

# The Gantt chart

Accessible from the Create phasing window, Phase Manager 3.0 now includes a **dynamic GANTT** that allows you to create, modify and link tasks together.

<u>Note</u> : To view the properties of an task from the Gantt, simply double-click on its bar. To delete a task, *Right-click*  $\rightarrow$  *Delete* 

### **Creating an task**

### With the button "Ajouter une activité"

From the Gantt panel it is very easy to create an task by clicking on the button + Add a task. The blank window of the new task properties is displayed:

<b>&gt;</b>				×
[PM-0965	9] Nom de la nouvelle activité			
Détail de l'acti	vité Dates Zones Autres options Liens			
ID	PM-09659			
Nom :	Nom de la nouvelle activité			
Phase	Aucune		-	÷
Description				
		OK	Annuler	

### Via a right-click in the table

It is also possible to create an task by drawing a segment corresponding to its duration, directly in the table. The advantage of this method is that the start and end dates are pre-filled according to the default calendar, but also that the task inherits the phase where it was graphically positioned (in the case of a phase grouping).

In the example below, in phase 2, a task from December 1 to 7 is plotted; the start date is automatically adjusted according to the default calendar (Monday, December 3): :

																							201	18
Nom (PM)	Phase (PM) 🔻	Début (PM)	Fin (PM)	Nove	emb	ore																		Dece
				29	9 3	30	1	2	3		4	5	6	7	8	9	1	0 1	1	12	13	14	1	5 1
Phase 1 - Préparation tra																								
Installations de chantier	Phase 1 - Préparatio	15/11/201	16/11/2018 16:00																					
Phase 2 - Voie 1					Po	olice																		
Réalisation Voie 1	Phase 2 - Voie 1	07/12/201	26/12/2018 16:00		Ai	oute	r un	e act	tivit	e														
Pavage Voie 2	Phase 2 - Voie 1	12/12/201	27/12/2018 11:55		Af	۲ ficha	ge				۲													
Phase 4 - Rond-Point 2					Pla	anifie	er																	
Réalisation Rond-Point 2	Phase 4 - Rond-Poin	28/12/201	15/01/2019 16:00		Fil	tre																		
Phase 3 - Rond-point																								
Réalisation Rond-Point	Phase 3 - Rond-point	19/12/201	07/01/2019 11:55																					

## By duplication of an existing task

At last, it is possible to create a task by duplicating an existing one; after selecting it, *Right-click*  $\rightarrow$  *Duplicate* The new task then inherits all the properties of the original task, except the links. These properties can be modified and the task renamed by double-clicking on its bar in the table.

## **Activity settings**

<b>1</b>		_		×
[2069] Ins	tallation and signaling			
Task details	Dates Areas Links			
Sub-project	Default Sub-project			*
Summary	Phase 1: North Roundabout 🖄			•
ID	2069			
Name	Installation and signaling			
Description				
Order	0			
Progress				
Visible in Live Vi	iew 🖌			
Custom f	fields			
Task template	Signalling 👻			
â Verrouille	м —	ОК	Canc	el

Projet Linéaire 12 impasse Bernard Lyot 85 000 LA ROCHE-SUR-YON Tél. : +33(0) 2 22 44 52 52 support@projetlineaire.com Set your activity parameters (name, dates, parent ...) by doing a double-click on the Gantt bar.

Lock your activity to mange it like a constraint with the button in the left bottom corner.

Associate your activity to one or several areas, or create links with other activities.

## Linking tasks and rescheduling

#### Linking two tasks

#### Graphically

To link two tasks directly from the graphical user interface, click successively on the predecessor and then on the successor by keeping the CTRL key pressed. Once the tasks have been selected, right-click on one of the tasks and click on : *Create a link* then *Link two tasks :* 

Novembre										
19 20 21 22 23 24 25 26 27	28 29 30	1 2	3 4	5 6	7	8	9	10	11 12	2 13 1
Propriétés	_			Réa	alisat	tion	vo	ie 1		
- Frites	-									
Dupliquer	-		-		ł	Réa	lisa	tion	Ron	d-Poi
Police Ajouter une activite Affichage Planifier	Þ									
Filtre Créer un lien	Lier de	ux activ	vitées							
	Lier une Lier plu	e seque isieurs	ence activité	s						

The window for editing the link properties is displayed (window that can be displayed by double-clicking on

Edition du Lien			
Prédécesseurs		unité	
Réalisation Voie 1	-	Jours écoulés	-
		Décalage	
Inverser	4	2.0	
	1	Catégorie	
Successeurs		Defaut	-
Réalisation Rond	•	Туре	
		Fin-Début	-
		Calendrier succ	tesseur
		Ignorer	
		Planifier	
		Actif	
a link):		ОК	Annuler

