

Valve-IMS
VIMS™®

WHAT IS VALVE-IMS

Valve-IMS is an online based engineering and integrity management software. It has been designed to service all engineers dealing with valves from the Technicians through to the Asset Managers.

It is inclusive of an integrated function that reduces resource wastage whilst delivers the best service possible at the same time.

**Pipeline Integrity Management
Solution**

Burnside Business Centre,

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BENEFITS

- Quantitative and qualitative risk assessment
- Failure mode analysis and review
- Independent valve integrity assessment including failure cause review
- Savings on man hours
- Significant savings on lost revenue from unplanned SD
- Live monitoring and failure mode feed
- Quality control and assurance on valves
- Reduction in the occurrence of serious incidents
- Continuous valve integrity monitoring

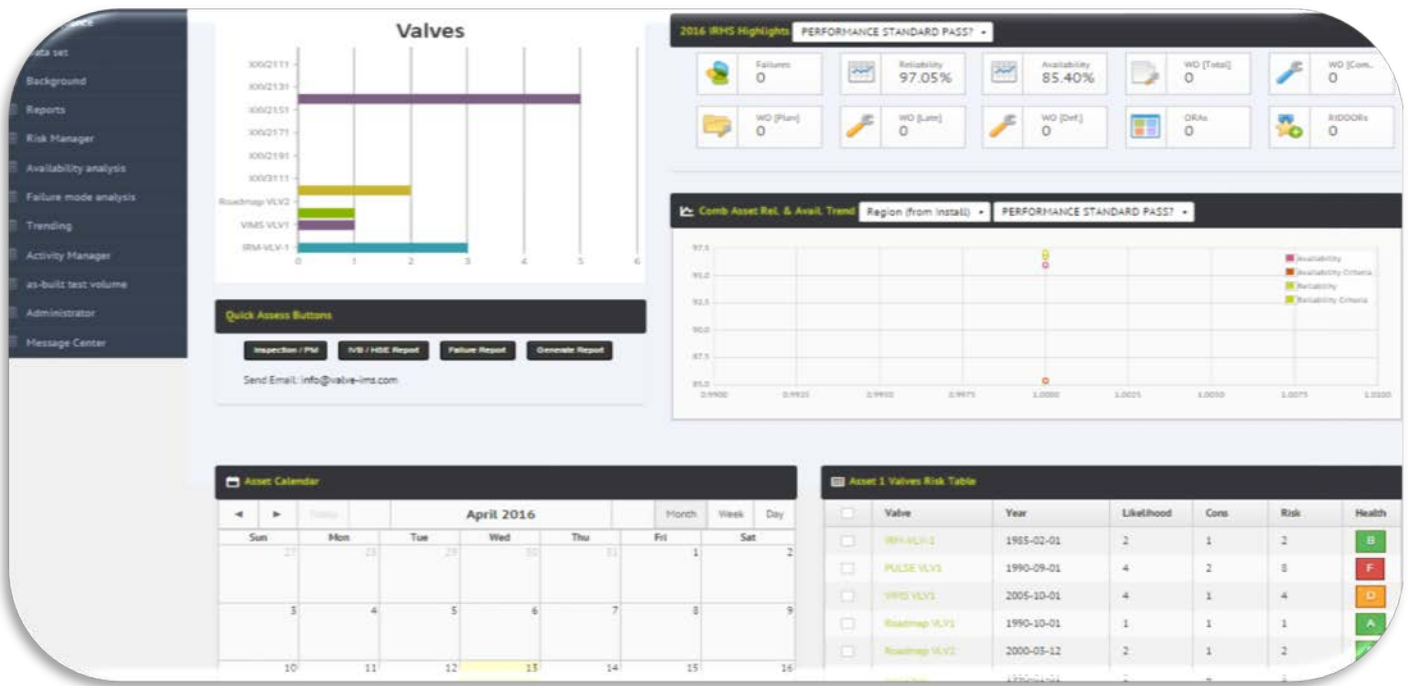
Benefits of Valve-IMS

Valve-IMS provides a unique interface for companies to manage their valves and also the operational activities being carried out.

It allows for collaborative review of performance and execution of root cause analysis (RCA).

Valve-IMS supports multi-company management, 3rd party reviews, auditing, continuous monitoring and live scan / diagnostics. It provides more than the basic fundamentals required to increase operational efficiency.

