

TEMPERATURE MAPPING

From Production To Consumption

Vaccine Regulations You Should Know Page 18

EXTREMEWEATHER

Environmental Monitoring During Extreme Conditions

Page 17

DICKSON ONE

The Best of Temperature and Humidity Monitoring

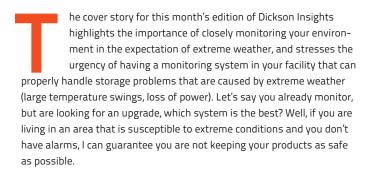
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FALL 2014 > OPENING THOUGHTS

Got Alarms?

Why You Need DicksonOne.

MICHAEL MILLER . DICKSON INSIGHTS EDITOR-IN-CHIEF



Alarms have fast become an essential component in environmental monitoring: companies want to know when something might go wrong, when something is probably going to go wrong, when something goes wrong, and when something really goes wrong. In the race to be as lean and efficient as possible, lost product and lost time are not options.

So what kind of alarms are the best? The DicksonOne kind. DicksonOne not only provides audible alarms directly from the data logger, but the system can also email, text, and call you when your temperature or humidity gets out of whack. Furthermore, you can choose who receives these email, text, or phone call alarms when temperatures creep out of range. Snowstorms just got a little easier to handle.

Head on over to Page 10 to learn more about DicksonOne.



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1 ENVIRONMENTAL EFFICIENCY

Monitoring temperature, humidity, and water pressure can help save money and make your company more environmentally efficient and responsible. Whether you're tracking your water pressure for an irrigation system or testing the makeshift HVAC system in your organic greenhouse, the data you receive from data loggers and chart recorders will help save money where you never knew it could be saved.

TEMPERATURE MAPPING

Temperature mapping projects are essential to verifying and validating warehouse, refrigerator, and freezer storage capabilities. So much of the food we eat today needs to stay refrigerated or frozen until it's consumed. Mapping your warehouse or production facility is the first step to limiting product loss due to food spoilage, and finding the safest spots to place your most perishable food.

MEAN KINETIC TEMPERATURE (MKT)

MKT is a calculation that provides a temperature value which represents the overall effect of temperatures on a product over a given time period. Whether you're shipping expensive chocolate across the world, and want your customers to know it never even came close to melting, or have a transportation fleet that delivers frozen goods across the country, knowing the MKT of your food during transit will keep your hungry customers happy.









American Association of Laboratory Accreditation Three Things To Know About The A2LA

For those of you that need your temperature, humidity, or pressure devices calibrated, you will have to know about these guys. Here are three facts:

1. The A2LA accredits calibration laboratories like Dickson's.

Getting A2LA accreditation isn't easy, and requires an organization to be both skillful in, and dedicated to, quality assurance. Dickson and other calibration labs get accredited in ISO/IEC 17025, under a variety of measurement types, confirming that they adhere to the highly set standards of the A2LA.

2. The A2LA offers Industry-Specific Accreditation Programs.

Outside of laboratory and measurement uncertainty accreditation, the A2LA also offers accreditation in other fields, including:

- Food and Pharmaceutical Testing
- Clinical Field Testing

Air Emissions

For us here at Dickson, it's all about measuring temperature and humidity. We are accredited as a calibration laboratory, and we can assure our customers that our own devices are accurate to a certain degree.

3. They offer accreditation and training.

Yup, you can take courses with the A2LA. These are specifically important for organizations that are looking for first-time accreditation, as the accreditation process can be a bit overwhelming for an organization that has never gone through a similar process. The A2LA offers training in quality assurance management systems, internal audits, root cause analysis, measurement uncertainty, and much more.

Temperature and Temperature/Humidity

Data Logging Solutions

Data loggers are cost effective solutions for monitoring countless applications. With solutions for the food, pharma, manufacturing and dozens of other industries, Dickson's data loggers get you your data how you want it.

















SM300 \$249 Temperature Logger. Range -4 to 158°F, -20 to 70°C. Accuracy ±0.8°F, ±0.44°C. SM320* \$299 Temperature Logger. Remote Probe. Range with Probe -300 to 2000°F, -184 to 1093°C. Accuracy ±1.8°F, ±1.0°C.

SM325* \$399 Temperature Logger. Two Remote Probes. Range with Probe -300 to 2000°F, -184 to 1093°C. Accuracy ±1.8°F, ±1.0°C.

