BuildCentrix

CONSTRUCTION IN THE CLOUD

February 2019

PSF Mechanical
North Central Fabricators
Cloud for the Win
Mobile Tech
Lean Measures

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JESSICA KIRBY, Editor
jkirby@pointonemedia.com

POINT ONE MEDIA INC., Creative Services
artdept@pointonemedia.com

COVER
Courtesy of PSF Mechanical

302 - 1228 Hamilton Street Vancouver, BC

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BuildCentrix

A WORD FROM THE PRESIDENT

During the last five years, the construction industry has taken great strides in adopting web and mobile technology. In the beginning it was, in many cases, a piecemeal effort with great gains in some areas and paper still blowing around in others. Disparate software systems and resistance to change often created gaps in gathering and reporting on critical project information. For example, digital timecards provided some basic data, but because they are often disconnected from other data sources, such as budgeted time, jobs, and phases, the value of that data was not much higher than produced on paper. That said, taking the important first step of creating the information digitally provided the initial benefits of reducing administration time and standardizing data input. These important first steps also provided the much-needed structure to begin mining for the real, gold-performance metrics.

Data visualization is one of many new buzzwords making its way around the construction industry. In simple terms it just means representing information in the form of a chart, diagram, or picture, but when it comes to a construction project it means much, much more.

Data visualization in construction means collecting real-time, meaningful data from the company's spectrum of operations and activities, and cross-referencing it to measure and analyze productivity, efficiency, and overall operational excellence (or lack thereof). Once you've mined the required data, it provides you with the information you need to focus on projects and operational areas that need your immediate attention, which helps keep even the toughest jobs on time and on budget. In short, the end result is solid, actionable information provided in real-time.

So, how do you start mining your data? It starts with digital data, no paper and no spreadsheets, (spreadsheets are only marginally better than paper when it comes to good data sources). The next step is connecting data sources – think accounting and ERP (enterprise resource planning) software – so everyone is pulling from the same source whether it's timecards, work orders, material lists, etc. Once all the connected data is flowing you can pull information into tools such as PowerBI and Domo Data Visualization and start asking it questions such as, how are projects, jobs, and phases performing in terms of labor, materials, and cost? You can dig deeper into that information to find specific areas where the project overall or specific operations are coming up short or making big gains against estimates.

At BuildCentrix we understand the real-world benefits data visualization offers our clients so everything we do is built on the premise of creating and connecting data. Whether it's inside the platform itself or it resides in remote software systems, we can help you mine your data and find the answer to both simple and complex questions about your business. ▪

Joe Perraton,
President

PSF MECHANICAL
A Model of Efficiency

By Jessica Kirby
Photos courtesy of PSF Mechanical

PSF MECHANICAL is one of the Pacific Northwest's leading full-service commercial mechanical firms. Its scope of work spans the United States, and its commitment to quality and leadership is more than 120 years old.

PSF Mechanical implemented the BuildCentrix field ordering software in the company's sheet metal division two years ago. It allows online ordering from the field with fitting and component specific parameters and mandatory fields so orders are correct and the process is streamlined and efficient.

Recently, the company began using BuildCentrix timecards in the company's fabrication shops and in the logistics (shipping, receiving, delivery) areas—this module produces real-time labor and production data that can be integrated with materials and other cost factors to measure productivity, efficiency, and areas for improvement.

"We've got probably 23 field foreman ordering using BuildCentrix, and we have about 32 using timecard," says Talo Balderrama, shop general foreman for PSF Mechanical. "We are looking to expand that to other departments of the company and are just trying to figure out whether the detailing department can also use it."

The ordering portion is a time-saver in the shop, says Balderrama, since data needs only be entered once and imported to wherever it is needed. "It also saves time, error, and a step because the system self-corrects you if you mistype a dimension," he adds. "It will tell the user that the recommended length for the fitting input entered is X. So, we know a number of issues that could have arisen are already taken care of before we see the order."

Prior to using BuildCentrix, PSF Mechanical crews were filling out job order sheets by hand, naming the job number, job name, time in, and time out, but it wasn't uncommon for forms to be illegible, have conflicting information, or have information missing.

"Often I would have to track down a job number that didn't match with the job name, or if a field was left blank I would have to figure it out by asking the employee," says Balderrama. "I can't tell you how many timecards didn't add up to eight. That was just the start—sometimes even reading handwriting was impossible."

The BuildCentrix timecard eliminates these issues. Job names and numbers and time in and out must be inputted and must match or the user can't click "accept".

"Missing information is not an issue, which saves me time because I don't have to check as closely," says Baldemmera. "I save, easily, 50 percent of the time I used to spend on timecards, and I am aware of what everyone is doing. If

"The entire process is very simple, and I have not seen any other product like BuildCentrix."

—Martin Marty, application support specialist for PSF Mechanical

anything feels wrong, it is much easier to check mistakes and get the problem fixed."

