



Afrigle
Resource
Management
Solutions

Introduction

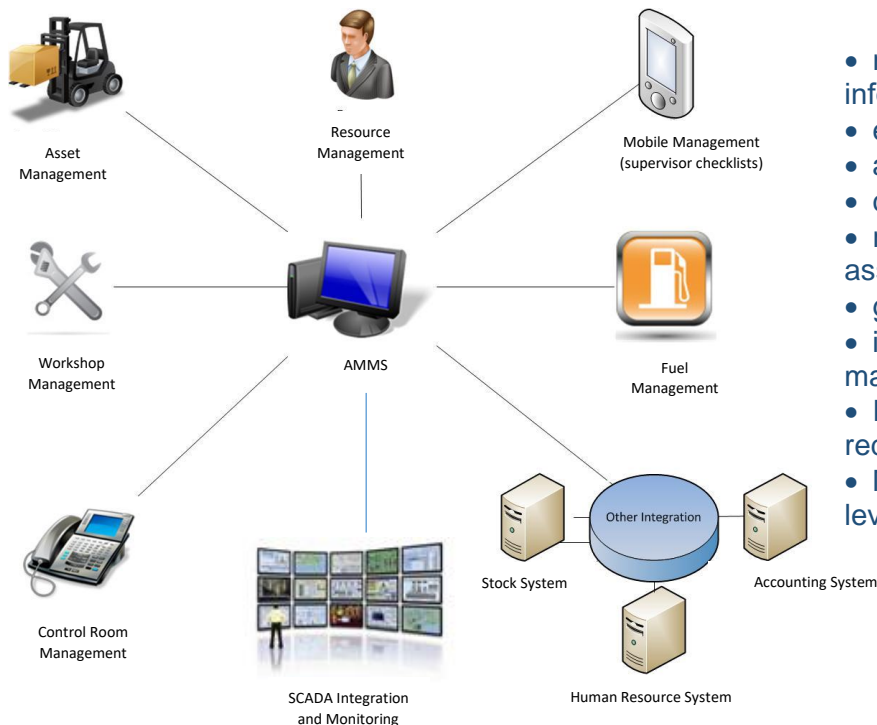
Continuous performance is not just about measuring and monitoring; it's about anticipation and action, it's therefore not sufficient to drive your business forward while looking in the rear view mirror. Afrigle resource and performance management provides the establishment of financial and operational targets and the ability to deliver performance results in a timely manner to everyone in the organization that can impact those results

AFRIGLE's resource management (ARM) solutions also enable companies to establish a culture of high performance where all stakeholders are always up to date on actual performances by means of Real time updates