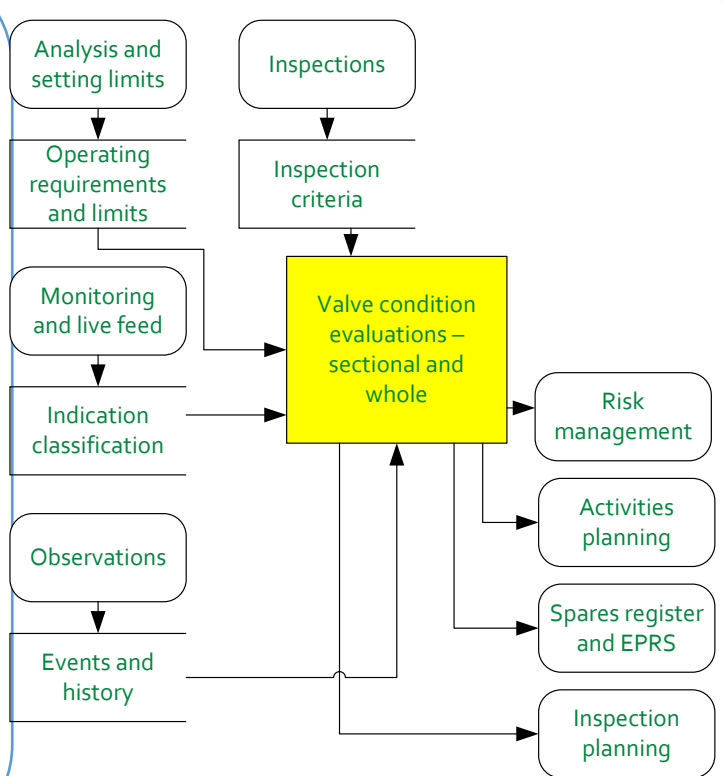


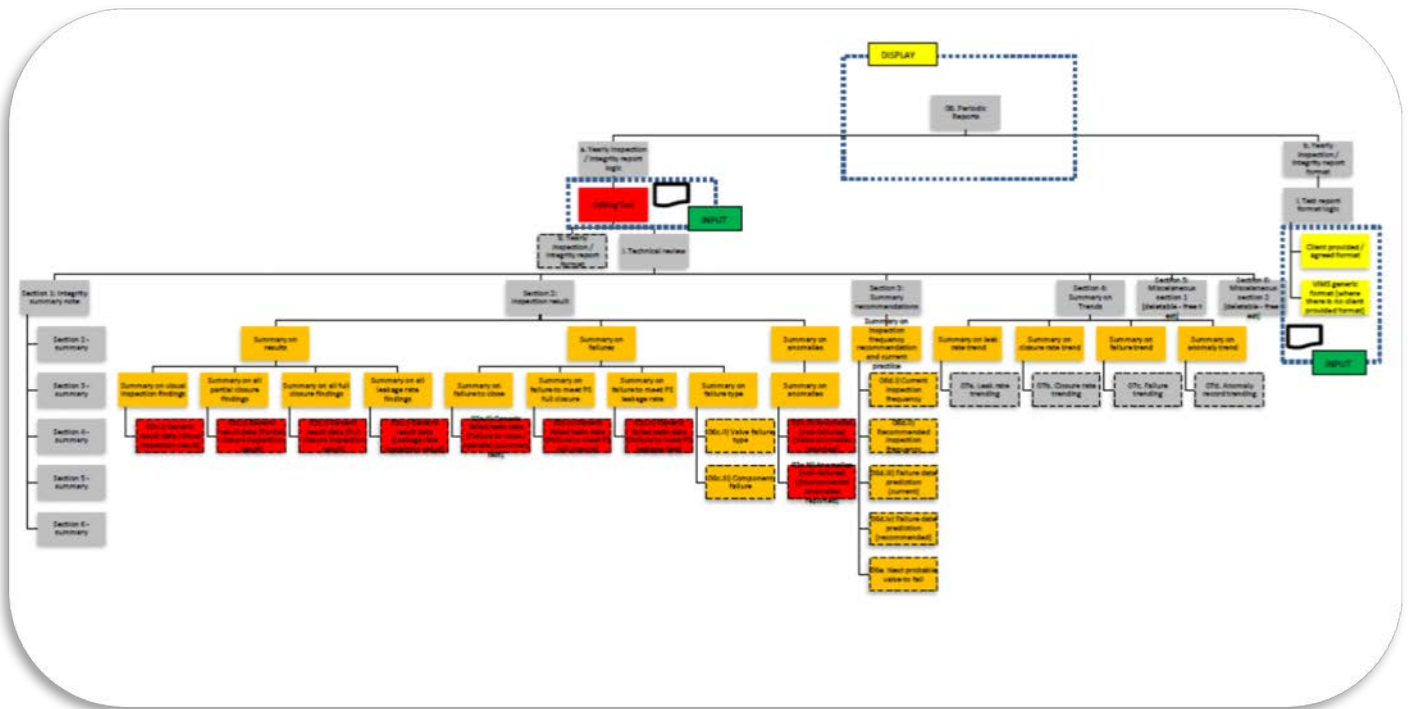


FUNCTIONAL PROCESS

The software is built to integrate the input data from inspections, monitoring devices, observations through a single point whilst categorising them into operating limits, results, indications and events. These elements are then assessed based on several algorithm and conditions up to the individual valve component level.

The result together with engineering judgement is used to influence provide a quick indicator for decision making. This in turn saves personnel time and reduces wastage.





OPERATION EXCELLENCE

Nowadays, companies are expected to operate efficiently, traditional methods of managing assets such as log books, paper based inspection and sign offs, quarterly review or at best monthly review have become widely required operations legally or to meet operational performances, putting pressure on personnel and company revenue. In such a high demand landscape, companies need to run as efficiently as possible – by standardizing and optimizing processes, reducing costs and increasing operations excellence by addressing issues that arise within the assets seamlessly. Valve-IMS has been designed to support the new complex operating environment.

