made

decisions better MADe...

The Maintenance Aware Design environment (MADe) is an integrated toolset designed to identify and mitigate technical risk, optimize the design process, mitigate risks, increase availability and promote continuous engineering innovation for complex engineering systems.

The MADe Suite combines modelling with analyses to enable trade studies on the safety, reliability and maintainability of complex engineering systems.

PHMTechnology
www.phmtechnology.com

What does MADe Suite do?

Design

An engineering based Decision Support Solution (DSS) that enables modelling, technical analysis and trade studies of alternate design configurations for Safety, Reliability and Cost of Ownership. The DSS should be simulation based and integrated with the Digital Twin / Thread to ensure concurrent, automated and objective risk identification and mitigation processes at each stage of the design process. All knowledge generated must be configuration controlled, extensible and effectively managed / transferred to internal and external stakeholders across the product lifecycle to enable continuous optimization of the ownership cost.

Sustainment

A decision support solution (process and tools) that integrates the analysis capabilities required to support trade studies on Availability, Safety and Cost of Ownership. To ensure consistency in the decision process and knowledge transfer & management capability across the lifecycle with, the solution should be model based (digital) with standardized analysis workflows and data structures, a high degree of automation, and the ability to integrate with related engineering and asset management applications (e.g. PLM).

Benefits

- Understand the cost impacts of design configuration & mission profile
- Concurrent risk identification and mitigation (Model-based)
- Technical validation for budget forecasts
- Structured / automated analysis workflows

Benefits

- Understand lifecycle impacts (availability and cost)
- Integrated risk Identification and mitigation
- Optimize the decision process
- Knowledge capture / transfer

Customers

PHMT has a significant global footprint in the International market with customers in the US, Turkey, UK, China, Russia and Australia:

U.S. ARMY · U.S. AIR FORCE · PRATT & WHITNEY DEPENDABLE ENGINES · GENERAL DYNAMICS Land Systems · BAE SYSTEMS · AUSTAL · aselsan · serco

PHMTechnology
www.phmtechnology.com

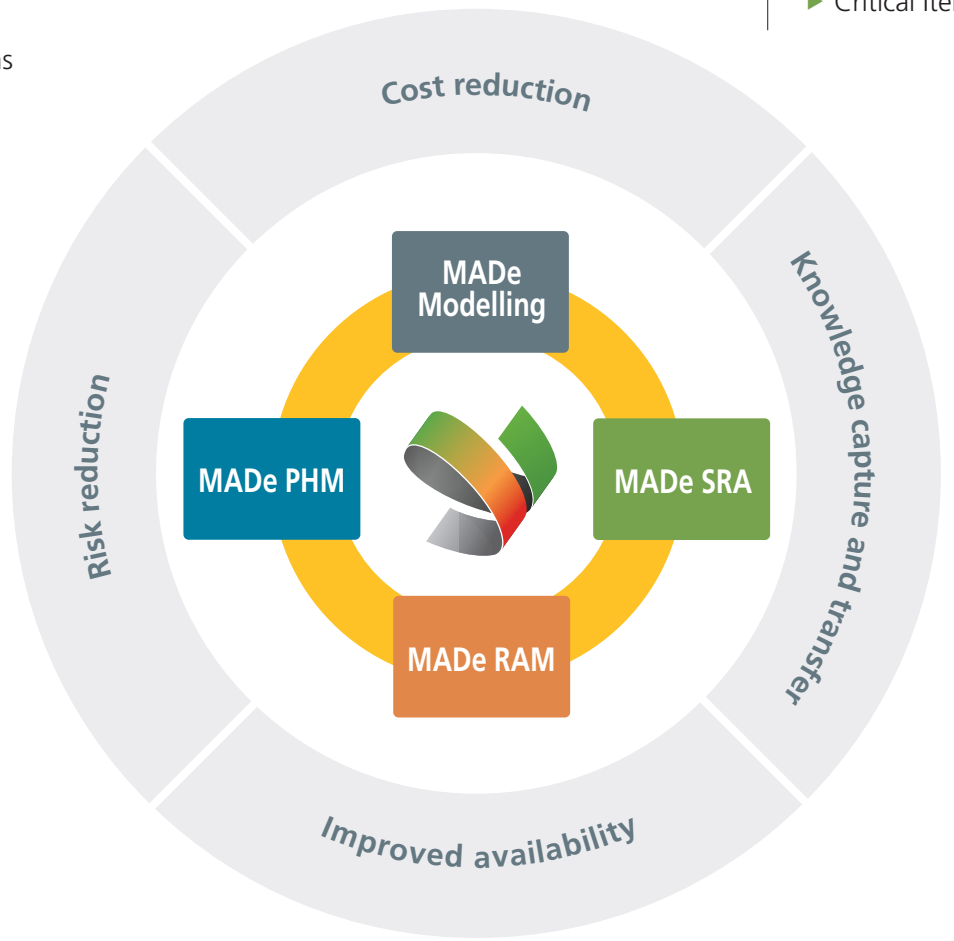
Outputs Summary

MADe Modelling

- FBD Model
- Failure simulation
- FMEA Report
- Mission Profile Report
- ESI
- Failure diagrams
- CAD Import

MADe SRA

- FMECA Report
- Fault Tree Analysis
- Failure Charting
- Criticality Charting
- Critical Item Analysis



MADe PHM Analysis

- Automated Sensor Set generation
- Sensor optimization
- Diagnostic rules
- Diagnostic Assessment
- Ambiguity Report

MADe RAM Analysis

- Reliability Block Diagram
- Reliability-Centered Maintenance
- Back-Fit Reliability-Centered Maintenance
- Maintenance Cost Estimate
- Reliability Allocation

Teamcenter Integration

MADe has an integration with Teamcenter (TC) that enables the PLM data and information to be used to generate analysis models and populate relevant parameters required to conduct safety, reliability and supportability analyses. The MADe - Teamcenter integration automatically. identifies and displays matching items and hierarchies during the import /export process, based on the current design state. Automated updates andchanges to the system model in MADe then enable configuration management of the analysis required to optimise safety, reliability and supportability capabilities at each stage of the product lifecycle.

Modules

MADe Modelling
MADe Safety and Risk Management (SRA)
MADe Reliability Availability Maintainability (RAM)
MADe Prognostic Health Management (PHM)

Features

MADe Automated Dependency Mapping (ADM)
MADe Libraries
MADe Taxonomy

Capabilities

MADe Airworthiness
MADe Airworthiness (ARP 4761)
MADe Seaworthiness
MADe Teamcenter
MADe Acquisition
MADe Internet of Things
MADe Asset Management
MADe Bid and Proposal
MADe CAD Integration
MADe Sustainment

Functions

MADe FMEA
MADe Reliability Allocation
MADe Condition Based Maintenance (CBM)
MADe Reliability Centred Maintenance (RCM)
MADe Mission Profile Definition (MPD)
MADe Maintenance Effectiveness Review (MER)
MADe Maintenance Cost Estimates (MCE)
MADe Environmental Scaling Impact (ESI)
MADe Failure Diagrams
MADe FRACAS
MADe Fault Tree Analysis (FTA)

For more information about any of the topics above,
visit www.phmtechnology.com or Email us at info@phmtechnology.com

PHMTechnology

PHM Technology
9/120 Queens Parade,
North Fitzroy 3068
VIC Australia

T: (+61) 3 9482 2007

E: info@phmtechnology.com

www.phmtechnology.com

© 2017 PHM Technology. All rights reserved. PHM Technology and MADe are registered trademarks of PHM Technology Pty Ltd. Teamcenter is a registered trademark of Siemens Product Lifecycle Management Software Inc.