

MANUAL

Visual Service Scheduler Version 1.1 For Microsoft Dynamics NAV

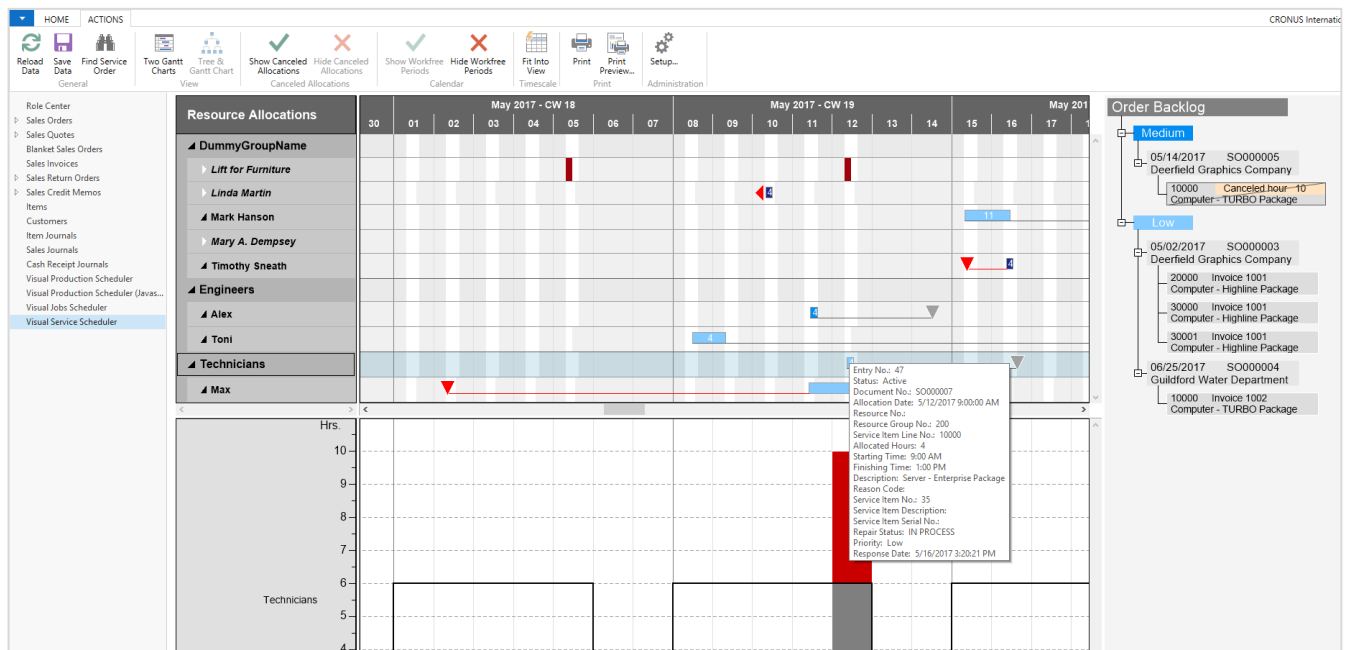


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March 2017	

Starting the VSS

FIRST OPTION

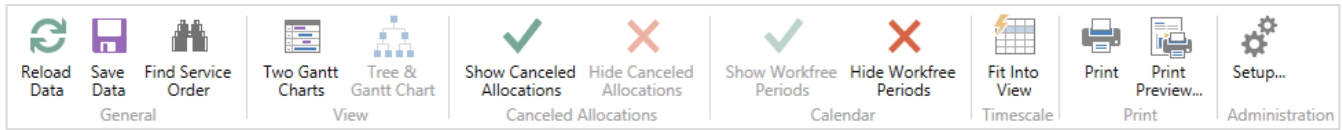
By Departments > Service > Planning & Dispatching > Visual Service Scheduler

SECOND OPTION

Customize your role center to display the VSS button in the role center menu

The Work Space

THE MENU BAR



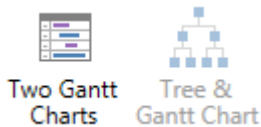
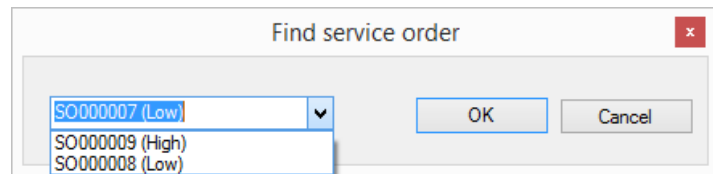
Above the diagram, you find the VSS menu bar offering comprehensive functionality:



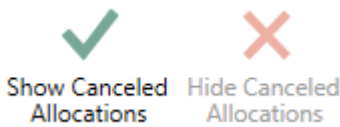
Some actions require reloading and/or saving data



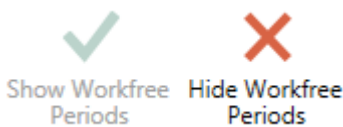
Enter the number of the service order you are looking for. The order will be highlighted in the order backlog and/or planning table (Allocation Gantt)



Switch between the views “Two Gantt Charts” and “Tree & Gantt Chart”



Show or hide elements needing reallocation
(in the planning table, i.e. the Allocation Gantt)



Show or hide work free periods



Fit Into
View

The resolution of the time scale is reduced/increased to display the whole time range of your orders as you have specified it in the “Setup” dialog.



Print

Calls the “Print” dialog



Print
Preview...

Opens the “Print Preview” dialog



Setup...

Calls the “Setup” dialog allowing for some key settings of the VSS.

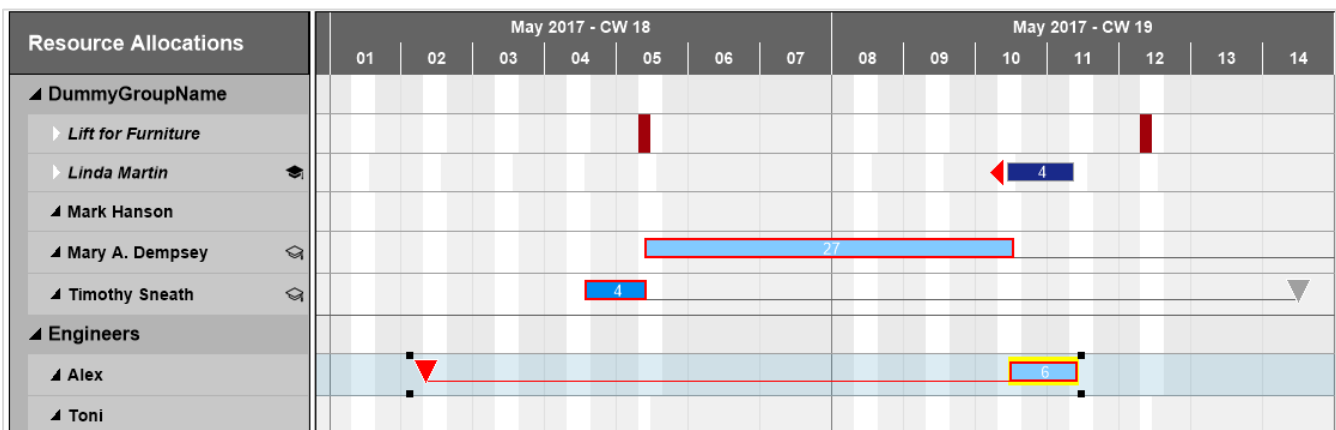
THE ALLOCATION GANTT CHART

The main diagram of the VSS is a Gantt chart in the upper area: at the top, there is a time scale; below the time scale, the layers of the resource allocations are displayed. On the left, a table shows the resource groups/resources.

In the background of the Gantt chart a calendar is displayed: Weekends are highlighted in grey while the bars of the service allocations are colored depending on the priority.

Please note that the adjacent resource allocations of a service item line are combined in one long layer.

Storing such allocations, however, will be done in a NAV compliant way, i.e. by storing morsels on a daily basis.

