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DOCUMENTATION

Visual Jobs Scheduler (VJS)

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1. Technical requirements

Microsoft Dynamics 365 Business Central

2. Starting the VJS: Info window shows progress when loading/reloading

When data is loaded into the VJS, multiple stages of data processing are executed until the visualization finally appears and the user can start working with it. Especially when there are large amounts of data to be loaded/reloaded, this can take some time during which the users do not know what is happening and are often unsure whether the application is still working.

To give the users detailed feedback as to what is happening during the loading process, we have implemented an info window that:

- gives feedback that something is happening at all (meaning the extension has not crashed)
- informs about the amount of data getting loaded, thus explaining why the process might take so long
- informs about how long this process might take and how long the users might need to wait
- also helps our support team during customer trainings or support cases to get a better understanding of the customers' environment.

otifications: 4 Resource Marty Horst (MARTY): Cap Re		urniture (LIFT): Cap The job planning line GU
Job View	January 2024 Wk 01 Wk 02 03 04 05 05 07 09 00 10	Wk 03
	Working on it	×
Quote	3/5 Scheduler setup	
	Resource Groups: 1 of 1 Resources: 5 of 5	
DEERFIELD, 8 WP Setting up Eight Work Areas	Res. Capacity Entries: 6 of 6 Jobs: 2 of 2	DEERFIELD, 8 WP
▲ 1000: Begin-Total Setting up Eight Work Areas	Job Tasks: 18 of 18 Job Planning Lines:	
▲ 1100: Begin-Total Preliminary Services	- Job View: 12 of 12 - Resource View: 12 of 12	
▲ 1110: Posting Determining Specifications	Links:	
Resource Lina Townsend		
Budget: LINA Meeting with Customer		2

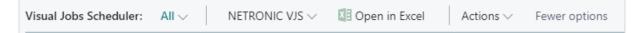
3. Understanding the VJS

Since the VJS is a Gantt chart, it naturally has all its characteristics:

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Job View	Janua Wk 02	ry 2021 >			Wk 03							Wk 0	4						Feb Wk	ruary 20 05	021				
	14		16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		02	03	04	05	06	07
⊿ Open																									
DEERFIELD, 8 WP Setting up Eight Work Ar					DEERF	ield,	8 WP :	Setting	j up Eig	jht Wo	ork Area	IS													
▲ 1000: Begin-Total Setting up Eight Work /										-															
▶ 1100: Begin-Total Preliminary Services																									
▲ 1200: Begin-Total Assembling the Furnit																									
▲ 1210: Posting Assembling the Furnitur																									
Resource Lift for Furniture																									
Budget: LIFT Lift for Furniture														8											
Billable: LIFT Lift for Furniture														8											
▶ Resource Mark Hanson																									
▶ 1300: Begin-Total Closing the Job																									
 GUILDFORD, 10 CR Setting up Ten Confere 																									
Planning																									
Quote																									
Completed																									

- A **timescale** at the top.
- A **table** at the left, listing jobs (in the Job View) or resource groups/resources in the Resource View
- On the right below the time scale, a **chart** displaying the job schedule with a **calendar** in the background indicating work free periods in grey while working times appear in white.
- A menu ribbon allowing to make basic settings that will be explained in detail in the following.



The item "NETRONIC VJS" summarizes all options that we think are the most frequently used ones:

NETRONIC VJS \smallsetminus	🚺 Oper
🗱 Reload	
🔒 Save	
📰 Schedule Succe	essors
🛕 Toggle Creation	n Mode
😟 Resource View	
İ Job View	
Histogram Viev	N

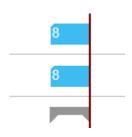
All options of the VJS can be found under "Actions":



Actions \smallsetminus	Fewer options
General	>
View Filte	r > V
Timescale	
View	>
Administr	ation >

In case the "Actions" item is not visible in the menu ribbon, click "More options". To hide it, click "Fewer options".

• A **red** vertical line in the chart indicates the **work date** as having been set in Dynamics 365 Business Central.



• Another vertical line is shown at the end date of the currently selected job which is helpful for planning job tasks and job planning lines in larger jobs where the job bar might be outside of the current view.

Visual Jobs Scheduler: All ~ NETRONIC VJS ~ @	Open in Excel Actions ~ Fewer options	
Notifications: 2 Resource Mary A. Dempsey (MARY): Capacity	was exceeded Resource Mark Hanson (MARK): Capacity	vas
Job View	Wk Wk 03) 4 2
⊿ Quote	D, 8 WP	
J00010 Project - Master - AB01	DEERFIELD	
J00030 Service and Repair - Master	Date D	
∠ Open	Ending	
DEERFIELD, 8 WP Setting up Eight Work Areas	DEERFIELD, 8 WP	

- Notifications appear below the menu ribbon in case
 - o a job planning line gets moved behind the job's end date
 - o a resource overload occurs

Notifications: 2 The job planning line DEERFIELD, 8 WP, 1120, 10000 has been placed past the end date of its job | Resource Mary A. Dempsey (MARY): Capacity was exceeded



4. Three different views

There are three different views in the VJS: The Job View, the Resource View, and the Histogram View. You can switch between them by using the corresponding menu items:

Actions \lor Fe	wer options	5				
General	>	acity	was e	xcee	Res	source Ja
View Filter	>	- 1			10	Wk 02
Timescale	>	1	08	09	10	11
View	>	<u>à</u> 1	Toggle	e Creat	ion M	ode
Administration	>	Ø F	Resou	rce Vie	W	-
		ر 🗈	lob Vi	ew		
		di (Histog	gram V	iew	

4.1. The Job View

Job View	January 2 Wk 02	021		Wk 0	2						Wk	M					
JOD VIEW	14 15	16	17			20	21	22	23	24			27	28	29	30	31
⊿ Open																	
DEERFIELD, 8 WP Setting up Eight Work Ar				DEER	field,	8 WP	Setting	g up Eig	ght W	ork Area	as						
▲ 1000: Begin-Total Setting up Eight Work /																	
▶ 1100: Begin-Total Preliminary Services																	
▲ 1200: Begin-Total Assembling the Furnit																	
▲ 1210: Posting Assembling the Furnitur																	
▲ Resource Lift for Furniture																	
Budget: LIFT Lift for Furniture													8				
Billable: LIFT Lift for Furniture													8				
Resource Mark Hanson																	
▶ 1300: Begin-Total Closing the Job																	
GUILDFORD, 10 CR Setting up Ten Confere																	
Planning																	
Quote																	
Completed																	

The Job View shows jobs categorized by their status. Each job, job task and job planning line is represented by a bar, the color of the job planning line bars depending on the job's category.



