

MQM

datatex
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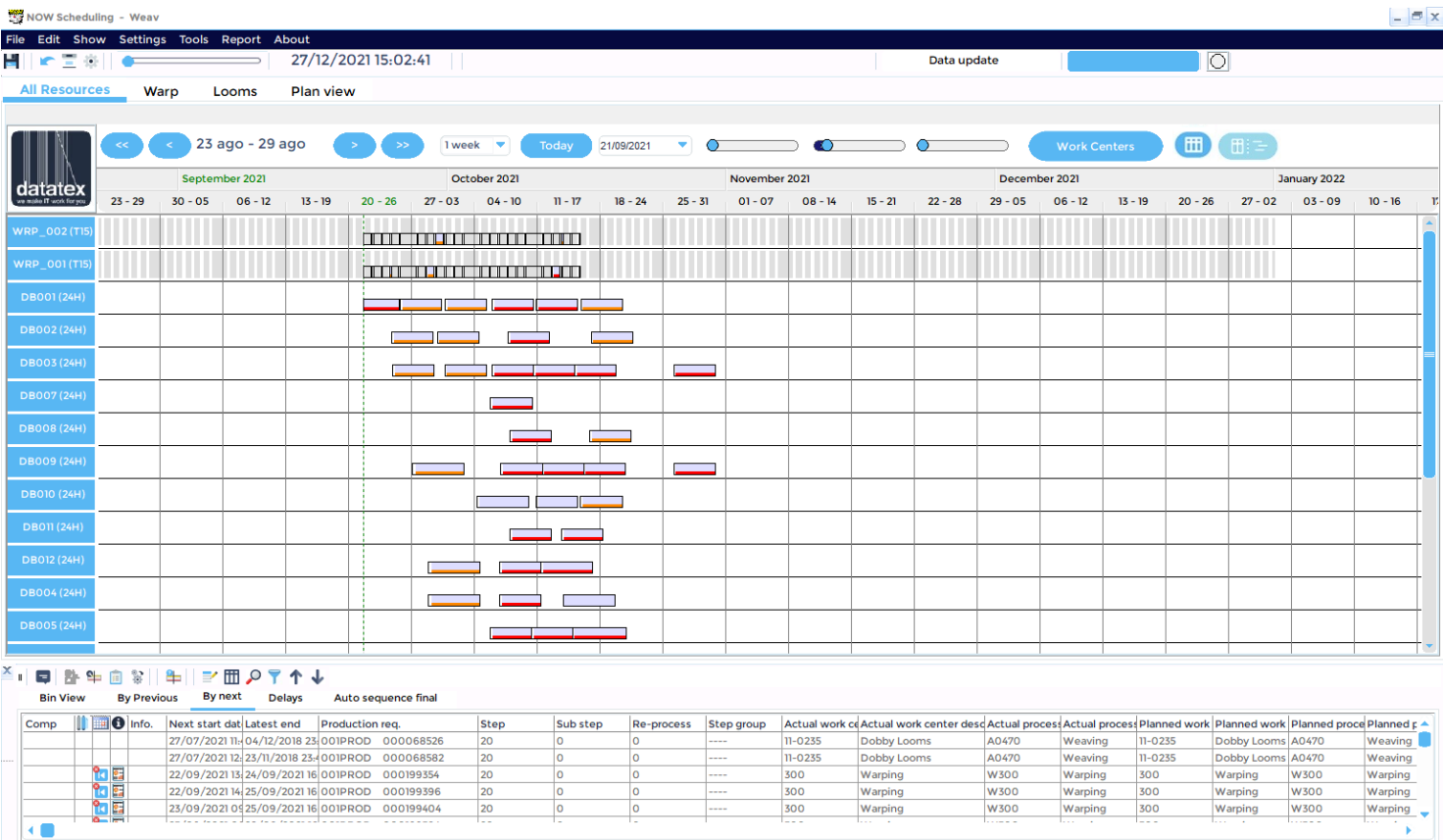
Textiles, Apparel, Home Fashions, Technical Fabrics, Accessories, Nonwovens, Rolled Goods, Floor Coverings

Textiles Automotive Textiles BOM Recipes Print Design Weaving/Warping Pattern Dynamic Process flow Size/Color Matrix Specification sheets Product Coding Multiple UM's Sales Inventory Production Purchasing Planning Scheduling Shop-Floor Fabric Inspection Business Intelligence Fiber Yarn Fabric Nonwovens Floor Covering Garment Home Textiles Industrial Textiles Automotive Textiles BOM Recipes Print Design Weaving/Warping Pattern Dynamic Process flow Size/Color Matrix Specification sheets Product Coding Multiple UM's Sales Inventory Production Purchasing Planning Scheduling Shop-Floor Fabric Inspection Business Intelligence **we make IT work for you**

WHY MQM?

The textile market is constantly evolving. It is essential to adapt to the new reality in which global competition is increasing, trade barriers and labor costs are decreasing, and consumer demand for quality is growing. Consumers want greater product differentiation (an extensive range of styles, small lots...) to express their personalities through their purchases. Moreover, there is a higher demand for shorter lead times, a pressure to improve the product value, and an increasing complexity of production processes (e.g. sophisticated finishing).

