AVAILABILITY MANAGER: ALWAYS AN EYE ON THE BIG PICTURE

MORE RELIABILITY THROUGH INTELLIGENT AVAILABILITY CALCULATIONS

AVAILABILITY MANAGER AT A GLANCE

In these fast-paced times, even a guaranteed system availability of nearly 100 percent doesn't mean that the flow of goods will be able to handle a massive jump in order volumes. Ensuring that available capacities will keep pace with pending logistics tasks requires an even more intelligent solution approach based not only on the recent past, but primarily on real-time analytics. With its innovative Availability Manager within SynQ, Swisslog offers an intelligent solution for forward-looking availability planning. The software not only uncovers bottlenecks in the warehouse, it identifies the exact availability of every element in the warehouse along with every associated workflow, taking into account the required throughput and business processes delivered by each Swisslog project team to its unique customer solution. This gives you a seamless overview of the entire system or parts thereof, allowing you to take timely action to avoid potential bottlenecks caused by downtimes, as well as plan service and maintenance of the system with a much higher degree of accuracy. It also allows you to focus on key paths and system flows within the logistics solution.

INTUITIVE VISUALIZATION IN REAL TIME

Availability Manager leverages the benefits inherent in the proven SynQ 3D Visualizer. The intuitive interface offers a three-dimensional overview of all areas in your automated warehouse. If you are using an AutoStore system, a CarryPick system, a shuttle warehouse or an extensive conveyor system, the Availability

BENEFITS

Availability under control at all times
- Real-time analysis of warehouse system availability
- Visualization of availability within a logistics system
- Fast identification of critical elements
- Real-time target vs. actual comparison against contractually specified values to validate bonus/penalty payments
- Support of historical trend analyses for definable time periods

Planning reliability
- A comprehensive if-then analysis feature provides insight into availability trends if parameters change
- Based on system simulations, material flow targets are converted into exact values for system availability
- Basis for optimized maintenance scheduling without stoppages at peak times
- Optimized spare parts management to reduce spare parts costs

Optimized system operation
- Operation of warehouse elements with maximum efficiency
- Timely initiation of appropriate measures when bottlenecks loom

Manager also accesses their availability data, comparing them against the contractually specified throughput data in an ongoing process.

Based on the availability of each element in the warehouse and its job within your overall intralogistics solution, a comprehensive picture emerges that highlights the availability of the entire material flow system or individual aspects. You can select any time frame to be analyzed, from hours to weeks and from a purely historical analysis to live data. You also have the ability to focus and define specific shift patterns within your operation to define and focus on KPIs based on configurable shift patterns.
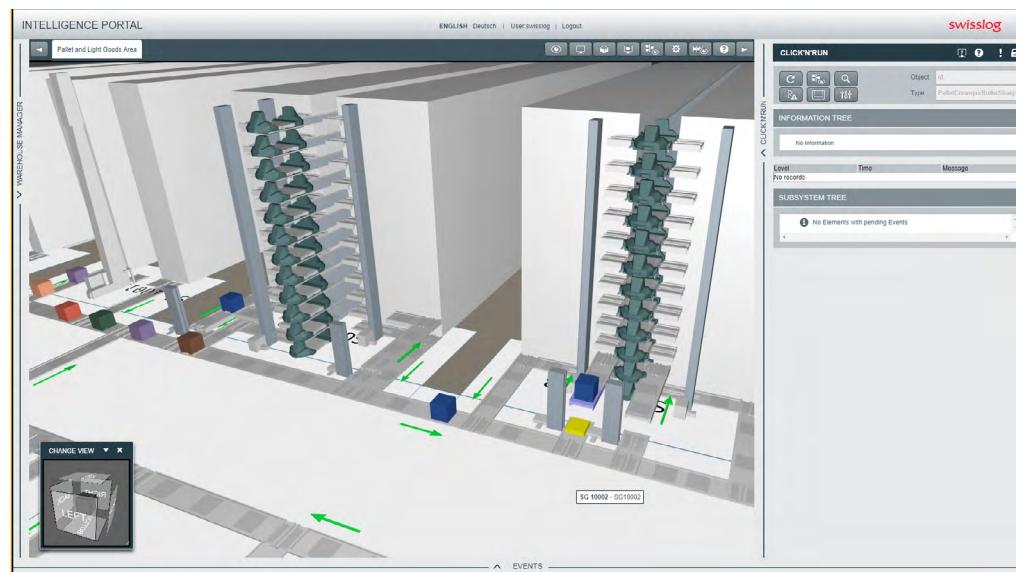
YOUR BENEFITS AT A GLANCE

The comparison of target vs. actual availability of the different elements and material flows as a whole gives system operators a realistic assessment of whether there is sufficient availability in the warehouse to fulfill orders. Elements critical to the entire system are immediately identified so you can proactively optimize maintenance and spare parts management. In addition, you can eliminate bottlenecks early on and minimize costs associated with downtimes and delivery delays.

