

GERBER ACCUPLAN

What's New April 2023 / v16.0

Date: April 2023



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GERBER ACCUPLAN™ WHAT'S NEW FOR APRIL 2023

HIGHLIGHTS

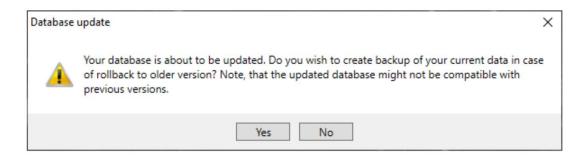
AccuPlan™ provides an integrated cut plan solution to calculate AccuMark markers for a cut order while providing cutting and spreading solutions. For April 2023, AccuPlan features

- Improvements to Production Settings
- Additional options for Work Orders
- Automation Enhancements
- Additional Reporting Capability



1. DATABASE UPDATE REQUIRED

The database used in version 15.1 and higher is not compatible with older versions. Create a backup file if updating from version 15.0 or prior. If you decide to return to an older version of AccuPlan for any reason, use the backup file to restore data.

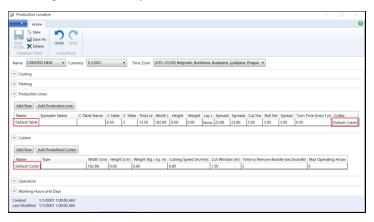


Select Yes to create a backup file. Select No if you do not need to create a backup.

2. SETTINGS

2.1 Production Location

When creating a New Production Location, there is a link between the Default Table and the Default Cutter, with predefined values that can be modified at any time. Context menus will show/hide columns, and these settings remain sticky.

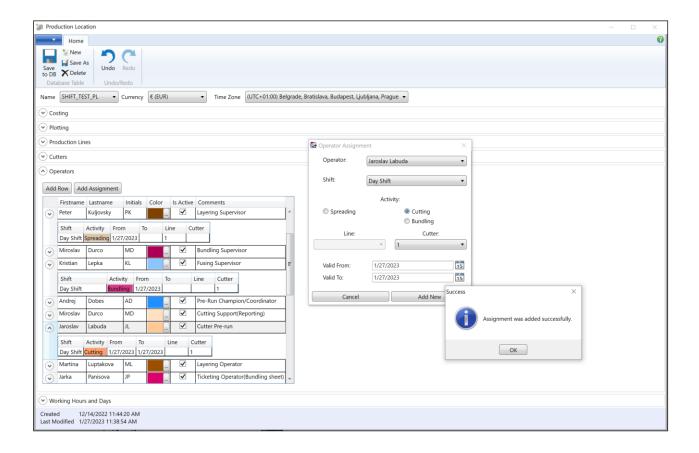




2.2 Operators and Shifts (Work Time)

Create Operator Assignments in the Production Environment's Operators Grid. Each Assignment has Operator, Shift, Activity and associated device (Cutter or Production Line) with defined time intervals.

Columns for Shift, Activity, From, To, Line, and Cutter, allow Operator Assignments to be viewed. These can be edited/removed with the context menu and added with "Add Assignment".

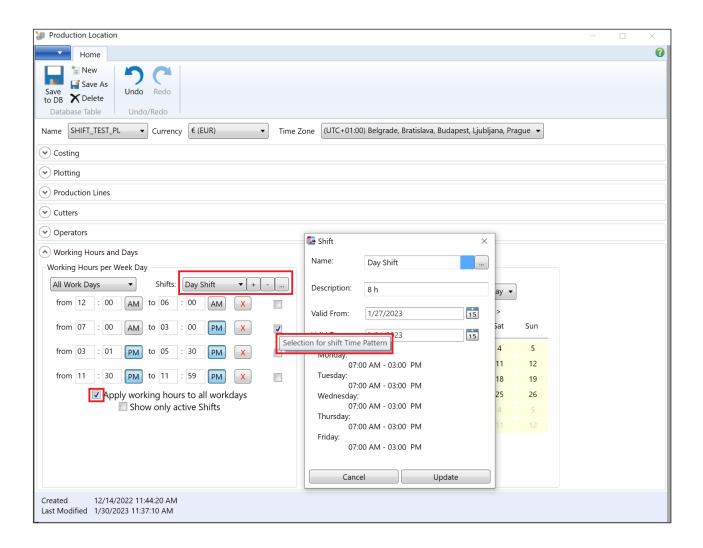




Shift Definition groups working hours to shifts with colors defined for each. Add Shift creates a new shift and defines the working time for it. Click Add working hours to add a new time definition line.

- 1. Add Shift name with (+) button. Select color and add description.
- 2. Select Time Pattern by checking check boxes. Use the (...) button to add the selected Time Pattern to selected Shift. Save changes.

Use the lookup (...) button to modify shift name, change color, add description and Save.



Manage operators and define operators' working activities with the Operator Grid. Add Row as many times as needed and fill: First Name, Last Name, Initials which can be edited. Select Color > Is Active > Comments, then start Adding Assignments.