It is important to plan activities in the best possible way to obtain a competitive advantage, turning a complex and slow scheduling process simpler and faster. MQM is a scheduling tool that enables final capacity scheduling for textile and apparel plants, to increase efficiency productivity and maximize on-time deliveries.



WHY MQM FOR NOW?

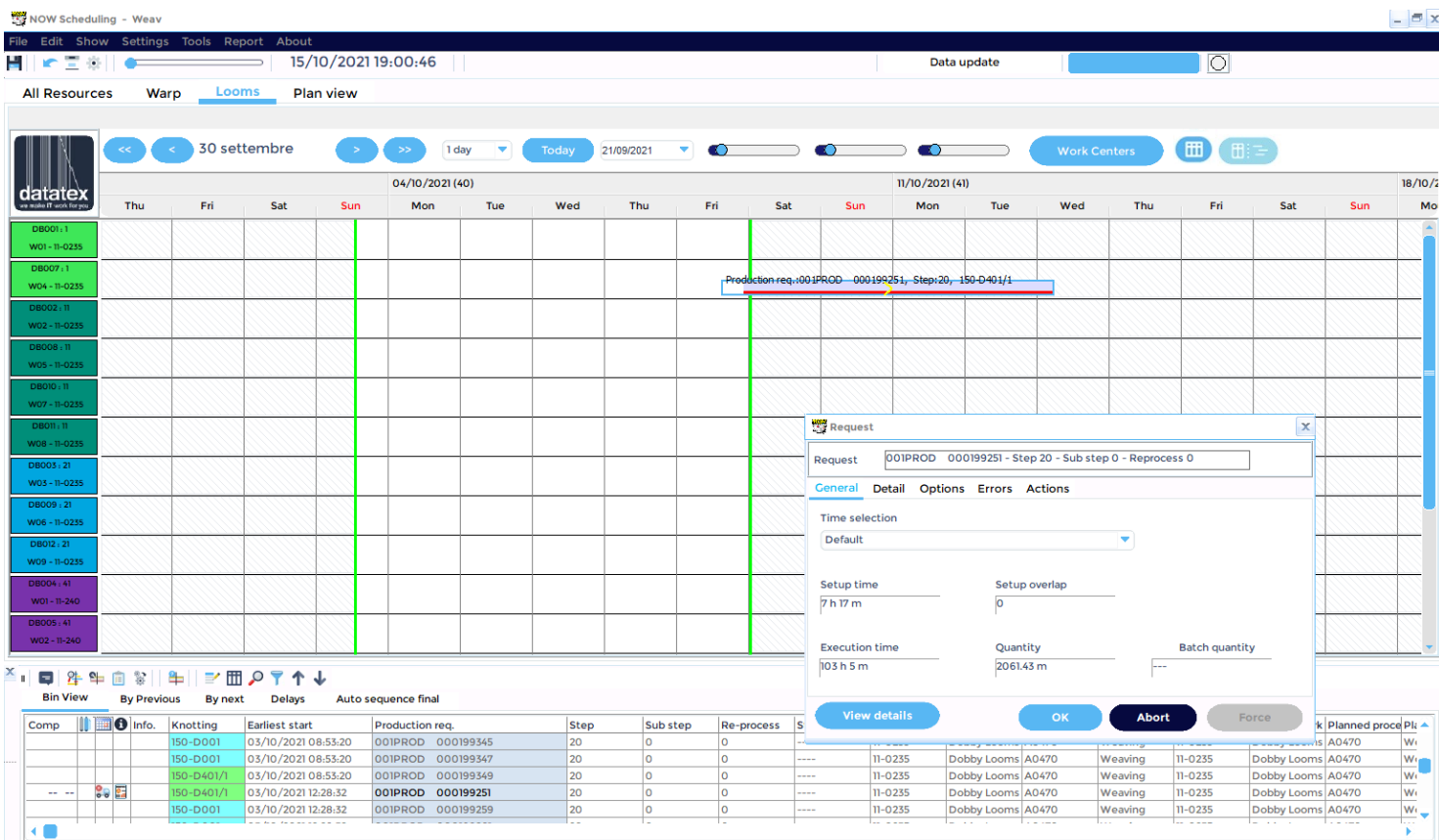
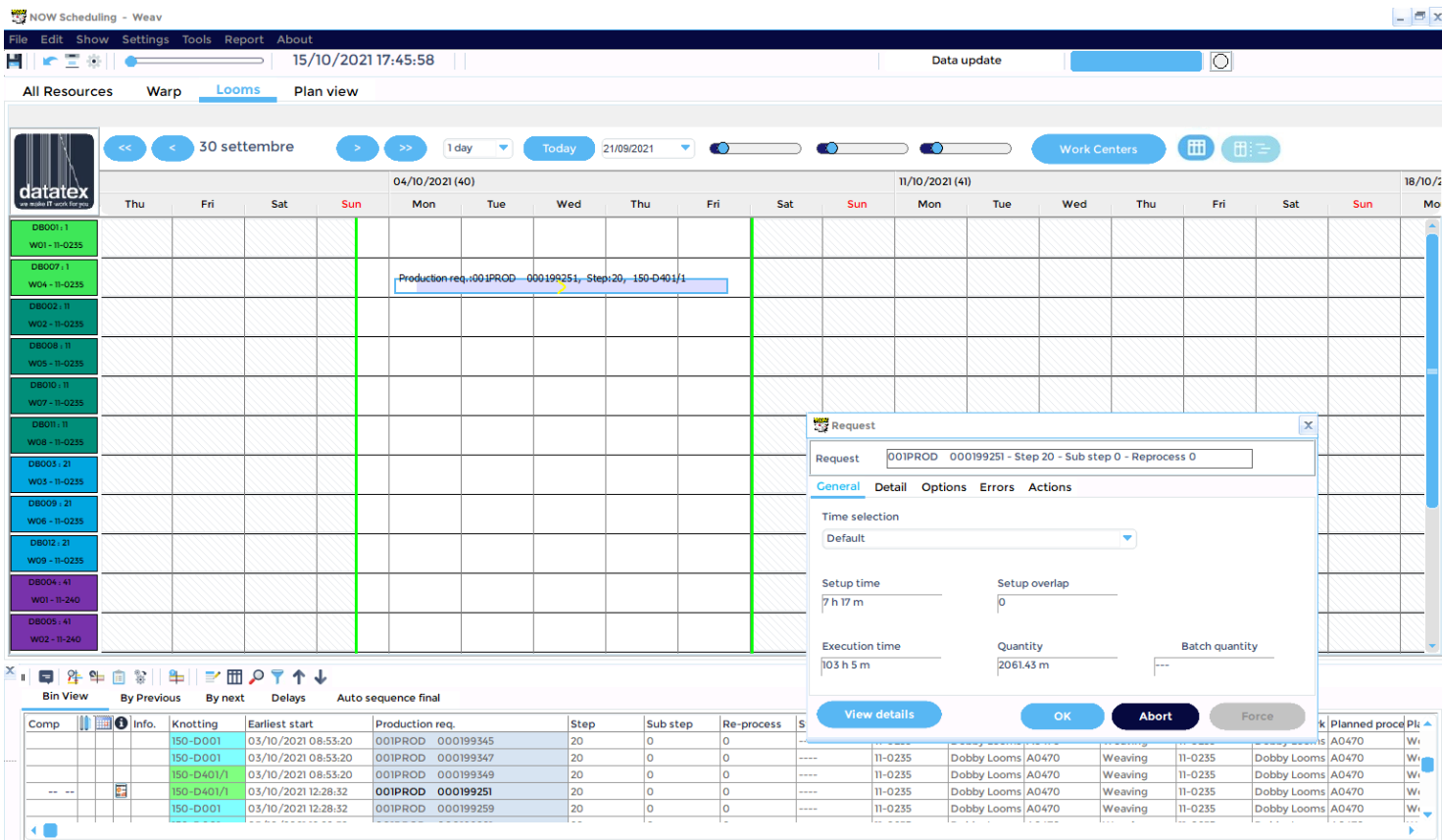
It was created with the goals of:

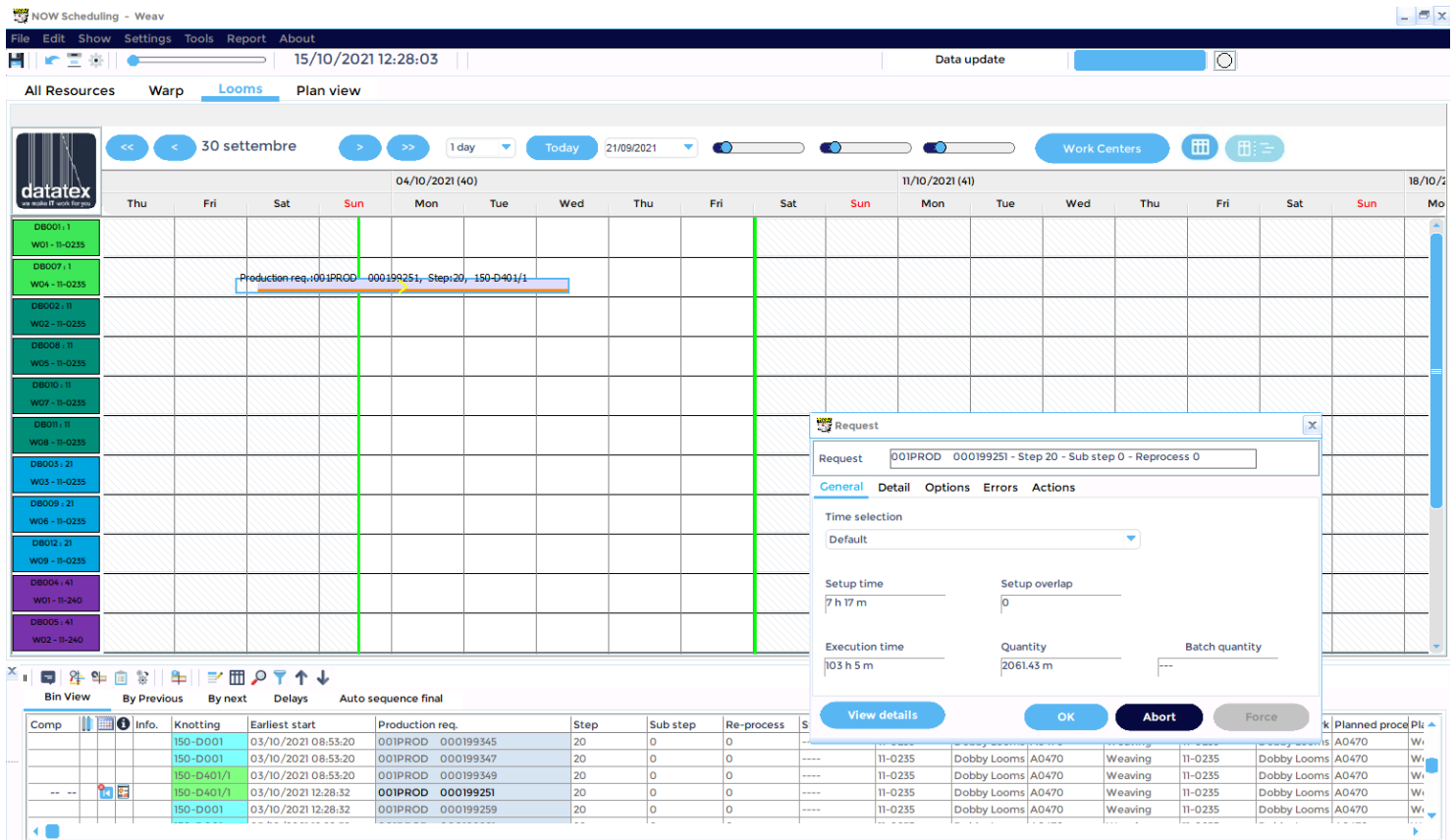
- Meeting customer deadlines
- Maximizing machinery, labor and materials utilization
- Minimizing:
 - Idle time
 - Overtime
 - Step Delays
 - Lead/Queue time
 - Step completion time
 - Time in the system
 - WIP inventory

