



ARTCON LEADERSHIP TEAM:

COMPANY: ARTCON INC. (www.artcon.com)

SOFTWARE DIVISION: PICONROL SOLUTIONS (www.picontrolsolutions.com)

VINITA KAMATH - PRESIDENT

PETER ETA - VICE PRESIDENT

STEVE HOWES - PRODUCTS & TRAINING DIRECTOR

SUDESH CHOGLA - SOFTWARE MANAGER

OSCAR ETA - CHIEF ENGINEER

CONSULTANTS:

Dr. JOHN GALIOTOS - HOUSTON COMMUNITY COLLEGE PROFESSOR

Dr. MIKE NIKOLAOU - UNIVERSITY OF HOUSTON PROFESSOR

AFFILIATES:

GUISAC - Middle East

HCCS- Houston Community College, Houston, TX

SAY-PLANT- Seoul, South Korea

RTC AUTOMATIKA - Hungary

IASTG- Middle East

TYPICAL APPLICATIONS OF SOLUTIONS:

SOFTWARE SOLUTIONS:

Artcon inc. through its PiControl Solutions division provides the following software solution packages:

PRODUCTS:

PITOPS/OPC - Multivariable Closed-Loop Transfer Function identification and PID tuning optimization for any type of Chemical, Mechanical or Electrical processes, with OPC and Excel interface

SIMCET- PID Tuning real-time simulator for training, practice, online grading and certification

APROMON - Process parameters and PID monitoring, with OPC and Excel interface

TADPOLE - True amplitude On-line Oscillation detection

PIBRIDGE - OPC Connection to any Server, DCS, PLC or analyzer systems

PICONNECT - OPC Data Manager that writes OPC tags in an easy to manage excel Spreadsheet

PILOGGER - OPC Data Manager that writes OPC tags in an easy to manage excel Spreadsheet

PIHMI - OPC Data communications from customized operator interface

PROEVDIST ONLINE - Online thermodynamics calculator for Dew/Bubble point, Vapor fraction, partial pressures, and other thermo calculations)

INFERIQX - Online Inferential property calculator

CHROMATIQX - Analyzer validation module

BENEFIQX - Online benefits calculator

PROCESS CONTROL CBT- Computer-based industrial advanced process control training

BLAST TECHNOLOGY - This package will include **AUTOMATIQX** for Model Predictive Controls (MPC) and **SEQUENOQX** & **ADAPTIQX** for sequential transitioning and Batch processes) suitable for Polymer processes, Ethanol and Bio Conversion

TYPICAL APPLICATIONS OF SOLUTIONS:

units, Air Separations, Pharmaceutical and other Batch Processes, Petrochemical plants, Power Plants, Paper industry and simple distillation processes where a bulky APC/MPC package will be an overkill. These units often are left un-optimized for this reason.

TYPICAL APPLICATIONS OF SOLUTIONS:

TRAINING:

Artcon inc. through its PiControl Solutions division provides the following software solution packages:

- 1) Primary and Advanced Industrial Process Control and PID Tuning (4 or 5 days)
Software used - **PITOPS, SIMCET, CBT and ACSSI**
- 2) Process Control Quality Monitoring (5 days)
Software used - **APROMON and TADPOLE**
- 3) Online Oscillation Detection and Adaptive Control (3 days)
Software used - **APROMON and TADPOLE**
- 4) Basic Industrial Distillation Process Theory, Thermodynamics and Distillation Control, Phase Equilibria and Applications in EOR (5 days)
Software used - **PROEVDIST**
- 5) Using OPC for data communications from servers for DCS and PLC -
Software used - **PIBRIDGE, PICONNECT, PILOGGER and PIHMI**
- 6) PID Tuning and Basic Control for Technicians (4 days)
Software used - **PITOPS AND SIMCET**
- 7) Advanced Industrial Distillation Process Theory, Thermodynamics and Distillation Control, Phase Equilibria and Applications in EOR (5 - 10 days)
Software used **PROEVDIST**

Please see attached .pdf brochure for course details.

TYPICAL APPLICATIONS OF SOLUTIONS:

CONSULTING SERVICES:

CONTROLS AND OPTIMIZATION CONSULTING:

Artcon, inc. leverages not only its advantage of having industry leading products but also the experience of top rated practitioners to provide its clients with the most suitable controls package/s for their facility. Artcon can implement third party software solutions such as DMC-Plus in large refineries or recommend its own technology which is more suited for many other processes.

Artcon's services include initial controls design, tuning, OPC connectivity and Advanced Process Controls and Optimization work. Essentially, Artcon provides the entire facet of controls consulting mostly using its software solutions. Artcon also provides analyzer validation solutions, inferential model calculator packages and customized calculations build either on the DCS or on a server.

REMOTE MONITORING, PROCESS TROUBLESHOOTING AND DATA ANALYSIS:

Artcon also performs data analysis for any type of process as well as remote monitoring. Artcon Engineers have the knowledge and experience to troubleshoot any type of facility by first making the data available through OPC connectivity. With this data readily available, plant data is analyzed to come up with unique optimization schemes that will save thousands to millions of dollars a year.

SOLUTIONS PROVIDED TO PAST CLIENTS:

SOLUTIONS:

EXXONMOBIL:

All Artcon products have been installed at the Polyethylene (PE) Pilot plant.

The Proevdist solution package was utilized to verify plant calculations for many of Exxon plant sites. Typical solution involved providing thermodynamic and Phase Equilibria calculations to confirm process data.

Proevdist online solution for dew point calculation has been installed at some sites.

Installed Analyzer validation solutions and OPC connectivity software packages (PiBridge and PiConect)

SUNOCO:

Sunoco is a big user of our PITOPS process control package and several sites in the Philadelphia area.

Installed Analyzer validation solutions and OPC connectivity software packages (PiBridge and PiConect)

ROHM & HAAS:

Artcom engineers have performed optimization services for over a dozen units at the Deer Park facility. They utilized software products (PITOPS and APROMON) to stabilize plant and increase plant profits. Benefiqx solution package was employed as a means to quantify these benefits.

SOLUTIONS PROVIDED TO PAST CLIENTS:

PRAXAIR:

Applied APC/MPC solution using DMCplus software solution package for plants in Monterrey and Veracruz (Mexico), Tabaza (Spain), Loveland (CO, USA), Sterling (IL, USA), Zwijndrecht (Belgium) and many others. Installed Artcon-Picontrol Solutions' Benefiqx package at Loveland and Monterrey to calculate online benefits and point to areas of optimization or losses instantly.