



Company Background

Racol Acoustics products are world-leading, high quality, state-of-the-art military audio and data systems and components designed to operate in the most severe battle environments.

From secure audio and data intercommunication/networking systems to rugged noise-cancelling handsets and headsets, the Racal Acoustics operation, acquired by specialty manufacturer Esterline Corporation in 2008, is on the frontline of battlefield communication.

Esterline's Racal Acoustics team turned to VisualFactory in 2005, as Senior Production Engineer David Poulten explains:

"We were a very busy Production Engineering department, struggling to keep up with the shop floor queries and change notes that were our daily life. We were fire-fighting a never-ending stream of problems, and any chance of ever doing 'proper' production engineering seemed non-existent. We had to break the cycle, or we were going to be buried in an ever increasing mountain of paperwork."

The department had more than 13,500 pages of manufacturing instructions to maintain, spread over 570 products divided into 13 or 14 families.

"None of our production engineers had any real picture of where we were with any single product. We needed a way to impose order on the manufacturing instructions, and it seemed that VisualFactory might just be able to provide it."

Before VisualFactory, work instructions for Racal Acoustics projects had been created in a number of different formats – some of them more than 30 years old. This included photocopies of original Gestetner duplicator pages – corrected with Snopake or Tippex, and then re-photocopied.

Some areas were even re-typed and stuck onto the master. The company tried a word processing package and a desktop publishing package – but both were inflexible and extremely slow.

In came VisualFactory

"The switch to VisualFactory was easy. The training took around half a day, and we found the software to be very intuitive and easy to use. We have never looked back," David said.

"It is impossible to overstate the tremendous impact the VisualFactory software has had for us; we now have to maintain only about 12 per cent of the virtual pages of manufacturing instructions, and because each task is written only once, but used in multiple locations, there are huge benefits to be realised," he added.

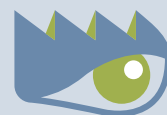
Esterline Racal Acoustics Facility

Case study

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New manufacturing instructions for a variant of an existing product family can now be written in hours, not days or weeks, as previously, and the speed of bringing valid and accurate information to the production floor has allowed for greater production flexibility.



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David Continues...

“Because the task is always presented to the operator in the same way, the learning curve is dramatically reduced; rejects have fallen to around 0.5 per cent or less for operator errors on most jobs, and productivity has increased dramatically - perhaps by up to 15% in some areas.”

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“We can now provide each operator with access to PDFs of all drawings, test specs, and health and safety and materials safety data sheets – right at the point of use via the VisualFactory terminals. Our operators have grown in confidence and ability as a result, and have increased their assembly skills and capabilities.”

The Racal Acoustics team also worked with NoMuda – the group behind VisualFactory – to pioneer the use of the software to record a whole range of complex test data directly from Esterline’s online test equipment; used to monitor its manufacturing processes, and improve quality control systems.

David continued: “Using barcode scanners, all sorts of vital data can be input and linked to each component or item produced, providing a degree of traceability that we could not previously offer our customers.

“There are so many benefits like these - we have moved from being paper based, to running a paperless production system, and the savings from this aspect alone have been considerable. Line changes can be achieved in as little as 20 minutes for an eight operator line.

“No matter what your business is, and what problems you face, I truly believe that VisualFactory is the solution you need to successfully create and organize your digital documents.”

“If you examine your product families in detail, there are likely to be many assemblies and sub-assemblies that can be used in multiple locations throughout your product range, and a standardisation of these may well lead to unexpected benefits like a rationalisation of tooling, or a reduction in inventory by a standardisation of components.

“I do not honestly see any downside to using VisualFactory – several of our customers have seen the benefits we have gained and now also use the software.

“VisualFactory is easy to use, and most importantly, is backed by a very experienced team of engineers and geared for use in real production situations. It is perhaps the most important Lean tool you can have.”



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