

PHM – Product Release Note

2023/11/22

1. Release table

Version	Release date	Main features
V1.3	2023/11/3	(1) Machine on/off detection (2) ISO 10816 standard setting
V1.4	2023/11/24	(1) Machine data integrates with AI inference result (2) Support notification, and maintenance task setting based on inference result. (3) Dashboard improvement – overview of the machine's future health score and visualize key affecting factors.

2. Version 1.3

2.1. Detect the on/off status involving environment vibration factors

- Set the background vibration threshold to enable the model to detect the machine's operating status.

Environment Setting

Background Vibration Threshold *

1

Enable *

on

Machine Category *

Small-sized Machine: rated power <= 15kW

2.2. ISO-10816 standard setting

Set the machine type as follows, to specify the health score according to different machine type

Machine type
Small-sized machine: rated power up to and including 15 kW
Medium-sized machine: rated power above 15 kW up to and including 300kW
Large-sized machine: rated power above 300 kW
Integrated driver
External driver

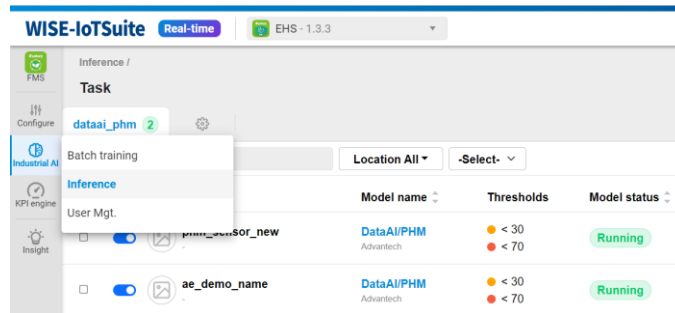
Medium-sized machine: electrical machine with shaft height above 160mm up to and including 315mm

Large-sized machine: electrical machine with a shaft height of more than 315mm

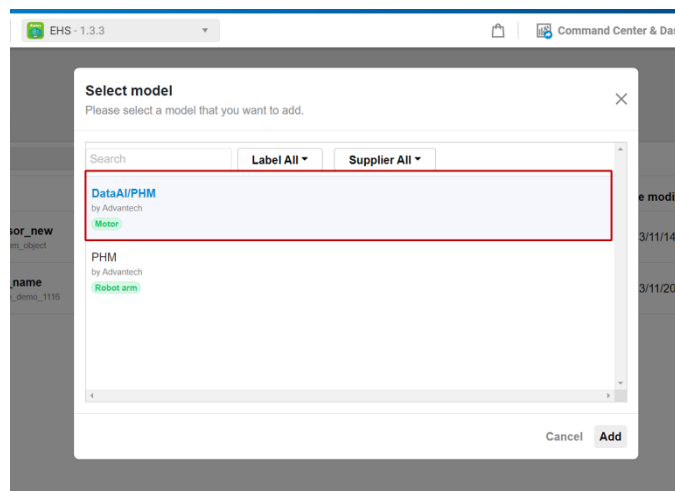
3. Version V1.4

3.1. Simplified machine data management and application

- Achieve the following features by applying the updated “DataAI/PHM” model:



Go to EHS/Industrial AI/Inference to manage all the inference task bounded with motors



Select DataAI/PHM for updated model

- **Simplified MQTT data upload:** No more managing the MQTT setting on the PHM configuration page. Send the MQTT data to the Object Management Platform directly through NodeRed, and easily apply the data to different Apps, including PHM.

Task Setting

Warning Threshold (%) *
70

Critical Threshold (%) *
30

Machine Information

Machine Category *
Small-sized Machine: rated power <= 15kW

Machine Foundation *
Rigid

Background Vibration Threshold *
0.1

Enable Background Vibration Threshold *
Disable

Sensor Information


Module *
WISE-2410

Signal Type *
Vibration

Simplified PHM task setting.

- **Enable the data application:** Synchronize the PHM inference result on the Object Management (Enabler) platform. This will make it easier than ever to extend the application of our inference results through i.Apps, for instance, iMobile and Maintenance.

MACHINE

 **phm_sensor_new** ✎ 📄 🗑

Date modified: 2023-11-16T03:12:55.349Z

[🔗 Parameter List \(39\)](#) |
 [🔗 Parameter set list \(0\)](#) |
 [🔔 Alarm event list](#)

<input type="checkbox"/>	Parameter name	Parameter type	Value	Value type
<input type="checkbox"/>	health_score	Constant	0.7119	Number
<input type="checkbox"/>	phm_sensor_DataAI/PHM	Constant	71.03	Number

See the inference result from the model of the machine

3.2. Support notification, and maintenance setting.

- PHM inference result is now integrated into machine data, which means you can directly trigger the notification events or maintenance task rule according to standard processes based on the future health score.

3.3. Dashboard update:

- **Machine Status Overview, for real-time status and prediction result:** Gain a clear understanding of your machines' real-time health with a machine health score and future status predictions.

- **Health Score Trends:** Keep track of your machine's health score historical trends and predicted trends. This feature allows you to spot potential issues before they become critical.
- **Status Classification:** We now categorize machine statuses into "Normal," "Warning," and "Critical" based on their health score. This makes it simple to identify which machines require immediate attention and which are operating smoothly.
- **Machine Operation Status Auto-Detection:** Our system now adapts to your machine's on-off schedule, ensuring you have the most accurate insights into its health.

