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Sensors: Connecting Signals Notebook to Drive Digital Transformation

Summary

Laboratory environmental conditions, such as temperature, humidity, and air quality, clearly have an impact on the scientific results produced by lab equipment. Therefore, correlating lab results with the environmental conditions present at the time of the experiment can provide very useful information.

With Revvity's Signals Notebook, you can easily leverage the Signals Digital Lab Exchange DLX™ platform powered by Scitara®, to automate the data-gathering process and incorporate readings from multiple sensors into a single Signals experiment.

This case study shows how easy Signals DLX™ can be for scientists to simplify and enhance experimental procedures and data handling with a single click of a button.

The Signals Notebook connector within Signals DLX allows you integrate any lab instrument, application, or system with Signals Notebook. Signals DLX improves workflows by bridging Signals Notebook with other systems. The integration capabilities of Signals DLX allow you to enhance interoperability across your lab ecosystem.

Challenge

Gathering data from multiple sources and entering it manually into a Signals Notebook experiment could be time consuming and prone to error. For environmental data, this information often comes from sensors that may be located on a remote wall or even in the ceiling. The scientists would have to manually collect the temperature, humidity, and air particulate counts from each sensor (assuming they can get access), manually enter the data in the appropriate logbook, and then copy the data from the logbook into Signals Notebook.

Once the data is entered, a quality check may need to be performed to verify the data is accurate. If there was an error in the data, more time and energy must be spent tracking down and correcting the error, and if the lab is governed by a Quality Management System (QMS), the deviation would need to be documented, investigated, and resolved.

Simplify and enhance experimental procedures and data handling with a single click of a button.

Solution

Using Signals Notebook integrated with Signals Digital Lab Exchange DLX. Signals DLX, Instead of a manual process, ensures that external actions may be easily configured within the Signals Platform to automatically capture the required information and automatically place the result in the proper location in a Signals Notebook experiment. Also, multiple sensor readings may be gathered in a single action, or if preferred (or required), each reading may be triggered by it is own external action. Once sampling is complete, Signals DLX sends the results directly back to the appropriate location within Signals Notebook. It is also possible to create a time-based orchestration that gathers environmental monitoring (EM) data on a set schedule and puts the data in a centralized location that may be referenced by a Signals Notebook user.
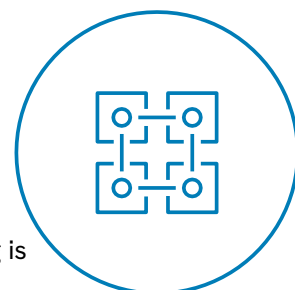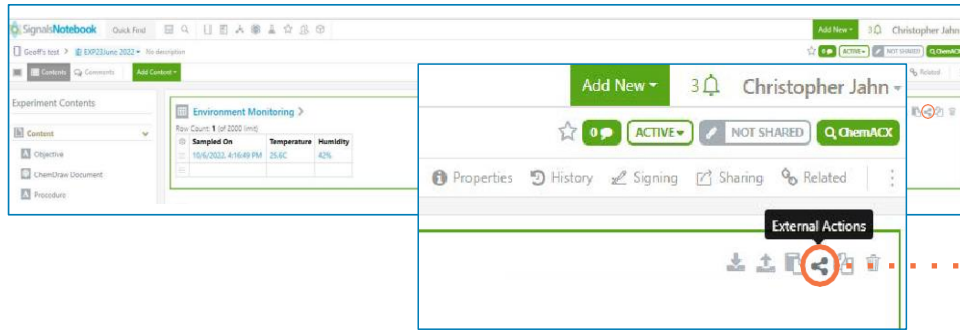
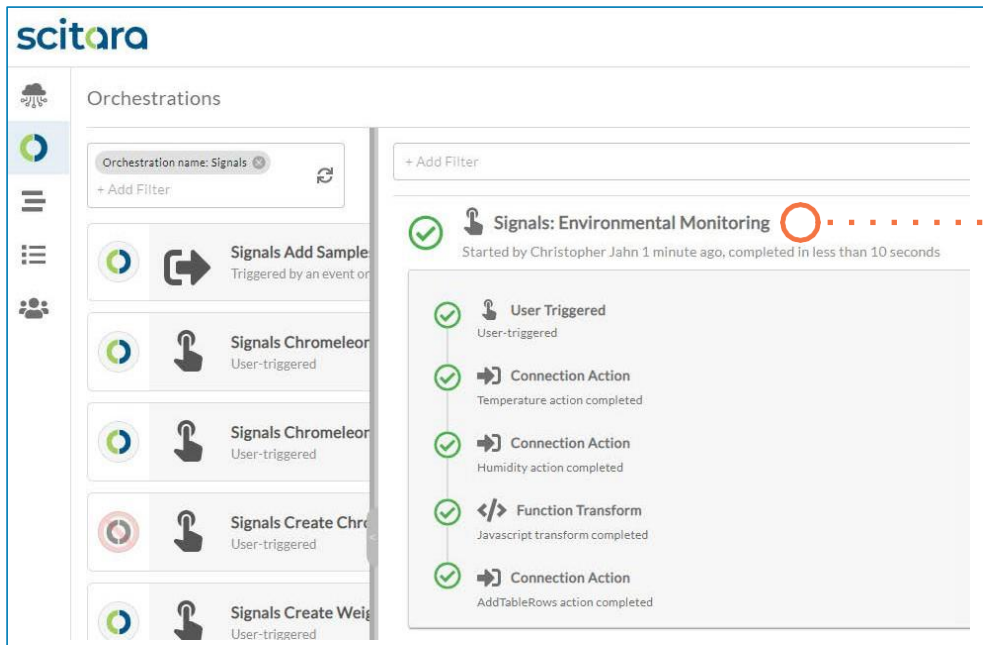*Just 3 automated steps! Push a button. Get a link. Get your results.*
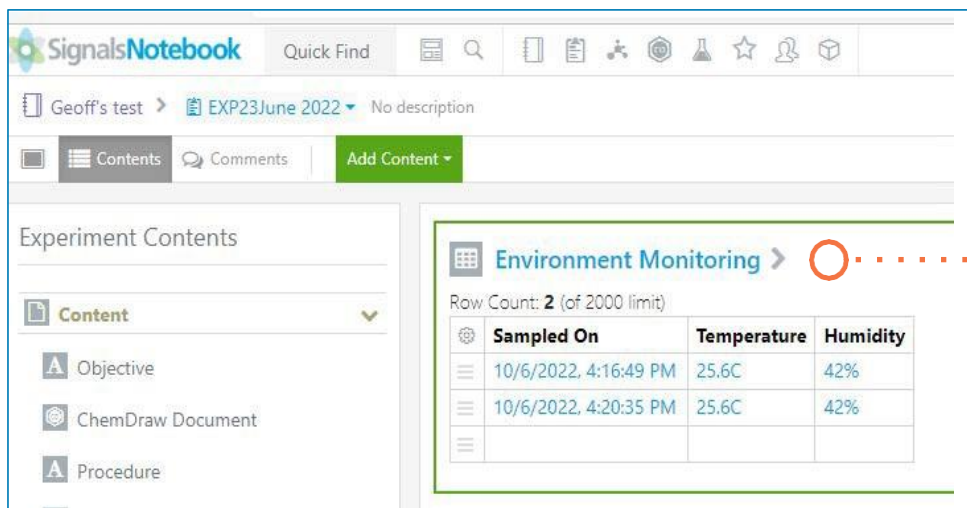
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Request

Request a temperature and humidity reading...

Orchestrate Request

Triggers a Signals DLX Orchestration as a background process (hidden from user)...

Updates Signals Notebook

Populates the readings into Signals Notebook Experiment...

Benefits

With the integration of Signals Notebook and Signals DLX platform powered by Scitara, scientists can save significant time and increase productivity as :

- No manual human interaction is needed, just a single click of a button

- No data transcription or data entry is needed

- Automated data gathering increases data reliability and saves time at multiple levels

- Data collection from multiple instruments may be incorporated into a single action if desired