

The Construction Executive's Interactive Guide to Business Visibility

PART 2: MONITORING



sage

FIND, FILTER, AND FOCUS ON THE INFORMATION THAT MATTERS MOST



When it comes to decision making, information is your most valuable asset. Unfortunately, the surge in data from sources such as emails, plan revisions, conversations, documents, and change orders—from across multiple projects and jobsites—can cause more pain than gain. In this interactive e-book, you will learn about tools, technologies, and tips that will simplify the way you monitor your business by helping you find, filter, and focus on the information that matters most.

IN THEIR OWN WORDS

What your peers and experts say about monitoring projects.

“We do exception reporting to upper management, so everyone knows if performance standards are missed right away. People shouldn’t have to wade through all the stuff that’s needed to find the exceptions.”

Ken Dixon
Vice President
Todd Construction

“Rapid decision-making and execution are the defining attributes of a responsive organization. Construction executives who are able monitor their business in real-time will stand apart.”

Jon Witty
Vice President and General Manager
Sage Construction and Real Estate

“We created an alert to give us a monthly summary of how our jobs are performing. The alert is sorted by profit margin so that we can easily review under-performing and over-performing jobs, and contrast and compare them with our jobs that perform as expected.”

Alan Fletcher
President
Oilfield Electric & Motor

“To stay on top of time-and-material jobs, we’ve set up an automatic alert that notifies us of daily jobs that haven’t been billed, or where the current profit is less than a specified percent.”

Brian Garcea
CFO
RG Construction

MEASURING, MONITORING, AND MANAGING WITH KEY PERFORMANCE INDICATORS

Don't rely solely on backward-looking indicators that measure the events of the last quarter or month. If you do, your business will already be in trouble by the time management knows about it.

Many contracting businesses are just one or two faulty projects away from financial hardship. Given the high stakes, it's critical to constantly keep an eye on the status of the business and its projects. Best-in-class contractors use a series of key performance indicators (KPIs) to measure, monitor, and manage performance.

KPIs are high-level benchmarks set at the project or enterprise-level based on specific predefined measures. Executive and project owners can use KPIs as yardsticks to evaluate how things are going, spot red flags, and act decisively.

What's important to monitor at the project level?

For contractors, the most important project KPIs are driven by the following client demands:

- Is the project on schedule?
- Is the project on budget?
- Is the work free from defects?
- Is the work getting done right the first time?
- Is the work being performed safely?

In addition, regular customers may request that you demonstrate a commitment to continuous improvement in your firm's efficiency—especially your ability to reduce costs and compress project durations.

What's important to monitor at the business level?

While business reports and financial statements (discussed in Part I of this series) are used by executives to see what happened over a period of time, it's equally important to monitor what's happening right now in a few key areas.

For example:

- Is enough cash coming in?
- Do we have enough work?
- Is our labor productive?
- How is our profit margin?

EIGHT INDICATORS EVERY CONTRACTOR SHOULD MONITOR

Make resolving unapproved change requests a part of the fabric of your organization's accounting structure. Changes that are left hanging in limbo for any period can negatively affect your relationship with your banks and sureties, ultimately hindering your ability to get financing or a performance bond on the next job.

1 Liquidity

Construction executives and managers must have the ability to evaluate organizational liquidity—which is a measure of how much cash you have available. Subsequently, you should be able to drill down to the project level to determine which projects are providing liquidity and which are consuming it.

2 Work Backlog

Keeping tabs on backlogged work—and the expected gross margins on that work—will embolden your firm to avoid risk associated with insufficient work. You can also use this knowledge to estimate future cash flow and adjust your business plans accordingly.

3 Labor Productivity

Slight improvements in labor productivity can send profits soaring. Slight decreases can have the opposite effect. There are three essential components needed to track labor: budgeted hours, hours worked, and percent complete. Make these three pieces of information available to your field managers and foremen on demand.

