

Optimize Labor Productivity

Client is a \$200M custom switchgear and heavy electrical equipment manufacturer in North America with 300+ workers. Their equipment is deployed in stadiums, data centers, IT offices, and large corporate buildings.



The Case

Recently, the client were facing issues with their job scheduling which lead to delays in their job orders, unplanned and unscheduled new job orders, and dropping of overall factory throughput. Lack of quality labor data on each job led to inefficient scheduling, bad resource planning and losing margins per job order.

The productivity was not measured properly and also declined as a result of the manual error prone tracking and monitoring of the production and worker efficiency. The number of orders shipped on time also declined and the important details of each job order were missed out most of the time.

Ramp.Digital

Looking at the requirements and the goals, the client decided for a consultation with Ramp Digital. Soon they knew that Ramp Digital is the right company for this task given the skills in business operations and technology and they didn't delay in the hiring process.



The Research Work

Ramp Digital began the research work with the site visits to understand and document the manufacturing process, site layout and infrastructure at the organization. Interviews of VP of production, plant floor supervisor, COO, CEO, Director of logistics and Planning and workers were conducted by the operations consultants at Ramp Digital to find out the labor planning challenges and the problems with the current tracking system. Ramp Digital was granted access to the key resources such as factory floor area, labor data, IT systems, and MES systems which were necessary to study to come up with best optimal solution for the client.

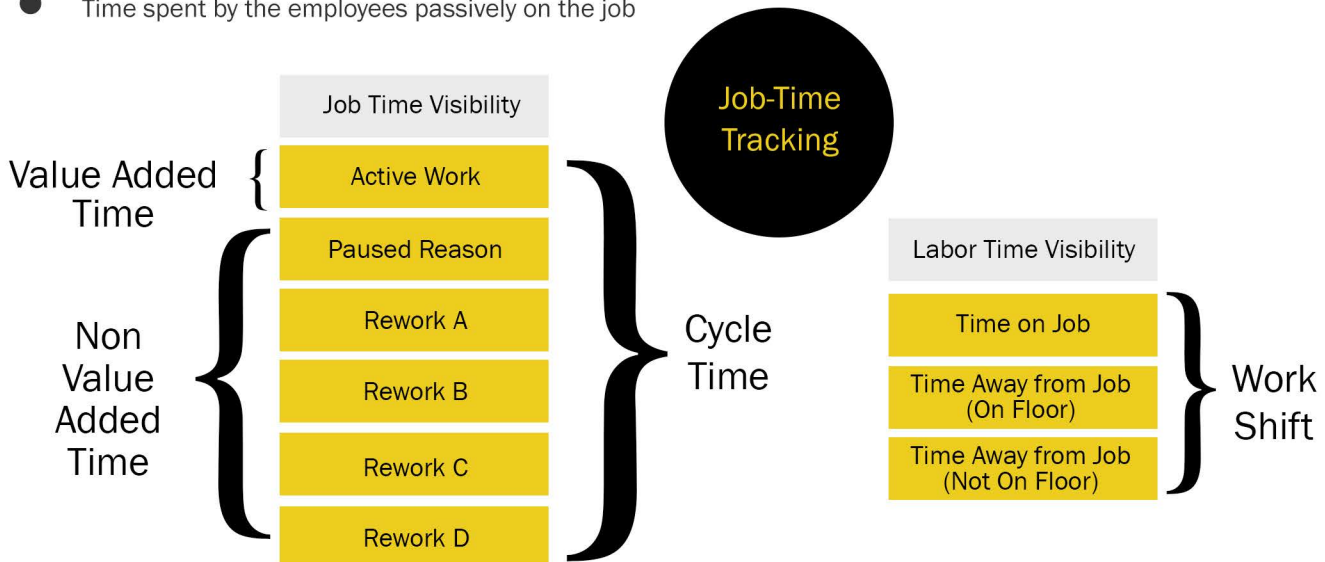
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The Proposed Solution

After analyzing the data collected via the interviews, IT system checkups, the tracking systems, and site visits, Ramp Digital offered the optimal solution to the Client. Ramp Digital proposed several Key Performance Indicators (KPIs) on various levels of the process to better track and monitor the activities, data, and status of the production.

The Solution Included

- Recording and segregation of the time spent by the worker on designated activities. [For example: Time spent on the assembly line and the time spent on the customer-ordered unit (job)]
- Keep track of the idle time and the accurate documentation of the reason behind the idle time.
- Time spent by each worker on each job and hence skill required for each job
- Tracking and monitoring the time spent by employees on each job daily, weekly, and monthly.
- Time spent by the employees passively on the job



Tools & Technologies Used

The solution was not merely theoretical. To track the essential data to improve labor productivity, job tags and employee tags were introduced, anchor points covering the target area of work in the process were designed, touch screen tablet to view real-time status of the job were provided including the tablet software and Google cloud software, Bluetooth, UWB and NFC based location tracking were developed and installed that gave up to 50 cm accuracy.



Results

Ramp Digital's solution enabled [Client] to gather accurate, near real-time, and near precise job time data which was not available before. The cycle time table generated lean manufacturing metrics and the complete production process was streamlined pipeline styled - Backlog - WIP - Release for Shipping. The productivity increased including the percentage of on-time shipped orders. Worker productivity majorly improved as they were connected in a single working cycle which kept them updated about the job status and prepared them for the upcoming tasks before time.

Ramp Digital

We are an IoT solutions company that uses sensor and cloud technologies to solve real business problems. We pride ourselves in solving hard practical problems whether it is identifying RoI from an IoT Use Case, selecting appropriate sensing and communication technology, designing and implementing a solution from best of breed technologies or developing IoT software and applications.

[Book Your Free Consultation](#) with us today to explore what IoT means to your and problems we can solve for your organization.