to system sampling.

Explanation of System Sampling – Hold mouse over

the field to reveal 'Help Information' on Right Hand

Panel

Mandatory - Enter Total Conditioned Area

Mandatory – Yes/No to sub systems having meters

Mandatory – Enter total Refrigerant charge of

system

Landmark Address Import

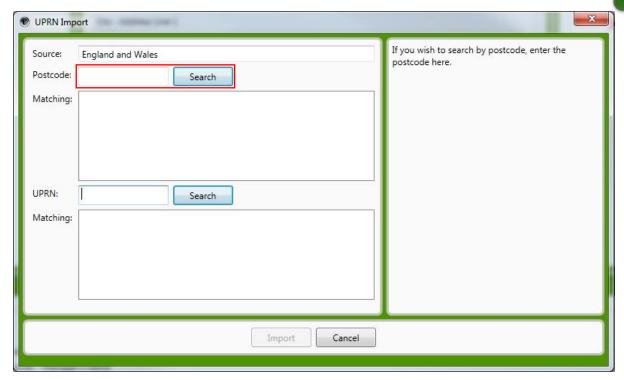
In order to lodge a report onto the Central Register the address of the property must match the Landmark database of Unique Property Reference Numbers (URPN).

UPRN:			
UPRN Import			

To directly import the Site Address from the Landmark Database, select 'UPRN Import' You have the choice to search by Postcode or by UPRN if it is already know. The following menu will appear:



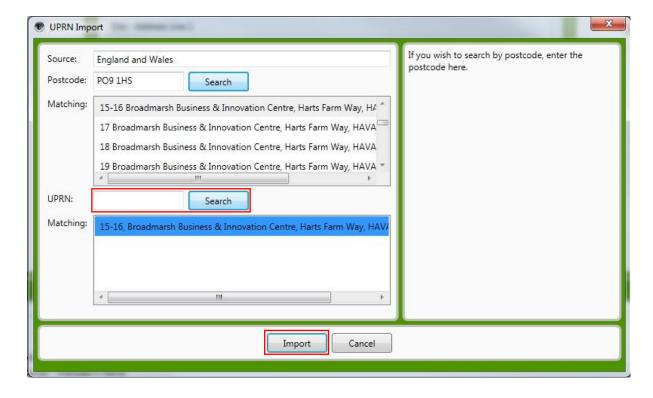




Type the postcode of the building and click 'Search'.

A list of addresses in the postcode area will be listed in the top 'matching' field, select the address that matches the property inspected. Your selection will appear in the lower 'matching' field, and the import button will become available. Click 'Import' to apply the address to your report.

If you already know the UPRN of the property being inspected, enter it into the UPRN field and click search, the address will be listed in the lower Matching field. Click 'Import' to apply the address to your report.











Feature

If the Equipment Owner has the same address as the Site, to save typing the same address in again, you can click on 'Copy entire address from site address' to copy the address from the site address to the Equipment Owner address.

If the Equipment Operator shares the same name and address as the Equipment Owner you can click on 'Copy all details from equipment owner' this will copy all three Name, Organisation and Telephone number plus all the address lines into this section.

Report Information

It is essential that the Inspection Date is entered to match the date you actually visited site, if your report is audited, these dates will be checked against your site photos to ensure that all dates correspond.

Inspection Date Valid Until Date

Mandatory – Enter the Date you were on-site Mandatory – Leave Blank to have 5 years entered



Feature – Default Dates and automatic assignment

Air Conditioning systems must be inspected every five years, so the pre defined Valid Until Date for your report to be valid is Inspection Date + five years. 'Issue Date' & 'Registration Date', both of these fields are automatically entered when you generate your report and certificate just prior to lodgement.

Related Party Disclosure Building Complexity Language – English / Welsh

Mandatory – Select appropriate option from menu Mandatory – specify Level 3 or Level 4 Select Language from drop down menu







Record Checklist Pre Inspection Information

This section of the report has three headings Essential, Desirable and Optional. All questions in these areas are Mandatory and must be answered. Most of the information required to answer the questions correctly should be supplied or be available on site during your inspection.

You must review the information provided by the client and note any discrepancies between the information provided and what you have recorded during your site visit.

Volume(s) & Definitions

During the initial setup of the Project you would have specified the number of volumes that you require to be included in this report. If at any point you need to add another volume this can be completed by clicking on 'Volumes' in the menu tree, the centre panel will change and a button to add a new volume will appear.



If you have created too many volumes these can quickly be removed by 'right clicking' on the VOL number and selecting delete.

Volume Identifier

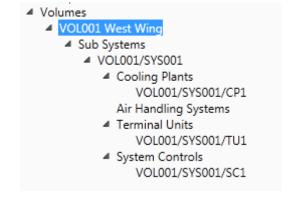
This field is optional a system generated VOL ID Number will be automatically be assigned. If you wish to append the VOL ID with a description that better reflects the building allowing for ease of navigation around the report, complete the Volume Identifier field.

Volume Volume Identifier: (appended to VOL001) West Wing

Each volume is assigned a VOL ID in the form VOL001, VOL002, VOL003 etc.

Examples

VOL001 = Outpatients VOL002 = Dermatology VOL003 = Optics





Sub Systems



Site Details

Report Information

Record Checklist Pre Inspection Information

Essential Desirable Optional

■ Volumes

VOL001

■ Sub Systems

■ VOL001/SYS001

Cooling Plants Air Handling Systems Terminal Units System Controls Now that we have defined the Volume(s) and assigned any Identifiers we are ready to move onto creating the necessary 'Sub System' elements. 'Right Click' on 'Sub Systems' on the menu tree to add a new Sub System or 'Left Click' and Add a new Sub System by clicking on the button in the centre panel. We now need to identify and Report on this Sub System.

When Clicking on 'VOL001/SYS001' a new screen of questions will appear in the centre panel.

An explanation of the requirements for this section is detailed below.