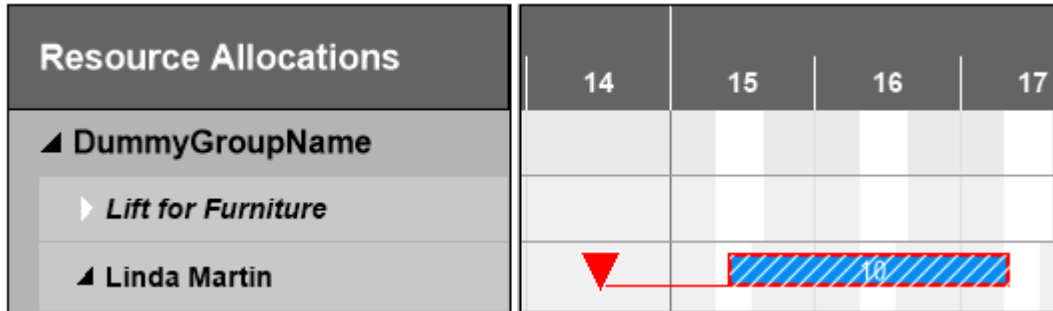


SHOW CANCELED ALLOCATIONS

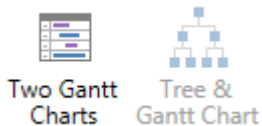


After clicking the corresponding icon in the menu bar, all canceled allocations are shown in the Allocation Gantt and are highlighted by a diagonal hatching. In the order backlog the canceled allocations to a service item line are struck through by a diagonal line and they get a brown background.

Read here how [to cancel an allocation](#).



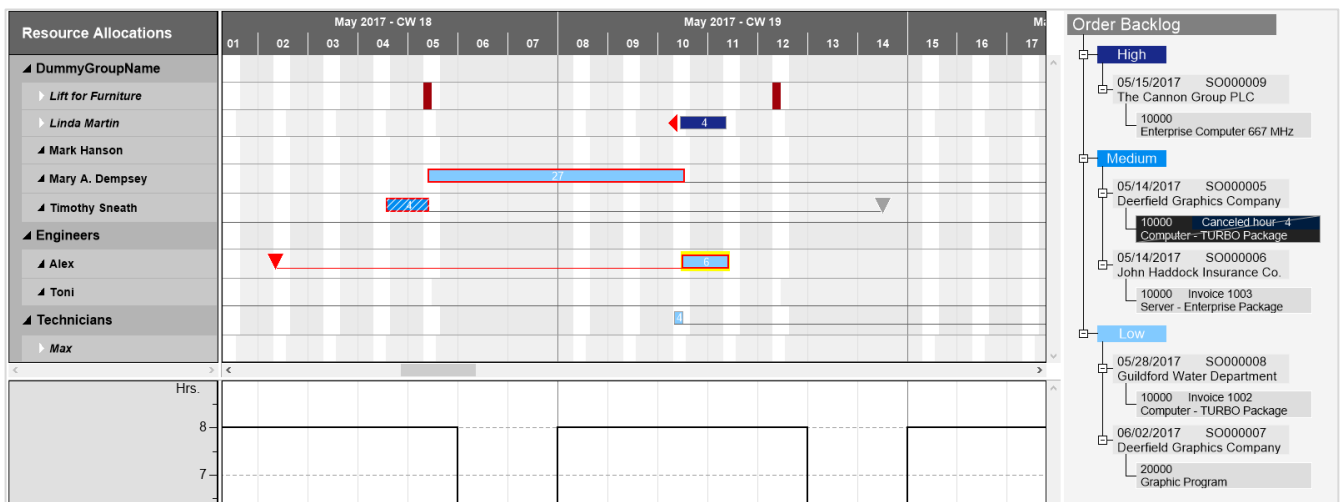
TWO DIFFERENT VIEWS



There are two different views in the VSS, "Tree & Gantt Chart" and "Two Gantt Charts".

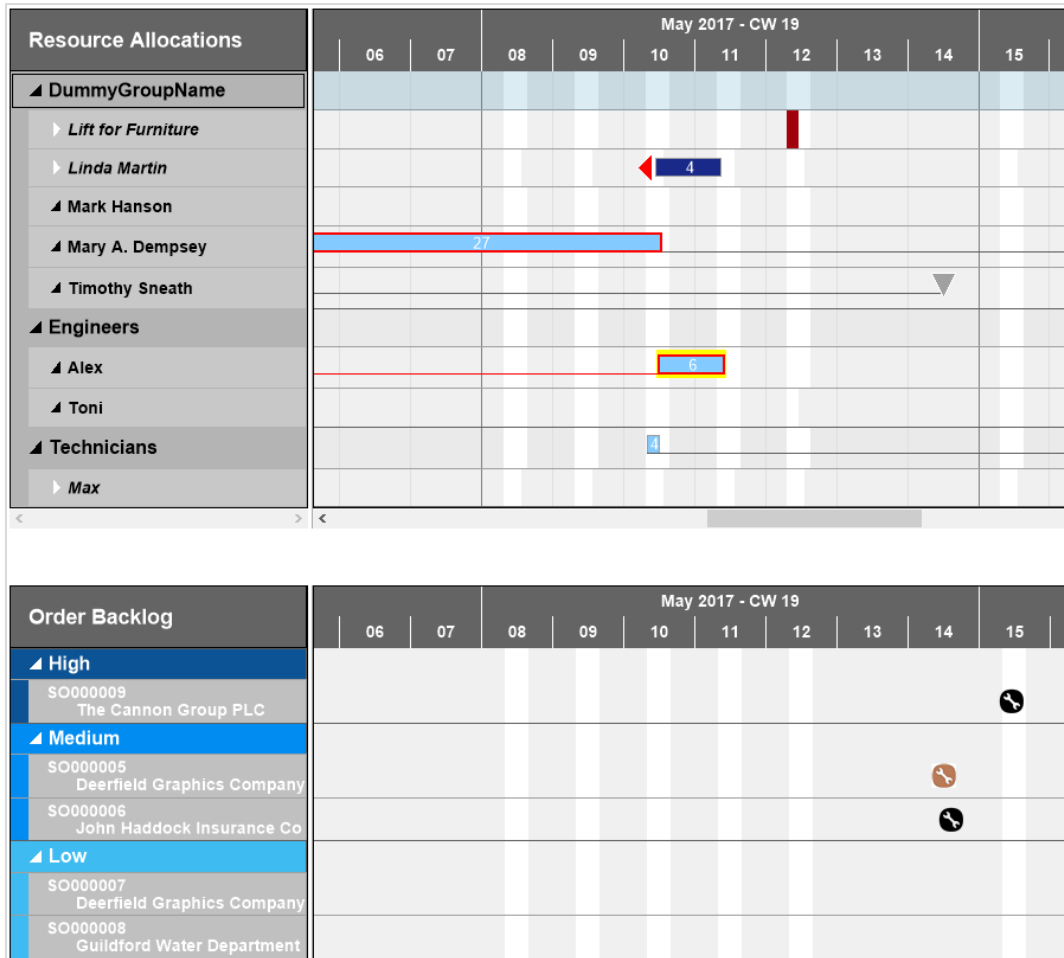
You can switch between them by using the corresponding buttons. Thus you can decide whether you want to display the orders from the "Order Backlog" as an indented list or in a second Gantt chart. In either case, these elements are grouped by the priority of the service order.

The Tree & Gantt Chart View



- The orders are sorted by response date
- The "Order Backlog, i.e., orders and their service item lines that are not yet allocated is displayed on the right of the Allocation Gantt.
- By dragging service item lines to the diagram they can easily be allocated to a resource.
- Canceled allocations are struck through by a diagonal line

The “Two Gantt Charts” View



- The “Order Backlog”, is displayed in a second Gantt chart below the Allocation Gantt.
- The orders are sorted alphabetically
- By dragging service item lines to the diagram they can easily be allocated to a resource.
- The symbols of canceled allocations are highlighted in brown instead of black.

PRIORITY



The bars of the service allocations are colored depending on the order’s priority:

High

Medium

Low

COLLAPSING AND EXPANDING

Collapse and expand resources or resource groups clicking the corresponding symbols  (collapse) or  (expand), thus hiding details or rendering them visible. By expanding a resource line, the due date will also become visible if not specified otherwise in the “Setup” dialog.