Live feed of data and information

Valve-IMS provides a live feed for both operational data and inspection results. Therefore, removing the delays and wastage experienced by operators from when an event occurs to when the engineer is able to make a decision

User friendly and prescriptive interfaces

Interfaces within Valve-IMS are user friendly, with scanning function available in the hand-held device for use offshore. This means operators can transition from the old methods of executing operation activities with no impact on resources



ONE STOP SHOP

In order to manage an asset, operators are increasingly required to invest in a one stop approach that provides the required efficiencies to support the forever increasing operational and maintenance demands

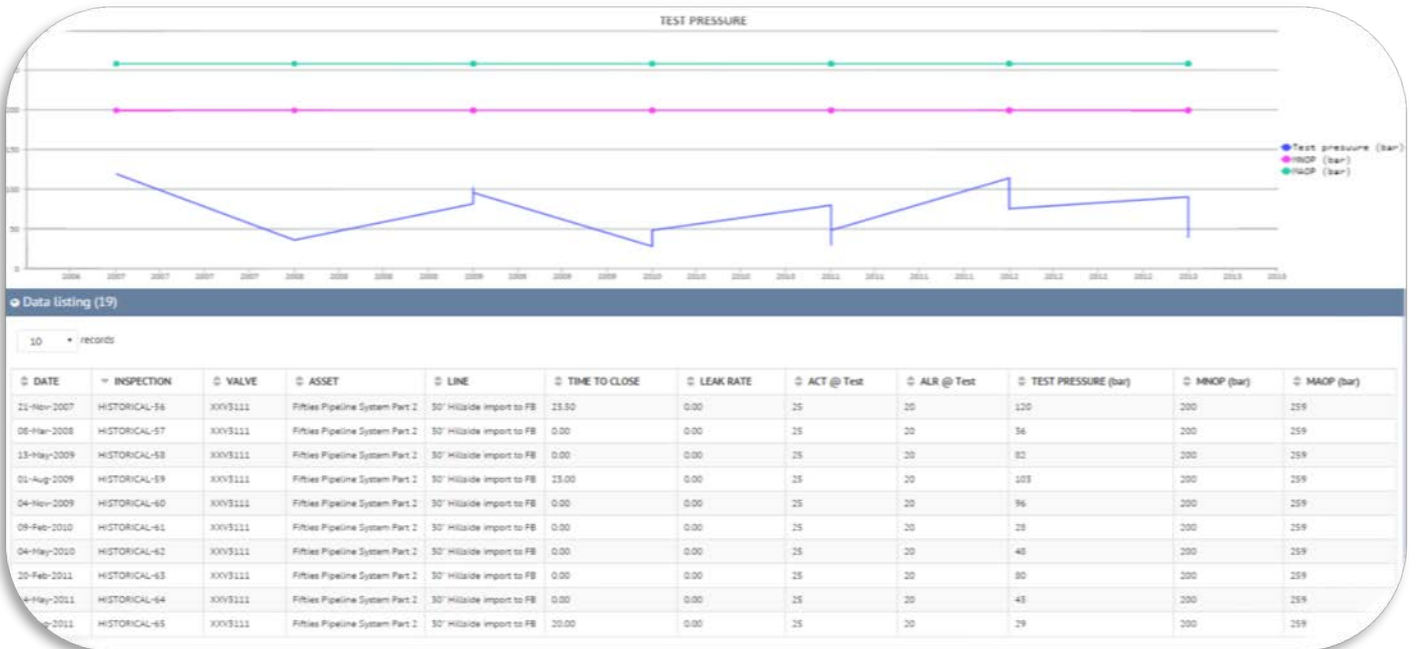
Valve-IMS provides an integrated one stop shop; for designs, engineering, investigation, maintenance, reliability, integrity, operations and failure management on all types of valves. Valve-IMS does not only support client operated valves, it supports valves operated by others, therefore increasing the operator's visibility on their assets