System Identifier
Description
Area Served
Inspection Date
Effective Rated Cooling Output
Refrigerant Types
Age(s) of Main Components
Cooling Plant Count

Air Handling Unit Count

Terminal Unit Count

Sub System Control Count

Optional – Entering Text will append the SYS ID with a name

Mandatory – Enter a Description of the Sub System

Mandatory – Enter a Name or Description of the Area

Optional – If left Blank, Site Inspection Date is used

Mandatory – See Manufacturer details or calculate

Mandatory – Use drop down menu to specify refrigerant

Mandatory – Use Drop down menu to specify age by year

Mandatory - automatic calculation done on non sampled

systems. Enter Number on Sampled Systems

Mandatory - automatic calculation done on non sampled

systems. Enter Number on Sampled Systems

Mandatory - automatic calculation done on non sampled

systems. Enter Number on Sampled Systems

Mandatory - automatic calculation done on non sampled

systems. Enter Number on Sampled Systems



Feature – Automatic Validation

As you navigate the menu tree, you'll notice that the Validation pane across the bottom of the window changes. Clicking on any item on the tree, results in that item plus any sub items being validated and the results displayed at the bottom of the screen. Double-clicking on a validation error will jump you

directly to the relevant question or section that needs to be completed. Note: As a quick reference on sections completed the Project Status panel on the right hand side of the screen provides a constant LIVE view of what has been completed and what is left to complete. Clicking on 'Validate' on the TOP MENU BAR will change the content of the Validation screen to always show the entire document.





Cooling Plant

Site Details

Report Information

Record Checklist Pre Inspection Information

Essential Desirable Optional

Volumes

VOL001

Sub Systems

VOL001/SYS001

Cooling Plants

VOL001/SYS001/CP1

Air Handling Systems

Terminal Units System Controls

'Right Click' on 'Cooling Plants' in the Menu Tree to add a Cooling Plant section to your report.

Once complete the centre section of the screen will change to a new panel showing a series of questions about the inspected Cooling Plant.

This section of the Manual will guide you quickly through the questions, with some brief descriptions, whilst defining which questions are optional and mandatory.

Component Identifier Optional – Entering Text will append the CP ID with a name Manufacturer

Mandatory – Use drop down menu or Type in if not found Description Mandatory – Enter Description of cooling plant Mandatory – Enter Model / reference number from Model/Reference

manufacturer's data plate

Serial Number Mandatory – Enter Serial number of the cooling plant either

outside or in plant room.

Year Plant Installed Mandatory – Use drop down menu to select year installed Mandatory – See Manufacturer detail or calculate enter **Rated Cooling Capacity**

numerical value

Refrigerant Type Mandatory – Use drop down menu to select refrigerant Refrigerant Type (notes and Recs) Mandatory – Enter Notes and Recommendations on types

of refrigerants found

Refrigerant Charge Mandatory – Refrigerant charge in the whole system, see

manufacturer's data plate or any F-Gas Paperwork

Location of Cooling Plant Mandatory – Make comment reference location of cooling

plant

Area/Systems Served Mandatory – Specify area conditioned by this [particular

cooling plant, e.g. Office, Reception

Note discrepancies Mandatory – Note discrepancies between client information

and evidence found during inspection

Is the refrigeration plant operational Mandatory – Answer Yes /No and add Notes as required.

Is the area around the refrigeration plant clear of obstructions and debris - Mandatory Notes and Recommendations mandatory if the answer to this question is NO.

Is the general condition of refrigeration and any associated central plant in good order - Mandatory Notes and Recommendations mandatory if the answer to this question is NO.

Is the condenser placed clear from warm air discharge louvres – Mandatory







Notes and Recommendations mandatory if the answer to this question is NO.

Are compressors operational or can they be bought into operation —Mandatory Notes and Recommendations mandatory if the answer to this question is NO.

Is the heat rejection plant operational – **Mandatory**Notes and Recommendations mandatory if the answer to this question is NO.

Are condenser heat exchangers undamaged/un-corroded and clean – **Mandatory** Notes and Recommendations mandatory if the answer to this question is NO.

Is the area around the heat rejection plant clear of obstructions & Debris – **Mandatory** Notes and Recommendations mandatory if the answer to this question is NO.

Is the condenser free of any possibility of air recirculation – **Mandatory**Notes and Recommendations mandatory if the answer to this question is NO.

Is the insulation on circulation pipe work well fitted and in good order – **Mandatory** Notes and Recommendations mandatory if the answer to this question is NO.

Montreal/ODS/F-Gas controlled – **Mandatory** Notes and Recommendations Mandatory

Is there evidence of regular maintenance – **Mandatory**Notes and Recommendations Mandatory

Is maintenance undertaken by suitably competent people in accordance to industry guidelines – Mandatory - Notes and Recommendations Mandatory

Total Occupants served by this plant Mandatory – Nur

Total Floor area served by this plant Occupant Density (sq.m/person)
Maximum Instantaneous Heat Gain

Installed Cooling Capacity
The installed size is deemed

Mandatory – Numerical Value total number of occupants in the whole of the area served by this cooling plant

Mandatory – Total Gross internal floor area Mandatory – Divide Floor area by Occupants Mandatory – Can be derived from TM44 Table 3.1

Notes and Recommendations – Mandatory

Mandatory – Enter installed Cooling Capacity

Mandatory – Use drop down menu

Notes and Recommendations – Mandatory

Is metering installed to enable monitoring of energy consumption of refrigeration plant – Mandatory - Notes and Recommendations Mandatory if answer = NO

Record Meter reading – Not Mandatory unless you have answered Yes to above question

Is the refrigeration plant connected to a BMS that can provide out of range alarms – Mandatory Notes and Recommendations Mandatory if answer = NO





Are there any records of air conditioning plant usage or sub-metered energy consumption with expected hours of use per year for the plant – **Mandatory** – Notes and Recommendations Mandatory if answer = NO

Is the energy consumption or hours of use excessive – Mandatory – Notes and Recommendations Mandatory if answer = YES

Are there any signs of refrigerant leaks – **Mandatory** – Notes and Recommendations Mandatory if answer = YES

Refrigeration Temperature (Pre Compressor) – Mandatory – Enter Temperature Refrigeration Temperature (Post Compressor) – Mandatory – Enter Temperature Refrigeration Temperature (Ambient) – Mandatory – Enter Temperature

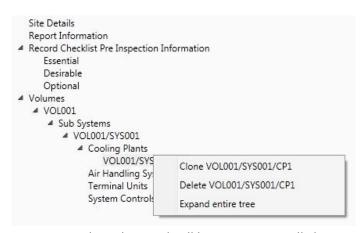
The temperature is Deemed – **Mandatory** – Notes and Recommendations Mandatory if answer = More or less than Expected.

