



# MIM

Mobile Inspection Management for SAP®



The surveillance of equipment condition is critical for ensuring the detection and prevention of equipment failures and the ensuing unplanned downtime. While analysts and engineers may be responsible for defining the overall strategy for equipment, operators, inspectors and technicians often have a better day-to-day understanding of physical equipment functions and conditions. In addition, operators are presented with the best opportunity to collect the data needed to assess the current condition of equipment. An equipment strategy that identifies failure symptoms is most effective if operators monitor the physical equipment to detect the existence of those indicators. Providing the operators the methodology and tools to monitoring critical equipment and capturing the appropriate data is fundamental to ensuring high equipment reliability and minimizing downtime.

SAP and Meridium provide a methodology for supporting the implementation and execution of inspection and monitoring strategies with Meridium's Mobile Inspection Management (MIM) for SAP - a new solution integrated with SAP® Enterprise Asset Management (EAM) and developed completely in SAP NetWeaver® architecture. MIM is a critical extension to Meridium RCMO™ by providing the mechanism to implement and execute critical operational strategies when real-time monitoring isn't feasible, but field inspections are possible. MIM also leverages SAP Business Information Warehouse (BW) to provide a common view of equipment condition and performance, as well as alerts and exceptions.

MIM puts the power of Meridium and SAP in the hands of equipment operators, inspectors and technicians through a

handheld application that lets them capture data electronically in the field. Meridium's Mobile Inspection Management for SAP integrates your company's equipment strategies into day-to-day operations and surveillance programs and facilitates efficient assessment and quantification of asset performance.

## Handheld Devices

First-hand knowledge makes equipment operators, inspectors, and technicians the best candidates for performing equipment data collection, but collecting data in the field has challenges. Paper logs are cumbersome and create the potential for inaccurate and inconsistent data collection. And many electronic data-collection systems

Mobile Inspection...

**Readings - Alert**

Asset ID: PMP-4544  
OLEFIN FEED PUMP

**Check the Pump Discharge Pressure**

Value:   
UOM: PSI

Desc:

Action:

Pressure Low Create Notification and Notify Sup.

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are complicated and difficult to use, requiring extensive training.

Meridium's Mobile Inspection Management for SAP offers a solution to these problems by providing an easy-to-use data-collection application that can be deployed on a wide variety of common handheld devices, ranging from simple PDA-style devices to intrinsically safe mobile computers.

Consisting of a highly ergonomic and easy to use interface that guides users through an intuitive, step-by-step workflow, the MIM for SAP technology makes data collection both efficient and portable.

### Route Management

A key capability of MIM for SAP is the ability to define a route as part of a maintenance plan, which allows for a structured definition for: what assets need to be inspected;

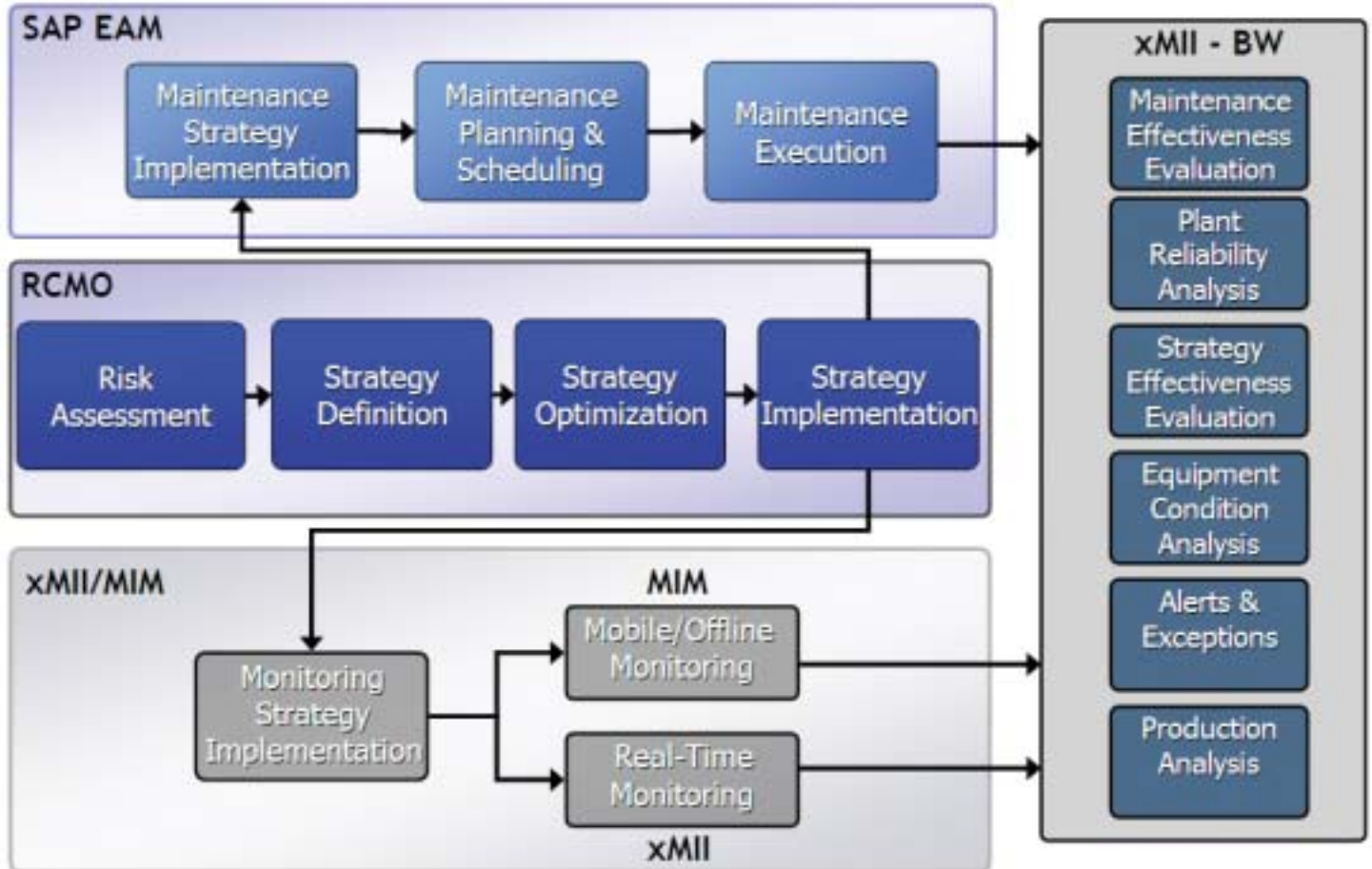
when the inspection needs to take place; what measurement points need to be documented; and what the thresholds for the condition are.

