

# Modop Vega tool (English Version)

Last update : 31/12/25  
Created by : Nathan BODIN

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## Contacts

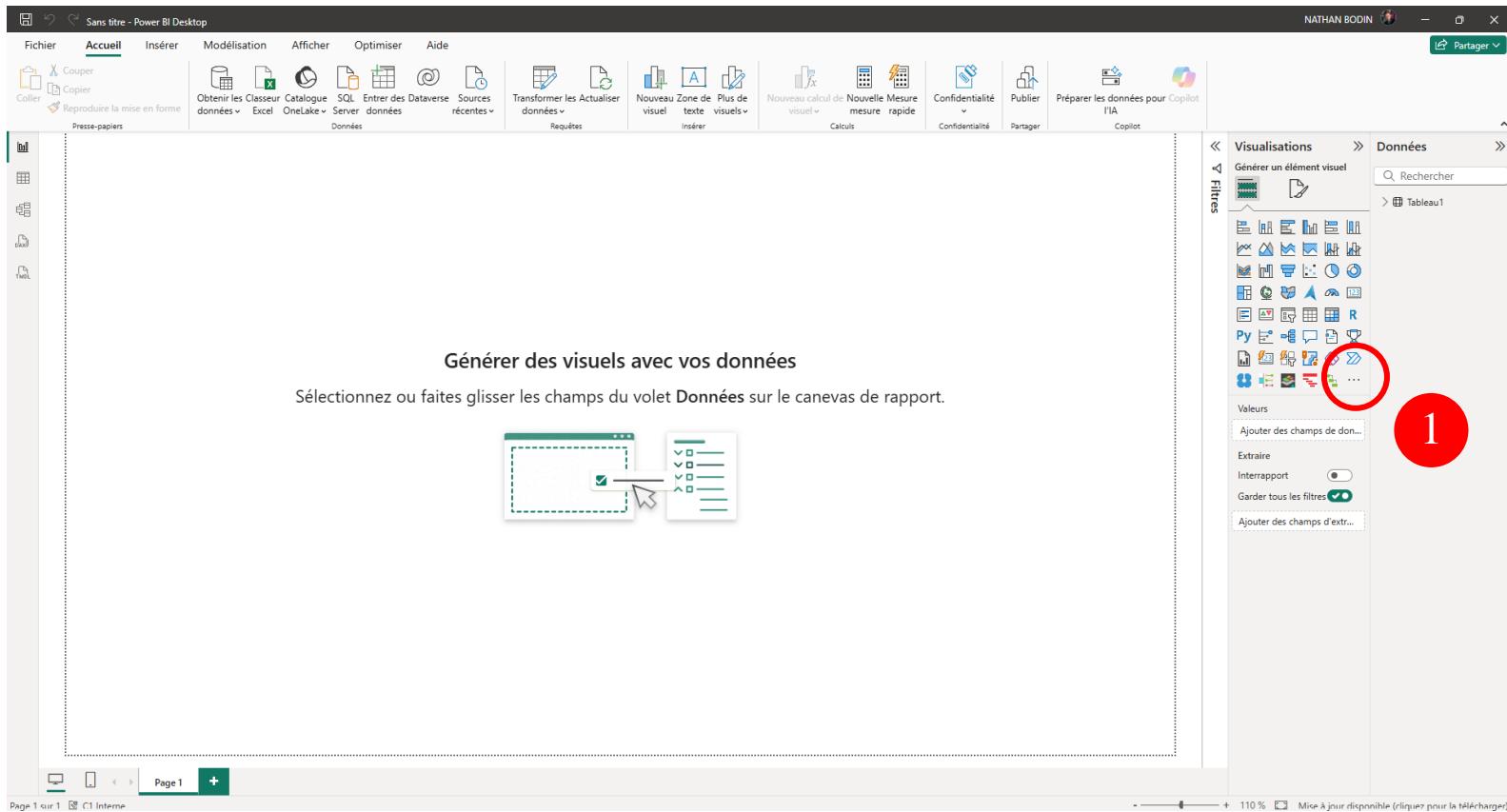
If you have any questions, you can contact me here :

Email : [nathanbodin01@gmail.com](mailto:nathanbodin01@gmail.com)

Linkedin : Nathan Bodin

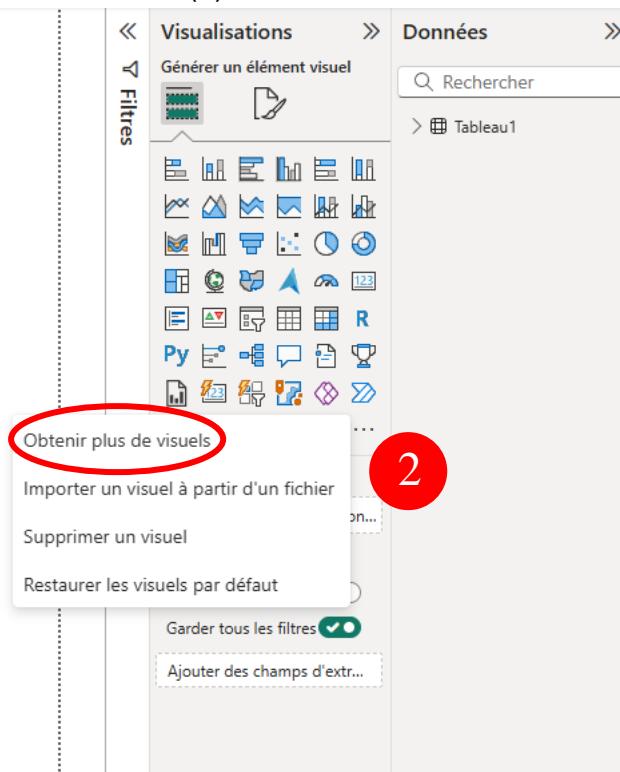
Instagram : @nathanbod1

# Importing the visual



Here's what you see when you arrive at PowerBI.

- Click on the « ... » (1)



- Then click on « Obtenir plus de visuels » or « Get more visuals » (2)

Visuels Power BI

En cliquant sur « Ajouter » et/ou « Télécharger l'exemple » en téléchargeant un visuel, vous acceptez les conditions générales et la politique de confidentialité du fournisseur sur la page du visuel et acceptez que Microsoft puisse partager les détails de votre compte avec le fournisseur à des fins transactionnelles. L'utilisation de l'AppSource de Microsoft est soumise aux Conditions de la place de marché commerciale Microsoft et Déclaration de confidentialité.

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Filter par Tout Trier par : Popularité

3

Rechercher

|                                       |                         |                       |  |                                     |
|---------------------------------------|-------------------------|-----------------------|--|-------------------------------------|
| Inforiver Analytics+ ...              | Zebra BI Tables         | Icon Map Pro          | Sunburst by Power...                   | Inforiver Reporting ...             |
| xViz LLC dba Lumel<br>★★★★★(7)        | Zebra BI<br>★★★★★(15)   | Tekantis<br>★★★★★(2)  | TRUVIZ INC<br>★★★★★(5)                 | xViz LLC dba Lumel<br>★★★★★(13)     |
| Water Cup                             | Drill Down Pie PRO...   | Enlighten Storyteller | hi-chart Reporting ...                 | Text Filter                         |
| Daniel Szentimrey-Harrach<br>★★★★★(1) | ZoomCharts<br>★★★★★(18) | ENLIGHTEN DESIGNS     | CP Corporate Planning G...<br>★★★★★(1) | Microsoft Corporation<br>★★★★★(167) |

You have arrived at this page.

- In the search bar (3) type “Deneb” (this is the support for the solution).