4 Schedule Variance

It's important to track your ability to deliver projects on time. The simplest way to track schedule variance is by taking the original planned completion and subtracting the current forecasted completion, which will give you the number of days ahead or behind (schedule variance). However, going one step further and dividing the schedule variance by the total remaining duration in days will show you the variance as a percentage so you can evaluate its significance. A 3% variance is easier to make up than a 23% variance.

5 Budget Variance

When you're able to monitor costs in real time, you can plan and manage projects more strategically. Any slips to budget can be recognized right away. While some variance to budget is to be expected, setting an acceptable KPI for such variance will allow you and your project owners to catch anything that falls outside that threshold.

6 Unapproved Change Requests

Changes can rob your projects of profits. By proactively tracking, documenting, and negotiating payment for delays and expenses, you can increase your acceptance rate and get paid for all changes on the job—without disputes or misunderstandings.

7 Project Cash Flow

This KPI helps track whether individual projects are generating or consuming cash, enabling you to dig deeper to identify execution successes and failures on projects.

8 Committed Cost Indicator

When your suppliers and subcontractors are not committed contractually to your projects, it exposes your business to potentially crippling risk. This is particularly true given rising material prices and labor shortages—and can be even more detrimental on longer-duration projects.

Sources:

http://www.sbsgroupusa.com/_layouts/images/sbsweb/downloads/roles/construction/General_Contractor_KPI_Whitepaper.pdf

<http://www.constructionbusinessowner.com/topics/accounting/accounting-finance/construction-financial-ratios>

THE ROLE OF TECHNOLOGY IN TRACKING KEY PERFORMANCE INDICATORS

After you have defined a KPI and determined a way to measure it, be sure to publicize a clear target, which should be agreed upon by all relevant personnel. The target should be specific so each individual can take actions toward accomplishing it. Incentivize as necessary.

Some form of technology underpins nearly every business process today. So, it should come as no surprise that technology can help those in the construction workplace improve their use of critical data and track KPIs.

The major areas of focus as you identify and evaluate technology to help monitor business performance include the following:

Integrated Software

- Supports and automates critical industry-specific functions (such as job costing, estimating, equipment, and project management).
- Provides information transparency and supports tracking of timely measurements against KPIs.
- Eliminates silos of information and reduces data reentry that can result in errors.

Automated Alert System

- Notifies you through email, text, or desktop message when exceptions occur.
- Filters high quantities of information to keep you updated on what's most important.
- Helps get the right information to the right people at the right time.

Dashboard

- Provides graphical visualizations of KPIs and other business metrics.
- Helps you measure and monitor all your KPIs in one place.
- Saves time by making information more intuitive and easier to observe instantly.

INTEGRATED SOFTWARE: A PLATFORM FOR BETTER INFORMATION ACCESS

Common challenges in managing a contracting business are information overload, a lack of the right information, and skepticism toward the accuracy of the information. In many cases, the data isn't current and it's difficult to sort through because it covers everything ad nauseam. This inefficiency and lack of transparency in the way data is handled hinder management's ability to monitor KPIs that enable strategic decision making.

Deploying integrated, construction-specific software helps create an environment in which information-based decision making becomes part of your organization's culture.

Businesses with integrated software systems in place should be able to easily get consistent data, which in turn allows for timely measurement against KPIs and more rapid and accurate completion of key business processes. Data is centrally managed in a single database and structured consistently. This makes your business information easier to use—the “holy grail” of decision making.

How to buy software for your business:

1 Go construction specific

Contractors have highly-specific processes like job costing, change management, retainage, union payroll, and buyouts. A generic accounting or ERP system won't be able to handle these processes without expensive customizations or clunky workarounds. And unless your software is able to manage these specific processes and track data related to them, you will not be able to get the quality of information required to generate timely metrics and KPIs.

2 Understand your real needs

Document a dozen or so of your most complex business challenges or inefficiencies. Communicate these business concerns to the software vendors on your short list. As you are viewing demos or test driving various solutions, gauge and rate how simply and elegantly each solution solves your issues.