3D Visualization
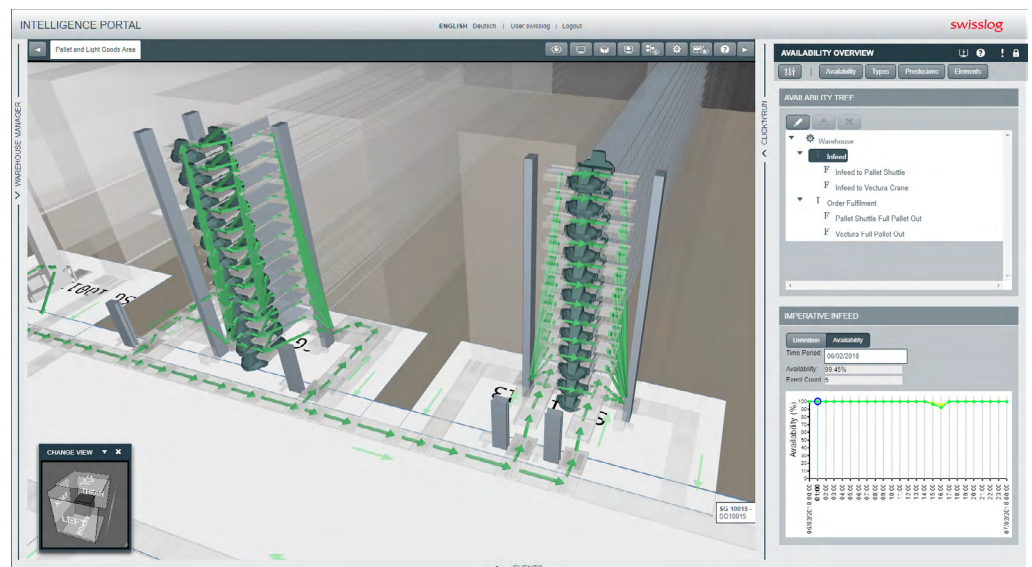Simplified user interface

Material Flow View

When you click on the Availability Manager button the view changes to the Availability Manager visualization layout.

Availability View

AVAILABILITY MANAGER IN DETAIL

FOCUS ON OPTIMIZATION

Planning

When we design a new logistics center for you, we know exactly how much warehouse capacity you need and how many pallets and bins will go through your logistics system every hour. To maintain the required delivery capability, our experienced system designers allow for additional reserve capacity beyond the actual demand to cover order peaks and your future plans for growth. This allows us to guarantee the necessary availability and ensure that our systems will achieve the expected throughput at an optimal cost-benefit ratio.

Commissioning

From the time you first start up your new system, Availability Manager for SynQ is ready to objectively measure whether the system can actually meet the planned and contractually specified availability targets and report on this via SynQ Cockpit. Even recognized measurement and simulation processes have their weaknesses at this stage: They focus on the availability of individual mechanical elements and basically provide data only on whether the individual elements and certain element groups of the system will meet the contractually specified performance requirements in the defined time frame. The Availability Manager, on the other hand, gets right to the heart of the matter: the availability of all material flow and business processes.

Ongoing operation

Should the flow of goods be interrupted, the Availability Manager helps you identify the cause. Elements that have affected the availability of the entire system in the last few days or weeks can be visually identified through the use of the events log that captures all actions and events in the system automatically.

