

SkyFoundry Insider

Issue No. 38

April 2021

In This Issue

Cards Create Customized Dashboards of Operational Data and Performance Metrics

Cards Enable a New Range of Possibilities for Data Presentation in SkySpark®

Notifications - Automated Delivery of Sparks, Summaries, Views, Reports and Cards

Delivering Value – the Layers of the Stack: Connect, Store, Analyze, Present

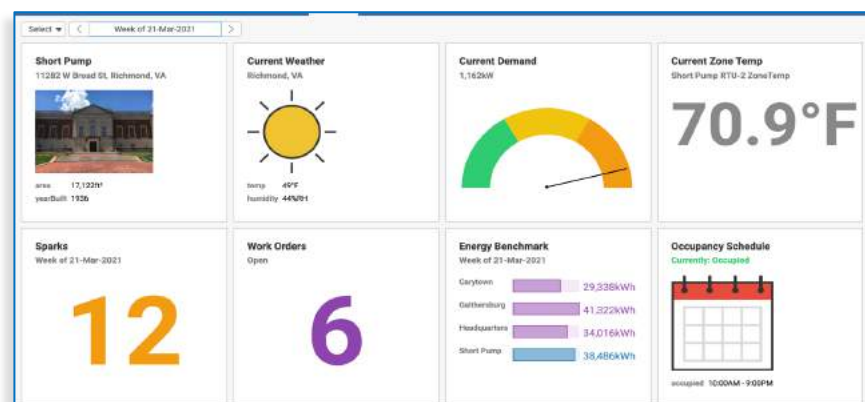
The Rest of the Story: The Workflow Process – Taking Analytics from Identification to Resolution, and Other Data Visualization Tools

Creating Value from Sensor, Device and Equipment Data

Cards - SkySpark's All-New Data Presentation Option

Creating value from IoT device data requires four primary functional layers: *connecting to data sources, storing data, performing analytics, and presenting results to users.*

In this issue of the Insider, we focus on some of the newest presentation features including an exciting new addition we call Cards – which make it easy to create customized dashboards of operational data and performance metrics.



Let's take a look! →

Cards...

Create Customized Dashboards of Operational Data and Performance Metrics

Cards – our latest data visualization addition – bring easily configurable dashboarding to SkySpark. Yes, you read that right – now you can create dashboards that provide easy-to-understand summaries of key operational metrics **with both live** and static data and descriptive information.

Virtually any data in SkySpark can now be formatted to display in the user-friendly “cards” format. As seen in the example above, you can include images, formatted text, icons, charts, gauges, and numerical data – *all of the visualization widgets available in SkySpark Apps can be used in cards.*

Once defined, cards can be assembled into “tiles” with SkySpark’s View Builder tools to create summary displays for users of all types. That’s how the example on page 1 was created.

AND make no mistake, **cards can display live**, streaming data from sensors and control systems. In the view on page 1, which is included in the latest SkySpark Demo project, the gauge and temperature values show live, updating values.

As seen here, cards can display information with formatted text

target Gaithersburg RTUs
 rule AHU Group Cool and Heat
 date 31-Mar-2021
 duration 0.25h
 priority med
 help A group of AHUs have at least one unit in cooling mode at the same as another unit is in heating mode. These units may be "fighting" each other to maintain temperature setpoints.

Recommended Actions
 Check control sequences.
 Priority: Medium

Gaithersburg RTU-1 Washington DC	
ahu	✓
directZone	✓
disMacro	SiteRef SnavName
dxCooling	✓
elecHeating	✓
elecRef	Gaithersburg ElecMeter-Hvac
equip	✓
equipRef	Gaithersburg RTUs
hvac	✓
navName	RTU-1
rtu	✓
singleDuct	✓
siteRef	Gaithersburg
variableAirVolume	✓
mod	22-Mar-2021 Mon 1:31:41PM UTC

Cards can include graphical elements. Here is a simple card with one graphical element – a gauge which can show live or static values



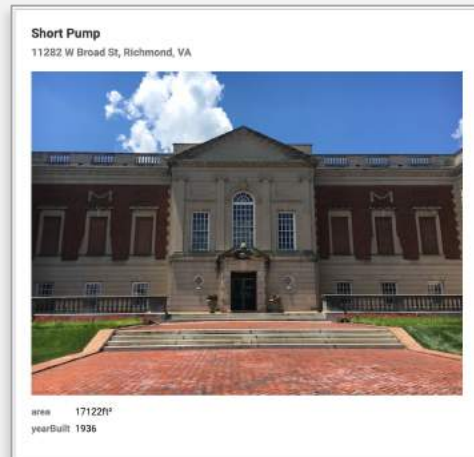
Cards...

