

Production Manager

Honeywell



Advanced Solutions

Production Manager

The Complete Plant Information Management System

POWERED BY
MATRIKON

FEATURES & BENEFITS

- Automatically records downtime and production data
- Configurable performance dashboards and data entry forms
- Powerful suite of pre-configured web-reports
- Data traceability for regulatory compliance
- Integrated Windows® security for seamless role-based user access
- Flexible and scalable architecture grows with your enterprise

Production Manager

The Complete Plant Information Management System

Production Manager is a web-based Plant Information Management system that collects and presents plant operational data for both reporting and analysis to help improve your plant's operational performance.

Built on Microsoft® technology, Production Manager is both flexible and scalable and designed to grow with your business needs. Leveraging the flexibility and robustness of Microsoft® core components such as SharePoint®, SQL Server®, and .Net Framework, Matrikon Production Manager integrates into existing business information system architectures to close the gap between the shop floor and enterprise business systems.

PRODUCTION MANAGER

The Complete Plant Information Management System

Production Manager is a web-based Plant Information Management System (PIMS) that collects and presents plant operational data for both reporting and analysis to enable plant management achieve operational excellence.

Operations data is collected both automatically from the plant control system and manually entered through web-forms where appropriate. Recorded data is collated and summarized through customized reports which may be initiated either on-demand or at scheduled time periods such as end of shift.

Production Manager includes the following integrated core modules: Downtime Reporter, Production Accounting, Plan Manager, Materials Manager and Train Manager to provide a complete Plant Information Management System. Production Manager is Powered by Matrikon, which represents vendor neutrality. This product works with third-party control systems and applications.

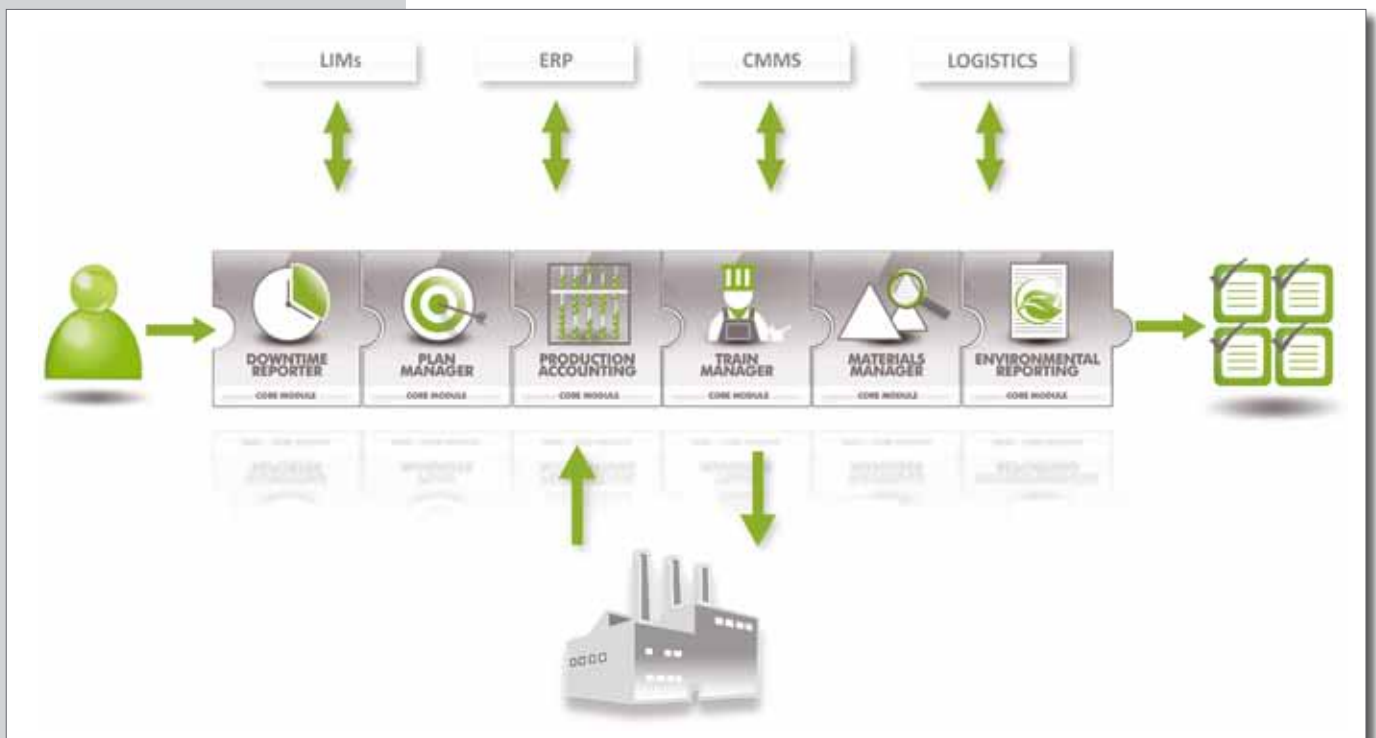


Figure 1. Production Manager Architecture

THE SOLUTION

Tomorrow's Technology

Built on Microsoft technology, Production Manager is both flexible and scalable and designed to grow with your business needs. Leveraging the flexibility and robustness of Microsoft core components such as SharePoint, SQL Server, and .Net Framework, Production Manager integrates into existing business information system architectures to close the gap between the shop floor and the enterprise business systems.

