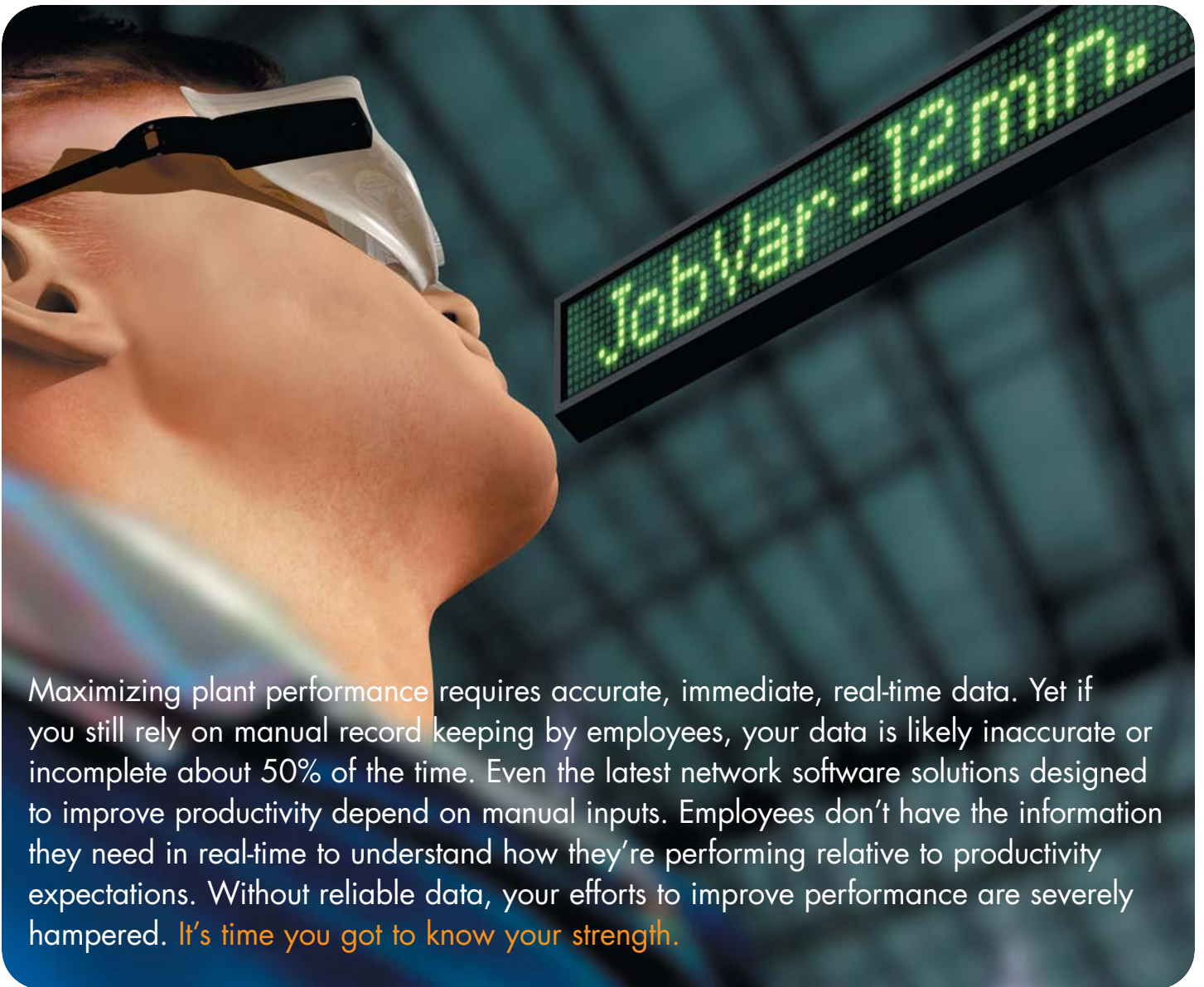


Plantnode® Know your strength



Maximizing plant performance requires accurate, immediate, real-time data. Yet if you still rely on manual record keeping by employees, your data is likely inaccurate or incomplete about 50% of the time. Even the latest network software solutions designed to improve productivity depend on manual inputs. Employees don't have the information they need in real-time to understand how they're performing relative to productivity expectations. Without reliable data, your efforts to improve performance are severely hampered. **It's time you got to know your strength.**

Shoplogix Inc. helps manufacturers uncover the hidden potential in their plant operations so they can clearly see how to turn up efficiency and profitability in the face of growing competitive pressures.