4.1.1. Elements and symbols in the Job View:

• Job – the green line beneath the bar showing the job's progress



• Job Task Line - the number beneath the bar showing the task's progress



• Job Planning Line - the grey dot indicating a change not having been saved yet, the orange frame highlighting the currently marked task.



• Resource summary bar – can be hidden by the according option in the "User setup" dialog



• The different colors of the categories:



- Within a category, jobs and their belonging tasks are sorted in ascending numerical order, within jobs the task numbers are sorted the same. The sorting order can be changed via the contextmenu, or via the "Configurations" tab in the user settings.
- Job planning lines of the "item" type
 If you have specific items the timing of which you'd like to specify more precisely, we
 recommend that you let the VJS visualize and schedule job planning lines using these items.



Set this into work on the relating item card:

\leftarrow	Item Card Work Date: 1/28/202	21	(2) + II	
	1001 · Touring Bi	cycle		
	Process Item Prices & Di	iscounts Request Approval More	options	
	Item			Show more
	No	1001	Base Unit of Measure · · · · · PCS	~
	Description	Touring Bicycle	Show in VJS	
	Blocked · · · · · · · · · · · · · · · · · · ·		Item Category Code	\sim
	Туре	Inventory ~	Color (VAPS)	

Once activated, the result looks like this:

Job View	Wk	uary 20 03	021		c 04						Febru Wk 0							Wk		
	22	23	24	25	26	27	28	29	30	31	01	02	03	04	05	06	07	08	09	10 1
⊿ Open																				
DEERFIELD, 8 WP Setting up Eight Work Areas																				
► GUILDFORD, 10 CR Setting up Ten Conference Rooms																				
⊿ J00020 Project - Elkhorn - #ABD456											1000	20								
▲ 1000: Begin-Total Technical specification											_									•
▲ 1100: Posting Design definition											0 %									
⊿ Item																				
Budget: 8904-W Computer - Basic Package											2									
∡ Resource Linda Martin																				
Budget: LINDA Linda Martin											8									
A Resource Tom Morgan																				
Budget: R0010 Tom Morgan											8									
▲ 1200: Posting CAD models & drawings												0 9	6							
Resource Paul Little																				
Budget: R0020 Paul Little												24								

- Operations with a start or end date outside the timeframe:
 - \circ $\;$ The concerned operations are highlighted with a dashed frame.
 - If a planned date is set for a job planning line, no more capacity is displayed.
 - If the length of a job planning line is calculated by the VJS and the bar is pushed over the end of the working area, the capacity of the days within the timeframe is displayed and the capacity for the days outside the timeframe is not displayed/discarded.

Lina Townsend (LINA)	 30	e	ro
8-			
Marty Horst (MARTY)			20
4.			



 If the length of a job planning line is calculated by the VJS and the bar is moved before the start of the working area, the bar will be highlighted by a dashed frame and a warning symbol in the Gantt chart table header.



- An average capacity (loaded capacity / loaded days) is used for the days within the time frame.
 - Capacity load before moving the job planning line outside the working area:

Resource View	February 2021 Wk 07								wk	08			
				17	18	19	20	21			24	25	26
John Meyer (R0030)	•												
Mary A. Dempsey (MARY)Designer	4	J0032	011011	6		-	e la			Resou	irce		
Mary A. Dempsey (MART/Designer	-						N	ame:		1	Mary A	. Dem	psey
							Re	source	Group	p No.: '	1000		
		-					Ту	pe:		F	Person		
	0 -	_					L Ca	apacity:		8	З		
Egon 37,5 (R0130)							To	tal Loa	d:	3	3.2		
	8-						D	ate:			18/02/	2021 0	9:30:00

• Capacity load after moving the job planning line outside the working area:

Resource View		February 2021 Wk 07 17 18 19 20 21					Wk 08 22 23 24 25 26 27 28						March 202 Wk 09 01 02		
				19	20	21	22	23	24	25	20	21	20		02
Paul Little (R0020)	•						Resource								
John Meyer (R0030)						Name: Mary A. D					Dem	empsey			
							Resou	irce	Grou	p No	.: 100	00			
Mary A. Dempsey (MARY)Designer	4	20 10	16		16	Ľ	Type:				Per	son			- 1
	8					-	Capad	city:			8				- h
	4-	_				Total Load: 5.3333333333				3333	33				
	9-						Date:				18,	/02/2	021	17:00	:00
														1 .	/

• If a bar gets moved beyond the end of the timeframe by scheduling, its start date will be set to the last day within the view instead.

48	
	2%
	40
	1
	8

 $\circ~$ A warning symbol is shown when a resource without capacities is loaded.



By switching on the "Creation Mode" the VJS displays a list with your resources. You can
interactively allocate a resource by dragging it from the list to the chart. An orange
"phantom" bar and an info window indicate where and when the new job planning line will
be placed if you release the mouse button.

Wk 04 20 21 22 23 24 25 26 27	Resources
21/01/2021 16:00:00	▲ No Group (NOGROUP)
	Lift for Furniture (LIFT)
	Linda Martin (LINDA)
	Mark Hanson (MARK)
	Mary A. Dempsey (MARY)
	Timothy Sneath (TIMOTHY)

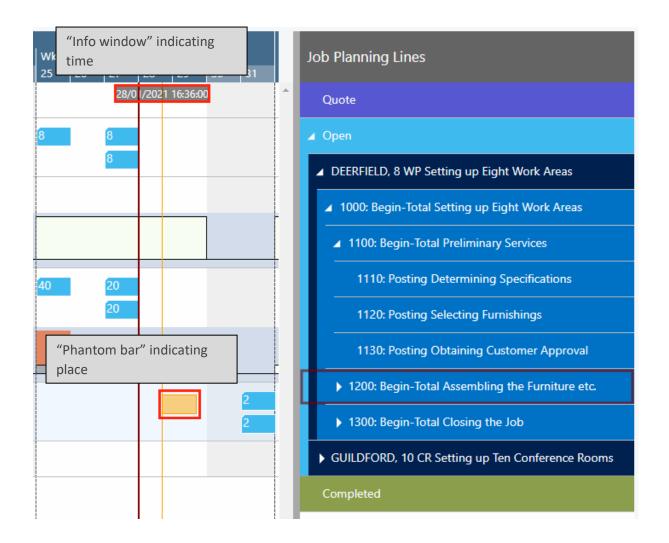


4.2. The Resource View

The resource view shows resource groups and their respective resources.

