Druck
a Baker Hughes business

4 reasons why your plant needs calibration & asset management software

druck.com

Typically implemented to increase operational efficiencies, calibration & asset management software can also increase profitability.

Across industry, manufacturers are challenged with optimising their return on investment, streamlining processes and increasing efficiencies. A key way to achieve this is via the implementation of calibration and asset management strategies.

The effective monitoring of your assets and calibration instrumentation across your sites requires two significant components. Firstly, the availability of data from your equipment and, secondly, the reliability of that data. Calibration management software can offer the complete system solution to many of a site's maintenance, process efficiency and compliance concerns.

This article will cover the main reasons why site and engineering managers are increasingly turning to software solutions to manage their instrumentation, data analysis and maintenance actions.

As we begin to unpick this challenge, we recognise the obstacle we face is not how to store our data, but rather the accessibility, optimisation and utilisation of data. This refers to whichever process is used to interpret and pass relevant calibration and asset information to the applicable person at the appropriate time. The effectiveness of which can be measured in relation to reductions in unplanned downtime, increases in efficiencies and cost savings.

Current industry standards and processes

For those not currently using calibration and asset management software, in some cases alternative processes can be used to fulfil certain aspects of the same role. Outside of efficiency concerns, these other processes often come with a number of unforeseen implications, with some of the most common examples below:

Paper-based systems

Typically, this process involves engineers manually logging calibration results. While relying on paper checklists sounds like an inexpensive measure, in practice it's highly labour-intensive, time-consuming and prone to inaccuracies. Accordingly, a manual, paper-based system, generates a lot of paper and makes final calibration data difficult to aggregate, access and analyse.

Spreadsheets

Although an improvement on paper-based systems, spreadsheet software still requires manual data entry, meaning human error remains a key concern. In addition, the data entry process takes up valuable time. Using this method inhibits the automisation of calibration scheduling and affords limited data analysis.

DCS management systems

Some plant managers do their best to stretch the capabilities of their DCS to manage plant assets. While these systems conform to certain reliability and security standards, their intended use does not directly relate to calibration and asset management. The implication of such limitations in terms of the functionality of DCS management systems results in an obvious consequence – the absence of scheduling and reporting features.

Hiring an outside service

Outsourcing is often a useful 'stop-gap' and provides a quick resolution in the early stages of a plant's operational cycle. However, as a long-term solution this mode of management can prove costly and may make a plant reliant on an external service with availability concerns at critical times.

While any of these methods can be used across a plant, they do not offer a complete system solution. The ideal solution is one which positively impacts both asset management and asset optimisation.

This being said, what really are the core reasons a site needs a calibration management software solution?

4 reasons why a plant needs calibration & asset management software

1. To be fully compliant and audit ready

No matter the size of your installed base of instrumentation, calibration can pose a challenge. A software solution that seamlessly integrates with existing calibration equipment can provide automatic task downloads and direct uploads of results, removing the need for manual workarounds. This in turn delivers simple control over calibration and maintenance workflow and data, as well as automated worksheets and insights into performance management, ensuring easily accessed, audit-ready data.