Plantnode® is a unique integrated software and hardware technology solution that enables management to leverage immediate and accurate information to make real-time decisions that impact productivity and performance.

In addition to its automated data management stream, which directly connects management with real-time production performance data, the Plantnode solution simultaneously shares vital information with plant floor employees.

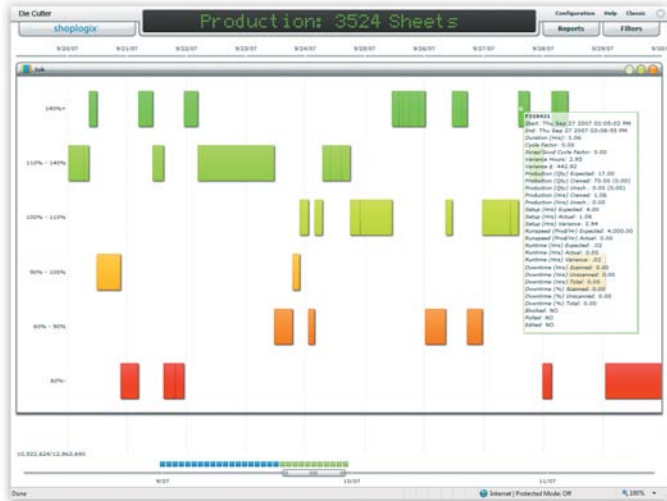
This enables them to leverage their experience to make changes on the fly, in the current job, to positively impact production efficiency immediately.

Through the display of real-time production variance information, your management team, machine operators and Performance Improvement team work together to identify, and take action on, opportunities for productivity improvement to create a real sustainable competitive advantage for your company.

The patented Plantnode solution creates value through a dual stream approach:

STRENGTH IN NUMBERS

AUTOMATED DATA STREAM



A sample Plantnode job report

Plantnode's unique solution combines software integrated with hardware to provide management and Performance Improvement teams with a 100% accurate real-time picture of plant floor operations.

In today's highly competitive 'knowledge is power' manufacturing environment, your ability to accurately identify productivity improvement opportunities is essential to making business decisions that improve plant performance and profitability.

Plantnode connects directly to each piece of equipment, picking up basic signals such as machine state (running or idle) and machine speed. The system then delivers accurate, detailed, flexible reports that can be viewed with any standard web browser, providing the option of remote monitoring from any PC or web-enabled wireless device.

Management is able to monitor the status of production equipment and compare actual versus targeted set-up times, run speed and downtimes as well as chronological reports to display information at specific points in time. They can also view real-time reports on the performance of production equipment and the entire plant to analyze shift profit, job profit, and daily, weekly or monthly job variances.

Getting down to details, management can review comparative results by machine, product and part number to analyze expected, previous and remaining production values against target yield and scrap rates to reduce waste, increase throughput and ensure quality. Plantnode also provides alerting capability, ensuring that supervisors, maintenance and management can be automatically notified by email or pager when data values reach predefined levels, or when a machine goes into a particular state for a given duration. These notifications instantly communicate key events to the right people to ensure a rapid response.

"The first day we implemented the Shoplogix solution, productivity increased by 10%. Within six weeks, we saw a 29% increase in productivity that translated into a 22% savings in labour cost per tire. As a result, our average throughput in one plant increased from 136 to 175 tires per day with the same equipment, labour and time."

Kenneth Chaun, Sr., Zone Manager, Retread Division, Kal Tire

STRENGTH OF EXPERIENCE

EMPLOYEE EFFICIENCY STREAM

The Plantnode solution is designed to empower people to do what people do best and to use technology to do what technology does best.

Much of your manufacturing plant's hidden strength lies in the experience of your plant employees. They know the equipment better than anyone, but they aren't given real-time data on how they're performing against production goals.

Plantnode allows you to leverage the experience and skill of your employees by giving them the information they need to more accurately assess their own performance and make immediate decisions that impact production efficiency.

