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Agenda

- Introduction
- Reliability Leaders
- Your Journey
- Asking for Help
- Legacy
- Reliability Framework
- Case Study
- Request

ARMS Reliability Global Locations

With nine offices and over 50 facilitators worldwide, ARMS Reliability can deliver training and services across all corners of the globe.

•Office Locations:

- UK - Manchester and Aberdeen
- Canada – Calgary
- Australia – Ocean Grove, Brisbane, Newcastle
- North America – Austin

The ARMS Reliability Difference

- Delivering Reliability Improvements since 1995
- Global Distributors of the Isograph Reliability Software Suite & Apollo Root Cause Analysis Training and Software
- Lead the functional design of Availability Workbench
- Lead functional design of SAP Integration
- Not just a software house; Maintenance people understanding maintenance issues
- CMRP's (**C**ertified **M**aintenance & **R**eliability **P**rofessionals)
- Not just about the tools; Understanding and Implementation is the key to long term success and sustainability
- Links with CBM experts

My Reliability Journey

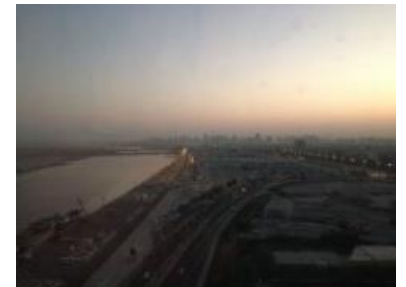
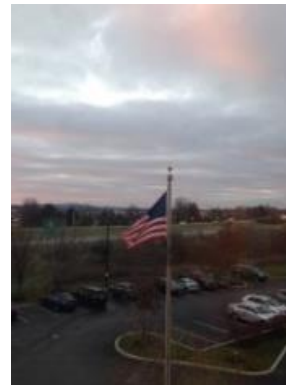


Monday 12th Aug 1985

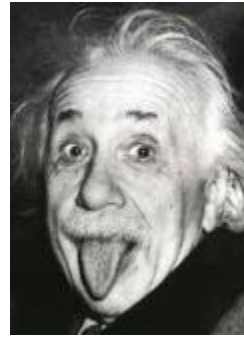
Friday 19th Nov 1982



My Reliability Journey



Reliability needs Strong Leaders



What is Reliability?

- “Never Fails”
- “Something runs when I want it to run”
- “Meeting production targets every time”
- “Right maintenance at the right time”
- “No accidents”
- “Good planning”

Your Journey and Direction



Don't condemn
yourself for where
you are.

It is only where you
are in your journey.

Now choose your
direction.

