

Apparel manufacturing is a process that gets complicated quickly at a large scale. Maximizing profits and at the same time, not losing quality by optimally allocating resources are the realtime challenges. The main driving factor here is that most resource allocation is done with rudimentary tools which often offer minimal insight into the actual profits.

ProFit aims to solve this problem of resource allocation through state-of-the-art algorithms with the use of Operations Research and Artificial Intelligence Techniques.

Objectives of ProFit

- Accept Customer Orders with Color-Size Breakups and Quantities
- Generate Optimal Cut Plan for Marker Making.
- Fabric Grouping based on Shade, Shrinkages on Warp and Weft
- Generate Optimal Maker Fabric Plan for Markers To Fabric Groups / Widths
- Based on Plan, CAD Dept need to Provide Marker Length & Width for Markers
- Optimally Allocate Fabric Rolls to Markers to Maximize Roll Utilization and to Minimize End Bits.
- Generate Pick List and Lay Slips for Markers for Spreading...
- Real Time Lay and Cut Production Data Capture
- Define more effective use of Spreading and Cutting department resources.
- Provide Transparency in Cutting Room Processes
- Real Time Dashboard for all Cutting Room Processes
- Work in Process Monitoring at all Levels.

Modules of ProFit

Order Management

Input all the Data related to an Order like Order No, Date, Fit , Destination, Ex-Factory date , Shipment date and Color-Size Breakups with Quantities into the system and track the order easily.

Fabric Configuration

Configure Types of Fabric used for a Style with their average consumption per garment or Standard consumption for every size.

Cut Order Plan

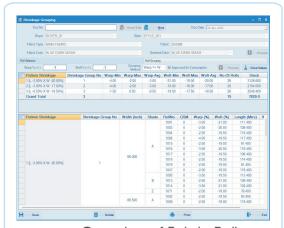
ProFit uses state-of-art Algorithm to Generate Minimum number of Markers with Size Ratios which maximizes number of plies and number of Garments per Ply to complete the Maximum Order Quantity to minimize the Spreading / Cutting Time.

Fabric Receipts

Receipts of Fabric Rolls from Suppliers is stored in Warehouse / Stores with location information.



Cut Order Plan



Grouping of Fabric Rolls



Marker - Fabric Plan



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Fabric Shrinkage Grouping

Grouping of Fabric Rolls based on Shade, Shrinkages on Warp, Weft is done with ease.

Marker - Fabric Plan

ProFit Generates an Optimal Fabric Usage Plan for Markers by Allocating Fabric Rolls that Fits the Marker Plies with Minimum Shrinkage Patterns and Widths

Input from CAD Department

Based on the Fabric Plan, CAD Department to provide Marker Length & Width for the Markers with Shrinkage Patterns.

Fabric Roll Allocation

ProFit uses the state-of-art Algorithm to optimally allocate the Rolls to Markers that Fits Marker Plies in Roll(s) leaving minimal END-Bits . Pick List is generated by the system to Pick the appropriate Rolls from the Warehouse / Stores using Location Information.

Planning for Laying & Cutting

Lay & Cut planning is vital in ensuring maximum cutting room productivity. Easily generate the optimal plans based on the availability of machines, tables, and labor with time slots.

Lay & Cut Production

Monitor Lay & Cut production in real-time and make timely decisions to reschedule Lay & Cut plan as required.

Bundle Generation

Generate bundles with bundle tickets and issue them to supermarket/ sewing line for production based on cutting production.

Printing & Embroidery

Monitor operations on CUT Parts that are performed before sewing.

Key Features

- Centralized Real time Cutting Room Production Monitoring Tool
- Provides the real time Dashboard for all the processes in the cutting room.
- Maintains Sequential Integrity of all Operations
- Real time updates on Laying / Cutting / Roll operations are done thru PC / TAB / MOBILE.
- Accountability of On-Standard time viz, Worked minutes and Produced minutes.
- Accountability of Off-Standard time viz, Idle time, NoWork Time and BreakDown Time.
- Work in Process monitoring at all levels.
- Seamless Integration to other application systems
- Fully Integrated with ProCon real time production monitoring system
- Features and Validations of this system are user configurable



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	8	2	M-002 [2]	100	100	8	800	3 [L-0.	50% X W	/ -18.50%]	66.500	9.26	0	9.280
	7	3	M-003[3]	100	100	8	800	1 [L-3.	10% X W	/ -20.00%]	66.000	9.06	0	9.080
	7	4	M-001 [4]	100	100	8	800	2 L 3.	10% X W	/ -17.00%]	66.500	9.12	0	9.140
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