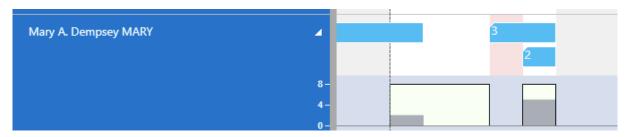
D		Sunday, 24. J	ai Monday, 2	5. January 202	:1		Tuesday, 20	5. January 202	21		Wednesday	r, 27. January	2021	
Resource View		1 18:00	00:00	06:00	12:00	18:00	00:00	06:00	12:00	18:00	00:00	06:00	12:00	18:00
▲ No Group (NOGROUP)	•													
Lift for Furniture (LIFT)	4		8								8			
											8			
	8-													
	4- 0-													
Linda Martin (LINDA)														
Linda Marun (LINDA)	▲ 8_													
	4-													
	0-													
Mark Hanson (MARK)	•		40								20			
											20			
Marci A. Damarci (MAAD)0														
Mary A. Dempsey (MARY)														

- It visualizes capacity bottlenecks and date conflicts.
- The different category colors are applied as in the Job View
- By switching on the "Creation Mode" the VPS displays a list with all your jobs, job planning lines and job tasks. You can interactively allocate a job task to a resource by dragging it from the list to the chart. An orange "phantom" bar and an info window indicate where and when the new job planning line will be placed if you release the mouse button.



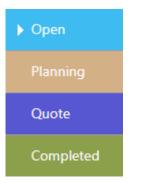
4.2.1. Elements and symbols in the Resource View

• Calendar: A calendar in the background of the Gantt chart shows weekends in grey, working times in white. Absences of employees that are linked to resources are visualized in a light pink in the calendar and by a corresponding capacity curve.



• Bars: Each job task is represented by a bar, the color of the job planning line bars depending on the job's category. The Job categories are indicated as follows:





The grey dot indicates a change not having been saved yet, the orange frame highlighting the currently marked task.



- Sorting order: Within a resource group, resources are sorted in ascending alphabetical order.
- Capacity curve: In the VJS, you can show a capacity curve in the Resource View to see free and exceeded capacities, a red box indicating an overload:

Mary A. Dempsey (MARY)	0	10	3	2	2	2	
					17	6	
	10-					8	
	5-						
	0-						

4.3. The Histogram View

A histogram offers visual decision support by showing impending capacity problems. In the Histogram View all histograms of resource groups and resources are displayed in the same order as in the resource view.



	Open i			Action			er opti											
Notifications: 13 Resource Steve Miller (R0080): Capacity was	_				Jacobs	en (RO	070): C	Capacit	ty was e	excee	. Res	ource .	Job Sh	op #1 (R0040): Capa	icity wa	is exce
Histogram View	Dece Wk 5 31	ii Janu: i3 01	ary 202	03	Wk (04	01 05	06	07	08	09	10	Wk 0 11	2 12	13	14	15	16	17
Project Lead (1000) 30- 0]]]	
60- 13 Project Manager - Unassigned (\$VJSRG\$PROJECTMA 30- 0-]				_]]	
Linda Martin (LINDA) 8- 0-]]]	
Mark Hanson (MARK) 30			_							_							-	
Mary A. Dempsey (MARY) 5]]								
Technical Office (2000)																		
40- 9 Technical Office - Unassigned (\$VJSRG\$TECHNICALOF 20-]]]	



4.4. Sorting order

You can change the default sorting order for nearly all elements in the plan either by context menu or via the "Configurations" tab in the user setup.

✓ Search + New Image: Edit List Image: Delete ↑ Move Up ↓ Move Down Image: Open in Excel Resource Table Name Field Name Ascendium	
	Descen
	Descen
→ Resource ···· · Name	× 1

5. Open Microsoft Dynamics 365 Business Central dialogs

The VJS fully integrates with Microsoft Dynamics 365 Business Central. This means that by doubleclicking the according element (job, job planning line, resource etc.) either in the table area or in the Gantt area, you'll directly switch to the according Dynamics 365 Business Central dialogs where you can navigate and make changes as usual:

Double-clicking a job planning line...



...will call the according dialog:



✓ Search	+ 1	New	🐯 Edit Lis	t 📋 Delete	e Process	Report	Show Attached	Vpen in E	xcel More options	
EDIT - JOB P + New	LANN	ING I	LINES - GUILI	DFORD, 10 CR S	ETTING UP TEI	N CONFEREN	CE ROOMS 1110 [DETERMINING SI	PECIFICATIONS	2
JOB TASK NO. T			LINE TYPE	PLANNIN DATE	PLANNED DELIVERY DATE	DOCUME NO.	TYPE	NO.	DESCRIPTION	
1110	\sim	÷	Budget	06.01.2021	06.01.2021		Resource	MARY	Meeting with the Custome	r
									[Close

6. Collapsing and expanding

The VJS allows viewing your data from different angles easily and quickly. Collapse and expand jobs, resource groups, groups etc. There are two ways how to collapse/expand the above-described elements of your plan:

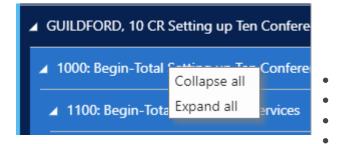
6.1. Collapsing/expanding by clicking the corresponding symbols





6.2. Collapsing/expanding by context menu

By opening the context menu either in the table or on the bar you collapse/expand all levels below the current one in one go.



