esquiggles
Data Collection Software

CASE STUDY

# Water Monitoring Data On Tap with eSquiggles

**Freeston Water Treatment has been a provider of specialist water treatment consultancy and risk assessment services since 1947. Over the years, the company has experienced changes in legislation; it was apparent that fundamental changes to internal processes and working methods had to follow. The eSquiggles PDA based data collection software has been implemented as the underlying technology to automate the water monitoring and control processes it manages for clients.**

FREESTON
Water Treatment

Neil Viney, a Regional Manager at Freeston, explains the decision to move away from paper based working. "Gathering data on paper forms and retyping into reports was time consuming and sometimes inaccurate. The changing legislation over the years has led to a greater need for electronic file handling and retrieval. Our job is to ensure that all water outlets within a client site are safe and with a minimised risk of bacteria. Using technology to record and store temperatures and other data is a much more efficient and reliable method than using pen and paper. However, if our clients still require paper reports the eSquiggles system can also accommodate this".

## eSquiggles and ACoP L8

Freeston initially focused on using eSquiggles for asset tracking and temperature monitoring for high volume inspections. Legionella Risk Assessments and effective water monitoring and control procedures are a requirement on every organisation in the UK which hosts members of the public. Guidelines are set out within the ACoP L8 Code of Practice for the control and prevention of Legionellosis.

To meet legislative requirements, checks are required to be carried out at certain time periods. For example, domestic hot and cold water systems need to be monitored monthly and cold water storage systems monitored on a six monthly basis. Ad hoc checks are also required in some cases where water systems or surrounding areas have changed.

Neil explains, "In the past we would have paper based log book information for every client. Every temperature check performed on every asset was hand recorded within this logbook and details of the recurrence of each job had to be manually scheduled out. These logbooks are now all stored electronically. eSquiggles also has an electronic Job Scheduling function which removes a massive amount of manual planning for us.

We are able to automatically schedule jobs on a weekly, monthly or annual recurring basis across a number of client sites. Essentially, we don't need to worry that we are omitting checks. Each one will be allocated and sent straight to one of our Consultants' PDAs and if rejected will be flagged up to a Manager for re-allocation.

Outbreaks of Legionnaire's disease often hit the headlines due to the high risk of serious illness or in the worst cases, death. The legionella bacterium is carried in airborne particles meaning it can be easily spread, increasing the chances of an outbreak widening.

The penalties imposed on those organisations founds guilty of breaching Risk Assessment and Water Monitoring requirements have increased dramatically over the years.

Our client base includes care homes, health care, the military, education and retail. Legionnaire's disease can affect people of all ages but those in the 50 years+ bracket are more at risk. In the event of an outbreak, the records, data and processes in place must be robust enough to face the scrutiny of the Health & Safety Executive."

### Key Benefits

- Better accuracy of recorded temperatures
- Temperatures populated straight into reports, no need for retyping
- Centralised access to client data and temperature profiles
- Reduction in administration
- Solid audit trails for legislative purposes

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## Asset Management & Tracking

In addition to water monitoring checks, suitable and sufficient evidence of the checks and the data gathered needs to be available. Handwritten methods and paper storage were ineffective, with room for error and potential for paperwork to be misplaced.

Electronic asset registers and logbooks are retained by Freeston on behalf of clients and contain details such as asset/water outlet type, location, temperatures, dates and precautionary procedures which have been carried out.

eSquiggles creates and hosts an asset register with the ability to capture and interrogate asset information whilst in the field using the PDA. Typically these assets include industrial cooling towers, domestic hot & cold water systems, calorifiers, etc.. Through the use of barcoding, assets are assigned a Unique Asset Number. Information from the asset register can be accessed when in the office or on site meaning inspection history on a particular asset is much easier to review.

"eSquiggles has transformed asset management for us. The use of eSquiggles lets us manage assets electronically, allowing us to view asset history easily on the PDA. The data captured via Asset Tracking and the Asset Register allows much richer and more detailed management reporting. Freeston has a number of offices across the UK, but having temperature monitoring and logbooks stored centrally, means that they can be accessed remotely by any number of managers. Those based on different sites can access data centrally and run various types of management reports, trends reports and temperature profiling from their desktop", comments Neil.

## Integrated temperature probe

When using PDAs with temperature probes, readings can be taken and automatically populated into eSquiggles and associated documentation. The ability to record this data automatically into eSquiggles drastically reduces the possibility for human error, which is often critical to Freeston.

"We have pioneered the use of the integrated temperature probe, which speeds up the process and improves the accuracy of the reading and the data integrity. We were very impressed with it and it gives us more confidence that important temperature data won't be misread or mistyped.The full temperature testing and data logging process becomes more efficient and accurate and removes the need for Consultants to operate with separate devices during inspections and surveys. Readings are populated directly into the logbook which means no retyping of data", says Neil.

## Exception reporting

When water temperatures are recorded and don't fall within pre-defined parameters, eSquiggles can automatically produce an Exception Report. Colour coding on the logbook indicates which temperatures are outside the acceptable threshold and flags up any risks or potential hazards. This is an inherent part of the Legionella Management process and ensures that potential risk is identified and reported immediately and automatically. The exception report triggers a process of reporting and guidance to the client. Using eSquiggles this process has now been refined, is a lot quicker and provides a solid audit trail.

## Reduction in paperwork & costs

The project has been a great success to date and Neil is particularly impressed with the immediate reduction in administration levels. "A large number of our manual processes around water monitoring and control are carried out electronically now. Temperatures are captured straight onto the PDA and into reports which means no rekeying data and no typing up lengthy reports. Management reports, exception reports and client documentation can be produced straight away and we can be more confident that the facts and figures in these documents are accurate.

On the asset side, they are much easier to manage without reams of paperwork being stored per asset. If new assets are introduced on client sites, they can be added to the system straight away whilst on-site without needing to introduce a whole new set of paper work and form filling. We are always keen to improve our process and given the current financial climate, it is important that we investigate new ways of cutting costs and staying ahead of the competition. With eSquiggles we think we're starting to achieve that and look forward to reaping more benefits as we move onto using eSquiggles for the Legionella Risk Assessment process."

### Key Deliverables

- » Asset Management
- » Electronic logbooks
- » Integrated temperature probe
- » Electronic job scheduling
- » Automated exception reporting