

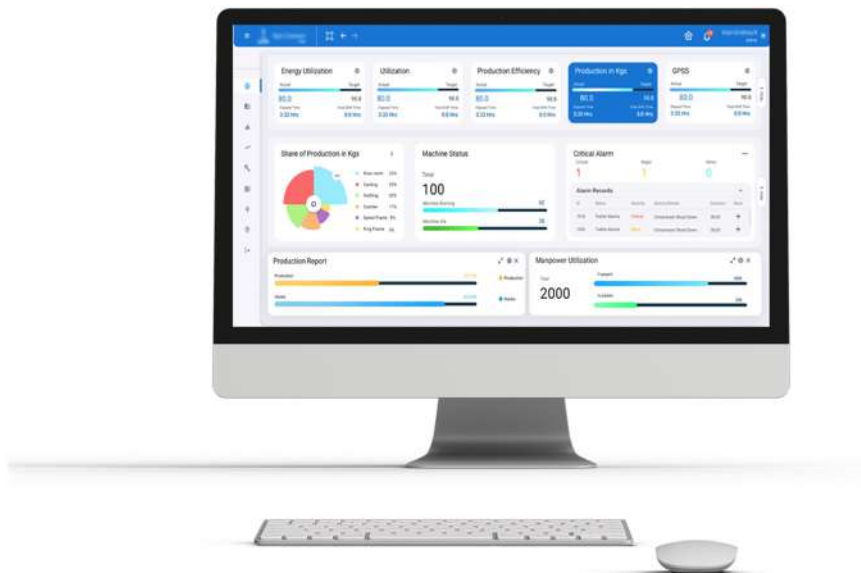
Intuitive drill-down Dashboard / Portal for textile Industry using React Technology



**How adaptation of intuitive
drill-down dashboard improved
operational efficiency in a Textile industry**

The textile industry is one of the oldest manufacturing sectors in India contributing to 40% of our gross export earnings. Textile manufacturing and process involve a multitude of processes right from fibre manufacturing to spinning, knitting, weaving, dyeing, and packaging, employing numerous equipment. Using computer-based information and control systems textile industry manufacturing processes are effectively monitored and controlled. As it continues to evolve, the adoption of automation has helped this sector tremendously in terms of productivity, efficiency, and quality.

Our association with the textile industry has given us good insights into the textile industry vitals and important data points which are of main concern to manufacturers. Software for bale management machines to customize products for the industry was one of the main processes considered.



Challenges

Automation continues to cause major disruptions in the textile industry bringing in information-related challenges in its wake. Some of the major areas, where textile industries face challenges include:

- Quality management
- Raw material management.
- Measuring productivity.
- Monitoring energy consumption.
- Human resource management.
- Machinery maintenance.
- Garnering detailed insight into individual process output.

Each process is governed by a set of quantifiable KPIs (Key Performance Indicators), displayed as numbers. Analyzing these numbers for trends was not possible. Hence collating and translating all the raw data into 360-degree insights to make data-driven decisions for improved operational efficiency was difficult.

Solution

As a solution, we proposed a drilled-down approach implementing design thinking principles on React framework. This approach facilitated the visualization of all the information/data with interactive graphical representations that are easily and quickly understandable. It also enabled an overview of all vital parameters through different types of charts and tables. This offered users a telescopic view of the performance of the plant, by displaying parameters from plant to unit, unit to device, device to a specific parameter.

The use of React framework for representing these KPIs gave more control over data and better visualization. In addition, the generation of reports and details of the product KPIs with just a few mouse clicks without any training was made possible.