Assess the refrigeration compressor(s) and the method of refrigeration capacity control – **Mandatory** – Record additional information in Notes and Recommendations if findings are of a negative nature.

Is the water flow through cooling towers or evaporative coolers even and efficient, and is no loss of water – **Mandatory** – Notes and Recommendations Mandatory if answer = NO

Is there a management regime in place to ensure that water is regularly checked and treated to ensure that there is no Legionella risk – **Mandatory** – Notes and Recommendations Mandatory if answer = NO

Clone a Cooling Plant



In cases where a majority of the information recorded against a sub system are the same, you can quickly replicate the completed cooling plant and Clone it into a new cooling plant.

'Right Click' on the 'Cooling Plant' in this case:

VOL001/SYS001/CP1 and click 'Clone'. A new Cooling plant will appear below the

existing cooling plant and will have automatically been assigned a CP ID i.e VOL001/SYS001/CP2





Site Details

Report Information

Record Checklist Pre Inspection Information

Essential Desirable Optional

■ Volumes

■ VOL001

Sub Systems

VOL001/SYS001

Cooling Plants VOL001/SYS001/CP1

 Air Handling Systems VOL001/SYS001/AHU1

Terminal Units System Controls 'Right Click' on 'Air Handling Systems' in the Menu Tree to add an Air Handling System section to your report.

Once complete the centre section of the screen will change to a new panel showing a series of questions about the inspected Air Handling Systems.

This section of the Manual will guide you quickly through the questions, with some brief descriptions, whilst defining which questions are optional and mandatory.

Component Identifier Optional – Entering Text will append the AHU ID with a name Manufacturer Mandatory – Use drop down menu or Type Text to specify **Year Systems Installed** Mandatory – Use drop down menu to select Year installed **Location of Plant** Mandatory – Enter Description of location of Plant **Systems Served** Mandatory – Enter the Area conditioned by the system Mandatory – Enter the Area served by this Terminal Unit **Areas Served**

Note below any discrepancy between information provided by Client and on site information collected, or any information of additional relevance to the AHU System: - Mandatory

Estimate the specific fan power (SFP) of air movement systems – Mandatory Notes and Recommendations Optional

Are air flow rates and system pressures available from commissioning data - Mandatory Notes and Recommendations Optional

Are air intakes and filter conditions acceptable - Mandatory Notes and Recommendations Mandatory if answer = NO

Have filters been changed according to current industry guidance - Mandatory Notes and Recommendations Mandatory - provide explanation of evidence or make recommendation on guidance that should be adopted.

Is the filer differential pressure gauge, where fitted working - Mandatory Notes and Recommendations Mandatory if answer = NO

Are the heat exchangers in good condition – Mandatory Notes and Recommendations Mandatory if answer = NO







Are there any signs of a refrigerant leak – Mandatory Notes and Recommendations Mandatory if answer = YES

Does the fan rotate in the correct direction – **Mandatory** Notes and Recommendations Mandatory if answer = NO

Is the speed control or modulation operational – **Mandatory** Notes and Recommendations Mandatory if answer = NO

Note the fan type and method of air speed control – **Mandatory**Notes and Recommendations Optional – complete if your comments are of a negative nature.

Check the setting and operation air/recirculation dampers – **Mandatory**Notes and Recommendations Optional – complete if your comments are of a negative nature.

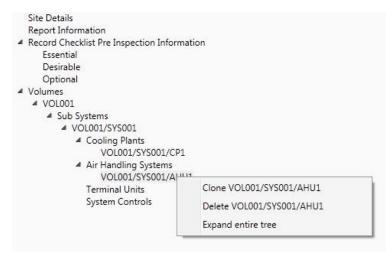
Identify whether system have any energy conservation facilities, e.g Heat recovery – **Mandatory** Notes and Recommendations Optional – complete if your comments are of a negative nature.

Observe the air handling plant and visible air containment including ductwork, floor or ceiling plenums and builders' work shafts etc – **Mandatory**Notes and Recommendations Optional – complete if your comments are of a negative nature.

Note any significant obstructions or blockages to inlet grilles, screens and pre –filters – Mandatory Notes and Recommendations Optional – complete if your comments are of a negative nature.

Note where inlets may be affected by proximity to local sources of heat, or to air exhausts – **Mandatory** - Notes and Recommendations Optional – **complete** if your comments are of a negative nature.

Clone an Air Handling System



In cases where a majority of the information recorded against a sub system are the same, you can quickly replicate the completed air handling system and Clone it into a new air handling system.

'Right Click' on the' Air Handling System' in this case:

VOL001/SYS001/AHU1 and click 'Clone'. A new Air Handling System will appear below the existing Air

Handling System and will have automatically been assigned an AHU ID i.e VOL001/SYS001/AHU2







Terminal Units

Site Details

Report Information

Record Checklist Pre Inspection Information

Essential Desirable Optional

- Volumes
 - VOL001
 - Sub Systems
 - VOL001/SYS001
 - Cooling Plants VOL001/SYS001/CP1
 - Air Handling Systems VOL001/SYS001/AHU1
 - Terminal Units

VOL001/SYS001/TU1

System Controls

'Right Click' on 'Terminal Units' in the Menu Tree to add a Terminal Unit section to your report.

Once complete the centre section of the screen will change to a new panel showing a series of questions about the inspected **Terminal Units**

This section of the Manual will guide you quickly through the questions, with some brief descriptions, whilst defining which questions are optional and mandatory.