Please Ask for Help



Be Aware....Legacy Maintenance Initiatives



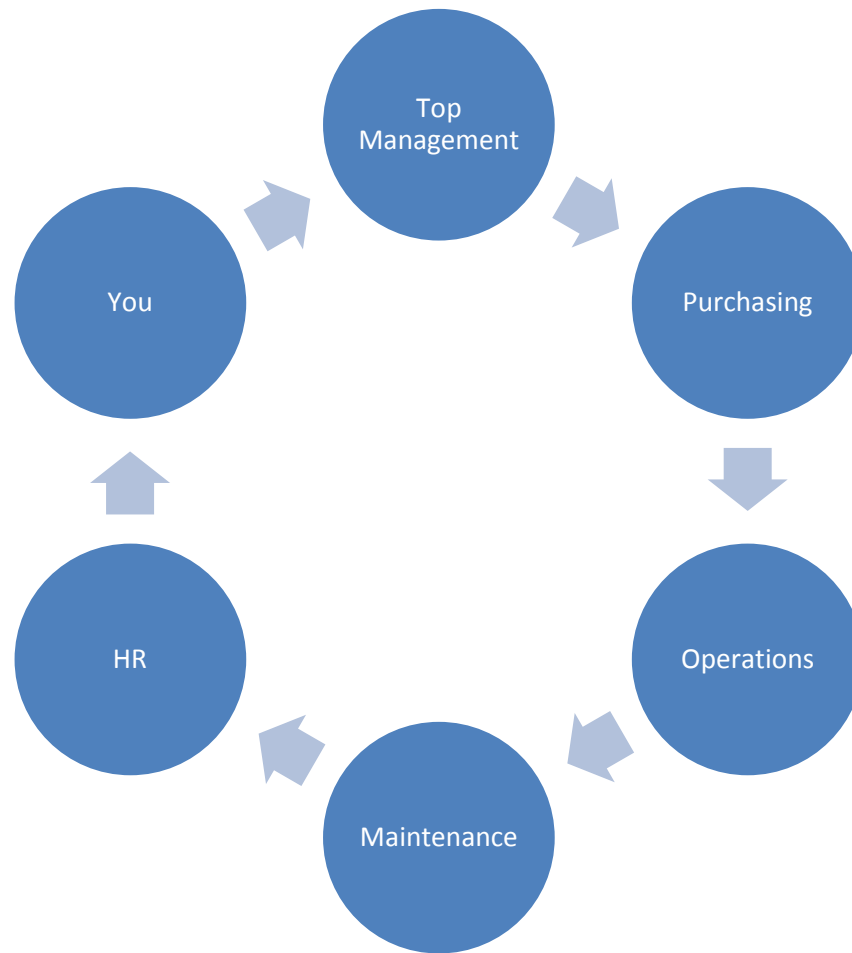
Source:reliabilityweb.com

RCM
MRO
CMMS
RCA
TPM
OPX
Planning
PMO

Do Any Reliability Methods Work?

- 70% of the time – No!
- Front line alignment and coordination is missing (people affected by change do not understand the new system)
- Simple execution is overwhelmed by daily work
- Management by lag indicators (MTBF/OEE)
- Reliability is treated as an engineering exercise
- Many methods aim at labour/resource efficiencies (software/planning/MRO)
- Many methods being sold are not disciplined in failure elimination or reduction (Condition Monitoring not linked to failure modes)
- Data integrity is not available to support current decisions or future refinements

How does Reliability occur to others in your Business?