Plant Control System Integration

Honeywell's position as a world leader in plant control system connectivity has ensured that automated data collection for Matrikon Production Manager is both secure and reliable.

Connectivity to plant control system such as PLCs, SCADA, DCS and Historians is achieved through bi-directional OPC data collection engines utilizing data 'store and forward' mechanisms to ensure system robustness from network failures.

Regulatory Compliance

Mandatory compliance with Sarbanes Oxley (SOX) for US public companies and non-US subsidiaries requires stringent accountability and traceability of data systems. Production Manager tracks changes to both operational data and configuration settings for complete system traceability.

Role-based user access managed through Windows Active Directory® provides seamless login through Internet Explorer® and ensures that appropriate access-level rights are enforced.

Scalable Architecture

Production Manager leverages the scalability of Microsoft architectures to support both low cost small plant applications and large enterprise solutions that span multi-site operations.

Support for multi-language and regionalization extends the products suitability for corporate standardization across different language speaking operations.

Dashboards

Custom web page configuration using charts, gauges and data grids allows users to easily configure dashboard screens that consolidate key plant performance information for easy identification of under performing assets.

These dashboards can be extended in enterprise solutions to include performance indicators from various operating plants and allow at-a-glance comparison of plant key performance indicators. Management will then be able to drill down to investigate and identify causes of under-performing assets.

Reporting

A suite of standard web reports using either SAP® Crystal Reports® or Microsoft SQL Server® Reporting Services are included for all application modules. This provides out-of-the-box reporting at a low cost of adoption. Inclusion of standard reports ensures value is delivered from the moment the system is installed. These reports may be extended and additional reports added to comply with specific site or corporate reporting needs. The use of site-wide, standard reports ensures all users are working on the same page.



MANUFACTURING EXECUTION SYSTEM (MES)

Matrikon Production Manager is a Manufacturing Execution System (MES) that closes the gap between the plant automation control system and corporate business systems for seamless information integration.

Accurate downtime and production information is utilized at local plant and corporate levels for production reporting and performance analysis necessary for continuous improvement and maintaining a competitive advantage.

Benefits Throughout the Enterprise

- Corporate dashboards provide performance comparison between distributed operational assets.
- Data traceability supports corporate compliance with Sarbanes Oxley (SOX).
- Enterprise-wide system standardization reduces training requirements for inter-facility staff transfers.
- Best practices such as configuration and reports can be shared between plants reducing system maintenance costs and improving operational standards across the group.
- Centrally managed integrated security through Windows Active Directory provides role based access throughout the enterprise.
- Reduced system support costs are achieved through centralized help centre and standard support protocols.
- Scalable architecture and extensible functionality ensures flexibility for changing plant requirements.
- Defer capital expenditure on plant expansions by increasing plant performance through plant optimization and identifying bottlenecks.
- Standard integration with corporate business information systems.
- High system availability and continued return on investment (ROI) through Honeywell's commitment to innovative product development and global support networks.

Benefits for Operations

- Automatic data collection improves the accuracy and timeliness of data while empowering staff to identify process improvement opportunities by analysing data rather than being bogged down filling in log sheets.
- Web-based user interface for data entry and reporting provides 'on-the-go' access to plant information and reports. Web pages can be embedded into control room operator interface screens for seamless integration into plant operations management.
- Alert notification of plant events through email and SMS text messaging improves visibility and resolution time of important operational issues.
- Centralized information system provides a 'single version of the truth' and ensures that all players are working off the same page. This eliminates the delays and versioning issues common with spreadsheet applications.
- Identify opportunities for more effective plant scheduling by comparing actual production rates against planned production quotas.
- Improved data integrity through manual entry data validation rules and transaction approval process.
- Choice of SAP Crystal Reports or Microsoft SQL Server® Reporting Services provides a powerful reporting framework for scheduled or on-demand parameter driven reports that support powerful reporting tools for charting, drill-down and data summarization.

