



Equipment Management Software

Industry 4.0 - Digital Twin

Challenges Faced By Businesses



- Huge costs incurred due to unplanned downtime of machinery and equipment
- Equipment installed incorrectly
- Machinery not being maintained properly
- Unplanned breaks in production
- No streamline of processes
- Inadequate training of engineers and staff
- High travel costs incurred by engineers travelling to site

The Solution



Robust Installation and Operational Control

- Installation and Operational documentation and quality control
- Digital installation and operational qualification process including dynamic PDF generation
- Full featured installation and operational qualification authoring with granular tests and signoffs
- Full audit log of completed tests and signoffs by user
- Digitise O&M manuals

Preventative Maintenance Scheduling

- Manage Preventative maintenance
- Automated maintenance schedule and procedures
- Detailed pre-authored maintenance instructions
- Parts kits for scheduled maintenance tasks with 'just in time' delivery
- Incomplete maintenance notifications for warranty purposes

The Solution



3D Interactive Maintenance Procedures

- 3D interactive machine walkthroughs that users can interact with
- Maintenance work orders
- Full audit log of completed tasks by each user

360 Scans

3D interactive walkaround allowing users to visualise the working environment and view related documentation remotely without being physically present on site, resulting in travel cost savings.

3D Interactive Parts Catalogue

- Full spares catalogue
- 3D interactive modelling to order parts
- Part detailed numbers with ability to create purchase orders
- Bill of materials

The Solution



Training System

- Industry 4.0 compliant
- Improve knowledge retention and measure success over time with management information and data reporting
- Learning materials in different formats including interactive 3D breakdowns and explanations. 3D models show, step by step, how to resolve problems
- 3D walk around allowing users to visualise the working environment without being there and view related documentation
- Interactive Training
- Test a user's knowledge - Individual learning records, automated repeat reminders and new topics.
- Integration with Learning Management System by being SCORM compliant
- Designed for machine management and maintenance, with a logging system that measures user interactions with documentation
- Build a comprehensive library of 3D models and topics

Share best practice so specialist knowledge is handed down to the next generation of engineers.

Additional Services



Technical & CAD Authoring

Done for you Digital Twin

To accompany the Invisu product and enhance the service you receive, we are able to provide full authoring of product and machinery documentation. Quality documentation is vital to an organisations success and critical for your customers. The key to effective product documentation for equipment is 3D integrated communications. We provide fully interactive 3D maintenance procedures and spares catalogues that the user can easily understand without any previous knowledge of the equipment. This 3D communication offers an intuitive, knowledge transfer which eliminates the risk of information being misinterpreted as is common with traditional methods.

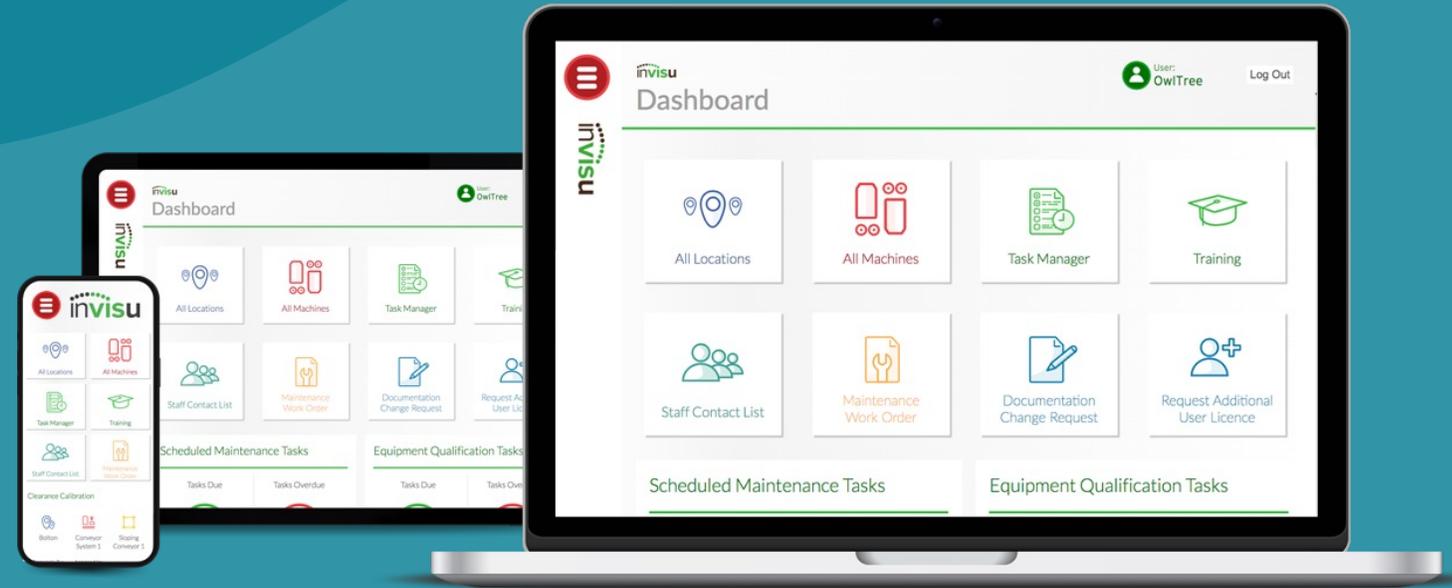
- Process and Machinery Document Authoring
- Training Documentation Creation
- 3D Interactive Creation and Support Documentation
- 360 Scans

