

# PETRONAS Uses BLEND Technology to Improve Gasoline Production



“We are pleased to highlight that we are utilizing BLEND 2000 for all our gasoline blending. We have reduced the number of correction blends significantly after we started using BLEND 2000 and the product quality giveaway has improved.”

Mr. Siriganesan of PETRONAS

## Benefits

PETRONAS needed to find a more effective solution to manage not only the process of blending gasoline products to reduce the number of batches that fail quality specifications, but also to improve product delivery.

Honeywell's BLEND application is an integrated, Windows-based application for petroleum product blending. BLEND uses linear programming technology to produce the best blending recipes for intermediate component blending to meet the final product demand on time and without quality giveaway.

The implementation of the BLEND application resulted in the following benefits for PETRONAS:

- Significantly reduced number of correction blends
- Product quality giveaway improvement
- Increased profitability

## Challenge

Malaysia's PETRONAS Penapisan (Melaka) SDN BHD (PPMSB) is a crude processing refinery. This refinery is responsible for a significant amount of the gasoline supply that supports PETRONAS' business in the domestic retail gasoline market.

Prior to implementing the Honeywell BLEND solution, PPMSB was using a Microsoft Excel spreadsheet for recipe calculation of gasoline blending. This method of blend planning was not meeting the accuracy required by PPMSB. The result was:

- Significant number of gasoline batches failing in quality specifications
- Re-blending for correcting quality giveaway
- Delivery schedule failures

Planning and scheduling for gasoline blending is a complex process with high potential of economic optimization. Key challenges for PPMSB in gasoline blending are:

- Minimize quality giveaway within the product specification
- Meeting product delivery schedule
- Optimize components use on entire horizon of production planning
- Controlling component and product inventory



Honeywell's BLEND application is an integrated, Windows-based application for petroleum product blending.

## Solution

Blending is an economically significant part of the plant management decision support system. PETRONAS selected Honeywell's BLEND solution to help them achieve better control and improve gasoline output.

The PETRONAS BLEND project team was made up of representatives of PPMSB, Honeywell Malaysia and Honeywell Automation India Limited.

The project was made up of several phases. The first phase included extensive on-site studies to understand the process of planning and scheduling, as well as the actual blending operations.

In order to correctly configure the model, a large amount of data is required. Historical data for large number of batches, recipes, grades, component qualities, heel qualities, heel quantity and tank lab results were collected from PPMSB. These formed the basis for model building in BLEND.

The second phase of the project was the factory acceptance test done at Honeywell's Pune, India office. A number of demonstrations were done to the complete satisfaction of PPMSB representatives.

The final implementation was done at the PPMSB site. Honeywell's BLEND solution and the old blend planning method were run simultaneously. The results were compared and the BLEND solution was found to be highly satisfactory.

The involvement of PPMSB team ensured that technology transfer was complete. This allowed them to start using the tools and get results very quickly.

## For More Information

To learn more about Honeywell's blending solution, visit [www.honeywell.com/ps](http://www.honeywell.com/ps) or contact your Honeywell account manager.

## Automation & Control Solutions

Process Solutions

Honeywell

2500 W. Union Hills Dr.

Phoenix, AZ 85027

Tel: 877.466.3993 or 602.313.6665

[www.honeywell.com/ps](http://www.honeywell.com/ps)

SS-06-04-ENG  
April 2006  
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