

## Design of a Web-based Support System for On-Line Optimization

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On-line optimization is a very powerful tool to save cost and improve operation productivity of a chemical plant. However, the process of on-line optimization takes too much time and cost because it need significant contribution of process optimization specialists. Accordign to our survey, the communication between specialists and plant engineers is the bottle-neck of the main cost and time saving because specialists usually work at the office located far away from the plant. To solve this problem, a web-based support system for on-line optimization has been designed based on product design methodology. The design specifications of the target product have been identified using product design tools such as house of quality and roof correlation matrix. The design specifications have been implemented into three product modules: communication module, project management module, and information interaction module. The final prototype system was evaluated based on the real application to the on-line optimization of a PTA process. The system showed both the time and the cost could be reduced by 43.5% and 43.3%.