The main screen in MQM is a Gantt chart that manages the schedule of planned jobs on resources (machines). MQM allows to schedule at single resource level and also to have a view at work center level. MQM's main screen also has a bin area containing both jobs already scheduled, or to be scheduled (Production Demand Steps and Production Order Steps) in a spreadsheet format. Schedulers can take as much control as they would like, by using automatic and/or manual computer-assisted scheduling mechanisms by drag and drop from bin to GANTT.

The aim of MQM is to optimize the sequencing of Production Demand Steps on resources, at the level of single resources, to obtain the best results. This is essential both for delivery and for reducing the number of resource setups/changes required in the plant. MQM works at the level of single departments (spinning, weaving, knitting, dyeing, finishing and garments...) and considers single resources. The inputs received from NOW are the Production Demand steps/Production Order steps to be scheduled while the output returned are scheduled jobs with their dates.

According to needs and requirements, in MQM it is possible to schedule both manually and automatically by just setting different constraints that allow establishing rules for production. MQM proposes a time window to meet the deadlines from NOW and allows to choose whether to stay within the window, start before, or finish later. According to the choice, the GANTT's bars (that represent steps or jobs) will take on different colors. In the images below we see the case of punctuality, tardiness or advance.

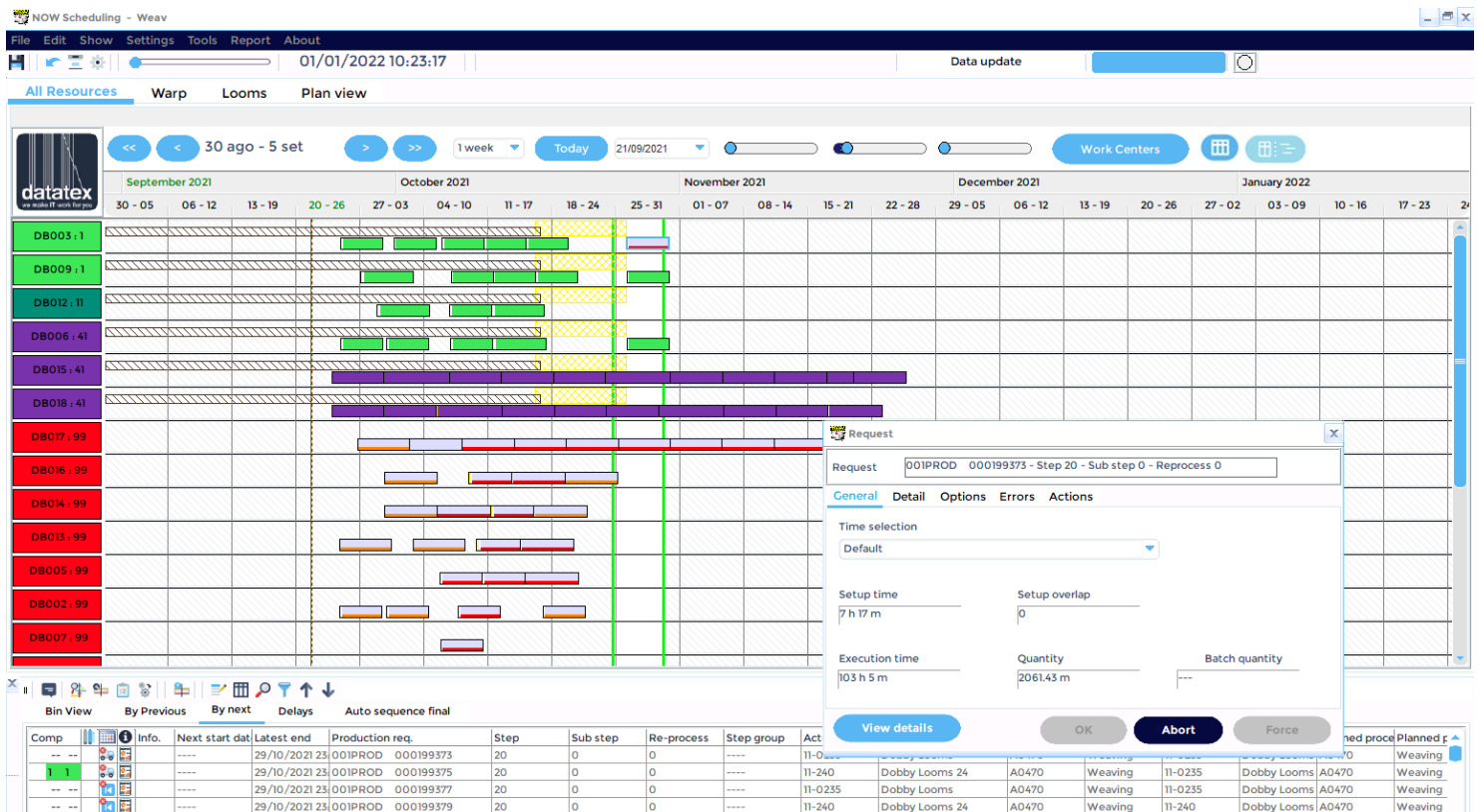




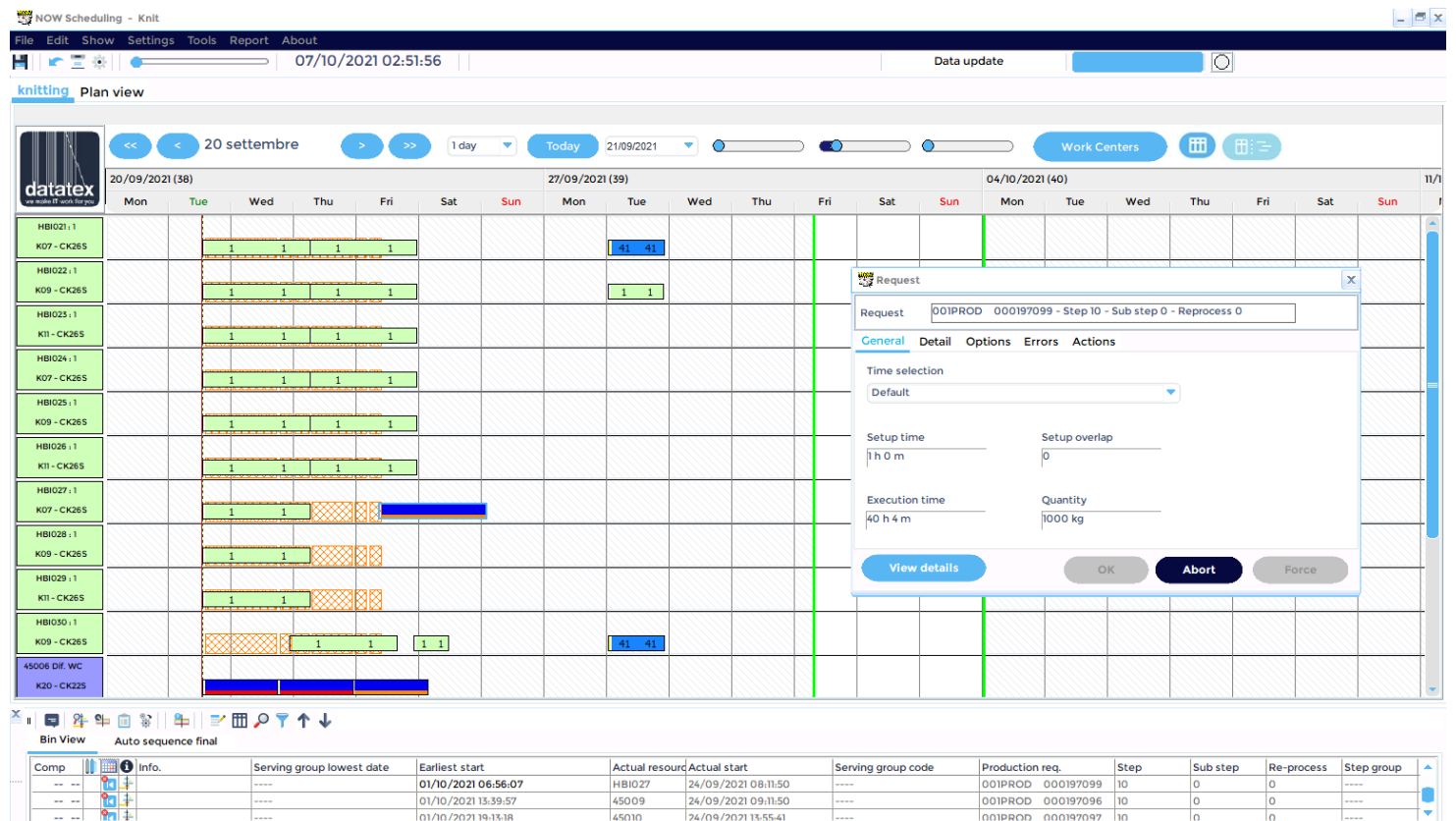
Constraints called "compatibility cases" can be defined, and these can vary from 1 (best) to 99 (no-go). A compatibility of 1 indicates that job to resource or to previous job placement is perfect (the machine does not need any changes, therefore the time needed to adjust the machine is zero) while 99 means that it is not possible to carry out a certain operation on a machine and/or placement. In all other cases in between, it means that the machine is not optimal: for example, it could be underutilized or need optimization for a certain process.

