



## VAIL-RCM

### RELIABILITY CENTERED MAINTENANCE

Improve the reliability of your facility through well targeted optimized maintenance strategies

**VAIL-RCM** is a software tool, developed to optimise preventive maintenance activities based on Reliability Centered Maintenance (RCM). In principle, this implies that the maintenance strategy is established on the basis of a systematic evaluation and recommended strategies are based on the common experience of the participating organizations taking into account generic information.

### WHY VAIL-(RCM)?

**VAIL-RCM** software provides RCM analysis, data management and reporting. This software is based on OREDA Offshore Reliability Data 2002 standards and provides extensive customization capabilities. **VAIL-RCM** helps the RCM analyst to analyze the RCM in three levels (FMEA/FMECA, risk analysis & PMRs (Plant Maintenance Routines)).

### FULLY FEATURED

- Carry out FMEA studies to evaluate the effect of remedial actions before they are implemented.
- Specify your acceptance limits for safety and economic risk to get the most cost-effective maintenance plan that maintains the risk below the acceptable levels.

### USER FRIENDLY

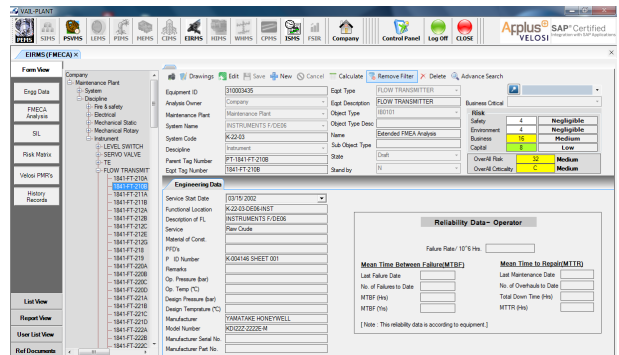
- Consistent Microsoft Windows Interface with navigation using Explorer style browser.
- Form of spreadsheet view for flexible data handling.

### FLEXIBLE

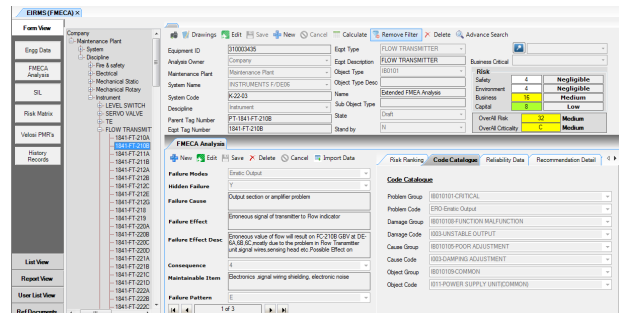
- Create management or technical reports
- Use service history inspection results to adjust the risk levels according to actual findings and revise the maintenance plan accordingly.

### FUNCTIONAL FEATURES

- Includes Inbuilt FMEA and reliability data of equipment based on OREDA, which works like an expert system.
- Capable of performing FMECA, risk analysis and Planned Maintenance Routines.
- Advanced reporting Features (trends/dashboard).
- Advanced User View Capabilities, where users can make their own queries to view information.
- MTBF & MTRR Strategies for reliability analysis.
- Risk matrix methodology.
- Advances data importance/exporting features.



VAIL - RCM Main Screen view



Code catalogue view

## ANALYSIS LEVELS

VAIL-RCM uses the following analysis levels to build up a reliability maintenance strategy:

## FMECA ANALYSIS

It performs FMECA (Failure Mode, Effects and Critical Analysis) based on its inbuilt Database (OREDA offshore reliability Database) in the most effective and efficient way.

## OPERATOR RELIABILITY DATA

Includes Operator reliability data for each equipment type based ORDEA Offshore reliability Data 2002 Standards.

## RISK MATRIX ANALYSIS

It identifies, analyzes, treats and monitors risks associated with each tag and shows in a Risk Matrix Form the most effective way to minimize losses and maximize equipment availability. It counts the total number of tags at risk in each combination of probability of failure and consequence of failure.

## RISK MATRIX ANALYSIS

VAIL-RCM enables the user to assign Planned Maintenance Routines for items or tags which are high or medium risks. Additionally, it includes inbuilt features in the database to assign maintainable item lists for all tags or items that are considered at high risk.

Counter	Resource	Required Equipment	Emp Interval	Unit	Operations	Operation Code	Operation Description	LongText
1	Utility	ON	24	Hours	10	OPR	Appearance	Check the PV
1	Maint	ON	3	Months	10	OPR	Appearance	Perform vis
1	Maint	OFF	18	Months	10	OPR	Preparation and Arrangements	Fill up PFR
1	Maint	OFF	18	Months	20	OPR	Shutdown of diff. pressure trans.	Set the shu
1	Maint	OFF	18	Months	30	OPR	Checking of wiring & grounding	Check the
1	Maint	OFF	18	Months	40	OPR	Calibration	Calibrate @
1	Maint	OFF	18	Months	50	OPR	Checking of impulse piping	Check the

PMR Screen view

Risk	Code Catalogue	Reliability Data	Recommendation Detail
High	4	High/Low	High
Medium	10	Medium	Medium
Low	1	Low	Low

Risk Ranking Screen view