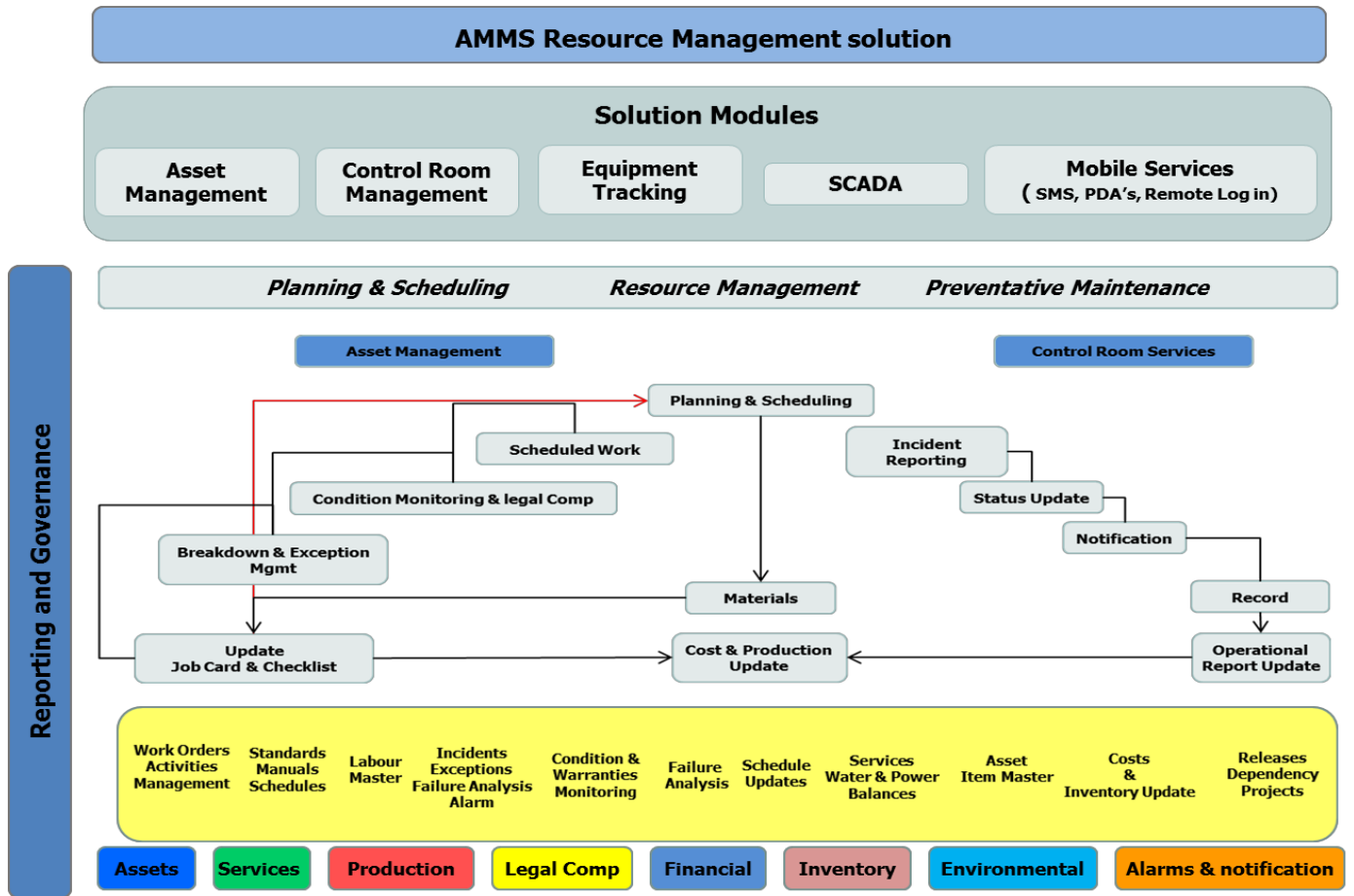
The system will enable you to monitor, track, manage and detect operational issues as they develop, and react immediately to correct them so to minimize negative impact on operations. Real-time asset monitoring, tracking and performance measures are an essential tool to enable all supervisors and operational personnel to identify and correct operational problems as soon as they develop so that negative impact and delays can be resolved.

Our goal is to provide a management information system that effectively monitors and measures performance as well as continuous visibility throughout the assets life cycle.

By implementing the ARM System, you will have:



- real time performance and status information pertaining to Asset's
- efficiency improvements
- achievement of obligations
- cost effective low maintenance plan
- real-time reporting services on all assets or asset groups
- global asset visibility
- improved business-performance levels by maintaining existing asset-related costs
- Improved business-performance levels by reducing asset-related costs and,
- Maintaining existing business-performance levels whilst reducing asset-related costs



The management module addresses the following items as per the management processes model above

✚ Assets

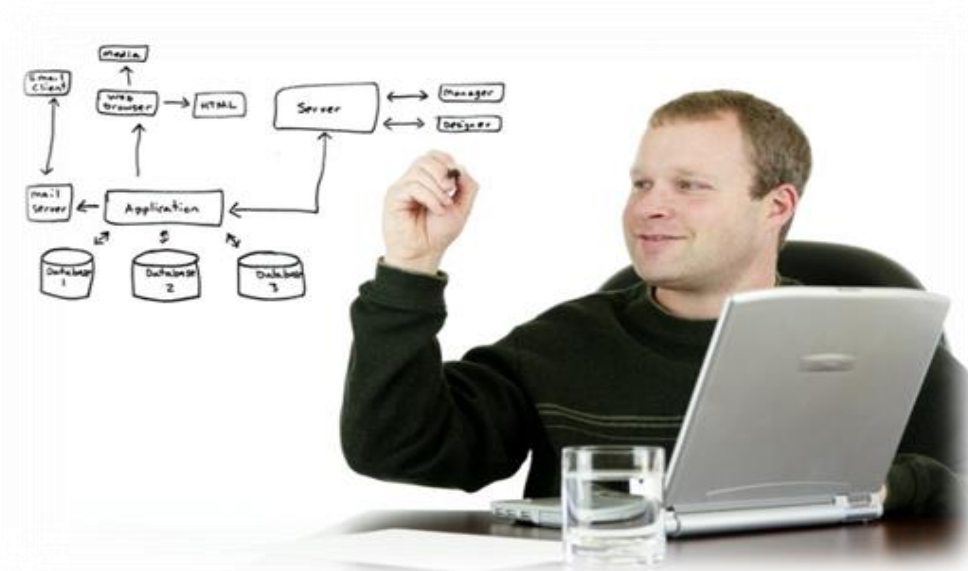
- Registration
- Classification
- Functional location
- TOP (Transfer of property/assets)
- Asset disposal
- Transfer of ownership (Equipment lease/Rental)
- Asset Control
- Availability
- Utilization
- Re-Occurring Breakdowns
- Idle Time
- MTBF
- MTTR

