

MAINTENANCE AND RELIABILITY

Living Reliability (LR) is a maintenance software and consulting firm providing assistance in the area of maintenance and reliability.

Our consulting services are based on a process called "Living RCM Certified", a new and proven strategy for effective maintenance knowledge and information management for "Achieving Reliability from Data".

Data includes "Age data" from the work order database, "Condition data" from monitoring activites and systesm, and "Business data" from the determination of the comparitive costs of failure and prevention.

The Living RCM Certified process achieves continuous improvement in maintenance effectiveness through Reliability Analysis (RA). Living RCM Certified generates accurate EAM work order data for RA and for systematic growth of the RCM knowledge base.



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Implementers of LRCM

Living Reliability Inc.

- Representatives of the LRCM process and EXAKT CBM Optimization
- LRI and its network of Consulting partners, provide all the training, support, and consulting services for the successful implementation of EXAKT CBM optimization software

Case study

Cerrejón Colombia www.livingreliability.com/en/?p=512

Living RCM Certified, the missing link between data and reliability.

For many decades maintenance engineers have tried to collect data in order to improve reliability while lowering operational and maintenance costs of the assets under their care. Companies continue to invest vast resources in a variety of maintenance information systems.

Yet rarely does their stored data contribute to making accurate, optimal, and decisions. Maintenance engineers can seldom analyze maintenance related databases in order to gain insight with which to improve Predictive Maintenance performance. Although their information systems will generate limitless amounts of information, adding complexity, they do little to achieve reliability from data.

Nevertheless, maintenance managers and engineers have long believed that within their data lie the secrets for the achievement of optimal decisions. This belief has driven the growth of technologies and tools with which to collect, view, manipulate, store and analyze unlimited amounts of data. Now, the burning questions require their response:

- What data from among a huge supply should I select for optimal decision-making?
- What element of control is lacking from conventional maintenance information procedures that will allow the maintenance Engineer to achieve reliability from data?



CONTINUOUS IMPROVEMENT

The Living RCM Certified process is one of continuous improvement.

It focuses on the management of maintenance information in the most simple and comprehensive way.

It enhances the RCM knowledge base naturally and dynamically.

It instills RCM thinking into dayto-day work order management.

It guarantees *perfect* data for Reliability Analysis and decision modeling.



AN INTEGRAL SOLUTION

The LRCM process integrates with current systems (CBM, CMMS, RCM) regardless of their technology platforms.

It manages the relationship between work orders with the RCM knowledge base.



A HUMAN PROCESS

LRCM enables the motivational factors essential to successful leadership and performance in maintenance:

- Recognition,
- Interest,
- Empowerment.

Living RCM Certified improves data quality and hence the maintenance decision process.

Living RCM Certified is the missing link in the chain of observation, data, information, knowledge related to the day-to-day work order related process. It is a new yet proven concept that integrates RCM principles in efficient communication of the right information needed for Reliability Analysis — the pre-requisite for safe reliability improvement and cost reduction.

Living RCM Certified relates RCM/FMEA/FMECA and similar knowledge bases to the work order system. Each significant work order, by virtue of this relationship, contributes a sample point for Reliability Analysis. This ensures that data will truthfully support actions taken via decision models created from Reliability Analysis. For example, based on current condition monitoring data, what is the *optimal* decision to take? Should we intervene immediately? Should we plan to take a maintenance action at some specified time? How much time? Or is the "best" decision to continue operation until the next condition monitoring observation. How do we formulate a decision making policy to answer these questions *systematically* day-to-day?

Living RCM Certified addresses the 3 challenges for the achievement of the reliability from data.

- 1 Management of the relationship between the work order system (CMMS, EAM, ERP) work and the RCM knowledge base,
- 2. Sample generation, and
- 3. Reliability analysis.

The Living RCM Certified process routinely provides the right data to all types of Reliability Analysis software applications thereby ensuring measurable continuous improvement in maintenance effectiveness.



Living RCM Certified Consulting OFFER OF SERVICES

- Consulting in the Living RCM Certified process.
- Living RCM Certified Assessment study delivers, a contractual agreement stipulating the benefits to be achieved, level of effort, cost, and work plan.
- Living RCM Certified Implementation: A three month project in which the continuous improvement process of Living RCM Certified will be implemented and its benefits documented.

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