

Product Information Note

Blend Performance Monitor

Blend Monitoring Solution for Oil Refineries



Honeywell's Blend Performance Monitor (BPM) enables blend planning personnel to track the performance of blending operations to analyze and improve blending reliability and profitability.

Benefits include:

- **Improved blending consistency** through identification, analysis and elimination of sources of blending variability.
- **Reduced giveaway** of all blends by closing the gap between product specifications and product release limits.
- **Component usage optimization** and subsequent improved profit through analysis of blending performance.
- **Increased blending throughput** through tracking of historical Key Performance Indicators (KPIs) that can help identify constraints.

Key Capabilities

BPM collects data for each blending operation on the plan, target (starting conditions), actual results (including on-line analyzers and lab quality results), and associated reblend operations to correct off-spec problems. It can be used with most blend planning tools, process historians, lab systems or blend control applications, and has the following key capabilities:

- Blend Planning, Targets and Actuals Interfaces
- Lab Data Integration
- Standard Reports
- Custom Reports

These key capabilities are described below:

Blend Planning, Targets and Actuals Interfaces

Blend Performance Monitor has a set of interfaces that extract blending data from flat files and stores it in the BPM database tables. These interfaces enable data from various sources such as blend planning systems, blend controllers, etc. to be transferred to BPM for monitoring and analysis.

Lab Data Integration

A mechanism for automatically filtering and integrating lab data is provided with Blend Performance Monitor. This interface mechanism extracts the lab data from the site's process historian system. Blend certification samples are identified, and blend property data of interest is copied directly into BPM from the process historian system.

Standard Reports

In addition to providing general reporting and data exchange functions, BPM provides the following standard reports:

- Blend Analysis Report

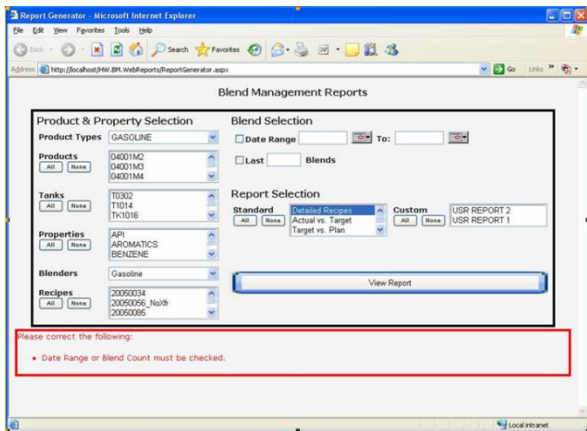
Blend Analysis Report										Run Date: 17-Sep-2011	
Blend No.	7	Start	2011-08-11 12:00:00								
Tank	T910	End	2011-08-11 17:27:17								
Blender	BcBldf	Duration (Hrs)	5.5								
Recipe ID	MOGAS-A-BPM										
Product	REGULAR										
Blend Data										Blend 7	
	Plan	Target	Actual	Reblend 1	Reblend 2	Reblend 3					
Date	2011-08-05	2011-08-11	2011-08-11								
Time	12:00	12:00	17:27								
Heel Vol.	100.000	100.000	100.000								
Header Vol.	2500.000	2500.000	1600.000								
Total Vol.	2600.000	2600.000	1700.000								
Blend 7										Blend 7	
	Initial Conditions			Actual			Lab Results				
Property	Units	Heel	Plan	Target	Lo Limit	Analyzer	Hi Limit	Lab	RBL 1	RBL 2	RBL 3
DI		1040.00	1000.00	1050.00	1000.00	1045.00	1107.00	1068.00			
MON		95.00	83.00	90.00	83.00	98.00	120.00	97.00			
ROAD		89.00	87.00	88.00	87.00	93.50	89.00	94.20			
RON		105.00	91.00	100.00	91.00	105.00	120.00	104.50			
RVP		6.50	8.00	6.00	5.00	6.90	8.00	6.80			
T10		126.00	120.00	125.00	120.00	130.00	158.00	129.60			
T50		185.00	175.00	180.00	171.00	190.00	250.00	189.50			
T90		295.00	275.00	300.00	275.00	300.00	375.00	299.50			
VLI		145.00	145.00	150.00	145.00	150.00	160.00	149.00			
Formulation										Blend 7	
	Actual	Plan/Target (%)			Actual (%)			Header	Reblend Volume		
Component	Tank	Plan	Target	Lo Limit	Average	Hi Limit	Volume	RBL 1	RBL 2	RBL 3	
ALKYLATE	T941	40.00	50.00	35.00	48.00	60.00	1250.000				
BUTANE	T942	60.00	50.00	40.00	52.00	65.00	1250.000				
Additives										Blend 7	
	Tank	Quantity	Units								
ADDITIVE1		500.00									

Blend Performance Monitor produces standard reports which can be used to track, analyze and improve blending operation performance.

- Detailed Recipes Report
- Actual vs. Target Report
- Target vs. Plan Report
- Actual vs. Lab Report
- Composition Summary Report
- Property Summary Report
- Blend Values Report
- Backcast Report
- Detailed Giveaway Report
- Summary Giveaway Report

Custom Reports

Blend Performance Monitor provides the capability to define additional custom reports, and these reports to be accessed through the BPM Report Generator which is shown below:



Both standard reports and custom reports can be viewed using Blend Performance Monitor's Report Generator.