SM420 \$499 Temperature Logger. Remote Probe. Range with Probe -50 to 350°F, -45 to 176°C. Accuracy ±0.5°F, ±0.28°C.

TM320 \$299 Temperature and Humidity Logger. Range -4 to 158°F, -20 to 70°C. Accuracy ±0.8°F. TM325 \$399 Temperature and Humidity Logger. Remote Probe. Range -40 to 185°F, -40 to 85°C. Accuracy ±0.8°F.

SP125 \$119 Temperature Logger. Accuracy ±1.2°F, ±0.67°C. Range -10 to 176°F, -23 to 80°C. SP175 \$229 Temperature Logger with Thermocouple Probe. Accuracy ±1.8°F, ±0.1°C. Range -300 to 2000°F, -30 to 50°C. A203 Probe required for +500° F

TP125 \$199 Temperature and Humidity Logger. Accuracy ±0.8°F, ±0.45°C. Range -10 to 176°F, -23

SP425 \$159 Temperature Logger. Digital Display. Accuracy ±1.2°F, ±0.67°C. Range -4 to 158°F, -20

TP425 \$249 Temperature and Humidity Logger. Digital Display. Accuracy ±0.8°F, ±0.45°C. Range -4 to 158°F, -20 to 70°C.

SK550 \$699 Temperature. Pack of twelve. Accuracy ±1.8°F, ±1°C. Range -4 to 158°F, -20 to 70°C. TK550 \$999 Temperature & Humidity. Pack of twelve. Accuracy ±1.8°F, ±1°C. Ranges -4 to +158°F, -20 to +70°C.

> Software required and sold separately. For software and other accessories, visit Page 16, call 630.543.3747 or go to www.DicksonData.com.

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Channel: DicksonData



Search "Dickson"



Search "Dickson Data Loggers"











High Temperature Loggers for the

Food Industry

High Temperature Process Logger



Waterproof High Temperature Data Logger

HT300 Waterproof, High Temperature Data Logger. HACCP and FDA Compliant. USB Download. IP68 Rating. Temperature Range -40° to 257°F (-40° to 125°C).

\$349

Quick and Convenient

Environmental Data

Report Logger













Full Control

At Your Fingertips.

No running back to your PC to view your data. Jumbo 4.9" x 6.4" touchscreens. Zoom and scroll with the touch of a finger. Audible/visual alarms. USB and FLASH card data download. Rechargeable Backup Battery. Optional Display Lock. Replaceable Sensor Compatible.





MODEL	REMOTE PROBE	PROBE TYPE	TEMPERATURE RANGES	ACCURACY	RELAYS	PRICE
TEMPERATURE/HUMIDITY FH625	Optional	Temp/RH PCS*	-40°F to 185°F (-40° to 85°C)	±0.8°F, ±0.45°C		\$489
FH635	Optional	Temp/RH PCS*	-40°F to 185°F (-40° to 85°C)	±0.8°F, ±0.45°C	•	\$529
TEMPERATURE						
FT600	Optional	Temp PCS*	0 to 122°F (-17° to 50°C)	±0.8°F, ±0.45°C		\$399
FT620	1	KT/C	-300°F to 2000°F (-184° to 1093°C)	±1.8°F, ±1°C		\$449
FT630	2	KT/C	-300°F to 2000°F (-184° to 1093°C)	±1.8°F, ±1°C		\$499
FT625		Thermistor	-40°F to 300°F (-40° to 148°C)	±0.8°F, ±0.45°C		\$449
FT640	1	Thermistor/Glycol	-40°F to 158°F (-40° to 70°C)	±0.9°F, ±0.5°C		\$469
FT645	2	Thermistor/Glycol	-40°F to 158°F (-40° to 70°C)	±0.9°F, ±0.5°C		\$489
FT660		RTD	-148°F to 350°F (-100° to 176°C)	±0.5°F, ±0.28°C		\$549

^{*}Pre-Calibrated Sensor

Dickson Replaceable Sensors

Calibration Made Easy

THE OLD WAY

- 1. Call or order a recalibration online.
- Acquire a Return Authorization Code from a Dickson Representative.
- 3. Take unit and probe out of their environment.
- 4. Shut down production/storage area if necessary.
- **5.** Install backup system.
- 6. Box unit up.
- **7.** Ship it to Dickson.
- **8.** Dickson recalibrates the unit and ships it back.
- 9. Receive the unit.