2. To take a predictive approach

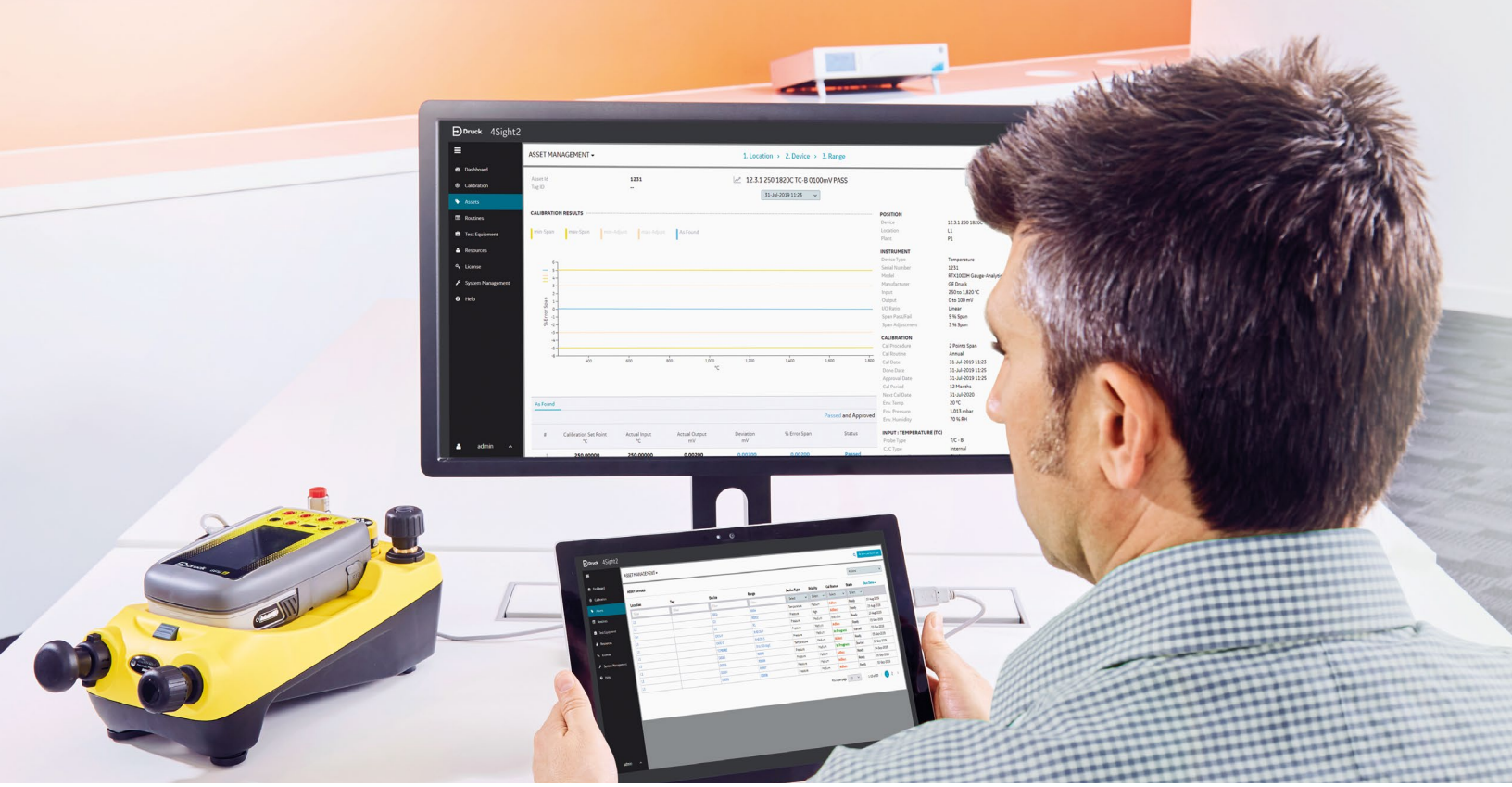
Plants will become more efficient as managers gain the ability to predict maintenance and act proactively, before unexpected repairs impact operations. To plant maintenance comprehensive asset analysis, such as data derived from a historical trending module, allows a device's performance to be monitored over time. This feature is a key tool in improving efficiency and maintenance, helping to plan preventative actions, for example, choosing the most cost-effective and reliable equipment, extending calibration intervals and optimising processes, making sure accuracy requirements are met.

3. To increase operational efficiencies

Unnecessary paperwork and filing will be minimised, and record keeping for audits and compliance will improve. The software undertakes a variety of tasks on behalf of the plant manager; overseeing calibration schedules, generating certificates and applying historical trend analysis to monitor devices and extend calibration schedules.

