



shop**tech**™

Unleash the Power of Automated Data Collection
TO IMPROVE YOUR SHOP'S PRODUCTIVITY AND PERFORMANCE

Information is power in the manufacturing world. The more you know about your product, your customers, and your shop's overall performance, the better decisions you can make. Information can help you decide how many employees to put on each shift, whether to take that rush job, when your machines should receive maintenance, and even where lags exist in your productivity.





Of course, the problem for many shops is obtaining that information. Too many shops rely on a manual data collection process. That is, the data is manually documented by someone in the shop. A team member on the floor documents how long a job takes. A supervisor documents the duration of downtimes. Office personnel documents pricing information.

In many cases, all that manual documentation is then given to someone in the office, who has the unfortunate responsibility of manually entering that data into a computer system. Of course, that person usually has a wide range of other responsibilities as well, so the data may sit for hours, days, or even weeks before it's entered. Sometimes, the data may not be entered at all.

If you currently use a manual data collection process, now may be the time to consider alternative solutions. You understand the power of automation. After all, you likely use various types of automation on your shop floor every day.

You can bring that same technological efficiency to your data collection efforts. Machine shop software helps you automatically sync your shop together from a data standpoint. You can collect information in real time about everything from machine performance to employee productivity to inventory and much more. That can give you the data you need to make strong, informed decisions.

Challenges That Arise With Manual Data Collection

Still not convinced that it's time to consider an automated data collection solution? Below are a few of the biggest issues that come from a manual process. If you're experiencing these problems in your data collection efforts, it may be time to think about implementing shop software that automates the process.

INACCURATE DATA

One of the biggest challenges with a manual process is that the data is often inaccurate. You're relying on human judgment. It's only natural that errors, both intentional and accidental, will occur.

Consider that a floor member may not know exactly how to measure production time on their machine. Using their best judgment, they could provide data that is wildly inaccurate. Employees also have a natural inclination to make themselves look better. Thus, you may get information that shows inflated productivity and efficiency. And of course, there are the simple miscalculations that are inevitable. Inventory is counted incorrectly or time is added up wrong. The result is data that is inaccurate and unusable.

INCOMPLETE DATA

Another big issue with manual data collection is the possibility of incomplete data. Your team members have a lot on their plate. Especially if you're a small shop, team members may juggle a wide range of responsibilities.

It's to be expected that there may be gaps in the data. Your employees won't record every single point of data that you request, and some team members may not record data at all. The result is a small sample size that doesn't provide much insight into your shop.

ILLEGIBLE DATA

Imagine this scenario. A machinist on the floor quickly records data into his notebook and then passes that onto the individual responsible for inputting the data

into the system. However, that individual can't read the machinist's chicken scratch handwriting. The office employee is under time constraints, so he decides to make his best guess as to what the notebook says. The result is data that may or may not be correct.

That scenario isn't very far-fetched. In fact, it likely happens in shops every day, possibly in your own. Illegible data can drastically alter business projections and other results, disrupting plans and budgets for the future.

BIASED DATA

It's only natural that employees want to look as good as possible. So it's not beyond reason to assume that some employees may fudge their manual data to improve their performance. They may minimize their machine downtime or they may exaggerate the amount of time they're on the clock. You get data, but that data doesn't accurately portray the shop's operations.

TIME DRAIN

Perhaps the biggest problem with manual data collection is the drain on your shop's time. Your employees have to take time away from production tasks to manually record information. One employee has to spend time inputting all that manual data into the system. Then, you have to spend time trying to determine what data is accurate and what isn't.

Automated data collection eliminates all of these issues. It takes data collection and input out of your employees' hands. That means you can trust the accuracy of the data and your employees get valuable time back to focus on more important tasks.

01

**INACCURATE
Data**

02

**INCOMPLETE
Data**

03

**ILLEGIBLE
Data**

04

**BIASED
Data**

05

TIME Drain

Advantages of Automated Data Collection



01

**ACCURATE
Job Costing**

02

**GAIN A REAL-
TIME PICTURE
of Inventory**

03

**SPEED UP
Production
Times**

04

**Job
SCHEDULING**

05

**INCREASE
Productivity**

Advantages of Automated Data Collection

01

Accurate Job Costing



Real time data collection lends to a crucial aspect of shop management: job costing. If you utilize an accurate collection system, you can see job costing to the penny. This allows you to track labor and burden costs, so you know exactly where your strengths and weaknesses lie. In addition, if you are estimating the routing steps, you'll be able to recognize exactly what steps of the process made or lost you money. This type of data is vital to making shop improvements.

02

Gain a Real-Time Picture of Inventory



Inventory issues are another threat to your production schedule and your cash flow. There are few things more frustrating than realizing that you are low on required parts or materials just as you are about to start work on a job.

In theory, inventory issues should never be a problem. You should have a clear and accurate count of inventory at all times. In reality, it's often hard to maintain accurate inventory numbers. Employees can take parts without documentation. Your team could forget to order new inventory when needed. You may order too much inventory and then have cash sitting on a shelf in your warehouse.

Shop software uses automated data collection to give you a real-time view into your inventory at all times. Parts and materials are logged electronically as they are pulled from the shelf and used in production. Inventory counts update automatically, so you're never in the dark about parts and materials, and you always order exactly what's needed for the jobs in your pipeline.