Visuels Power BI

En cliquant sur « Ajouter » et/ou « Télécharger l'exemple » en téléchargeant un visuel, vous acceptez les conditions générales et la politique de confidentialité du fournisseur sur la page du visuel et acceptez que Microsoft puisse partager les détails de votre compte avec le fournisseur à des fins transactionnelles. L'utilisation de l'AppSource de Microsoft est soumise aux Conditions de la place de marché commerciale Microsoft et Déclaration de confidentialité.

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Filter par Tout Trier par : Popularité

4

Deneb: Declarative ...

Daniel Marsh-Patrick  
★★★★★(30)

Power BI Visual Edi...

Ifat Galiev  
★★★★★(1)

Apache ECharts Vis...

Ifat Galiev

LLM AI Charts

CodeX Enterprises LLC

- Then click on the image “Deneb: Declarative...” (4)

Deneb: Declarative Visualization in Power BI  
Daniel Marsh-Patrick  
★★★★★ 5.0 (30)  
PBI Certified

**Vues d'ensemble** **Evaluations + avis**

Deneb is a custom visual for Microsoft Power BI, which allows creators to use the declarative JSON syntax of the Vega or Vega-Lite languages to build their own bespoke data visualizations, without having to learn web development. This is similar to the approaches used for creating R and Python visuals in Power BI, with the following additional benefits:

- No additional dependencies on local libraries or gateways for your end-users when publishing reports - Visuals will render in any Power BI client.
- Specifications are rendered directly inside Power BI rather than being delegated to another location (typically resulting in faster render times for end-users).
- Built for the web, meaning that it's possible to integrate with Power BI's interactivity features, with some additional setup.

By becoming familiar with the Vega-Lite and Vega languages, and learning to "think visually", you can greatly expand your visual options within Power BI. You can visit the main website at <https://deneb-viz.github.io> to learn how to get started. The site also covers the Power-BI specific side of things including how you can develop your visuals to potentially leverage visual canvas integration capabilities, such as tooltips, context menus and cross-filtering other visuals.

**Fonctionnalités visuelles**  
Ce visuel est certifié par Power BI  
En savoir plus sur les visuels Power BI certifiés.

**Exemples d'instructions**

Tarification  
Gratuit  
Produits  
Visuels Power BI  
Éditeur  
Daniel Marsh-Patrick  
Obtenir avec  
Compte professionnel ou scolaire  
Version  
1.8.2.0  
Mis à jour  
15/10/2025  
Catégories  
Infographies  
Autre  
Support  
Support  
Juridique  
Contrat de licence  
Politique de confidentialité

**Vues d'ensemble** **Evaluations + avis**

Turn Datasets Like This... **Into Rich Custom Visuals Using the Vega or Vega-Lite Languages**

Auckland  
Christchurch  
Dunedin  
Hamilton  
Wellington

Nouvelles Zélande

- Click on « Ajouter » or « Add » (5)

Sans titre - Power BI Desktop NATHAN BODIN Partager

Fichier Accueil Insérer Modélisation Afficher Optimiser Aide

Couper Copier Reproduire la mise en forme

Obtenir les Classeur données Excel Catalogue OneLake SQL Entrer des Dataverse Server données Sources récentes Transformer les Actualiser données Requêtes Nouveau calcul de visuel Insérer Calcul Confidentialité Confidentialité Partager Préparer les données pour Copilot

Générer des visuels avec vos données

Selectionnez ou faites glisser les champs du volet Données sur le canevas de rapport.

Visualisations

Deneb

Données

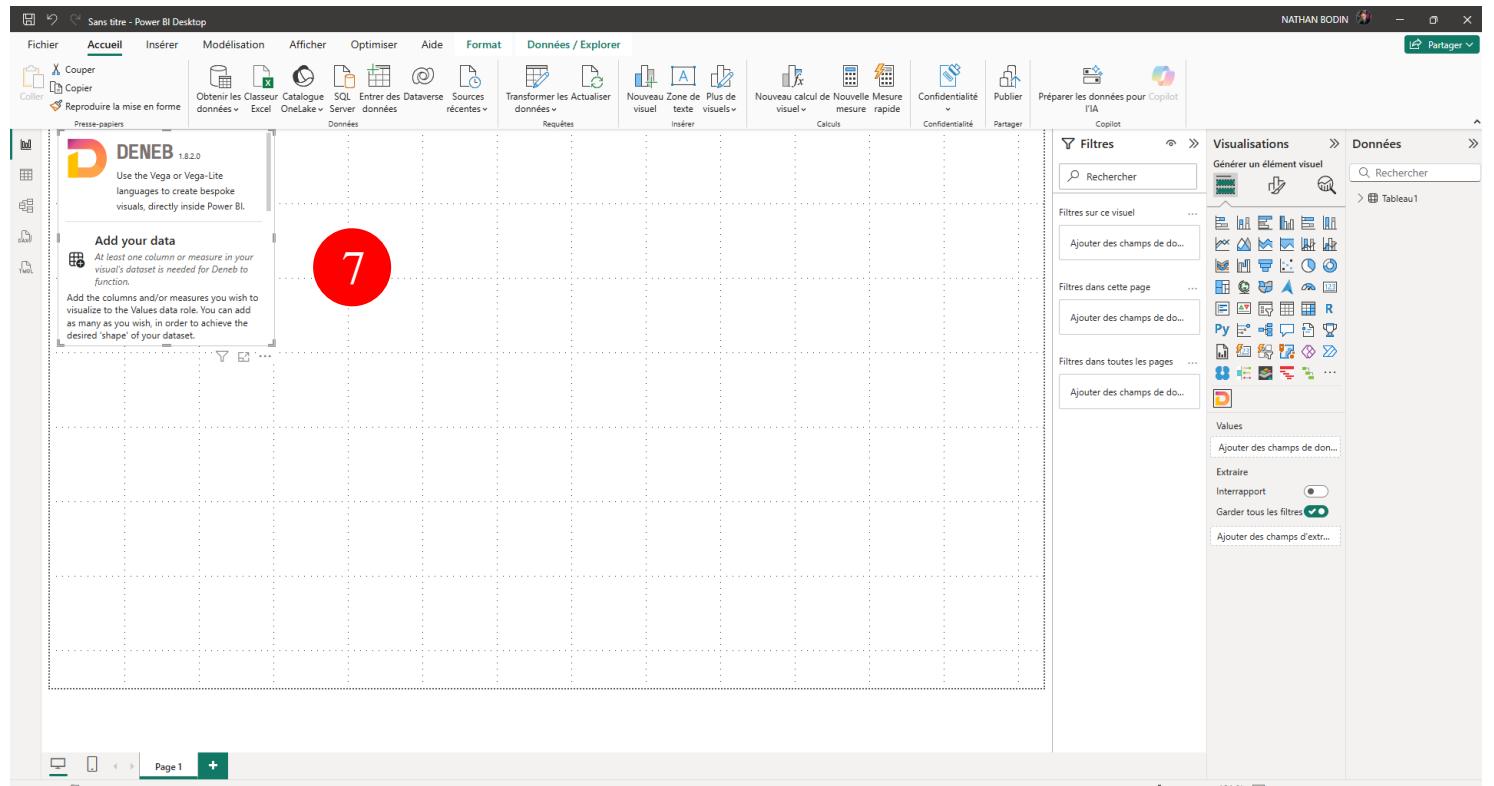
Rechercher Tableau1

Valeurs

Ajouter des champs de don... Extraire Interraport Garder tous les filtres Ajouter des champs d'extr...

