

intertek
windaware

Managing asset integrity data, maintaining reliability and safety and minimizing costly equipment failure for wind turbine assets





WindAware, a cutting-edge software solution for organizing, managing, and retaining vital, wind asset information

Managing the life of wind turbine generator assets is a constant challenge.

Owners and operators need a tool that provides organized, readily available equipment data to make informed operational, maintenance, outage, and inspection decisions so Intertek developed WindAware.

This innovative software offers advanced solutions in data management, predictive analytics, and visualization for the wind turbine power generation. It uses a web-based environment, permitting information to be shared across different sites and groups securely.



WindAware integrates engineering, failure analysis and technology to safeguard your wind generation assets.

Inspect for Success

WindAware software is used to track, trend, plan and report asset, maintenance, and performance information for any component of a wind turbine and BOP.

The software has visualization capabilities that overlay recorded information on Wind Map.

WindAware allows users to track the inspection history of every tower component quickly and easily.

Inspectors can use Mobile Aware on multiple devices to document inspections in the field instantaneously, or inspection results can be imported later.

Data visualization permeates the software design.

Recorded information can be located and reviewed on interactive drawings, for example, allowing the user to visually compare degradation or anomalies across different blades using Visual Aware.

Optimize Asset Performance

Our proprietary algorithms utilize prediction and visualization to help manage and optimize the operations of wind turbines.

The analytics tools include general purpose life-data analysis to forecast and improve the remaining useful life of wind turbine equipment.

WindAware uses proprietary machine learning, probabilistic remaining useful life (PRUL), and economic models for run-repair-retire decisions.

WindAware benefits include early fault and temperature anomaly detection, summary tables showing generation, availability, and failures, and enhancing the supervisory control and data acquisition (SCADA) system capabilities.

 [PLAY WINDAWARE VIDEO](#)

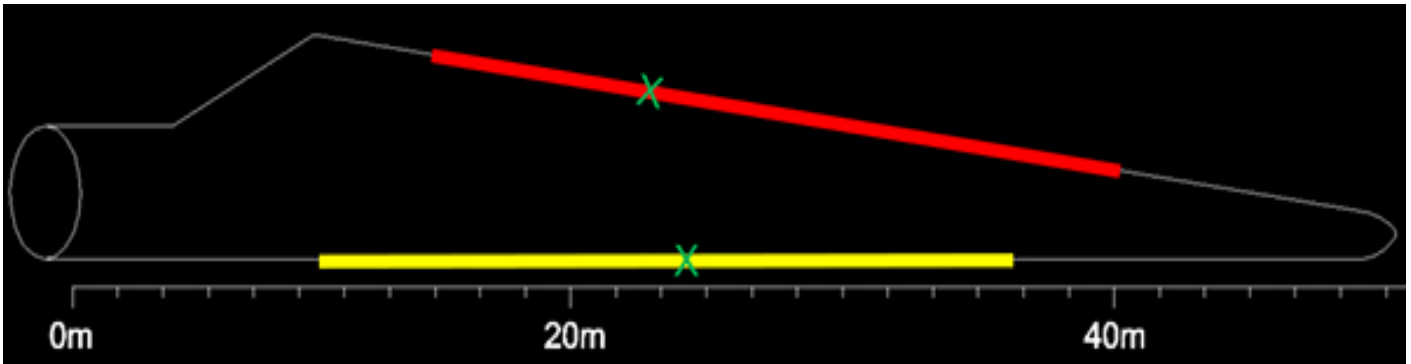


Improved Asset Life

WindAware aggregates complex data coming from multiple vendors and sites in a single platform. It allows users to see the bigger picture and identify trends that reveal deteriorating equipment.

It also benchmarks asset and operational information and KPIs against similar sites and includes GADS data reporting. WindAware can improve decision making, ensure accuracy and standardization, and increase the efficiency and effectiveness of O&M activities.

With Computerized Maintenance Management System (CMMS) integration and customizable home page widgets for each user, WindAware is the perfect tool to complement an existing work order management system or start a new reliability program by using informed analytics to determine, schedule, and track inspections.



Visual showing blade wear and tear

Features

- Customizable inspection checklists for any turbine and balance of plant component for onshore and offshore
- Inspection, repair, and replacement tracking, planning, and reminders
- Damage mechanism prediction
- Unlimited number of users
- Security: tailored user access
- WindMap – visual tool with asset, inspection, and maintenance summaries
- Visual Aware: interface with AutoCAD
- Mobile Aware: Inspection data import/export in field using tablets, UAVs, phones, and smart glasses
- Benchmarking assets and KPIs
- Customizable alerts, e.g. flagging high Fe content in bearing lubrication
- GADS performance and component outages reports
- Customizable analytical widgets
- One platform for all in house, vendor and OEM data and reports
- Documenting component IDs for consistent inspection and repair location IDs
- CMMS integration (e.g. SAP and Maximo)



Inspection planning



Benchmarking with wind insights



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