The challenge to recruit technology workers in the post-Baby Boom era is growing as the current generation nears retirement. Nowhere is the issue more pressing than in 4D – dull, distant, dirty and dangerous – industries which include the oil & gas sector. Fortunately, emerging visualization and collaboration solutions are enabling these firms to remotely connect people, knowledge and action to resolve processing issues and accomplish their business objectives. Emerson’s new iOps “Integrated Operations” Center offers a live demo environment to show customers the way to succeed.

Barco solutions:
- O Series rear projection LED video walls
- Galaxy NW-12 simulation projectors
- Control Room Management Suite (CMS) software
- ClickShare

Benefits:
- Flexible, remote collaboration for distributed decision-making
- Ultra-bright even in luminous environment
- Fast, customized demo set-up

Because Barco is so well-established in the advanced visualization space, we knew we could rely on their decades of experience to turn our vision into reality.

Mike Boudreaux, Director of Remote Asset Monitoring and Analytics - Emerson
Safety and reliability are the most important requirements in the oil & gas industry, where thousands channel their expertise and sheer manpower to deliver resources that power business, mobility and comfort. As a leading supplier of industrial automation solutions, Emerson relies on Barco for its robust visualization platform, enabling real-time, remote collaboration and enhanced situational awareness for faster decision-making.

**Visualizing the future**

Today’s energy and processing plants rely on sophisticated industrial automation solutions to monitor and manage production and processing activity around the clock and across the globe. Having a high-performance information management platform that accurately displays large volumes of graphic and sensor data, while enhancing remote collaboration, is essential to making fast, effective decisions when minutes count.

The Emerson iOps Center offers customers an immersive, hands-on experience with the latest solutions for process management operations in the control room. “Our goal in creating the iOps Center was to go beyond typical PowerPoint presentations to provide a real-world environment where customers could experience how our combined technologies can help them solve their problems,” comments Mike Boudreaux, Director of Remote Asset Monitoring and Analytics.

When Emerson envisioned its iOps Center, the team had three distinct goals: wirelessly present to customers, quickly manipulate sources on the wall and user workstations, and change over the demo room scenarios from one industry vertical to another in five minutes. Barco provided the technology and support to help them achieve all of these goals and more.

**Human-centered design**

Emerson employs a “human-centered” approach to visualization platform design, first evaluating user personas, tasks, interactivity, and the environment of its customers to create a stakeholder map for developing a solution that best adapts to their work styles. By establishing this work process blueprint, Emerson can tailor a system to each customer, integrating a unique blend of human factors and technologies to deliver the necessary features and functionality. Barco offers many of the key ingredients for human-centered design, with several products dedicated to enhancing remote visualization and collaboration in the most convenient and ergonomic way.
A holistic view

The new visualization platform comprises a 30-foot Barco rear projected LED video wall to simultaneously display dozens of sources from various locations, creating a robust, common operational picture that enhances situational awareness. Utilizing Barco Control Room Management Suite (CMS) software, operators can dynamically display, configure and share all types of rich content, creating unique perspectives to illustrate supply and operations data and graphics. Barco Galaxy NW-12 projectors provide stereoscopic imagery utilizing Emerson’s control, automation and management software solutions to precisely render visuals in 3D.

Sharing across the miles

One of the most important aspects of a visualization platform for the oil & gas companies is collaboration due to the distributed nature of their operations. Emerson integrated its DeltaV Digital Automation System using the Open API for Barco’s CMS to fully leverage the benefits of the control room management software.

Now, operators can quickly and easily manipulate the overview display from an operator’s desktop display using a convenient sidebar to trigger layout changes, send video/images to the conference room’s video teleconferencing system, or even send data to a mobile worker located anywhere in the world.

“In the oil & gas industry, workers at all levels – with many stationed in extremely remote areas – must be able to virtually come together to view, analyze and resolve extremely critical issues on a frequent basis,” comments Aaron Crews, Engineering Manager PSS Business Development for Emerson.

“When issues in the field arise, Barco’s solutions enable us to triangulate a solution using CMS – sharing data between the worker who is monitoring the situation, a subject matter expert who can provide the right expertise to solve the problem, and the person who can actually perform the operation to resolve the situation.”

The Barco visualization platform offers customers a visually rich way to interact and share knowledge wherever workers are located.

Aaron Crews, Engineering Manager PSS Business Development - Emerson
Enterprise-wide collaboration

Barco ClickShare further enhances collaboration, providing a flexible interface that enables workers to use their smartphone, tablet or laptop to simultaneously share screen information from the control room to the conference room and beyond. Users can remotely share content without using a virtual private network, remote desktop or central servers – and get the flexibility and security they need.

“ClickShare is just one of the many examples of Barco’s advanced, user-centric approach to technology. It allows us to simplify our AV installations for customers to offer a more economical and flexible screen sharing solution compared to hard-wired alternatives.” comments Crews.

Speed and flexibility

One of the key requirements for Emerson’s new iOps Center was to be able to change over a demo scenario in five minutes to accommodate several customer presentations per day. "We often have a visitor from a Life Sciences company in the morning, followed by an Oil & Gas customer and then a Packaging firm, all in one day," comments Crews. "The CMS software allows us to quickly change perspectives and tailor the entire layout of the video wall to each industry for a truly customized presentation. This capability is critical to our business development efforts!"

Mission accomplished

Emerson is hosting several demos a day in the new iOps Center, impressing hundreds of customers with the promise of enhanced problem-solving in their process control operations. “The Barco team has helped Emerson meet all of our objectives for the iOps Center and more, working with us diligently to implement and fully support a robust, dynamic visualization platform providing the ultimate in local and remote collaboration,” comments Duncan Schleiss, Vice President Platform Strategy for Emerson Process Management.