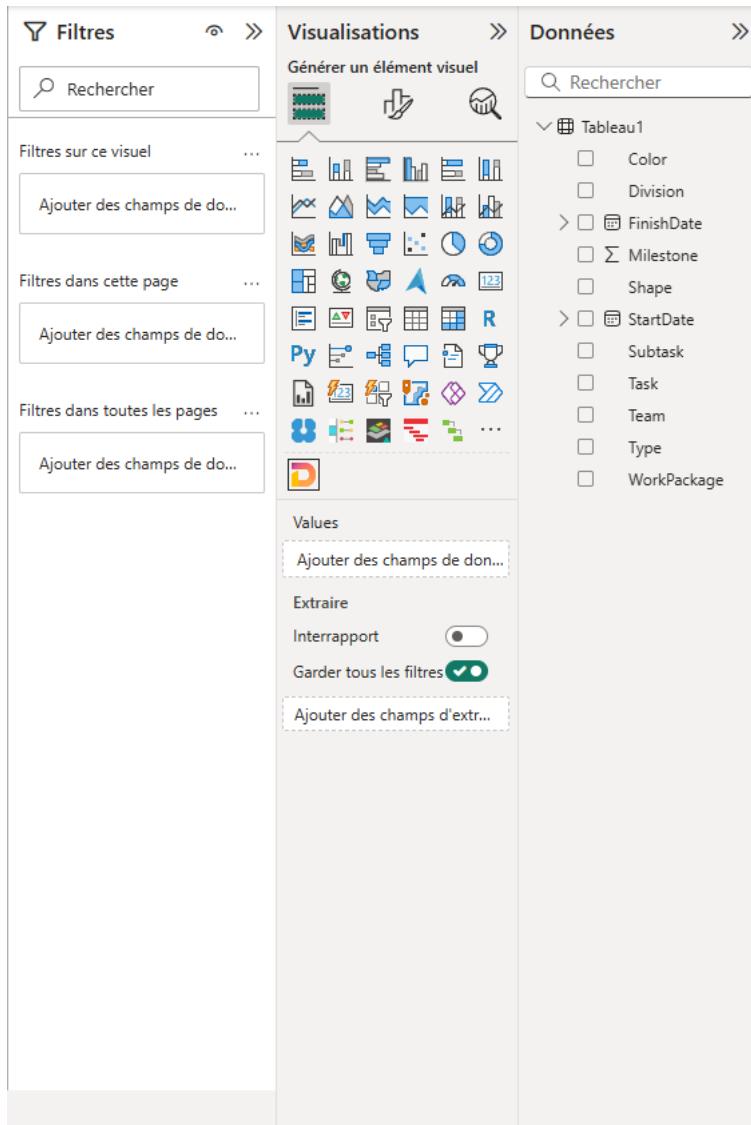
A new image has just appeared (6)

- Click on this new visual (6)



A new window has just appeared (7). You can enlarge it if you wish. You have just imported the Deneb visual which will support the visualization solution.

# Quick start

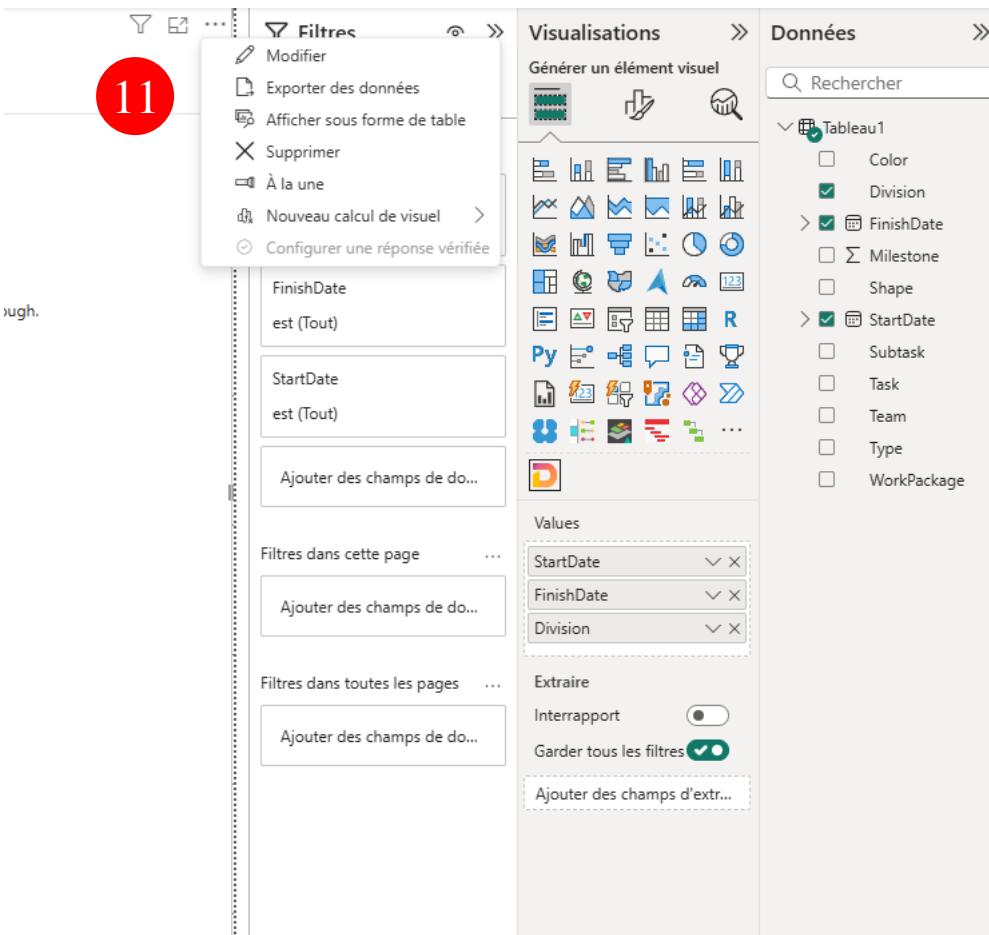


On the right side of Power BI you can see the columns of your data.

The screenshot shows the Microsoft Power BI Data view interface. It is divided into three main sections: Filtres (Filters), Visualisations (Visualizations), and Données (Data).

- Filtres (Filters):** Contains sections for "Filtres sur ce visuel" (Filters on this visualization), "Filtres dans cette page" (Filters on this page), and "Filtres dans toutes les pages" (Filters across all pages). Each section includes a search bar and a "Ajouter des champs de do..." (Add data fields) button.
- Visualisations (Visualizations):** A central area titled "Générer un élément visuel" (Generate a visual element) featuring a grid of visualization icons. Below the grid, there is a "Py" icon.
- Données (Data):** Contains a search bar and a tree view of data sources. The "Tableau1" source is expanded, showing columns: Color (unchecked), Division (checked), FinishDate (checked), Milestone (unchecked), Shape (unchecked), StartDate (checked), Subtask (unchecked), Task (unchecked), Team (unchecked), Type (unchecked), and WorkPackage (unchecked). Below the tree view, there is a "Values" section containing dropdown menus for StartDate, FinishDate, and Division, each with a "X" button. There is also an "Extraire" (Extract) section with an "Interrapport" (Cross-report) toggle and a "Garder tous les filtres" (Keep all filters) checkbox.

- Select the data you want to view. These column names will also appear in "Values"; if so, then everything is fine.



- Once you have selected your columns, click on the "..." (11) and then on "Edit" (11).

**Create or import new specification**

A specification allows you to create a new design using either Vega or Vega-Lite. You can import an existing template, or create a new Vega-Lite or Vega specification.