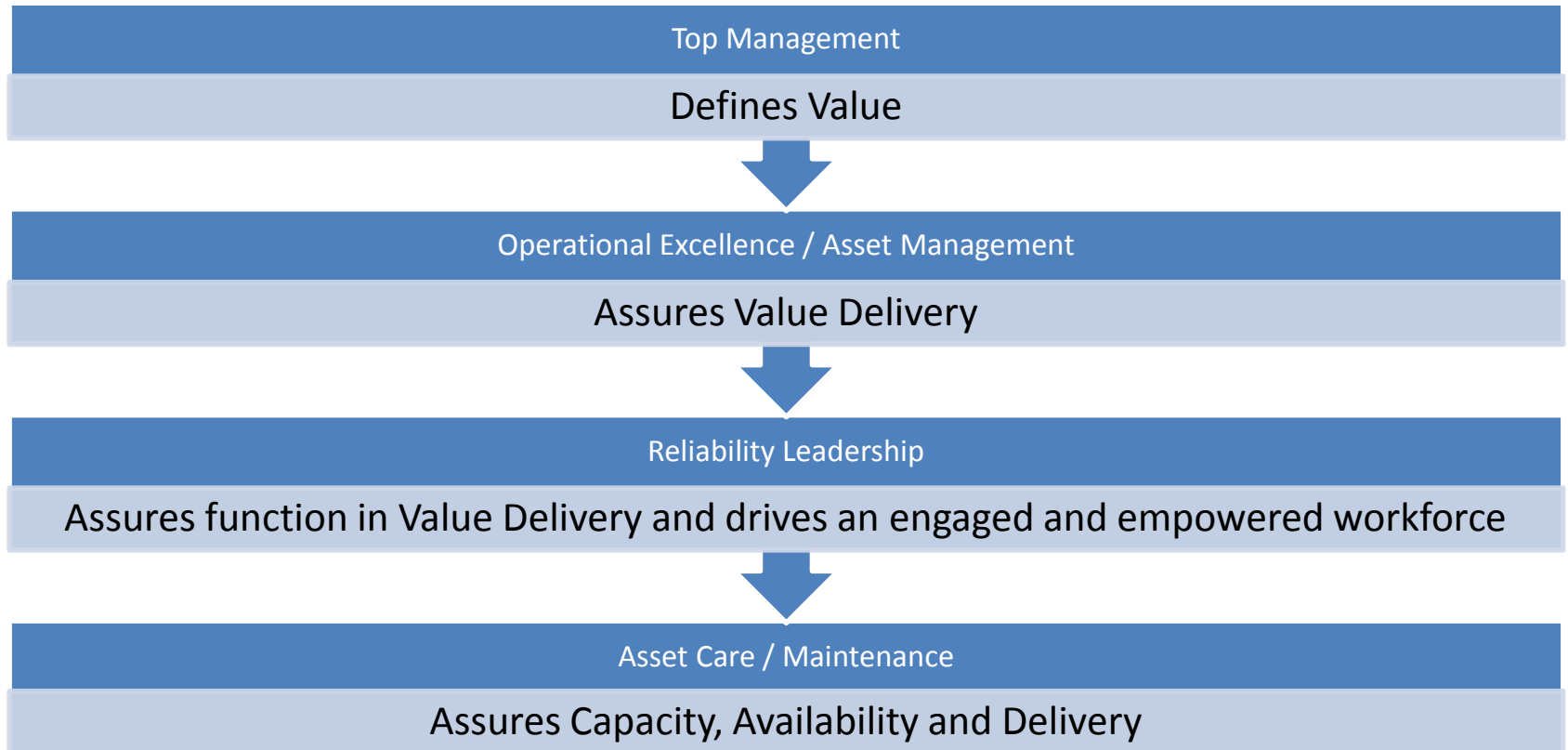


The Most Common Failure Mode

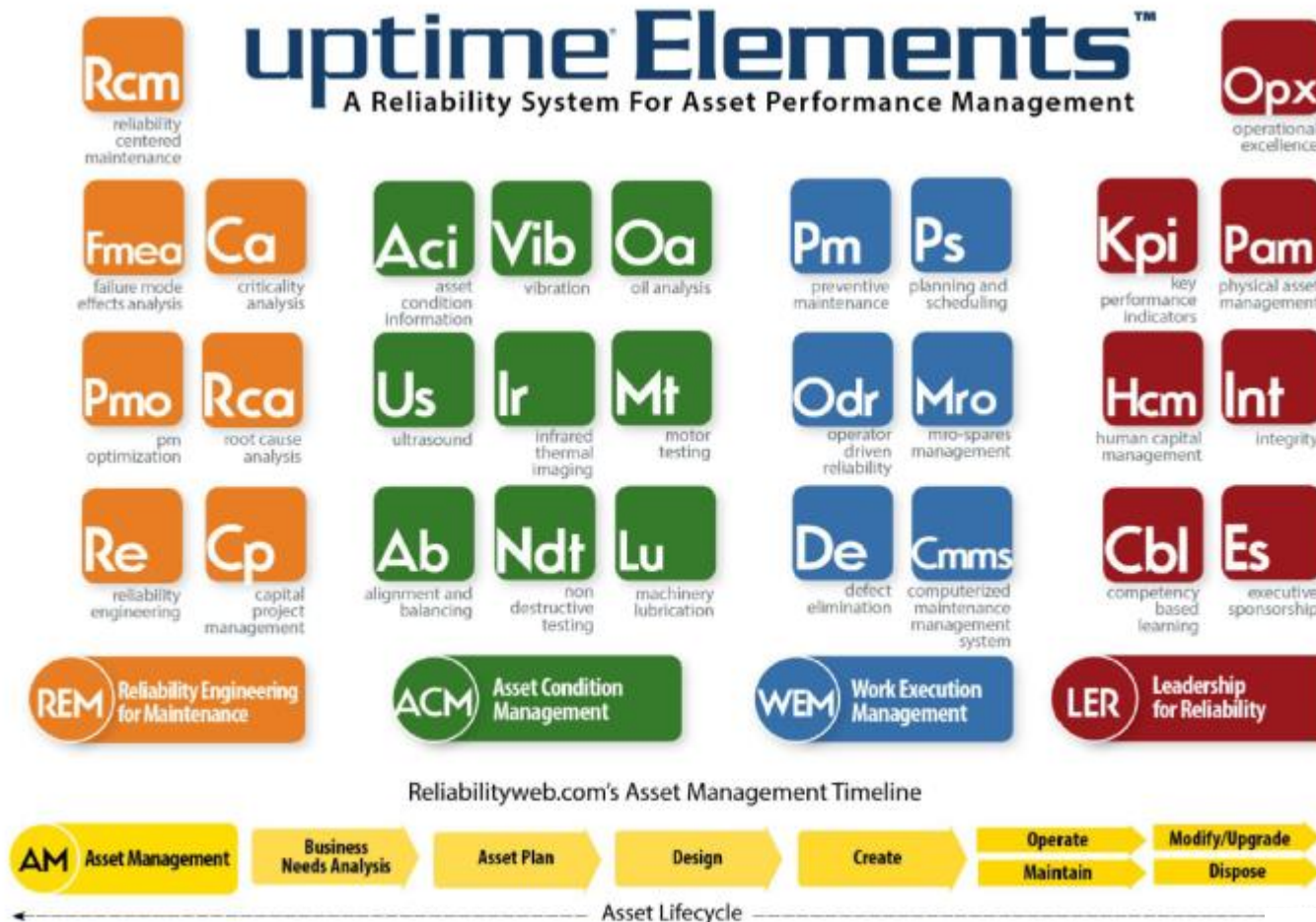
‘The most common failure in most organisations is the failure of reliability leadership. What is missing is a disciplined approach to balancing value and risk through a framework to support decision making, software to refine that decision making and the leadership to take people on the journey with you’

