Using AI to recommend – quickly and accurately - areas of equipment and machinery needing repair

**Repair Recommendation Service**

Creating an analysis model for repair know-how from past break-downs and repair history, and using optimum suggestions for areas needing repair to help improve First Call Resolution rate and First-Time Fix rate.

**The Concept of Repair Recommendation**

In response to break-downs, AI will suggest the most likely areas needing repair to CEs. It creates an analysis model of data from break-down and repair histories of our customers’ machinery using analysis and IT technology that utilizes maintenance knowledge.

**Image of Using the Service**

If a break-down in machinery occurs, the analysis model will automatically suggest the optimum repair contents based on the break-down circumstances, so the maintenance receptionist or CE in charge can optimize repair work, reducing downtime of users’ machinery.

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**Customer Engineer**

- **Combining AI technology (machine learning) and multiple algorithms to create a Customized unique AI engine**

**Customer**

- Machinery break-down and repair history
- Analysis and IT technology that utilizes maintenance knowledge

**Hitachi**

**Machinery user**

- Break-down occurs
- Reducing downtime with swift, optimum repair

**Maintenance receptionist/CE in charge**

- Break-down information
- Providing repair service
- * Problem-solving advice by phone
  * Suitable advance preparations
  * On-site swift break-down investigation

**Repair recommendation**

- Break-down history
- Repair history
- Prepared item and component list
- Automatically suggests optimum repair contents
- Machine learning
- AI engine
- Suggesting areas needing repair
Merits of Using the Service
Digitalization of maintenance know-how enables work to be more efficient. Suggesting optimum countermeasures and broken-down areas achieves results at the time of receipt of break-down alert, such as improving First Call Resolution rate and First-Time Fix rate in on-site repairs.

Break-down occurs

Receipt of break-down alert
Up till now
Work instructions to CE in charge

Once using service
Minor break-downs rely on user response

Identifying broken areas
Without know-how, it takes time

First Call Resolution rate
UP!!

First-Time Fix rate
UP!!

Recommendation for person in charge of receipt
Recommendation for CE in charge

Process Leading up to Using the Service
We enable customers to benefit by using our Repair Recommendation Service after understanding customer issues and data.

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<td>Customer</td>
<td>Provision of issues/data</td>
<td>Clarify issues (target KPIs) and service application points</td>
<td>Trial in customer environment</td>
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<td>Repair Recommendation based repair</td>
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<td>Goal of each phase</td>
<td>Decide whether to go ahead with PoC or not</td>
<td>Testing the influence and outcome of this service on customers’ business</td>
<td>Start application of this service for real and expand application range</td>
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</table>

*1 PoC : Proof of Concept

Service and product specifications featured in the catalog can change without warning due to improvements etc.

For more information about the products please contact us
Product Introduction’s Website
https://www.hitachi.com/products/it/control_sys/skilled_maintenance/repair_recommend/