**Create using...**

- Existing template
- Vega-Lite
- Vega

**Select your Vega template**

- [empty]
- [empty (with Power BI theming)]
- Simple bar chart
- Interactive bar chart

[empty] by Deneb

Bare-minimum Vega template, with data-binding pre-populated. Has no additional configuration for styling.

*There are no placeholders for this visual. Click the Create button to begin editing the resulting specification.*

Create
Close

- A page will appear. Click on "Vega" then slightly below "Empty" then "create".

The screenshot shows the Power BI Desktop interface. On the left, the code editor pane displays a JSON specification for a Gantt chart. The center pane shows a data preview of tasks with columns: row, StartDate, FinishDate, and Division. The right pane, titled 'Visualisations > Données', contains a tree view of fields: Division, FinishDate, StartDate, and a 'Tableau1' node which further branches into Color, Division, and other metrics like Milestone, Shape, StartDate, Subtask, Task, Team, Type, and WorkPackage.

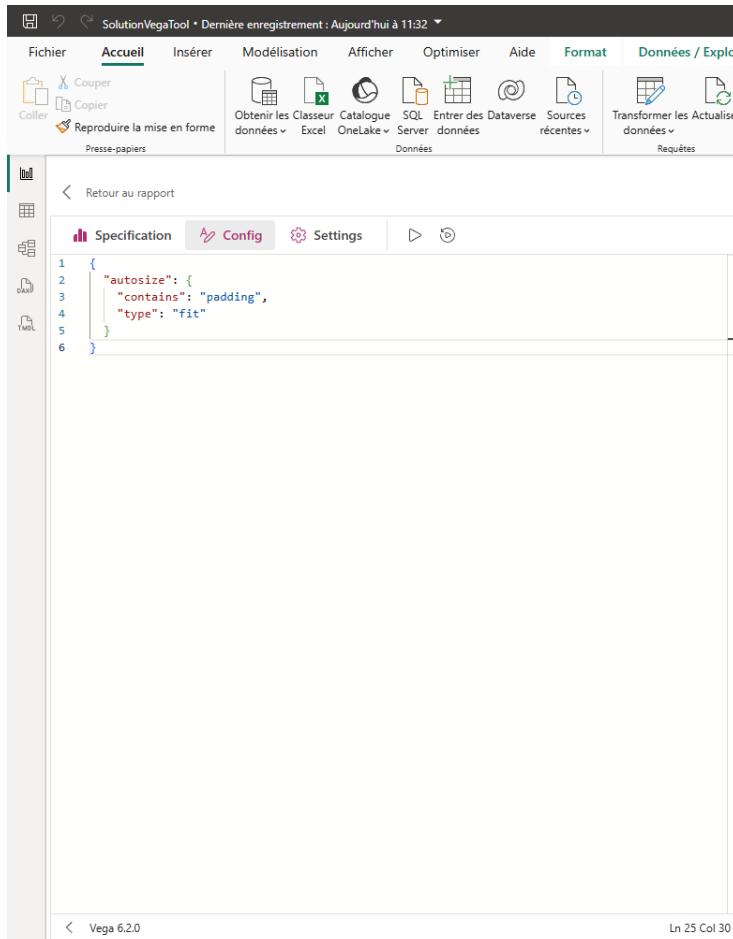
Once this is done, this window will open. On the left (12) you will find the code section, the data section (13) below the visual, and the visual section in the center.

- Delete the few lines of code in (12) and then copy and paste the solution code which is here : <https://github.com/npaatrhiasn/Gantt-on-steroids/blob/main/codeBl.json>

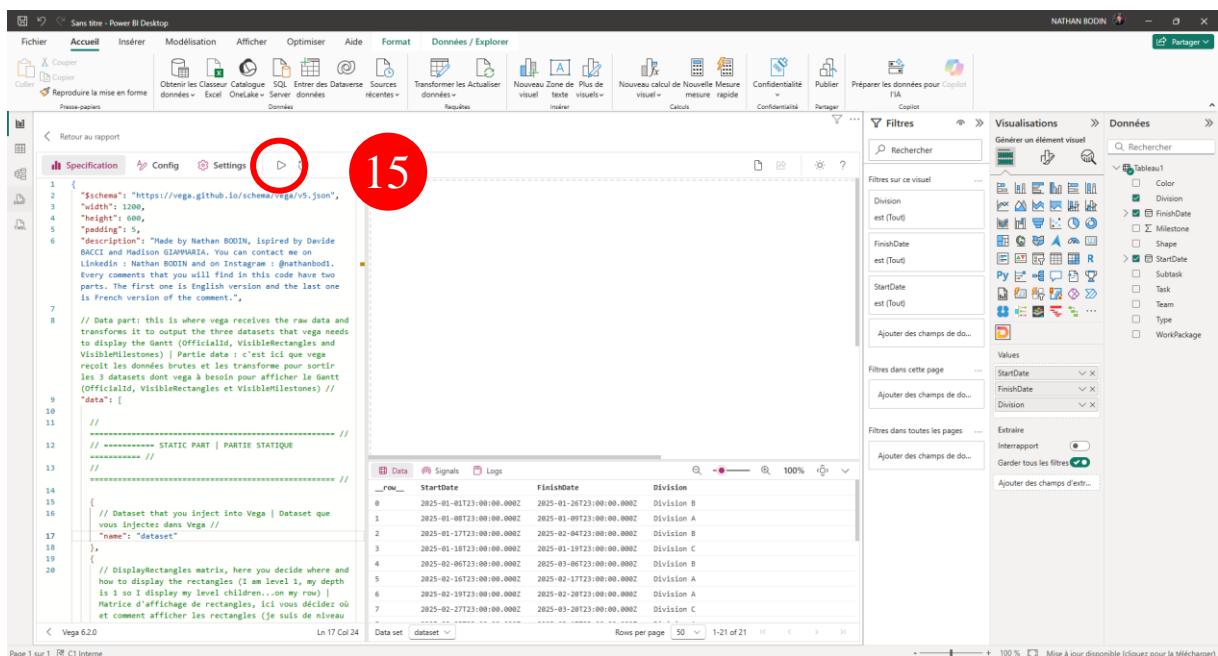
The screenshot shows the Power BI Desktop interface after updating the code. The code editor pane now contains the provided solution code for the Gantt chart. The data preview and visualizations pane remain the same as in the previous step.

The code is now in the visual

- Click on « Config » (14)