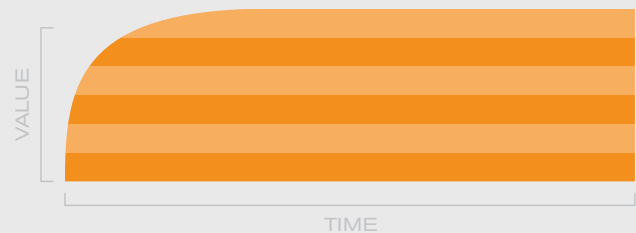
From an LED display above the equipment, employees can see the variance between job performance goals and actual machine performance. Key metrics can also be displayed in dollars to help employees understand the impact they can have on the profitability of the job they're currently running.

While the Plantnode system records equipment running time and downtime automatically, the operator uses a barcode scanner to input job standards such as set-up time, run duration and quantity to be produced. The operator also barcode scans the reasons for downtime from a sheet containing standard value barcodes. This automated approach to data collection relieves the operator from performing manual data collection while ensuring accurate and complete data.

Shoplogix recognizes that sustained performance improvement cannot be achieved by management alone. By harnessing the input and experience of the entire plant team, Plantnode fosters a cooperative team environment and a culture of continuous improvement that forms the basis of a sustainable competitive advantage.

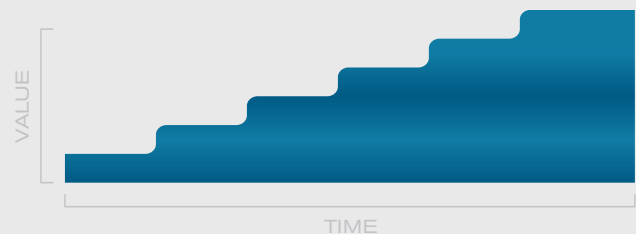
EMPLOYEE EFFICIENCY STREAM

Value realized is immediate and dramatic.



AUTOMATED DATA STREAM

Value is delivered incrementally as Performance Improvement initiatives are executed.



"The visual nature of the Plantnode solution had an immediate and significant impact on the way our operators performed their jobs. Our operators love working with Plantnode as it leverages their skills and experience, enabling them to make an even bigger contribution."

Willie Kea, Process Engineering Manager, North State Flexibles

Is Plantnode® right for your plant? *If you meet any of these criteria, the answer is YES.*

If you are frustrated by inaccurate and incomplete manually recorded production data;

If the productivity of your employees impacts the performance of your plant floor equipment;

If the your production operation is characterized by frequent changeovers.

If you need to improve operating efficiency and better utilize real-time production data to impact your bottom line;

If you want to equip your Performance Improvement team with 100% accurate production data;

If you are considering a network-installed PLC-dependent software solution but don't want to commit the required time, IT resources and money to the task;

If you want to collect accurate real-time data from non-PLC controlled assets.

ASK US ABOUT OUR PROOF OF CONCEPT APPROACH. IN JUST FOUR WEEKS, WE'LL PROVE TO YOU THAT THE PLANTNODE SOLUTION WILL CREATE VALUE FOR YOUR ENTERPRISE.

How it works:

AUTOMATED DATA STREAM

In the patented Plantnode approach, data is collected by a small device that is connected directly to the heartbeat of your plant equipment. This Plantnode device captures a real-time and 100% accurate reading of machine state (running or idle) and production speed or count over time. Additional signals can also be captured.

On the plant floor, the employee uses a barcode reader to scan the job order (1), thereby recording the standards for the job such as set-up time, run duration, run speed and run quantity. Barcoding is used during the production run to record reasons for downtime and scrap, eliminating all need for manual data input.

The Plantnode device calculates the variance between the job performance standards and the actual machine performance.

100% accurate data is delivered in real time via a web browser so that reports and analysis are available immediately, highlighting opportunities to drive performance improvement (1a).

EMPLOYEE EFFICIENCY STREAM

An LED display on the plant floor in plain view of the plant employees displays the current operating mode and the variance between the target and actual performance in real time (1b). A positive variance appears in green text and a negative variance in red text, while information within a user-defined range of target is displayed in orange.

