

BTP Improves Maintenance Processes with Prometheus Solutions



Company

- Name: Brasil Terminal Portuário
- Location: Santos, Brazil
- Industry: Shipping
- Service: Port terminal
- Website: <http://www.btp.com.br>

Challenges and Opportunities:

- Looking to improve maintenance processes
- Launching an improvement project that requires a scheduling

solution, a mobile solution, and reporting capabilities inside ERP system

Prometheus Solutions and Services Chosen:

- ERP Advanced
- Prometheus Mobile
- Prometheus KPI
- On site training

Results:

- Reduced number of cranes down at a time from an average of 2.5 to 1
- Reduced maintenance backlog
- Better PM compliance
- Reduced scheduling time by 88%
- Leveled work order capacity across weekly schedules
- Improved notification data for reliability reports

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About BTP

Brasil Terminal Portuário (BTP) was established in 2007 to build and operate a multi-use terminal for handling shipping containers and liquid cargo. BTP operates in the right bank of the Santos Port in Brazil. It is a joint venture between the Terminal Investment Limited (TIL) and APM Terminals and is the largest port in Latin America.

BTP focuses on sustainable business development and quality training and professional qualification for all employees while continuing to improve operations.

Challenges

To keep up with demand, BTP planned to improve maintenance process efficiency in order to better handle its workload. On a day to day basis, BTP operates cranes to load and unload containers from the ships at the port and to organize containers in the storage yard. BTP was looking to improve their maintenance processes, including routine and preventative maintenance of their ship-to-shore and rubber tired gantry cranes. They established a four-tier improvement project that required a scheduling solution, a mobile solution, a custom interface to bring data into SAP from another system and reporting capabilities inside of SAP. When the project was established, BTP was spending an entire day each week scheduling maintenance for the next week. BTP wanted to improve scheduling efficiency while improving data accuracy and staying on top of their preventative maintenance in order to successfully maintain equipment while keeping up with its workload.

BTP's Project Pillars

Scheduling Solution

Mobile Solution

Custom interface for
external data brought
into SAP

Reporting
capabilities
inside SAP

Solution

The first need BTP saw was a scheduling solution that worked with their ERP system. Prometheus Scheduler had all of the capabilities needed, and BTP began working with Prometheus Group. However, as they learned more about Scheduler and Prometheus Group as a whole, they opted to purchase the entire ERP Advanced suite. They saw the benefits ERP Advanced offers as a solution to enhance SAP as well as the value of Prometheus Group's expertise and knowledge of SAP and how both could help better utilize the system.

Finding a mobile solution was a much more difficult task, as the nature of BTP's maintenance work makes it almost impossible without incorporating specific requirements. First, they didn't have the luxury to spend months having functionality and screens developed for all their specific scenarios. Second, their maintenance personnel do most of their work in high elevations and hard to reach spaces, like the top of a crane, where network access and availability could be limited, and the user doesn't have the time or space to fumble through multiple screens.

Prometheus Mobile was the only solution that satisfied these requirements as all the functionality is out of the box, everything can be accessed both online and offline, and the simplified screens can be configured to only display the fields absolutely necessary to input in each situation. Prometheus Mobile also allowed them to access the application from any device without complicating their infrastructure with additional hardware or middleware.

The third facet of BTP's improvement project was a solution for reporting within their ERP system that

would compile the data needed to improve maintenance processes. BTP found what it was looking for with Prometheus KPI reports. The reports are customizable and are accessible directly in SAP. BTP selected Prometheus KPI reporting for the ease of use and the full system visibility that it offers.

The final pillar of BTP's project was a custom interface built inside of SAP that would input data from an external system that collects measurement readings for all equipment. Before the project, BTP had to manually input all data from this external system into SAP. Prometheus Group built a custom interface for BTP that automated the data input and allowed BTP to keep their data accurate and consistent. Prometheus Group often works with customers to adapt to their requirements and create custom features that suit our customer's needs.

Prometheus Group was the only vendor that had a viable solution for each of the four pillars of BTP's project. Using one company for all four solutions made implementation and training simple and got BTP up and running using the products in exactly four weeks.

Results

BTP has seen great results from its improvement initiative enabled by Prometheus products. BTP was able to reduce the number of Ship To Shore gantry cranes down at a time from an average of two and a half down per day to just one. This additional equipment uptime enables increased productivity and greater overall efficiency. Another area of improvement was the reduction of backlog. BTP's maintenance backlog is now better controlled and monitored through KPI reports. BTP has greatly reduced its backlog and plans to reduce it even more as increasing efficiency allows for greater time to do so.

Another area of tremendous improvement was BTP's maintenance scheduling. Weekly scheduling used to take a full day to complete for the week ahead, but now, with Prometheus Scheduler and ERP Advanced, BTP is able to generate a schedule for the entire month in one hour. This means that BTP is now planning **forty times faster** and has 80% more time to schedule future and preventive maintenance.

BTP has now leveled work order capacity across their week's schedule with the help of Prometheus ERP Advanced by scheduling a full weekly work load for each technician and scheduling resources to full capacity. This allows BTP to maximize wrench time and reduce the amount of work carried over from week to week. This, along with other improvements, has allowed BTP to better adapt to the expansion of operations and train the team to accomplish more work with better PM compliance.

BTP has also improved its notification and equipment asset data by using Prometheus Mobile, which means they are better and more closely tracking breakdowns, malfunction times, repair time, damages, and causes of equipment failure. This data improvement has led to more accurate reliability reports as well as improving their overall preventive maintenance schedule and predictive maintenance strategy, which in the end will reduce downtime and improve overall equipment efficiency.