- Delete the code that is there



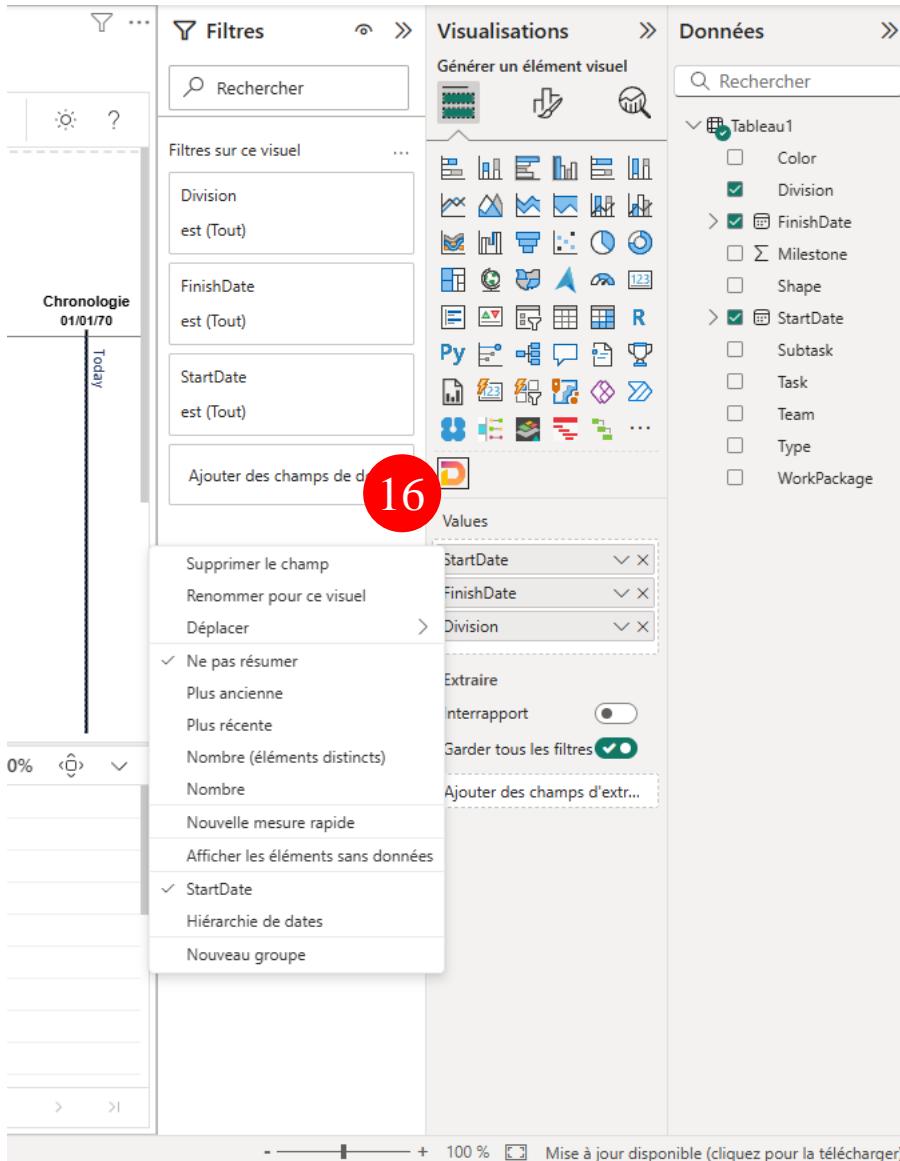
- Return to "Specification"
  - Then press "run" (15)

Sans titre - Power BI Desktop

The screenshot shows the Power BI Desktop interface. On the left, the 'Specification' tab is selected, displaying Vega-Lite JSON code. The code defines a visualization with a title, subtitle, and a hierarchical structure. It also includes a static part and a display rectangles matrix. The 'Visualizations' pane on the right shows various chart and map types. The 'Data' pane at the bottom displays a table with columns: \_row\_, StartDate, FinishDate, and Division. The table has 8 rows of data.

| _row_ | StartDate                | FinishDate               | Division   |
|-------|--------------------------|--------------------------|------------|
| 0     | 2025-01-01T23:00:00.000Z | 2025-01-26T23:00:00.000Z | Division B |
| 1     | 2025-01-08T23:00:00.000Z | 2025-01-09T23:00:00.000Z | Division A |
| 2     | 2025-01-17T23:00:00.000Z | 2025-02-04T23:00:00.000Z | Division B |
| 3     | 2025-01-18T23:00:00.000Z | 2025-01-19T23:00:00.000Z | Division C |
| 4     | 2025-01-09T23:00:00.000Z | 2025-03-06T23:00:00.000Z | Division B |
| 5     | 2025-02-16T23:00:00.000Z | 2025-02-17T23:00:00.000Z | Division A |
| 6     | 2025-02-19T23:00:00.000Z | 2025-02-28T23:00:00.000Z | Division C |
| 7     | 2025-02-27T23:00:00.000Z | 2025-03-28T23:00:00.000Z | Division C |

Nothing is displayed at the moment and that's normal because we haven't done the mapping (renaming the column so that the visualization solution understands what you want).



To rename the columns:

- Right-click on one of your columns in the "Values" section (16)
- Then « Renommer pour ce visuel » or « rename for this visual » (16)
- Rename your start date column to "Start"
- Rename your end date column to "End"
- Rename your first content column to "Category"

Sans titre - Power BI Desktop

NATHAN BODIN

Fichier Accueil Insérer Modélisation Afficher Optimiser Aide Format Données / Explorer

Coller Couper Copier Reproduire la mise en forme Presse-papiers

Obtenir les Classeur données v Excel Catalogue OneLake v SQL Entrer des Dataverse Sources récentes v Données Transforme les Actualiser données v Requêtes Nouveau Zone de visuel A Plus de visuels v Calculs Confidentialité v Confidentielle Nouveau calcul de Nouvelle Mesure mesure rapide Partager Publier Préparer les données pour l'IA Copilot

Retour au rapport

**Specification** Config Settings

```

16 // Dataset that you inject into Vega | Dataset que vous injectez dans Vega //
17 "name": "dataset"
18 },
19 {
20 // DisplayRectangles matrix, here you decide where and how to display the rectangles (I am
21 // level 1, my depth is 1 so I display all children...on my row) | Matrice d'affichage de
22 // rectangles, ici vous décidez où et comment afficher les rectangles (je suis de niveau 1, ma
23 // profondeur est 1 alors j'affiche tous mes enfants de niveau...sur ma ligne) //
24 "name": "DisplayRectangles",
25 "values": [
26   {"Level": 1,"Depth 1": 1, "Depth 2": 1, "Depth 3": 1, "Depth 4": 1, "Depth 5": 1},
27   {"Level": 2,"Depth 1": "X", "Depth 2": 2, "Depth 3": 2, "Depth 4": 2, "Depth 5": 2},
28   {"Level": 3,"Depth 1": "X", "Depth 2": "X", "Depth 3": 3, "Depth 4": 3, "Depth 5": 3},
29   {"Level": 4,"Depth 1": "X", "Depth 2": "X", "Depth 3": "X", "Depth 4": 4, "Depth 5": 4},
30   {"Level": 5,"Depth 1": "X", "Depth 2": "X", "Depth 3": "X", "Depth 4": "X", "Depth 5": 5}
31 ]
32 },
33 {
34 // DisplayMilestones matrix, here you decide where and how to display the milestones (I am
35 // level 1, my depth is 1 so I display my level children...on my row) | Matrice d'affichage de
36 // milestones, ici vous décidez où et comment afficher les milestones (je suis de niveau 1, ma
37 // profondeur est 1 alors j'affiche mes enfants de niveau...sur ma ligne) //
38 "name": "DisplayMilestones",
39 "values": [
40   {"Level": 1,"Depth 1": 1, "Depth 2": 1, "Depth 3": 1, "Depth 4": 1, "Depth 5": 1},
41   {"Level": 2,"Depth 1": "X", "Depth 2": 2, "Depth 3": 2, "Depth 4": 2, "Depth 5": 2},
42   {"Level": 3,"Depth 1": "X", "Depth 2": "X", "Depth 3": 3, "Depth 4": 3, "Depth 5": 3},
43   {"Level": 4,"Depth 1": "X", "Depth 2": "X", "Depth 3": "X", "Depth 4": 4, "Depth 5": 4},
44   {"Level": 5,"Depth 1": "X", "Depth 2": "X", "Depth 3": "X", "Depth 4": "X", "Depth 5": 5}
45 ],
46 },
47 {
48 // You can match your colors to your legend | Vous pouvez associer vos couleurs à votre
49 // Legende //
50 "name": "Color",
51 "values": [
52   {"Legend": "Development","Color": "#00008B"}, // bleu foncé
53   {"Legend": "Research","Color": "#800080"} // rose
54 ]
55 }
56 
```

