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Journal of the Haystack Community - Solutions for Interoperable Device Data

The Mission:
Making Data Easy to Work With

- Design Consultant's & Property Manager's View ● Easy Tag-Based Graphics
- Bringing Standardized Data Modeling Upfront in Project Commissioning
- Breaking Through System Integrators' Tagging Adoption Barriers

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Using Data to Increase Velocity as the World Slows Down

ALTURA

> **"A few recent project examples highlight how our nearly decade-long investment in resilient IT infrastructure, coupled with well-organized data analytics enabled by Project Haystack, are helping our business and our clients increase their velocity amidst the lock-downs."**

Economic downturns always create winners and losers. This is often associated in our modern financial history with the "**have's**" and the "**have-not's**". The current and emerging COVID-19 induced financial crisis is unprecedented in many ways, but we are likely to see this same "**have's**" and the "**have-not's**" story play out, perhaps with a new twist.

The unprecedented "lock-downs" and stay-at-home orders across the U.S. and the world are exposing a new category of winners and losers – the data "**have's**" and the data "**have-not's**". Many of those whose businesses are built on a foundation of reliable and meaningful data continue to thrive and even accelerate while much of the world shuts down. They have put in place the infrastructure, protocols, and analytics to continue to reach their customers, add value, and deliver goods and services.

A couple high-profile examples of note – Amazon's ability to prioritize critical needs across its delivery platforms to keep essential supplies in people's homes, and Tesla's ability to leverage strong data-driven customer connections to still sell cars and conduct contactless deliveries (while they still had cars to deliver).

This is playing out in the real estate sector as well. A *few recent project examples* highlight how our nearly decade-long investment in resilient IT infrastructure, coupled with well-organized data analytics enabled by Project Haystack, are helping our business and our clients increase their velocity amidst the lock-downs.

New Coronavirus lab performance commissioning at a major university

As the severity of the COVID-19 crisis began to sink in around the nation, corporations, non-profits, and universities (among others) began to look at how they could provide the supplies, medicines, and research needed to save lives and ultimately re-open our economy. Responding to this urgent need, one of our university clients quickly mobilized to open multiple critical research labs with the ventilation, pressurization, and temperature

controls needed to conduct fundamental SARS-CoV-2 (the novel coronavirus that causes COVID-19) research. However, the campus was on an effective lockdown and we could not get into the spaces to perform typical commissioning and performance verification. But thanks to a robust existing IT infrastructure, and the properly organized and tagged data analytics database in SkySpark® by SkyFoundry, our team was able to immediately jump into the data, analyzing system and equipment performance related to pressurization, ventilation, and temperature controls. By going deep with our data integration to the devices at the edge, the extent of the data allowed us to cross-validate the data itself, through multi-sensor and system response analysis. In the end, we were able to complete a full cycle of commissioning in less than seven days, coordinating issue resolution with the teams who could be on-site, helping get this important research moving quickly and safely.

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Equipment start-up validation in a new construction project

Throughout the COVID-19 crisis, most construction sites have remained open while adopting measures to try to limit the infection risk on-site. However, due to company policies, not everyone has been allowed or been able to be on-site. But the construction process must go on and schedules need to be maintained. Equipment needs to be started-up and that process needs to be validated. In the past, this has been primarily a manual process in the field

involving checklists. But thanks to the power of semantic tagging and remote IT infrastructure connections, we can use data to more effectively validate equipment start-ups, increasing velocity to identify issues such as bad sensors, stuck dampers, etc., as soon as the equipment is powered up, enabling us to get immediate resolutions. This approach enables our project to move faster and more nimbly during a time of increased scheduling unknowns and risks.

Energy efficiency master plan implementation across a large healthcare system

We have been working with one of our healthcare clients for more than a year to develop a multi-year energy master plan aimed at reducing their operating costs by more than $20M by 2030. The first projects to begin implementation started in March 2020, right as the coronavirus pandemic started to overwhelm hospital operators and shut down life as we know it. But again, strong IT know-how combined with data analytics enabled by Project Haystack have allowed us not only to continue with the first efficiency projects, but also to accelerate the program across an additional dozen sites. This will ensure we can deliver more energy cost savings even faster, helping our client be better prepared for the budget unknowns that lie ahead.

As we all take stock of where we are and where we want to be on the other side of this pandemic, ask yourself – are you a data "**have**" or a data "**have-not**"?

Instead of slowing down, have you been able to leverage data to increase your velocity? . ⌘

Jim Meacham is a founding principal of Altura Associates, where he is responsible for managing a team which provides services for some of the world's most energy efficient real estate projects. As a California registered mechanical engineer, Jim has managed scores of deep energy retrofit, commissioning, and data analytics projects.