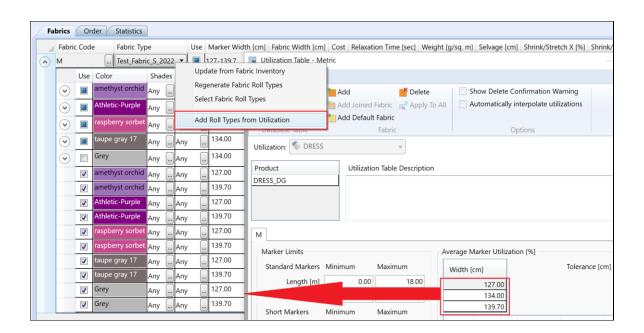
3. PLANNING SETTINGS

3.1 Marking Settings - Utilization Table

The Utilization Table now features Tolerance, checked on as default to allow the loading or import of orders from prior software versions.

- Not checked = Tolerance is infinite, used no matter the fabric roll width. All rolls will be calculated and will have markers.
- Checked = AP will calculate markers using Average Marker Utilization Width plus Tolerance. The rest of the fabric widths, out of range, will not be calculated.

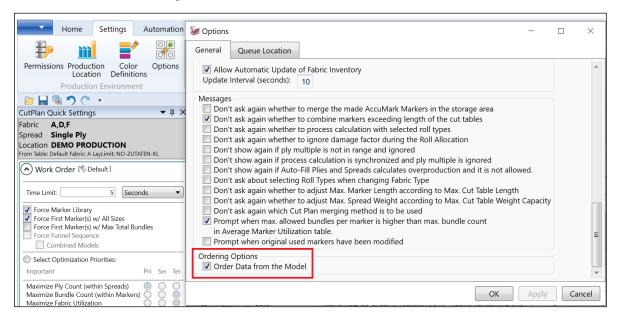
The Fabric Grid can generate Roll Types from the Utilization Table fabric widths. When calculating the Marker Plan, the most suitable marker width will be assigned to the roll automatically. For example, if there is a roll width of 158cm with a selvage of 3 cm, it will be considered as a 155cm width roll, allowing for shrink/stretch.



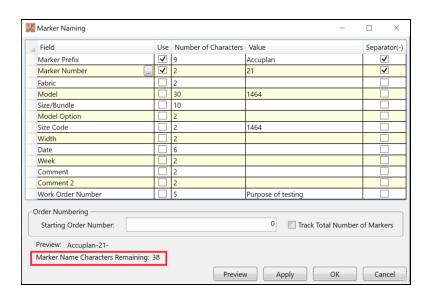


3.2 Order Settings - AccuMark Orders

A new option to use the 'Order Data from the Model' has been added to AccuPlan Explorer Options. AccuPlan will use the settings from AccuMark models if the AccuMark is set to use Order Data.

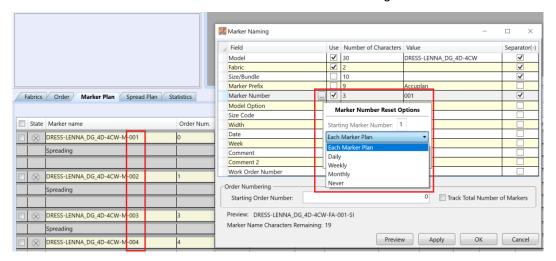


AccuMark marker names are restricted to 50 characters. While editing, the Marker Name Settings allows user to select more than 50 characters. "Marker Name Characters Remaining" now informs users for character count, updating after "Apply".





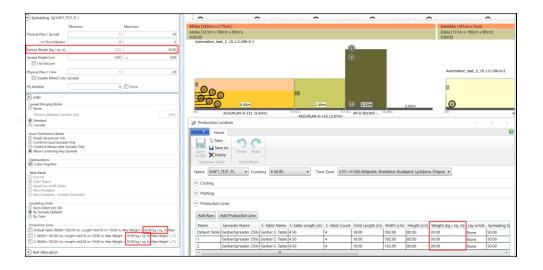
Reset Marker Number has been moved to the Marker Number lookup. The Starting Marker Number field must be filled. A dropdown menu will allow choices: Each Marker Plan, Daily, Weekly, Monthly, Never. The Last Reset Date is valid from the exact time of resetting.



3.3 Spreading Settings

Max Spread Weight in Spreading Settings is in weight per area units (kg/m2 for metric). This information is used for:

- Default Maximum Weight as determined by the Max Weight for Production Line
- Indicators if the weight exceeds limit of the conveyor





4. WORK ORDER EDITOR (AP)

4.1 Order Definition

4.1.1 File Menu

Clone and Rename have been added to the File Menu. Rename simply changes the name of the work order, while clone will allow a copy of the item to be made. The Rename function renames order names and cut plan names.