THE NEW WAY

- 1. Call or order a Replaceable Sensor online.
- 2. Receive Replaceable Sensor.
- 3. Take old sensor off, put new sensor on.

Total Down Time: O Days



MODEL	PROBE TYPE	TEMPERATURE RANGES	ACCURACY	PRICE
TEMPERATURE/HUMIDITY				
R200	Digital Sensor	-40° to 185°F (-40° to 85°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	\$69
R250	Digital Straight Sensor	-40° to 185°F (-40° to 85°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	\$69
TEMPERATURE				
R300	Digital Sensor	-22° to 122°F (-30° to 50°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	\$49
R350	Digital Straight Sensor	-22° to 122°F (-30° to 50°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	\$49
R400	K-Thermocouple	300° to 2000°F (-184° to 1093°C)	±1.8°F, -22 to 122°F (±1°C, -30 to -50°C)	\$49
R500	Thermistor in Glycol Bottle	-58° to 158°F (-50° to 70°C)	±0.9°F, -58 to 68°F (±0.5°C, -50 to 20°C)	\$69
R525	Stainless Steel Thermistor	-40° to 300°F (-40° to 149°C)	±0.8°F, -20 to 176°F (±0.44°C, -28 to 80°C)	\$69
R600	Platinum RTD	-148° to 350°F (-100° to 176°C)	±0.5°F, -148 to 350°F (±0.3°C, -100 to 176°C)	\$199
R700	Dual K-Thermocouple	300° to 2000°F (-184° to 1093°C)	±1.8°F, -22 to 122°F (±1°C, -30 to -50°C)	\$99
R800	Dual Thermistor in Glycol Bottles	-58° to 158°F (-50° to 70°C)	±0.9°F, -58 to 68°F (±0.5°C, -50 to 20°C)	\$69







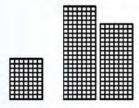


DicksonOne



Temperature and Humidity Monitoring. Re-imagined.

DicksonOne is a wireless temperature and humidity monitoring system that automatically collects your data and delivers it to wherever you are. No more changing charts, no more downloading data.



MULTI-LOCATION How many points will you be monitoring? 1, 5, 100, 1000? From small cheese factories to multi-location healthcare distributors, DicksonOne is up for the task. Monitoring an additional location is as simple as buying another logger.



ALARMS When temperatures get too hot or cold, your power goes out, or your probe is unplugged, DicksonOne can call, text, or email you to alert you of the mishap. Throw away less products, and ensure the safety of your environment, even when you're not there.



INFINITE STORAGE We don't run out of space, and you never have to worry about hard drives or file folders. We've got you covered.

WHY DID WE MAKE IT?

DicksonOne is the direct result of customer feedback like this:

- 1. We want to monitor multiple locations with one system.
- 2. We're spending too many **personnel** hours changing charts and pens.
 - 3. We want an easier way to share our data.
 - **4.** We need **more robust** alarming capabilities.
 - **5.** I need to view **my data** from anywhere.

DICKSONONE HARDWARE



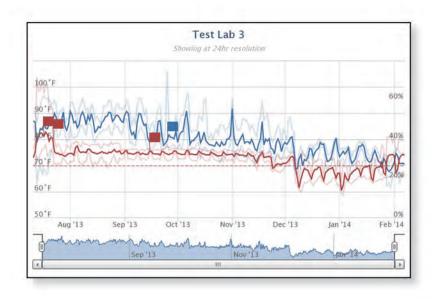
DICKSONONE SOFTWARE

DicksonOne is a SaaS (Software as a Service) platform that automatically stores your data and makes it accessible anywhere.

The software is the real key to DicksonOne. We believe it rises above the competition in usability, security, and scalability. The interface is easy to navigate for everybody, from your IT team to the end-user working with the product you're trying to keep safe. DicksonOne is 21CFR11 compliant, and all data is backed up redundantly, perfect for showing an audit trail. We've had a jump on all other environmental monitoring systems for over a year, and we've kept it that way. We continually improve the system and add new features based on customer feedback. Seriously, someone is working to make it better right now.

The list of features in DicksonOne is endless. Instead of listing them all, we invite you to see for yourself.

Start your free trial at www.DicksonOne.com









DICKSONONE REPORTING SUITE

DicksonOne Reporting Suite is the latest edition to our wireless environmental monitoring system DicksonOne.