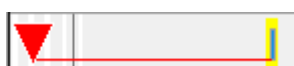
Resource Allocations	May 2017 - CW 18						May 2017 - CW 19				
	02	03	04	05	06	07	08	09	10	11	12
▲ DummyGroupName											
▶ Lift for Furniture											
▶ Linda Martin											
▶ Mark Hanson											
▶ Mary A. Dempsey											
▲ Timothy Sneath											
▲ Engineers											
▲ Alex											
▲ Toni											
▲ Technicians											
▶ Max											

THE RESPONSE DATE

The response date is indicated by a milestone symbol taking different shapes depending on the status of the resource/resource group:



Expanded group: The allocation is later than the response date



Expanded group: The allocation is earlier than the response date

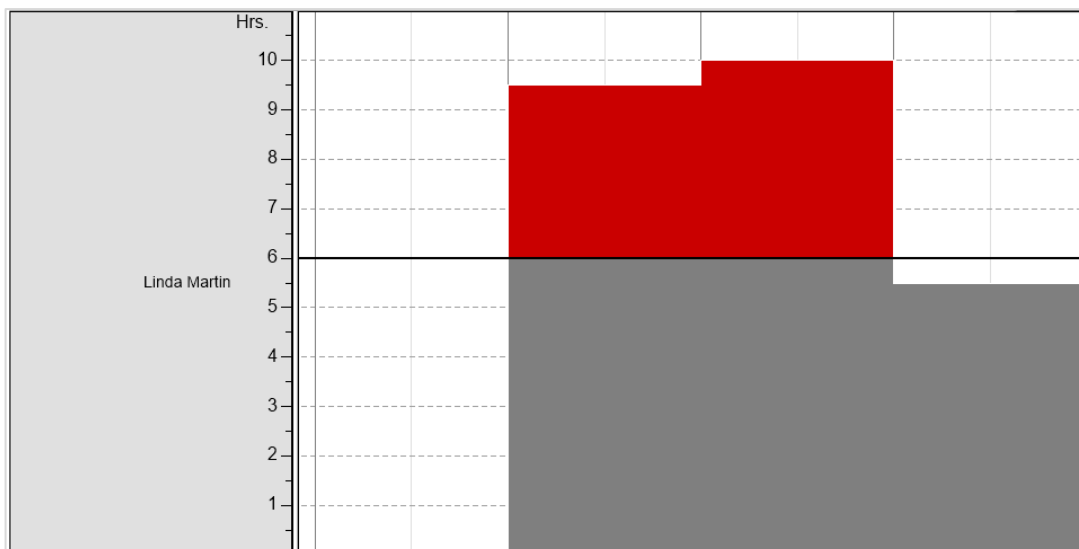
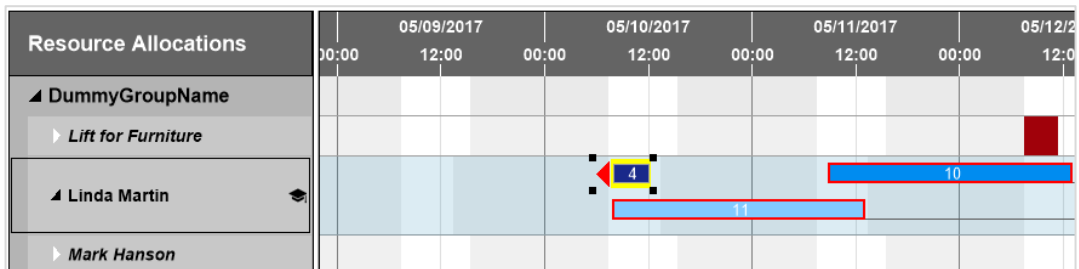


Collapsed group: The allocation is later than the response date

THE HISTOGRAM

Histograms offer visual decision support by instantly indicating capacity bottlenecks. They are displayed below the allocation Gantt if you have activated the corresponding option in the “Setup” dialog.

When moving the mouse onto a resource group or a resource, its row will temporarily be marked by a bluish-grey background while a histogram below the Gantt chart displays the workload of the corresponding resource. The sections highlighted in red indicate a capacity problem at the resource „Linda Martin“ that ought to be solved by rescheduling.

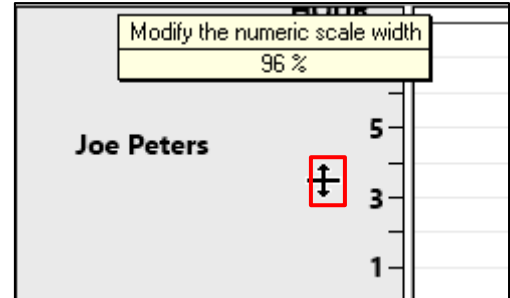


SET UP THE WORKSPACE

Learn below some options to set up your workspace.

Adjusting the Numeric Scale of the Histogram

If you wish to modify the resolution of the numeric scale in the histogram, please place the mouse cursor on the numeric scale and drag it either upward (enlarging) or downward (reducing).

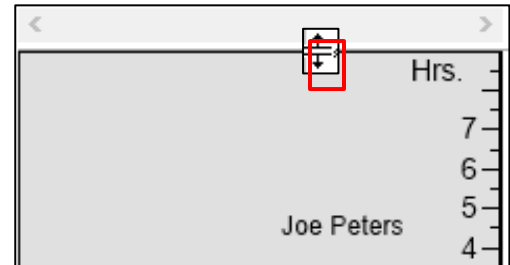


Adjusting the Height of the Histogram

Accordingly, you can modify the height of the histogram. Drag the horizontal splitter bar between histogram and table/diagram area upward or downward.

Only possible when a vertical scrollbar is shown!

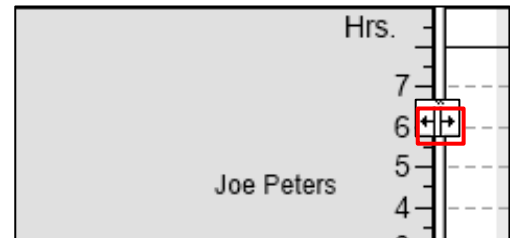
Note: The modifications in the histogram area will always be set back and hence are not permanent.



Adjusting the Width Ratio Between Table and Diagram

You can modify the width ratio between the table and the diagram by moving the vertical splitter bar between them.

Only possible when a vertical scrollbar is shown!



Zooming and Scrolling

Increase/reduce time scale resolution: (depending on how much of detail or summarization is required)



Fit Into View

Enlarge/reduce diagram

Shift time scale

- Mouse within the time scale: mouse wheel
- Mouse outside of time scale: <Shift> + mouse wheel

If you have modified the time scale solution and want to have the overview again, click this icon to have the time range be shown completely on the screen

<Ctrl> + mouse wheel

By mouse

How to See More Details

Data details of a resource show up when the mouse cursor points to the according table row.

▲ Linda Martin	
▶ Mark Hanson	No.: LINDA Name: Linda Martin Name 2:
▶ Mary A. Dempsey	Job Title: Service Manager Resource Group No.: Dummy-Gruppe Base Unit of Measure: HOUR Gen. Prod. Posting Group: SERVICES Available Skills: A PC PCS S SO
▲ Timothy Sneath	
▲ Engineers	

Data details of a resource allocation can be shown by moving the mouse to the layer in the diagram area:

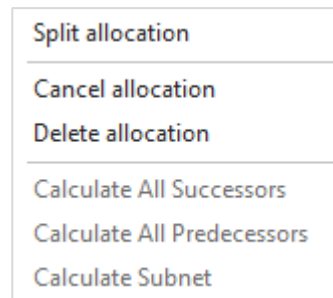
▲ Linda Martin	
▶ Mark Hanson	
▶ Mary A. Dempsey	Entry No.: 61 Status: Active Document No.: SO000005 Allocation Date: 5/11/2017 9:00:00 AM Resource No.: LINDA Resource Group No.: Dummy-Gruppe Service Item Line No.: 10000 Allocated Hours: 10 Starting Time: 9:00 AM Finishing Time: 1:00 PM Description: Computer - TURBO Package Reason Code: Service Item No.: 33 Service Item Description: Service Item Serial No.: Repair Status: IN PROCESS Priority: Medium Response Date: 5/14/2017 12:20:00 PM
▲ Timothy Sneath	
▲ Engineers	
▲ Alex	
▲ Toni	
▲ Technicians	
▶ Max	

The same applies to detail data of the backlog orders. Here, the details of the respective service item line are shown.

