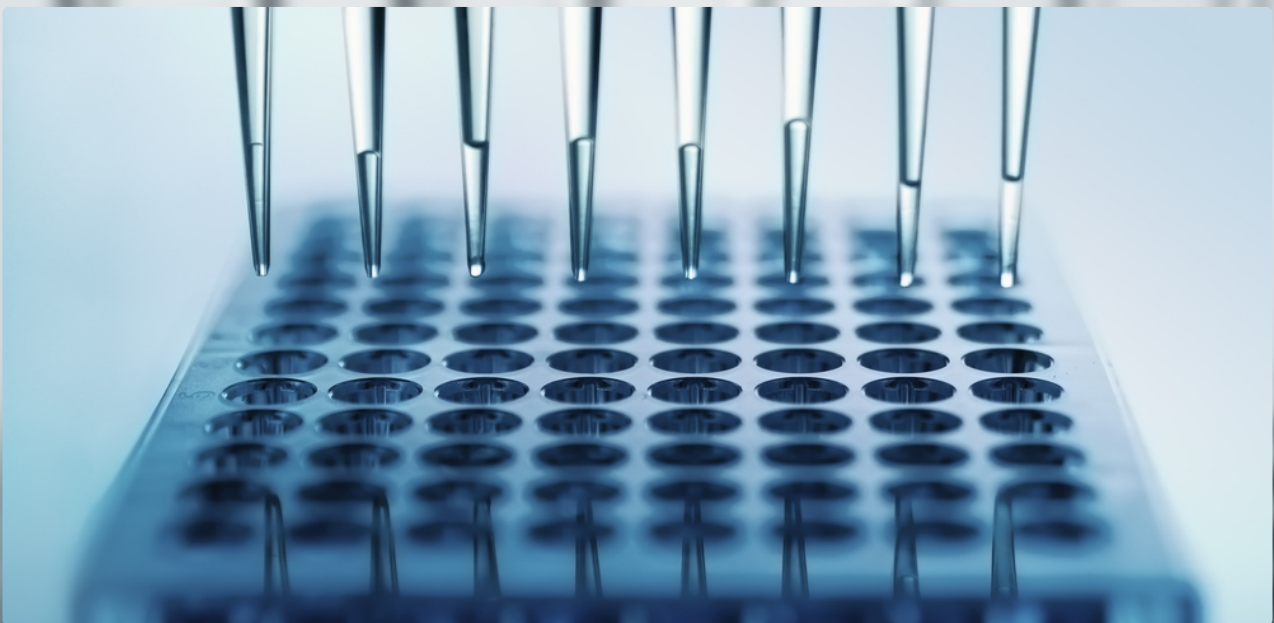




Gilson:

Predictable Sampling with Workflow Optimised UI

Gilson provides high quality, dependable solutions for today's demanding liquid chromatography, solid phase extraction, liquid handling and gel permeation chromatography clean-up requirements.



The Aim

To design and develop a fully automatic liquid handling system which would allow control sequences of over 40 hours in duration to be generated whilst performing timed operations accurate to within 1 second.