Meridium's MIM for SAP also organizes and sequences measurement points within a route to indicate the order in which data should be collected. Sequence numbers can be modified, as necessary, to account for removal or reorganization of equipment.

### Measurement Point Management

In Meridium's Mobile Inspection Management for SAP, a measurement point represents an inspection point for the operator along a route. Measurement point management includes the following features:

- The ability to define measurement point characteristics and allowable values





- **Limit Levels** - Define thresholds for a specific measurement point. For each measurement point identified, it is possible to define an unlimited number of threshold levels, which allows different levels of indicators and messages to be defined depending on the condition of the asset in the field. If a threshold is exceeded, the operator is alerted in the field with an alert messages and any corrective actions that should be taken. This data is also utilized for historical trends and alerting supervisors of high-risk situations.

### Route Execution

After measurement points have been created and associated with a route, Meridium's Mobile Inspection Management for SAP makes it easy to execute a route and record the necessary data. Route execution features include:

- **Maintenance Order Generation** - Utilizing base SAP EAM capabilities, maintenance plans will generate maintenance orders when routes are due for execution.
- **Data Collection** - Allows operators to quickly capture the readings for a route in a concise grid view on a handheld device. A detailed view is also available and provides the information users need to learn new routes.
- **Measurement Point Alerts** - Presents operators with warnings when the data collected in the field falls outside of pre-defined limits. A detailed message can be displayed on the handheld to inform the operator of any specific actions that need to be taken based upon as-found conditions.

- **Notifications** - Provides operators with the ability to document a request for additional action when they are unable to correct an undesirable situation in the field. By creating a notification on the handheld, operators can ensure that potential failures are addressed in a timely manner.
- **History** - Offers access to historical measurement documents and notifications on the handheld device while routes are being executed. This information can provide valuable insight that helps operators make decisions in the field that will ensure safe and reliable operations.

**Create Route**

Route Name: Pump Check Route | Route Description: Pump Check Route  
 Assigned To: MUI

**Header: Tech. Obj. & Meas. Pt.**

Reassign Tech. Obj. and Meas. Pt.

Select	Include	Sequence	SAP Tech Obj. ID	SAP TD descr.	Type
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	1111-111-AA-01	Cause: Circulation PFunct. Loc.	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	1111-111-AA-02	Residual Transfer PFunct. Loc.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	1111-111-AA-03	Pump Lubrication RxFunct. Loc.	

**Measurement Points**

Select	Include	Sequence	SAP Meas. Pt. ID	Point Description	Position Descr.	Value Type	UOM
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	0	Check Pump Discharge Level	PUMP OUTLET	Numeric	MFA

**Levels / Alert Test /**

No.	Lower limit	Upper limit	Alert Text	Criticality
0	150.00	999999.00	Pres. should be > 130 HPA alert superior	Very Critical
0	130.00	140.00	Pres. should be < 130 HPA create notif.	Critical
0	90.00	100.00	Pres. should be > 100 HPA, no action.	Not Critical
0	70.00	80.00	Pressure low, create notif.	Not Critical
0	0.00000	0.00000		
0	0.00000	0.00000		
0	0.00000	0.00000		

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- Route Document - Allows for creation of a printable route document for situations when a mobile computer will not be used and data will be captured with traditional approaches
- Work Order Closure - When a route is completed and uploaded, the initiating work order will be closed out and appropriate operations time confirmed.

### Route Reporting and Analysis

- Trend Graphs - Offers a visual representation of historical measurements for a specific measurement point.
- Route Status Monitoring - Presents supervisors with information about collected data and operator recommendations, as well as indicators for routes that are overdue, allowing supervisors to ensure that no work gets overlooked.
- All MIM data is built within SAP and can be analyzed through various SAP tools, including BW.

### Summary

Unlike other mobile inspection applications, Meridium's Mobile Inspection Management for SAP:

- Completely leverages your existing investment in SAP applications and infrastructure
- Requires no master data replication or separate database
- Utilizes equipment and functional location definition directly within SAP EAM

- Utilizes measurement point and document definition directly within SAP EAM
- Uses standard SAP EAM structures to do all route planning, scheduling and work order management
- Does not require "middleware" or mobile infrastructures provided by vendors other than SAP

Meridium's Mobile Inspection Management for SAP offers a solution to the challenges of other methods of field-data collection by providing:

- An easy-to use application for collecting data in the field.
- Real-time guidelines for operators, explaining what to do and how to react to the situations they encounter in the field.
- Effortless synchronization between collected data and the master system, allowing for increased accuracy, accountability, and efficiency.
- The ability to evaluate and analyze the collected data within a fully integrated system.

Meridium's Mobile Inspection Management for SAP ensures that operators are monitoring critical equipment and failure symptoms identified by an overall asset strategy, as well as capturing data accurately in the field, which are all

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