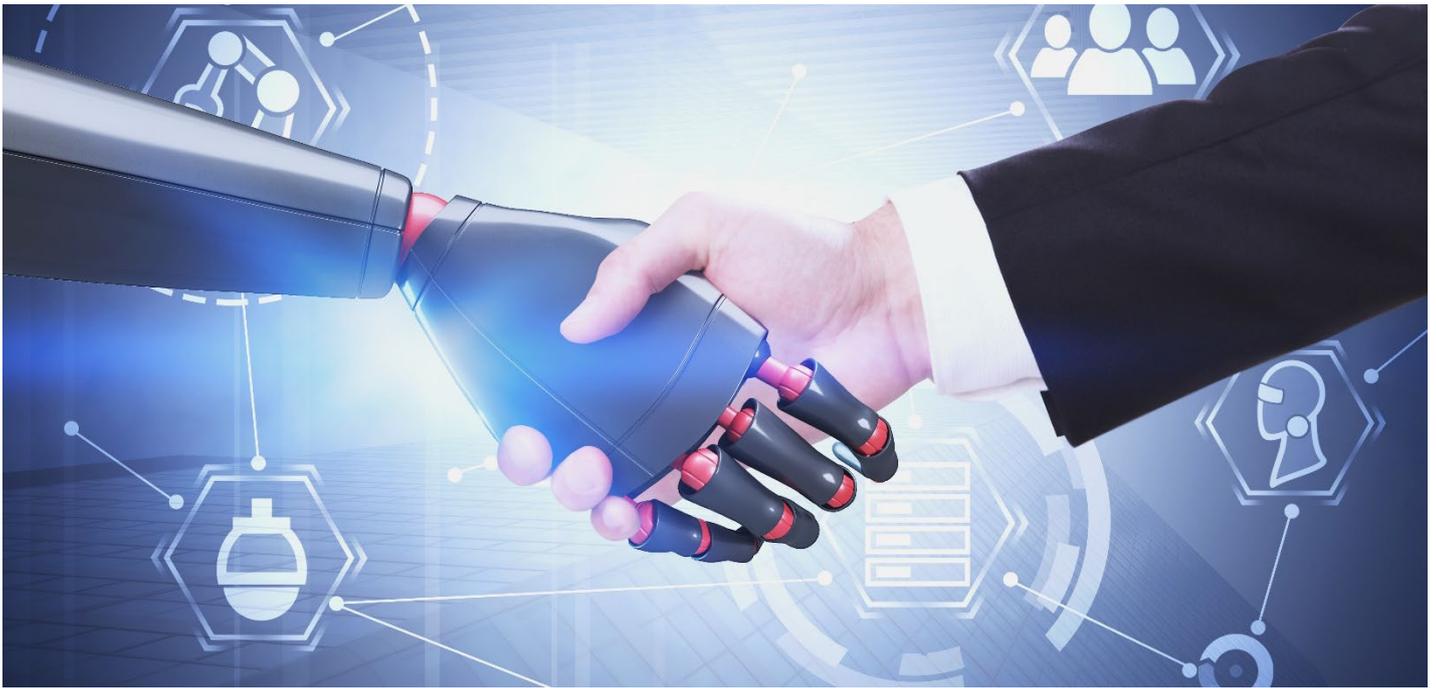




Asset Care Counts

10 Steps to Digital Transformation



One of our key focus areas for the ALS strategic vision is the development of innovative technology to continually improve our asset integrity and reliability services. The organisation through our interactions across a wide variety of clients understands that the future direction of testing and inspection will be the effective collection, use and visualisation of critical data.

Our technology partner, RedEye, shares our vision and is dedicated to improving the way organisations own and operate assets and critical infrastructure. Here are their 10 steps to help asset owners begin their digital engineering journey.

Digital transformation, industry 4.0, digital twins, internet of things, etc., – there are plenty of buzz words about the future of asset management, but most of our customers struggle to understand how to begin the digital transformation journey. For organisations that own and operate critical infrastructure, one way to achieve this is by following these 10 steps:

Step 1: Centralise all engineering content in one place

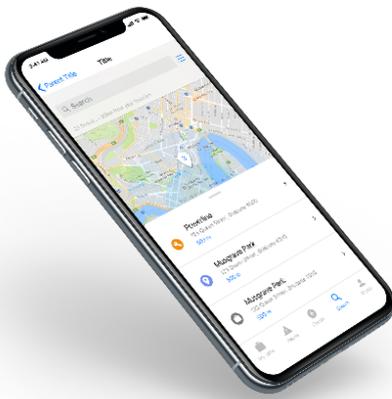
This can include drawings, 3D models, vendor manuals, operating procedures, photos, videos, and audio. Most large organisations have a core system like an ERP or EAM to manage elements like procurement or planning, but engineering data is spread across a number of disparate

systems to cater for various users. Instead of distributing uncontrolled copies via email, step 1 allows you to remove duplicates and locate engineering content in a central location where users come into the system to access the content.