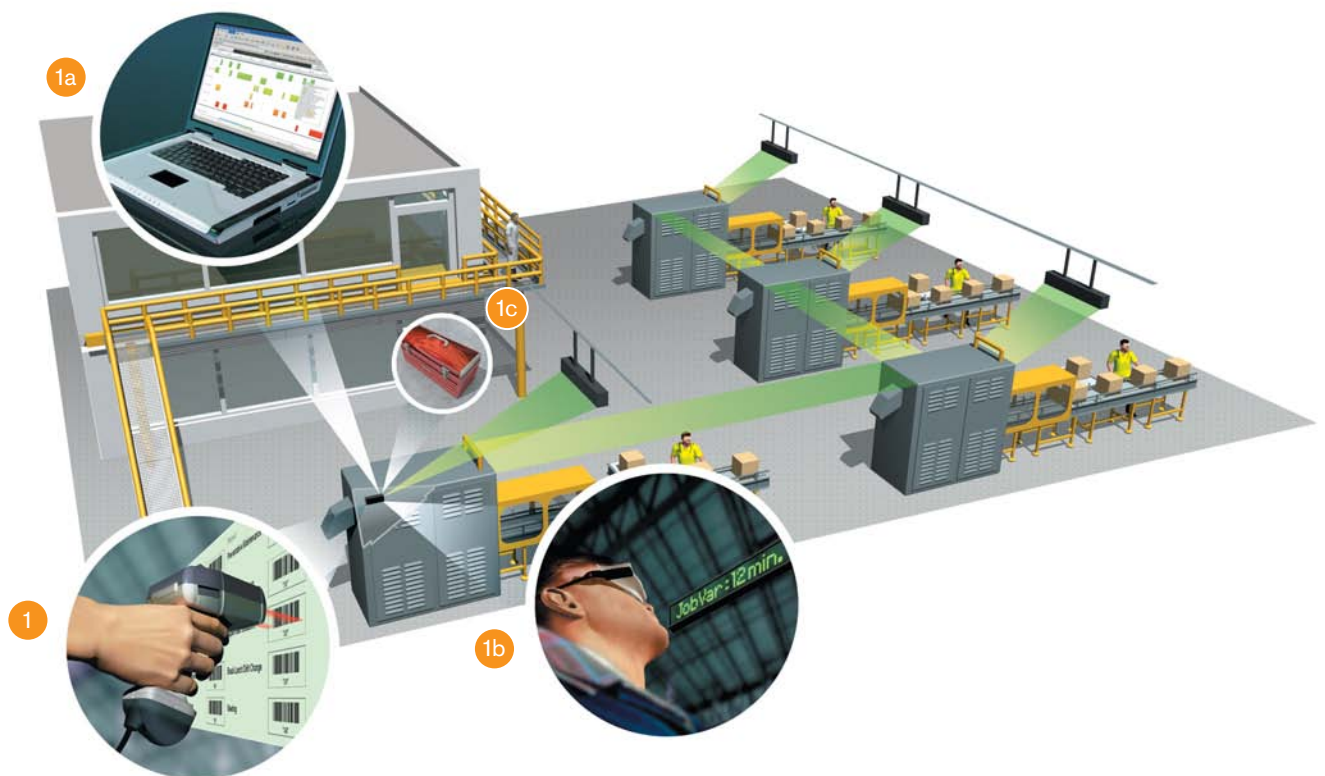
The visibility of this real-time data stream has an immediate impact on employee performance, particularly among operators. First, it enables operators to draw on their skills and experience to make immediate decisions that directly impact productivity on the job they're running. Secondly, because other individuals in the plant are able to see whether the job is making money or losing money for the company, the operator is highly motivated to improve his or her performance, and management can immediately redirect resources as opportunities arise.

MANAGING DOWNTIME

When a machine becomes idle, Plantnode automatically displays the idle state on both the LED board and on web-based screens. If maintenance is required, the operator scans the appropriate barcode, and the system automatically notifies the maintenance department by email or pager (1c). The LED display shows "Awaiting Maintenance" along with the elapsed wait time in minutes.

When the maintenance employee arrives at the machine, an additional barcode scan records that maintenance is underway. The system calculates the duration of the maintenance response and begins to count the duration of the repair or replenishment task.

Plantnode's ability to alert, calculate durations, and display machine status and idle time translates into improved accountability, much faster response times, and significantly reduced downtime.