All projects **collapsed**:



Job View	De January 2021									
Job view	Wk 53	Wk 01	Wk 02	Wk 03	Wk 04	Wk 05				
⊿ Open										
DEERFIELD, 8 WP Setting up Eight Work Areas				DEERFIELD, 8 WP Setti	ng up Eight Work Areas					
▶ GUILDFORD, 10 CR Setting up Ten Conference Rooms	GUILDFO	RD, 10 CR Setting up T	en Conference Rooms							
– Planning										
Quote										
Completed										

After having expanded parts of project "GUILDFORD, 10":

Job View	De January 2	021			
JOD VIEW	Wk 53	Wk 01	Wk 02	Wk 03	Wk 04
⊿ Open					
DEERFIELD, 8 WP Setting up Eight Work Areas				DEERFIELD, 8 WP Setti	ng up Eight Work Areas
▲ GUILDFORD, 10 CR Setting up Ten Conference Rooms	GUILDFO	RD, 10 CR Setting up Te	en Conference Rooms		
▲ 1000: Begin-Total Setting up Ten Conference Rooms					
▲ 1100: Begin-Total Preliminary Services					
▲ 1110: Posting Determining Specifications					
▲ Resource Mary A. Dempsey					
Budget: MARY Meeting with the Custome		4			



7. Progress information

The VJS provides overview of a Job's or a Job Task's progress:

• The Job's progress is shown as a green line in the lower part of the Job bar.

DEERFIELD, 8 WP Setting up Eight Work Areas

• The progress of a Job Task is shown as number below the Job Task bar.



8. Capacity information

In the VJS, you can show a capacity curve in the Resource View, to see free and exceeded capacities, a red box indicating an overload:

Mary A. Dempsey (MARY)	10	3	2	2	2	
-				17	6	
					8	
10-						
5-						
0-						

9. Navigation in the VJS

Navigating in the VJS largely comprises setting the time range for which parts of your plan are shown, modifying the timescale solution and quickly scrolling to certain parts of your plan.

9.1. Setting the timeframe

The timeframe specifies the time range covered by the timescale, either fixed by absolute values or relative to the workday. This is done in the "Setup" dialog, to be reached by clicking the "General" item in the "Actions" ribbon.



New Actions F	ewer options				
EDIT - VISUAL JOBS SCHEDULER USER SETTINGS - ADMIN					
Timeframe Type					
Starting/Ending Date Input Type · · · · · · · Relative date					
			ute date ve date		
Timeframe					
ABSOLUTE VALUES			RELATIVE VALUES		
Starting Date · · · · · · 31.12.2020			Starting Date · · · · · · ·	4W	
Ending Date · · · · · · 28.04.2021 Ending Date · · · · · · +3M				+3M	

9.2. Change the timescale resolution

For zooming in a certain area of your plan or to zoom out for a better overview, you can change the timescale resolution either by

- scrolling the mouse wheel in the timescale area
- or, more specifically, by the corresponding items of the "Actions" menu, based on the work date as having been specified in the settings of Dynamics 365 Business Central.

A	ctions ~ Fewe	er optic	ons			
	General	>	February 2021			
	Timescale	>	🔚 Fit into View		Wk 06	w
	View	>	Scroll to Workdate			
	Administration	>	Scale to	- XX W	ork Day	
				🖿 w	ork Week	_
			8	w	ork Month	
				. W	ork Week	

9.3. Scrolling

The VJS offers the following options for quickly navigating to certain positions in the diagram:

- the common scrolling options by vertical and/or horizontal scrollbar
- dragging the timescale either right or left
- Scroll directly to the Dynamics 365 Business Central work date by selecting the corresponding item from the "Actions" menu.

Actions ~ Fewe	r optic	ons
General	>	February 2021
Timescale	>	🔚 Fit into View
View	>	Scroll to Workdate
Administration	>	GI Scale to >

9.4. Fit into view

Select this item from the "Timescale" item in the "Actions" menu to switch directly to the timescale as defined in the "Setup" dialog.

9.5. Adjust the width ratio between table and diagram

For adjusting the width ration between table and diagram, put the mouse cursor on the sash between the two parts and drag the double arrow appearing then.

Job View		January 2021				
Job view	Wk 01	Wk 02	Wk 03	Wk 04	Wk 05	
⊿ Open	⇒					
► DEERFIELD, 8 WP Setting up Eight Work Areas			DEERFIELD, 8 WP Set	ting up Eight Work Are	as	
▲ GUILDFORD, 10 CR Setting up Ten Conference Rooms	ing up	Ten Conference Room	S			
▲ 1000: Begin-Total Setting up Ten Conference Rooms						
▲ 1100: Begin-Total Preliminary Services						



9.6. Show job planning line in other view

Show the currently marked job planning line in the respective other view while it gets highlighted by a blinking frame.

8	
0	Start New Link Creation
	Add to Link Creation
	End Link Creation
	Schedule Successors
	Split Job Planning Line
	Show in resource view

9.7. Search function

All three views offer a comfortable search function:

- In the Job View, you can search for jobs, job tasks, and job planning lines
- In the Resource View, you can search for job planning lines and resources
- In the Histogram View, you can search for resources.

The respective view automatically scrolls to the first search result which gets highlighted by a blinking frame, and, if possible, selected, so that the links are shown. If a view filter is active the search dialog will only show the visible elements in the VJS.

	Actions \lor Fewer opt	ions	5
	General	>	Resource Job Shop #1 (R0040): Capacity
02	View Filter	>	Wk 02
	Timescale	>	7 08 09 10 11 12 13
_	Search	>	A Search Job
	View	>	🁫 Search Job Task
	Administration	>	A Search Job Planning Line
			Search Resource

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10. Move operations

You can move operations by mouse either horizontally or vertically, either way having a different impact.

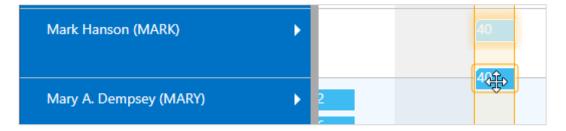
10.1. Move operations horizontally by drag & drop

To schedule an operation, you can move it horizontally along the time scale both in the Job View and in the Resource View: as a consequence, the operation will be worked off at a different time. If in the Job View a job task or job planning line is moved, every subordinate operation will shift as well.

