

# LINEAR<sup>2</sup>

Introducing  
World's First AI driven  
Fully Automated  
Planning Platform for  
Apparel Industry

CAPACITY  
SQUARED



# CAPACITY SQUARED

WORLD'S FIRST AI DRIVEN FULLY AUTOMATED  
PLANNING PLATFORM FOR APPAREL INDUSTRY

## ABOUT CAPACITY SQUARED

In this challenging global environment, amidst rising competition, apparel manufacturers globally face constant pressure to improve production capacity.

CAPACITY SQUARED is a tool built in collaboration with planners of one of the leading apparel manufactures in the world, to automate and optimize the process of capacity planning.

By automating the planning function, CAPACITY SQUARED eliminates human error and biases inherent in the manual planning process, while ensuring accuracy and consistency, saving of thousands of dollars in resources committed on the planning function.

As the world's first intelligent capacity apparel planning tool, CAPACITY SQUARED is powered by algorithms built on AI which ensures resources in each SBU is optimized, providing the manufacturer the opportunity to generate millions of Dollars in additional revenue.



## KEY BENEFITS

- **20% PLANT CAPACITY ENHANCEMENT**

Comparisons with non-automated production plans, under factory environments have confirmed capacity enhancements up to 20%, enabling factories to accept more orders leading to additional revenue opportunities.

- **99.5% ALLOCATION EFFICIENCY**

Under strict industrial and controlled environments, the AI based planning engine has delivered production schedules with factory efficiencies that are unparalleled and unprecedented compared to the conventional non-automated approach.

- **<5 MIN PLANNING TIME**

Significant reductions in planning from several hours to less than 5 mins enables planners to accommodate ad-hoc developments in the factory floor and supply chain more frequently and accurately, leading to less disruptions, timely delivery and lower variable costs per unit.



- **PLANNING ENGINE POWERED BY AI**

Leveraging cutting edge algorithms, data scientists at Linear Squared have developed the world's first AI driven capacity planning optimizer for the Apparel industry, that has been tested and validated under factory conditions for guaranteed results.

- **RELIABILITY AND DATA SECURITY**

CAPACITY SQUARED platform is developed with cutting edge technology making it highly reliable for continuous usage across multiple factories and by multiple planners simultaneously. The flexibility to host CAPACITY SQUARED in the infrastructure of the manufacturer ensures a secure and reliable environment to maintain sensitive data.

## EXTENDED FEATURES AND FUNCTIONALITY



- **Customisable to any factory size, line capacity and complexity...with the flexibility to define the factory**

"Customized optimal production plans at factory level requires accurate plant specific inputs such as Line costs and Production efficiencies. User interfaces of CAPACITY SQUARED are designed to facilitate recreating the status quo of the plant environment within minutes, ensuring accuracy and consistency, especially for manufacturers with multiple production plants.

- **Manage calendar and working hours...to reflect realistic factory floor conditions for time horizon**

Generate an accurate production plan which incorporates actual resource commitments on a daily basis.

Accuracy of the production plan depends highly on how well factory resource availabilities are factored in the planning time horizon. CAPACITY SQUARED allows planners to manage a calendar which allows users to define working days and hours for each factory.



- **Extract data inputs from ERP system...ensuring order detail accuracy and consistency**

Streamlined data extraction ensures accuracy and consistency of inputs where Integration between manufacturer ERPs and CAPACITY SQUARED platform is paramount in avoiding inconsistent inputs. Integration will also allow users to generate production plans based on real time updates from the factory floors.

- **Ability to manually modify the generated optimal production plan...empowering planner to factor unforeseen contingencies**

Dynamic nature of the manufacturing environment results in developments which may require manual alterations to the production plan. The 'Modify' function of CAPACITY SQUARED allows planners to manually intervene and incorporate these changes real time.

- **Superimpose fill-orders manually on the generated production plan...to utilize unallocated timeslots**

Planners will be able to place temporary or tentative orders to evaluate their impact by invoking the 'Fill' function, planners will be able to manually swap, modify and tweak the placements of the orders in the optimized production plan. Users may use this function to manually assess the impact of provisional orders to be received in the future.



- **Comparisons between executed and committed production plan... via executive dashboard**

The dashboard of CAPACITY SQUARED will provide the user with updates through KPIs to evaluate the progress on the execution of the committed production plan. This provides a simple and easy way for users to keep track of what's happening in production floor.

- **Generate optimal plans...at a click of a button**

The time consuming process of manually developing a production plan at periodic intervals, is replaced with the state-of-art, AI based optimizing algorithm that allows users to generate a production plan with the highest possible efficiency, at the click of the button, allowing planners re-plan at their discretion.



- **Generate, save and compare multiple production plans...with the flexibility to evaluate multiple eventualities**

Planner has the advantage of generating production plans for alternative scenarios to assess their impact on factory floor performance. Through the user interface of CAPACITY SQUARED, planners will be able to evaluate these plans based on KPIs inferred by the algorithm, prior to confirming the final production schedule.

- **Single user managing the production planning of multiple factories...with ease**

With the aid of the powerful AI planning engine users will be able to significantly cut planning time, leaving them with resources to manage multiple factories with ease.

## LINEAR SQUARED (PVT) LTD

63/1, Dharmapala Mawatha,  
Colombo 07, Sri Lanka

9 Raffles Place #27 – 00, Republic Plaza,  
Singapore 048619

## LINEAR<sup>2</sup>

[www.linearsquared.com](http://www.linearsquared.com)

Call: +94 11 2557272

Email: [info@linearsquared.com](mailto:info@linearsquared.com)

Visit our website or contact a Linear Squared representative for more information and to schedule a free demo.