Benefits

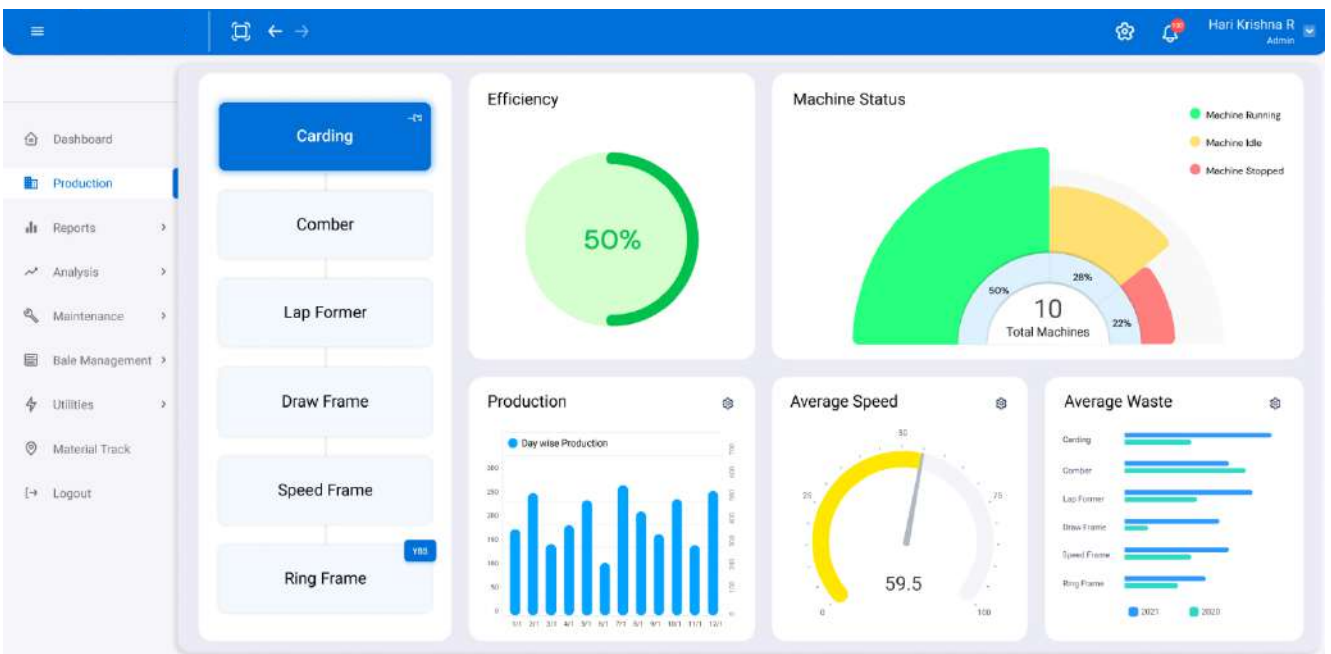
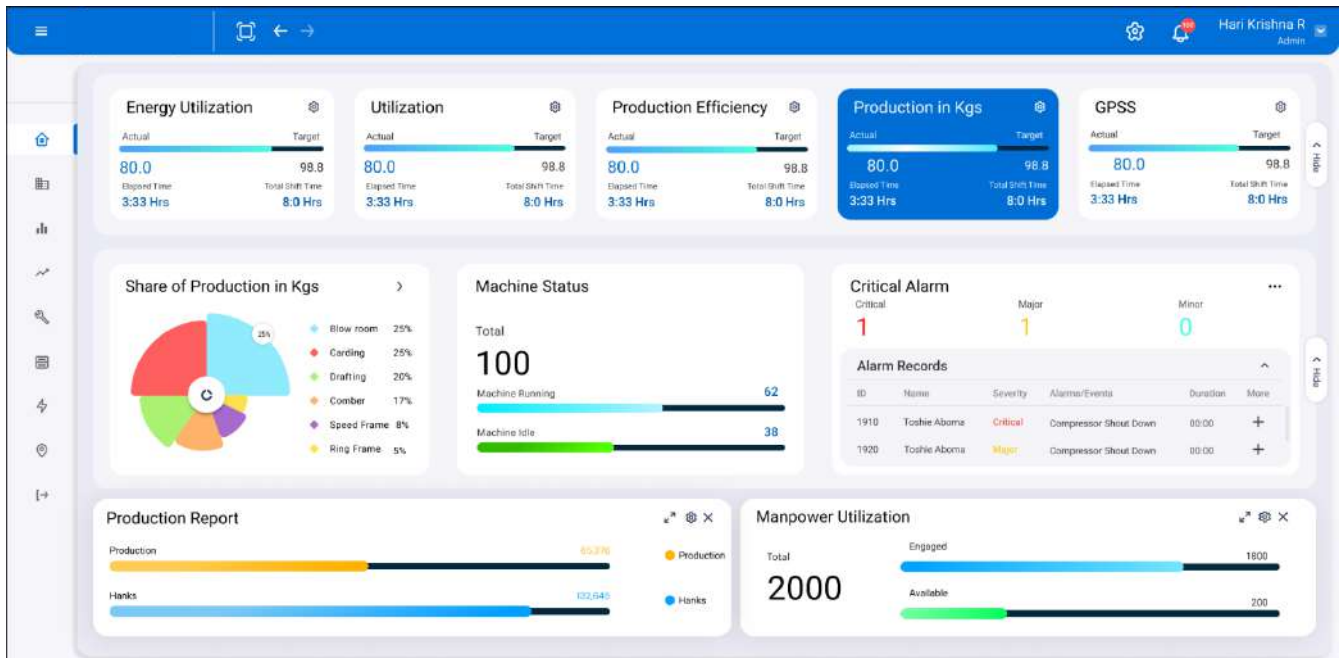
- From only bird's view to detailed down to device level view to assess the plant performance.
- Quick and easy understanding of the trend of each KPI (Key Performance Indicator).
- More in-depth insight into data with just a few clicks in the user interfaces owing to data granularity.
- Interactive drill-down offered better data analysis and visualization of multiple charts and reports eliminating the need for creating new dashboards.
- Better data insights from a single report view from React, by harnessing better client-side data processing capability.
- Improved server performance and server querying times.