Benefits for Maintenance

- Real-time equipment performance metrics such as MTBF, MTRR, Availability, Utilization and Overall Equipment Effectiveness (OEE) provide ongoing scorecards for benchmarking maintenance effectiveness.
- Analysis of historical downtime events support effective root cause analysis investigations that lead to reduced unplanned maintenance events (breakdowns) and improved plant availability and performance.
- Minimize the cost of standby maintenance crews by reducing incidence of unplanned maintenance events.
- Improved staff safety by transitioning from unplanned to planned maintenance activities.
- Downtime initiated work orders requests are passed through to Enterprise Asset Maintenance and CMMS systems for faster rectification of equipment breakdown conditions.
- Integration with Enterprise Asset Maintenance systems and CMMS closes the gap on the current disconnect between an asset's planned maintenance costs and opportunity costs caused through unplanned downtime events (breakdowns).



PRODUCTION MANAGER CORE MODULES

Downtime Reporter



Downtime Reporter automatically collects and classifies downtime events in plant sub-areas and selected equipment. The classification of downtime by cause equipment and user-defined cause code for planned and unplanned reasons, provides a foundation of historical data to identify downtime trends and facilitate root cause failure analysis investigations. Downtime comments can also be used to provide additional information for specific downtime events. Change logging and downtime approval process enhances management of the downtime system.

Mapping site specific cause codes to a corporate time usage model provides real-time metrics and KPIs such as availability and utilization. It also enables the comparison of similar plants across the corporation regardless of the site-specific failure codes used. Equipment reliability indicators such as MTTF and MTTR provide ongoing scorecards for maintenance effectiveness. Overall Equipment Effectiveness (OEE) combines equipment availability, production rate and product quality to provide a universal measure of an asset's operational performance.

Integration with Enterprise Asset Maintenance systems and CMMS closes the gap on the current disconnect between an asset's planned maintenance costs and opportunity costs caused by unplanned downtime events (breakdowns). The ability to generate a work order request from within a downtime event creates more opportunities for process improvement in a much shorter timeframe. The ability to split a single downtime event into different sub-periods provides the opportunity to re-classify these split events to reflect different downtime causes that occurred during the overall downtime period. Downtime splitting may be configured to occur automatically for defined events such as change of shift or product changes. These split events may be un-split if required.

Plan Manager



Plan Manager provides an automated framework for managing shift rosters, scheduling plant activities and setting production targets. Production targets can be set on a monthly, weekly or daily basis. Monthly plans can be assigned for different plant areas and locked in as long-term budgets, medium term forecasts and short term plans. It also provides a means to adjust production targets as required on a day to day basis. When integrated with Production Accounting, planning reports can compare planned targets with actual production rates.

Production Accounting



Production Accounting provides a configurable environment to automatically record and manage plant production information. No two plants are the same and they all have unique production reporting needs. Production Accounting provides the flexibility to configure data templates for storage and management of all different types of plant data.

Data such as plant meters and accumulators can be automatically recorded from the plant control system either at scheduled times, such as hourly or on event, or product change. Where no automated source exists, data may also be manually entered through web forms.

These templates are particularly useful for configuring operator log books or supplementing automated data with material analysis results. Production Accounting can also be configured to download control system set-points and batch recipes based on plant mode/campaign selections. Custom reports using either SAP Crystal SQL Server® Reports or Microsoft Reporting Services can be configured to provide standardized reporting for the entire company.

Materials Manager



Materials Manager provides quantity and quality balances for material store locations. The locations can represent bulk stockpiles, liquid and gases holding chambers or discrete material storage areas. In-feed and out-feed material flows are automatically recorded for each store location from the plant control system and provide location balance in real-time.

Bulk materials sample analysis is often received hours after the material movement transactions occur. These analysis results can be applied to material transactions through FIFO, LIFO or homogeneous queuing models when calculating tonnes weighted quality results.

Train Manager



Train Manager is an integrated train scheduling and reporting system for bulk material train load out facilities. Train schedules are received from service providers through electronic data interchange or can be maintained manually through the web interface where integration is unavailable.

Train consist details are automatically downloaded to the load out automation system for accurate wagon batching targets. Recorded wagon weights, load times and bulk material sample quality provide the basis for train load performance reporting.

Downtime can be recorded for train loading delays and slow loading periods when integrated with the Downtime Reporter module.

Environmental Reporter



Our reporting tools make regulatory compliance pain-free. Governments around the world are challenging companies to adhere to tough new regulations on the environment and safety, and in the future these regulations will only get stricter. If your business cannot demonstrate compliance, you are in trouble.

Proving that your business is compliant with current regulations is important but often challenging and cumbersome. That is why Honeywell takes the hassle out of regulatory reporting, giving you more time to focus on your core business.





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'Powered by Matrikon' symbolizes that this product/solution is system and application independent.

For More Information

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