Integrity management

- Visible and easy to interpret leading and lagging indicators
- Effective planning and activity management tool
- Performance standards compliance
- Identifying creeping failures

Maintenance management

- Reduced downtime and intervention
- Common mode failure analysis (from global to local / from valve to individual components)
- Holistic record of all valves on all assets
- Reduction of human error



PROACTIVE APPROACH

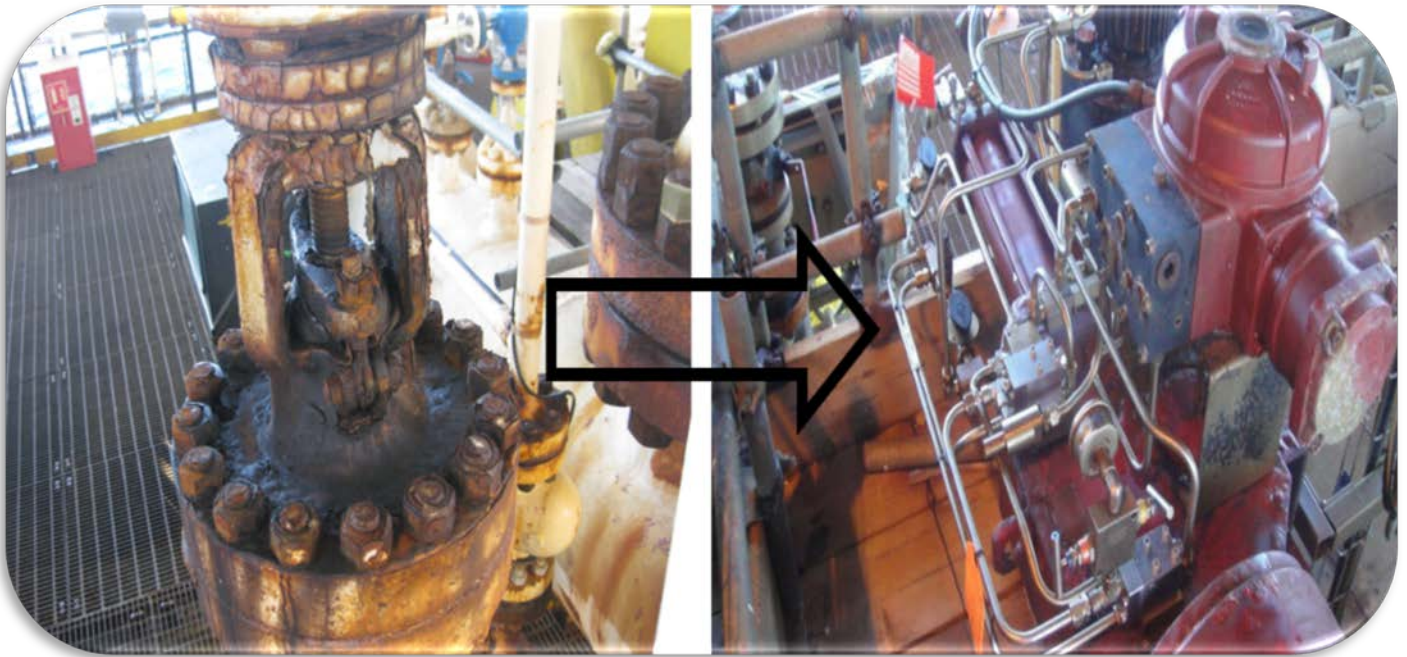
Valve-IMS provides operators with a way to be proactive with their assets and budget effectively by dividing tasks in a smart way to save costs. You'll be able. The operator will be able to tailor both maintenance and integrity services to each valve and therefore improve the lifespan and reliability achieved through proactive management.

