Reduce YOUR wind fleet O&M costs through both predictive maintenance and ROI based asset life extension

# DigitalClone<sup>®</sup> for Wind Operations and Maintenance (DC-OM)





#### Calculating Wind Turbine Health and Remaining Useful Life (RUL)

Sentient Science provides DigitalClone for Wind Operations and Maintenance (DC-OM) as a field-validated SaaS solution to wind turbine operators, service providers and OEMs for a holistic view of the health and remaining useful life (RUL) of an asset's critical systems and components. This solution helps optimize predictive maintenance programs towards reducing O&M costs and extending asset life.

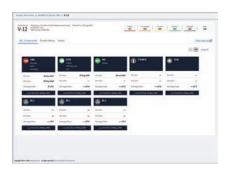
Our customers use DC-OM as either a stand-alone monitoring product or a complementary unifying solution with existing CMS/diagnostic solutions - in both these use cases, DC-OM is optimized to

1) autonomously detect actionable damage in assumed-healthy assets and,

2) provide tracking of damage progression with robust uncertainty quantification. The DC-OM insights are powered by a proprietary fusion framework of physicsinformed machine learning fueled by a unique cross-source data unification architecture.



#### UNIFIED PLATFORM FOR DAMAGE PROGRESSION AND LIFE ESTIMATION



DigitalClone for OM provides a unified platform for assessing damage progression and predicting remaining life for wind turbine major components and systems

- For individual wind turbine Main Bearing (MB) and Gearbox (GBX), we predict remaining useful life (RUL) using damage trajectory modeling of both healthy and non-healthy assets based on and depending on the data available to DC-OM
- For blades and structural components that make up a wind turbine, we integrate third-party models to estimate remaining load cycles until failure of the component.

### WATCHLIST OF ASSETS



For individual wind turbine MB and GBX, we generate a consolidated watchlist of assets both known running with damage and predicted running with damage.

### COST CALCULATOR

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DigitalClone supports a life extension cost calculator to allow users to create multiple maintenance strategies, compare them and select one. This feature is a key requirement for being able to generate forecasts of spend based on your asset's current and future predicted health state.

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User Interface for DigitalClone for Operations and Maintenance (DC-OM) showing wind assets running with damage by remaining useful life (RUL) predictions.

## **CONTACT US TODAY FOR A FREE DEMO!**

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