4. To have the flexibility to grow with operations

The ideal software solution is one capable of growing with a plant, offering multi-license packages that can expand alongside operations. As the number of technicians and equipment increases, so can the licensing. As the number of plants grows, plant managers will have the ability to share insights as software provides a common 'cross-plant' language with consistent reporting and verifiable compliance. In this context, the ability to install software directly onto a company server is of additional benefit, as is a range of supported installation options if required. As a further benefit, there are significantly lower investment costs and minimal IT requirement costs in terms of server support, upgrade management and data backup.



So, when choosing the right calibration & asset management software for your operation, what key challenges should your preferred software solution address?

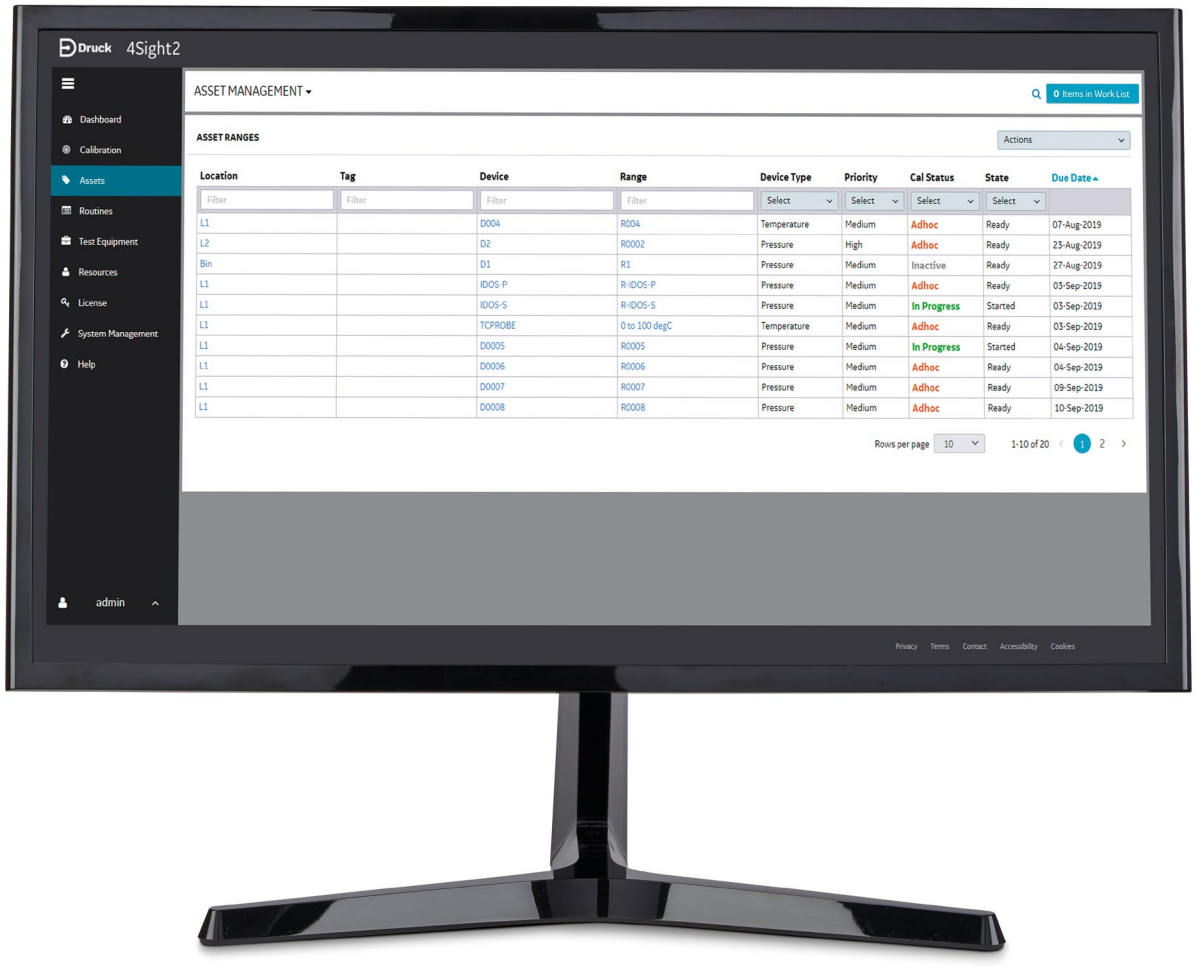
Calibration Software Checklist	
Visibility of your assets and resources	Easy to use and accessible
Compliant, audit-ready, real time management	Scalable
Integration with existing calibration equipment	Cost effective
Smart asset management	Purpose-built
Historical trend analysis	Custom installation support available
Predictive maintenance tools	Accessible from remote locations
Customisable report format	Operate in 10x languages
Uncertainty calculation	Database restore capabilities

