Asset Wiki™ Application

http://www.focul.net/aw

A SOLUTION FOR

OPERATIONS
MANAGEMENT

ASSET
MANAGEMENT

1. The Asset Wiki™ Application

Think of Wikipedia but with a secure page for each pump, centrifuge, vessel etc. that you operate.

Now imagine all of the knowledge that you have in your organisation about these assets consolidated onto a single page per item – Root Cause Reports, Maintenance Strategies, Maintenance Plans, Spares Reviews, Criticality Rankings, Build Plans, Inspection Reports, Actions, Historical Costs, Projected Costs, emails etc.

This is Asset Wiki™ – a way of consolidating your asset knowledge into one place so that you and your teams can make better, more informed decisions, more efficiently.

2. The Business Challenge

The principals of Asset Management and Asset Operations are, for the most part, well understood.

Bodies like the Institute Of Asset Management have produced excellent frameworks and methodologies and the regulatory bodies such as the HSE[1] have been clear on what is expected in terms of managing Aging Plant and 3rd party contractors.

Many vendors such as SAP and IBM Maximo have produced complex CMMS applications which are good at tracking costs and scheduling maintenance activities.

What is missing, however, are tools to manage actual "Knowledge" and the higher level workflows associated with Asset Management such as Criticality Ranking, Maintenance Strategy development, Spares Reviews and the curation of rich information such as 3rd party inspection reports, build plans, quotes etc.

Curating and acting upon this this knowledge effectively is a significant part of managing

Aging Plant, Aging Workforce, Regulatory Compliance and making your site more profitable.

3. The Solution

FoCul with its unique mix of professional Engineers and IT developers has developed Asset Wiki™ V3 as a modern web based application that addresses these issues.

The Asset Wiki™ compliments your existing systems by breaking down existing data silos to aggregate your information into one easy to access place.

The Asset Wiki™ also provides action tracking and configurable workflows to facilitate process such as Root Cause Analysis, Risk Based Maintenance Reviews and becomes the single place where people can work together to manage your assets more effectively and efficiently.
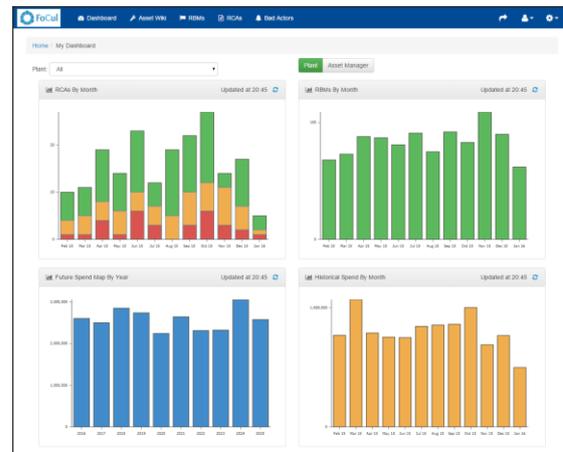
Above: Progress dashboard for RCA reports, RBMs completed per month, predicted costs and actual costs

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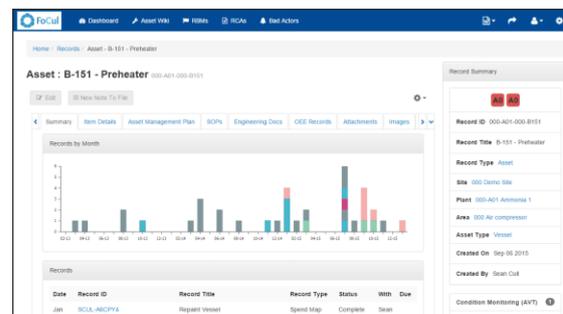
[1] Health & Safety Executive, UK Regulatory Body.

Above: Home page for the B-151 Preheater vessel showing the "Pulse Chart" where the columns represent new information being added to the page.

4. Simple Deployment

A secure Asset Wiki™ for your assets can be deployed within hours and uses simple pragmatic methods to integrate with existing applications such as SAP.

Once configured simply emailing a CMMS equipment list to the Asset Wiki™ application will populate the equipment hierarchy for your site.