Terrence O’Hanlon - [reliabilityweb](http://reliabilityweb.com)

Line of Site



Framework for Reliability



Case Study – A Request for Help

- The company had recognised through their internal data management processes that a particular critical equipment item was causing unexpected outages resulting in a loss of business profit.
- Engaged ARMS to support the journey of continuous improvement

The Stripping Machine

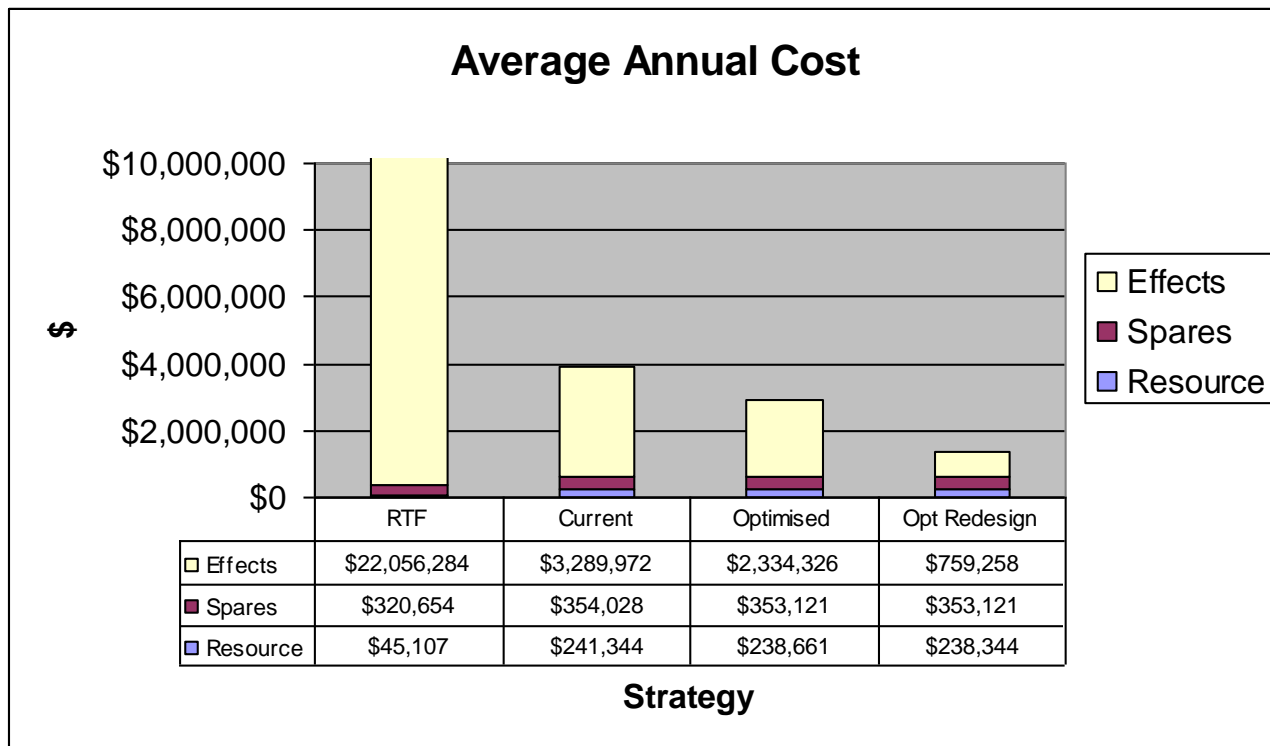


152 Equipment Locations
201 Functions
211 Functional Failures
1798 Failure Modes

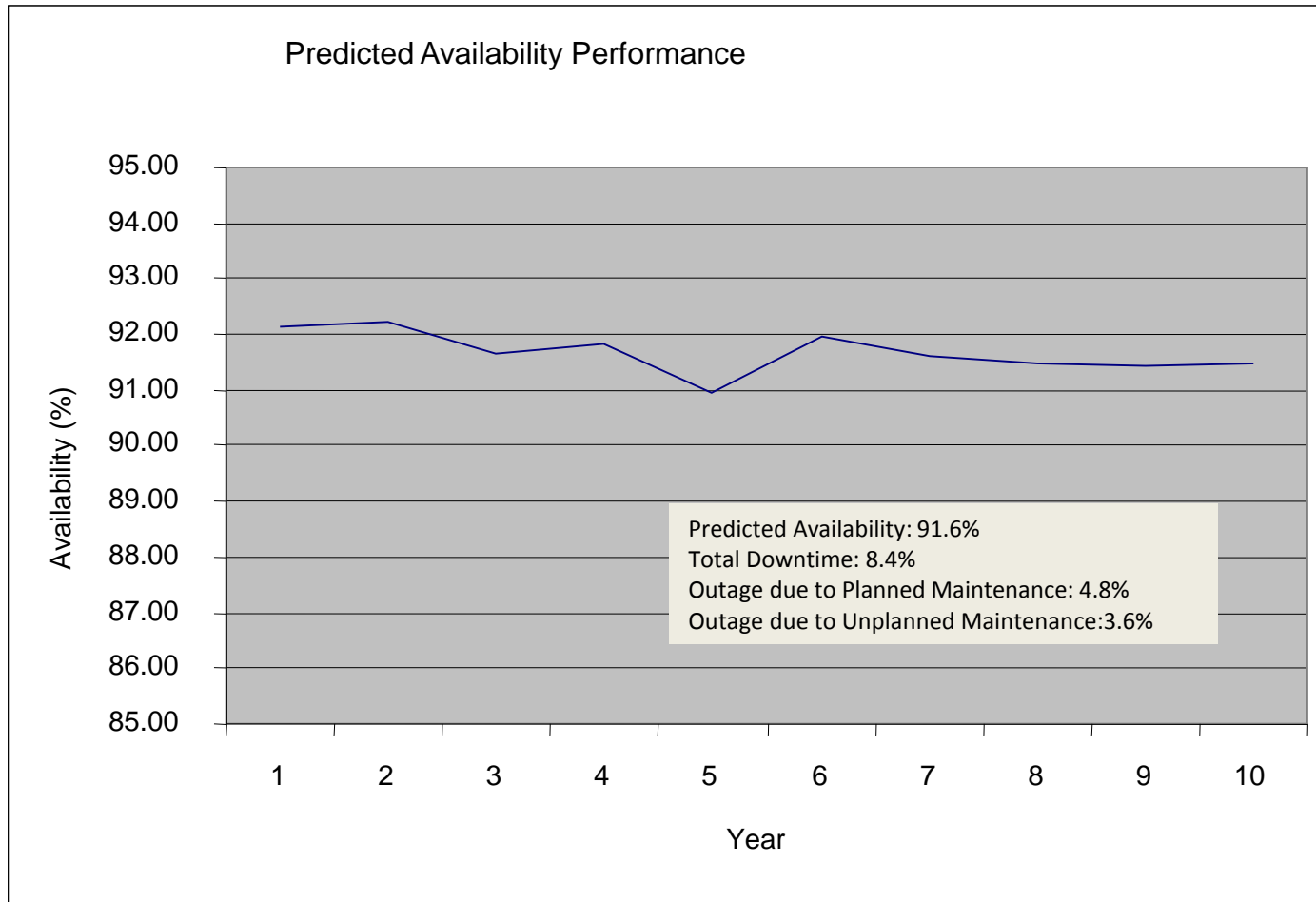


Compare Maintenance Strategy

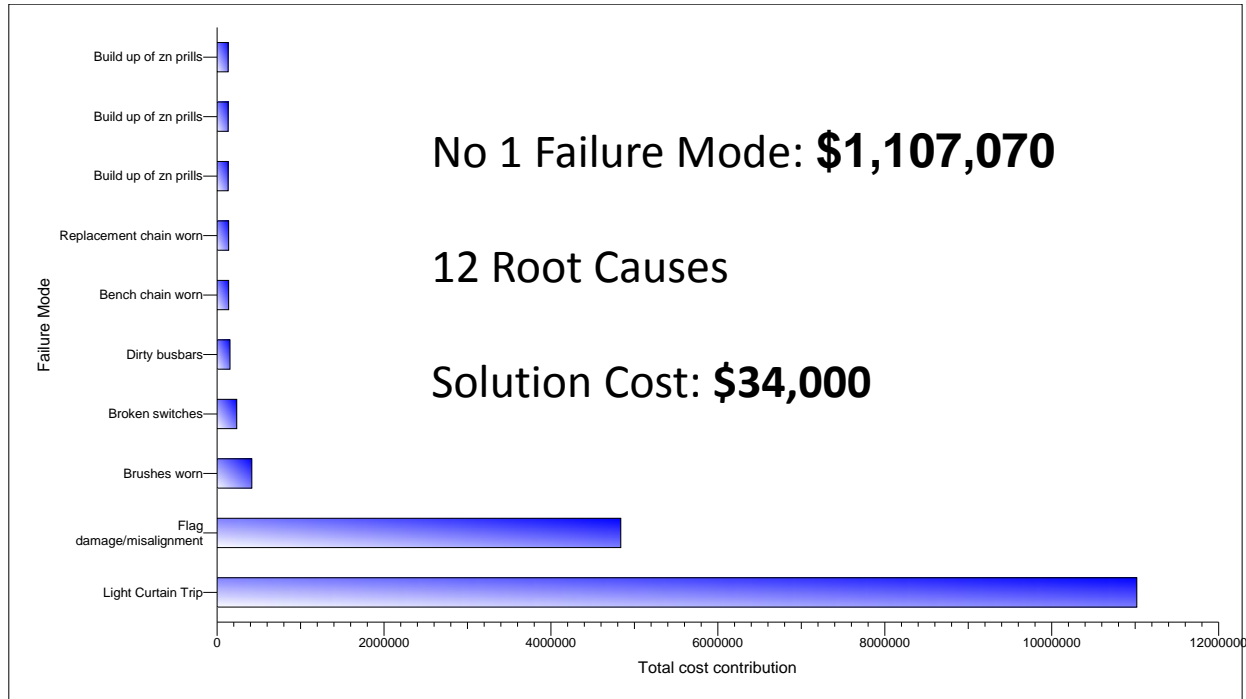
- Four different FMEA models were run to simulate alternative maintenance strategies across the machine