Blend Performance Monitor DCS Support

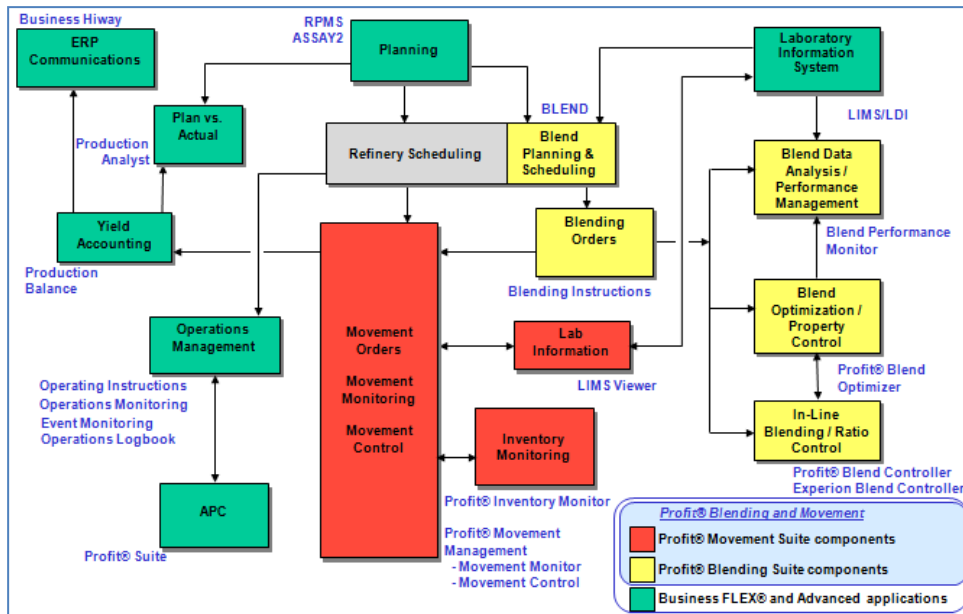
Blend Performance Monitor is a browser-based application that receives its information from various sources such as blend planning, blend control, or blend optimization applications that might have a dependency on a specific DCS platform. However, BPM does not have any direct dependency on a specific DCS, and can support many DCS platforms as a result.

Integration with Honeywell Applications

BPM uses the following integrated information:

- Process Data from Honeywell's PHD (Process History Database) or other historians such as PI
- Blend planning data from Honeywell's BLEND or other blend planning tools
- Blend control results from Honeywell's Profit® Blend Controller (PBC), Experion Blend Controller (EBC), Profit Blend Optimizer (PBO) or Profit Movement Management (for batch blenders) or other blend control systems

The relationships between Blend Performance Monitor, the Profit® Blending Suite, of which Blend Performance Monitor is a key component and other Honeywell applications, are shown below.



Blend Performance Monitor is a key component of Honeywell's Profit Blending Suite and integrates with other Honeywell applications

System Requirements and Architecture

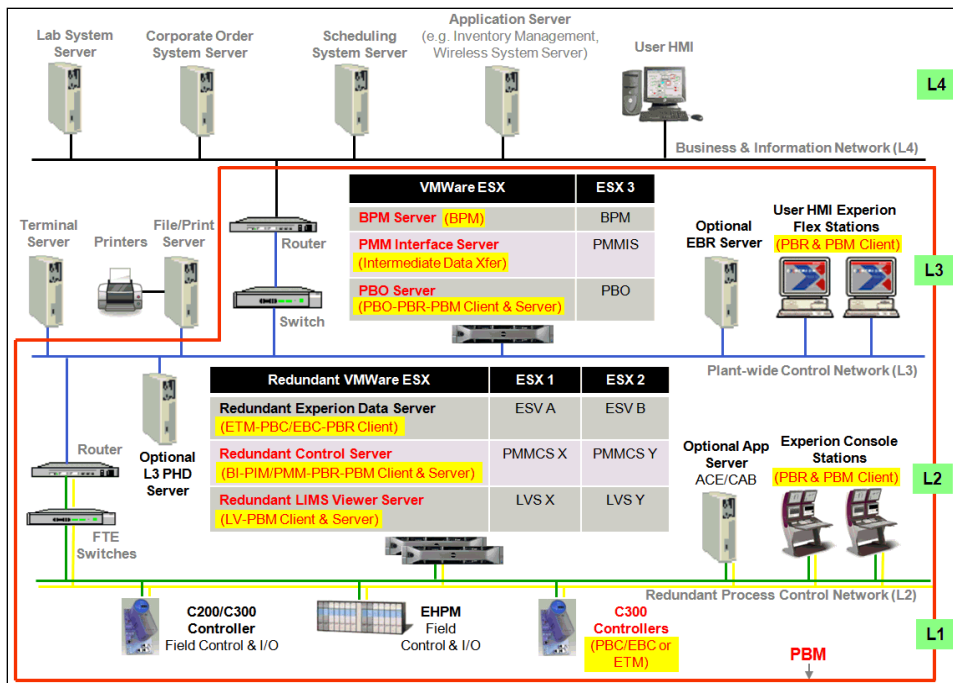
The illustration below shows an example Blend Performance Monitor system architecture where BPM is installed in the context of a combined Experion PKS and business information system.

Blend Performance Monitor is installed on BPM Server as illustrated. This server runs Windows Server 2008 Standard Edition (32-bit) with SP2 or Windows Server 2008 R2 Standard Edition (64-bit) with SP1, and the version of SQL server supported depends on the operating system being used. Contact Honeywell for the appropriate version of SQL Server required.

No special hardware is required to support the BPM Server, however network access between BPM and the desired data sources (i.e. Blend Planning System, Blend Control System and/or Process Historian) needs to be provided.

Training Services

Training courses addressing Blend Performance Monitor implementation, use and maintenance are available through Honeywell’s Automation College (www.automationcollege.com). On-site courses are also offered upon request.



Example Profit Blending and Movement System Architecture

For More Information

Learn more about how Honeywell’s Blend Performance Monitor can improve the performance of your blending operations. Visit our website www.honeywellprocess.com/software or contact your Honeywell account manager.

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