26/01/202	1 15:36	00	
8	8		
	Ľ(+)->	J	
27,	/01/202	1	5:35:59

10.2. Assign an operation to another resource

In the Resource View, an operation can also be moved vertically when scheduled – to a different resource. As a consequence, the operation will be worked off by the resource it was moved to.



10.3. Notifications

Notifications appear in a window below the menu ribbon and alert you to possible problems. They pop up in the following cases:

• when a job planning line gets moved behind the job's end date

Notifications: 4 The job planning line GUILDFORD, 10 CR, 1130, 10000 has been placed past the end date of its job

• when a resource's capacity gets exceeded

Resource Mary A. Dempsey (MARY): Capacity was exceeded

10.3.1. Show/hide notifications

If you don't want the notifications to be shown, you can hide them by ticking the according option in the VJS User Setup.



Show Notification	
Enable Notification	

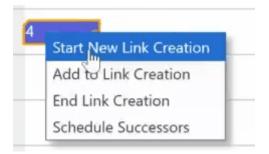
11. Working with links

11.1.Create links

The VJS enables creating links on all levels of your plan - meaning between jobs, job tasks and job planning lines, even between different levels, e.g., job to job planning line and job task to job - by a context menu. According to your needs and planning situation, you can select between two possible relations:

- Start-Start (the successor must not start before the predecessor)
- Finish-Start

Click "Start New Link Creation" on the job planning line you want to start with and "End Link Creation" on the job planning line you want the link chain to end.



After having ended the link creation, you need to specify the desired relation type and link duration:

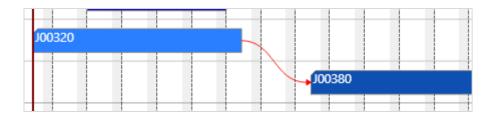
Edit - Link Options		2 ^
Manage		
RowLinkType		
Relation Type	Finish-Start	~
Link Duration (in days)		(
		Close



The link structure you build this way will be considered when one element – job, job planning line etc. - in this chain gets moved.

DEERFIELD, 8 WP Settin 01/08/21	
	GUILDFORD, 10 CR Setting up Ten Conference Rooms 02/13/21

The link duration will be considered after a drag and drop interaction or after scheduling successors. If the time interval between the linked elements is smaller than the specified link duration, the link will appear in red:



11.2.Edit links

To modify or delete links, click the according item of the link's contextmenu:

J00380	Adjust Link
	Delete Link

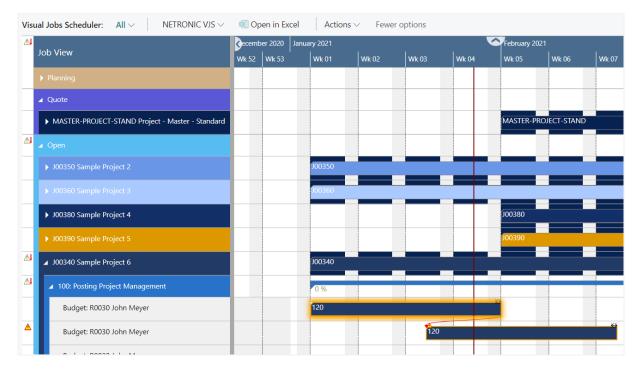
The "Adjust link" item will call the above shown "Edit link options" dialog.

11.3. Violated link orders

If the link order within a link structure gets violated, the according link(s) appear in red gets highlighted by a warning symbol is in the table header and on the bar.



Link conflicts are indicated by the according links appearing in red and by warning symbol on the participating element, its parent elements and in the Gantt chart table header. Thus, the planner immediately recognizes that there is a conflict that needs solving either by manually dragging the operation or by the "<u>Schedule successors</u>" option of the context menu.



If you want to show/hide the warning signs, tick the according option in the "General" area of the VJS "User setup" dialog:

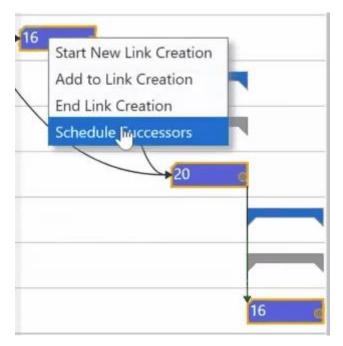
General			
Startup View	Job View 🗸	Show warnsigns for li	

The meaning of the symbols in detail:

	The element has a link violation. Shown at the bar or in the table. Can be displayed in the job view at the level of the element that causes the violation (job planning line, job task, or job). In the resource view at the resource level.
	A child element has a link violation. Shown in the table header and in the job view for job tasks and jobs and the status group and in the resource view for resource groups
∆l	Link violations in the element itself and in child elements. Shown in the job view at job task or job level If the children of those cause link violations and the element itself as well

12. Schedule successors

This option that can be found in the menu ribbon ensures that the link structure is being considered with no buffer time, i.e., linked operations are processed without temporal offset. This applies for the selected node and all its successors.



13. Split job planning lines

By splitting a job planning line, you will add a new job planning line to your plan. Click the according context menu item on the job planning line you want to split

In the dialog popping up you can specify

- How the quantity is to be distributed between the two lines.
- Whether you want to calculate partial quantity, so that when you enter the value for the first line, the quantity for the second line will be calculated automatically. At the same time, you

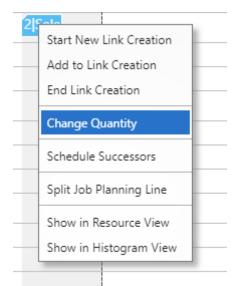


get an error warning, when the quantity of part 1 is calculated higher than the original quantity.

EDIT - SPLIT DIALOG	27
Original Quantity	2.00
Unit of Measure HOUR	
Quantity Part 1	1.00
Quantity Part 2	1.00
Calculate partial quantity	
	OK Cancel

14. Change the quantity of job planning lines

The quantity of a job planning line can be changed directly in the plan. Open the context menu of the job planning line you want to change the quantity of and click the according item:



This leads you to the self-explanatory "Edit - Change Quantity" dialog:



EDIT - CHANGE QUANTITY	2
Quantity	2.00
ок	Cancel

15. Distribute workload of a resource individually

The standard allocation of workload to a resource in the VJS runs in such a way that the VJS will either show all job planning lines as allocated to the planning date or, if activated, will visualize the allocation according to the available resource capacities and allocate all capacities starting from the planning date until the quantity has been fully allocated. This follows the idea that as soon as a job planning line is assigned to a planning date and a resource that all efforts of the resource should immediately be dedicated to this job planning line. This is a rather inflexible approach that does not take into account the individual work pace of each resource.