Advantages of Automated Data Collection

03

Speed Up Production Times



Faster production times lead to increased cash flow. The more jobs you turn, the more revenue comes in the door, leading to greater profitability and accelerated growth. If there's one thing you can do to improve your business, it's shorten production cycles.

Unfortunately, it's difficult to achieve that without transparency and insight. You may not know where lags exist in your production process. You may not know what actions are needed to reduce production times.

Again, automated data collection gives you the tools you need to take action. You can use bar-coded travelers to collect data as each job moves through your process. As the barcodes are scanned at each workstation, the software logs how much time is required for each task. You can use that information to analyze your workflow.

For example, you may find that your team is spending too much time preparing their equipment for each job. Or you may learn that one particular team member or piece of equipment is creating a lag in the process. That kind of insight can help you continuously improve your process to drive down production times and boost your revenue.

04

Job Scheduling



It is impossible to schedule a job on the floor without real time data collection. You need to know what projects are on the floor and what stages they are in. You need to know what machines are available, booked, and broken. You need visibility of the shop floor, and you need it on the spot.

Manual data collection and entry will likely put you a day behind, and when you're trying to schedule, the past doesn't do you much good. Real time data collection allows you to see the present and predict the future. Proper scheduling will have your shop running as efficiently as possible.

Advantages of Automated Data Collection

05

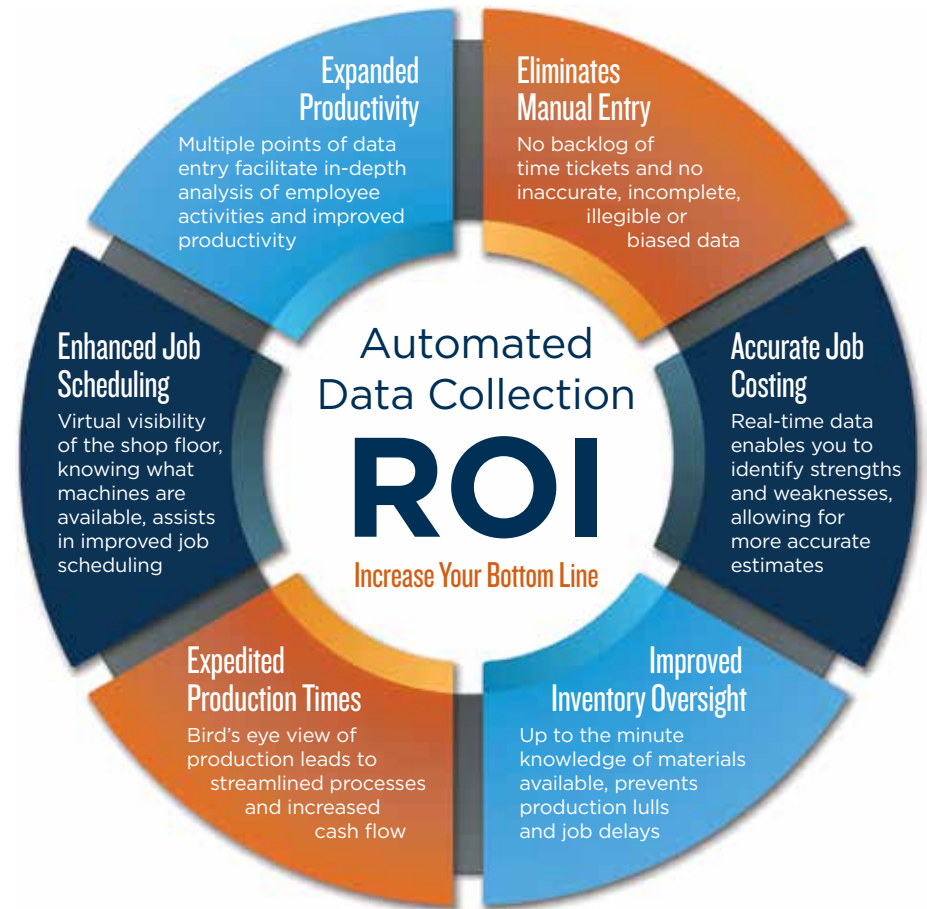
Increase Productivity



One of the best ways to improve profitability is to increase your team's productivity. Of course, that may sound easier said than done. After all, you can't simply direct them to work harder. You can train your team on new skills and techniques, but there's no guarantee that they will implement that training. What are your other options?

Automated data collection may be the answer. You can use your shop software to collect data about employee activities in your shop. From clock-in and clock-out times to production time at the workstation to much more, you can see how your employees are focusing their time and energy. That data can help you take action to maximize productivity and efficiency.

Your team can also use the data collection tool to see jobs in-process and in the pipeline. They can then use that information to set-up their stations in advance or make workflow adjustments on the fly. A more informed team makes for a more productive team.



Ready to Boost Your Shop's **Productivity, Efficiency, and Profitability?**



Let's talk about it. Contact us at Shoptech today to speak with one of our data collection consultants. We welcome the opportunity to discuss your goals with you and help you develop a strategy. Let's connect soon and start the conversation.



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