

Wonderware Performance Software 3.5

Real-Time Equipment Downtime and Performance Tracking

Wonderware Performance Software helps manufacturing companies accurately capture all of the critical equipment performance data they need to improve the performance of their productive assets and drive lean manufacturing initiatives.

Using this real-time plant performance information decision makers and operators can help;

- **Reduce capital expenditures** by identifying the most productive assets for continued operation
- **Improve asset utilization** by identifying production bottlenecks more quickly and increasing supplier accountability
- **Increase the capacity** of your existing assets by pinpointing the causes of unplanned downtime and improving operational efficiency
- **Leverage best practices** by comparing line-to-line and plant-to-plant performance, including real-time OEE measures

The system is highly configurable and can be applied to essentially any manufacturing or process industry. Performance Software uses new ArchestrA®-based event objects to accelerate system configuration and minimize system maintenance – saving valuable time and money. New customizable ArchestrA graphic templates allow you to quickly assemble and deploy highly effective equipment downtime and OEE HMI displays for system operators. Pre-configured web-based reports help take the guess work out of improving plant performance.

Drive More Value From Your Plant Assets

Operating your production equipment most productively starts with high quality, real-time plant equipment downtime and efficiency data. Many companies use paper-based methods or nothing at all to track equipment downtime, efficiency, or assess the main reasons for production losses. The Wonderware Performance Software solution integrates with your

existing automation system to generate highly accurate and timely views of equipment performance. Short duration events which typically never get recorded using paper systems appear ranked in order of importance. It is common for short duration events to add up to significant amounts of downtime providing opportunities for improvement.

Automated equipment efficiency tracking quickly shows what plant assets are pulling their weight and which ones are not. No more personal opinions or “guesstimates”, just hard data to base decisions on. With this higher level of insight, you and your staff can quickly identify efficiencies and attack problem areas – unlocking more value from your existing plant assets.

Improve Equipment Effectiveness and Grow Your Competitive Advantage

The more efficient your production processes are the more competitive you are. Knowing the efficiency or effectiveness of your equipment is vital. Ignoring equipment effectiveness is not a viable option today if you want to keep your competitive advantage.

Wonderware Performance Software allows you to track an unlimited number of reasons for equipment downtime and to deploy an unlimited number of Overall Equipment Effectiveness or OEE calculations – one of the most common metrics for tracking equipment efficiency.

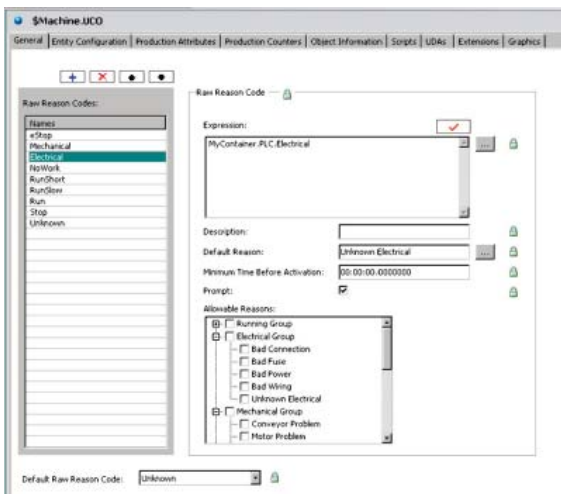
Minimize Setup and Maintenance Costs with Single Configuration Object

The new Utilization Capability Object provides a powerful means to configure your downtime and OEE data collection activities using a single, configurable and highly extensible software object which can be added to your plant model by simple drag and drop commands. This core object can be copied and altered