▲ High	
SO000009 The Cannon Group PLC	
▲ Medium	
SO000006 John Haddock Insurance Co	
▲ Low	
SO000003 Deerfield Graphics Company	
SO000004 Guildford Water Department	
SO000008 Guildford Water Department	
	Document No.: SO000009 Line No.: 10000 Service Item No.: 7 Service Item Group Code: SERVER Item No.: 80007 Serial No.: AS764789 Description: Enterprise Computer 667 MHz Description 2: Repair Status Code: INITIAL Priority: High Response Time (Hours): 0 Response Date: 5/15/2017 11:07:42 AM Response Time: 11:07:42 AM Starting Date: Starting Time: Finishing Date: Finishing Time: Fault Reason Code: Fault Area Code: Symptom Code: Fault Code: Resolution Code: No. of Active/Finished Allocs: 0 No. of Allocations: 1 Customer No.: 10000 Name: The Cannon Group PLC Expected Finishing Date:

EDIT ALLOCATIONS

Right-clicking on a resource allocation in the diagram area will call the context menu of the according allocation:



- **Split allocation**

In compliance with the NAV standards, resource allocations are always stored only by the day, the duration being based on hours. For the sake of better overview and handling, however, adjacent allocations are always displayed as one single bar in the VSS. Such a resource allocation can always be splitted, amongst others to have the service tasks carried out by several staff members. Since the NAV standard only allows allocating a SIL (Service Item Line) to one single resource, the VSS duplicates the corresponding SIL when saving a split SOA (Service Order Allocation) and assigns a new line number.

- **Delete allocation**

The SOA's corresponding bar will be deleted from the VSS planning table and the records will be removed from the related NAV table (T5950).

If there is no more (active or canceled) allocation to the underlying SIL any more, this SOA will appear in the unfilled orders again, based on the assumption that this SOA (as was the case when starting) is completely unplanned, meaning that no duration was estimated at all.

- **Cancel allocation**

If a SOA is canceled by context menu, it will get the according cancelation identification and the SIL will be highlighted in the unfilled orders, showing the allocation duration that was used last in the form of cancelation hours.

If there have been cancelation records for the corresponding SIL before, the total number of canceled hours will cumulate.

- **Re-allocate**

To show canceled allocations as hatched bars in the planning table, click the according button in the menu bar. Here too, connected partial allocations will be joined. There are two ways of re-allocating canceled allocations:

- By simple drag&drop, i.e., by dragging the element from the unfilled orders to the planning table.
 - By (horizontally or vertically) shifting the cancelation bar or by changing its length.
- If there are other cancelation bars that belong to this SIL, the number of hours of this cancelation element will decrease accordingly.
- In both cases, the status of the SOA will change from "canceled" to "active".

- **Calculate “...”**

After a bar has been moved, it could be useful to recalculate its predecessor(s), successor(s) or its subnet. Click “Recalculate subnet” if you want to recalculate predecessor(s) and successor(s) in one step.

ALLOCATE AND HIGHLIGHT PREFERRED RESOURCES

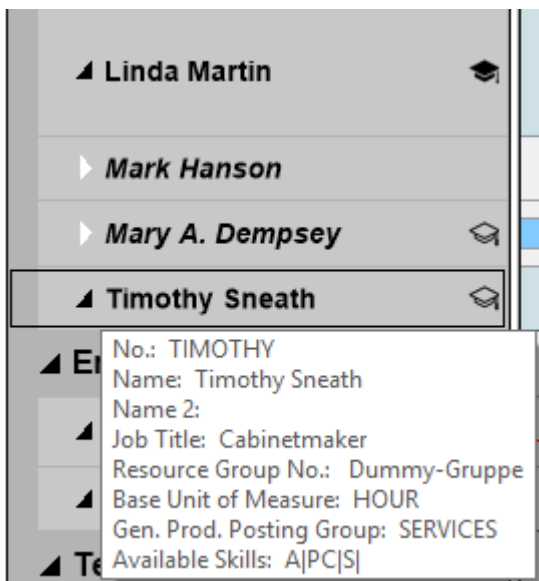
If you prefer certain resources for certain service items, you may as well connect them to the according items thus effecting the resources to be highlighted by an asterisk when clicking them.



DISPLAY RESOURCE SKILLS

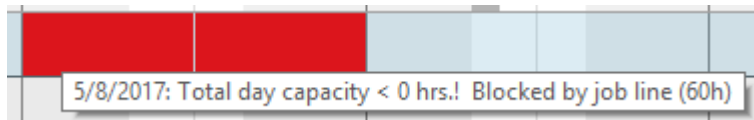
The VSS can visualize skills that you have specified for your resources by showing academic caps next to the resources, appearing when you click a service item line. A filled cap indicates that this specific resource has all skills needed for this specific service item line whereas an unfilled cap shows that the requirement for this service item line are met in part only.

Together with the “Preferred Resource” symbol, the resource skills help allocating staff members to service orders in an easy way. The skills can also be displayed in the tooltip.

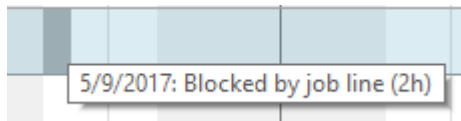


VISUALIZE ALLOCATIONS FROM THE ASSEMBLY/JOB MODULES

The resources table is also used by the NAV modules Jobs and Assembly. So, to avoid double allocations in the VSS, the user can decide to display the resource allocations of the Jobs and/or Assembly Module in the overview. After the corresponding option in the “Setup” dialog has been activated, the resource allocations are displayed as follows:



Red: The resource is completely allocated by Jobs/Assembly



Grey: The resource is already partly assigned by Jobs/Assembly

VISUALIZE RESOURCE ABSENCES VIA NEGATIVE RESOURCE CAPACITIES

Absences (new nonworking times) can be identified and visualized explicitly. For this purpose, the text attribute **Comment** of the data object **ResourceCapacity** can be set, if needed, in the function **LoadServiceDBToGantt()** of the Codeunit 5416200 (NETRONIC VSS Manager).

At the moment, only the key phrases „Holiday“ (orange), „Illness“ (green) und „Business trip“ (yellow) get colored.

These key words can be customized by changing the text constants **TEXT7235**, **TEXT7236** and **TEXT7235** in the function **LoadLanguageDependentOptions** of the Codeunit 5416200 (NETRONIC VSS Manager).

ACCESSING NAV DIALOGS

The VSS has been fully integrated into Microsoft Dynamics NAV. By double-clicking the according element, the according card will be invoked where you can modify the data manually.

Double clicking the service item line in the order backlog will open the card of the corresponding order:

SO000002 · Guildford Water Department

General

No.: SO000002

Description:

Customer No.: 50000

Contact No.: CT000063

Name: Guildford Water Department

Address: 25 Water Way

Address 2:

Post Code: GU7 5GT

Contact Name: Mr. Jim Stewart

Phone No.:

E-Mail: guildford.water.department@cronuscorp.net

City: Guildford

Phone No. 2:

Notify Customer: No

Service Order Type:

Contract No.:

Response Date: 1/23/2017

Response Time: 11:00:00 AM

Priority: High

Status: In Process

Responsibility Center:

Assigned User ID:

Release Status: Open

Lines

Service Item No.	Item No.	Service Item Group Code	Serial No.	Description	Repair Status Code	War...	Contract No.	Service Group
20	80005	DESKTOP	HP83738020	Computer III 866 MHz	IN PROCESS	<input checked="" type="checkbox"/>		

Customer Service History - Sell-to Cust...

Service Item Line Details

Service Item No.: 0

Component List: 0

Troubleshooting: 0

Skilled Resources: 0

Notes

[Click here to create a new note.](#)

OK

The same applies to resource groups and resources – by double-clicking you open the according card where data can be edited manually.

Edit - Resource Groups

Resource Groups

Type to filter (F3) | No. | Filter: 100

No.	Name
100	Engineers

OK

The card “Edit Resource Allocations” can be opened by double clicking a bar:

Edit - Resource Allocations - SO000007

CRONUS International Ltd. ?

