



FreePoint[™]
Technologies Inc.

Job Shop Manufacturers

Application Notes

by FreePoint Technologies Inc.



Contact Us

+1.800.682.0486

info@getfreepoint.com

www.getfreepoint.com



About Job Shops

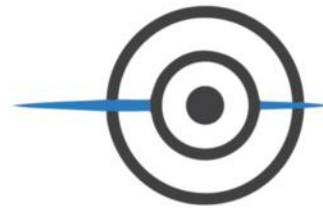
INDUSTRY OVERVIEW

A Job Shop is a type of manufacturing environment where production is focused on making specific products one customer at a time.

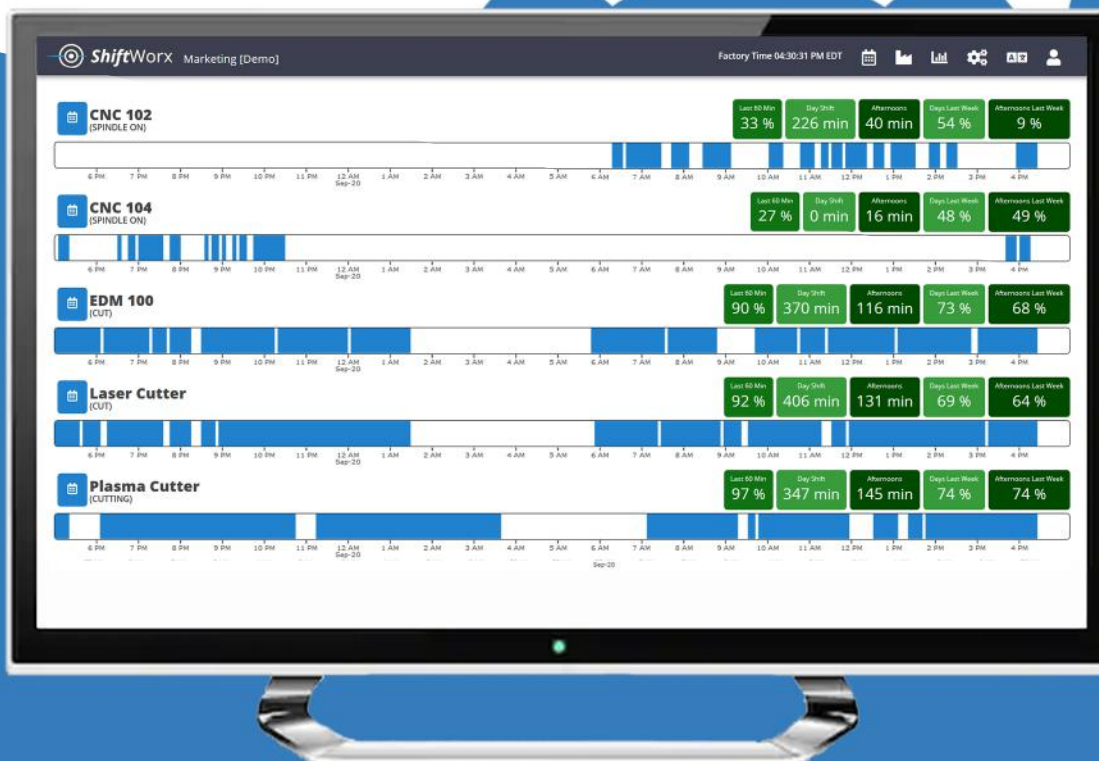
These kinds of manufacturers fit in the “high mix, low volume” category. Each unit produced is created according to precise customer specifications, resulting in highly specialized and customized products.

Examples of Job Shop Manufacturers:

- Machine Tool Shops
- Machining Centers
- Commercial Printing



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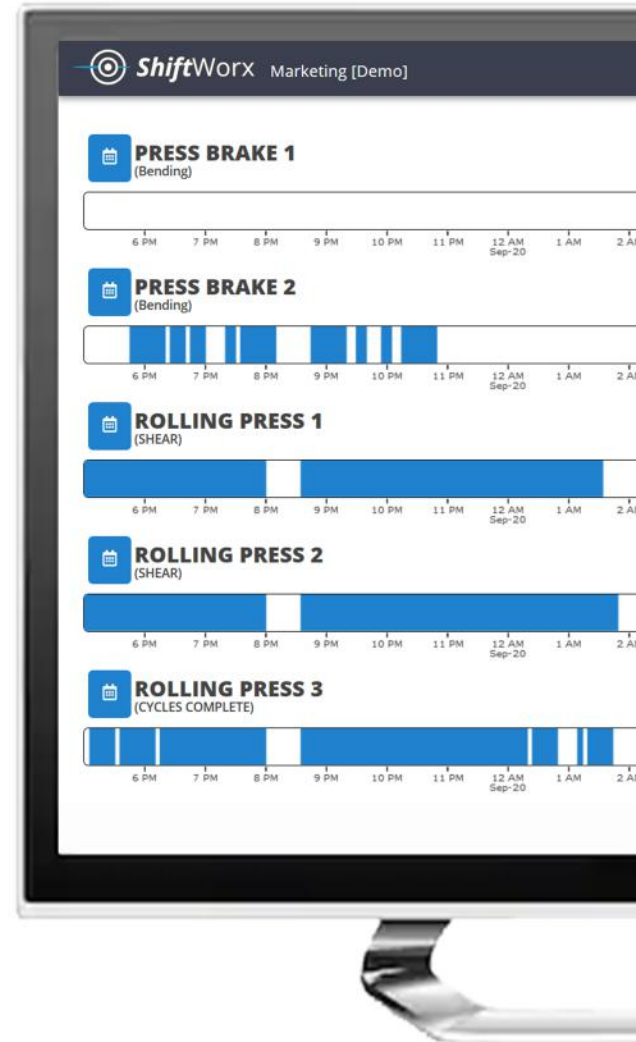


The Challenge

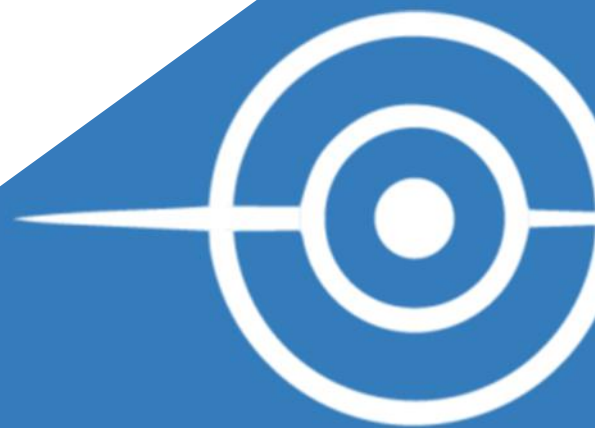
Manufacturers operating in a Job Shop type of machining environment have a wide variety of products with no real pattern as to when, or in what order things come through the shop. This makes the day to day operations very different and often unpredictable.

When implementing machine monitoring, many manufacturers aim to establish benchmark or baseline metrics. Baseline metrics allow manufacturers to compare their day to day operations to their benchmark to determine how efficient their production is.

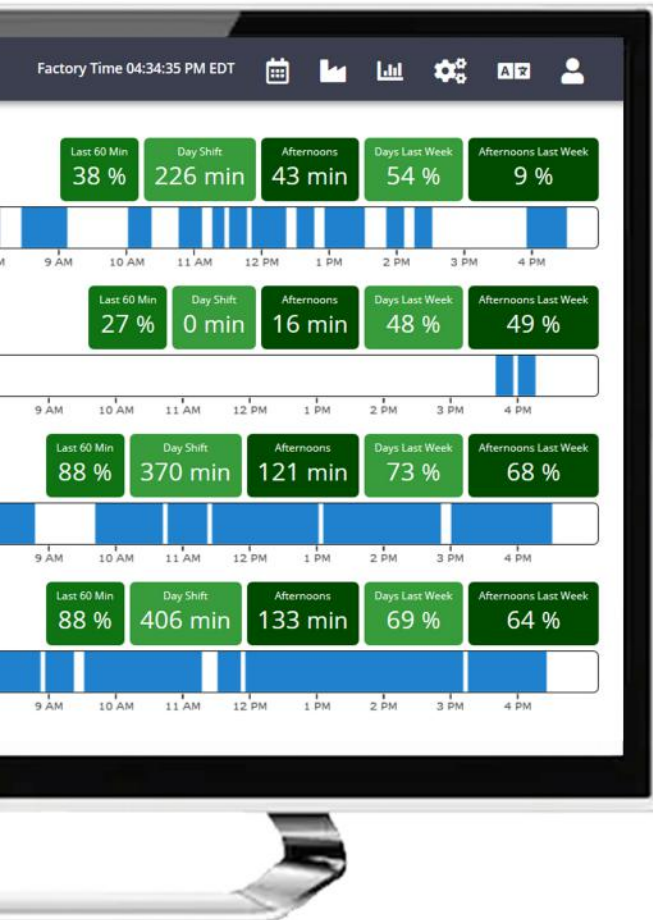
However, due to the unpredictability of daily operations in a Job Shop, it is challenging for these manufacturers to establish a baseline and by extension, determine what an efficient production rate is.



