

OptiComp Experience

FACT SHEET

The OptiComp* Compressor Control Suite is GE's latest comprehensive software package for controlling centrifugal and axial compressors—based on decades of OEM and unit control experience—with over 600 installations controlling centrifugal and axial compressors in many oil and gas applications worldwide.

OptiComp is capable of handling a wide range of applications starting from simple single-stage compressors to complex multi-stage compression trains with series and parallel configurations, including refining, petrochemical, LNG, NGL, and pipeline applications. Here are a few examples of how OptiComp is being used today.

OptiComp integrates controls for seven turbine/compressor sets at a crude oil plant in the Middle East. The installation of GE's Mark* VIe control system with OptiComp compressor control software replaced aging, disparate turbine and compressor controls. The plant also utilizes OptiComp BN, which integrates vibration characteristics with thermodynamic measurements to provide advanced detection of compressor instability and surge.

Gas/Oil separation plant upgrades to OptiComp compressor control for its three motor-driven compressors. The compressors previously used programmable logical controllers, which GE replaced with Speedtronic Mark VIe technology, along with GE's OptiComp

compressor control algorithms and remote control capability from the plant's existing distributed control system (DCS). This was a highly customized project for which GE provided extensive simulation and testing.

OptiComp reduces trips on PGT10/PCL pipeline compressor supporting critical natural gas pipeline network in U.S. The unit was experiencing unnecessary trips and the control system faced reliability issues in summer. It utilized two separate control systems that were housed in a Unit Control Panel (UCP). GE replaced the disparate systems with a Mark VIe control system running an integrated gas turbine and compressor control utilizing GE's OptiComp compressor control software. The result is increased

reliability, enhanced compressor function, increased throughput and productivity.

Vast improvements for natural gas liquids plant in Middle East with controls upgrade. The plant runs three GE Frame 5 Gas Turbines driving two-stage Nuovo Pignone centrifugal-type booster compressors. The customer decided to upgrade the controls based on changing production and safety needs. GE provided a Mark IV to Mark VIe control system migration, Mark VIeS Safety System, and OptiComp compressor control. The upgrade improved controllability and operability, provided smoother startup/shutdown, and improved steady-state operation while minimizing compressor surges and consequent production losses.



For more information, please contact your local GE representative or visit ge-opticomp.com

*Trademark of General Electric Company
Copyright © 2013 General Electric Company. All rights reserved.

GEA30644 (04/2013)