HOME

New View List Cancel Allocation Resource Availability Show as List Notes Refresh

Edit List Allocate to all Service Items Res. Group Availability Show as Chart Links Find

Delete

New Manage Functions Planning View Show Attached Page

Resource Allocations ▾

Type to filter (F3) Status → ▾

Filter: SO000007 • 10000

Status	Service Item No.	Service Item Description	Resource No.
Nonactive	35	Server - Enterprise Package	
Active	35	Server - Enterprise Package	

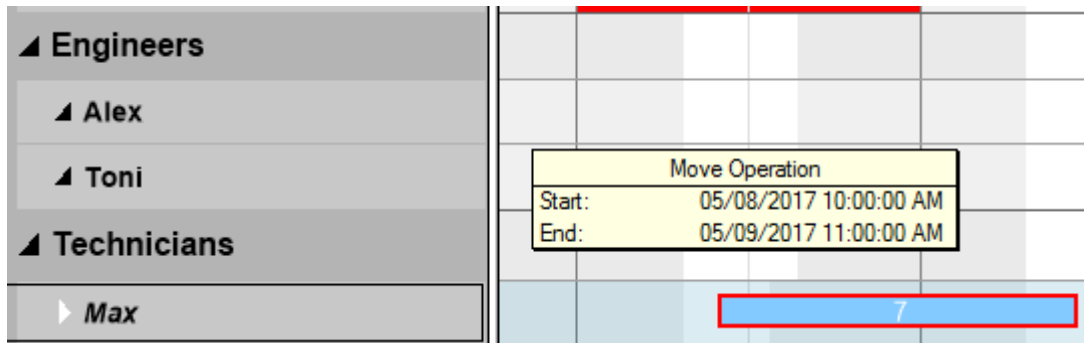
< >

OK

User Interactions

MOVE OPERATIONS HORIZONTALLY BY DRAG&DROP

To schedule a service order allocation, you can move it horizontally along the time scale in both views: as a consequence, the allocation will be worked off at a different time. While moving the operation, an info window shows detailed information.



ASSIGNING AN OPERATION TO A DIFFERENT RESOURCE GROUP OR RESOURCE

In the Allocation Gantt chart, an allocation can also be moved vertically when scheduled – to a different resource or resource group. As a consequence, the allocation will be worked off by the resource or resource group it was moved to.

If you want to make sure that a resource can only be moved within its original resource group, activate the corresponding option in the “Setup” dialog.

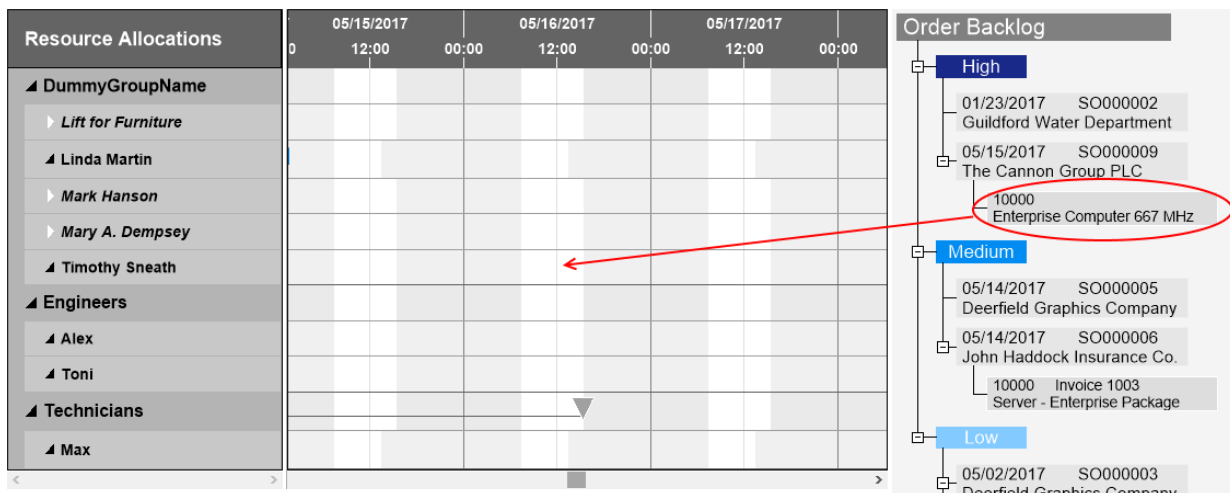
SOME NOTES ON DRAG&DROP

Service tasks that have not yet been planned are estimated at 4 hours by default. This default can be changed in the “Setup” dialog by the “Initially Allocated Service Hours” value.

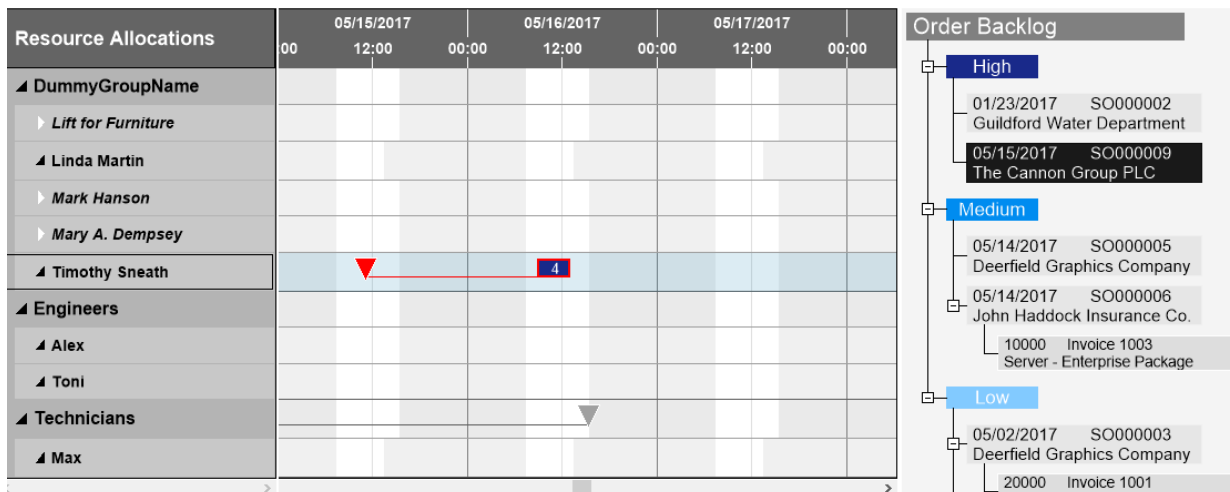
The duration of tasks, can, however, always be modified after they were moved to the planning table interactively by extending or shortening the bar. Canceled allocations are entered with the (cumulated, if necessary) cancelation times.

From the Tree & Gantt Chart Point of View

Before dragging the service operation SO000009-10000 into the planning table

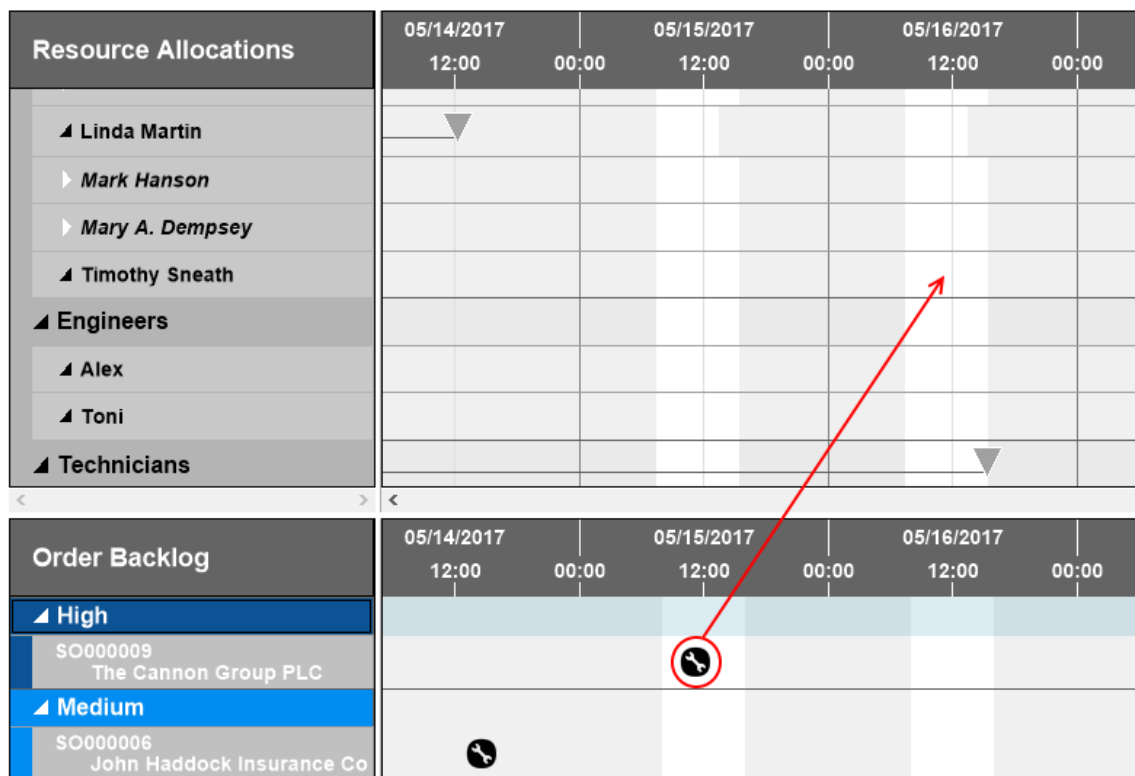


After Releasing (initial allocated service hours = 4)

