Release Notes: Visual Production Scheduler

Product	Visual Production Scheduler
Version	1.5
Build	1.5.0
Date	30 June 2021

List of enhancements – including all changes since release 1.4.5.3

- New **search dialog** enabling to search for a certain text within a list of the production order lines. The dialog dynamically gets filtered by records with the entered search text. When double clicking on one of these records, the dialog closes and the view directly scrolls to the first operation of this production order line. In the XMLport "NETRONIC VPS Export" a new field "POLSearchText" was added on production order line level, by which a partner can extend the text information shown in this dialog and which is included in the search and filter function so that customer specific information can be included in the search dialog.

- **Consider queue time**: the VPS now enables considering the queue time in the scheduling algorithm The queue time is stored in the machine/work center and operates on the calendar of the relevant machine/work center. The feature can be enabled in the VPS setup.

- A warning symbol can be shown in case of a **sequence violation**. By this a bar gets a yellow warning sign if e.g., the succeeding operation starts earlier than the queue time would allow. This option can be activated in the "Setup dialog".

- The "Setup" dialog was enhanced by options **to disable the dialogs** popping up in case of a sequence violation, moving an operation that has already started, successful saving, and restoring initial values.

- A **new dialog for named "Data Filters"** was added (similar to the named "View Filters") so that the user can create multiple data filters and switch between them.

- The new option **"Show Data filter at startup"** in the "Setup" dialog, lets the user decide whether the Data Filter dialog should pop up on every start of the VPS so that the data filter can be dynamically changed on every start.

- The **last active view** can now also be specified to be the startup view. For this, the "Setup" dialog was enhanced accordingly.

- The **coloring of the progress bar** was adjusted. If the operation is in progress, the progress bar will be grey as before. If the operation is finished, the bar will get black. If the progress calculation states a progress of >100% the progress bar will get red.

- Certain UI **user settings are saved** while working with the VPS. When reopening the VPS, these settings are considered. By that, the next time a user opens the VPS the "Show Progress" and the "Show/Hide non-working times" settings are kept from the last session. The same applies to the height of the histogram area which can be adjusted by dragging the sash between the diagram area and the histogram area.

- **Additional UI user values** "ZoomFactor" (changeable via Ctrl + +/- or Ctrl + mouse wheel) and "UnitWidth" (the time resolution of the timescale, changeable via mouse wheel when hovering with the mouse over the timescale) to be saved so they can be reloaded and set after the VPS gets restarted.

- The VPS now offers a **full French translation**.

For partners:

- Option to **add custom context menu entries** to production order routing lines. To make use of it you need to set the values "PORLCustomContextMenu01Text" and "PORLCustomContextMenu01ID" on production order routing line level inside of the XMLport "NETRONIC VPS Export". After this, the PORLCustomContextMenu01Text will be part of the context menu of an operation. When the user clicks on it, the new event "CustomContextMenuEntryClicked" (2070) will be triggered with the information on which operation this happened.

- The option to **support multiselection** was added. This can be activated by setting the "MultiSelectEnabled" value in the user setup table to TRUE. By that a user can select multiple operations at once and move them together to another point in time. As this could have a heavy impact on the complete schedule, an automatic scheduling of predecessors and successors does not happen. This needs to be explicitly activated by the "MultiMoveWithSchedule" option in the user setup table. If this option is set to TRUE, linked operations of operations will be scheduled as well in case the user has moved multiple operations at once.

- A **custom due date line** on production order line level can be added. To make use of this, the "POLCustomDueDateDT" and "POLCustomDueDateColor" values on production order line level inside of the XMLport "NETRONIC VPS Export" needs to be set.

- A **new VPSObjectsMarked event** was added. This event gets triggered when the user selects one or multiple operations inside of the VPS.

- **New function MarkVPSObjects**, by which the partner can mark certain VPS objects, like the indicator functionality, and thus set the font and/or the background colors of bars according to his own business logic. **Sample code** for this was added for the use case that all operations belonging to the same production order get highlighted in yellow when the user clicks on an operation.

- Option to use the VPS as **an automatically updating "Shop Floor Plan"** which can be put on a screen on the shop floor, and which shows the current and upcoming operations planned on the shown machines. This can be achieved by making use of the following additional setup parameters:
    - "AutoUpdateInterval" (time after which the VPS automatically does an update of the shown data)
    - "AutoScrollInterval" (time after which the VPS automatically scrolls the diagram in time to have the current date/time e.g., always in the center of the view)
    - "ShowTimeLine" & "TimeLineUpdateInterval" (shows the current date/time as a dateline and defines how often this line should be updated.)

    To get a shop floor plan for a certain machine, the customer needs to create a dynamics user which is used for the dynamics client run besides this machine. For this user they can set the data filter to load only this machine center (Make sure that the option "Show partial Prod. Order Lines" is activated). Set the AutoUpdateInterval e.g., to 5 minutes, the AutoScrollInterval and TimeLineUpdateInterval to 30 seconds, and ShowTimeLine to 1.
    By that the data gets updated every 5 minutes, but the diagram scrolls every 30 seconds and updates the current datetime line every 30 seconds as well. By changing the time resolution to show e.g., 3 hours you can move the diagram in a way that you will always see what has happened in the last half hour and what will come up in the next 2,5 hours.

- In the XMLport "NETRONIC VPS Export" we **added CustomTableText fields** to the Work Center, Machine Center and Prod. Order Line objects so that a partner can adjust the text shown in the table section of the VPS.
- Additional styles for **showing text on operations**: Especially in combination with the shop floor view, it is useful to always see the full text on an operation rather than having it truncated at the end of the bar. The new settings that were added to the user table are:
    - "POViewTextLayerType"
    - "ResViewTextLayerType" .
  They can have the following values:
    - - 0: (=FromStartToEnd which is the standard mode)
    - - 1: (=FromStartUnlimited which will show the text beginning at the start date of the bar and will not be truncated at the end.)
    - - 2: (=FromEndUnlimited which will show the text beginning at the end date of the bar)
- Via the indicator or MarkVPSObjects functionality, it is now possible to set the **background color and font color** of work Center and machine Centers in the table section as well.

List of fixed bugs
- When reading Prod. Order Capacity Needs, we filter out values without start/end times. This caused issues in certain environments.