



PT Chang Shin Indonesia

Stepping up production while keeping costs down with a switch to smarter maintenance

Overview

The need

To achieve its goal of doubling production capacity while keeping tight control of costs, major shoe manufacturer PT Chang Shin Indonesia set out to unlock greater efficiencies in its operations.

The solution

An IBM enterprise asset management solution provides clearer visibility of assets, downtime and costs – enabling a more predictive maintenance strategy and increasing utilization of production line machinery.

The benefit

Planned maintenance has increased from 40 to 80 percent, helping to reduce downtime and boost utilization of production line assets – enabling greater efficiency and more competitive pricing for clients.

“If you want to double your production capacity, you don’t necessarily need to double the number of machines and employees on your production line,” says Arie Fitriyadi, IT Manager at PT Chang Shin Indonesia. “With a more intelligent approach to enterprise asset management, you can make better use of the resources you already have – which means you can do more with less.”

Major shoe manufacturer PT Chang Shin Indonesia has set a target of doubling its manufacturing capacity by 2018, and tripling it by 2023. But this rapid expansion needs to be carefully managed. To defend its strong position in a crowded market, the company must also keep costs firmly under control.

Rather than doubling the size of its production operations, the firm decided to make smarter use of its existing resources. Specifically, it aimed to boost the availability and utilization of the machinery on its production line. By combining a more reliable and efficient production line with more effective supplier management, it would also be able to switch to a just-in-time manufacturing strategy.

To pinpoint opportunities for improvement, the company needed a clear view of the location, condition and maintenance costs of production line equipment across its entire network of factories. Its existing asset management processes, which were based on a complex system of spreadsheets, were unable to provide this kind of insight. The company decided to engage Talian, an IBM Premier Business Partner, to help it find the perfect solution.

“IBM Maximo Asset Management enables us to maintain seamless operations, which in turn allows us to offer better prices to our customers. Since the footwear industry is extremely competitive, this makes a real difference to our ability to win business,” says Arie Fitriyadi, IT Manager at PT Chang Shin Indonesia.



Solution components

Software

- IBM® Maximo® Asset Management

IBM Business Partner

- Talian
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Real-time visibility across multiple production sites

With Talian's support, PT Chang Shin Indonesia deployed IBM® Maximo® Asset Management, a sophisticated solution designed to help companies make the best possible use of their assets.

Engineers working at the company's seven plants use Maximo to record each asset's location and condition, and all the maintenance activities they perform. As a result, for the first time, the company has real-time visibility of all of its production line machinery, which it can use to support smarter operational decision-making. Moreover, eliminating the old manual spreadsheet-based processes allows engineers to work more productively – focusing on maintenance tasks instead of paperwork.

Adopting predictive maintenance

The biggest impact of the company's new enterprise asset management strategy is that it enables a switch of focus from reactive to predictive maintenance.

Arie Fitriyadi continues: "Managing the condition of our assets is an extremely complex task, because we use many different types of equipment, each with its own maintenance requirements. Historically, we relied predominantly on reactive maintenance – fixing things when they break. As a result, we sometimes had to suspend production while we waited for a replacement or repair. As our industry became more and more competitive, the risk of not being able to deliver products to clients on schedule was no longer acceptable."

To mitigate this risk, the company also performed regular planned maintenance – but it wanted to find a way to optimize its maintenance schedules. Instead of taking a machine offline for maintenance every few months, it wanted to be able to analyze how much each machine was being used, and only interrupt production when it was actually necessary.

"With Maximo, we can examine the maintenance needs of each piece of equipment, predict when it is likely to fail, and schedule repairs or purchase a replacement in advance," adds Arie Fitriyadi. "The predictive approach helps to maximize the availability of our machinery – and therefore increase the overall utilization of the production line.

"We can produce more goods in less time with the same number of machines, reducing the need to invest in additional machinery as we expand our capacity. We can also be much more confident about promising on-time delivery to customers."

“IBM Maximo enables us to unlock game-changing efficiencies across our manufacturing operations.”

— Arie Fitriyadi, IT Manager, PT Chang Shin Indonesia

The Maximo solution also features advanced root-cause analysis that helps PT Chang Shin Indonesia spot the underlying sources of persistent breakdowns, enabling it to take corrective action and prevent further problems.

Arie Fitriyadi comments: “With these smarter approaches to predicting faults and planning maintenance, we are already on track to reduce the proportion of reactive maintenance we perform from 60 percent to 20 percent by 2016.”

The right equipment, when and where it is needed

In the past, one of the main barriers preventing PT Chang Shin Indonesia from making better use of its resources was its limited insight into the current location of equipment and raw materials.

“Previously, production and maintenance processes were not integrated with our inventory system,” adds Arie Fitriyadi. “This made it difficult to ensure that we had the correct spare parts to complete repairs, and the right raw materials for production of certain goods, at the appropriate times.

“Now, Maximo automatically tracks our storage and consumption of materials, ensuring that we are prepared for any upcoming work. Adopting Maximo has enabled us to shift from monthly production plans and procurement to just-in-time manufacturing.”

Switching to smarter procurement

The IBM Maximo solution has also enabled PT Chang Shin Indonesia to integrate its procurement processes with its maintenance and inventory systems. Analyzing all the data provides the company with greater insight into which suppliers offer the best-quality products at the most competitive prices, helping to optimize its purchasing strategy.

Building on its success, the firm now plans to further streamline manufacturing by labeling raw materials with barcodes, enabling them to be tracked automatically throughout the production line.

Arie Fitriyadi concludes: “IBM Maximo enables us to unlock game-changing efficiencies across our manufacturing operations and to fully capitalize on our existing resources. This insight supports our efforts to offer the best possible prices and service levels to customers. Critically, the IBM solution plays a vital role in our plan to double production capacity, without the expense of a proportional increase in assets and personnel costs.”

About PT Chang Shin Indonesia

PT Chang Shin Indonesia specializes in producing footwear for large sports companies, manufacturing 20,092,800 pairs of shoes every year across its seven plants in Indonesia. The firm is located in Klari, Karawang, West Java, Indonesia. PT Chang Shin Indonesia is a company of Chang Shin Inc. Group, which is based in Korea and also operates plants in China, Korea and Vietnam.

To learn more about PT Chang Shin Indonesia, please visit www.dskorea.com



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Talian Infodinamika, an IBM Premier Business Partner, delivers IBM Maximo solutions to help its clients manage their assets more efficiently and effectively. The company employs numerous certified Maximo consultants with an in-depth understanding of how Maximo solutions can benefit companies in specific industries, such as oil and gas, power generation, manufacturing, media, and telecommunications. Talian has a strong presence in the ASEAN region, with market and service coverage spanning across Asia, Africa, and Australia.

To learn more about products, services and solutions from Talian, please visit www.talian.co.id

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