It's the perfect tool to improve the integration of operational activities, with maintenance and eventually with how integrity decisions are made.

Multi-asset environment

Multiple asset means a complex inventory and requirement for valves. Therefore, operators require the right tools so as not to lose sight of the important matters.





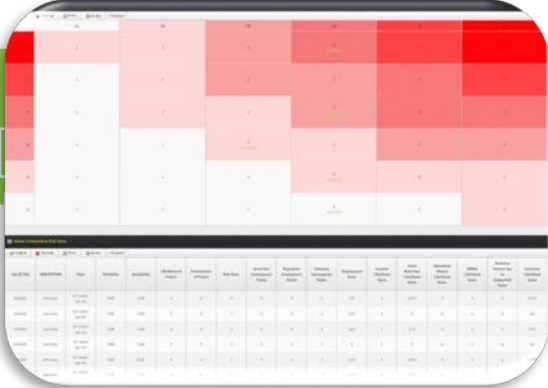
PREDICTING FAILURES

Valve-IMS makes it possible for better predictive and live failure analysis. Therefore, increasing both operational efficiency, reducing operational expenditure and increasing maintenance efficiencies at the same time.

The risk manager provides an insight into the various risks, failure mode analysis and availability analysis allows operators to share knowledge and tools that add direct value to the maintenance and integrity strategies.

These models provide the opportunity to improve the way we manage valves.

Asset analysis



Advice alerts

STANDALONE ACTIONS	OVERDUE MAINTENANCE	VISUAL INDICATORS	HEALTH SCORE	HEALTH NAME	DEFICIENCY NAME
-0	1.0374E-1	0.0000E-0	1.0374E-1	15	
-0	5.5157E-2	0.0000E-0	5.5157E-2	16	
-0	3.4950E-2	0.0000E-0	3.4950E-2	18	
-0	1.1317E-1	0.0000E-0	1.1317E-1	14	
-0	5.3535E-2	0.0000E-0	5.3535E-2	17	
-0	1.1995E-1	2.9412E-1	4.1407E-1	15	
-0	4.0498E-2	1.0340E-1	3.4210E-1	13	
-0	2.7461E-2	9.6257E-2	1.1237E-0	10	
-0	1.5940E-1	2.5668E-1	9.1009E-1	16	
-0	2.4213E-1	1.0135E-0	1.0135E-0	17	

VALVE DETAILS for #Fibres Pipeline System Part 2

NUMBER:	XXX3112	LOCATION:	CQ OIG
DATE:	01-01-1986	PIPELINE:	PL-3514
ASSET:	Fibres Pipeline System Part 2	DESCRIPTION:	Import Pipeline at Union
PLATFORM:	Risa	From:	Fibres Union
From:	Risa	To:	Fibres Union
INSPECTION REF:	HAXXHQ-XXX3112	FUNCTION:	Imports/ exports
CATEGORY:	Manifold Isolation Valves	TEST VOLUME (m3):	25
VISUAL TEST:	YES	PARTIAL TEST:	YES
FULL CLOSURE TEST:	YES	LEAK TEST:	NO
OTHERS TEST:	NO	OVERHAUL MINOR TEST:	NO
OVERHAUL MAJOR TEST:	NO	HYDRAULICS TEST:	NO
GREASING TEST:	NO	ACTUATOR MAINTENANCE TEST:	NO
CONTROL SYSTEM TEST:	NO	VISUAL FREQ (months):	5
PARTIAL FREQ (months):	3	FULL FREQ (months):	12
LEAK FREQ (months):	36	OTHERS FREQ (months):	0
OVERHAUL MINOR FREQ (months):	48	OVERHAUL MAJOR FREQ (months):	0
HYDRAULICS FREQ (months):	0	GREASING FREQ (months):	0
ACTUATOR MAINTENANCE FREQ (months):	0	CONTROL SYSTEM FREQ (months):	0
ACT (m/s):	25	ALR (m/s/min / kg/s):	20
VALVE TYPE:	Gate valve	Disc / ball:	
Ports:		Stem / shaft:	
Seat:		Stem seal:	
Stem / shaft:		Stem packing:	