To get around this, you can define a "planned end date" on the job planning line page:

boyum

,	🔎 Search 🚽	- Nev	v 🐺 Edit	List 📋 Dele	te Process	Report	Open in Ex	cel Mo	re options		
EDIT - JOB PLANNING LINES - J00050 SETTING UP EIGHT WORK AREAS 1110 DETERMINING SPECIFICATIONS								2			
	Job Task No.↑ ▼		Line Type	Planning Date	Planned End Date	Planned Delivery Date	Document No.	Туре	No.	Description	
	1110	÷	Budget	2021-09-24	2021-09- 🛗	2021-09-24		Resource	R0010	Meeting with Cu	ustomer
1	110	:	Budget	2021-09-24	2021-09-	2021-09-24		Resource	R0010	Meeting with Cu	usto
											ose

This sets a date by which the work on this job planning line should be finished. This means that with the planning date as a start and with the planned end date as end, the VJS can visualize a proportional usage over all available dates with capacity between start and end for this job planning line. This gives the user and the resource a more realistic approach to plan the intended workload over a certain amount of time and leave it to the resource to fulfill the workload on their own pace.

Outsourced production	lob Shon #1
utsourced production	soo shop « l
Por	ource
Name:	Job Shop #1
Resource Group	
Type:	Person
Capacity:	8
Total Load:	2
Date:	09/04/2021

16. Apply individual colors to jobs

You can define individual colors for jobs that are then used for the job line and all of its job planning lines. Thus, you can very easily highlight certain jobs, e.g., the most important one.

The job color gets changed on the job card. If you want to switch to the standard VJS color again, you only need to delete the hex code from the color field on the job card.



General			Shor	/v more
No	GUILDFORD, 10 CR ····	Person Responsible	MARY	\sim
Description	Setting up Ten Conference Rooms	Blocked · · · · · · · · · · · · · · · · · · ·		•
Bill-to Customer No.	50000 ~	Last Date Modified	1/28/2021	
Bill-to Contact No.	СТ000016	Project Manager		\sim
Bill-to Name	Guildford Water Department	Color (VJS)	#4f000b	
County				

17. Use filters

17.1.Data filters

Data filters work as Dynamics 365 BC filter on reading the data (either when the VJS is started or on reloading) so that they are already effective at the data interface to make sure that only filtered data are handed over from Dynamics 365 BC to the VJS.

17.1.1. Create and edit data filters

First, you have to open the according dialog by clicking "Choose Data Filter" in the "Setup" dialog:

New	Actions	Fewer options
Filter \sim		
Choose	Data Filter	

In the dialog, you can edit, create and apply not only one but multiple data filters.

🔎 Search New 🛛 🐺 E	dit List 📋 Delete	Show Attached	Open in Excel	Actions Fewer options		
Home \lor						56
VJS FILTER CHOOSER +	New					2
NAME		OWNER	GROUP	FILTERTYPE	SUBCATEGORY	
Show All	E. S	ADMIN	Individual User	Data		
					OK Car	ncel



To create a data filter, click "+New" and then enter the name of the new filter. To specify the filter settings, click "Actions" "Edit Data Filter".



You can filter by jobs, job tasks, resource groups and resources:

VJS FILTER	2
Filter: Job	*
× No	7
× Description	
+ Filter	
Filter totals by:	
+ Filter	
Filter: Job Task	
× Job No	~
× Job Task No.	
× Description	
+ Filter	
Filter totals by:	_
+ Filter	
Filter: Resource Group	_
× No	~
× Name	
+ Filter	•
OK Can	cel

The job task filter enables users who only want to see a specific portion of big jobs to do so. Since this data filter may result in a list of projects for which no project tasks were found, there will be a message for the user indicating that the specified filter conditions did not allow for any job tasks to be loaded.

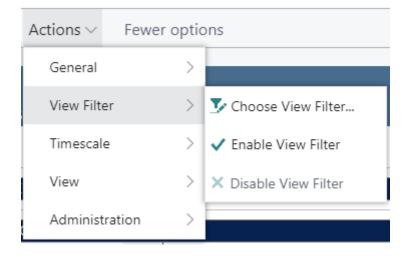
If you want to make sure that the "Edit Data Filter" dialog pops up when you start the VJS, tick the according option in the "Setup" dialog:

Filter	
Show Data Filter on Start	



17.2. View filters

View filters are applied to data already having been loaded into the VJS. Accordingly, only the capacity utilization by the visible activities are shown in the histograms. To work with the filters, the "Actions" menu offers three according options:



Click "Choose View Filter" to open the list of existing filters where you can create, delete and edit filters as described in the "Data filters" section.



18. The User Setup dialog

🔩 User Setup

The "User Setup" dialog allows customizing basic settings of the Visual Jobs Scheduler. You reach it via "Actions" -> "Administration

Here you can make or see the basic settings for:

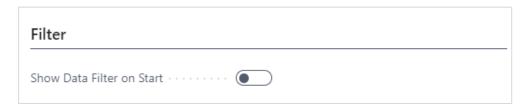
18.1.Timeframe:

• Specify the timeframe that sets the time range covered by the timescale, either fixed by absolute values or relative to the workday (see also 7.1., "Setting the timeframe).

New More options									
Timeframe Type									
Starting/Ending Date Input Type · · · · · · · · · Relative date									
Timeframe									
Absolute Values		Relative Values							
Starting Date	12/31/2020	Starting Date · · · · · · · · · · · · · · · · · · ·							
Ending Date	4/28/2021	Ending Date +12M							
Filter>									
Data Filter >									

18.2.Filter

 \circ Decide whether the "Edit Data Filter "dialog pops up when you start the VJS.





18.2.1. Data Filter

• See which data filter is currently active.