17

Title that you can change

You can change the subtitle if you change the parameter called 'SubTitle' in the code

Hierarchie

|            | 01/02/25 | 01/03/25 | 01/04/25 | 01/05/25 | Chronologie |
|------------|----------|----------|----------|----------|-------------|
| Division B |          |          |          |          | 01/06/25    |
| Division A |          |          |          |          | 01/07/25    |
| Division C |          |          |          |          |             |

Data Signals Logs

| ID   | Start         | End           | Category   | SubcategoryFull   |
|--|---------------|---------------|------------|-------------------|
| Division B                                     | 1735772400000 | 1746223200000 | Division B | null              |
| Division B_Team 2                              | 1735772400000 | 1746223200000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_MP3                          | 1735772400000 | 1741906800000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_MP3_Prototype 1              | 1735772400000 | 1741906800000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_MP3_Prototype_1_Planning 3   | 1735772400000 | 1737932400000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_MP3_Prototype_1_Reporting 1  | 1741474800000 | 1741906800000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_MP2                          | 1741647600000 | 1746223200000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_MP2_Testing 1                | 1741647600000 | 1743372000000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_MP2_Testing_1_Planning 3     | 1741647600000 | 1743372000000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_MP2_Prototype 3              | 1744063200000 | 1746223200000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_MP2_Prototype_3_Validation 3 | 1744063200000 | 1746223200000 | Division B | Division_B_Team 2 |
| Division_B_Team_3                              | 1737154800000 | 1741302000000 | Division B | Division_B_Team 3 |
| Division_B_Team_3_MP2                          | 1737154800000 | 1741302000000 | Division B | Division_B_Team 3 |

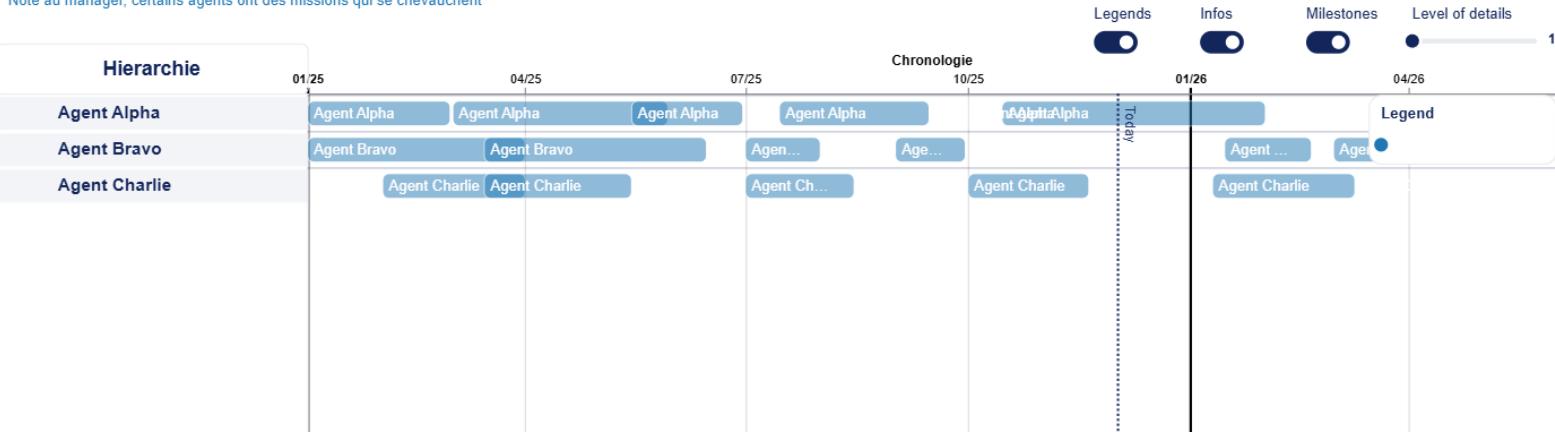
Data set AllRectangles Rows per page 50 1-50 of 66 < > >>

Mise à jour disponible (cliquez pour la télécharger)

- Then, go into the code, go to line 21. Here is the matrix which is used to control the behavior of the rectangles (17).
- On line 23, after "Depth 1:" replace the number with 1
- Click on « run »

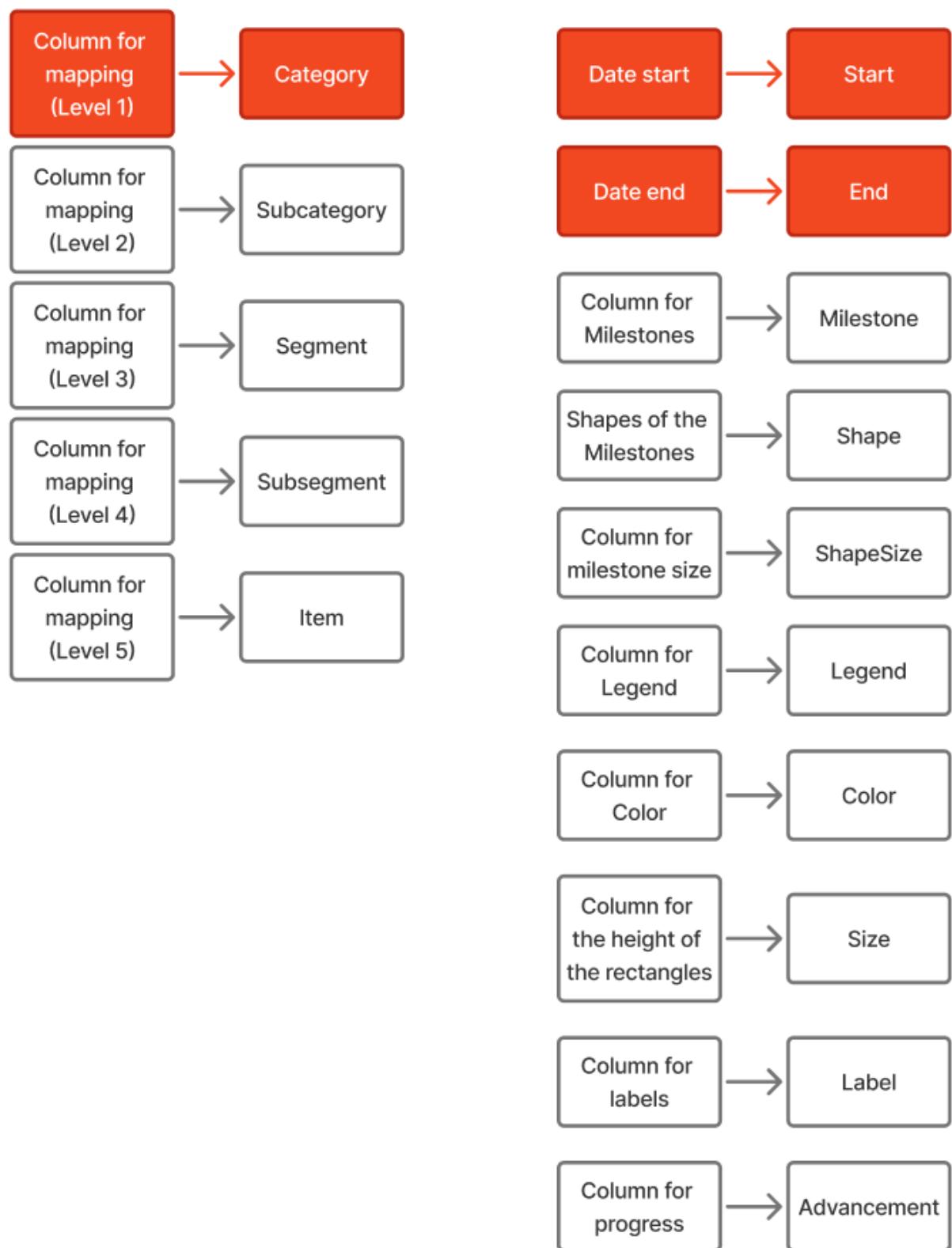
## Planning des agents

Note au manager, certains agents ont des missions qui se chevauchent



Here's what you should observe. (With your data, the visualization will not be the same as the one shown in the example).

## The allowed columns (and what they are used for)



The elements in red are mandatory (these are the 3 columns I put in the example above).

The screenshot shows the Power BI Desktop interface with the following details:

- File**, **Accueil**, **Insérer**, **Modélisation**, **Afficher**, **Optimiser**, **Aide**, **Format**, **Données / Explorer**
- Reproduire la mise en forme** (shortcuts: **C**ouper, **C**oller, **C**opier, **P**asteer)
- Ouvrir les Catalogues**, **Obtenir des données**, **Excel**, **Catégorie**, **SQL Server**, **Entrer des données**, **Sources récentes**
- Transformer les données**, **Actualiser les données**, **Requête**, **Nouveau Zone de visuel**, **Plus de visuels**, **Nouveau calcul de mesure**, **Mesure rapide**
- Confidentialité**, **Publier**, **Préparer les données pour Copilot**, **TIA**, **Copilot**
- Partager**
- Prévisualiser**, **Retour au rapport**
- Specification**, **Config**, **Settings**
- Title that you can change** (Subtitle)
- Hierarchie**:
  - Division B
  - Division A
    - Division A.1
    - Division A.2
  - Division C
    - Division C.1
    - Division C.2
- Chronologie**:
  - 01/02/28
  - 01/03/28
  - 01/04/28
  - 01/05/28
- Data**, **Signals**, **Logs**
- Tableau 1** (selected)
  - Color
  - Division
  - FinishDate
  - Shape
  - Start
  - Type
  - Team
  - Task
  - Subtask
  - Milestone
  - WorkPackage
- Filtres**:
  - Rechercher
  - Filtres sur ce visuel
    - Category est (Tout)
    - End est (Tout)
    - Start est (Tout)
    - Ajouter des champs de do...
  - Filtres dans cette page
    - Start
    - End
    - Category
    - Ajouter des champs de do...
  - Filtres dans toutes les pages
    - Extraire
    - Interraport
    - Garder tous les filtres
    - Ajouter des champs d'ent...
- Visualisations**
- Données**
- Page 1 sur 1**, **100 %**, **Mise à disposition (cliquez pour la télécharger)**

Here is the result if you only included the 3 required columns.

## Hierarchy Columns (Required)

This visual is a hierarchical Gantt chart, meaning you must specify the desired hierarchy in the code. Here is the hierarchy:

Category > Subcategory > Segment > Subsegment > Item.

Be sure to follow this order.

## Date columns (Required)

The Start and End columns are date columns that will be used to place the elements on the Gantt chart.

## Milestones (Column "Milestone")

You can also choose to add Milestones (which you will rename to Milestone). A Milestone must be a column of 0 or 1 (1 meaning that this row is a Milestone).

## The shape of the milestones (Column "Shape")

Next, using the "Shape" column, you can decide on the shape of each of these Milestones. Here are the possible shapes:

square: 

cross : 

Cross +  
diamond

diamond : 

triangle-u

triangle-down :

triangle-left : ...

triangle-right : .

## triangle rig...www.



You can also import your own shapes via an SVG path (you can build your shape and then retrieve the path here) : <https://yqnn.github.io/svg-path-editor/>). So you have an infinite number of possible forms.

## The size of the milestones (column "ShapeSize")

If you want to adjust the size of the milestones to perhaps indicate different levels of importance for each milestone, you can do so by entering a number in this column.

By default, the milestone shapes have a size of 500.

This can also be useful if you have created your own milestone and it is not the same size as the default milestones. This column also allows you to assign two different sizes to two milestones that have the same shape.

Otherwise, if you haven't entered a ShapeSize column, then the solution will look in the "Shape" table in the code to see if the name of your milestone's shape corresponds to a size:

```

49   {
50     // You can decide the size of your milestones according to their shape | Vous
51     // pouvez associer une taille à vos formes //
52     "name": "Shape",
53     "values": [
54       {"Shape": "diamond","Size": "500"},  

55       {"Shape": "square","Size": "500"},  

56       {"Shape": "circle","Size": "500"},  

57       {"Shape": "wedge","Size": "500"},  

58       {"Shape": "cross","Size": "500"},  

59       {"Shape": "arrow","Size": "500"},  

60       {"Shape": "triangle-up","Size": "500"},  

61       {"Shape": "triangle-down","Size": "500"},  

62       {"Shape": "triangle-left","Size": "500"},  

63       {"Shape": "triangle-right","Size": "500"},  

64       {"Shape": "M -0.05 -0.25 L -0.05 0.05 L -0.05 0.35 L 0 0.35 L 0 0.05 L 0.25 -0.1  

65       L 0 -0.25 L -0.05 -0.25","Size": "5000"}  

66     ]
67   },

```

Here is the Shape table. You can add a row to this table at any time to add your shape and associate a size with it. Like the last row:

```
{"Shape": "M -0.05 -0.25 L -0.05 0.05 L -0.05 0.35 L 0 0.35 L 0 0.05 L 0.25 -0.1 L 0 -0.25 L -0.05 -0.25","Size": "5000"}
```

This is the SVG path for the flag. However, 500 (the default size) was too small for this shape, so I decided to set the size to 5000.

If this match doesn't exist in this table, then the default size of the marker in question will be 500.

Note that the solution will first look at your ShapeSize column; otherwise, it will look at the Shape table, and if that fails, it will use the default size (500).

## The Legend (column "Legend")

The Legend column is used to ensure that rows with the same legend are color-coded. This column can be used, for example, to visually differentiate between tasks that are in progress, overdue, or completed.

## The color (column "Color")

If you want to use your own colors, you can enter them in the Color column (in hexadecimal or English).

Alternatively, if you don't have a Color column, you can specify a color for a Legend in the code.

To assign a color to a legend:

The screenshot shows the Power BI Desktop interface. On the left, the code editor displays a JSON-like dataset definition. Lines 16-20 define a 'dataset' with a 'name' of 'dataset'. Lines 21-30 define a 'DisplayRectangles' matrix with a 'values' array containing depth levels from 1 to 5. Lines 31-40 define a 'DisplayMilestones' matrix with a 'values' array containing depth levels from 1 to 5. Lines 41-47 show a 'Color' section where 'Development' is associated with the color '#00008B'. On the right, a visualization titled 'Title that you can change' is displayed, showing a timeline with three divisions (Division B, Division A, Division C) and their respective planning and reporting phases. The visualization includes a hierarchy pane, a data table at the bottom, and various filters and settings on the right side.

- Go to line 45 of the code. This is the table for associating a color with a Legend.
- You have those lines :{"Legend": "Development", "Color": "#00008B"},
- Replace "Development" with the Legend of your choice and "#00008B" with the color of your choice.
- You can duplicate these lines to have multiple associations.

Note that if you have included a "Color" column, it will take priority; otherwise, the program will check if you have created any Legend-Color associations in the "Color" table. If not, the program will choose the colors itself. All rows with the same Legend will have the same color.