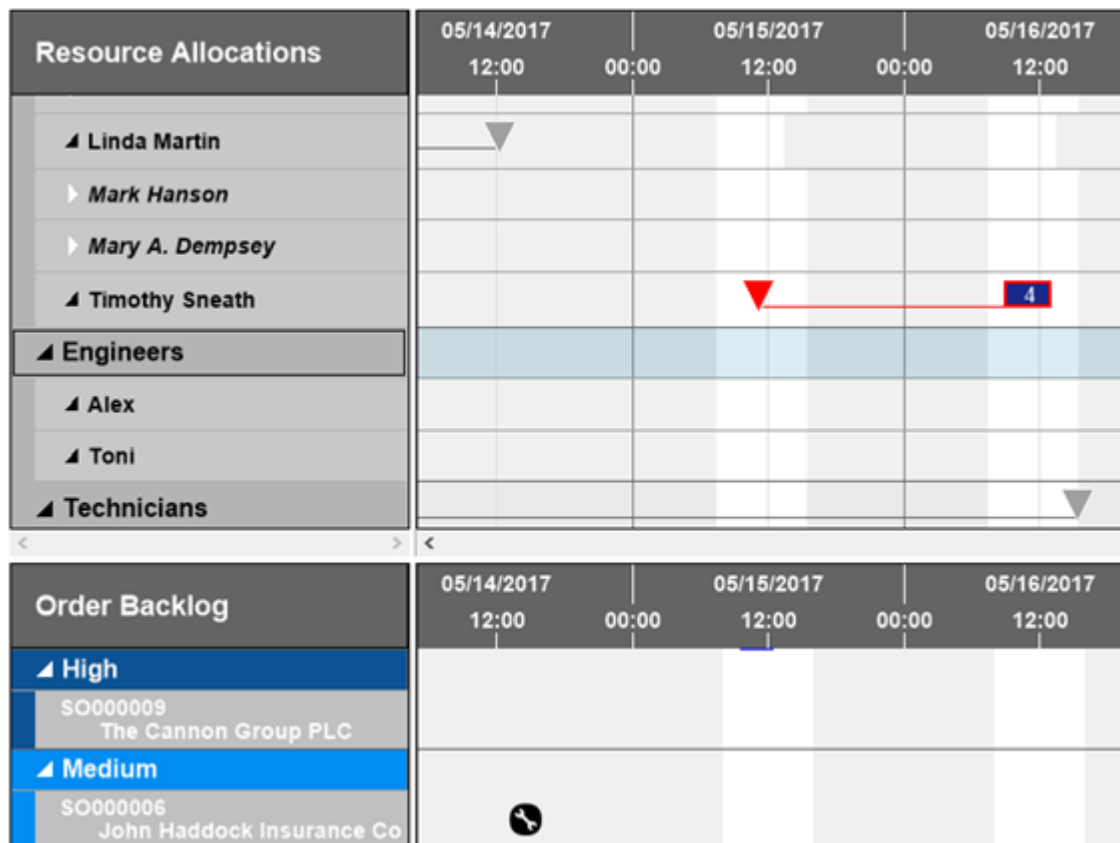


From the 2 Gantt Charts Point of View

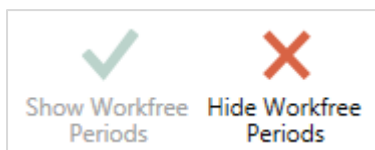
Before



After

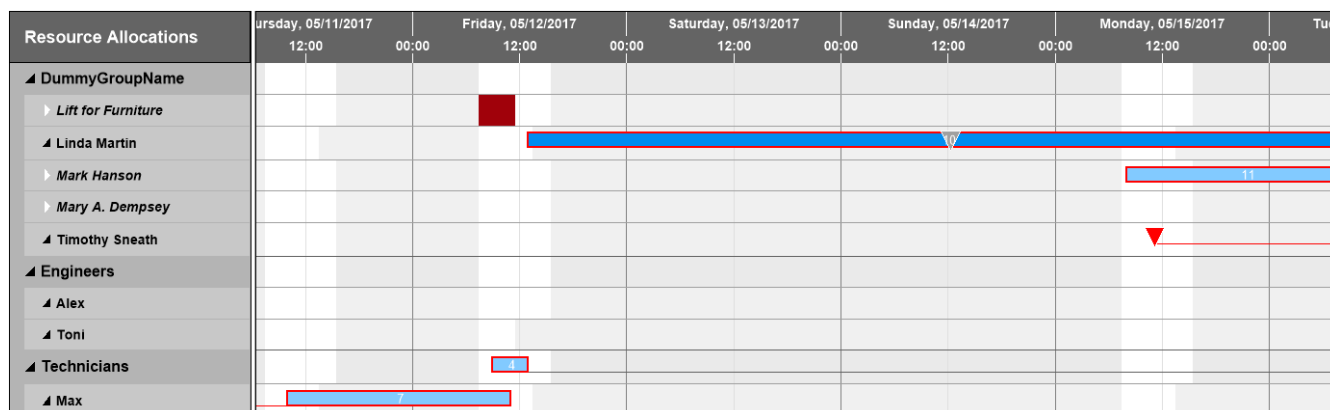


The Calendar: Summary or Details

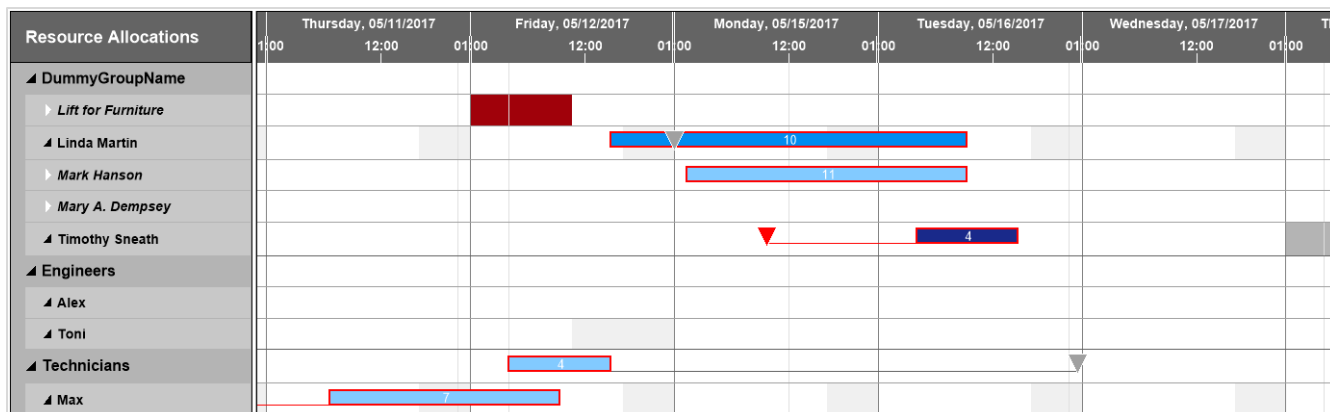


The “Calendar” buttons let you switch on or off the display of workfree periods in the diagram.

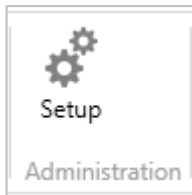
Workfree periods are shown:



Workfree periods are hidden:



The Setup Dialog



The “Setup” button in the “Administration” area of the menu bar allows basic settings of the Visual Service Scheduler to be customized.