3 Make sure it covers all the bases

Confirm that all the modules tie together into one seamless system. From financials and job costing to estimating, document management, inventory, purchasing, and project management—information should flow without bottlenecks.

4 Plan for the long haul

Consider where you want your business to be in five or ten years. Does the software provide room to grow? Is it easy to add additional functionality? What is the vendor doing to innovate and enhance the solution?

5 Know the vendor

Finding the right relationship and commitment is necessary in any vendor relationship. How long has the software vendor been around? Do they have a local presence? How many customers do they have? Pick a vendor who can work with your company and has a responsive and knowledgeable customer service team. You have to be confident that they can guide your company through an implementation and be around to support you for the long haul.

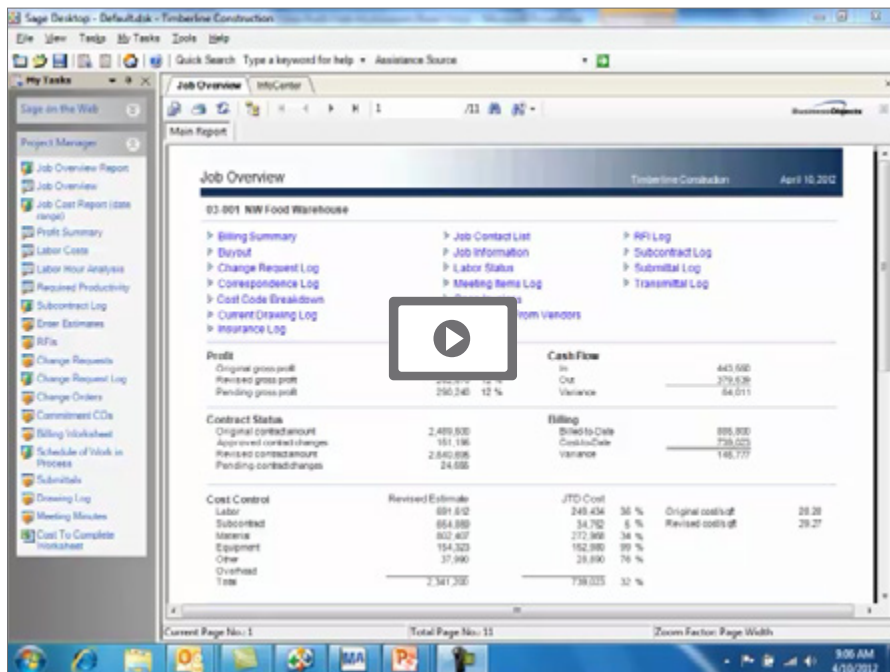
ALERTS:

PROVIDING TIMELY,

ACTIONABLE INSIGHT

An alert system can notify you when:

- A subcontractor has an insurance certificate that expires in 30 days.
- A job has dropped below a profit threshold.
- A cost code has gone over budget.
- An accounts receivable invoice is 60 days past due.
- A deadline is approaching for a component of a project.
- The aggregate total in your backlog of work falls below a predefined amount.
- A project manager has overdue RFIs, submittals, and change requests.
- Accounts Payable invoice discounts are about to expire.



KPIs and other business metrics have traditionally been captured and conveyed in a combination of reports, spreadsheets, or charts. Although those methods remain helpful, an alert or warning system that's tied to your accounting and operations software can provide more immediate and actionable information.

An alert system works by actively monitoring the data housed in your software. When one of the tracked events occurs—for example, an invoice becomes overdue—the system triggers an email, desktop message, or text message notifying the appropriate personnel of the issue so they can take action.

Your organization likely has a vast amount of detailed information about its finances and projects. However, by the time you attempt to filter through it, chances are it will have lost its timeliness. An alert system can provide the immediate notification mechanism that will bring the data inside your business to life.

DASHBOARDS: ALL YOUR VITAL INFORMATION IN ONE PLACE

Avoid animations and glossy graphics in dashboards, which can get in the way of the content. Think about visuals that communicate your data clearly.