Data Filter		
Current Data	Show All	Resource Gr
Job Filter		Resource Filter

18.3.General

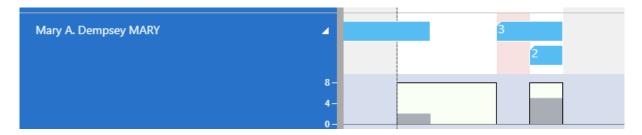
o Decide which **view** is shown upon starting the VJS

General	
Startup View	Last Active View 🗸
	Last Active View
	Job View
	Resource View

18.4.Company settings

This section of the "User Setup dialog" gives you an overview of settings being applied companywide. See

- which way of calculating the quantity of job planning lines is activated. In standard Dynamics 365 Business Central the quantity of job planning lines is calculated independent of the resource's capacity. The VJS allows to bypass this way of visualizing the quantity by activating "Calculate Job Planning Line Duration" in the "Company Setup" dialog.
- whether the resource summary bar gets displayed or not
- whether to enable employee absences for calculation: Absence times of employees that are linked to resources can be visualized in the plan, both in the calendar and in the histogram capacity curve:





• whether you want to **move items along with job tasks**: You can let the VJS track whether the time of the job task has changed and then automatically adapt the time of the item job planning line. Thus, you needn't adjust the timing of a job planning line of the type "item" to possible shifts of the belonging job task manually in the job planning line list.

Edit - Visual Jobs Scheduler Company Settings - VAPS Webinar - 29 Sep 2020									
Company Setup									
Calculate Job Planning 🔹 🦲	Enable Employee Abse 🕚 💽								
Hide Resource Summa ·	Move Items along wit								
		Close							
		L							

18.5. Show Notification

When a job planning line gets moved behind the job's end date or in case of a resource overload, a notification window pops up, informing the user about possible problems.

Notifications: 3 Resource Mary A. Dempsey (MARY): Capacity was exceeded

If you don't want this notification window to be shown you can switch it off here:

Show Notification	
Enable Notification	

18.6.Calculation

Calculation	
Enable Employee Absences for calculation	

• **Absence times of employees** that are linked to resources can be visualized in the calendar and the histogram capacity curve.

18.7. Appearance

Appearance										
Zoom Factor(%)	100	Show allocated worki								
Layout · · · · · · · · · · · · · · · · · · ·	STANDARD \checkmark	Tooltip Delay (ms) · · · · · · 3000								

• Specify a **zoom factor** in percent.



• Choose a **layout**: In the "Compact" layout, the display is reduced as much as possible to provide a better overview, especially with large plans.

Visual Jobs Scheduler: All D NETRONIC VJS D 🕼 Open in Excel Actions D Fewer options Notifications: 13 Resource Steve Miller (R0080): Capacity ... | Resource Allan Jacobsen (R0070): Capacity... | Resource Job Shop #1 (R0040): Capacity ... | Resource John Meyer (R00 Decer January 2021 ~ Job View Wk 53 Wk 01 Wk 02 06 07 08 09 10 11 12 14 15 16 17 04 05 1110: Posting Determining Specifications Budget: MARY Meeting with Customer 1120: Posting Selecting Furnishings Budget: MARY Selecting Furnishings 1130: Posting Obtaining Customer Appro Budget: MARY Meeting with the Customer 1200: Begin-Total Assembling the Furniture etc 1210: Posting Assembling the Furniture etc. esource Mark Hanson Budget: MARK Delivering and Assembling 1300: Begin-Total Closing the Job

Standard layout:

Compact layout

tifications: 13 Resource Steve Miller (R0080): Capacity	Decer Jan										~					. ,					
View	Wk 53			Wk 01					Wk 02		<u> </u>				Wk 0						
▲ 1110: Posting Determining Specifications	31 01	02	03	04 (05 06	07	08	09 10	11 1	12 13	3 14	15	16	17	18	19	20	21	22	23	
							100 7														
Resource Mary A. Dempsey																					
Budget: MARY Meeting with Customer							2														
1120: Posting Selecting Furnishings								100 5													
Resource Mary A. Dempsey							1														
Budget: MARY Selecting Furnishings								2													
1130: Posting Obtaining Customer Approval												112.									
Resource Mary A. Dempsey																					
Budget: MARY Meeting with the Customer												2									
▲ 1200: Begin-Total Assembling the Furniture etc.																					
1210: Posting Assembling the Furniture etc.															0%						
Resource Mark Hanson																					
Budget: MARK Delivering and Assembling															20						

• **Show allocations on a job in the job line:** This option allows to highlight all dates on the job line in the Gantt view on which job planning lines are planned and occupy resources:



DOCUMENTATION VISUAL JOB SCHEDULER

Job View	Decembe January 2023									
JOD VIEW	Wk 52	Wk 01	Wk 02	Wk 03						
⊿ Open										
DEERFIELD, 8 WP Setting up Eight Work Areas				DEERFIELD, 8 WP						
▲ GUILDFORD, 10 CR Setting up Ten Conference Rooms	1	GUILDFORD, 10 CR								
▲ 1000: Begin-Total Setting up Ten Conference Rooms		-								

• Specify a **tooltip delay**: give a time in milliseconds after which the tooltip shall appear

18.8.Configure tooltips

The tooltips in the VJS provide further information on the following items of your jobs schedule:

- \circ Jobs
- o Job planning lines
- o Job tasks
- Resource groups
- o Resources
- o Resource summaries

You can specify which information is to be shown in the tooltip of the respective item in the according "Configurations" dialog - to be reached by clicking "Configurations" in the "Actions" menu of the "User Setup" dialog.