Enabling a New Range of Possibilities for Data Presentation in SkySpark®

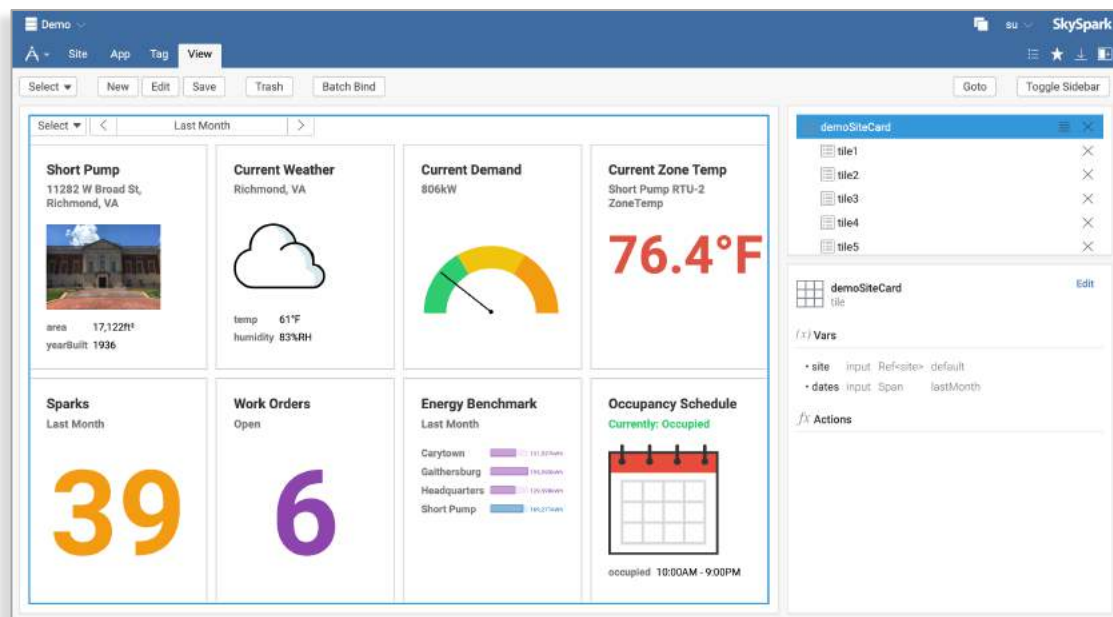
This sample card uses bar charts to compare consumption across a portfolio of sites



Here we see an example of how graphic images can be used in cards



The real magic happens when you use SkySpark’s “View Builder” to assemble cards into dashboard views that provide quick, easy-to-digest summaries of essential information including interactive controls to enable users to select items like date range shown below



Cards add a whole new range of possibilities to SkySpark. *It's just another way SkySpark advances data visualization and presentation.*

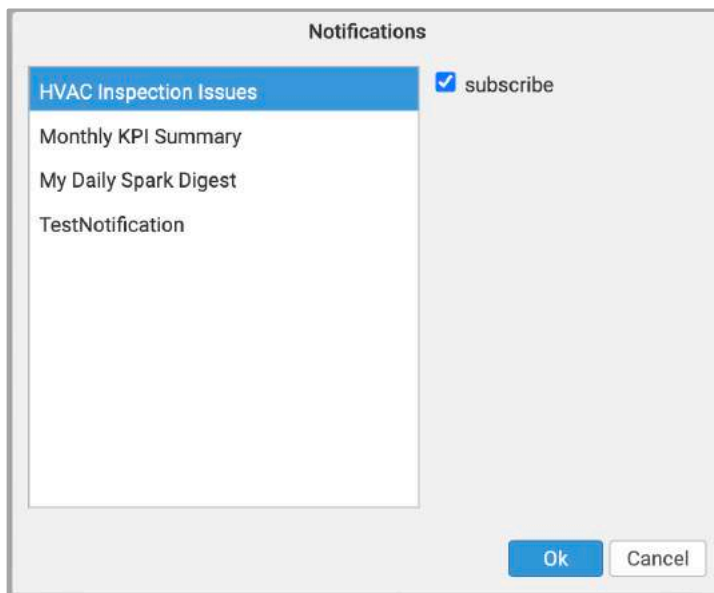
Notifications

Automated Delivery of Sparks, KPI's, Reports and Cards

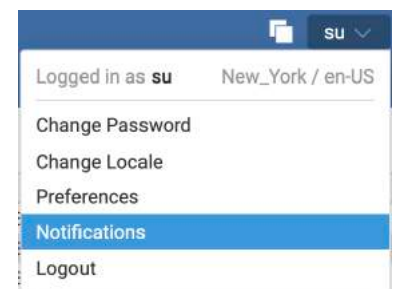
Another notable enhancement in the latest update to SkySpark are new features that streamline the setup of automated notifications – *automatically emailing essential information to users based on their specific areas of interest or job responsibilities.*

Notifications in SkySpark are based on the concept of “subscriptions to topics” – users subscribe to topics of interest with easy selection boxes.

Topics can include individual sparks, digests of sparks, KPI's, reports, creation or changes made to Arcs (workorders) – virtually anything that can be displayed in an HTML-style email. Plus, emails can include hyperlinks to SkySpark views and text-based **Cards** described earlier in this document.