The Reporting Suite allows you to:

- · Create and customize environmental reports
- Choose who in your organization will receive those reports
- Change and modify the frequency of reports

Our **DicksonOne** experts have built out a knowledge base catered directly to you. In our support pages you will find information on how to set up alarms, reports, change sample intervals, and much much more.

Visit **Support.DicksonOne.com** to take full advantage of the system and build out the features of environmental monitoring that are important to you.



Reports That Go Great With Your Morning Cup Of Coffee



DicksonOne

Hardware Pricing

MODEL	REMOTE PROBE	PRICE
WFH20/ENH20 WFT20/ENT20 WFT21/ENT21 WFT23/ENT23 WFT25/ENT25	Digital Temperature and Humidity Replaceable Sensor Digital Temperature Sensor Thermistor Temperature Sensor with Glycol Bottle K-Thermocouple Temperature Sensor Platinum RTD Temperature Sensor	\$499 \$499 \$479 \$479 \$599



DicksonOne

Software Pricing

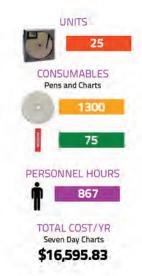
DEVICES	FEATURES	PRICE
1 to 5	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	\$119/year
6 to 20	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	\$359/year
21 to 50	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	\$1199/year
51 +	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	Call for Quote

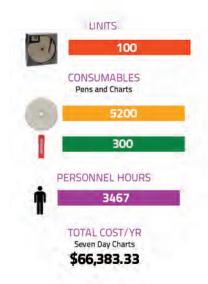
Dickson offers a Basic Plan, with 30 Day Data Deletion, and 1 hour sample rates for unlimited loggers at no cost.



Consider The Cost Of That Old Chart Recorder...













Temperature and Temperature/Humidity

Chart Recorders

Want a physical readout right where you are monitoring? Our Chart Recorders have you covered. For ninety years we've built the best chart recorders in the business. Check out our models below.



8 and 6 Inch Models

Eight and Six Inch Chart Recorders display detailed temperature and humidity values.

MODELS AND FEATURES

KT6	6 Inch Temperature	Starting at \$369
KT8	8 Inch Temperature	Starting at \$419
TH6	6 Inch Temperature and Humidity	Starting at \$489
TH8P	8 Inch Temperature and Humidity	Starting at \$489



4 and 3 Inch Models

Four and Three Inch Temperature Chart Recorders designed to fit any application.

MODELS AND FEATURES

SL4350	4 Inch	\$239
SL4100	4 Inch	\$239
SC3 Series	3 Inch	\$239

Charts sold separately. For charts and accessories, visit Page 16, call **630.543.3747** or go to www.DicksonData.com.

PRESSURE DATA LOGGERS



Pressure Data Logger One second sampling rate. User replaceable battery. Optional delayed start. USB connectivity. Pressure sensor includes built-in diaphragm seal.

0-100 PSI PR125 \$499 PR325 \$499 0-300 PSI \$599 0-500 PSI PR525



Rugged Utility Pressure Data Logger Water resistant case. 3 year battery. Unobtrusive design. Fits easily in a toolbox. USB Connection.

0-100 PSI PR150 \$499 PR350 \$499 0-300 PSI

PRESSURE CHART RECORDERS



4 and 8 Inch Models

Four and Eight Inch Chart Recorders to meet your needs.

Single AA battery powered. Rugged low-maintenance design features. 7-day or 24-hour recording times. 1/4 inch NPT Connector.

MODELS AND FEATURES

0-100 PSI	PW860/1 \$629	PW470	\$449
0-200 PSI	PW864/5 \$629	PW474	\$449
0-300 PSI	PW866/7 \$629	PW476	\$449
0-500 PSI		PW479	\$629
0-1000 PSI	PW875 \$749		

Charts sold separately. For charts and accessories, visit Page 16, call 630.543.3747 or go to www.DicksonData.com.









DicksonWare



PROBE ACCESSORIES



D617 \$52 10' K-TC Straight Extension Cable



D605 \$79 4" Piercing Probe



A203 \$125 6" High Temperature Immersion Probe

CHARTS AND PENS

We make reordering charts and pens a cinch.

Only authentic Dickson charts and pens guarantee the accuracy of your temperature, humidity, and pressure data. Fortunately we've made the process of reordering charts and pens fast and easy. Simply go to www.DicksonData.com, click "Charts and Pens" at the top, choose your device, and easily reorder to the exact specifications you desire. Or give us a call.

