

Meet the man behind the code.

Paul Hayball is Lucion Services' in-house NexGen Development Manager. He is the architect of our award wining, Cyber Essentials Plus certified, online risk and compliance management software, NexGen.

Paul has over 10 years software development experience and a concrete understanding of multiple programming languages, server architecture design, database management and integrating with APIs.

The NexGen team, known affectionately as the NexGents, have designed the NexGen App which is used on-site for data collection. The app also works with project teams to program agreed nomenclature for locations, items, material and hazard descriptions to ensure consistent data sets across complete site/asset asbestos registers.

Ensuring NexGen development goals align with the overall goals of the business, and prioritising the NexGen team work development and work flow.

Paul works with our clients and software providers directly to achieve successful data transfers, whilst ensuring the integrity of data is upheld during the process. He has successfully designed export / import specifications for many popular databases, including Planon, MICAD, E-Locate, SOLAR/ACMS and Keystone.

We caught up with Paul to discuss his career progression with Lucion, his role in developing the software and how the software differentiates from others in the industry.

How did you come to become a Software Developer with Lucion?

I studied Maths and Sport Science at university. I have always had a passion for coding and used transferable skills from my degree (Maths - problem solving, Sport Science - applying abstract thinking and problem solving to real world problems) to enter into software role with Lucion. Whilst my degree may at first seem obscure to my role as a Software Developer, my dissertation brought me back to coding. I developed computer simulations of the movement of planets, writing a 3D program simulation that allowed you to put into practice chaos theory; from discovering the consequences of small adjustments to the planetary positions, through to finding the stability in the system.

I joined Lucion in 2013 and interviewed with David King (the original NexGen designer) and Charles Pickles (one of the cofounders of Lucion). With Lucion, often you will find individuals joining the team that might not necessarily possess the qualifications directly related to their job role. With Lucion, you scope out your own career path, allowing you to bring added value to the organisation and take the business in different directions based on your skills and attributions. Whilst having skills is important to a role in software development, the team here are looking for the mindset. They are looking for critical thinkers and abstract problem solvers who can solve real world problems.

From my experience, finding a company that shares your mindset and can help you to apply your skill set, is key to long term job satisfaction.

How did you progress along your career path to become the Nexgen Development Manager?

I started out as a NexGen Software Facilitator (sounds fancy). This role had very little description around it and I was effectively given the ability to choose how I wanted to develop my role and the software. I became a manager when David, the original NexGen designer, left and we grew the NexGen team. Since then we have grown from a two person operation to a five person team of developers spanning our software capabilities into 3D auto map generation. Such features have put us miles ahead of our competitors not just in terms of our compliance software capabilities, but has also made us a highly efficient hazardous management service provider, with the ability to flex and manage capacity in a big way.

How does NexGen serve Lucion's clients?

It's interesting to know that NexGen was designed for our team members and the client dashboard was created upon realising the benefits it could bring to them. NexGen originally facilitated the organisation to handle clients' samples from cradle to grave, providing complete insight into the entire risk management process. The functionality was all in place. It was then identified, through client and team member feedback, that all the information and transparency was beneficial for our clients to see. It was at this point we created the client dashboard where clients can freely manage all aspects of risk, request services and schedule asset access, view and pay invoices and manage all their documentation in one place.

The added benefit of creating the client dashboard is that we now get continuous feedback and suggestions from clients that can be applied for individual clients, national accounts or across the whole NexGen platform. The feedback benefits everyone. Because we are in-house software development team, we don't have to work to a ticketing system. Problems can be resolved far more efficiently without leaving our team members or our clients waiting around for important information and developments.

How did NexGen come to fruition?

NexGen was built around looking at how our team members were currently operating and how we could develop intuitive software that would make their lives easier.

All of our projects and developments originate from someone in the company; whether they be the CEO, a manager, a member of our site team or Tech Support, or one of our clients, making a suggestion or bringing a new idea to the table. All of these suggestions and ideas are then assessed for whether it is; needed, viable and beneficial to all. 'All' being our team members, our clients and those who are at risk from hazardous materials, airborne substances and all other risks in the built and marine environments.



Developing NexGen through listening to feedback and making the software freely available with all of our services, we are progressing ever closer to achieving our mission; **to make the world a safer place to live**.

Do you have an example of developments made for a client need?

The original NexGen map was one of the earliest NexGen features developed as a response from client feedback.

For Utilities clients who have assets such as substations located all around the UK and in remote places for example in the middle of a field in the Outer Hebrides, they previously didn't have accurate pin point locations (just a grid reference) of all their assets. As our surveyor visits the site, our NexGen App pin points the location, and so, as a by product, we have been creating highly accurate GPS location mapping for our clients. With these remote locations now recorded, we needed a way to be able to make the risk and hazardous data and reports available to contractors going on site so that they were protected. It was at this point we started to implement the QR coding system.

With QR Codes, the data held by NexGen can be accessed remotely in real-time by onsite teams and contractors through the managed permissions feature available to the client. As the system is an online web based platform, the data is updated in real-time, reducing costly delays to the client.

Overall, NexGen has given us the ability to effectively protect individuals from risks wherever they may be through providing accurate data, accessible in real time, at no extra cost.

What has been your biggest achievement?

My career journey with Lucion as a whole has been my greatest achievement. During my time, we have redesigned the software architecture to scale on demand. This means the software can manage capacity and actively handles over 1000 server request per minute, over 10,000 image uploads per day, over 15,000 reports downloaded per week, over 300,000 analytical records synced every month (recorded July 2019), with ample room to grow. This is a fantastic achievement for myself personally, my team and for the organisation.

The growth from feeling unsure in my role as NexGen Manager to finding my feet and becoming stable, secure and confident in my own abilities has helped me grow on a personal level. The support I have had from all those around me including Patrick Morton (cofounder and former CEO of Lucion Services) has been immense.

What do you look for when hiring a developer?

On-boarding new developers is a tricky business. I look for people who are able to take real world problems that are highlighted by non-tech savvy individuals and can not only interpret the needs of the individual, but find the solution for them. Each of the team are put through their paces starting off with 6 months working on NexGen Assist. Our help system that all of our Lucion team members and clients use when they get stuck.

I have had the pleasure of working with some fantastic qualified developers. The NexGen team are truly passionate about what they do and that is evidenced by the software's continued successful application, award wins and certifications.