ITEM	ITEM VISUAL TEST:	100	ITEM STATES ACT (m/s)	0
	ITEM FULL CLOSURE TEST:	100	ITEM STATES ALR	0
	ITEM LEAK TEST:	100	ITEM SHAKEN FREQ	0
	ITEM OVERHAUL MINOR TEST:	100	ITEM PARTIAL TEST:	100
	ITEM OVERHAUL MAJOR TEST:	100	ITEM OTHER TEST:	100
	ITEM ACTUATOR MAINTENANCE TEST:	100	ITEM HYDRAULICS TEST:	100
	ITEM VISUAL FREQ (months):	0	ITEM GREASING TEST:	100
	ITEM PARTIAL FREQ (months):	0	ITEM CONTROL SYSTEM TEST:	100
	ITEM OTHER FREQ (months):	0	AS-BUILT BORES (mm)	0
	ITEM OVERHAUL MINOR FREQ (months):	0	AS-BUILT ANOMALY TEST:	0
	ITEM HYDRAULICS FREQ (months):	0	NEET INSPECTION:	0
	ITEM ACTUATOR MAINTENANCE FREQ (months):	0	* INCIDENT HISTORICAL:	0
	ITEM CONTROL SYSTEM FREQ (months):	0	* INCIDENT TOTAL:	0
	LAST INSPECTION:		ANOMALY REPORTS FILE:	
	# INCIDENT:	0		
	BUILT INFO FILES:			
	INSPECTION REPORT FILES:			

IMPLEMENT

Valve-IMS

- Issue of users
- Assign of client focal point

Company & location

- risk factors
- company policy
- regional policy
- OREDA data (if available)

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- development of valve integrity guideline document (if required)
- establishing of roles and responsibilities (if required)
- update of performance standards (if required)

Establishing assets & gaps

- Platforms & pipelines
- users
- Valves

VIMS™® Procedures

- development of Valve-IMS asset manual (if required)
- establish inspection test boundaries and required tests (if required)
- development of test operating procedures (if required)