DICHGON



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Go to **DicksonData.com**Or call **630-543-3747**

Winter is Coming:

Monitoring In Extreme Weather

Power outages Since keeping the cold chain cold (for the most part) requires electricity, power outages are usually one of the greatest concern for our customers. Power outages can leave products in an unstable environment for extended periods of time, and power outages typically occur more frequently during extreme weather. Not to mention, when the power does go out, getting to your facility can be much tougher in extreme weather. That's why having a robust alarming system is important, along with a plan of action to adhere to when your facility is at risk of a power outage in extreme weather. Dickson's wireless monitoring system, DicksonOne, allows you to customize who receives which alarms (text, email, phone call) for each individual logger or location. For example, during a winter storm, you may want person X, who is only a few miles from your facility, to investigate out of range temperature alarms or power outage notifications. During periods of relative calm, someone else may be the one who is designated to receive the alarms.

HVAC problems Extremely hot or cold temperatures can cause HVAC failures in your facility, plain and simple. How do you guard against these failures? It's tough, but temperature mapping your facility is a start. After that, we recommend placing data loggers with Wi-Fi, Ethernet, or cellular connectivity which can alarm you to failures, at key points in your HVAC system. Also, knowing which areas of your facility stay cold for the shortest and longest amount of time will help you place your finished goods in the most practical location during extreme weather conditions.

Transportation Before nasty weather hits, you should understand not only how your products will be harmed inside your facility, but how they will be affected outside of it as well. Transportation is an interesting problem to tackle, because extreme weather may hit you, but not your consumers. Also, some companies don't necessarily distribute their own products to consumers, but rather distribute them through a third party. We advise testing



how your products packaging reacts to temperature over time (Mean Kinetic Temperature will help here) and then laying out action plans with your shipping or logistics partner to maintain the cold chain if extreme weather hits you or your products on their way to their final destination.

Backup plans Have a backup plan! During a blizzard, thunderstorm, or hurricane, your product may be compromised if you keep it in its current environment, whether that is in

your vaccine fridge or food freezer. A situation like this calls for a backup plan, or a course of action that will alert and guide specific individuals in your company on how to properly move products, and where to move them. This usually includes placing temporary backup data loggers in coolers, ice baths, or whatever you are using to store your product safely during an adverse event. Furthermore, having a backup Product Quality Manager (in case your normal guy/gal is stuck under 6 feet of snow) isn't a bad idea either.







Important Vaccine Storage Regulations:

What They Mean For Your Clinic

accine regulations, specifically for Vaccine for Children (VFC) providers, are updated more frequently than most industry regulations that Dickson comes into contact with. The Center for Disease Control (CDC), State Vaccination Programs, Local Health Departments, and VFC program all have a stake in the storage practices vaccine providers must adhere to. We made a list of some important regulation trends in the vaccine storage world, and what they will mean for vaccine providers in the near future.

Continuous Monitoring vs Manual Recording

This is a bit of a prediction, but data loggers will soon take over as the primary means of keeping track of the temperatures that vaccines are stored in. The antiquated logging sheets that vaccine providers have been using for ages are on their way out. We assume that the transition to data loggers will go from "recommendations" to "requirements" within the next few years. How can vaccine providers be prepared for the potential transition? Stay one step ahead and get more knowledge about data loggers now. Features such as Wi-Fi connectivity, alarms, and sensor types will influence future data logger purchases. Be sure to do a little research before you buy.

-58 to 5F and 35 to 46F

Keep them separate. The temperature ranges for frozen and refrigerated vaccines are nothing new, but the emphasis that vaccines should never move from the fridge to freezer is new. We've analyzed a lot of the CDC's literature, and regulations created today differ from past regulations in the increase in the amount of times vaccines (except for MMR) are stressed to never move from the fridge to the freezer when the vaccine's environment was compromised. Our best guess is that CDC au-



ditors found that clinics would stick a vaccine meant for the refrigerator into the freezer to cool it down more quickly if it was left in an unstable environment for too long. So to vaccine coordinators, be mindful of this, and alert your staff to stop trying to cover up past mistakes.