A strong argument

The most common alternatives to Plantnode are software applications that are installed on an existing network to manage performance. Before you consider a network-installed software solution, consider this...

NETWORK-INSTALLED, PLC-DEPENDENT SOFTWARE	PLANTNODE®
Requires that you install software on your corporate network and devote IT staff to implement and manage it.	The patented Plantnode solution features a small self-contained computing device that includes both hardware and software, usually installed in the electrical panel of each piece of plant equipment. Plantnode requires no installation of software on your corporate network, so the demand on your IT resources is minimal. All we need is a network cable for VPN access and a unique IP address. The Plantnode data can be accessed from any web-enabled device.
Requires that all equipment is PLC-enabled (Programmable Logic Controller). Older equipment gets left out of the data collection solution, resulting in incomplete information.	Plantnode can be connected to any type of manufacturing equipment, regardless of its age and whether or not it's PLC-enabled. Because Plantnode can run independent of a PLC, it's the ideal solution for plants that have a combination of PLC-enabled and non-PLC-enabled equipment.
Total cost of ownership is very high since these solutions require a lengthy implementation time of several months, involving multiple layers of technology integration, customization, testing, training and ongoing support.	Plantnode costs very little to own, implement and support. A single Plantnode solution can be installed and implemented in only a few hours. A full plant implementation typically takes two weeks and requires about one hour of training time for employees, management and Performance Improvement team members. Ongoing IT support is not required.
You wait months to determine if the solution is delivering benefits.	Plantnode records an accurate performance baseline as soon as it begins to run, allowing you to quantify performance improvements quickly. Our customers often hit production records in the first few weeks, so the value of the solution is easy to assess quickly.
Inherently provides only one path to value – analyzing and reporting machine data to management and Performance Improvement teams.	Our unique approach provides value in two distinct streams. First, we offer traditional data management and analysis, providing management and Performance Improvement teams with the insight to make decisions that will drive positive change. Secondly, the plant floor LED display enables operators to immediately take advantage of opportunities for improvement, using their knowledge and experience to make changes to meet or exceed targets. This unique employee efficiency stream drives immediate improvement in equipment performance.
Causes complete loss of operations data when the company network goes down.	Plantnode's distributed computing model ensures that data is collected from the equipment, independent of whether the company's network is running.

SHOPLOGIX™ PLANTNODE®

BENEFITS

Maximum Profitability. Plantnode lowers the total cost of production and leverages existing investments in people, process and technology. Employees are empowered to make immediate decisions that support business goals, while Performance Improvement teams are better able to identify opportunities for improvement in productivity and profit.

Speed. Plantnode offers the quickest path to manufacturing efficiency. It can be implemented in a matter of hours, requires no special customization, and requires virtually no training to get started. Once implemented, Shoplogix' unique approach to performance improvement accelerates the value curve, demonstrating an almost immediate and measurable impact.

Integration. The market's first integrated technology solution, the patented Plantnode acts like a machine polygraph, ensuring you see the machine performance truth, by combining the power of software analytics with the strength and stability of embedded technology. Because it doesn't need to be installed on your network, it doesn't put demands on your IT staff.

Accuracy. By connecting directly to the heartbeat of your equipment, Plantnode captures 100% accurate information, eliminating the guess work in production reporting and analysis. Barcoded information augments the machine data and eliminates the possibility of input errors.

Accessibility and Visibility. Visible through large LED displays on the plant floor and accessible from any web-enabled device, data is available to operators, supervisors and managers onsite and from remote locations. Performance Improvement teams also have continuous access to real-time production information.

Adaptability and Scalability. Plantnode is capable of connecting directly to any type of manufacturing equipment to acquire data, including legacy equipment. Plantnode creates a network of monitoring devices that link multiple machines in your production line, plant and enterprise to provide a complete view of operational performance.

"With the Shoplogix manufacturing experts on hand, installation was complete in only half a day with virtually no downtime. The product was highly intuitive and within a few hours our operators were trained and interfacing with the Plantnode solution without skipping a beat."

Salvador Miranda, Special Projects Manager, Sigma/Q



Shoplogix is the world's leading developer of real-time performance management solutions that enable manufacturers to reach their full potential by leveraging the most immediate and accurate information.

We help manufacturers dramatically improve performance, and we do it fast.