Existing CMMS reports of maintenance plans, routines, defects and cost reports can all be emailed or uploaded to the application and the data will be automatically extracted and added into the correct asset records.

3rd party suppliers can email inspection reports, vibration monitoring alerts and progress reports into the application. This data is automatically sorted and added to the existing information about your assets. The 3rd party suppliers are often able to automate this data transfer.

Fully automated links between the Asset Wiki™ and your internal systems such as SAP or Maximo are also possible but will need some input from your IT team.

Users are managed via a simple portal and password resets are automated so the administration is minimal.

5. Highly Configurable

The application is highly configurable and, if required, can be further extended for you by FoCul with additional plugins for your proprietary processes.

All of the screens are configurable and we can help you to create your own business specific forms, reports, dashboards and workflows for processes such as RBM, ALP, Spares Review.

The example below shows a customer specific dashboard that displays assets by criticality ranking based on the customer's proprietary RBM scoring methodology.
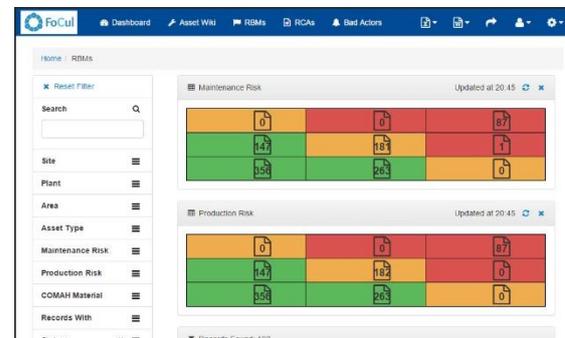
Clicking on the coloured tiles opens a list of the relevant assets. Users can then click again to open the individual asset home page and view all of the information about that asset including the basis of the RBM ranking.

6. Typical Use Cases

It can be difficult to articulate what the Asset Wiki™ can do because it is so flexible, the best way is to describe typical use cases.

6.1. Initiatives and Studies such as RBM

6.1.1. How most organisations operate now

Most organisations carry out reviews such as Risk Based Maintenance, Spares Reviews etc. using spreadsheets.

The main advantage of using spreadsheets is that data can be entered very quickly and copied from asset to asset.

The disadvantages are that :

⇨ There is no traceability or control over changes to the spreadsheet. Over time it is very difficult to understand what changes have been made and, more importantly, why.

⇨ It is hard for multiple people to contribute to the same spreadsheet in a robust fashion

⇨ The rich knowledge collected during the RBM review is locked into a spreadsheet and is only ever seen in isolation from other current asset information.

6.1.2. How using Asset Wiki™ is better

⇨ With Asset Wiki™ users can still collect the bulk of the data in spreadsheets but when those spreadsheets are emailed or uploaded to the Asset Wiki™ the data for each asset is copied out and added into the database automatically.

⇨ The application automatically creates, updates or supersedes the individual RBM records keeping an audit history of the changes.


⇨ The criticality dashboard is updated and the criticality ranking is stamped on all of the records associated with each item so that users understand which items are most critical.
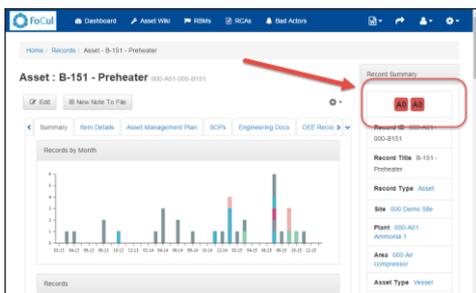
⇨ Workflow can be added to involve a wider population of users in reviewing the data.
This also allows responsibility for the RBM review to be delegated further down the organisation making better use of resources and improving the

quality of the knowledge – but in a controlled fashion.

⇨ Dashboards such as the one shown below can be used to show the progress of the RBM project over time.
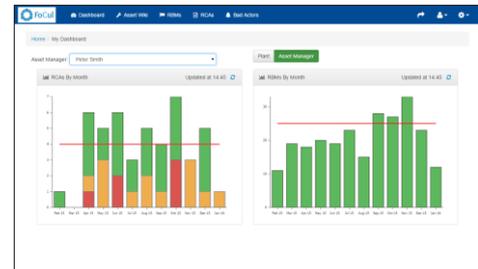
⇨ Most importantly the RBM document becomes a living document that can be easily updated over time as the asset or other factors change.

