

## Planning & Control for Batch Pharmaceutical Manufacturing



Keep batch production efficient, on time, and smooth— Unify planning and traceability to cut down wasted time, align resources, and maximize your operational capacity.

### Material Requirement Planning (MRP)

Ensure timely material arrival and availability

### Simulated Alternatives and Sandbox Scenario

Explore new potentials without affecting live operations

### Real-Time Detection of Operational Delays

Identifies risks early before commitments are impacted



### Operator-Gated Process Scheduling

Ensure critical steps only start with qualified staff is available

### Automated Resource Coordination

Enable smooth and uninterrupted process flows

### Early Conflicts & Delays Prevention

Cut down changeover times and manage plan deviations

## Optimized for Batch Pharmaceutical Manufacturing

planeus is an **adaptive, easy-to-use Production Planning & Control** system fit for the complexity and operational demands of batch pharmaceutical manufacturing.

It enables manufacturers to maximize equipment utilization, align skilled labor, and maintain production efficiency through real-time visibility and precise scheduling across production, quality management, maintenance, documentation, compliance, and other manufacturing operations.

### Material Requirement Planning (MRP) with BOM Synchronization

- Calculates material needs for each batch, step, and time slot—based on BOM, product, and workflow
- Ensures timely availability, avoids inventory issues, and prevents compliance and expiry problems

### Setup, Buffer, and Overlap Time Management

- Integrates various setup, cleaning, hold, and stabilization durations directly into the schedule
- Reflects real-world time and capacity consumptions like cleaning, sterilizing, staging, and temperature

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- Assigns tools, equipment, and personnel that must be used together or continuously across steps
- Prevents scheduling conflicts in shared assets and enables uninterrupted processing of multi-stage, long-duration formulations

## Qualified Set Up Personnel Allocation

- Ensures critical operations only start when the required skilled workers are available
- Reduces delays and supports reliable execution in high-complexity environments

## Throughput Time Optimization

- Compares forward and backward scheduling paths to minimize total batch time
- Increases throughput and line availability while respecting resource constraints and quality dependencies

## Early Conflict Detection & Resolution

- Instantly detects and visualizes upcoming overloads, bottlenecks, or at-risk delivery timelines
- Allows planners to intervene early—avoiding missed batch windows, rushed changeovers, or unexpected deviations

# planeus System Advantages

### Modern Design and Cloud Architecture

- Build the solution needed from more than 50 planning logics
- Use and pay for only what is actually needed
- Can also run standalone, enhancing or replacing legacy systems without placing a heavy burden on IT teams

### Regain Control Over Production

- Coordinates staff, machines, tools, and shift schedules
- Maintains clarity even across multiple parallel lines

### Expect the Unexpected

- Alerts you to plan deviations triggered by process changes
- Detects and prevents production conflicts before they occur

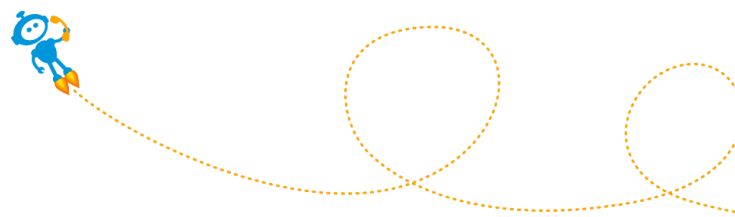
### Higher Output, Lower Effort

- Optimizes resource allocation to minimize wait times
- Enables scalable production even amid high complexity

### Fast System Implementation

- Deployment typically ranges **within 3-6 months**.
- Start small with a **pilot system** in a controlled environment before making a full commitment

With deep experience in automotive and component manufacturing, planeus works directly with teams to ensure a secure & smooth deployment — fully aligned with your production processes and workflows.



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