- ✚ Planning
 - Maintenance schedules
 - Legal compliance
 - Planned Tasks Observations
 - Labour resource requirements (Skills)
 - Inventory control
- ✚ Scheduling
 - Scheduling calendar
 - Long term Schedule – a schedule to link dates against maintenance activities
 - Task schedule – detail schedule for specific activities
 - Work prioritization – levels of urgency
 - Backlogs
 - Internal or external service scheduling
- ✚ Work execution
 - Generate job cards as pre-defined format
 - Skill allocation
 - Time & skills allocation
 - Spares allocation
 - Special tool requirements
 - Equipment structure (Component/parts of Main Assemblies)
- ✚ Component Management
 - Component Tracking
 - Warranty monitoring
 - Life cycle measures (Planned vs. Actual performance)
- ✚ Fuel Management
 - Fuel Usage
 - Electronic Fuel Management System
 - Rand per Litre
 - Over Usage of Fuel / Lube (leak detection)
- ✚ Cost Management
 - Cost per Asset (repairs, capital, breakdowns, damages)
- ✚ Production
 - Tonnes Hauled
 - Cost Per Tonne
 - Progressive production management
 - Blast vs Lost Blast
 - Auto TMM Equipment assigning (based on maintenance and breakdowns)
- ✚ Safety Management
 - Accident free days
 - Safety reporting
 - Accident reporting

- ✚ Analysis/Reports
 - Availability
 - Utilization
 - Equipment efficiency
 - Schedule compliance
 - Backlogs
 - Costs
 - Time recovery
 - Labour Efficiency
 - MTBF
 - MTTR
 - Legal compliance (Shaft, Equipment, Labour, Tools)
- ✚ Control Room (“Real Time”)
 - Equipment status report
 - Production update report
 - Delay analysis
 - Operator license status
- ✚ Workshop Management
 - Breakdown notification
 - Maintenance schedule due display
 - Equipment Breakdown status
 - Equipment Manual access
 - Print of Job cards, Legal’ s due, Over inspections
 - Artisan Foreman Notifications
 - PTO’s
 - Risk Assessments
 - Over Inspections
 - OEM Electronic Manuals
 - Appointments

The defining differentiator between our product and that of our competitors are:

- ❖ Our team with extensive experience, in engineering and software development, adapts and aligns the management software to enable your team to operate and manage optimally without have to self-analyze reports. Pre-defined critical reports are automated and allows for real time action and intervention



- ❖ Due to the seamless integration capabilities of the Afrigle Resource Management System which enables direct exchange of data, two previously separate levels operate as one consistent system that has everything under control: Production data and events are available in real time – so previously 'unpredictable' events are eliminated or mitigated. This enables optimum use of staff and material, because genuine production data is available, instead of approximate offline production plans.



The Afrigle Resource Management System and SCADA interface allows for automated alarm and updating of

- Water and Power Management
- Fault signals
- Operating hours counter interface updates
- Plant and Winder monitoring
- Building and Infrastructure management
- RFID asset management and monitoring

Control Room Management Module



You are now viewing the Trackless Plant

Plant is Active Plant is Unavailable - Artisan has arrived at Job Plant is Unavailable - Artisan has not arrived at Job Scheduled for Planned Maintenance / Daily Service

Control Room - Menu Display

Print Operator Checklist

Print Reports

Report Plant Incident

Returned Operator Checklist

Capture Tonnes Hauled

Capture Faces Charged or Drilled

Hourly Mine Report

Menu selection for the control room operator.

Outstanding Checklists

Record of outstanding checklists that have been issued / printed by the operator for use in pre and after start checks. Only drivers with a valid license can draw a checklist and cannot draw more than one.
If there are any outstanding checklists, the system can be set to

- Not Supply a new checklist
- Supply a new checklist, but report outstanding checklist to supervisor.