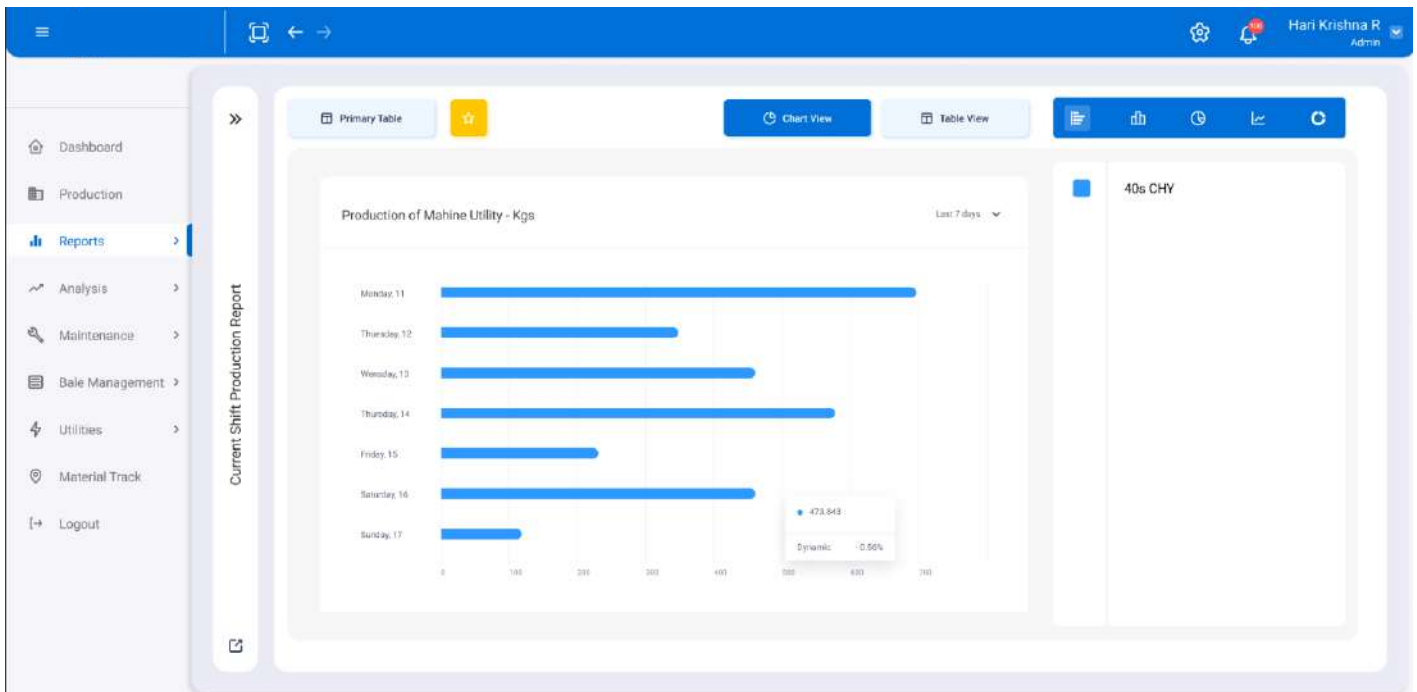
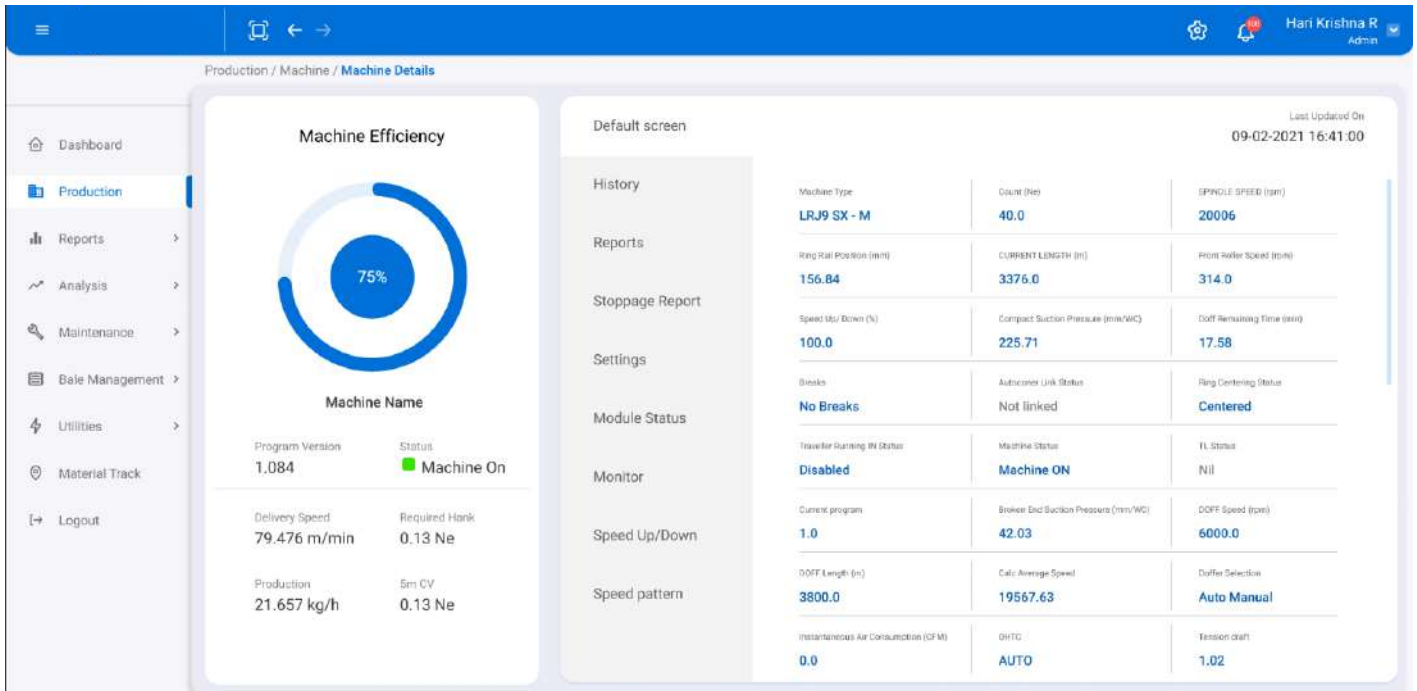
Stories

We have been working with the textile machinery manufacturers for Automation and Reporting software, including machines for bale management for an industry-leading brand owner. Bale management refers to the process of testing, mixing, sorting bales according to the characteristics of fiber for producing desired quality of yarn at a minimum range of cost. The application should have the ability to automatically generate the issues for Mix or a Count, with all the Lay down or Issues having a consistent quality parameter in terms of average and SD.

NSP has implemented design thinking for an improved User Interface with a role-based KPI generator with the drill-down approach to articulate and analyze the performance of the process.

Dashboard Overview







Powering Trusted & Connected World

Address

98, NSP Square, BTM Stage 4th Stage, 8th Main,
80 Feet Double Road, Vijaya Bank Layout, Bilekahalli,
Bengaluru, Karnataka 560076

Contact Details

Email: reachus@nspglobaltech.com

Call: +919353189566 | +91 9845661763

Website: www.nspglobaltech.com

