

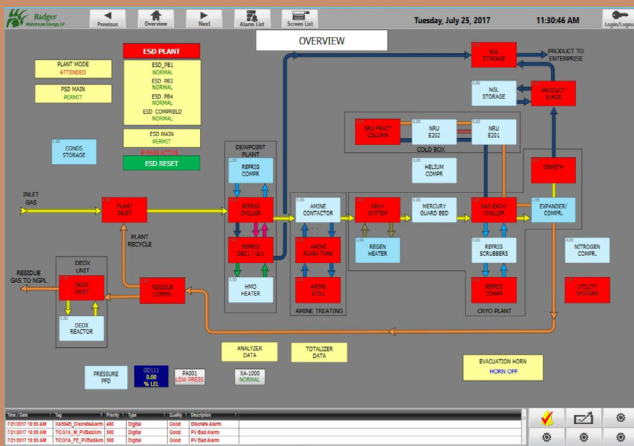


Badger Midstream's
Houston, TX Headquarters

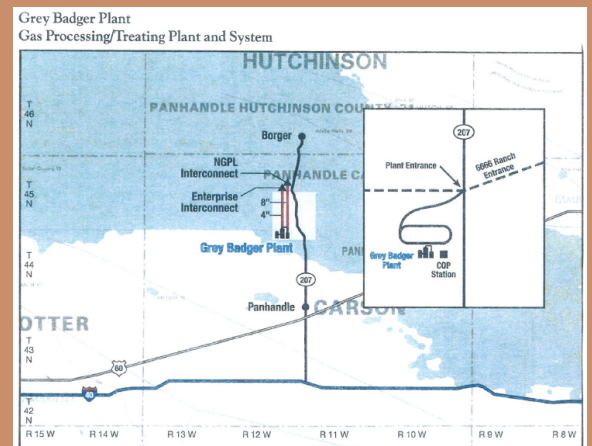


Customer Success Story

Badger Midstream Panhandle, TX



Grey Badger Plant Overview Created
via ICONICS GENESIS64™



System Map of Grey Badger Plant

About Badger Midstream

Badger Midstream (www.badgermidstream.com), located in Houston, Texas, is a natural gas/natural gas liquids transportation, gathering and processing midstream company created to acquire and exploit midstream assets in the natural gas energy sector. It was found to significantly improve the midstream value chain by working with customers (producers, operators, pipelines, end users and other midstream companies) to determine needs and provide real, creative, cost-effective, technical, results-oriented solutions.

ICONICS Software Deployed

Badger Midstream, working with system integrator, SOAP Engineering (www.soapeng.com), selected ICONICS' GENESIS64™ HMI/SCADA suite, includ-

ing WebHMI™ Web-based real-time automation software, as well as the MobileHMI™ data mobility suite.

Project Summary

Badger Midstream's Grey Badger site in Panhandle, Texas is a cryogenic gas processing and treatment plant. Initial capacity of the plant is 25,000 Mcf/d. It has four miles of steel NGL pipeline and 4.5 miles of 8' steel high pressure residue pipeline. The plant is an ultra-high recovery cryo plant with ethane rejection capability, amine treating, nitrogen rejection, helium recovery, and condensate stabilization.

The company sought an HMI/SCADA solution to control all the processes of the Grey Badger gas plant including plant metering, compression monitoring, tank/pump/

valve control, and the monitoring and control of 105 proportional-integral-derivative (PID) control loops. The new solution would replace an existing system based on a combination of two competitor products due to lack of support of their installed product versions and comparatively high costs of upgrades and yearly/ongoing maintenance charges. Understandably, Badger wanted their new solution to be more cost-effective and easier to maintain.

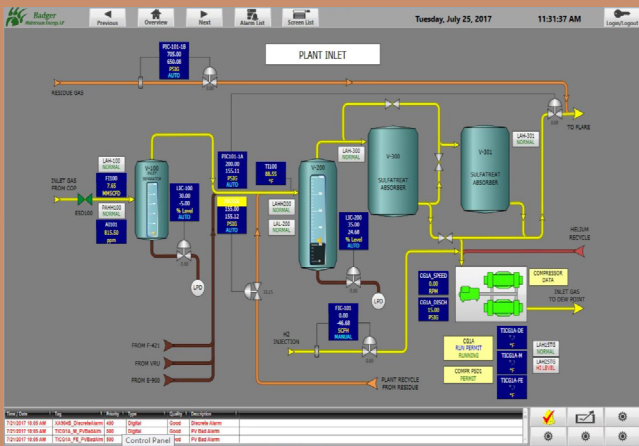
The selected HMI/SCADA would need to integrate with the plant's DeltaV DCS control, Allen Bradley controllers, Emerson OPC Server, and various electronic flow meter (EFM) remote terminal units (RTUs), as

provide full plant control and metering of over 8,000 physical I/O points.

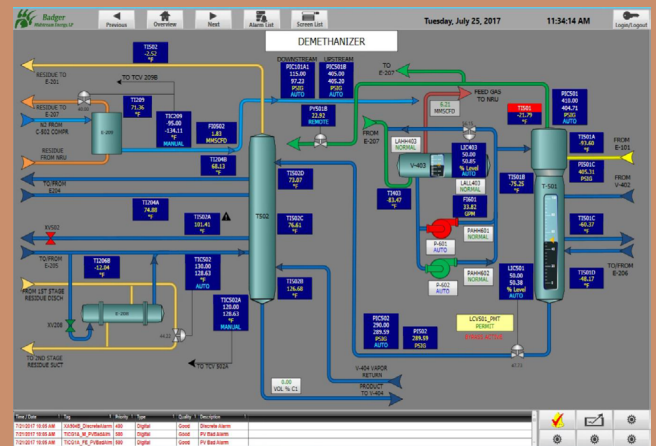
Associated process displays and faceplates were streamlined, providing enhanced process clarity and control to operators compared to the former system. In addition, multiple new features were gained, such as remote monitoring, mobile displays and notifications.

Conclusion

Badger Midstream plans to expand its installation of ICONICS automation software. The company would like to provide detailed dashboards to executives to show details including plant profitability, downtime and



Plant Inlet Control Screen



Demethanizer Monitoring and Controls

well as with various plant equipment including heaters, dehydrators, vapor recovery units, separators, heat exchangers and more.

Benefits of the System

Badger Midstream knew almost immediately that their investment in ICONICS GENESIS64, WebHMI, and MobileHMI automation software was the right decision. The company stated that the cost for the entire installation of ICONICS products was half of just the upgrade cost for only one of its pre-existing competitor products. The new ICONICS software now helps to

other associated metrics. For the company involved with cryogenic gas, the decision to remain with ICONICS was quite natural.

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