The payroll department was a bit resistant to the timecard implementation at first, uncertain the information BuildCentrix gathered would import correctly to the company's Spectrum accounting software. "It took some convincing, but now they are enjoying the same benefits the shop is," says Balderrama. "The information they receive is confirmed and has no errors."

Martin Marty, application support specialist for PSF Mechanical, says excellent customer support from BuildCentrix was essential in making the integration a success. BuildCentrix built a custom export report that PSF can import directly into Spectrum to facilitate communication between the two programs.

"This has been great because it still allows accounting to review the exports and adjust if needed and then easily import that into Spectrum using the Spectrum Data Exchange add-on in Excel," says Marty. "We recently built background services that automatically create new jobs in BuildCentrix and assign proper phase codes to each job using the new API BuildCentrix developed and our Microsoft Business Intelligence software that tracks all of the projects."

The quality of the data has not been affected since PSF Mechanical started using BuildCentrix for its time tracking—if anything it became better and more accurate.

"The entire process is very simple, and I have not seen any other product like BuildCentrix," says Marty. "We have tried numerous time tracking software in the past and failed miserably; BuildCentrix was the game changer for PSF."

People working in the shop have varying levels of tech savvy, says Balderrama. "Some of the guys were reluctant to try software and wanted to stick with pen and paper, but within three days everyone was on board. Training people who were using the previous method is much easier, since the information is already provided, and training new people is simple because they don't know any other way."

Balderrama says the company will use the information generated by the timecard module for more accurate and specific review and monitoring of other company functions. Most importantly, the process has been streamlined and smooth, and BuildCentrix has provided nearly immediate response to any problems that have arisen.

"When we need to address something, the shop manager will email BuildCentrix and they are really good about jumping right on it, or responding right away to let us know they will get to it as soon as they can," he says. "That has impressed me the most. I am a big customer service advocate and when there is an issue, I want a solution on my time, not someone else's." ▪

>>NORTH CENTRAL FABRICATORS

Enhancing customer experience through online quotes 24 hours a day

By Jessica Kirby
Photo courtesy of North Central Fabricators

North Central Fabricators, LLC (NCF) is a commercial HVAC sheet metal fittings producer and fabricator based in Braham, Minnesota. The 56,000-square-foot facility employs 25 people, and the company's scope of work includes fabrication of sheet metal fittings, grease duct, sealed spiral pipe fittings, and spiral pipe using sheet metal, cold-rolled steel, and stainless.

Business is steady in its eighth year of production, which meant management at North Central Fabricators was looking for an online ordering service that would enhance customer participation and benefits to staff, and that would provide the company the opportunity to grow.

Prior to using BuildCentrix, customers would fax in a hand-written order or email a fittings list. The online system allows customers quick, simple, and self-correcting access to a digital list and 24-hour turnaround on some orders.

"We have had great success with the BuildCentrix software and customer support in the technology department," says George Oakes, outside sale representative North Central Fabricators. "They have walked and ran with us through this whole process. This system has been a nice 1-2-3 type ordering program that our customers have said is very easy to operate."

The primary benefit the customer receives is the ability to use the software program online to get a bid on a project without sending it to NCF first, says Oakes. "So, they have an instant quoted price when they save the project they are pricing."

Oakes says he can see demand for online services growing. "I think the online system is a great option," he says. "As more and more companies expand into the digital world there will be a great need for this service." ▪

STEP 1: Log in to BuildCentrix

STEP 2: Select your category

STEP 3: Fill in drop down boxes

STEP 4: When order is complete, checkout

TRENDING NOW: CLOUD FOR THE WIN

Contractors are on the podium, so to speak, with tech companies and researchers frantically vying for their feedback on the future of contech. Who is using construction technology? What are they using? What are they doing with it?

Keeping proprietary information out of the equation, there are some clear trends in how and why contractors are dipping into their digital toolbelts, the most prominent of which is cloud computing. More than anything else, contractors are using cloud technology to manage their projects, keep costs under control, provide better customer service, and increase staff productivity.

It wasn't long ago (say, 2012) that just 16% of surveyed contractors in the US were cloud computing. The rest? Most had never heard of the term. Fast-forward to 2017 and 59% of surveyed contractors were killing it in the cloud and thought it was undoubtedly the future. Once aging hardware is out of the way and drum-tight deadlines become the norm for a company, the transition to the cloud is simpler because it means faster communication, automatic updating, and seamless integration between programs.

As the contech industry moves forward, here are the top three trends predicted to shine in cloud computing for construction companies in 2019 and beyond.

1. Software as a service (SaaS) moves on to make office and jobsite life easier than ever. Transitional programs mean better integration between competing brands so everyone wins.

2. Hosted cloud services are the cream of the crop for contractors, especially large companies who wish to do away with IT departments and infrastructure and have someone else manage it from afar.