Step 2: Store your data in the cloud

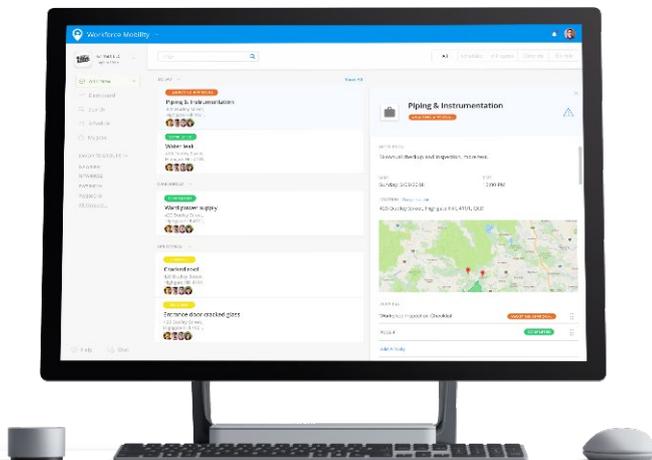
Using any of the major cloud providers, data is encrypted, and intellectual property is kept secure. If you're uncomfortable putting all of your eggs in one basket, your data can be backed up in a different location using a second service provider. Storing data in the cloud reduces infrastructure costs and allows for future growth and storage requirements. Furthermore, going with software as a service (SaaS) providers gives you access to the latest software and requires less maintenance.

Step 3: Access and update engineering content from anywhere



We're talking on mobile, in the field, in areas of low reception or offline. Empower consumers of engineering data like maintenance and project teams to access the latest version of a drawing or model using a google-like search instead of navigating a decades-old folder hierarchy.

Step 4: Configure best practice workflows



This will enable automatic notifications for your drawing office or design consultants when changes are made in the field. Notify and remind users of outstanding review and approval actions to drive compliance and meet statutory requirements.

Step 5: Use engineering content together with forms

Capture your findings in a digital and structured format. Do a walkdown utilising the latest approved drawing and work instructions, refer to component specifications in the vendor manual, record readings and raise any issues, all directly from the field.

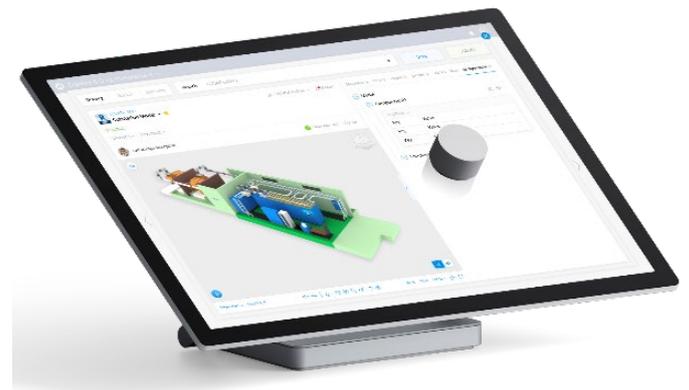
Step 6: Standardise the work performed

When you're working with different contractors, keep the history in your system, not theirs. Leverage structured inspection data to compare contractor performance, gain insights and create dashboards.

Step 7: Round out your dashboards, observations and insights

Incorporate operational, internet of things (IoT) and ERP, EAM or GIS data to complement your inspection data. Use an intuitive user interface to aggregate data and be the one place your team goes to access information from multiple systems.

Step 8: Perform inspections using 3D models



This includes pinning findings and non-conformances to your asset's 3D model or digital twin while in the field. Use a model's walkthrough mode to navigate through the asset and view issues in context and interactively click on the findings to learn more. Visualise clusters of critical issues on your asset and inform condition-based maintenance planning.



Step 9: Digitise your entire plant

Create a model of your entire plant or facility and use tags and your asset hierarchy to compare similar assets within or across sites. Navigate through your plant in 3D and assess the health of your assets through a series of visualisations.

Our Vision and Team

ALS and our partners are passionate about helping our customers successfully transition their integrity and reliability systems into Industry 4.0. We have both commercialised and under development initiatives underway which provide end users with a completely different perspective of asset health.

The business has a dedicated team to provide reliability and integrity solutions and consulting services.

This team is not only supported by our extensive group of technicians, inspectors and engineers but partners such as RedEye. This enables us to work proactively with our clients to understand your issues and tailor a transition plan which suits both priorities and budgets.

Step 10: Future-proof using artificial intelligence

Teach the system recommendations and equations to leverage the tacit knowledge of an aging workforce. Let the system learn from those you trust most and complement this with compliance and vendor recommendations. Leverage an intuitive user interface to aggregate your data and present it in a visual way, where recommendations and issues are visible to you, ready to action.

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