Notifications can be triggered (sent) based on pre-defined schedules, the occurrence of events, or initiated by user actions.



Users access their notification options from the user menu



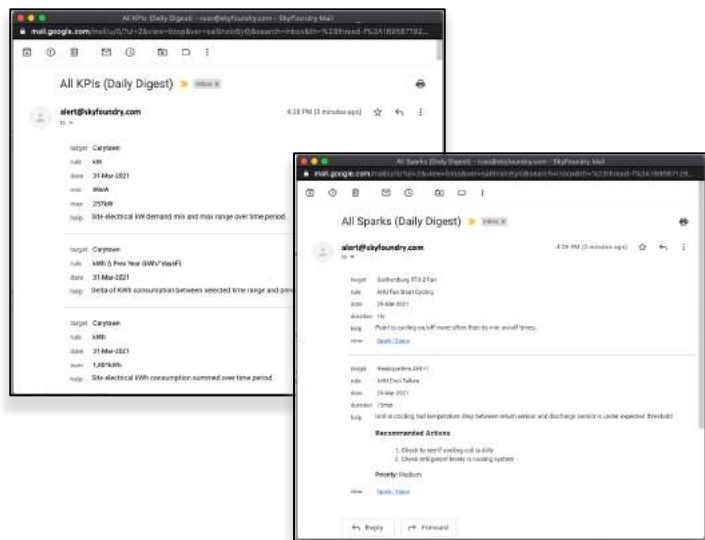
Notifications

Con't...

Below a notification is configured to be sent based on a schedule. In this example a daily digest of Sparks will be sent every day at 8 am to all users that “subscribe” to the topic – *My Daily Spark Digest*.

Notifications can be sent in a wide range of formats including HTML, formatted text, text-based “Cards” and links that take users directly to views in SkySpark. And multiple topics can be combined into “groups” to provide further simplification for users.

We’ve only scratched the surface here – as you can see SkySpark’s new notification features are highly flexible and configurable, and it’s easy for users to subscribe to topics of interest.



The Rest of the Story

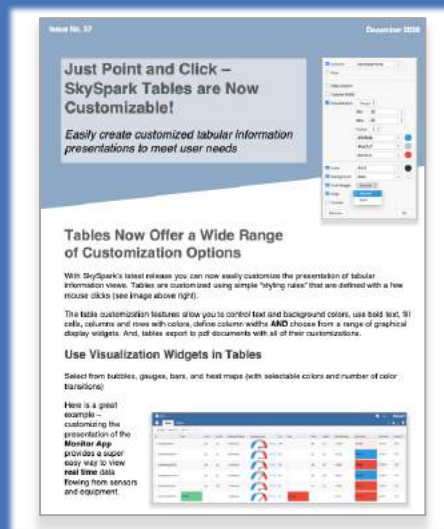
Taking Analytics from Identification to Resolution with SkySpark's "Arc" Workflow Tools



Check out the Dec. 2020 issue of the Insider for details on the last major addition to SkySpark – the Arc Workflow Tools

Explore more data visualization and presentation options with SkySpark's point and click table customization

Easily customize tabular information presentations to meet user needs



Find the Dec. 2020 issue of the Insider here:

<https://skyfoundry.com/file/429/SkyFoundry-Insider-Dec-20---All-New-Workflow-App-Customizable-Tables-and-More.pdf>

6 | Workflow Tools and More Visualization Options

The Layers of the Stack:

Connect | Store | Analyze | Present

- **Connectors to acquire data from external sources.** SkySpark supports a variety of data acquisition connectors: BACnet IP, Modbus TCP, Obix, Haystack, SNMP, Sedona, OPC UA, MQTT, SQL, CSV import (manual batch or automated), and a REST API. SkySpark also includes a connector development toolkit.
- **A database designed to store and normalize huge volumes of diverse data.** Sensor, equipment and facility data come from different systems, via different protocols, with different naming conventions and schemas. SkySpark's Folio database has been designed from the ground up to address this unique combination of challenges and unify data so that operators deal with it as if it came from one system.
- **The Analytics Engine to process rules, algorithms, calculate KPIs, perform data transformations, pattern recognition, advanced math and machine learning.** SkySpark's high-performance analytics processing engine – **Axon** – excels at providing this layer of the stack.



The Leading IoT Data and Analytics Platform for the Built Environment

SkySpark® Analytics automatically analyzes data from building automation, metering systems and other smart devices to identify issues, faults and opportunities for savings. Learn why SkySpark has been deployed to over 1 Billion square feet of facilities around the world for energy management, optimization, monitoring-based commissioning and fault detection.



Find What Matters™ to Improve Equipment Performance and Reduce Operational Costs.

SkyFoundry
www.skyfoundry.com

Learn More About SkySpark® and How to Apply the Industry-leading Data Analytics Solution to Your Application

Join us for a comprehensive demonstration webcast

Find our calendar of upcoming sessions and other events here: <https://skyfoundry.com/calendar>

Or contact us at: info@skyfoundry.com