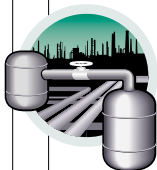


CONTROL ENGINEERING®

JANUARY 2004



PROCESS AND ADVANCED CONTROL

Software allows practical, model-predictive control Emerson Process Management's PredictPro

DeltaV PredictPro multivariable, model-predictive control (MPC) software from Emerson Process Management increases controller size and functionality beyond its predecessor, and lets engineers improve performance of large, interactive applications without control experts. PredictPro's software includes an embedded economic optimizer and enhanced data status handling. It is fully executed in DeltaV controllers, enabling full processor, networking and power redundancy.

These capabilities allow PredictPro to provide practical model-predictive control, which enables control of an entire collection of process units as a single entity, rather than managing them as individual loops or variables. This increased efficiency can increase an application's profitability by allowing it to operate closer to process constraints and limits; stabilize process operation and decrease energy consumption, waste and recycling; and enable operator testing and training on MPC control offline with embedded simulation.

PredictPro, as well as Emerson's DeltaV Predict software, use dynamic matrix control to address process interaction and difficult dynamics. Because Predict and PredictPro are fully embedded in DeltaV, users can implement pre-engineered components and function blocks to quickly develop multivariable control strategies, validate, test, and deploy. Designed for use with existing control systems, these control applications connect either serially or by OPC to improve product quality by reducing variability. Similarly, Predict's multivariable MPC technology handles excessive deadtime, long time constants, inverse responses, and loop interactions. Using these advanced control techniques again enables variability in

key process variables to be dramatically reduced. www.easymodel.com

- Enables unified control of many process units
- Dynamic matrix control addresses process interaction
- Function blocks speed control strategy development



EMERSON™
Process Management

