The Chempax C/S Work Center Scheduler provides production planners the ability to graphically schedule individual work centers specified in the routing steps of a batch. It enables planners to view activity in multiple work centers in the plant to easily maximize work center utilization. The scheduler consists of one screen which is divided into two timelines: the top for the scheduled routing steps (Scheduled Timeline) and the bottom for the unscheduled routing steps (Unscheduled Timeline). Work Centers in the selected work center group are displayed in the top timeline. Each unscheduled routing step whose work center is in the selected work center group is displayed in the bottom timeline.
SETUP
To utilize the work center scheduler, there is some minimal set up. The following covers the setup steps:

WORK SCHEDULE
Use this program to create the working days of the week and the working times for each day. For each working day, specify the day, the time work starts and the hours open. Define as many work schedules as required for different schedules of the work centers. Once defined, the work schedule will have to be associated to the work center in Work Center Maintenance.

DATA TO ENTER:
• Work Schedule – Identifying text for the work schedule name
• Description – Provide details on the work schedule
• Day of Week - One row for each day of the week Sunday – Saturday
• Start Time – The time work beings on that day of the week specified in HH:MM format
• Duration – The working time for that day in HH:MM format

HOLIDAY SCHEDULE (OPTIONAL)
An optional holiday schedule can be defined for the non-working dates of the work center’s associated warehouse.
WORK CENTER

Work Centers must be associated with a warehouse, work schedule, and flagged as “Schedule”. The warehouse needs to be specified so the scheduler can use the appropriate holiday schedule. The work schedule is used by the scheduler to calculate the routing steps start and end times. If routing steps will be moved between like work centers then the work center type will have to be populated.

WAREHOUSE

Each work center has to be associated with a warehouse. The holiday scheduled linked to the work center’s warehouse will be used when calculating the routing steps start and end times.
WORK CENTER GROUPS

Create work center groups for work centers that should be displayed on the scheduler at the same time. For example, if multiple product lines are produced in different work centers, define work center groups for each product line, grouping together the individual work centers into a single work center group. When running the scheduler, select the desired work center group when scheduling the routing steps. Only batches (planned orders) that use a work center in the work center group are displayed. Therefore, breaking down work center scheduling into a manageable task.

DATA TO ENTER:

- **Work Center Group** – Identifying text for the group
- **Work Center** – Valid work center defined in work center maintenance
- **Display Sequence** – Optional value used to define the order the work centers should be displayed in the work center scheduler. If not specified the work centers will be listed in alphabetical order which might not be the order product flows through the work centers. The zero padded value will display the work centers in ascending display sequence order, which is helpful when looking at the flow of the routing steps.

M/G MODULE CONTROL (MG #63) – ENABLE WORK CENTER SCHEDULE

This is the flag used to instruct the system to run the scheduling routine for open batch tickets. Nothing will display in the Work Center Scheduler until this flag is enabled. When turned on the system will create all the unscheduled routing steps for all open batch tickets. The processing time to create the unscheduled routing steps will vary based upon the number of open batch tickets and the number of work centers to be scheduled.

USING THE WORK CENTER SCHEDULER SCREEN

The Work Scheduler screen is used to capacity plan individual work centers used in the manufacturing process. The data in the Unscheduled Routing Steps timeline comes from the work centers specified in the batch ticket routing steps defined in Formulation/Routing Maintenance. The duration of these routing steps is used to determine the length of time a batch ticket will require an individual work center. The routine to create the unscheduled routing steps, working backwards from the batch’s due date, will create unscheduled routing steps calculating the time of each routing step. The work center’s hours of operation and holiday schedules will also be used in the calculation. The production planner can schedule any of these unscheduled steps forming the production schedule.

Scheduling of the unscheduled steps can begin at any step and the system will automatically adjust the other unscheduled steps associated with the transaction, preserving the sequence and durations of the steps. If there is a step in the manufacturing process that causes a bottleneck, that step can be scheduled first allowing the system to adjust any prior or subsequent unscheduled steps. Once the bottleneck is resolved, the production planner can adjust the remaining unscheduled steps. If no bottlenecks exist, the planner can start scheduling with the first step.
WORK CENTER SCHEDULER SCREEN FEATURES

The following describes the various features available on the work center scheduler screen.

UPDATES SECTION

- **Schedule or Unschedule**: Used to schedule or unschedule routing steps.
- **Undo or Redo**: Used to undo or redo the last transaction.
- **Log**: Lists all transactions made since that last Apply Filter was pressed.

FILTERS PANEL

The filter panel offers the ability to limit the routing steps displayed on the scheduler by Work Center Group and Dates.