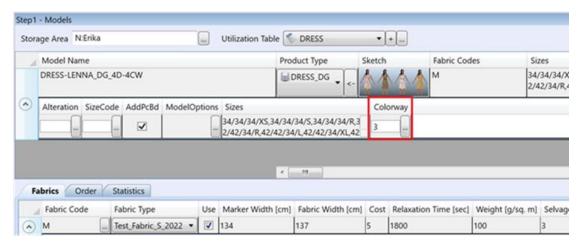
Clone works a similar way as "Save as", but the main difference if the Clone needs to have a new name, the new name of CutPlan is generated, and new job names are generated for Time Plan.

The original rolls allocation information is discarded. If Allocate Automatically is on in the Spread plan, then new rolls will be allocated according to the Fabric Inventory. Use Generat Cut Tickets if new ctx files are needed for the cloned cut plan.

4.1.2 Models

If AccuMark is installed on the AccuPlan station, then using F2 allows users to open the AcuMark Model, Alteration, or Size Tables. The Model will open in the AccuMark Model Editor or in Pattern Design, depending on the Default Editor option setting.

AccuPlan now reads colorways from the model, just as other model data such as Model Options. To use different Colorways, add a new size line in Step 1 - Models and select a Colorway for each size line. Colorway information will be added in the orders/markers and preserved after nesting as well. Colorways information is saved with the work order into the database or xml file.





Size Code and Alteration fields are enabled when a multi-Dimensional graded model is used (Step1 - Models - a model - Show/Hide Size Lines). When a Size Code is selected, the correct combined sizes can be displayed in the Order tab, model sizes with a Size Code size in the first dimension.

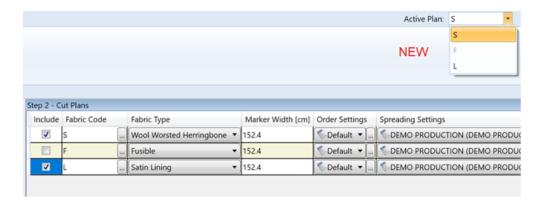
If Show Selected Sizes (Settings tab - Work Order - Size Selection) is checked, the Size Selector dialog displays. With Matrix Selection, the last dimension also contains the name of Size Code after the last dimension

- Up to two Size Codes can be added by a right click to Add Size Line.
- Check Show Selected Sizes and right click the grid header in the Order tab

Add/Edit Size Line can be enabled. If adding multiple Size Codes, Size Selector will be displayed per Size Line.

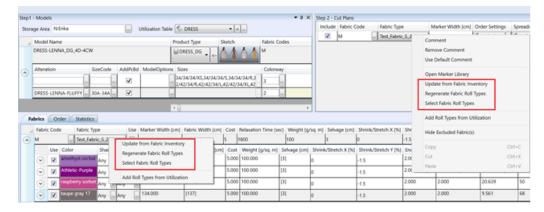
4.1.3 Cut Plans

The Active Plan selector has an Excluded Fabric shown as disabled/grayed out. The Excluded Fabric(s) are deactivated, so they are not in the Fabric drop down.



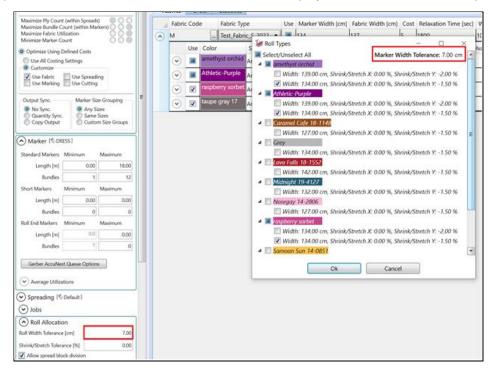
4.1.4 Fabric - Roll and Roll Types

In the Fabrics pane context menu, "Update from Fabric Inventory, Refresh Fabric Roll Types and Select Fabric Roll Types" has been added from the Cut Plans Step-2.





The automatic Update from Fabric Inventory to the selected Fabric Type (Step-2 Fabric) is applied after clicking OK so users have the latest updated information. Expected Delivery Time, Delivery Time and In Stock are displayed but not editable. In the Roll Types selection window, Marker Width Tolerance displays to use in the current cut plan).



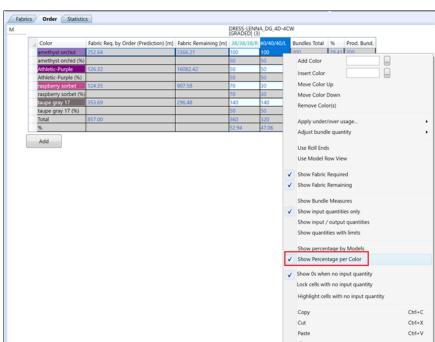
Users can now Add Color in three ways.

