Achieving Continuous Improvement Through Innovation

Breaking Free From Paper With Forms

Innovation is often thought of as creating something new, something that has never been done before. However, innovation can just as easily be a new way of doing something or a new way of thinking. That's why innovation is considered a vital component of continuous improvement.
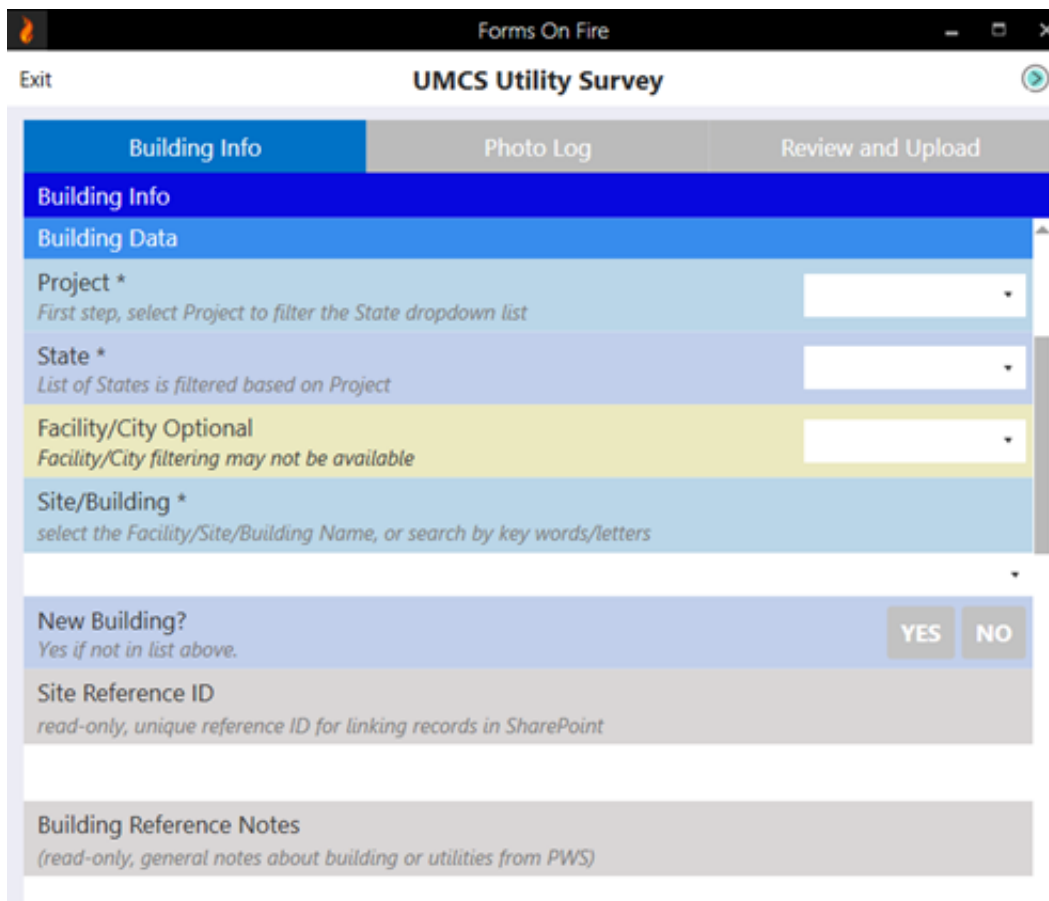
An equally valuable component of continuous improvement is the concept of knowledge sharing, whereby localized successes and challenges are shared across the organization to transform performance and delight our customers.

The following example demonstrates the value of both innovation and knowledge sharing and the benefits they delivered to overcome operational

challenges.

Form Automation For Utility Monitoring And Control Systems (UMCS)

It all started when the program Manager of the UMCS program reached out to the Quality Group looking for help with a recurring problem. The program involved surveying an array of sites and facilities owned by the U.S. Army Corps of Engineers with the ultimate goal of installing utility monitoring systems. The surveys were conducted using the "traditional" pen and paper methods, with subsequent manual transcription to an Excel format, then copying and pasting the same information into multiple, separate Excel workbooks to create required client deliverables.

The program director had noticed that errors were starting to pop-up numerous places along the way. Because there was no automatic data link between different phases of each task, all of the separate teams were siloed

and didn't necessarily catch on the errors.

This manual pen and paper method was rife with errors and inefficiencies that had follow-on impacts on installation:

- Time-consuming
- Lack of control and data integrity
- Prone to human error in transcription and/or copying/pasting
- Difficult to share/disseminate data across the team, creating information silos

Our Quality Group was aware of another project that utilized mobile, digital form automation to execute a similar large-scale inspection-based project and connected the teams.

Working closely with the project manager and the program and project teams, the digital form team created a series of mobile, automated forms for each step of the project's process, including initial surveys, design work, and build and installation phases. The new procedure streamlined the process and project delivery and resolved quality issues using the following steps:

- Increase Productivity — Dynamically logging utility assessment details through an intuitive, touch-enabled form on any kind of mobile device or PC.
- Maximize Efficiency — Uploading of information collected through the forms into a set of secure and organized SharePoint libraries and data tables. Photos from the field are also auto uploaded to SharePoint libraries, with searchable filenames applied.
- Reduce Costs — Dynamically produce client deliverable reports in a fraction of the time needed previously, and with higher quality and substantial error reduction.
- Implement Performance Management — Connected PowerBI dashboards are planned for the near future.

When I took over as program manager, I found that each of our functional areas were maintaining separate lists to track their work. The problem was that there was very little coordination between the functional areas, and so nobody ever really had an accurate picture of what was going on. Working with the digital form team, we were able to integrate all of those lists onto a common platform. While we are just starting to roll it out, the immediate feedback has been phenomenal across the board. Not only has it had the intended effect of providing a common operating picture, but it has had less immediate effects increasing communication, accountability, and motivation."

Bryan Wenzel, UMCS Program Manager

Using innovative mobile forms paired with SharePoint and dashboards, the digital form team was able to streamline and modernize the program's existing processes, helping to eliminate errors in manual data collection with copy/paste activities, reducing time in client deliverable preparation, and providing a high degree of confidence in real-time data integrity.

Bryan estimates that the time and cost of savings **per project** is in the magnitude of 2-3 weeks or $5,000-$7,000. This transformative innovation was achieved using existing technology but applied in a new way and in a new environment to improve project performance and quality outcomes. The team is now in the process of developing a similar platform for another high-

profile project with a heavy field-inspection focus. It continues to share knowledge across all the project teams they engage with to maximize the benefit this innovation can deliver.

About The Author

Sarah Hiris is Senior Quality Business Analyst who has 16 years of experience with Parsons. She has a Bachelor of Science in Management Information Systems from Case Western Reserve University (Cleveland, Ohio). She has a passion for performance improvement and has led improvement initiatives using innovative software solutions on projects worldwide.