There are three types of compatibility:

1. Between the job and the resource
2. Job to Job (Queue optimization: a fundamental feature of MQM is the management of machine queue and related tooling and set up times, which allows the best possible optimization of the activity organization)
3. Capacity reservation (for example when a machine is just for a certain item while another machine performs operations just for a determined customer...)

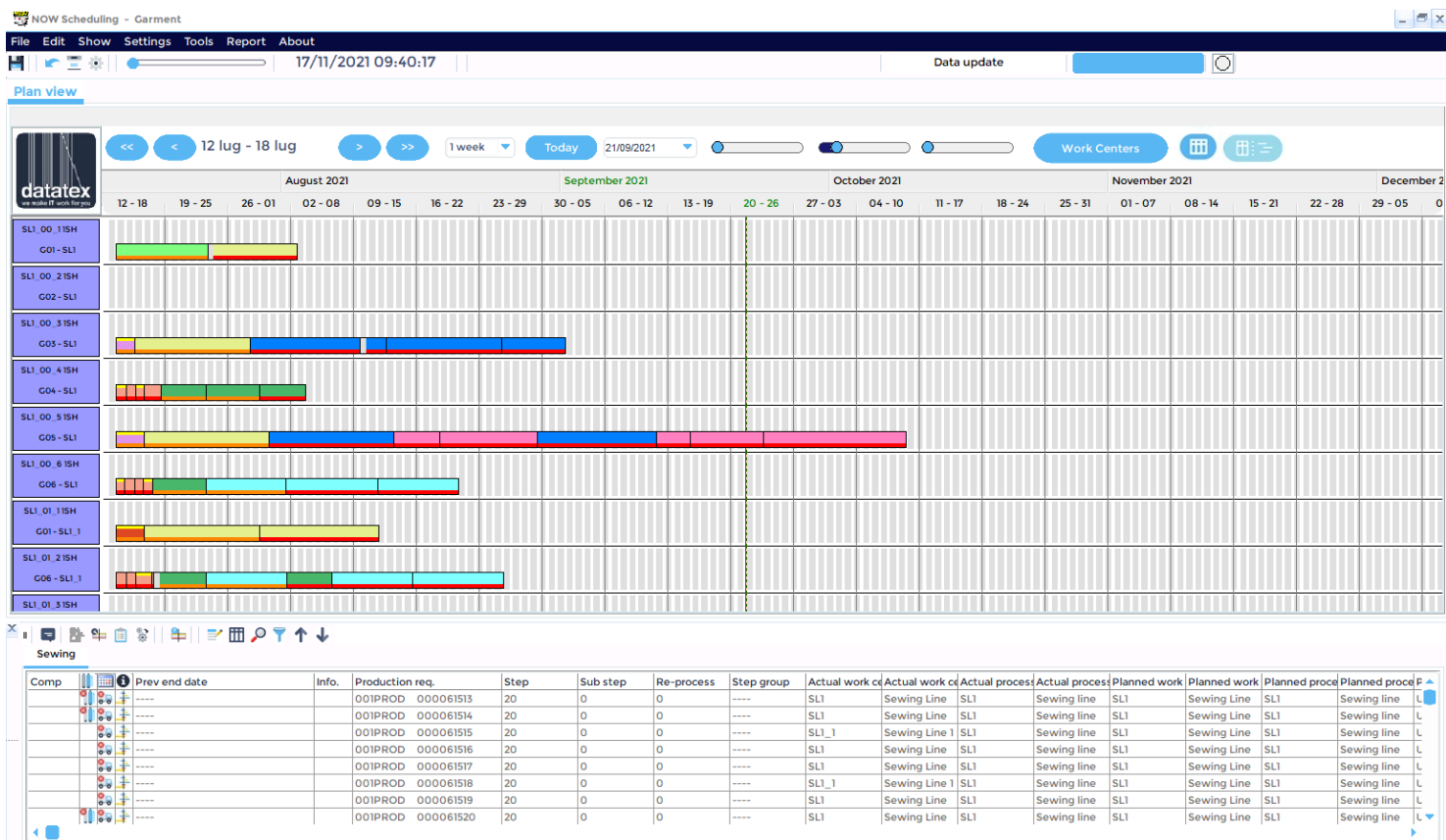


Another feature of MQM is the possibility of checking whether input materials are available for a certain job to establish the scheduling: it is possible either to set a constraint that blocks scheduling if the materials are not available, or to schedule anyway, but with the indication that certain materials are missing. As shown by the yellow net in the image above, this indicates that required materials are not available. In the image below we see a red net, which indicates that a resource defined as critical for scheduling is not available (example: the team number is not full or the reed of a frame is missing).



The screenshot displays the datatex software interface for production scheduling. The top menu bar includes 'File', 'Edit', 'Show', 'Settings', 'Tools', 'Report', and 'About'. The main window shows a Gantt chart for the production order 'MANT_FIN_ALL' with tabs for 'Prep', 'FIN-WET', 'Dyeing', 'Printing', and 'FINISH'. The chart is set for '26 luglio' (July 26, 2021) and shows a timeline from 26/07/2021 to 16/08/2021. A 'Request' dialog box is open, showing details for a specific request: '001PROD 000199141 - Step 40 - Sub step 0 - Reprocess 0'. The dialog includes tabs for 'General', 'Detail', 'Options', 'Errors', and 'Actions'. The 'General' tab is active, displaying 'Time selection', 'Setup time' (29 h 54 m), 'Setup overlap' (0), 'Execution time' (52 m), and 'Quantity' (1044.76 m). The bottom of the interface shows a table with columns for 'Comp', 'Info', 'Production req.', 'Step', 'Sub step', 'Re-process', 'Step group', 'Actual work', 'Actual work', 'Actual process', 'Planned work', 'Planned work', 'Planned process', 'Product type', and 'Product type'.