Actions	Fewer options
Configur	ations 🗸
🔏 Tooltip	
🔏 Label	-
🕂 Table	

In the dialog popping up, you just click the item for which you want to customize the tooltip:



🔎 Search 📲 Open in Excel More options	
VIEW - SELECT TOOLTIP	\swarrow \times
Description	
dol	
Job Planning Line	:
Job Task	
	Close

The "Edit – Define Configuration" dialog pops up.:

Q	Search	+ New	👿 Edit List	📋 Delete	🛧 Move Up	\rm Move I	Down	Open in Excel	
EDIT	T - DEFIN	E CONFIGU	RATION						2
Uob Pla	inning Lin	ie							
	Table Na	ime					Field Na	ime	
	Job Plar	nning Line					Job No.		
	Job Plar	nning Line					Job Tasł	k No.	
\rightarrow	Job Plar	nning Line				:	Descrip	tion	
	Job Plar	nning Line					No.		
	Job Plar	nning Line					Status		
	Job Plar	nning Line					Plannin	g Date	
									Close
									ciose

Here you can:

• Add a new field:

either click +NEW or just click in the last row. You can select the desired table name and field name from your Dynamics 365 BC data by clicking "...":

AVAILABLE VALUES	
Value 1	
Job	
Job Planning Line	
Job Task	

boyum

The list of available table names

AVAILABLE VALUES
Value 1
Bin Code
Cost Factor
Country/Region Code
Currency Code
Currency Date
Currency Factor
Customer Price Group
Description
Description 2

The list of available field names depending on the table selected previously

- **Insert a new field**: Select the field above which you want to insert a new one and proceed as described above.
- **Delete a field**: Click "Delete" in the menu ribbon
- **Change the order** by clicking "Move up" or "Move down"

18.9.Configure bar labels

You can decide which D365 BC information is to be shown as bar label.

Bar labels are shown on

- jobs
- job planning lines in the Job View
- job planning lines in the Resource View

In the picture below, the bar label contains

- the job number and the job description separated by "|"
- the job ending date in a new line

GUILDFORD, 10 CR | Setting up Ten Conference Rooms 01/31/21

The settings are made in the corresponding dialog that can be found by clicking "Configurations" in the "Actions" menu of the "User Setup" dialog:

Actions	Fewer options
Configur	rations \checkmark
📌 Tooltip	
📌 Label	
📌 Table	

In the "View - select label" dialog, select the item and/or view for which you want to customize the bar label

Search 🖾 Open in Excel More options		
VIEW - SELECT LABEL	≣ 8	$ \ \ \ \ \ \ \ \ \ \ \ \ \$
Description		
dol		÷
Job Planning Line in Job View		
Job Planning Line in Ressource View		
		Close



The "Edit – Define Configuration" dialog pops up:

Q	Search	+ New	🐯 Edit List	📋 Delete	🕇 Move Up	\rm Move D	own	Dpen in Excel	
EDIT	- DEFIN	E CONFIGU	RATION						2
lob									
	Table Na						Field Na		
		me						ame	
	Job					1	No.		
	VJS Forr	nat Strings							
	Job					[Descrip	otion	
\rightarrow	Job					: 1	Ending	Date	
									Close

Here you can add, insert, edit, and delete fields as well as change their order. You can select the desired table name and field name from your Dynamics 365 BC data by clicking "..."

18.9.1. Formatting the labels

Separate the field contents by a line break, a blank or a "|" by selecting the according separator from the "VJS Format Strings" table.

AVAILABLE VALUES
Value
New Line
Space

18.10.Configure table labels

You can decide which D365 BC information is to be shown as table label.

Table labels are shown on

- jobs
- job tasks
- job planning lines
- resources
- resource groups
- resource summaries



The settings are made in the corresponding dialog that can be found by clicking "Configurations" in the "Actions" menu of the "User Setup" dialog:

Actions	Fewer options
Configur	ations 🗸
🕂 Tooltip	
📌 Label	
📌 Table	

In the "View - select table text" dialog, select the item and/or view for which you want to customize the table label

✓ Search I Open in Excel More options		
VIEW - SELECT TABLE TEXT	∷ ₽	\mathbb{Z} $ imes$
Description		
Job		:
Job Task		
Job Planning Line		
Resource		
Resource Group		
Resource Summary		
		Close

The "Edit – Define Configuration" dialog pops up:

م	Search	+ New	🐯 Edit List	📋 Delete	1 Move Up	V Move [Down	Open in Excel	
EDIT	- DEFIN	E CONFIGU	RATION						27
Resourc	ce Group								
	Table Na	me					Field Na	me	
	SIMRes	ourceGroup					Name		
	VJS Forr	mat Strings					Space		
	VJS Forr	mat Strings					(
	SIMRes	ourceGroup					No.		
\rightarrow	VJS For	mat Strings) :)		
									Close



Here you can add, insert, edit, and delete fields as well as change their order. You can select the desired table name and field name from your Dynamics 365 BC data by clicking "..."

18.10.1. Formatting the labels

Separate the field contents by a blank, or by the separators shown below by selecting the according character from the "VPS Format Strings" table.

Available Va	alues	,0 ∨	
Valu	Je		
Ne	w Line		
Spa	ace		
1			
1			
(
\rightarrow)			

In the picture below, you see the table label of a job planning line and its corresponding settings in the dialog.

Budget: MARY	' Selecting	Furnishings
--------------	-------------	-------------

Table Name		Field Name
Job Planning Line		Line Type
VJS Format Strings		:
VJS Format Strings		Space
Job Planning Line		No.
VJS Format Strings		Space
Job Planning Line	÷	Description



19. The Company Setup dialog

The settings in this dialog are applied company wide. Here you can

- Determine whether the quantity of job planning lines is calculated independent of the resource's capacity. In standard Dynamics 365 Business Central the quantity of job planning lines is calculated independent of the resource's capacity. The VJS allows to bypass this way of visualizing the quantity
- Hide or show the resource summary bar: some companies' processes include either several allocations per resource for one job task or considerably more than two resources per job task. These processes are much better visualized without a summary bar for the resources and so we created an option for hiding it.

Company Setup	
Calculate Job Plannin	Hide Resource Summ 🔹 💽

20. Reload and save data

You can always reload data, thus discarding your changes as well as getting the latest status of your NAV data. The "General" items allow reloading or saving.

$Actions \smallsetminus $	Fewer optic	ons
General	>	🗱 Reload
View Filter	· >	🚽 Save
Timescale	>	Schedule Successors
View	>	
Administra	ation >	

If there are unsaved changes in your plan when you click "Reload", a dialog pops up where you can decide whether to save these changes or discard them.

?	There is unsaved Data, do you want to save?	2	
		Yes	No



After having saved your changes, a confirmation message pops up:

