PARTNER USE CASE

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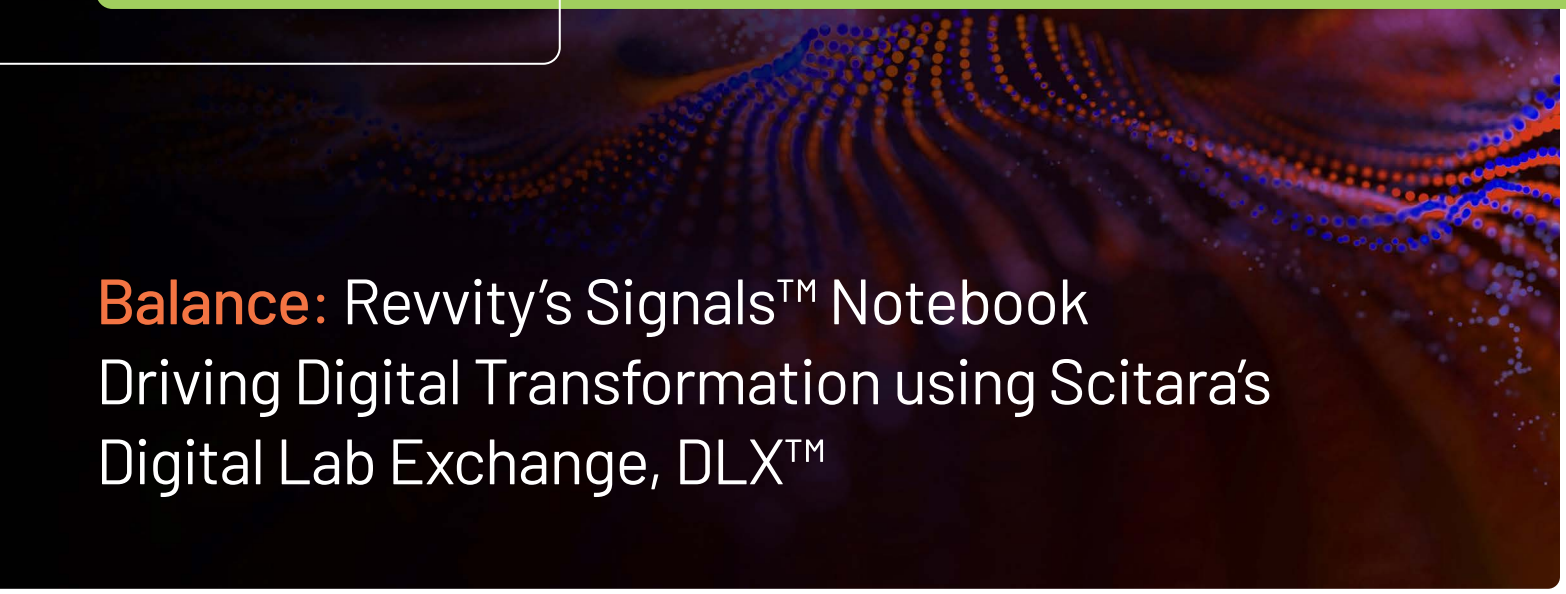

Balance: Revvity's Signals™ Notebook Driving Digital Transformation using Scitara's Digital Lab Exchange, DLX™

Summary

During the course of a typical experiment, multiple instrument types are often utilized. Benchtop instruments such as balances, pH meters and other non-pc-based devices are very common and are often integral parts of the lab workflow. The need to integrate with these instruments is critical but is hampered by the fact that they are typically stand-alone devices. This use case illustrates how Scitara's DLX can be integrated with Revvity's Informatics' Signals research management platform to provide a seamless interactive experience with benchtop devices using a balance as an example.

revvity signals

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

Challenge

Benchtop devices pose integration challenges due to the lack of a controlling software-based system that can connect the balance to a network and facilitate data exchange. Even when available, many solutions are unidirectional and provide a "listen-only" capability that only partially solves the problem. This problem becomes even more acute due to the wide diversity of instrument types and manufacturers.

This challenge often results in researchers writing down notes and recording measurements on paper, and then logging the results into Signals Notebook manually. Even if the unidirectional approach is taken, a very precise choreographed process must be followed that is fragile at best and prone to error.

So, how does Scitara DLX provide support for benchtop devices in a manner that supports a seamless interactive workflow and can also support a validated environment?

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Solution

Scitara DLX incorporates IoT technology to bring benchtop devices into the connected Scitara infrastructure. The device is a commercial 2"X3"X1" box that interfaces with the balance through RS-232 or USB (other connection types are also available). The IoT device is provisioned through Scitara DLX and may be connected to the internet through hard wire or WiFi. Once provisioned, the instrument may be accessed like any other Scitara DLX lab resource.

Using Scitara DLX, companies can incorporate the wide diversity of benchtop equipment in a single Integration strategy, resulting in a common user experience regardless of Instrument type or manufacturer.

In the case of Signals integration with benchtop Instruments, users may either interact directly with the instrument from within Signals Notebook or use a tablet after sending a weight request from Signals. In this example, from within Signals Notebook, the user selects the external action "Weigh sample". The request may be associated with one or more balances.

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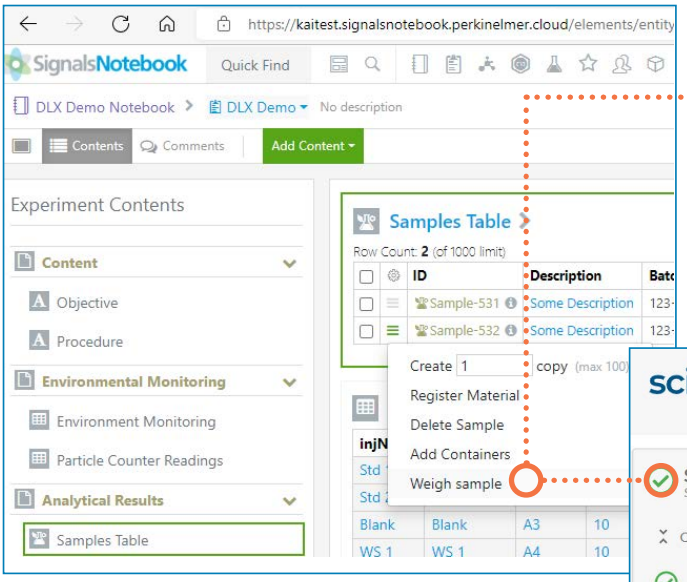
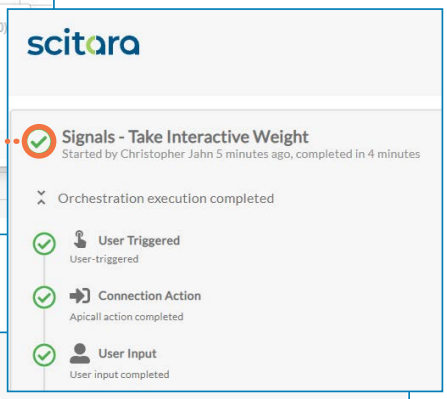
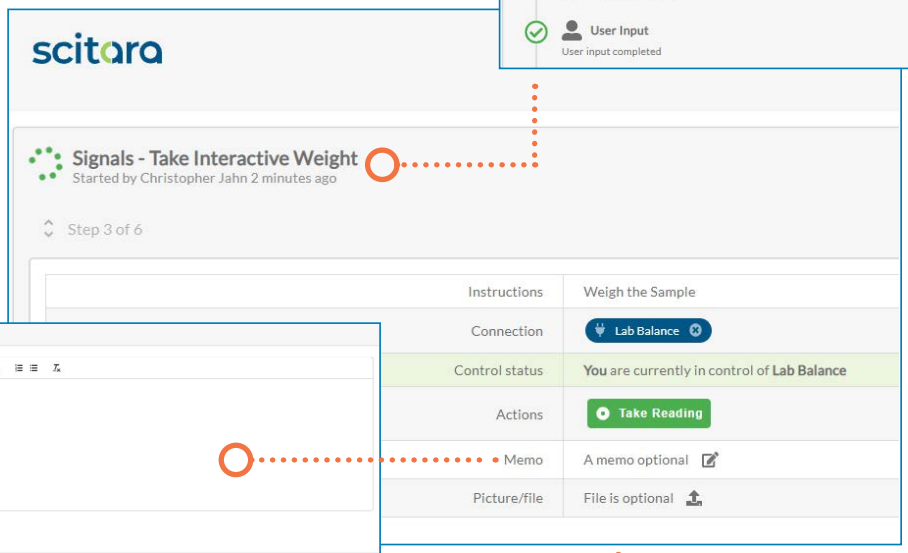
In this example, once the request has been made, the researcher is prompted to select a sample to weigh, select a balance and take the weight. Scitara DLX presents an interactive screen that allows the user to directly interact with the balance from within Signals. Once the weight or weights are taken, the data is automatically routed back to Signals Notebook. Text memos and even pictures may be included as part of the transaction.

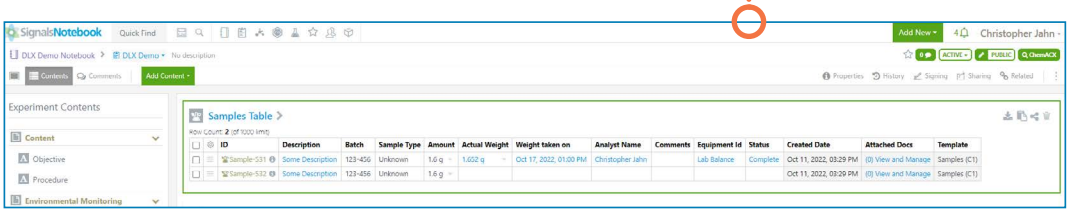


Start by creating a Weigh sample request in Signals Notebook which triggers a Scitara DLX Orchestration (running in the background) which...





... prompts the user to take the weight and add any notes or files that should accompany the weight operation and...



... update Signals Notebook with the requested weight and associated metadata.

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Benefits

With the integration of the balance through DLX to Signals Notebook, the manual process of collecting and entering data is mitigated and authentication provides a record of who took the readings. The likelihood of transcription error is eliminated by removing the manual part of the process data. In addition, it becomes possible to monitor the status of weight requests through Scitara DLX.

- ☐ **Configurable process through Scitara DLX Orchestrations**
- ☐ **No manual transcription needed**
- ☐ **Automated data routing from the benchtop device to Signals Notebook**
- ☐ **User authentication provided for measurements**
- ☐ **Device request monitoring available**

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