This window allows you to specify the characteristics of the link and in particular its type (Finish-Start, Start-Finish, Start-Start, Finish-Finish), its category (see...), and whether it should use the successor's calendar. In the example above we specified a lag of 2 days..

	allows you to switch predecessor and successo	r I
	allows you to switch predecessor and successo	11

After clicking on OK, we notice that the link is represented in dotted line, which means that it must be rescheduled (this will always be the case for a new link):

Réalisation	Voie 1
	Réalisation Rond-Point 2

To reschedule the link, click on the button : the link is now displayed as a solid line, and the lag taken into account::



1	2	3	4	5	6	7	8	9	10	11
				R	éalisat	tion Vo	oie 1			
						+				

#### Via the task properties

It is also possible to create a link from the task properties window, by going to the *Links* tab. The Predecessors and Successors of this task can then be informed.

For example, here, we will create a Finish-Start link between the selected task and the "Pavage Voie 2" task, which will be its successor with a Finish-Start link:

Dé	tail de l'activité Dates Z	ones	Autres options	Liens							
Pr	édécesseurs							+ Ajouter	une activi	té — Su	oprimer
	Activi	tés		1	Type Déca	alage unité	Calendrier suc	esseur Igr	orer A	ctif Plani	fier (*
Su	iccesseurs				Aucun	contenu dans la tal	ble	+ Ajoute	er une act	ivité – S	upprimer
	Activités		Ту	pe	Décalage	unité	Calendrier succes	seur Ignorer	Actif	Planifier	Catéc +
	Réalisation Rond-Point 2		Fin-Débu	it -	- 2.0	Jours écoulés			$\checkmark$	$\checkmark$	De
			Fin-Débu	t ,	0.0	Jours écoulés	•	$\checkmark$			De
< (	Installations de chantier										>
	Pavage Voie 2 Réalisation Rond-Point								0	K A	nnuler

### Create a sequence

To create a sequence of links, select successively the tasks that make up the sequence (keeping the CTRL key pressed) then do a *Right-click*  $\rightarrow$  *Create a link*  $\rightarrow$  *Create a sequence* :



Filtre avancé	Conditions de zones : Etiquette par de   Ajouter une activité
	2018
	Decembre
-	Activité 1
	Activité 3
	Activité 2
	Activité 4

### Linking one task to several other tasks

It is also possible to create a 1 to N link: several tasks can be added as predecessors or successors via l'interface de l'activité, but it is also possible to select this task graphically, then all the tasks to which it will be linked, by keeping the CTRL key pressed. Then we'll do a right-click > *Create a link* > *Link more tasks* 

For example below we create a Start-Finish link between the "Inauguration" task and three previous tasks, with a 2-day lag:



			1	Novembre					Decembre				
22	23	24	25	26	27	28	29	30	1	2	3	4	5
							Reali	sation rou	te accès p	arking 2			
	Co	nstruction	terrain										
					Réa	lisation ch	emins pié	tonniers					
				Ч	5			-		+	lna	uguratio.	

## Displaying margins and the critical path Setting up the Gantt chart

To set the Gantt columns properties, don't forget to double-click first on the Gantt chart.

## Grouping tasks

To group tasks, double-click on the Gantt chart, then right-click in the header of the columns then click on *Color definition for each level* :



In the window that appears, select the desired successive group levels, then click on OK. For example, here we choose to group the tasks by Area. To better highlight the grouping levels it's also possible to add color to each level:

2		×
Level color		
Settings Area (PM)	▼ <b>#</b> 9980e6 ▼ Add	
Field	Color Delete	
Area (PM)	📕 #9980e6 🤝 🔇 🔇	
Not grouped		
Show only simple	tasks	
	_	Ok

## Filtering tasks

The filtering tools are located just above the Gantt. There are three types of filters:

**Simple filters :** Area and Phase filters allow you to display only the tasks corresponding to a Zone and/or Phase..

Filters based on dates: they allow you to display tasks:

• 'Start' : having a specific start date



- 'End' : having a specific end date
- 'Between' : present in whole or in part within a given time range
- 'Strict' : fully included in a time range

Advanced filters: allow multiple logical combinations to be operated on all available Phase Manager fields (including custom fields).