- Add Color (simple Colors 1,2,3)
- Writable field (user types to create the name)
- Add from Selection (selection from Color Definitions table)

If color names include spaces, these spaces are trimmed in the Order Tab and in AccuPlan Explorer roll colors and shades.

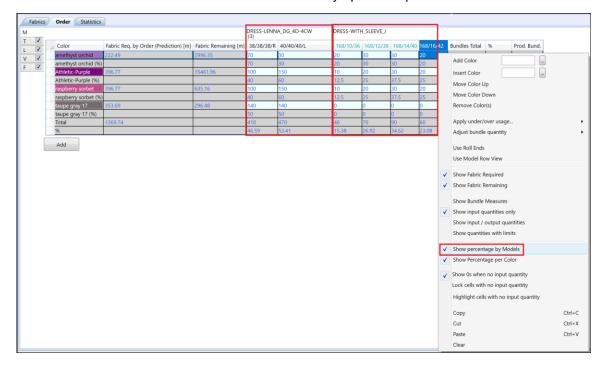




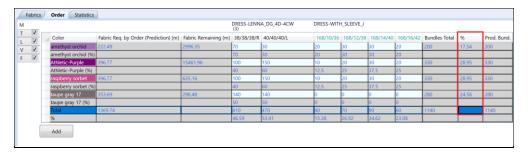


Percentage per color is displayed with a simple check in the Order Grid Context Menu.

The percentage displays in the Order Grid and Marker Plan grid. The percentage values for Models and Colors will automatically update as plans are modified.

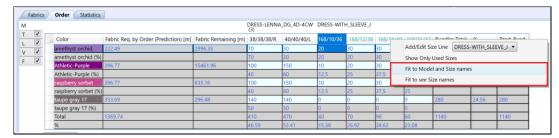






Two new context menus have been added in The order and marker plan tabs have two new context menus to expand columns:

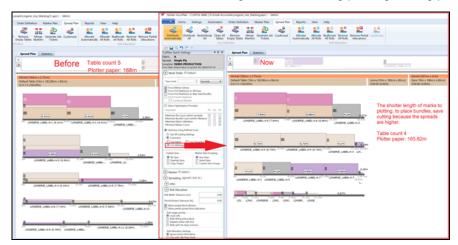
- Fit to Model and Size names: Both Model and Size Names are fully visible
- Fit to see Size names: Whole Size names are visible, Model names may be cut



4.2 Marker Plan

4.2.1 Plan Calculation

The calculation algorithm optimizing for Use Marking (marking price) was improved. After calculation with this setting, less plotter paper is needed, fewer bundles per square meter/yard placed saves cutting time, and creates fewer tables for spreading. Spreads are optimized as much as possible, fewer one-ply spreads. While there may be more "markers count" as a result now, savings for the marking/plotting/cutting process result.





To begin, the Storage area should have no markers, and the Utilization Table should have realistic values. The goal is to achieve the best "green result" in the Comparison Report results. When Using Defined Costs is set up as Fabric, then the best Fabric price should be in Slot where it was used, and the same logic for the remaining options.

Now fabric required in the order pane is changed when the input quantity changes. When cut plans are calculated and then input quantities are changed in Purchase Orders, the Fabric required is updated.



4.2.2 AccuMark Data Generation - Orders, Markers

Marker Numbering options in Marker Naming is consolidated. When the user sets Marker Name Value to 1 and none of the markers exist in the Storage Area, then the names of the markers in the Marker Plan start adding up numbers from 1. If a Marker Name is set to 1 and some markers exist, then the naming begins with the first available number.

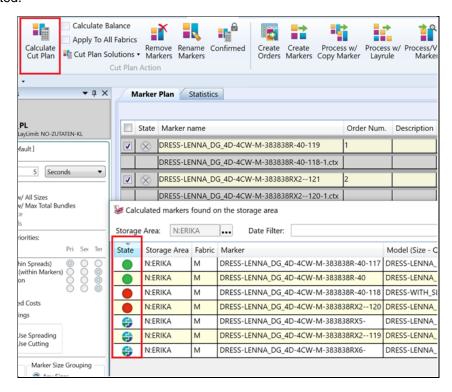
When Roll Ends Markers are in use and hidden in Marker Plan, the user will not see all the markers with numbers. The "Settings for Reset" moved to the Marker Number row.



Markers can be generated for Joined Fabric. Pieces containing one of the joined Fabric Codes are extracted from models and compacted into one marker. The markers generated depends on how many models are selected for the marker and how many bundles are listed as a Bundle Total in the Marker generator window. If pieces have the same category, the system identifies duplicates and an Error Processing message displays

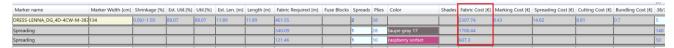


AccuPlan can sort markers by state when Use or Add Markers from Storage Area is selected.





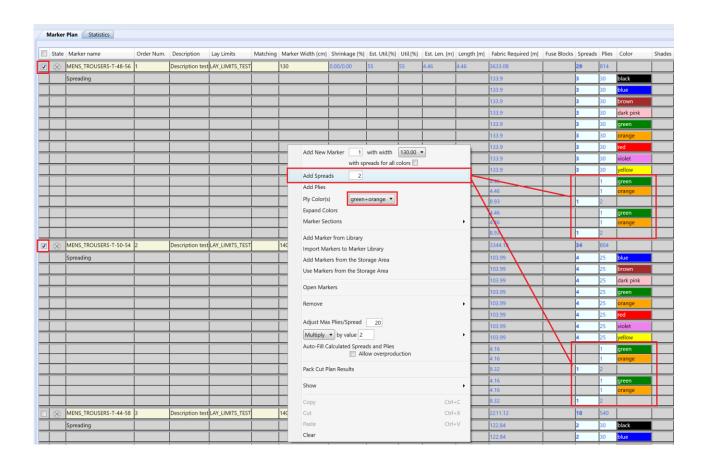
Fabric cost per marker, per color and total fabric cost displays in the Marker Plan grid.



Easily add color spreads to selected markers.

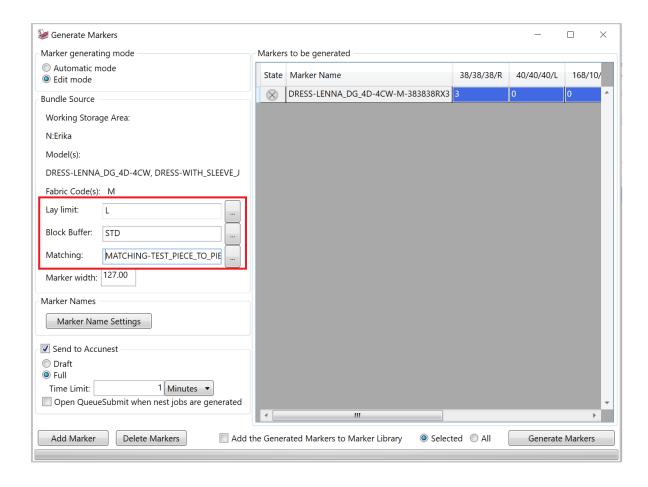
- 1. Select rows with marker names.
- 2. Use context menu to select the color(s).
- 3. Type number of spreads to be added.
- 4. Click Add Spreads.
- 5. System adds the amount of the spread below each selected marker.

If none of the markers is selected it works as in prior releases.





Choose the Block Buffer and/or the Matching table to use in the Marker Generator window.

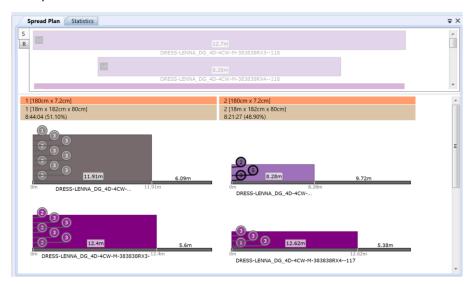




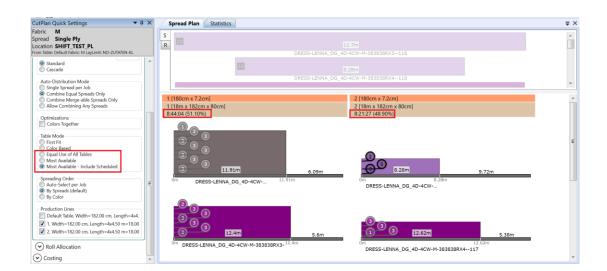
5. SPREAD PLAN

Annotation will now display/hide depending on the actual size of the information. In the Spread Plan window, less vital information for individual spread block lengths is removed from either Marker Spreads on the S pane and from the composed Jobs in the Spread Plan pane if too detailed. Allocated Rolls are never removed.

The cutter width and maximum ply height information displays in an orange header row. The Line information displays below in two text lines with a brown background. The first text row is the line name, length, and height of the table. The second row reports usage. The display sequence of the cutter lines is according to the production location.



A radio button for "Most Available" and "Most Available with Include Scheduled" have been added for AccuPlan Quick Settings. Finished jobs are not included in the "occupancy percentage of the lines." The Distribute All function distributes jobs equally to lines. Automation works based on Spreading Settings.