Edit - NETRONIC VSS Setup - VMW81EX64\VMADMIN

CRONUS International Ltd. ?

HOME ACTIONS

Configure Filter... Data Filter
Configure Tooltip... Tooltip Edit Dialog
Configure Label... Label Edit Dialog

VMW81EX64\VMADMIN

Timespan

Starting Date: -10W Starting Date: 2/13/2017
Ending Date: 3M Ending Date: 6/6/2017
Work Date: 3/6/2017

Filtering

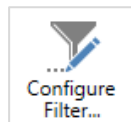
Resources: ServiceOrders:

General Options

Show Histograms: ☐ Reallocation only in same group: ☐
Hide Completely Planned Orders: ☐ Hide Response Date: ☐
Save Immediately: ☐ Use Service Hour Starting Time>: ☒
Show Filter Dialog At Startup: ☐ MovementGrid: 1
Show Job Allocations: ☒ Initially Allocated Hours: 4
Show Assembly Allocations: ☒

OK

- Configure **Filter**



Edit - NETRONIC VSS Data Filter [Minimize] [Maximize] [Close]

ACTIONS CRONUS Int... ?

Clear Filter
Page

Resource ^

Sorting: No. ▾ A Z ▾

Show results:

+ Add Filter

Limit totals to:

+ Add Filter

Service Header ^

Sorting: Document Type, No. ▾ A Z ▾

Show results:

+ Add Filter

Limit totals to:

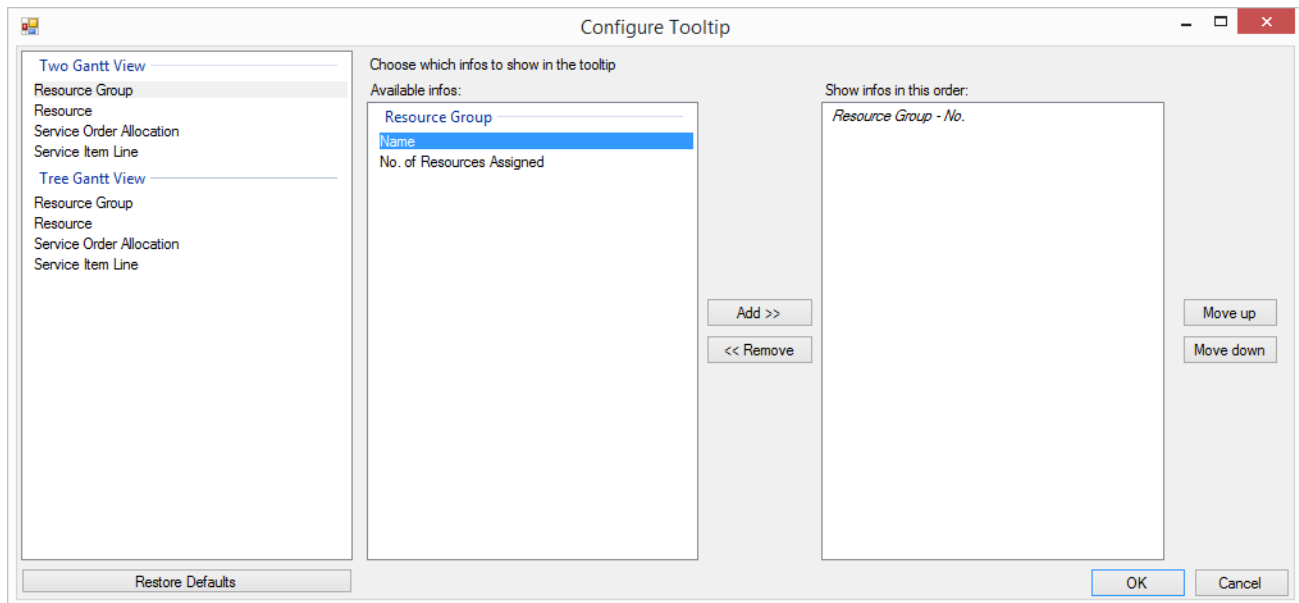
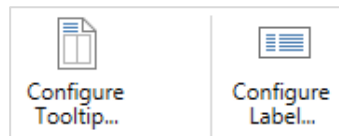
+ Add Filter

OK Cancel

The settings of the data filter are evaluated when the VSS is started allow to reduce the amount of data being loaded.

If you want the dialog to be shown on the start of the VSS, activate the corresponding option in the “Setup” dialog as described below.

Configure Tooltip/Label



In both cases you can select the text to be displayed as tooltip/label in a dialog offering a list with NAV data.

Timespan

- Set the starting and ending date of the time scale. “-10W” in the Starting Date field will prepone the starting date by ten weeks to the starting date defined in the NAV calendar, whereas “2M” in the Ending Date field will postpone the defined ending date by two months (for the definition of the start and end dates of the NAV calendar, see chapter below).

Filter

- Enter strings to be used as NAV filter criteria, e.g. „PLUMBERS|CARPENTERS“, „SO00006“ etc.

General Options

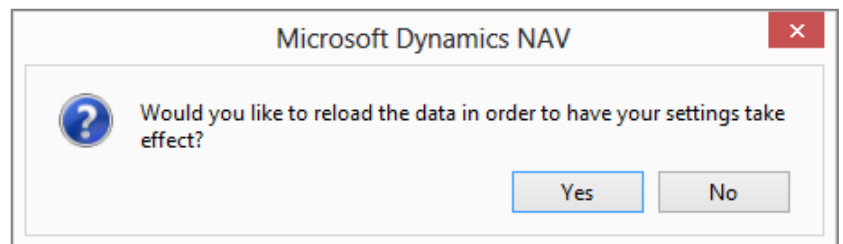
- Tick the according check box for histograms to be displayed. Please note that this will only take effect in the Tree & Gantt chart view!
- Hide completely planned orders: By default completely planned service orders are hidden, this behavior can be changed here.
- Store each data modification in NAV immediately; an automatic reloading will not be invoked, however.
- Show/hide the “Filter” dialog on the start of the VSS.
- Show Job/Assembly allocations: In case a resource is allocated partly/completely, this will accordingly visualized.
- Specify whether resources can be moved only within their original resource group.
- Hide response date:

If this option is **not** activated, the response date in **expanded** groups gets visualized either by a red (if the allocation bar starts after this date) or grey triangle and the triangle will be linked with the bar

by a (red or black) line. While dragging an allocation, the date will be highlighted by a red deadline. When the option is **activated**, the highlightings described above are dropped

- Use Service Hour Starting Time: Specifies whether the beginning of working hours will be based on the data fields Day, Starting Time and, if necessary, Starting Date (for a possible range of validity) of the table Service Hour (T5910).
- If this option is not activated, the working time will be centered around noon, based upon the daily capacity (e.g. 8 hours capacity will result in specifying the working time from 8:00 to 16:00).
- Movement Grid (hours)_ Allows to specify how many time units are equivalent to one step when a node is modified interactively. Possible values: 0.25, 0.5 and 1 hour.
- Initially Allocated Hours: Specifies how long a bar will get when a service operation is dragged from the workload into the planning board at the left. A drop-down list offers the values 1, 2, 3, 4, 6, 8, 12, or 24 hours.

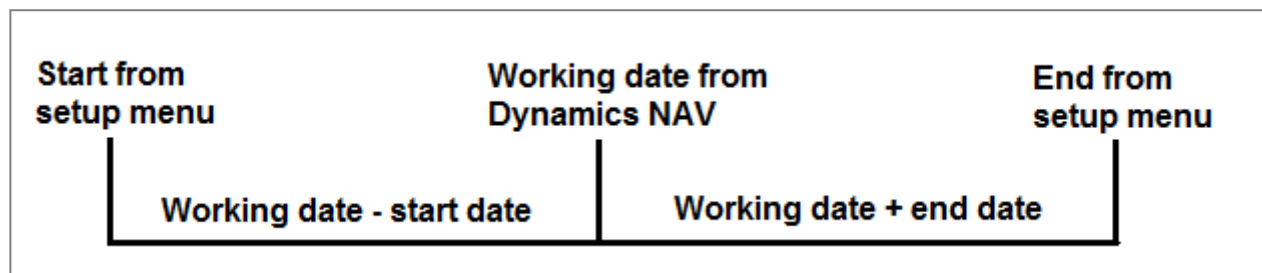
Please note: For your settings to take effect, the data needs to be reloaded. So after storing the above dialog, a dialog will appear:



How the Start And End Dates of The Time Scale Are Defined

In the Visual Service Scheduler, the extension of the time scale is defined by three values:

- The “working date” from NAV.
- From the “working date”, the “start” date in the setup menu is subtracted to give the start date of the VJS time scale.
- To the “working date”, the “end” date in the setup menu is added to give the end date of the VJS time scale.



