Major Petroleum Refinery Converts to New Digital Automation System

The facility needed to migrate from its Honeywell and Moore DCS systems to an integrated Emerson DeltaV platform.

**Main Objective**
The customer wanted to complete a platform migration as Phase I of a plant-wide modernization project. The client requested a Wonderware human machine interface (HMI) for the newly developed graphics.

**Customer Results**
MAVERICK Technologies completed the platform migration as requested, with a clean implementation of the customer's control strategy.

**Application Description**
MAVERICK Technologies upgraded three control rooms monitoring seven different units in the petroleum refinery. The existing configuration was analyzed and reconfigured using the new DeltaV system. This analysis provided the opportunity to clean up mistakes in the existing configuration, eliminate midnight workarounds and disable forgotten interlocks that had accumulated over the years, allowing the plant to restart with a clean implementation of its control strategy.

Configuration consisted of standard analog indication and feedback control, ratio and feed-forward control, and pressure and/or temperature compensation of flow and oxygen measurement, as well as process and safety interlock logic. A newly designed control strategy was also implemented in the form of distillation column control and cross-limited burner combustion control.