Visit: <https://invisu.uk/services/> for full details of our Technical & CAD Authoring service.

Future Development



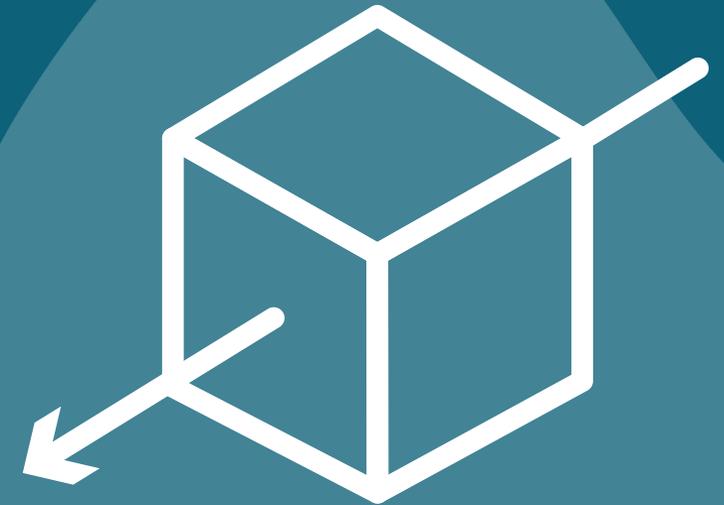
- Invisu is under continuous development and improvement
- It has a wealth of other existing features which help to support equipment in a manufacturing environment
- Condition based monitoring
- Diagnostic Tools
- AR/XR Augmented Reality
- Remote viewing by centralised engineers



Future Development Condition Based Monitoring



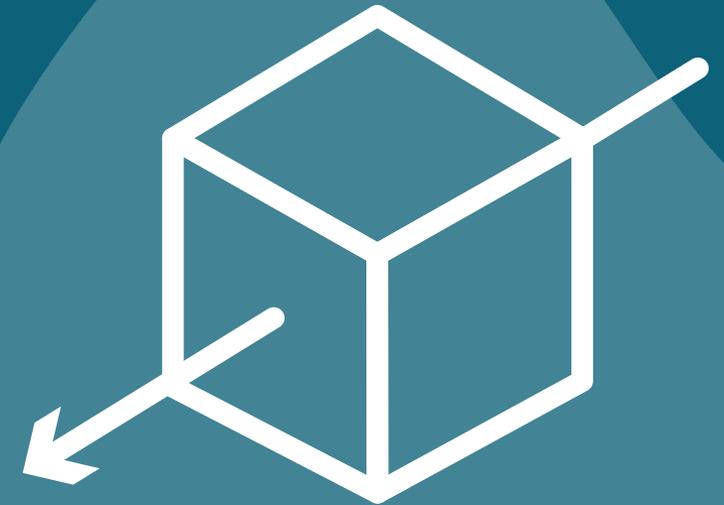
- Retrofit sensors for vibration, temperature, pressure and voltage etc.
- Sensors can be fitted to a critical part of equipment and machinery. The sensors feed into Invisu. Sensors are then able to report faults/issues outside of the machine's parameters. The Invisu system will notify an engineer to resolve the problem



Future Development Diagnostic Tools



- Develop a diagnostic tool alongside learning to compliment it
- Can be referenced in live situations
- Data from HMI feeds into Invisu which assists in resolving problems by narrowing down solutions quickly
- Once problem is identified - 3D interactive process to show how to resolve the problem
- System evolution AI/Machine Learning prediction tool



Delivery



- Invisu provided as SaaS and hosted centrally
- Cyber secure - highly compliant system
- Content loaded and managed from any location based on user access rights
- 3D interactive modeling will be prepared in conjunction with the client
- Diagnostic Tool developed in conjunction with the client
- Ongoing support
- System management and backups