6.2. Management of 3rd Party Services and Data

Working with 3rd party maintenance and inspection providers is an important part of Asset Management. There are many aspects to managing these relationships but two key ones are :

⇨ Sharing and retaining ownership of the knowledge collected by the 3rd party on your behalf.

⇨ Robustly identifying trigger conditions that require action.

We have a specific case study on how the AVT Reliability Machine Sentry application interfaces to Asset Wiki but the key points are:

⇨ The 3rd party provider records their information in their own proprietary work management applications, to ask them to do otherwise will most likely add to your costs.

⇨ The data is automatically transmitted to the Asset Wiki™ where it is split out by specific asset and the information

is added to the individual asset specific home page.
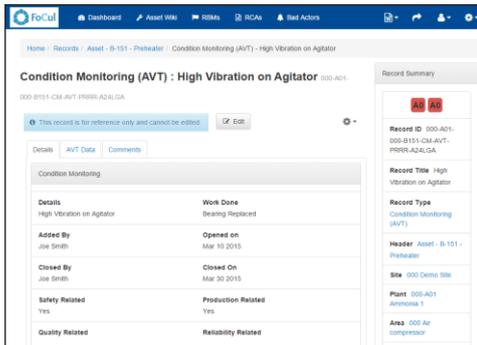
Above: automatically imported AVT condition monitoring alert

⇨ If specified trigger points are activated (such as a vibration monitoring alarm thresholds) then the Asset Wiki™ uses a traffic light scheme to automatically flag the new information as needing to be reviewed and adds this action to the Asset Engineers personal dash board.

⇨ The application can create dashboards showing 3rd party performance over time

⇨ All users of the application, potentially including other contractors, can see all of the asset data in one place.

⇨ If you change one 3rd party provider for another then you and, the new provider, will have the benefit of the your historical data which is securely held in your Asset Wiki™ application.

6.3. Day to Day Asset Management

Organisations invest a great deal of time in managing assets. Some of this is routine and repetitive but a significant portion involves understanding why the assets have failed, are under performing or how they can be improved.

The Asset Wiki™ can be used as a shared workbook allowing the whole of the asset

management and operations teams to work together much more effectively.

OEE data can be collected and combined with cost data from systems like SAP to produce "Bad Actor" dashboards. Clicking on the bars displays the underlying records making it easier to interrogate the data.
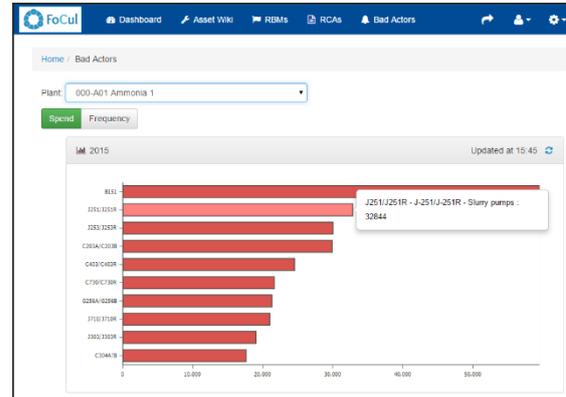
Above: Automated click through Bad Actors chart based on imported SAP data

Technical Notes, Build Reports, Job Methods, drawings, photographs, emails and discussion threads can all be accommodated within Asset Wiki™ and add to the richness of the asset knowledge
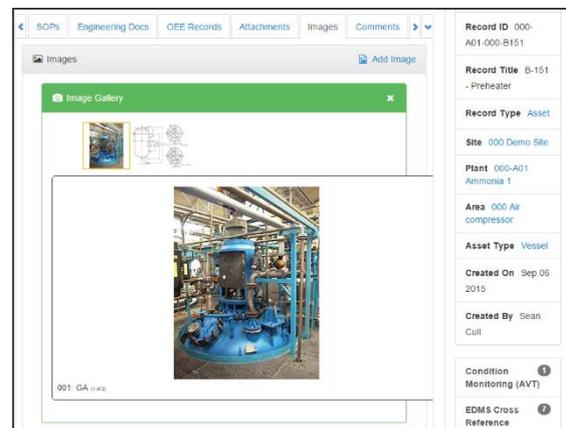
Above: screenshot showing how images can be added to the Asset Home page and shared.

7. Cost Benefits

There are 4 main areas of cost savings with Asset Wiki™

7.1. Better Resource Efficiency and Consistency

The Asset Wiki™ will make your teams more efficient by allowing giving them better access to information and allowing them to collaborate more effectively with other team members and suppliers. Double handling of information is reduced as is the time spent searching for (or re-creating) information that someone in the team already has.

The transparency of the system also makes it easier to understand which people are overloaded and are struggling to deliver important tasks.

7.2. Better Decision Making

The Asset Wiki™ makes it easier for your team to make better decisions by allowing them to use better quality information and consistent methodologies.

Where Asset Wiki™ is deployed across different assets then the different teams can learn from each other by using the powerful search functionality to search for similar issues on other sites.

7.3. Leveraging a Wider Team

The Asset Wiki™ allows information to be added by a much broader cross section of the asset management and operations teams.

The Asset Wiki™ workflows makes it possible to involve technicians, operators and 3rd party suppliers in both day to day and structured project activities such as RBM reviews.

Not only does this improve the quality of the information but it also improves team cohesiveness and resource utilisation.

7.4. 3rd Party Independence

Owning and understanding the data that 3rd party suppliers have collected on your behalf gives you important protection for the future.

8. Implementation

FoCul is different from other IT providers in that our team includes experienced Engineers who will work with you to develop the best processes to suit your business.

We also understand how to work with busy operations teams and how to integrate Asset Wiki™ with other software as pragmatically as possible.

Deployment of the web based version of the application is very straight forward and can be completed in a matter of hours but it is important that the application is configured to meet your specific needs.

We do this using the following approach:

8.1. Needs Analysis

We will work with you to determine how the application should be configured to work well for your mix of staff, suppliers and assets.

8.2. Deployment and testing

We will deploy the configured application and test it with you to ensure that the configuration meets your needs. We will also work with you or your IT team to ensure that they are happy with our systems and approach.

8.3. Integration with 3rd party suppliers

We will work with your 3rd party suppliers to incorporate their data into the application as efficiently as possible.

8.4. Training

We will provide training materials and train key users who will then go on to train other users.

8.5. Ongoing Support and System Reviews

We do all of the usual IT stuff around upgrades, backups, bug fixes etc. but we also work with you as Engineers to review how the application is being used and suggest better ways of making the system work for you.

We also see these reviews as a valuable way of getting feedback about how you think we can improve the application.

9. Technical Specifications

The application is available as a cloud based service, a hosted application or as an intranet application.

The servers are located in a secure data centre and all connections to the application are encrypted and the application is backed up daily.

User registration is controlled by the customers and there are secure automated password reset processes.

The application supports XML and REST services for reporting and integration with other systems.

Users require a modern browser such as Chrome or Internet Explorer 10 and higher.

Microsoft Office is required to view some reports.

We are happy to review any specific requirements that you may have.

10. Additional Resources

Web Site: http://www.focul.net/aw

Online Demo: http://www.focul.net/aw-demo

5 Minute Video: http://www.focul.net/aw-video

11. About FoCul

FoCul was established in 2000 by an experienced Manufacturing Engineer with a passion for finding better ways to manage processes and knowledge so that teams could be more effective.

FoCul never left their engineering and manufacturing base and established a reputation for providing both highly configurable products and bespoke IT solutions for manufacturing teams. We have completed over 500 applications and the great majority of which are still in regular use today.

Our combination of technical expertise and real life industrial experience brings value to our clients. Our collaborative approach allows us to provide the best solutions and often leads to partnerships with our clients that extend over many years.

For more information please contact Sean Cull, CEng, MEng on +44 (0) 161 660 8226 option 3

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