

CUSTOMER CASE STUDY

Advanced Process Control for Texas Chemical Plants

BKOAI's engineers implemented large-scale advanced process control workflows across Texas chemical plants, improving process stability and controller uptime while reducing manual intervention

Industry: Petrochemicals

GOALS

- Improve process stability across large-scale chemical plant units.
- Increase controller uptime for automated systems.
- Maximize overall operating performance in production environments.
- Minimize manual intervention by operators and engineering teams.

CHALLENGES

- Managing highly complex process dynamics in large petrochemical facilities.
- Coordinating operations across multiple disparate control systems.
- Securing high-value production units from operational disruptions.
- Maintaining control reliability across varied operating environments.

SOLUTIONS

- Designed large-scale Advanced Process Control workflows tailored for chemical plants.
- Implemented advanced controllers within complex petrochemical environments.
- Deployed robust process controllers across O&G operating facilities.
- Configured automated optimization workflows to reduce manual oversight.

RESULTS

- Achieved high controller uptime across key production units.
- Demonstrated measurable operational benefits in post-project reviews.
- Enhanced process stability throughout the Texas manufacturing facilities.
- Improved overall operating performance of high-value chemical units.

EXECUTIVE SUMMARY

BKOAI's engineers implemented large-scale advanced process control workflows across Texas chemical plants, improving process stability and controller uptime while reducing manual intervention. The work addressed complex process dynamics, disparate control systems, and the need to protect high-value production units from operational disruptions. Tailored Advanced Process Control workflows, robust controllers, and automated optimization improved reliability and operating performance across the facilities.

Managing Complex Chemical-Plant Dynamics

Large petrochemical facilities operate with highly complex process dynamics and multiple disparate control systems. These conditions can make it difficult to maintain stability, protect high-value production units, and sustain reliable automated control across varied operating environments.

Deploying Advanced Process Control Workflows

BKOAI designed large-scale Advanced Process Control workflows tailored for chemical plants, implemented advanced controllers within complex petrochemical environments, and deployed robust process controllers across O&G operating facilities. Automated optimization workflows were configured to reduce manual oversight.

Improving Uptime and Operating Performance

The deployment achieved high controller uptime across key production units and demonstrated measurable operational benefits in post-project reviews. Process stability improved throughout the Texas manufacturing facilities, supporting stronger overall operating performance of high-value chemical units.

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