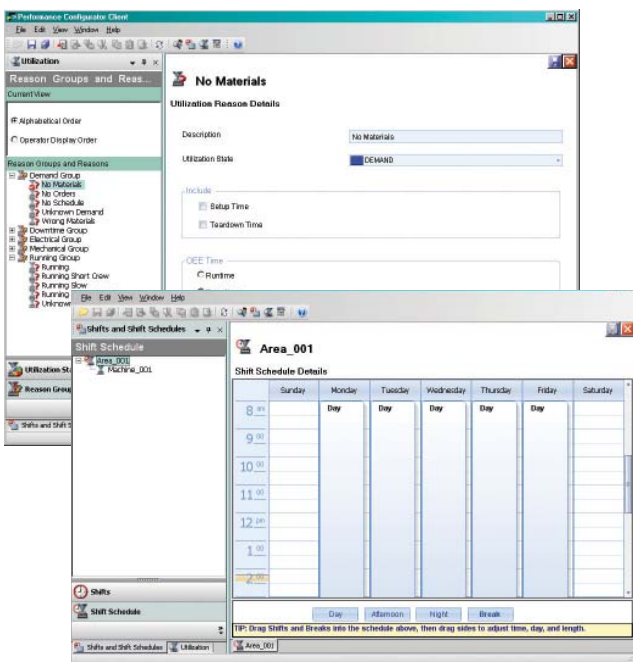
to form a set of monitoring objects tailored to specific types of production equipment then these sets of objects can be copied as a group to quickly build or expand your system with a minimum of effort.



Maintenance is also simplified through the inheritance of characteristics. Specific parameters associated with base objects can be modified then all objects derived from this base object will automatically be updated with the new parameter value. Considering most manufacturing and process plants today have thousands of pieces of equipment, this can save Engineering or IT departments a significant amount of time. It also encourages plants to fine tune their monitoring strategies as less time is required to do so.



Performance Software is integrated with the Wonderware System Platform. All system configuration activities are performed using the Wonderware Integrated Development Environment or IDE. The IDE is a single point of contact when building your equipment performance solution as well as your plant automation applications. Your entire set of plant automation, process analysis and reporting solutions can be developed and maintained on a single software platform.

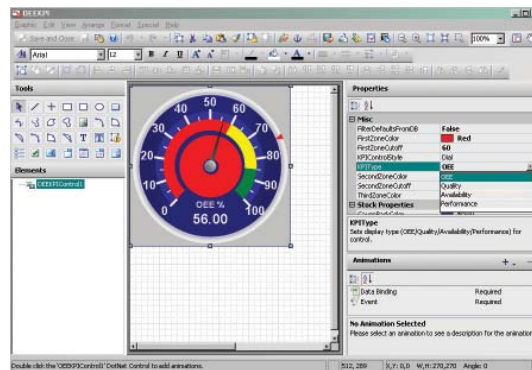


The result is that modern manufacturers and industrial operations now have more power to incrementally increase the size and functionality of their plant applications using low risk deployment techniques – one step at a time, as requirements evolve.

Keep Operators Focused on Improving Asset Utilization

Operators need real-time information on equipment downtime and efficiency to help them drive higher asset utilization. Performance Software provides new ArchestrA graphic templates for equipment downtime Pareto charts and Overall Equipment Effectiveness (OEE) core components; availability, performance and quality. In addition, a production progress graphic is provided to allow operators to see how actual production is progressing relative to a production target value.

All of these graphics are highly customizable and offer inheritance and duplication capabilities along with the ability to pass new parameter values at runtime so the displays are always showing the information the operator needs at any given moment.



Equipment performance metric displays can be created and saved as corporate standards and reused throughout your manufacturing enterprise to save time and to provide a common view of equipment performance.

Develop and Leverage Best Practices

To sustain top performance you need to be able to develop and implement best operating practices including the equipment monitoring strategies you employ. The Wonderware ArchestrA object-based approach facilitates the development and distribution of equipment monitoring standards. Using detailed equipment performance information derived from the Wonderware Performance Software solution allows your team to compare similar equipment or even production lines – knowing the data is derived in the same way (apples to apples comparisons). You can examine your best performing equipment and production lines in detail. This information assists you in the formulation of best operating practices and exposes process improvements that have the biggest bang for the buck.