Plant No	Checklist
DR3	30704
PT6	30715
PT7	30789
BC1	30830
PT3	30831
PT4	30833
PT8	30834
TLB1	30835
DT4	30836

Plant Statuses

Status of plants are used to view current statuses of all plants: the following colours determine the status:

- Red – Plant is unavailable due to breakdown / damage
- Blue – Plant is scheduled for maintenance or is in daily check
- Orange – Plant is unavailable due to breakdown / damage. A artisan has not arrived at plant. (foreman to schedule a artisan)
- Green – Plant is active

This tool provides the supervisor with the ability to re align/allocate equipment

Plant No	Current Status
LH1	ACTIVE
LH2	UNAVAILABLE (Daily Service)
LH3	ACTIVE (Scheduled for Maintenance)
LH4	ACTIVE
LH5	ACTIVE (Scheduled for Maintenance)
LH6	ACTIVE
LH7	ACTIVE

All Opened Incidents

Plant No	Comments	Time Of Incident	Reported By
MAH1	FRONT BRAKES FAULTY	2011-01-10 13:57	GERRIE OOSTHUIZEN
UV2	NO POWER - Extra Note:...	2011-01-12 14:57	RINUS ALBERTS
PT2	DAMAGED FRONT - Etr...	2011-01-14 06:47	DEON DU TOIT
DR1	WEEKLY SERVICE	2011-01-17 09:03	RUDI OLIVIER
UV1	WEEKLY SERVICE	2011-01-17 14:40	ANTON JOHST
PT1	WEEKLY SERVICE	2011-01-17 14:59	DEON DU TOIT
LI12	DAILY SERVICE - Extra N...	2011-01-17 10:22	EDDMORE MAPAGULI

Displays the breakdown information:

- Plant no
- Breakdown reason
- Time reported.

This assists in the management of plant downtime and is available to the control room, supervisor, engineering foreman.

View Trackless Plants
View Conventional
View Plant

Workshop Management Module



Reports can be generated by supervisor at leisure.

Different modules that can be selected within system each with their own menu selection

These exceptions are triggered by owners / supervisors which sets the required performance parameters.

These reports are automatically compiled whenever machines operate outside these parameters and is a direct notification to the supervisor.

- Reports
 - Month End Report - Engineering
 - Month End Report - Finance
 - Equipment Efficiencies
 - Artisans
 - Production Reports
 - Downtime Reports
 - Tyres
 - Operators
 - Fuels & Lubricants
 - Trackless Costs
 - View Suppliers
- Trackless Plants
- Trackless Workshop
- Control Room
- Artisans
- Operators
- Manuals / COP's / PTO's
- Resource Management
- Underground Tracking
- Administration

Overhaul Plant Production Information (6:00 to present)

Plant No	Operated Hrs	D/Time	Availability (Hrs)	Availability (%)	Expecte...	No of Fail
BC1	11.31	0.00	11.31	100.00	85.00	0
CR1	11.31	0.00	11.31	100.00	85.00	0
CU1	11.31	0.00	11.31	100.00	85.00	0
CU2	11.31	0.00	11.31	100.00	85.00	0
DR1	11.31	11.31	0.00	0.00	85.00	1
DR2	11.31	0.00	11.31	100.00	85.00	0
DR3						
DT1						
DT2						
DT3						
DT4						
DT5						
DT6						
DT7						

Status of plants are used to view current statuses of all plants: the following colours determine the status:

- Red – Plant is unavailable due to breakdown / damage
- Blue – Plant is scheduled for maintenance or is in daily check
- Orange – Plant is unavailable due to breakdown / damage. A artisan has not arrived at plant. (foreman to schedule a artisan)
- Green – Plant is active

Availability of 3 Main Plants (DR, LHD, DT) - 6:00 to present

LHD
85.71

Drill Rigs
75.00

Dump Trucks
100.00

Exceptions

Item	Count/Inf
Operator Checklists Outstanding	3
Artisan Checklists Outstanding	0
Licenses Expired	0
Licenses Expiring within 60 Days	9
Oil Sample Job Cards Outstanding	17
Oil Sample Job Cards to be Printed	0
Last Oil sample done	7 days
PM Job Cards Not Returned	9
Legals not Returned	9
PTOs Not Returned	2
Over Inspections Not Returned	9

Current Plant Statuses

Plant ...	Current Status
LH1	ACTIVE
LH2	UNAVAILABLE (Daily Service)
LH3	ACTIVE (Scheduled for Maintenance) - TA
LH4	ACTIVE
LH5	ACTIVE (Scheduled for Maintenance) - TA
LH6	ACTIVE
LH7	ACTIVE
DT1	ACTIVE
DT2	ACTIVE (Scheduled for Maintenance) - EV
DT3	ACTIVE
DT4	ACTIVE
DT5	ACTIVE
DT6	ACTIVE
DT7	ACTIVE

Conclusion

By using the Afrigle Resource Management System, you will be able to effectively manage your fleet in real time and act accordingly which will ultimately save you cost and help improve your production.