



CUSTOMER SUCCESS STORY



BAM Nuttall: A Journey to Trusted Data

Founded in the UK over 150 years ago, [BAM Nuttall](#) is part of the Royal BAM Group of civil and construction engineers. They are among Europe's most established construction companies with a strong record of collaboration with public and private sector clients across the UK and internationally. BAM employs 20,000 people delivering sustainable infrastructure worldwide.

[Having profiled BAM Nuttall](#) in 2017, LoadSpring recently caught up with them to learn about their progress toward their journey to trusted data, improving project efficiency with a forward-looking matrix of health and delivery certainty.





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Challenge

Ivor Barbrook is BAM Nuttall Ltd.'s Head of Planning & Project Controls and has worked with LoadSpring for many years. He has promoted within the BAM business digital workflows for civil engineering infrastructure as part of a larger data integrity initiative. Nuttall's challenge over the last year was not a lack of knowledge or data within their LoadSpring platform; instead, they needed to extract trusted data in a systematic approach to harvesting and transforming their data for insights. Working with LoadSpring, Nuttall has resolved the issue of how to obtain their raw data—not from an API collecting data from the LoadSpring database but by setting a specification for data extraction generated and hosted by LoadSpring as raw but trusted data for BAM Nuttall to collect.

Founded on LoadSpring and BAM Nuttall's strong working relationship over many years, LoadSpring successfully introduced LoadSpring Project **INTEL**.

"The product was still in its infancy, and we were looking for a customer who could challenge our internal product and data team with real-world scenarios. At LoadSpring, all our products start from a customer's need. A partner like BAM Nuttall illustrates the importance of collaboration and how it is imperative to keep customer needs top of mind," states LoadSpring CEO Eric Leighton.

BAM Nuttall's first challenge was accessing their data. The next challenge was the visibility of extracted data to prove it was accurate and could be trusted. The last hurdle was an issue around the value of LoadSpring Project **INTEL** and how it could support BAM Nuttall with project delivery.

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BAM Nuttall's Antarctic Infrastructure Modernisation Programme





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Solution

LoadSpring's Project**INTEL** team and BAM Nuttall created a series of experiments to demonstrate data availability and quality value.

"We worked together to access BAM's test P6 database they used to prove our proprietary extraction technique. As a result, we designed a unique customer programme for BAM Nuttall," states Michael Geehan from the LoadSpring Project**INTEL** team.

Early on, we defined the parameters of our first experiment to evaluate data quality. LoadSpring started extracting from 174 projects designated by Ivor's team. We pulled over 2 million fields of data. After the first filtration pass, 38% was defined as clean according to co-defined data quality rules. The culprit cause of the dirty data was the "early start date" and "late start date fields" that did not have a value and thus skewed the results of clean data.

"This was not an unexpected result during Phase 1 of LoadSpring Project**INTEL**. That's why we have truncated the processes into different phases. Our configurable system reports problems, remaps data, and gets our customers to a usable data lake," states Tom Kaminski, Vice President of Customer Experience.

LoadSpring's Project**INTEL** auto-remediation feature offered an automated solution for updating the data. However, the BAM Nuttall team decided to reformat rather than remap the data. They opted for 'safe queries'—which mark blank data fields as null so the data can pass through the missing data filter. The collaborative team then ran several scenarios to prove the data validity of their clean data lake; LoadSpring Project**INTEL** is now extracting all of BAM Nuttall's **Oracle P6** projects.

BAM Nuttall's Sustainable Asphalt





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BAM Nuttall's Lincoln Eastern Bypass Rail Bridge

Once the data process was proven and accepted internally, BAM Nuttall presented another business question regarding their Oracle P6 data: they wanted to understand the status of client acceptance of project programmes and reasons for contract completion change.

Currently, “status submission” does not natively exist in Oracle P6. BAM Nuttall tracks programmes submitted for client acceptance on their projects using a ‘status submission’ drop-down selection box. BAM Nuttall has a process of step review for project programme updates to manage progress and change within a reporting period leading to submission to the client. Tagging the programmes as submitted to the client enabled the identification of data sets from which information could be collected using LoadSpring Project**INTEL**. In conjunction with LoadSpring, they defined information fields to run queries against, stitching together information that had been unsolvable data set issues in the past.

“The BAM Nuttall collaboration is a great example of how Project**INTEL** helps customers with their data integrity programs. It is nearly impossible to ferret the root problem when dealing with millions of data fields. Once we identified the issue, the information was fed upstream to prevent future data integrity errors,” says Jim Smith, Vice President of Cloud Solutions at LoadSpring.

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Moving Forward: Future Possibilities

Through several experiments and technical hurdles, LoadSpring demonstrated that BAM Nuttall could successfully run queries against the useable data source to make the trusted data that answer business questions visible.

BAM Nuttall is an excellent example of an “analytics-enhanced customer.” Nobody wants to say, “We have inconsistent data.” However, after investing time and resources to determine the difference between usable & non-usable data and reason codes & errors, BAM Nuttall can fully trust their production data. The LoadSpring ProjectINTEL processes of Extract-Clean-Build illuminate common data errors to help implement consistent process practices, taking project controls closer to fulfilling the need for up-to-date data for informed decision-making.

We look forward to continuing our working relationship with BAM Nuttall and how they develop their BI capabilities to visualize and illustrate ongoing collaborative projects: now and into the future.



About LoadSpring ProjectINTEL & LoadSpringANALYTICS

LoadSpring ProjectINTEL™ & LoadSpringANALYTICS™ are integral components of the LoadSpring project platform and your journey to data trust. [LoadSpring ProjectINTEL](#) starts with your organization to define business questions. LoadSpring ProjectINTEL uses a 3-phase & 3 processes (Extract-Clean-Build) approach to get you to a trusted usable data lake in 12 months or less. The LoadSpring ProjectINTEL team partners with our customers to find, resolve, and fine-tune data processes. We are on the data journey with you.

To learn more about LoadSpring ProjectINTEL & LoadSpringANALYTICS, [contact LoadSpring today.](#)