Predict Availability Performance

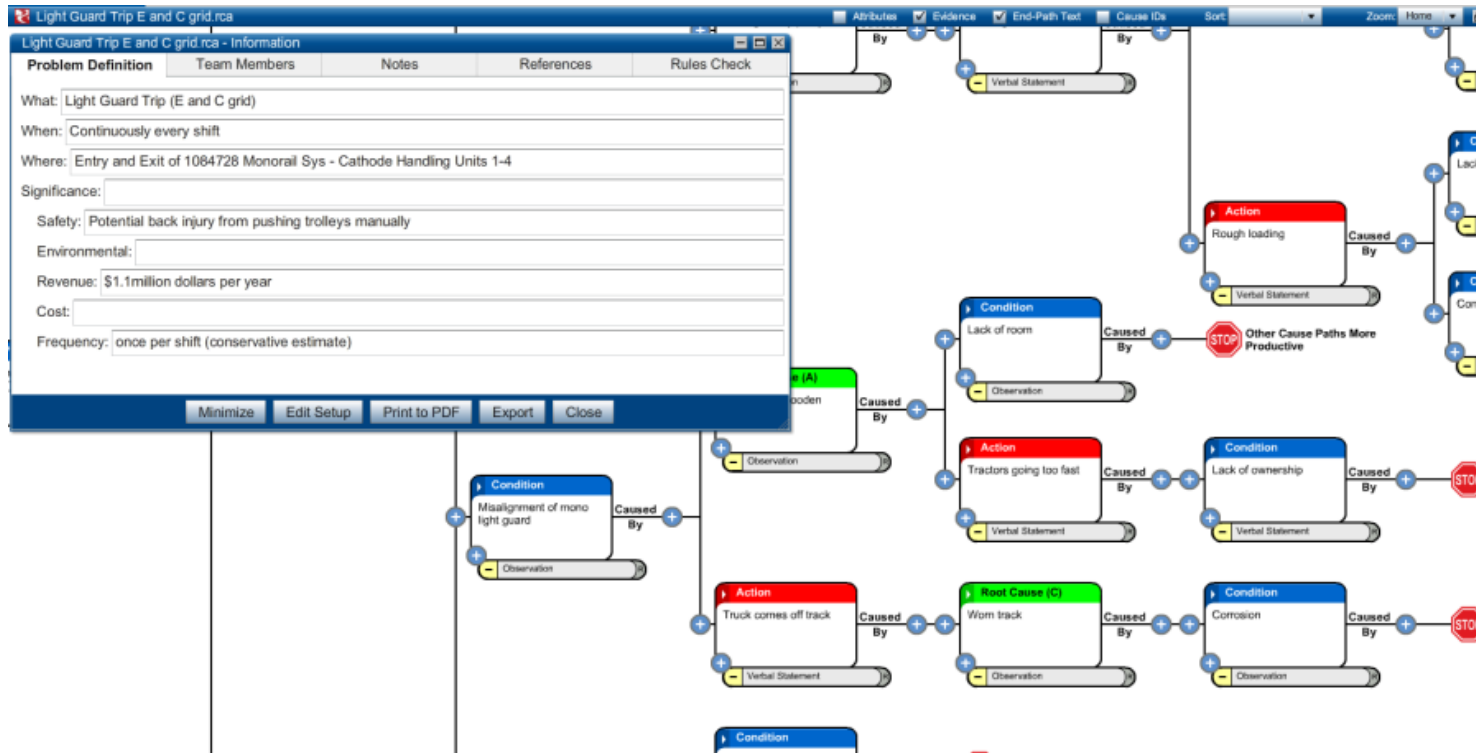


Identify the Losses



Failure Mode ID	Equipment	Description	Cost per Year	Frequency
1084728.1.A.1	Monorail	Light curtain trip	\$1,107,070	Once/shift for 5 mins
1085358.1.C.1	Side Shifter	Flag damage/misalignment	\$493,765	Once/week for 30 mins

Perform Root Cause Analysis



The Optimised Maintenance Plan

- 52 Maintenance Plans
 - 1466 Maintenance Tasks
 - 90% Predictive
 - 10% Preventive
- Plans uploaded to SAP and planned / scheduled

My Personal Request to you.....

- Align everyone in your organisation with the company purpose
- Create Reliability Awareness within your organisation (What and the Why)
- Use the Tools, Techniques and Support available to develop the 'How to'
- Inspire others
- Don't be afraid to ask for Help on your journey.....

Questions



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