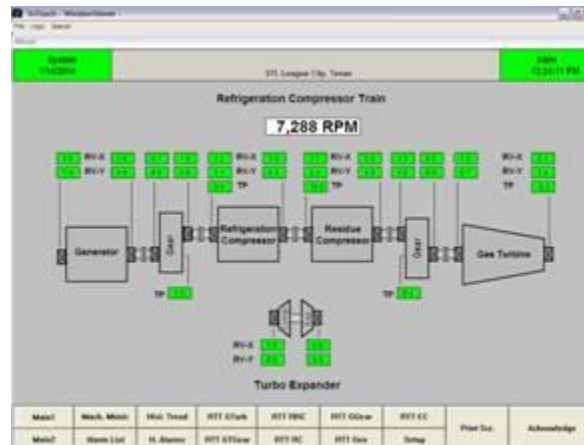


## Case History:

### Frame 5 Gas Turbine Compressor/Generator



#### Problem:

In 2005 a Gulf Coast Natural Gas Processing and Transportation Company contacted STI Vibration Monitoring to offer an alternative replacement for an existing obsolete vibration monitoring system that could no longer be repaired at one of their Gas Compression Terminals. The equipment to be monitored included a GE Frame 5 Gas Turbine, 2-Gearboxes, 2-Compressors and a Generator. In addition a Turbo Expander was also to be monitored. In discussions with plant personal STI offered a transmitter based solution using Wonderware HMI (Human Machine Interface) along with installation services. The customer also desired to make use of their existing installed proximity probe sensors, cables and drivers where possible and to replace as required.

#### Solution:

Replacement cover panels to replace the previous monitoring system mounted in the control room were fabricated at STI's League City, Texas (Houston) Custom Products facility. CMCP500 Series Transmitters for Radial Vibration X&Y, Thrust Position and Speed were mounted to the inside side of the panels along with all required power supplies, field IO, relay module and intermediate terminal blocks. By using the locations of the previous monitoring system wiring issues were minimized by making use of the preexisting field wiring. The system includes: 28 CMCP540 Radial Vibration, 5 CMCP545 Thrust Position and 1 CMCP575 Speed Transmitter.

# Case History:

## Frame 5 Gas Turbine Compressor/Generator



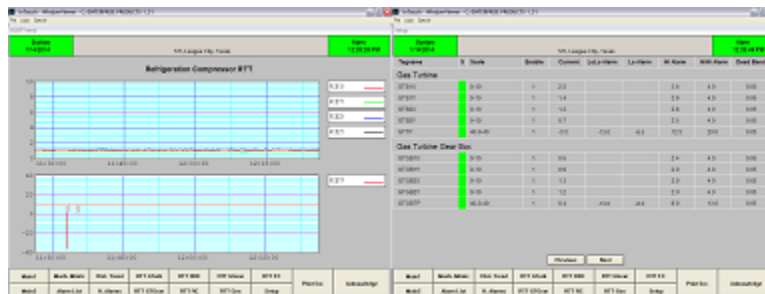
As the customer did not currently have an adequate DCS/PLCS System on site STI then completed a runtime application using *Wonderware Intouch*. Preliminary screens shots were provided to the customer for input and suggestions before being finalized. The system was completely tested and verified before shipment to the customer at our shop.



Main Mimic

Meter Display(s)

Historical Trend



Real Time Trend(s)

Setup Screen(s)

For help solving your machinery monitoring problems please feel free to contact STI. We are available to answer questions and your ideas and comments are appreciated.