Published on *University of Colorado* (https://www.cu.edu)

CU I&E Submission: Research Cores, Rewired: The Case for Automation with Tools You Already Own [1]

Category

Customer Service
Technology

Submitted By

Alexandra Crook, alexandra.crook@cuanschutz.edu [2], Research Associate, Biochemistry and Molecular Genetics

Project Team

Alexandra Crook, alexandra.crook@cuanschutz.edu [2], Research Associate

Project Description

This project encompasses an automated project management system for a university core research facility using existing tools like Qualtrics and Microsoft Dataverse. This solution streamlined team operations and enhanced the quality of services delivered to our users. The system supports daily project tracking, secure data storage, and seamless platform integration through API automation. It also enables automatic generation of quotes and invoices—all within our preferred project management software. Key features include service request tracking, improved project transparency for team members and managers, automated client updates, metadata curation, and billing automation.

Project Efficiency

The design and implementation of this system offers significant benefits for both our team and the users of our core facility. By centralizing operations in a single project management platform, we streamline workflows and improve efficiency. Key project details—such as scope, duration, client metrics, funding sources, and invoice data—are automatically collected and organized. These insights are then presented through intuitive dashboards, giving leadership clear, actionable analytics. Additionally, the system reduces redundancy by automating time-consuming tasks like quote and invoice generation, data cleaning, and migration between platforms. Overall, it enhances productivity, accuracy, and strategic decision-making.

Project Inspiration

The need for this system was inspired by the complexity and inefficiency caused by using multiple disconnected software tools to manage core facility operations. From project submission to data tracking, billing, and reporting, each function often relies on a separate system, most of which don’t integrate. This lack of connection creates a tedious, timeconsuming burden for staff managing each project. Despite a clear need to simplify workflows, existing solutions are often too costly or lack the flexibility to meet the unique needs of research cores. This project aims to address that gap.

What Makes You Happiest about this Project?

This project has been a true labor of love for the CU SOM Proteomics Facility at Anschutz. I’m proud of the seamless integration and increased efficiency it brings to both our team and the researchers we serve. By centralizing project information, staff can easily track progress and add research notes in one place, improving communication and transparency with users. Built-in automation reduces administrative tasks, allowing our team to prioritize scientific work and respond to user needs more quickly. This system directly enhances the customer experience through faster updates, clearer insights, and more timely project delivery.

Source URL:https://www.cu.edu/controller/i-e-awards/past-submissions/cu-ie-submission-research-cores-rewired-case-automation-tools

Links
[1] https://www.cu.edu/controller/i-e-awards/past-submissions/cu-ie-submission-research-cores-rewired-case-automation-tools [2] mailto:alexandra.crook@cuanschutz.edu