

Simulation against skills shortage

Plan stable production
systems despite staff
shortages

What happens when experienced employees are missing?

In many production and logistics sectors, personnel is increasingly becoming a bottleneck. Shift cancellations, a lack of skilled workers, and increasing workloads directly impact processes and deadlines.

Traditional planning often treats personnel as a fixed quantity. But how stable does this process remain under real-world conditions?

Simulation makes personnel risks visible at an early stage.

The following tips show how to realistically ensure staff availability, ergonomics, and process stability.



Realistically depict staff availability

Tip 1: Realistically simulate layer models

Take into account absences, breaks, and reduced staffing levels instead of planning for full availability.

Tip 2: Plan your qualifications strategically.

Not every person can operate every system. Simulation reveals critical dependencies on specialized knowledge at an early stage.

Tip 3: Test for jumpers and multiple qualifications

Check how many flexible employees are needed to cover absences.

Making ergonomics and workload visible

Tip 4: Analyze walking routes

Long distances take time and increase the workload. Simulation reveals optimization potential.

Tip 5: Recognizing peak loads

High cycle rates or unfavorable processes often lead to ergonomic problems in everyday life.

Tip 6: Coordinate human-machine processes

Analyze transitions between manual tasks and automation in a realistic manner.

Strategically addressing staffing shortages

Tip 7: Evaluate automation systematically

Simulation shows where partial automation effectively relieves the burden on employees.

Tip 8: Test driver assistance systems in advance

Evaluate the impact of pick-by-light, lifting aids, or assistance systems on the overall process.

Tip 9: Simulate worst-case scenarios

How stable does production remain with reduced staffing or short-term absences?

Securing knowledge and making processes more robust

Tip 10: Make processes easier to manage

Use simulation to make processes more understandable, stable, and quicker to learn.

This makes processes more stable and controllable even with changing personnel.



Demographic change is permanently altering production systems.

Simulation helps to adapt processes to changing personnel conditions at an early stage and to better mitigate risks.

Questions about implementation?

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