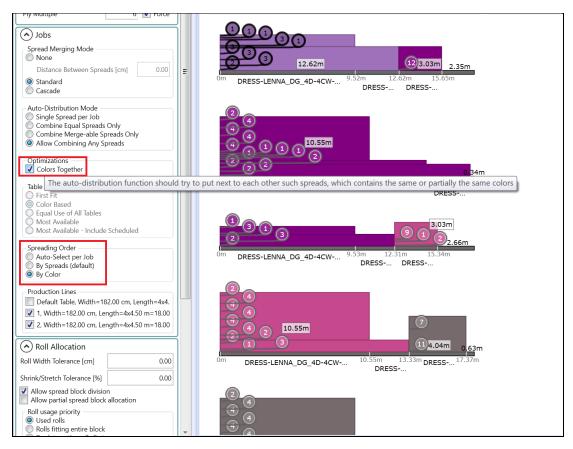




5.1 Spreading Order

The Spreading order in Cut Plan Quick Settings are also reflected in the Spreading Instruction in Reports

- Auto-select per job: This method follows the most effective order of the colors and specifies spreading instructions accordingly.
- By Spreads: The spreader spreads the first spread on the table, then the next one and the next.
- By Color: This method follows the order of the colors in the Order input and specifies spreading instructions based on this order. It does not matter if the same colored spreads are next to each other.

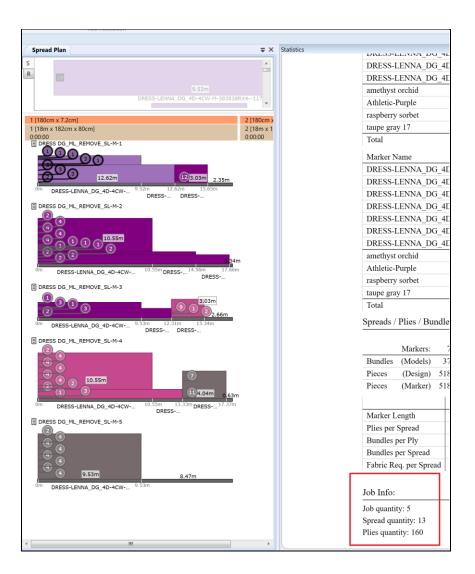


"Show Jobs Info" now appears in the context menu for the Spread Plan Statistics pane. When checked, the pane shows three rows:

- job quantity
- spread quantity
- plies quantity

This information is only displayed when cut plan stage is "Jobs Defined" or more.





6. ACCUPLAN EXPLORER

Interface improvements have been made to allow AP Explorer to support F5 as a default shortcut to refresh all browsers, just as Windows Explorer or AccuMark Explorer. Also, users can manually enter Location, Company Name, and Supplier for APX filters. Filter Location in the Time Plan view, then the Filter Jobs in Grid should be unchecked first.

To enable more customization for the Quick Access Toolbar, users can now add the following items:

- Work Orders, Cut Plans, Cut Jobs
- Fabrics, Rolls, Roll Allocation
- Save Changes, Refresh, Clear Filters.
- Expand All, Collapse All.
- Go To Job, Previous, Next, To Front, To Available Slot, Reorganize, Remove

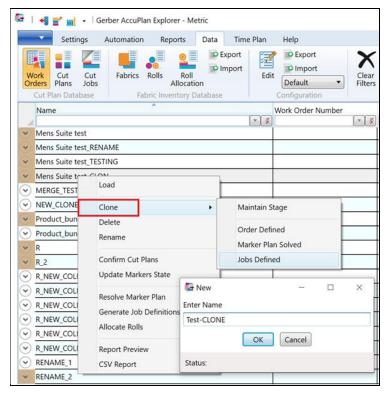
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6.1 AccuPlan Database Management

Clone and Rename have been added to the AccuPlan Explorer File Menu. Rename simply changes the name of the work order, while clone will allow a copy of the item to be made. The Rename function renames order names, renames cut plan names and job names.

In addition to the File Menu, an existing stored work order can be cloned or renamed using a context (right mouse) button menu.



For cloned work orders, cut tickets with new names are created and the sort order of items is maintained. User created Browser Configuration of columns is preserved when exiting the application.

When cloning, there are options: to Maintain Stage, Order Defined, Marker Plan Solved, and Jobs Defined.

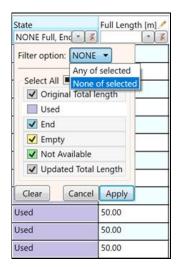
Maintain Stage clones the WO to the same stage as the original order, except for the Roll Allocation Stage. The Original Work Order can be cloned to the same or lower stage. I tis not possible to clone up to stge Roll Allocated; rolls must be allocated for each order separately depending on the available Fabric Inventory.



6.2 Data Browsers

6.2.1 Configuration

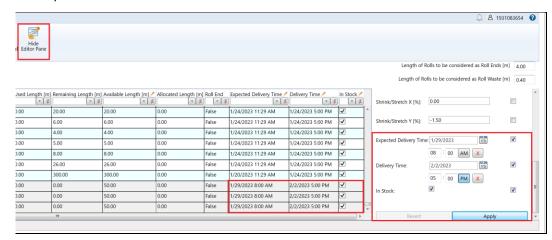
Users can now filter to hide stages in the grid display. "Any of selected" option is the first listed, and default. Stages can be shown/hidden and users can also switch to the "None of selected" option to hide all.