Reloading and Saving Data



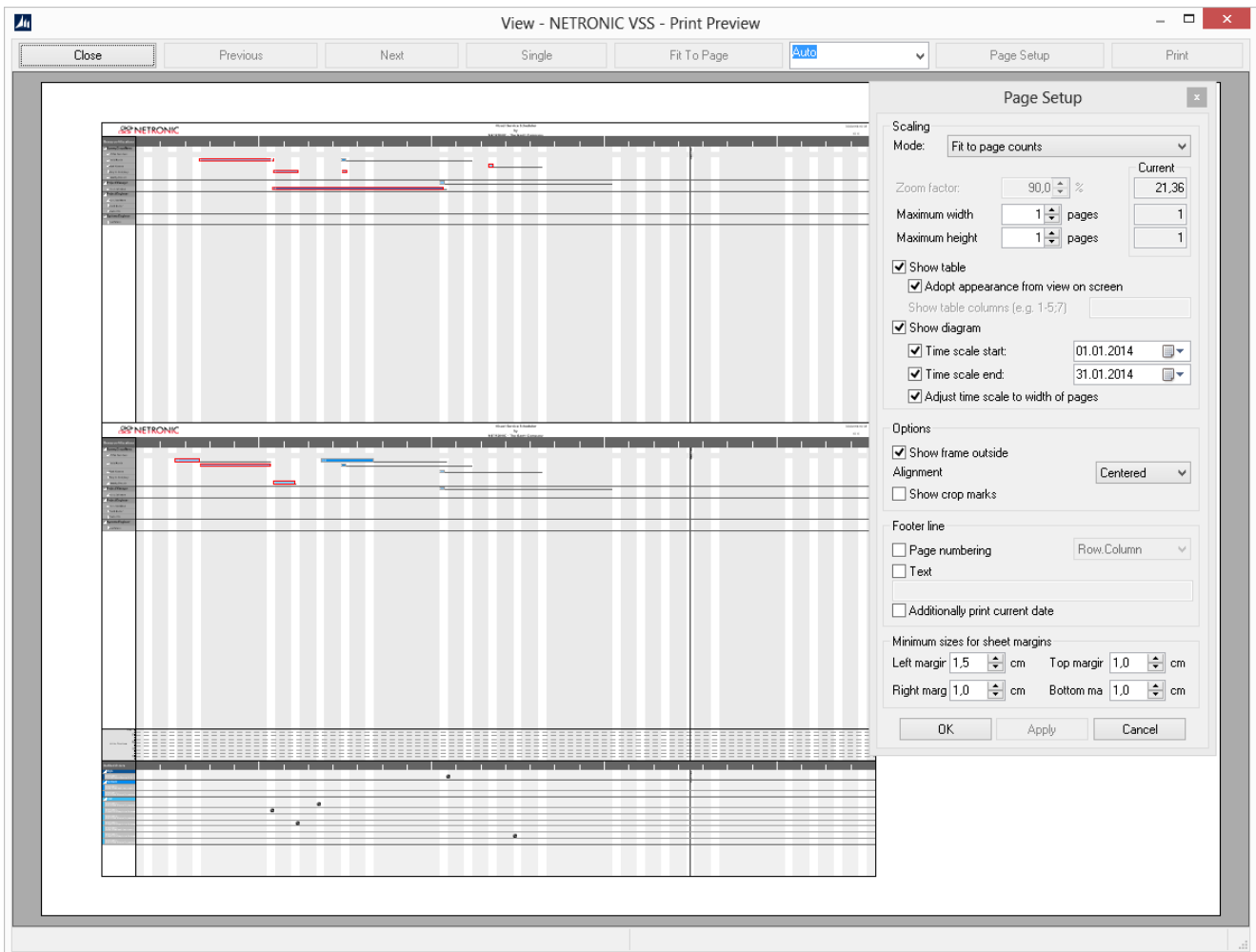
In case you wish to discard your modifications after modifying the diagram (provided you didn't store them) you can simply reload the data of the diagram. The “General” buttons allow to reload the former values or, alternatively, to store your modifications

Printing in the VSS



The VSS allows printing a diagram as displayed on the screen immediately; alternatively, you can make use of a large variety of versatile and comfortable printing options before.

Paging, page numbers, recurrence of time scale, table and legend on printed pages and many other customizable options are offered by the “Page Setup” dialog that has an intuitional interface:



RELOADING AND SAVING DATA

In case you wish to discard your modifications after modifying the diagram (provided you didn't store them) you can simply reload the data of the diagram. The "General" buttons allow to reload the former values or, alternatively, to store your modifications

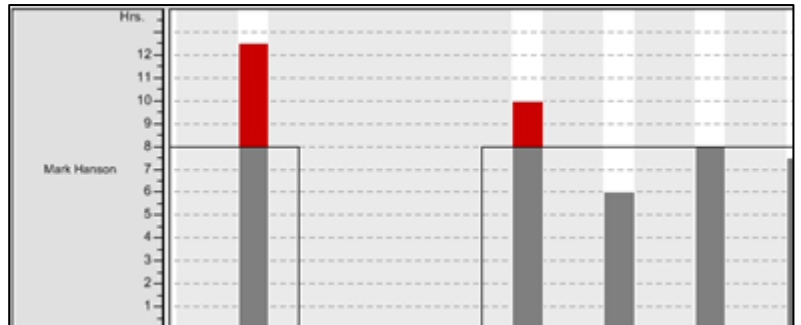
ADJUSTING THE TIME SCALE

In case you have modified the resolution of the time scale and you want to regain an overview, you can use the "Fit Into View" button to fit the diagram completely into the present view

Warnings and Visual Indications

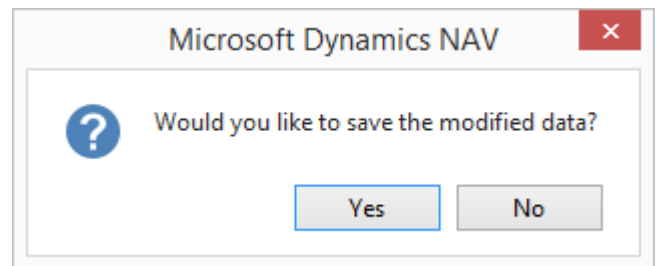
RESOURCES OVERLOAD

Conflicts such as overloads of resources can be identified very quickly by means of a histogram. Red sections indicate that operations need to be assigned to different resources or require a different distribution over time. The Visual Service Scheduler thus offers visual support to your decisions



SAVING CONFIRMATION

When leaving the VSS, you are asked whether your changes are to be stored to Dynamics NAV.



More Resources

This manual introduces the fundamental functions of the Visual Service Scheduler for Microsoft Dynamics NAV (2017, 2016, 2015, 2013, 2013 R2, and 2009 R2). Please find more details on our Website

<http://www.netronic.com/vss>.

Feel free to contact us if you have questions, ideas or suggestions — we will be happy to answer your call or mail:

+49-(0)2408-141-0, support@netronic.com

About NETRONIC—the Gantt Company

The Aachen (Germany) based NETRONIC is “The Gantt Company”. Interactive Gantt charts add transparency to production, project and process data and improve planning and scheduling of resources, jobs and workflows.

For decades, the Gantt chart has been our core competence – resulting in three business lines:

1. With the Gantt chart controls VARCHART XGantt and VARCHART JGantt, we address software vendors who typically develop industry-specific scheduling solutions.
2. The Visual Jobs Scheduler has been designed for partners and customers of Microsoft Dynamics NAV and provides a fully integrated, intuitive graphical jobs scheduling support.
3. Based on our Gantt know-how, we also develop custom-made scheduling applications for end customers who want to improve their short-term production scheduling.

For further information, please

- Visit our [Website](#)
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