



Prognostics and Health Management (PHM)

Health management is the discipline of linking the monitoring of failure mechanisms and residual life estimation to the system's lifecycle management in order to minimize system downtime and supportability costs.

MADe enables the user to identify, model and analyse the failure concepts that are inherent to each potential failure mode of the system (cause / mechanism / fault / symptom). MADe uses automated dependency mapping to understand how failures propagate through a system and increase the accuracy of fault detection and isolation.

Importantly, MADe provides an integrated model approach to the design and validation of diagnostic capabilities that can provide a PHM capability for complex equipment and systems – leveraging existing control systems and BITs to minimise the cost of implementation.

Typical questions that MADe can be used to answer in relation to PHM:

- Do the current or proposed diagnostic capabilities for a system have the ability to identify and isolate critical failure modes?
- What are the alternate combinations of sensors and their locations in the system that provide these required diagnostic capabilities?
- What model based diagnostics can be provided to operators / maintainers?
- What impact will introducing PHM capability have on system availability or through life cost?