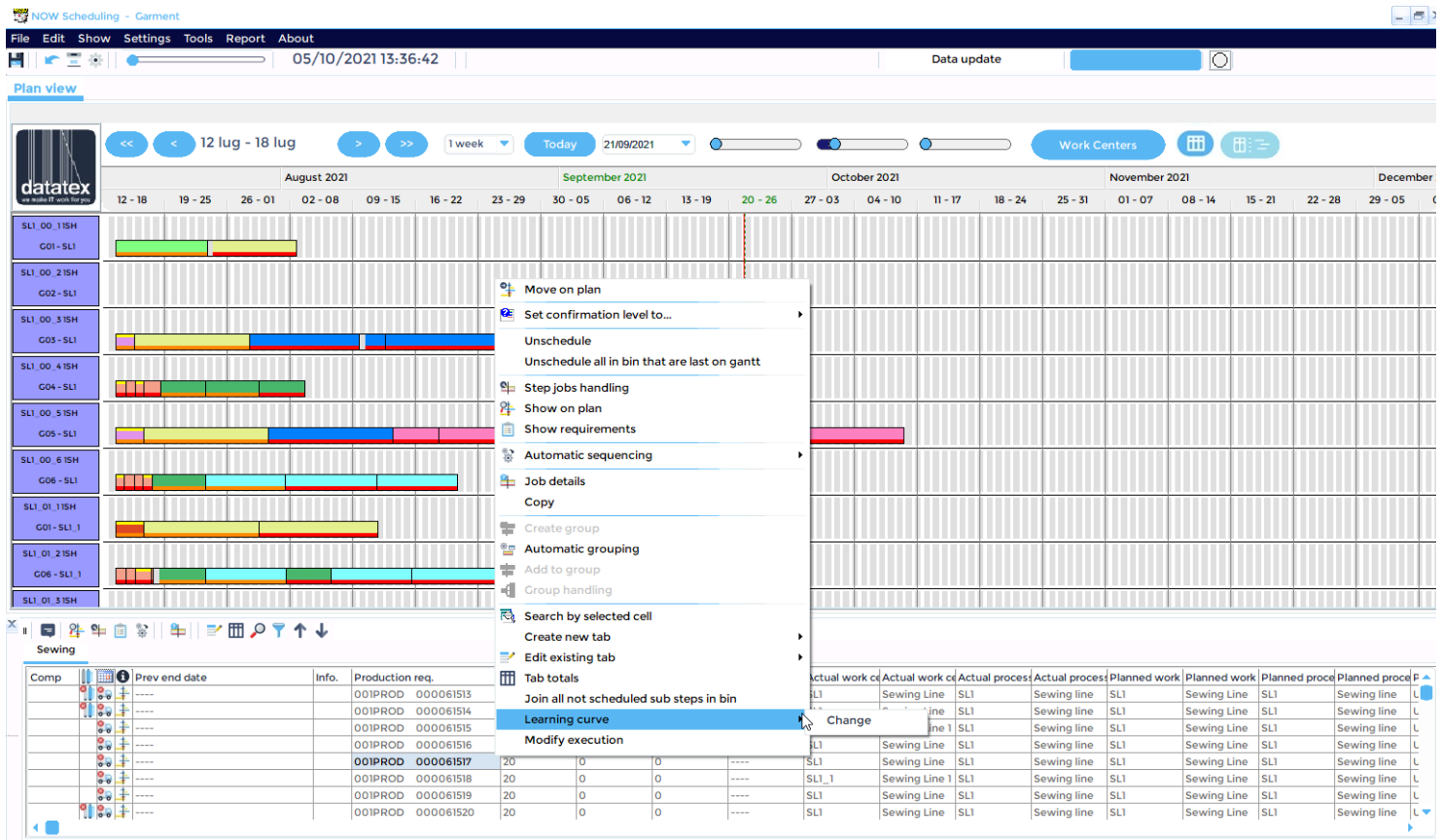
The screenshot displays the NOW Scheduling software interface. At the top, there is a menu bar with options: File, Edit, Show, Settings, Tools, Report, and About. Below the menu bar, a status bar shows the date and time: 12/08/2021 23:15:41. The main area is titled "MANT_FIN_ALL" and includes a "Data update" button. The interface is divided into several sections. The top section shows the current date and time: 26 luglio, 21/09/2021. Below this, there is a timeline view showing production steps for various dates from 26/07/2021 to 16/08/2021. The timeline is organized into columns for each day of the week. The rows represent different production steps, each with a unique identifier and a description. The steps include: 110600-3 STD, 110610-1 STD, 110620-1 STD, 110630-2 24H, 110612 (24H), 110613 (24H), 030003 (STD), 504002 (STD), 505001 (STD), 506002 (STD), and 110730-1 STD. The interface also features a "View" section at the bottom with options like INITIAL, By Sales Order, and 001PROD 000199120. The bottom right corner shows a "Printed Fabric" section with a table of data.



MQM is integrated with NOW and this allows data to be exchanged quickly and efficiently. Specifically, data coming from NOW to MQM is the Calendars, Work Centers, and Production Order/Demand Steps to be scheduled.

A company's business can benefit from MQM in several ways:

- Time-saving, meaning faster response times and less staff needed, with a reduction of work shifts
- Cost-saving, resulting from increased productivity (less delays, reduced inventory cushions, greater production capacity)
- Increased flexibility resulting from easier re-planning
- Better service for the company and the end customers
- When MQM is used to schedule sewing departments, the learning curve concept is available



- User Roles: assign different roles to MQM users to control access to information using a single platform to be used by customers, suppliers and internal staff.

FEATURES:

- Integrated with NOW ERP and can also be connected to any other ERP systems
- MQM is a very flexible tool that can be used at all stages of the supply chain
- An easy-to-use visual tool
- Bottle-neck detection
- Effective finite capacity scheduling
- Automatic sequencing
- Compatibility rules applied to job-to-job, job-to-resource and job-to-capacity reservation
- Multi-user and multi-department
- Material and additional resource (labor, tools) restrictions considered
- What-if scenario
- All critical scheduling and delivery information in a user dashboard
- MQM offers the option to see the GANTT at Work-Center level rather than at single resource level.

SWITZERLAND - DATATEX AG

Industriestrasse 47 po box 4461

Ch-6304 Zug

Phone: +41 (0)417 264 283

ITALY - DATATEX CONSULTING SRL

Viale Lunigiana 46

20125 Milano Italia

Phone: +39 02 679 744 1

INDIA - VERODATATEX INDIA PVT LTD

1st floor at Silverline Tech Park,

Plot No 180, EPIP Zone, Whitefield,

Bangalore 560 066

Phone: +91 080 437 122 87

GERMANY - DATATEX GMBH

Kirchstrasse 12

48485 Neuenkirchen - Germany

Phone: +49 597 399 645

USA - DATATEX TIS INC.

11810 Northfall Lane, Building 1203

Alpharetta, GA 30009 USA

Phone: +1 770 667 86 56

SERBIA - DATATEX2018 DOO

Krunska 23

11000 Belgrade

Phone: +381 696 890 80

ISRAEL - DATATEX LTD

Haodem Str. 3 - Ramat Siv

Petach - Tikva - Israel

Phone: +972 3 923 41 01

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