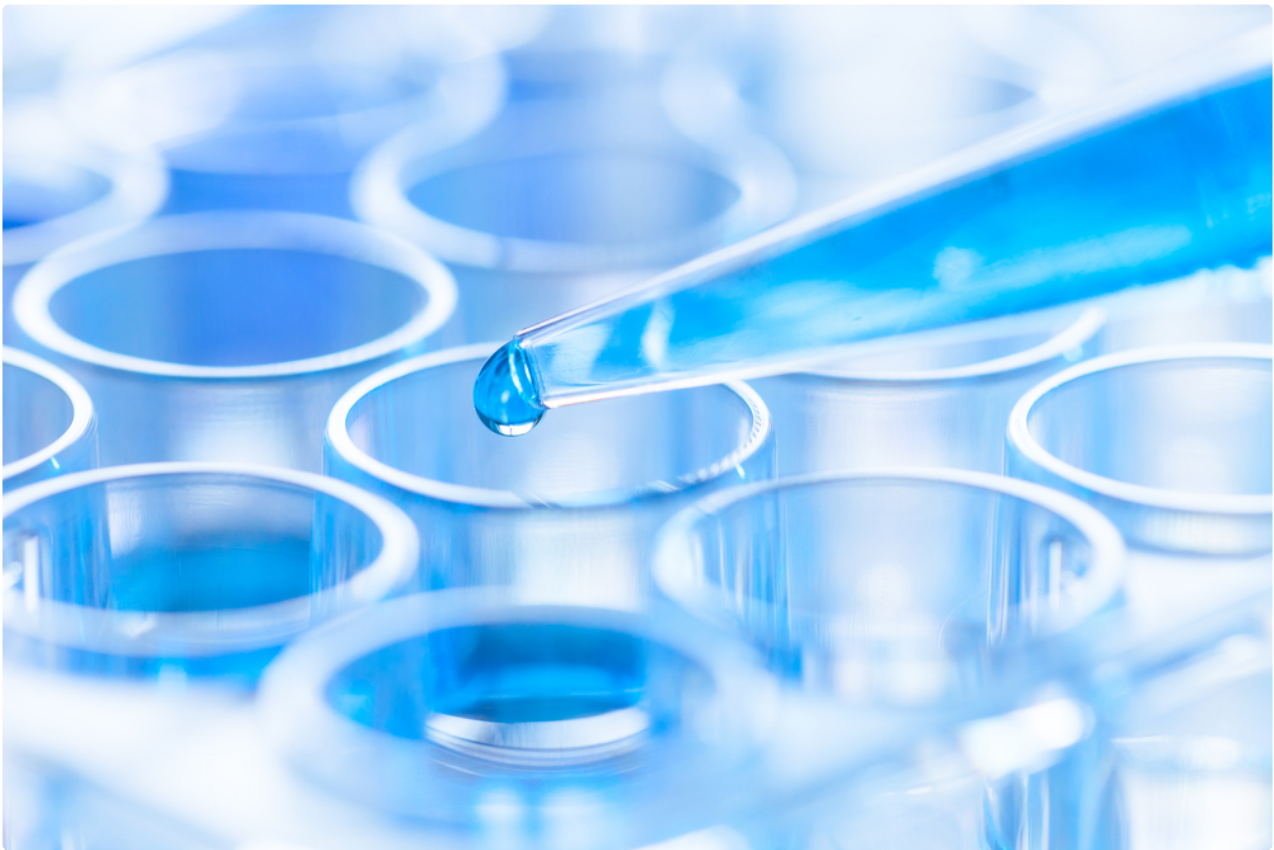
The Requirements

To ensure a successful outcome to the project, PTP staff needed to utilise the following knowledge and skills:

- › An in-depth knowledge of networking protocols
- › Understanding of complex software systems designed using Object Oriented methods
- › An understanding of the auto-sampler hardware and its operation within three-dimensional space
- › The ability to communicate with all parties involved in the project, from digital designers through to our clients' customers

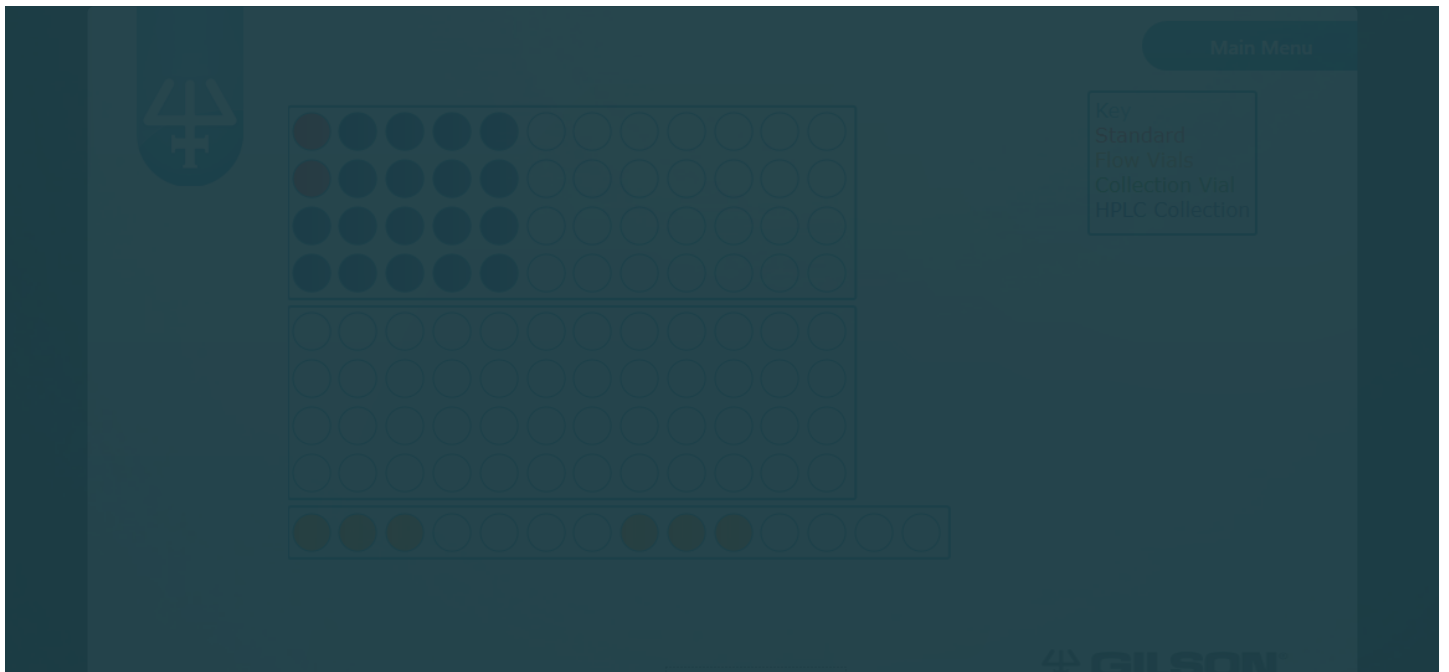
The Approach

The first consideration at the outset of the project was to decide what software language to create the application in. PTP is able to design and create applications in a wide range of languages and in this case, it was decided that C# was the most appropriate language so a solution was written in C# under Microsoft's .NET CLR. The reason for this choice was that the finished solution needed to run on a 10" tablet PC with a touchscreen interface and Windows 7 OS. A C# solution was deemed to be the best choice when considering the limited processing power of tablet PCs and therefore the consequent need for a solution which was not too demanding of hardware processing power.



User Interface Design

PTP were aware that the User Interface design needed to visually and functionally match Gilson's existing UI style. Particular attention was paid to the style and layout of buttons and background on the new UI to ensure that it matched Gilson's other products and was in line with their branding requirements. Wizard style interfaces were then created by PTP in consultation with Gilson to allow the user to generate the complex predictive sequences that the system requires. The task-oriented wizards were designed to match the workflow, ensuring that the operator training required prior to the use of the software was minimised. Finally, a multi-level sequencer was developed to handle the generated sequences and control the auto-sampler via ASCII based commands across UDP and TCP network protocols.



✓ Success

PTP created and implemented a software solution for Gilson which exactly met their needs and the needs of their clients. This development is the latest of several collaborative projects PTP has carried out with Gilson in a longstanding successful partnership.

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