

## User Centered Design - How the Pieces Fit

### A Typical Scenario:

Does this sound familiar?

- You have an older production facility with control hardware from different vendors ranging from pneumatic to distributed control. You want to upgrade your DCS equipment so you can increase reliability, reduce maintenance costs and implement advanced control, but you're not sure what the best equipment to buy is.
- Your plant is split into multiple control rooms, each serving one or two units. The buildings are old, some are in poor condition, and they all place your operators too close to the unit in case of fire, explosion or toxic release. Your Safety people are saying you have to spend a lot of money replacing, relocating or upgrading the buildings.
- Benchmarking surveys are telling you that you have too many operators. Upper Management is looking for staff cuts to get to first quartile, but no one knows can see a way to get to those levels without compromising safety. And the Union issues...
- You're the person who has to figure out the strategy, find the most cost effective path, justify a positive payout, and get the money approved.

### How We Can Help:

User Centered Design Services can best serve a client when we're brought in early in the project. We typically begin the process by putting on a **Workshop**. This introduces concepts and educates the site Management on the benefits of implementing Best Practices.

After the site has had some time to consider the potential, and has decided to get more information on how these Best Practices can work at their sites, we come on site to perform a **Feasibility Study** and a **Management System Gap Analysis**.

During this phase we will perform a detailed evaluation of your facility and highlight areas of opportunity for implementation of Best Practices. We will help to assemble an overall plan which encompasses all aspects of plant operation. We then aid in developing a justification to present to management for approval in your Front End Loading process.

After approval of the overall plan, we begin to focus in on specific areas of improvement.

- In the **Control Building Conceptual Design**, we look at the best ways to improve your control building environments, whether it's modifying your existing buildings or constructing a new central control room.
- We evaluate your staffing arrangement through the **Console Operator Staffing Assessment**, **Field Operator Staffing Assessment**, and **Work Team Design Assessment**. These activities cover the number of operators required to safely operate the plant as well as the best structure for the Operations department.
- We take an in-depth look at your control system design through our **Alarm Management Services** and our **Human-Computer Interface Services**.
- Through the **Field Shelter Design Service** we can help you upgrade your field operators environment by greatly improving its functionality.

Finally we have the detailed implementation steps.

- The **Control Building Detailed Design** step provides everything you'll need to ensure that any architect can design a control room space that fully embraces Best Practices.
- After the staffing assessments are completed, we move into **Management of Organizational Change Services**. This is where the proposed staffing changes are scrutinized to insure that safety and reliability are not compromised.
- We can also share our expertise with the project team by performing **Architect and Vendor selection** and **Automation Upgrade Consultation**

Details about all these services are available through our Service Briefs or online at [MyControlRoom.com](http://MyControlRoom.com)