The next-generation solution for calibration and asset management

Developed totally in-house, **4Sight2** from Druck is designed to deliver actionable intelligence and transformative insights. Our software solution enhances the visibility of your assets and data, helping to plan resources that enable effective maintenance, improve process efficiency and demonstrates regulatory compliance.

4Sight2 from Druck employs web application technology and is highly scalable from a single computer up to a global enterprise solution and is designed to empower your organisation to operate simply and securely, connecting your people to instruments, data and analytics.

Our bespoke software significantly reduces the risk of defects in the calibration data, examples of which include fabricating data, transposition errors and incorrect calculation of the pass/fail result. **4Sight2** also has capabilities to record and access historical data, helping you to find any faults and take necessary actions to solve the issue. Improved quality calibration data within **4Sight2**, drives improvement in manufacturing processes, leading to more efficient outputs and higher quality and safer outcomes.



A predictive maintenance strategy can enable:

50%
Reduction in maintenance cost

55%
Reduction in unplanned machine failures

30%
Increase in machinery availability

60%
Reduction in Mean time to repair (Mttr)

30%
Reduction in spare parts costs

90%
Reduction when process data was combined with predictive maintenance data

30%
Increase in plant machinery life

70%
Reduction in machinery breakdowns

40%
Reduction in downtime

25%
Increase in production

4Sight2
Your complete system solution

Conclusion

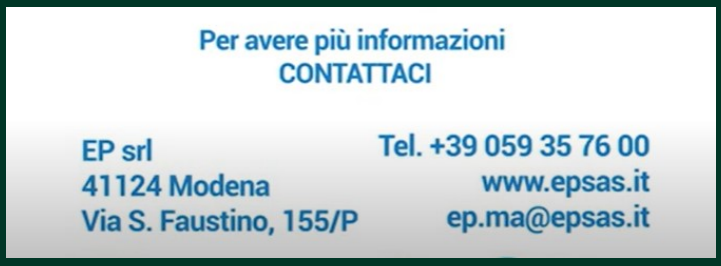
All assets within your plant need to be calibrated. Furthermore a great majority (77-94%) of these assets will also experience a variety of unexpected problems throughout their life cycle, underpinning the need for a solution.

Druck's complete calibration management solution, 4Sight2, enhances the visibility of these assets along with the data they provide. 4Sight2 from Druck allows you to plan resources that impact effective maintenance, process efficiency and regulatory compliance, keeping your plant running efficiently.

We are a global technology company that designs, develops and manufactures the highest quality, most accurate and reliable customised pressure sensing devices and instruments, software and services. We leverage innovation, continuous improvement and unprecedented quality, to enable our Customers to successfully operate, produce systems, monitor and/or control mission-critical assets in tough environments across the world's most challenging applications.

We delight customers with tailored solutions that address their challenges; embodying our deep domain knowledge of customers' applications, the most innovative and high performance connected pressure sensing devices, instruments, software and services; produced with the highest standards of safety, quality and delivery.

We are Druck. We provide peace of mind in the toughest environments.



Contact us

For more information please contact your local Druck representative, or visit:

druck.com

© Copyright 2020. Baker Hughes Company. This material contains one or more registered trademarks of Baker Hughes Company and its subsidiaries in one or more countries. All third-party product and company names are trademarks of their respective holders.