6.2.2 Fabric Inventory

If there are rolls with the same Roll ID, AccuPlan highlights related rows with a red box to allow users to correct. When all IDs are unique, the roll database can be saved. The ability to search with Wildcard characters has been added to the Fabric Type selector, so only Fabric types which meet search criteria display.

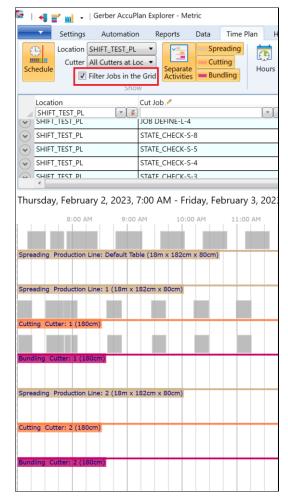
Editable fields for Expected Delivery Time, Delivery Time, and In-Stock are now in the Editor pane for Rolls.





6.3 Time Plan

In the Time Plan ribbon tab under the Location and Cutter selector, there is a sticky checkbox "Filter Jobs in the Grid". When the checkbox is checked, the Location and Cutter selected in the Time Plan are applied as filters in the Cut Job grid, overriding any previous filters.



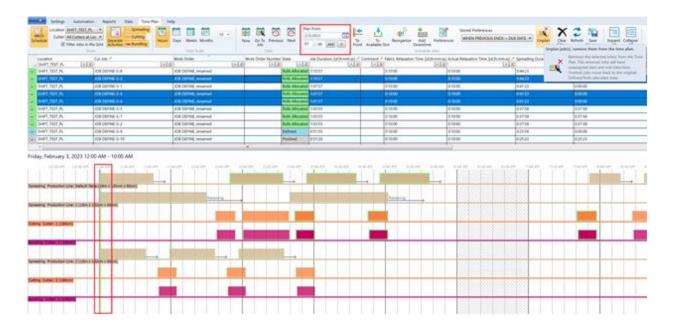
The job(s) selection in the Time Plan pane highlights the job(s) in the Cut Job grid. Any job selected in the timeline view is also selected as a row in the grid.

The Schedule Jobs Ribbon group now includes "Plan From date/time picker". The blue line represents the desired start. Remove this blue line by clicking the X beside the field. The actual start of the planning is represented by the yellow line after "Now" and it shows the next available working time.

If "Plan from" start time entered is not a valid work time, then the yellow line moves to the beginning of the next working time interval.

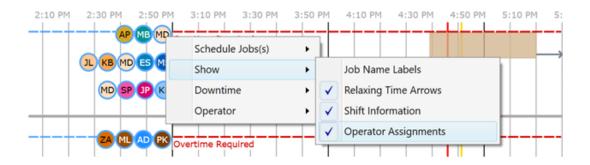
When the "Plan From date/time picker" is defined, then the view jumps to the chosen date/time and the user can start planning from the blue line by To Front, To Available Slot, and Reorganize functions. A job can be removed from anywhere within the Timeline.





6.3.1 Schedule View - Jobs in Time with Operators

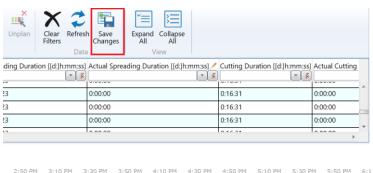
Operator intials now appear in bubbles in the timeline for Cutting, Bundling, and Spreading, according to the Operator Assignment. These bubbles can be hidden by unchecking Show > Operators Assignment.

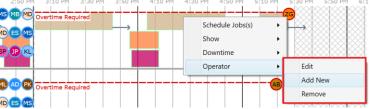


Add/Remove/Edit the Operator Assignments directly in the Time Plan using a context menu. The Operator Assignment dialog will display pre filled with Shift, Device, Activity, and From Time based on the mouse position in the grid when opening the menu.

Remove operator removes him from all shifts in the Production Location. If an operator needs to be removed only from one shift, use Edit, not Remove. Be sure to Save Changes.







6.3.2 Planned Jobs

The Remove function from the Time Plan ribbon menu was changed to a more descriptive term, "Unplan" so that completed jobs are handled properly. When finished jobs are selected, the user is asked whether to unplan the finished ones. The Unplan function is now accessible from

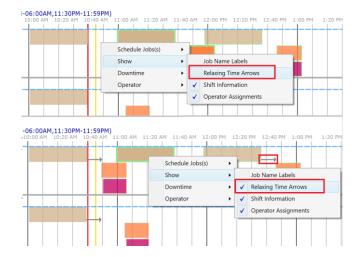
- AccuPlan Explorer Ribbon on the Time Plan Tab> Schedule Jobs.
- Cut Jobs browser's rows context menu > Schedule Job(s) submenu and from the original Set job State submenu
- Schedule View's context menu >Schedule Job(s) submenu

Planning of finished jobs has been improved to avoid potentially confusing situations in AccuPlan Explorer. Now, when users want to schedule finished jobs using the selections "To Front" or "To Available Slot", the user is prompted "The job"XY" is already finished. Do you want to unplan it and plan again as unfinished?" Options display to respond: Yes, Yes All, No, No to All, and Cancel.