Component Identifier Optional – Entering Text will append the TU ID with

a name

Description of Unit Mandatory Indentify Cooling plant serving Terminal Unit Mandatory Manufacturer **Mandatory** Year Terminal unit installed Mandatory **Terminal Unit Location Mandatory Area Served Mandatory**

Note any discrepancy between information provided by client and on site information collected, or any information of additional relevance to the terminal unit system – Optional

Is the pipe work adequately insulated Mandatory Notes and Recommendations Mandatory if answer = NO

Is the Duct work adequately insulated Mandatory Notes and Recommendations Mandatory if answer = NO

Are the terminal units in good working order Mandatory Notes and Recommendations Mandatory if answer = NO

Do the air delivery openings provide good distribution - Mandatory Notes and Recommendations Mandatory if answer = NO

Is there evidence of tampering with diffusers - Mandatory **Notes and Recommendations Mandatory**









Are chilled and hot water being supplied to terminals simultaneously - Mandatory Notes and Recommendations Mandatory if answer = YES

Are there any records of occupant complaints regarding air distribution - Mandatory Notes and Recommendations Mandatory if answer = YES

Is there potential for air to short-circuit from supply to extract - Mandatory Notes and Recommendations Mandatory if answer = YES

Is the position of partitioning or furniture adversely affecting performance - Mandatory Notes and Recommendations Mandatory if answer = YES

Is the control and operation adequate - Mandatory Notes and Recommendations Mandatory if answer = NO

Clone a Terminal Unit

Site Details Report Information Record Checklist Pre Inspection Information Desirable Optional ■ Volumes ■ VOL001 ■ Sub Systems ■ VOL001/SYS001 Cooling Plants VOL001/SYS001/CP1 Air Handling Systems VOL001/SYS001/AHU1 Terminal Units VOL001/SYS001-TLI1 Clone VOL001/SYS001/TU1 System Controls Delete VOL001/SYS001/TU1 Expand entire tree

In cases where a majority of the information recorded against a terminal unit are the same, you quickly replicate completed terminal unit and Clone it into a new terminal unit.

'Right Click' on the 'Terminal Unit' System in this case:

VOL001/SYS001/TU1 and click 'Clone'. A new Terminal Unit will appear below the existing

Terminal Unit and will have automatically been assigned a TU ID i.e VOL001/SYS001/TU2





Sub System Controls

Site Details

Report Information

Record Checklist Pre Inspection Information

Essential

Desirable

Optional

■ Volumes

■ VOL001

Sub Systems

VOL001/SYS001

Cooling Plants

VOL001/SYS001/CP1 Air Handling Systems

VOL001/SYS001/AHU1

Terminal Units VOL001/SYS001/TU1

■ System Controls VOL001/SYS001/SC1 'Right Click' on 'Sub System Controls' in the Menu Tree to add a Sub System Control section to your report.

Once complete the centre section of the screen will change to a new panel showing a series of questions about the inspected Sub **System Control**

This section of the Manual will guide you quickly through the questions, with some brief descriptions, whilst defining which questions are optional and mandatory.

Component Identifier

Optional – Entering Text will append the SC ID with a name

Is the zoning appropriate in relation to anticipated cooling demand - Mandatory Notes and Recommendations Mandatory if answer = NO

Note the current indicated weekday and time of day in controllers or BMS against actual time – Mandatory – Notes and Recommendation Optional – Use if Comments in Notes are negative

Note the set on and off periods (for weekday and weekend if this facility is available with the timer – Mandatory - Notes and Recommendation Optional - Use if Comments in Notes are negative

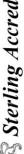
Is there a shortfall in timer capabilities **Mandatory** Notes and Recommendations Mandatory if answer = YES

Identify and assess zone heating and cooling temperature control sensors. Are the sensor types and locations appropriate in relation to heating and cooling emitters, heat flows or likely temperature distributions in the zone or space - Mandatory

Notes and Recommendations Mandatory if answer = NO

Note the set temperature in each zone for heating and cooling in relation to the activities and occupancy of zones and spaces in relation to the manager intent. - Mandatory Notes and Recommendation Optional – Use if Comments in Notes are negative

Note whether a 'dead band' is, or can be, set between heating and cooling - Mandatory Notes and Recommendation Optional – Use if Comments in Notes are negative







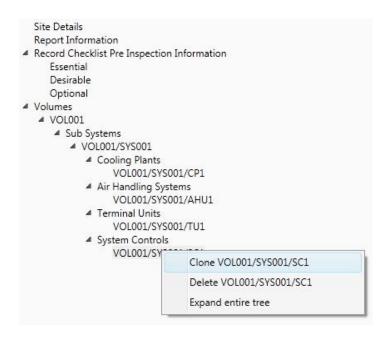
Do the sub system controls integrate effectively with the overall system control strategy – Mandatory - Notes and Recommendations Mandatory is answer = NO

Assess the means of modulating or controlling air flow rate through the air supply and exhaust ducts Mandatory – Notes and Recommendation Optional – Use if Comments in Notes are negative

Are guidance notices visible or controls available to inhibit use of cooling equipment whilst windows are open or cooling /heating is on -Mandatory

Notes and Recommendations Mandatory is answer = NO

Clone a Sub System Control



In cases where a majority of the information recorded against a Sub System Control are the same, you can quickly replicate the completed Sub System Control and Clone it into a new **Sub System Control**

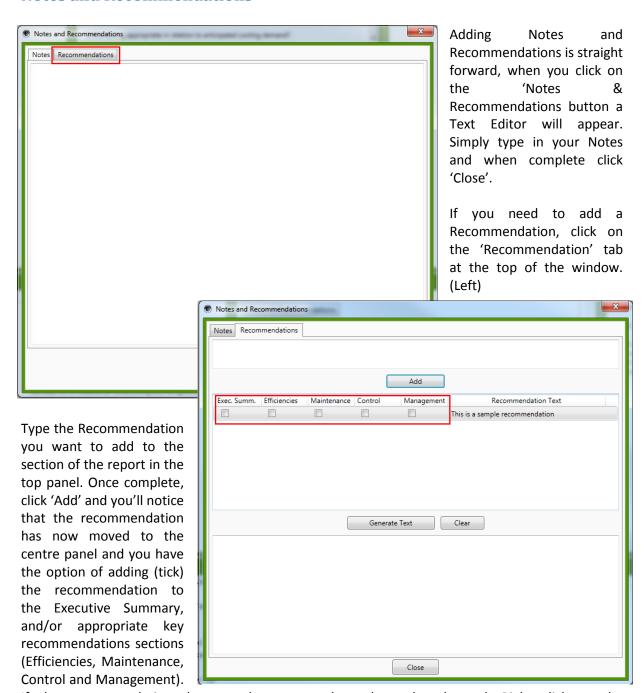
'Right Click' on the 'Sub System Control' in this case:

VOL001/SYS001/SC1 and click 'Clone'. A new Sub System Control will appear below the existing Sub System Control and will have automatically SC ID assigned i.e VOL001/SYS001/SC2





Notes and Recommendations



If the recommendation that you have entered needs to be changed, Right click on the 'Recommendation' in the centre panel and click 'edit', correct the text and click 'OK'.

If you have produced a list of recommendations for this question and you want to change the order in which they are listed, 'Right Click' on the recommendation and click 'move up' or 'move down' as required. In the event where you have entered a Recommendation that you no longer wish to appear in the list, Right Click the 'recommendation' and click 'Delete'.

If you still want to make additional changes to the Recommendations, specific to the question you are answering, Click 'Generate Text', the recommendation(s) will then appear in the bottom panel allowing you to edit the text. This change leaves the original recommendation(s) untouched and changes the recommendation(s) specific to the question you are answering.



Final

the

summary you wish to edit

and in the centre panel any recommendations that you

have requested to be





Preview Notes & Recommendations

When you hover your cursor over the Notes & Recommendations buttons, the Right Hand Pane will change to preview of the contents of firstly the Notes you have entered followed by Recommendations. Clicking the Notes and Recommendations buttons will allow you to edit the contents.



Executive Summary

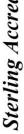
To access the Summaries, click on the 'Summaries' button on the menu bar:

Summaries Summary Editor The Executive Summary is a mandatory requirement of Executive Summary Key Recommendations the report and must be Recommendation completed. If you attempt This is a sample Recommendation generate the Generate Text Clear Text Report and Certificate Summary Text: without completing this This is a sample executive summary stage, an error message will appear requesting that this section of the report requires completion. The Summaries editor is similar very to operation of the Notes and Recommendations Editor. At the top of the window is a Summary Section drop down menu, select the

included in the summary will be listed.

Close

The ability to flag recommendations to appear in the summary sections has been added to remind you of potential improvements that could be made to the Air Conditioning system that you inspected and help you to generate a summary that is useful to your customer.









If you would like the recommendations to appear in the executive summary, Click 'Generate Text' and then edit as required in the 'Summary Text' box. Warning Clicking 'Generate Text' after you have entered text into the Summary window will overwrite the contents of the Summary Window.

Click 'Close' when you have finished editing your summary and recommendations (automatic save).

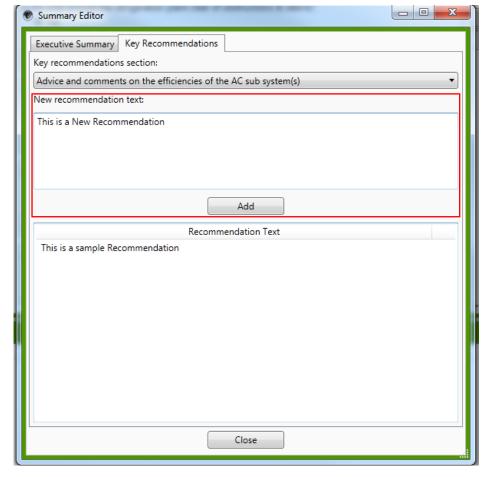
If you have added text to the 'Summary Text' box and have not clicked 'Generate Text', the recommendations will not appear in the summary. If the summary text box is left blank, then a simple list of the recommendations will be copied into the summary section automatically.

Key Recommendations

Other summaries that are available for you to complete are:

- Advice and comments on the efficiencies of the AC sub system(s)
- Advice and comments on the maintenance of the AC sub system(s)
- Advice and comments on the control of the AC sub system(s)
- Advice and comments on the management of the AC sub system(s)

If you have selected a recommendation, input into the report to be included in а Key Recommendation, it will automatically appear in bottom the screen, shown here. To add a new recommendation type your text into the area shown in Red and click Add. To change the order of the recommendations right click on а recommendation in lower screen and select move up or move down. To delete а recommendation right click and select delete.









Report Wrapper - Adding a Photo Appendix

Throughout the reporting software you can now add photos; these photos are automatically imported into the Project sub folder 'Pictures'.

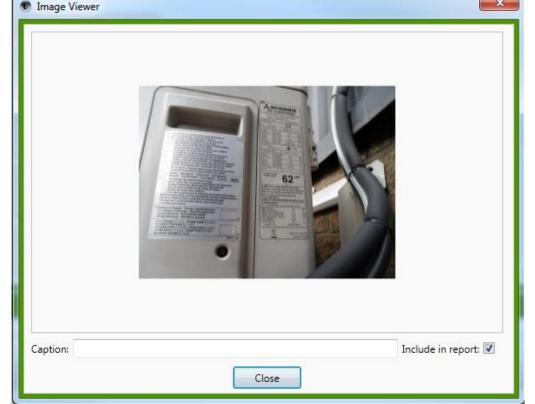
UPRN:	
751849650000	
UPRN Import	
Building / Site I	Name:
Add photos	Show photos

To add a photo to a section of the report, click on the ʻAdd Photos' button, browse to find your photo and Click 'Open'.

The **Image** viewer dialogue box now appears, allowing you to add a caption to the photo.

When adding a photo to a section of Plant i.e. a Cooling Plant 1, the photo is automatically tagged with the plant ID VOL001/SYS001/CP1.

You can as many Photos to each section



of the report as you need. Note: In order to create the photo appendix the photos added to the report are uploaded to our server for wrapping. Adding a large volume of photos could result in the report generation taking a number of minutes to complete.