The Swisslog Availability Manager solution offers considerable added value over conventional simulation and measurement methods. The software acts as a service provider within your logistics system. It ensures that the contractually specified availability requirements can be harmonized with the actual system availability at all times. By automating this caculation through reported events in the event log, accuracy and calculation is automated rather than retrospectively reviewed and calculated manually as part of operational service reviews.
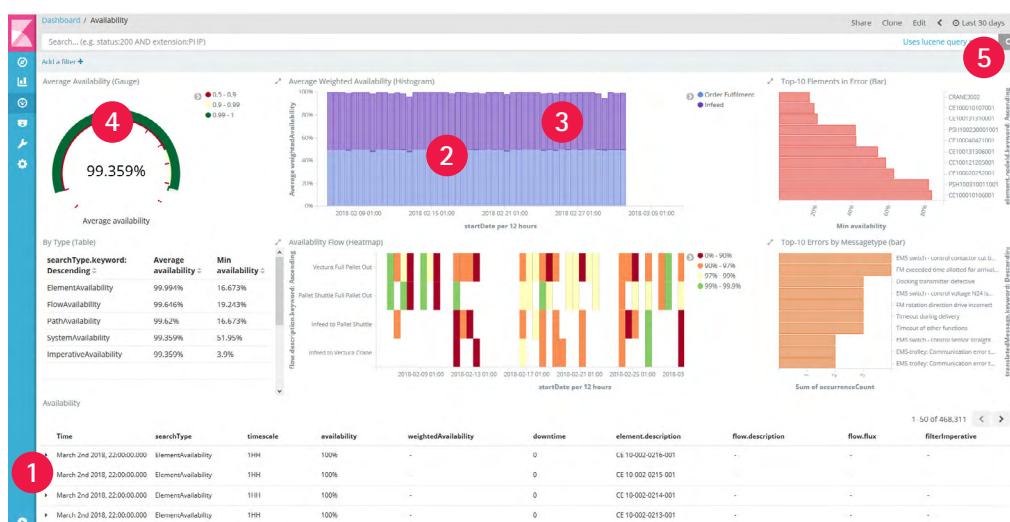
This gives you a state-of-the-art planning tool that allows you to verify whether the system can actually meet the requirements defined by your business processes. In addition, the measurement results are so accurate that any decisions regarding bonus payments or contractual penalties will be extremely objective.

System scaling

The Availability Manager gives you the opportunity to determine what maintenance should be focused on and which errors need the most urgent attention to ensure that the most optimal material flow system is achieved at all times. In the face of unexpected changes to overall conditions, Availability Manager gives you the opportunity to focus on high impact errors. For example, the software highlights the consequences a one-hour maintenance-related stoppage of a crane in your high-bay warehouse would have on the overall availability in your material flow system. Identifying key pinch points adds real value to maintenance operations, as well as focusing on opportunities to scale your material flow with appropriate system redundancy and fail safes.

What caused the downtime and how was availability affected by this flow?

1. The SynQ Event Log shows the problem/issue at the bottom of the screen

   The timestamp links to the hourly graphical representation

2. The dip in the element availability can be seen in the 24 hour period graph below

3. Infeed is shown in purple

4. The overall availability for the period is 99.359%

5. View data by day, week or month or shift period

PART OF THE SYNQ MANAGER FAMILY

As part of our SynQ platform for synchronized intelligence, the Availability Manager gives you a modern software answer to the critical question of how to operate your warehouse efficiently and sustainably even under volatile conditions.

The Availability Manager application for SynQ is one of the individually combinable business intelligence services that Swisslog offers in its steadily growing IT portfolio. This portfolio also includes Cockpit Manager, Swisslog's powerful tool for data collection and visualization. Additional plug-ins such as Condition Monitoring allow you to get started quickly with analytics and system monitoring.

EXCELLENT PERSPECTIVES FOR PLANNING

In the near future, the Availability Manager will be enhanced with added functionality so you can easily determine if your warehouse has sufficient capacity for order processing and how much additional throughput the system can handle.

Conversely, you will also obtain specific data on how much time is needed to process a specific order volume based on the planned resources. With just a touch of a button, you will soon be able to display the number of employees needed to process all orders to be picked by a specific point in time.

ABOUT SWISSLOG

In today's competitive world, companies must be able to deliver the right orders to the right customers at the right time. Errors and delays in order fulfilment can have lasting negative impacts on the brand – but maintaining high stock levels ties up capital and affects flexibility.

As a full-service provider of automated intralogistics systems, Swisslog delivers everything companies need to optimize logistics from planning through implementation.

Our order fulfilment and inventory solutions enable companies to achieve the highest throughput at the lowest cost, efficiently handle large catalogs of SKUs, and accurately meet delivery demands and requirements.

DESIGN

| Consult | Analyze | Plan Solution | Choose Solution |

DEVELOP

| Engineering | Integration | Installation | Ramp Up |

DELIVER

| Preventive Maintenance | 24/7-Support | Optimization & Spare Parts | Modernization & Expansion |

More Information:
www.swisslog.com

swisslog

Member of the KUKA Group