## Sorting tasks

Multi-criteria sorting can be applied to as many columns as desired, simply by clicking on the column headers. For example, below, we clicked once on "Start (PM)" and sorted by increasing start dates:

ID (PM)	Début (PM) 🔻				
PM-00001	PM-00001 12/02/2018 08:00				
2069	14/03/2018 08:00				
2097	22/05/2018 08:00				
10207	22/05/2018 08:00				
	ID (PM) PM-00001 2069 2097 10207				

The order (ascending or descending) of the sorting is marked by the direction of the black arrow. If you click a second time on "Start (PM)", you will notice that the task furthest from the project is in first position, and that the arrow has changed direction (one more click on the header would have removed the filter):

ID (PM)	Début (PM) 🔺
3749	21/02/2019 08:00
3777	14/02/2019 08:00
3721	08/02/2019 08:00
3413	25/01/2019 08:00
	ID (PM) 3749 3777 3721 3413

It can also be seen that the decreasing order of the start dates has logically impacted the order of the phases. To maintain the increasing ordered grouping of phases, it will be necessary to apply two successive sortings:

- click on the column header "Phase (PM)" once
- and for example decide that the second sort criterion will be by decreasing end date, by doubleclicking on "End (PM)":

Nom (PM)	ID (PM)	Début (PM)	Fin (PM)	Phase (PM) 🔻
Phase 0 : Travaux préparat				
Installation de la base tra	PM-00001	12/02/2018 08:00	13/03/2018 16:00	Phase 0 : Travaux préparato
Phase 1 : 1/2 Giratoire Nord				
Signalisation	2377	22/06/2018 14:10	22/06/2018 16:00	Phase 1 : 1/2 Giratoire Nord
Revêtements trottoir	18859	22/06/2018 09:55	22/06/2018 16:00	Phase 1 : 1/2 Giratoire Nord
Couche de base 3A (Circu	2321	19/06/2018 08:00	22/06/2018 16:00	Phase 1 : 1/2 Giratoire Nord
Couche de réglage / planie	2293	14/06/2018 08:00	15/06/2018 16:00	Phase 1 : 1/2 Giratoire Nord

The number of arrows indicates the level of the sort criterion (here it is first by Phase, then by End date). Note that it is possible to position as many criteria as necessary.

## Adding/removing/moving columns

To add a column, *Right-click* on a header > *Add column* : after selecting the field to display, the new column will be inserted to the right of the column on which you clicked. To delete a column, simply *right-click* > *Delete column* on the column to be removed. Finally, **to move a column**: a simple drag and drop on its header allows you to change its position.

## Changing the font

## **Changing line height**

Changing the height of a line is done simply with the mouse by pulling the resizing arrow. To reflect the height of a line to the entire table, *right-click > Reproduce line size* :

Nom (PM)	ID (PM)	Début (PM)
Phase 0 : Travaux préparatoi		
Installation de la base travaux	PM-00001	12/02/2018 08:00
Phase 1 : 1/2 Giratoire Nord		
Signalisation	2377	22/06/2018 14:10
Couche de base 3A (Circula	2321	19/06/2018 08:00
Revêtements trottoir	18859	22/06/2018 09:55

## Default settings

The Gantt default settings are inherited :

- for the choice of columns: from the Gantt chart in "Create phasing"
- for annotations on or next to the bars: from the *Options* → *Properties* menu then the "*Gantt chart*" tab

## Setting up the bar side of the Gantt chart

#### Adjusting the time range

The time range displayed in the GANTT is very easily managed with the mouse:

- the zoom in or out is done with the mouse wheel after clicking in the GANTT.
- a zoom is performed by selecting a range in the header.
- the entire GANTT headband can be slid sideways by clicking and dragging.
- the *Adjust time scale* function accessible via the header allows you to display all tasks within the current range.

	2019										
Aout	Septembre	Octobre	Novembre	Decembre	Janvier	Fevrier	Mars	Avril	Mai		
Installations de chantier											
Réalisation Voie 1											
-Réalisation Rond-Point											
Réalisation Rond-Point 2											
Pavage Voie 2											
			-	Réalisation V	/oie 1 Réalisation Ro Réa	nd-Point lisation Rond-F	Point 2				

### Adding a timeline

The addition of a timeline is done by right-clicking on the timeline that will be located above the inserted line.

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	2018															
	Mars															
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
					-											
					*											
	$\mathbf{k}$															

## Displaying/modifying grids

The display of the grids is done by right-clicking on the timeline of your choice and clicking on "Show/Hide grids".

Customizing the display of a grid is also done by right-clicking on the timeline of your choice and going to "Properties".

## Adding a Gantt chart to a deliverable

Cette partie est traitée dans la personnalisation des livrables.

## Customizing the Gantt chart display

Colouring and summary tasks

To further improve readability, it is possible to add a colouring:

- on the bars using the Areas Conditions
- on grouping levels
- note: if the number of tasks per level is low, the summary bars can also be hidden