Consequences for VFC's

"You will pay" summarizes a message that the CDC and local immunization programs have begun to voice on a consistent basis in the last year. For VFC providers, compromised vaccines that are no longer usable are really, really bad for the hospital or clinic's bottom line. Many times, if the failure falls on the clinic, the clinic has to pay for those lost vaccines. Thus, it puts even more emphasis (and pressure) on vaccine providers to store vaccines at the proper temperature, and also prove that the vaccines were stored at the proper temperature with hard data. All vaccine coordinators should know how much a refrigerator full of compromised vaccines will cost them (it can be over

\$20,000), and stress to their staff the importance of proper temperature management and thorough documentation.

Open Communication

The CDC led off their most recent Vaccine Storage Toolkit with an explanation of the cold chain, and how essential it was for vaccine providers to maintain their place in the cold chain to ensure that vaccines are properly distributed. In this leading section, an infographic shows the vaccine manufacturing and distribution process, with providers making up the final portion of that chain. Next, they provide a list of essential resources for vaccine coordinators, and stressed the importance of directly contacting vaccine manufacturers and immunization programs with questions or issues as they arise. Keep your place in the cold chain secure, and do it with the help from other links in the chain.

Taking Advantage Of Temperature

Using Data Loggers To Win A Grant

few weeks ago, a Dickson customer called in to ask a question about the alarm functionality of DicksonOne (page 2 has more info on alarms!). After his question was answered, and as he was just about on his merry way, he mentioned something that made us smile: DicksonOne had helped him win a grant.

This customer was the curator for a small museum in the heart of the country, and had always wanted to update the HVAC and temperature control system in his facility. He had noticed that temperature fluctuations from one room to the next within his museum were unpredictable, especially as his old HVAC system became creakier and creakier. But, as with a lot of museums, money was always tight, so it never happened.

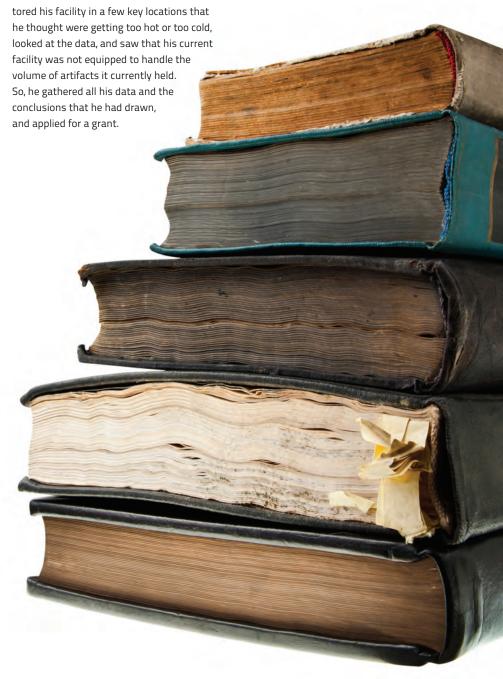
Many artifacts need to be kept in an environment with consistent and safe levels of temperature and humidity, otherwise their deterioration process speeds up exponentially. Next time you are at a large history museum, take a look inside some of the display cases. What do you find? A data logger or temperature sensor. Museums want irreplaceable artifacts, remnants of the past, to stay in their current state as long as possible. Extremely high or low temperatures, or extremely high or low humidity, can cause precious paintings to fade and documents to turn yellow.

This Dickson customer took a leap from antiquated chart recorders and the time-consuming USB data loggers to DicksonOne, which allows users to access their data anywhere. Not only that, but DicksonOne offers robust features like phone, text, and email alarms, a Reporting Suite, customizable device pages, and location management. But most importantly for him, DicksonOne is easy to use.

The data is presented clearly, making temperature and humidity analysis a breeze.

Which is what this customer did. He moni-

And won it. His museum is now getting money for some much needed HVAC updates, which we think is pretty cool.













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PHONE 800.323.2448 800.676.0498 www.DicksonData.com

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DicksonOne

Reporting Suite

The DicksonOne Reporting Suite allows DicksonOne users the ability to create customized reports, sent directly to one or more email addresses, outlining their temperature and humidity data. What kind of temperature and humidity data? The beauty of our new Reporting Suite is that it's completely customizable.

For more information, go to DicksonOne.com.

Connect With Us

Dickson Social Media Accounts





Channel: DicksonData



"Dickson"



"Dickson Data Loggers"

GIVE US A CALL:

30.543.3747

All prices are subject to change without notice. In the event of a printing error, Dickson reserves the right to change to the correct price. All shipments ship 2nd day unless otherwise requested.