When the planned Start Time is set manually, not automatically with the planning functions, there are no auto-corrections. The expectation is the user has chosen with intent, and will Unplan a finished job manually as well, prior to setting a start date in the future.

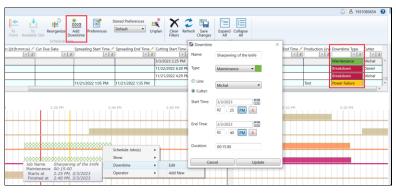


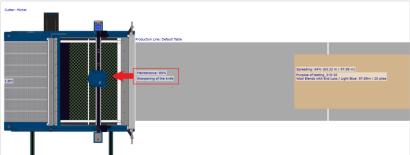
Actual Relaxation Time has been added, and users can drag/drop the column to display it anywhere in the grid. The time can be edited and jobs reorganized after edits as needed. The Time Plan Schedule context menu now features Relaxing Time arrows to serve as visual indicator.



6.3.3 Downtime

The Downtime Type and Cutters columns are visible by default. Hide the columns by deselecting the Configuration > Is Visible check box. The Downtime types are always listed on top and Spread and Cut Jobs are below. Click on the Downtime item in a Time Line and the related row highlights.





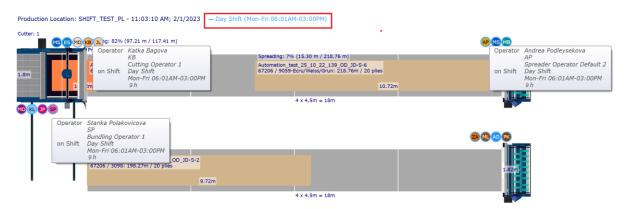


6.3.4 Status view

There are two show options: Shift Information and Operator Assignments that are shared by the Schedule and Floor views and appear in both context menus.



A tooltip above Operators in the Production Location Status displays the Operator Name, Initials, Name Description, Shift Name, Shift Time Pattern and Shift Description.



7. AUTOMATION

7.1 Automation Settings

Now Automation will not force selection of Reusable Markers from an AccuMark Storage Area if a user unchecks the option "Check Reusable Markers from SA" while importing XML files.

7.2 Automated Processing

7.2.1 Reusable markers from Storage Area and Marker Library in Automation

To allow more rapid processing, if an existing marker is already stored in the AcccuMark Storage Area, it is reused. If there are multiple made markers in the Storage Area, the best marker is always reused, regardless of which option ("Show markers in window" or "Use markers automatically") is checked. For existing markers in the Marker Library, the Marker Library marker is always reused.



8. REPORTS

8.1 Production Reports

Details and Statistics can be displayed in reports, based on checkboxs selected.

Generate a production report for all lines using the option All in the selection box for Production Line or create a report for each line by choosing one or more individually.

The label "Production Location" has been renamed to "Location" and the "Production Line" has been renamed to "Line" to allow the display of statistical data for all lines separately and also together if the option All in the select box Production Line is selected.

8.2 Cut Plan Report

A new selection "Set Product" in the Basic Report Options will allow two new fields to be populated. A new entry in the Cut Plan report, layout A or B, will be added "Total Product Bundles" and in the comparison results for Cut Plans, an additional row "Total number of product bundles" appears. Additionally, with this choice, a new row is added for Fabric per Bundle.

"Net Weight Per Bundle and Gross Weight Per Bundle" are renamed to "Net Weight Per Product Bundle and Gross Weight Per Product Bundle" when the user selects the Set Product in Basic Options. The related column values reflect how many bundles are included in the Product Bundle.

"Fabric Required" has been added to the cut plan report options for Layout A and B. For the Marker Plan and cut plan statistics report, an option Marker Plan Bundle Quantities has been added. The value for fabric required is displayed only if purchase orders exist in the work order.

8.2.1 Cut Plan Comparison

"Total Number of Spreads" and 'Bundling Time' have been added to Comparison Results Report.

For the Comparison report, the Cost/Garment (Fabric) was renamed to Fabric Cost per Bundle, and Cost/Garment was renamed to Total Cost per Bundle. New rows have been added for Fabric Cost per Product Bundle and Total Cost per Product Bundle. Savings per Garment was renamed to Savings per Bundle (Fabric Only and Total) and Savings per Product Bundle row has been added.

8.2.2 Cut Plan Statistics Report

When Set Product is enabled, the "Fabric Info per Product Bundle" displays in the Cut Plan Statistics Report. Addionally, a new entry for "Fabric Info Per Dozen of Product Bundles and "Per Product Bundle" is added in Cut Plan Statistics. The "Product Bundles column" is added into the Marker Plan Bundle Quantities grid in Cut Plan Statistics Report.