Empowering Your Operators to Improve Plant Performance

Every plant has operators positioned to improve plant performance. Unfortunately, many operators do not have the plant information tools needed to take action. Wonderware Performance Software can place real-time and historical equipment downtime and efficiency data on the same HMI screens they rely on everyday to do their jobs. This accessibility to vital equipment performance data allows operators to better understand plant processes. This enables them to formulate and implement better operational strategies and help them to become key leaders in your process improvement team.

Event Time	Shift	State	Reason	Duration	Job ID	Comments
11/7/2008	Day	RUNNING	Running	02:36:08	Run	
11/7/2008	Day	DLE	Running	00:00:04	RunShort	
11/7/2008	Day	DEMAND	Unknown	00:00:30	NoWork	
11/7/2008	Day	RUNNING	Running	00:00:09	Run	
11/7/2008	Day	DOWNTIME	Unknown	00:01:34	Mechanical	
11/7/2008	Day	DOWNTIME	Unknown	00:00:01	Unknown	
11/7/2008	Day	RUNNING	Running	00:19:50	Run	
11/7/2008	Day	DOWNTIME	Unknown	00:00:05	Mechanical	
11/7/2008	Day	DEMAND	Unknown	00:03:05	NoWork	
11/7/2008	Day	DOWNTIME	Unknown	00:00:01	Unknown	
11/7/2008	Day	RUNNING	Running	01:38:22	Run	

Current Filter: Filter Type := None, Event State := Both, Minimum Duration := 0, Status := All

Current Status

Current Reason	Running	Since	11/13/2008 12:51:14	Reason from I/O	Running	Duration (H:MM:SS)	01:38:15
Current OEE %	361.12	Good Qty	35029	Target OEE %	85.00	Reject Qty	1404

Protect Your Investment

Wonderware Performance Software is fully integrated with Wonderware Operations Software, Wonderware System Platform and Wonderware InTouch HMI enabling you to implement a complete MES solution built on a single software platform. Your investment in plant performance today is protected as your plant information needs grow and evolve.

KEY PRODUCT CAPABILITIES

Operations Personnel

- Track equipment downtime and Overall Equipment Effectiveness (OEE) for each piece of equipment or line in your plant – allowing informed action on the most significant asset utilization problems facing a production facility
- Customizable .NET controls, easily integrated into operator displays such as Wonderware InTouch HMI, allow operators to add context to equipment downtime events via selectable downtime reason codes
- Web based reporting via Wonderware Information Server, part of the Wonderware System Platform

IT Personnel

The Wonderware ArcestrA-based Performance Software, makes it much easier, less time-consuming and less costly to build and manage equipment performance applications in large scale deployments by:

- Permitting greater flexibility in hardware purchasing decisions
- Reducing time spent managing the application environment
- Reducing the effort and cost to establish and maintain the plant IT infrastructure
- Reducing the need for highly specialized IT skills and requisite training costs
- Access to award winning technical support and training resources
- Freedom to accommodate special requirements through extensibility and scalability