Information gathering

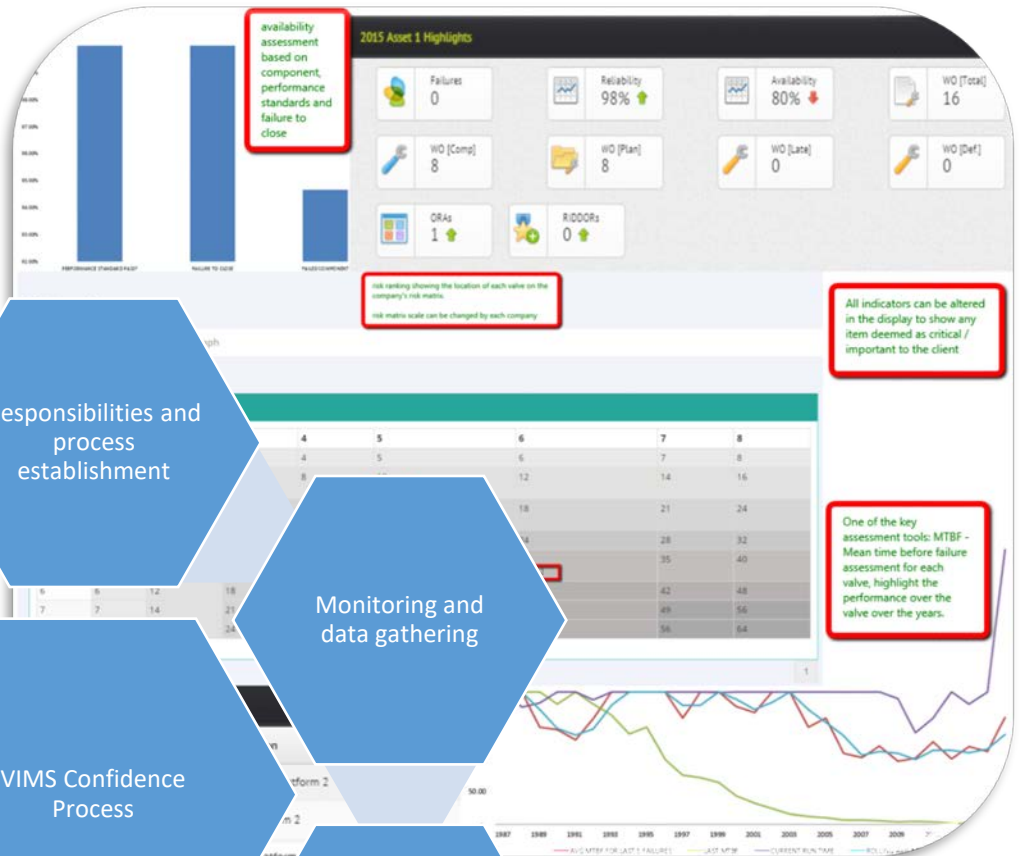
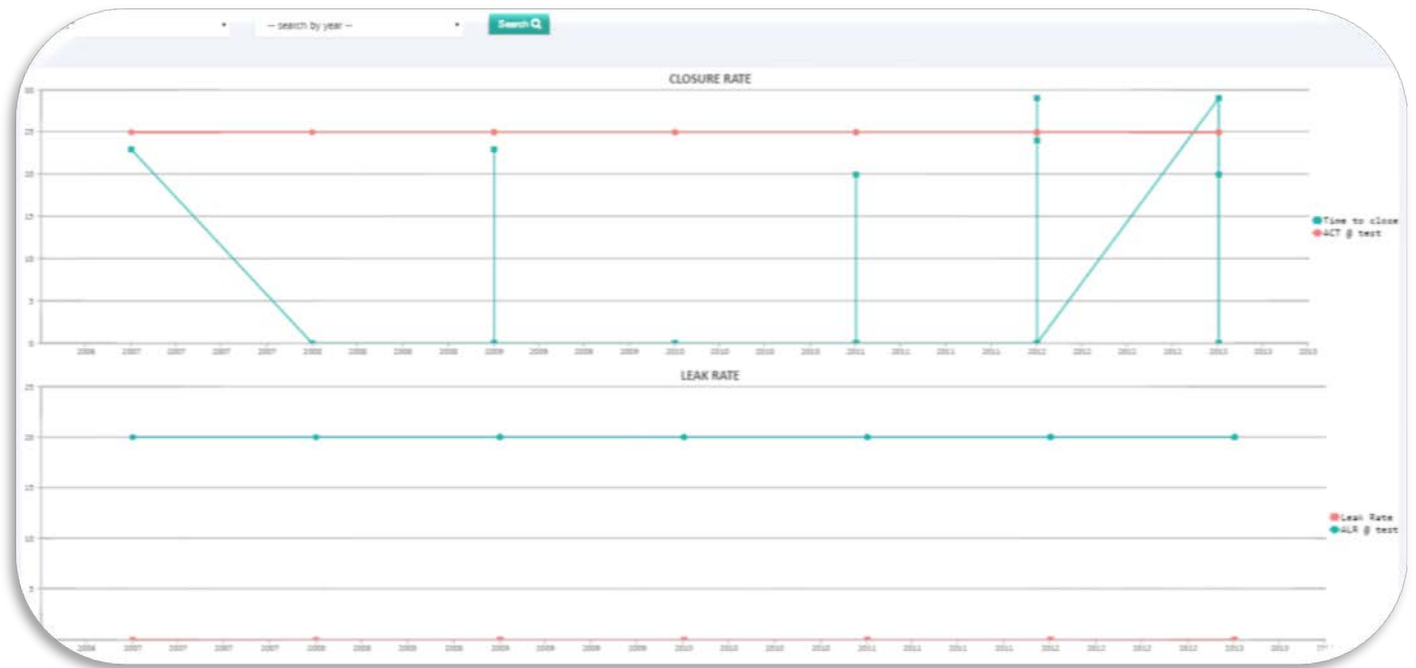
- as-built
- inspection, maintenance
- Incidents, Repairs
- ivb, RCA

Auxiliaries

- RCA
- valve design assurance (if required)
- Yearly valve integrity report draft
- regulator report support
- Period VIMS data-book

Integration

- data synchronization
- operations training
- engineers training
- management training



availability assessment based on component, performance standards and failure to close

Risk ranking showing the location of each valve on the company's risk matrix. Risk matrix scale can be changed by each company.

All indicators can be altered in the display to show any item deemed as critical / important to the client

One of the key assessment tools: MTBF - Mean time before failure assessment for each valve, highlight the performance over the valve over the years.





CONTACT US

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