An effective dashboard:

- Presents information clearly, quickly, and compellingly.
- Offers personalization options so users can configure data views based on their role.
- Minimizes unnecessary distractions, which could cause confusion.
- Enables users to drill down to find more detail and context.
- Provides a design and structure that is pleasant to look at.

A dashboard is a business tool that displays a set of metrics, KPIs, and other relevant information to a business user. Dashboards are steadily gaining in popularity because of their simplicity and self-service capabilities. Decision makers want to view and analyze information in visually pleasing ways without having to rely on their IT department or outside consultants to build custom reports.

The data that's displayed in the dashboard is typically generated in real time, retrieved automatically from data sources from across the business. In addition, effective dashboards are interactive. For example, a project manager's dashboard should provide the ability to drill into a particular aspect of a project to get further details.

Dashboards provide an effective solution to the overwhelming amount of data that construction executives, project managers, superintendents, and other construction professionals experience every day. A dashboard can improve employee productivity—and save your company money—by providing easier, more intuitive access to project and accounting details. Consider the efficiency gains when compared to requiring workers to sift through project binders and emails to compile information.

A CEO'S DASHBOARD:

SIMPLE, FAST, MEANINGFUL

Dashboard | C: Sample Company

File Options Help

[Add/Remove Content](#) [Cancel Layout Changes](#) Last refreshed: Friday, November 16, 2012 8:23 AM

My Alerts

[Copy ? X](#)

All Alerts	9
Unread Alerts	6

Payables Aging

[Copy ? X](#)

Due in 7 Days	92,638.12	Due in 30 Days	154,396.87	Overdue > 30	15,439.69
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Cash Position

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Total Cash	31,605.61
Receivables	395,761.32
Total Cash + Receivables	427,366.93
Less Current Liabilities	441,300.74
Cash Position	(13,933.81)

Receivables Aging

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Due in 7 Days	62,500.00	Due in 30 Days	104,319.58	Overdue > 30	10,431.96
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Income and Expenses

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	This Month	This Quarter	This Year
Overhead	1,146.24	1,112,549.90	1,810,291.99
Administrative	24,471.19	93,291.35	184,363.33
	5,476.59	22,201.76	46,746.00
Income from Operations	(302,479.55)	(23,309.49)	11,500.00

Cash Accounts

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- General Checking
- Payroll Checking
- Field Checking
- Check Clearing