To manage the photos you have added to a section of the report, click on Show photos, this will display a list of the photos added to this section of the report, you can arrange the photos in the desired order, by clicking 'Up' or 'Down', you can remove a photo by clicking 'Delete' and you can change the Caption by double clicking the picture name.



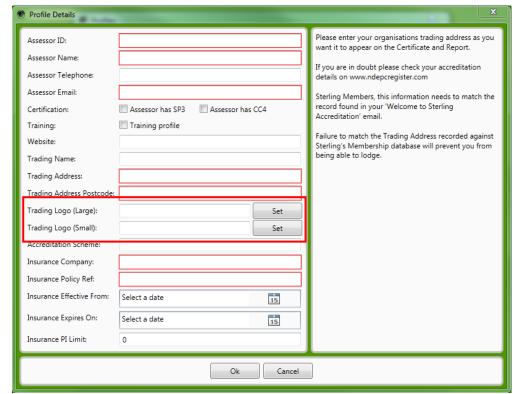




Report Wrapper - Front Page

Sterling e-volve is now capable of creating a fully branded front page to your report. First of all you need to add your Trading Logos in your profile.

The Trading Logo (large) will automatically appear on the Report Wrapper front page; this logo should be no larger than 200 x 150 pixels in size. The Trading Logo (Small) will automatically appear Enhanced on the Executive Summary, Wrapper Key Recommendations and Photo Appendix, this logo should be no larger than 100 x 50 pixels in size.



The front page of the report is automatically populated from information already stored within the report. If you have added a photo of the building under Site details this will be the image that appears on the front page.

Details automatically included on the front page are as follows:

Title 1 - Trading Name

Title 2 – Air Conditioning Inspection Report

Title 3 – Report Type: Simple Packaged (Level 3) or Complex System (Level 4)

Company Name: Automatically selects - Building/Site Name **Company Address:** Automatically populated from Site Address

Name of Inspector: Automatically populated from Profile selected during report creation Inspector Number: Automatically populated from Profile selected during report creation Accreditation Scheme: Automatically populated from Profile selected during report creation

Inspection Date: Automatically populated from Report Report Expiry Date: Automatically populated from Report

Accredited Company: Automatically populated from Profile Trading Name

Address: Automatically populated from Profile Trading Address

UPRN: Automatically populated from Report

Certificate RRN: Automatically populated from Report Report RRN: Automatically populated from Report







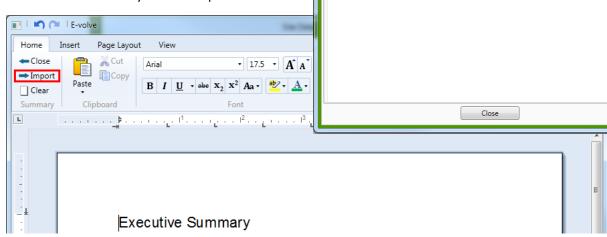
- - X

Enhanced Editor

Report Wrapper - Enhanced Executive Summary Editor

Sterling e-volve now allows you to add just about anything you like to an Executive Summary, this includes Photos, Tables and Charts. You can format your text by adding Bold and Italics and superscript characters.

Clicking on the Enhanced Editor button, will launch a MS Word-like Editor, which provides all the tools that most people will recognise. Clicking Import will copy the contents of the Report Executive Summary and place it into the Editor Window. Modify Text as required.



Summary Editor

Recommendation

Summary Text:

System type/details

Generate Text

Executive Summary Key Recommendations Wrapper Recommendations

Building type/details (building benchmark and occupancy profile)

Sampling statement in accordance with DCLG guidance

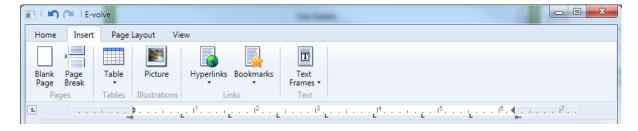
Comments on controls/maintenance/operation

Clear Text

Comments on availability of system documentation (or whether it had to be prepared)

Additional information of relevance to the building/system/inspection/report

By selecting the Insert Tab, you can add, Page Breaks, Tables and Pictures as required. Photos can be manipulated with a Right Click and selecting Format Image. Spell Checking has been included with a Custom Dictionary for those words not instantly recognised.



If you prefer, you can cut and paste your tables, charts text and photos from a previously-created Word Document.









Report Wrapper - Enhanced Key Recommendations

One of the most important aspects of providing a report to a client is that they can clearly understand the content and what remedial actions are required.

Enhanced Recommendations Key automatically imports all of recommendations from the entire report and the 4 key recommendations sections and allows you to order them in 3 priorities High, Medium and Low (see Example - Right)

To access this feature, Click on Summaries and then Select Wrapper Recommendations. See below for an example. To change the order or priority, right click on a Recommendation and select the option you require.

Key Recommendations

High Priority

Provide guidance notices to staff on the general use of the system controllers

Consider improving maintenance, deficiencies were found and if corrected could increase efficiency and lifetime of equipment

Medium Priority

Regularly check equipment time schedule programmes match actual current occupancy

Consider use of PIR sensors for limited use rooms such as meeting rooms, PIR systems can trigger AC and Lighting systems, which can automatically switch off when the room

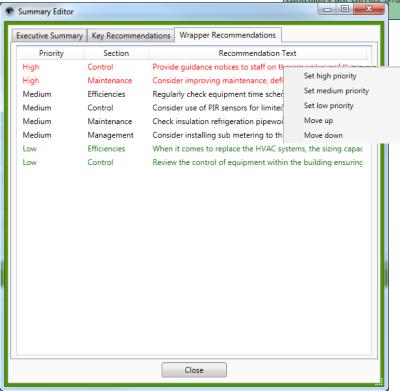
Check insulation refrigeration pipework more frequently to avoid deterioration

Consider installing sub metering to the plant to enable the recording of electricity consumption

Other recommendations

When it comes to replace the HVAC systems, the sizing capacity should be re-assessed