- **Work Center Group**: Limits the display to only those routing steps associated with work centers in the selected work center group.
- **Dates**: Limits the routing steps displayed to those whose
  - Associated with an open batch AND
  - Start date/time is on or after the filter start date AND
  - Start date/time is on or before the filter end date

FILTERS SECTION

- **Apply Filter**: Used to refresh the schedule after changes are made on the filter panel.
- **Schedule In Non-Working Hours**: Used to ignore non-working hours when scheduling routing steps.

TIMELINE SECTION

- **Zoom**: Expand the timeline scale view.
- **UnZoom**: Condense the timeline scale view.
- **Refresh**: Refresh the schedule to display the latest info.

SEARCH SECTION

- **Search**: Easily search and find specific info.
- **Search Next**: Used to continue searching for the entered text.
TIMELINES

To quickly move to a specific Date, Week or Month, use the timeline scroll buttons located in the heading of scheduled and unscheduled timeline.

- **Month** – Navigate forward and backwards one month at a time
- **Week** – Navigate forward and backwards one week at a time
- **Date** – Navigate forward and backwards one date at a time

**TOP TIMELINE CONTEXT MENU**

- **Unschedule** – Used to unschedule a scheduled step moving it from the top timeline to the bottom timeline.
- **Left** – Used to move the selected event directly after the previous event setting it’s start date and time to the previous events end date and time.
- **Right** – Used to move the selected event directly before the next event setting it’s end date and time equal to the next events start date and time.
- **Show Dates** – Opens a screen listing all the routing steps associated with the selected routing step. The screen displays the work centers, scheduled toggle, start and end dates and times for each routing step.

**BOTTOM TIMELINE CONTEXT MENU**

- **Schedule** – Used to schedule an unscheduled step moving it from the bottom timeline to the top timeline.
- **Scroll To This** – Used to reposition the bottom timeline to the row’s event.
- **Show Dates** – Opens a screen listing all the routing steps associated with the selected routing step. The screen displays the work centers, scheduled toggle, start and end dates and times for each routing step.
STEP MOVEMENTS

• Adjust any scheduled or unscheduled step by clicking on it and then dragging it to a new day/time or work center.

  ◦ Moving an unscheduled step will result in the moving of any associated unscheduled steps to preserve the routing step order. Any scheduled steps associated with the unscheduled step will not be moved.

  ◦ Moving a scheduled step will result in the moving of any associated unscheduled steps to preserve the routing step order. Any scheduled steps associated with the scheduled step will not be moved.

  ◦ The system will check for any routing step sequencing issues preventing the movement if it results in the step being out of sequence with associated scheduled steps. For example, if routing step 1 and 2 are scheduled, the system would prevent the movement of step 1 if the new end time is after the start time of step 2. Similarly the system would prevent the movement of step 2 to begin prior to the end of step 1.

  ◦ If a “chain” of events are scheduled for the same work center, meaning multiple routing steps are scheduled back to back to back and any step of the chain needs to be moved out into the future, select the step to be moved and drag it into the future. The system will move each step in the chain checking to make sure no sequencing rules are violated. If no violations are found, the entire chain is moved forward. The same method will work for moving a step backwards.

• Manual events can be created on the schedule timeline to schedule downtime at the work center. To create the manual event, highlight the desires timeframe and press enter to open the New Event dialog box. Enter the event subject and make any necessary adjustments to the start and end dates and times. Press the Save & Close button to save the changes to schedule.

NEW FEATURE SPOTLIGHT

Datacor’s Wireless Chempax C/S screens will be resized to 18 rows by 30 columns. The Shipment Confirmation Screen 4 will be the first screen modified to the new screen size with the addition of the Hazardous Material Handling Charge field.

Thank you everyone who participated in the Wireless Chempax C/S Device Survey. Your feedback is greatly appreciated as we continue to provide you with the best-in-class functionality and services. Congratulations to Patrick from Halocarbon Products Corporation for being selected as the lucky survey winner!

UPCOMING INDUSTRY EVENTS

Meet a Datacor representative at an upcoming industry event.

• Sept. 6th - 8th Specialty & Agro Chemicals America Show
• Sept. 11th - 13th NACD Northeast Region Meeting
• Sept. 11th - 14th ISSA/INTERCLEAN 2017
• Sept. 13th - 16th AWT Annual Convention & Exposition
• Sept. 26th - 30th Supply Side West

ANY QUESTIONS?

If you have any questions, please e-mail cs-support@datacor.com or call us at (973) 822-1551.

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