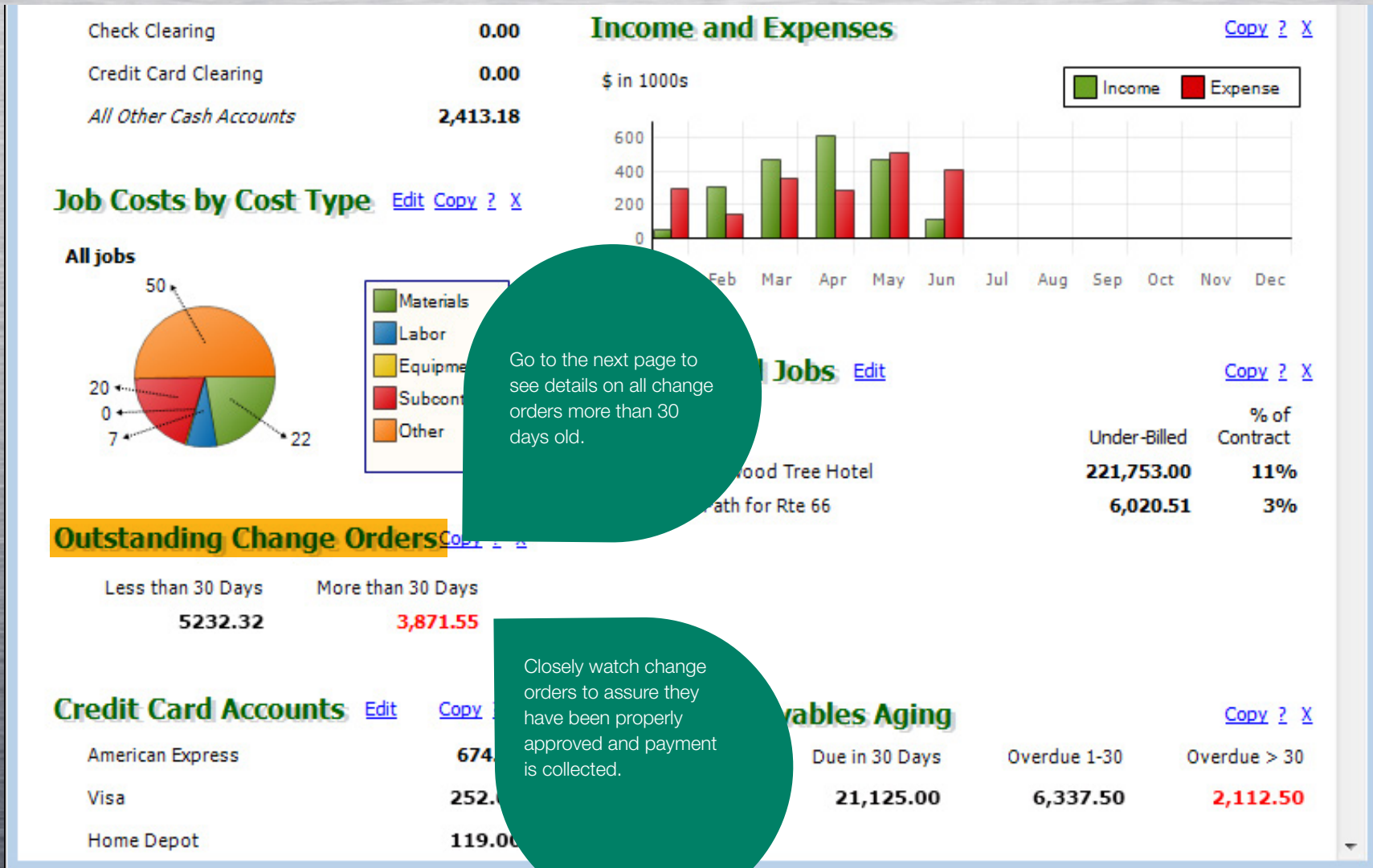
Dashboards should be easy to modify so you can see at a glance the items most important for you to monitor.

Monitor and put processes in place to reduce overdue payments and receivables that can cause havoc with your cash flow.

Keep regular tabs on your cash position to spot issues that can be corrected before they negatively affect the financial stability of your business.

A CEO'S DASHBOARD:

SIMPLE, FAST, MEANINGFUL



Continued ▶

A CEO'S DASHBOARD:

SIMPLE, FAST, MEANINGFUL



Managed Rite Construction

Dashboard - Outstanding Change Orders

08/03/11

Dashboard - Outstanding Change Orders

More than 30 Days

Date < 07/04/2011, Status 2 to 4, Requested Amount <>

0,...

Record#	Order#	Date	Description	Status	Requested
207 Wood Elementary School					
5	1	05/29/2011	Office Windows	Open	2,733.05
Totals:					2,733.05
215 Jimenez Burrito #8					
8	2	06/27/2011	Floor Tile Upgrade	Open	1,138.50
Job Totals:					1,138.50
Grand Totals:					3,871.55

Quickly understand exactly which projects have outstanding change orders.

LEARN MORE ABOUT THE FIVE TYPES OF VISIBILITY EVERY CONSTRUCTION FIRM SHOULD HAVE

Read the entire five-part series on business visibility:

- 1 [Reporting](#)
- 2 [Monitoring](#)
- 3 [Analyzing](#)
- 4 [Predicting](#)
- 5 [Mobilizing](#)

Download the business visibility basics poster:



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