Review the control of equipment within the building ensuring that all dates and times on controllers are correct and ensure that equipment cannot operate when the building is



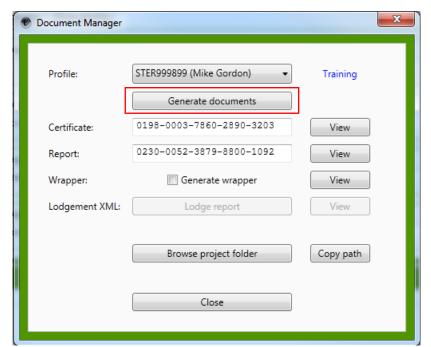
'Set high priority' moves any recommendation into the red section shown above. medium priority' moves any recommendation into the yellow section and 'Set low priority' moves recommendation into the green section. You can also arrange the order within each section by clicking 'Move up' or 'Move down'





Generating the Report and Certificate

To Create the Final Report and Certificate Click the 'Documents'



button on the menu bar, and the following window will appear.

Documents

If you have created multiple profiles, please check that you have the correct profile for this report, this can be changed by using the drop down menu.

Click 'Generate Documents' to produce the watermarked Certificate and Report. Once these documents have been created the 'View' buttons will become available. Clicking on the appropriate button will launch a PDF

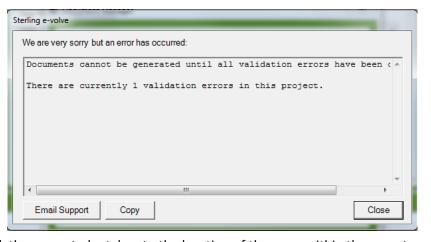
viewer containing the relevant document. It is good practice to read through the report and certificate to check that all the audit information is included.

Note: It is recommended that when creating the Certificate and Report for the first time 'Generate wrapper' should not be selected as this will require all photos to be uploaded. This feature is best used once you are happy with the content of the report.

If you need to make any changes to the report or certificate, close the Document Manager window and edit the report as required, once any changes have been made you will need to recreate the final documents by clicking on 'Generate Documents' again.

When you have checked the watermarked documents and are happy with the content, Click 'Lodge Report' to proceed with registering the Report and Certificate on the Central Register.

NOTE: It is not possible to create the Certificate and the Report unless the report vou have written has been validated without error. If you receive this error please Click 'OK' and Click 'Close' on the Document Manager Window. From The report Click Main Menu Bar 'Validate' a list of report errors is now displaying in the bottom pane of the



reporting window. Double Click the errors to be taken to the location of the error within the report.









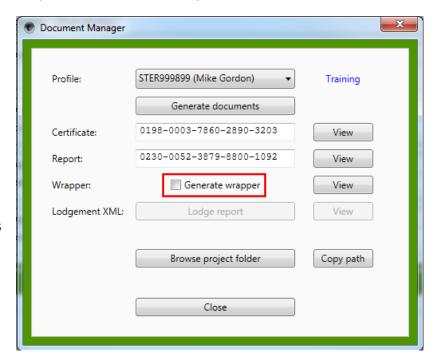
Generating a Wrapped Report

It is assumed that you have already added photos, created the Enhanced Executive Summary and prioritised all of the Wrapper Key Recommendations. If you generate a wrapped report prior to lodgement, the Watermarked Certificate and Report will be included in the PDF. To include the unwatermarked Certificate and Report, you will need to lodge your report and then retrieve the documents from the Landmark Registry and place them in the Project folder. Project Folders can be found under \Documents\Sterling evolve\Projects*<Date Created> Project Name*

To generate the wrapper make sure that the 'Generate wrapper' has been ticked and then click 'Generate documents'.

Once this process has been completed you can click on 'View' next to 'Generate wrapper' to see the final PDF. If you need access to the Project folder you can click 'Browse project folder' this will open a new Windows Explorer window showing the contents of the Project Directory.

Note: Wrapping a Report will upload all of the photos added to a report to the e-volve server to create the photo appendix, depending on the number of photos added this could take a few minutes to complete.

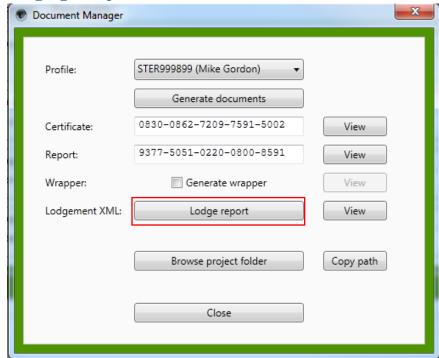








Lodging a Report and Certificate



You are now ready to lodge a report onto the Central Register.

Click on 'Lodge Report' and depending on your Accreditation Scheme you will either need to Log into the CIBSE CASA Portal Sterling or Accredited Members will see the following screen.

NOTE: If you have created a Training Profile you cannot lodge a report to the central register so this button has been disabled.

THIS SECTION APPLYS TO STERLING ACCREDITATION MEMBERS ONLY



the In top section of the window, the project path has included been this will save you from having to browse to find the XML file that you have just created.

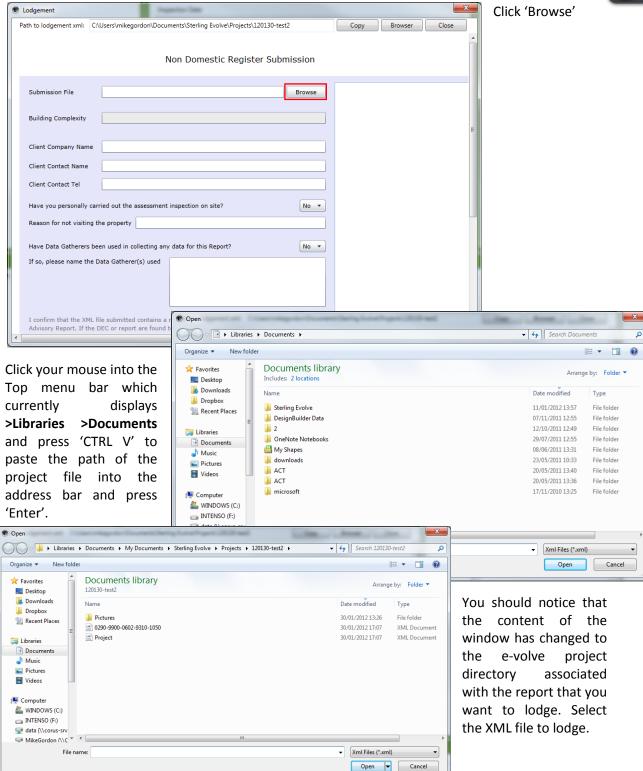
Click 'Copy' Path take the from the Path bar into your clipboard.