3. Hybrid cloud options are looking promising as they become a standard way to give contractors control over what information stays heavily guarded and secure and what takes advantage of the efficiencies offered by the public cloud system. ▪

GET MOVING WITH MOBILE

Construction teams are on the go and moving at unprecedented speeds—it only makes sense that mobile applications are helping launch them into the future. A study by Dodge Data & Analytics says mobile software can improve many facets of business including fleet management, cost control, labor tracking, and accurate and timely field data collection.

Word is spreading fast. Eighty per cent of construction professionals surveyed are prioritizing mobile software and four out of five are currently using it. Managers, foremen, and anyone else who manages data loves mobile technology because it means getting the numbers right the first and only time you have to enter them. There is little room for error, because most mobile software will prompt users when information is missing or incorrectly entered. Managing errors is at the top of contractors' preventable costs list, with 65% of construction professionals surveyed saying this area costs them big time.

Mobile software means real-time information is collected and shared instantly between the shop and field. That means a better connection, more meaningful communication, and cost and time savings when it comes to averting errors or redundancies. And one of the most important features is the integration factor—most well-designed, robust mobile applications will work along side your current software, integrating and sharing data. (In fact, this is such an important feature that if your mobile tech doesn't integrate, you really shouldn't use it.)

Finally, connecting the field and shop creates a sense of accountability and cooperation that equals better working and production relationships. Men and women in the field are empowered being in charge of their orders, and those in the shop have greater confidence in the information received.

Of course, this all adds to productivity—the less time people spend looking for information and correcting mistakes, the more time they have to get the job done. When information is collected this way, it can be analyzed and measured to improve efficiencies in other areas of the business. It's the ultimate win-win.

Ready to streamline operations, save time and cost, and create an open forum for accountability? Get moving and go mobile. ▪

10 CHARACTERISTICS OF A GOOD MEASURE AND 7 PITFALLS TO AVOID

By Tim McMahon

It is not enough to simply create a numeric measure. The measure should accurately reflect the process. We use metrics to base decisions on and to focus our actions. It is not only important to measure the right indicators; it is important to measure them well.

To be effective and reliable, the metrics we choose to use need to have ten key characteristics. The table shown right was adapted from Keebler (1999), and suggests the qualities to look for in indicators.

Choosing the right metrics is critical to success, but the road to good metrics is fraught with pitfalls. As you endeavor to become more metrics-driven, beware of errors in the design and use of metrics.

Common mistakes include:

- Metrics for the sake of metrics (not aligned)
- Too many metrics (no action)
- Metrics not driving the intended action
- Lack of follow up
- No record of methodology
- No benchmark
- Underestimation of the data extraction

Although there may never be a single perfect measure, it is certainly possible to create a measure or even multiple measures that reflect the performance of your system. If the metrics are chosen carefully, then, in the process of achieving their metrics, managers and employees will make the right decisions and take the right actions that enable the organization to maximize its performance. These guidelines will make sure you pick the right indicators and measure them well. ▪

Republished with permission from Tim McMahon. Tim McMahon is a Lean implementation leader, author, and blogger. He is the founder and contributor of A Lean Journey blog. This site is dedicated to sharing lessons and experiences along the Lean Journey in the Quest for True North. As a Lean practitioner, Tim brings nearly 20 years of leadership experience implementing Lean manufacturing. Read more of Tim's work at aleanjourney.com.

"Choosing the right metrics is critical to success, but the road to good metrics is fraught with pitfalls. As you endeavor to become more metrics-driven, beware of errors in the design and use of metrics."

A good measure:	Description:
Is easy to understand	The measure conveys at a glance what it is measuring, and how it is derived
Encourages appropriate behavior	The measure is balanced to reward productive behavior and discourage "game playing"
Is visible	The effects of the measure are readily apparent to all involved in the process being measured
Is defined and mutually understood	The measure has been defined by and/or agreed to by all key process participants (internally and externally)
Encompasses both outputs and inputs	The measure integrates factors from all aspects of the process measured
Measures only what is important	The measure focuses on a key performance indicator that is of real value to managing the process
Is multidimensional	The measure is properly balanced between utilization, productivity, and performance, and shows the trade-offs
Uses economies of effort	The benefits of the measure outweigh the costs of collection and analysis
Facilitates trust	The measure validates the participation among the various parties

BuildCentrix

Webduct Evolved

BuildCentrix, a simple way to connect your manufacturing team, materials, and data to the field and office in real-time.

BUILT FOR YOUR INDUSTRY

BuildCentrix is a multi-trade platform built specifically for integrated mechanical and HVAC contractors managing sheet metal, piping, and other trades.

STAY LEAN

Empowering lean construction practices for continuous improvements in production, workflow, and performance.

ALL THE TOOLS YOU NEED, NONE OF THE HASSLE

100% cloud-based software with integration points for accounting, ERP, and fabrciation software provides a high return on investment without sacrificing the power you need in the field, shop, and office.

See it for yourself. Visit **www.buildcentrix.com** to schedule an online demo today.