Without **baseline metrics**, it can be difficult to accurately determine the **efficiency of your process**.



The Solution



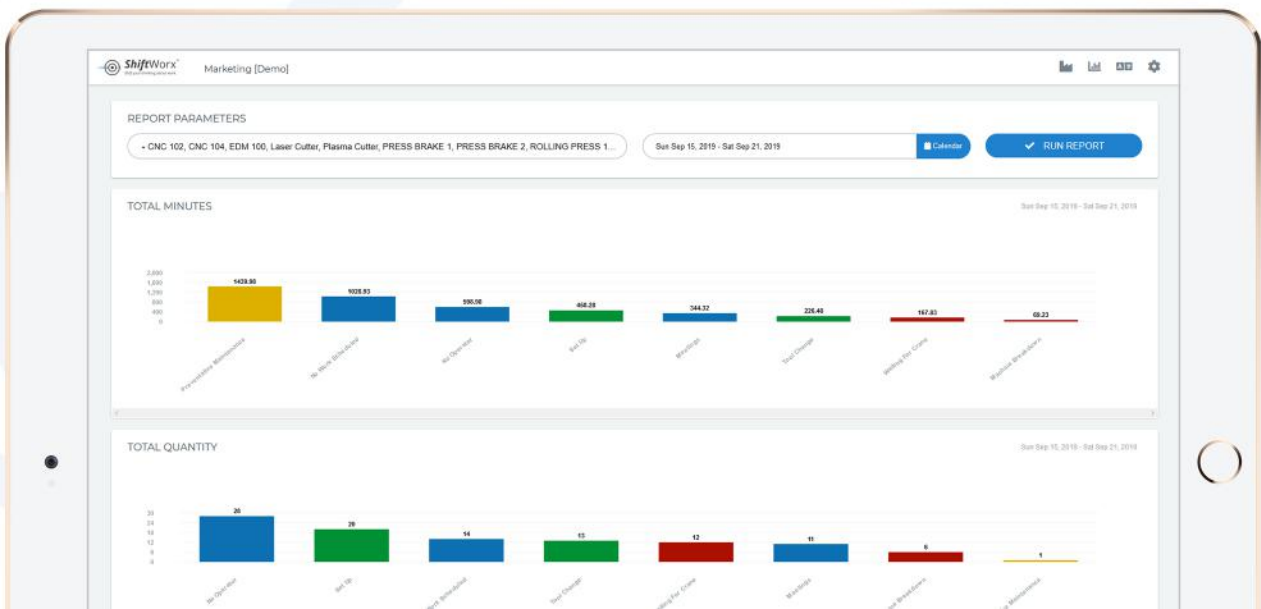
With the experience that we've gained working with such companies, we have found that a combination of the following key metrics is most effective:

- Machine Utilization
% of time the machine is adding value
- Total Number of Set-Ups
- Average Set-Up Time
- Total of All Other Time
when the machine is not adding value or being set up for a job

These 4 metrics combined provides:

- Operators with an indication of overall productivity
- Management with accurate insights into machine utilization and available capacity.

By obtaining empirical information on the reasons behind non-productive or underutilized assets, management is positioned to drive their continuous improvement efforts forward.



The Outcome

By leveraging the previously mentioned metrics, we have seen companies:

- Reduce Average Set Up Times
Remember, what gets measured gets improved
- Increase Scheduling Efficiency
By aggregating small non-productive periods to create a larger block of availability
- Improve CI Using Collected Downtime Reason Codes
- Use Empirical Data to Justify Equipment Investments

One company reduced their 'across the board' average set up time from 45 minutes to 25 minutes. Half of this was achieved by simply 'being aware' of the objective, and half by making small investments in equipment and altering crane scheduling priorities.

Another company was able to aggregate non-productive time on non-bottleneck operations, freeing up capacity and directly benefiting the bottom line. What challenges do you want to overcome? **There are various paths to becoming a "smart" factory: reducing downtime, improving scheduling and investing in equipment are just a few. Assess what aspects of your process you are looking to improve, and start from there.**



Interested in an IIoT Solution?

Reach out to us today to speak with an Account Manager.

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