Click on 'Lodge XML' file to proceed to Central Register Submission.









In this example the file named 0290-9900-0602-9310-1050 should be selected. (All lodgement files are creating with the RRN number as the name i.e. XXXX-XXXX-XXXX-XXXX)

Click 'Open' to select this file for lodgement.







I confirm that the XML file submitted contains a non-watermarked PDF version of the DEC and/of Advisory Report. If the DEC or report are found to contain a watermark once lodged, I accept the DEC or report are found to contain a watermark once lodged, I accept the property of the DEC or report are found to contain a watermark once lodged.

Please now completed the 3 questions about the Client and answer the questions referring to Data gatherers.

Once all these fields are complete click the 'Lodge Report' button at the bottom οf the screen.

Your report is now being checked for errors. During this phase Sterling

checks that you have recorded Your Name, Trading Name, Trading Address and insurance correctly. If all of these match our membership database then your file will proceed to the Central Register. If the Site Address details match the UPRN you have entered then you should see an OK Success window appear confirming your lodgement to the central register.

Inspector: STER999899 Inspector Name: Mike Gordon

Property Address:

Upload Site Notes

Once you have completed a successful lodgement Sterling Accreditation has provided a facility to allow you to upload your site notes and photos. These files will form a pack of information for our QA process.

Click "Recent Cases" to view your Lodgement History or search using one of the details requested. Click "Documents" and then Click "Upload to Section" to associate site notes and photos to your lodgement.



If you have installed Silverlight you should see the screen above. Click "Choose File" browse and "Upload" - Note: Max individual file size is 10MB Note: The following file types can be uploaded .txt, .rft, .doc, .docx, .jpg, .png, .pdf

Once you have finished lodging reports and uploading site notes and photos, click on "Logout" to **EXIT**







Common Errors during Lodgement

The following are some of the errors you may get if the report cannot be lodged successfully.

The errors below mean the trading name or trading name and address in the report do not match the details held on the Accreditation scheme.







The insurance details in the report do not match the details held on the Accreditation scheme.



A report has already been lodged with this RRN; you will need to change the RRN in order to lodge the report again. The RRN is generated from the UPRN and the Inspection or Nominated Date. A change to the UPRN is normally not possible so you will need to change the Inspection or Nominated Date which will then generate a new RRN. If you require the original report to be hidden on the Landmark central database please email the Accreditation scheme.

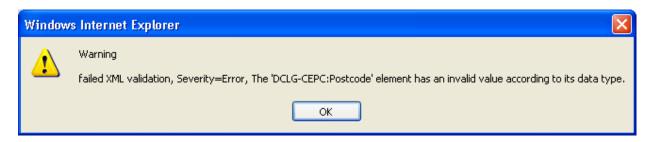
The error below means the address is incorrect in the report.





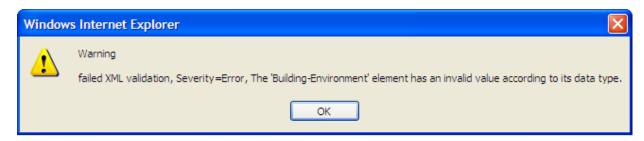


The error below means the postcode is incorrect in the report.

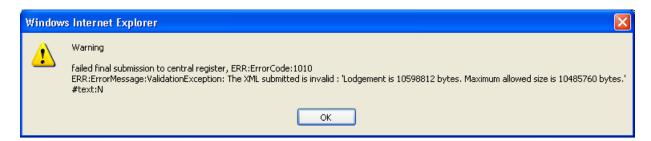


To see how the address should appear you can logon to www.ndepcregister.com and search for the address. Then correct the address in the report so it matches.

An error similar to the one below may appear if a field within the report is not correctly filled in; it will give an indication to the error. However, you may need to speak to your accreditation scheme or software supplier for advice on how to correct the error.



The error below means the XML you are trying lodge is too large, the maximum file size you can lodge is 10Mb, this is set by Landmark.



Please note: Once you have corrected any errors in an XML that has failed lodgement, you will need to press "F5" when on the lodgement screen to refresh the page before browsing to the corrected XML file.





Software Updates

Every time you open the e-volve reporting software, the system automatically checks for a new version of the software. If you are running an older version than is currently available, you'll be prompted to download the new version.

Technical Support

Sterling Accreditation Limited

Sterling Accreditation technical support helpline is open Monday to Friday 09:00 to 17:00. If you have any technical questions with the operation of this software please do not hesitate to contact us.

Technical Support Telephone: **0845 496 1215**

Online Technical Support: www.sterlingaccreditation.com/support/

Technical Support E-mail: support@sterlingaccreditatation.com

When e-mailing queries please quote your membership number in the header with the type of support required (e.g. e-volve Support).

Sterling Accreditation Limited

15 Basepoint Harts Farm Way Havant Hampshire **PO9 1HS**

Website: www.sterlingaccreditation.com

CIBSE Certification Limited

CIBSE Certification technical support is available Monday to Friday 09:00 to 17:00. If you have any technical questions with the operation of this software please do not hesitate to

contact us.

Technical Support Telephone: **020 8772 3606 or 020 8772 3620**

Technical Support E-mail: epc@cibsecertification.org

Technical Support Website: http://www.cibsecertification.org/support

CIBSE Certification Ltd

222 Balham High Road London **SW12 9BS**

Website: http://www.cibseenergycentre.co.uk/