Engineering Personnel

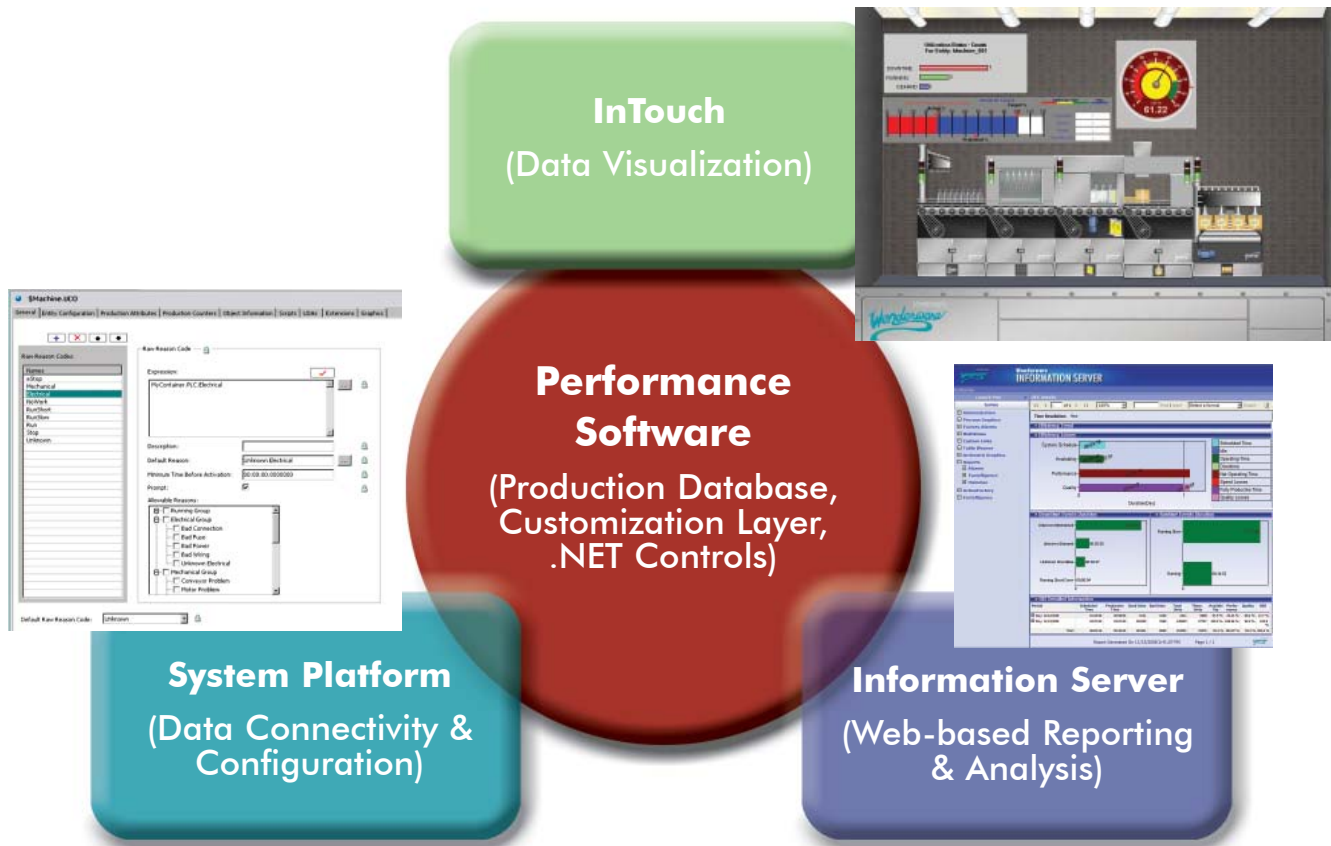
- Common services for security, system availability, data collection, and data communication
- Unparalleled device connectivity – supports Wonderware Message Exchange communication protocol (MX). The optional Supply Chain Connector provides additional connectivity to ERP, document management, maintenance and supply chain management systems.
- Support of corporate production application standards – build company performance metrics standards and apply them throughout the enterprise
- Built-in system extensibility via a broad selection of .NET controls and access to an application programming interface (API)
- Reuse of engineering from project to project, create reusable configuration and graphic objects
- Deliver equipment downtime and OEE KPI data via the web to plant workers throughout the plant or industrial facility

SOLUTION ARCHITECTURE

The Wonderware MES and EMI solution leverages;

- InTouch software – the World’s leading HMI application
- Wonderware System Platform – the industry’s most powerful application development environment
- Wonderware Performance Software – equipment performance solution
- Information Server – the Wonderware web solution

Designed to work together, the Wonderware MES/EMI solution streamlines configuration and maintenance, offers broad scalability and extensibility, provides dramatic data visualization and powerful web-based reporting and analysis.



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Contact Wonderware or your local Wonderware Distributor for more information about industrial automation and information software solutions.

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