Note that colors are applied to the rectangles at the bottom of the hierarchy. You cannot control the color of parent rows using the color column or color table.

The screenshot shows the Power BI Desktop interface with a hierarchical timeline visualization. The visualization displays three levels of hierarchy: Division B, Division A, and Division C. Each division is represented by a horizontal bar with colored segments. The code on the left side of the interface defines these colors and other properties:

```

38:     "x": "X", "Depth 4": 4, "Depth 3": 4, "Depth 2": "X", "Depth
39:       3": "X", "Depth 4": "X", "Depth 5": 5
40:   },
41:   [
42:     // You can match your colors to your Legend | Vous
43:     // pouvez associer vos couleurs à votre Legende //
44:     {
45:       "name": "Color",
46:       "values": [
47:         {"legend": "Development", "color": "#aaaaaa"}, // Development
48:         {"legend": "Research", "color": "#0000ff"} // Research
49:       ]
50:     },
51:     // You can decide the size of your milestones
52:     // according to their shape | Vous pouvez associer une
53:     // taille à vos formes //
54:     {
55:       "name": "Shape",
56:       "values": [
57:         {"shape": "diamond", "size": "500"}, // Diamond
58:         {"shape": "circle", "size": "500"}, // Circle
59:         {"shape": "wedge", "size": "500"} // Wedge
60:       ]
61:     },
62:     // Step that ranks the rows of your dataset, this is
63:     // where you can change the sort order and the sorting
64:     // method | étape qui rank les lignes de votre dataset,
65:     // c'est ici que vous pouvez modifier l'ordre de tri et
66:     // la manière de trier //
67:     {
68:       "name": "Source",
69:       "transform": [
70:         {
71:           // The Start column of type dd/mm/yy has been
72:           // transformed into milliseconds since 1970 | On
73:           // transformé la colonne Start du type dd/mm/aa en
74:           // millisecondes depuis 1970 //
75:         }
76:       ]
77:     }
78:   }
79: }

```

Here's the result if you've filled in all the columns. But it's not finished yet; to get the look you want, you need to configure it correctly.

## The height of the rectangles (Column "Size")

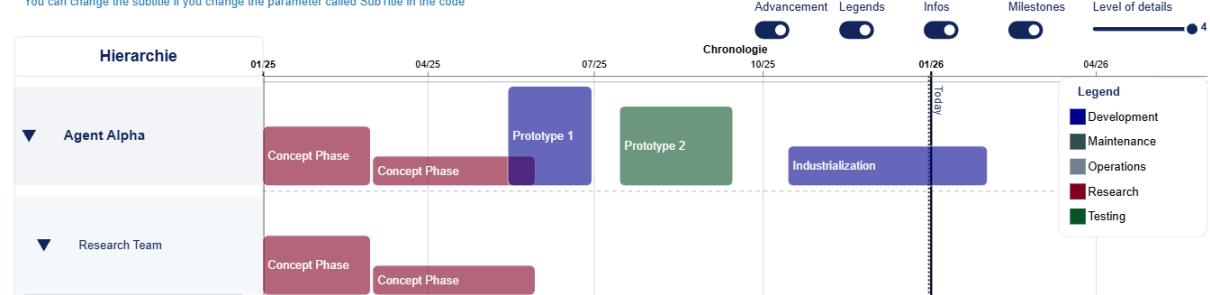
This column can be used, for example, to represent the workload of agents for a mission (this agent is at 70% on this mission, so their rectangle will be 70% of the maximum height of a rectangle).

This column is a color of decimal numbers from 0 (0% of the maximum height) to 1 (100% of the maximum height of the rectangle).

For example :

### Title that you can change

You can change the subtitle if you change the parameter called SubTitle in the code



Note that in this case I advise you to increase the maximum height of a rectangle in the system parameters of the code (which we will see a little later in the MODOP) because by default the size of the rectangles is too small for such a representation.

## The labels in the rectangles (Column "Label")

By default, the solution will label the rectangle with its name (the one displayed in the hierarchy column to the left of the Gantt chart). However, if you want to add other information about the rectangles, simply add a Label column (containing the desired information for each rectangle).

This label will be placed at the lowest level of the hierarchy (similar to the color label).

This column can, for example, be used to indicate an agent's workload on a mission (showing the rectangle height and the precise occupancy rate directly on the rectangle).

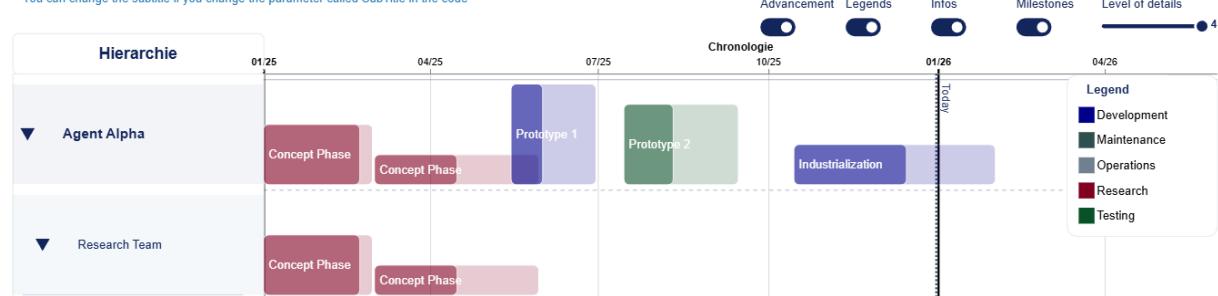
## Progress (Advancement column)

This column allows you to visualize, for example, the progress of a mission.

It is a column composed of decimal numbers from 0 to 1 (1 represents 100% completion).  
Example:

### Title that you can change

You can change the subtitle if you change the parameter called SubTitle in the code



(This example has been combined with the "Size" column, which allows you to adjust the height of the rectangles to show, for example, an agent's workload on a mission.)

A rectangle with a 50% completion rate will have the first 50% of its x-axis area darker. If a rectangle has a 100% completion rate, then its entire rectangle will be darker.

## Visual configuration

### The matrix (Superposition/Swiss) of rectangles

Y-axis: row level (1 = Category → 5 = Item) X-axis: visible branch depth (1 = only the category is visible → 5 = all levels up to the items)

Value A at the Y/X intersection: determines which levels should be displayed on each row

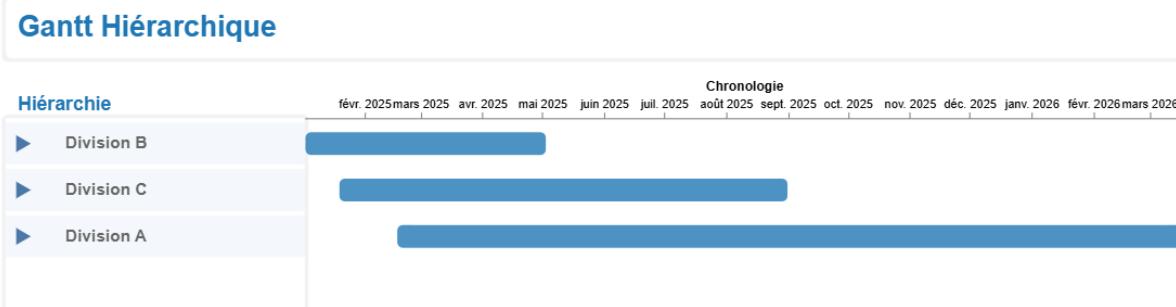
X = Quel est le sous niveau max affiché dans ma branche ?

Y = Je suis quel niveau ?

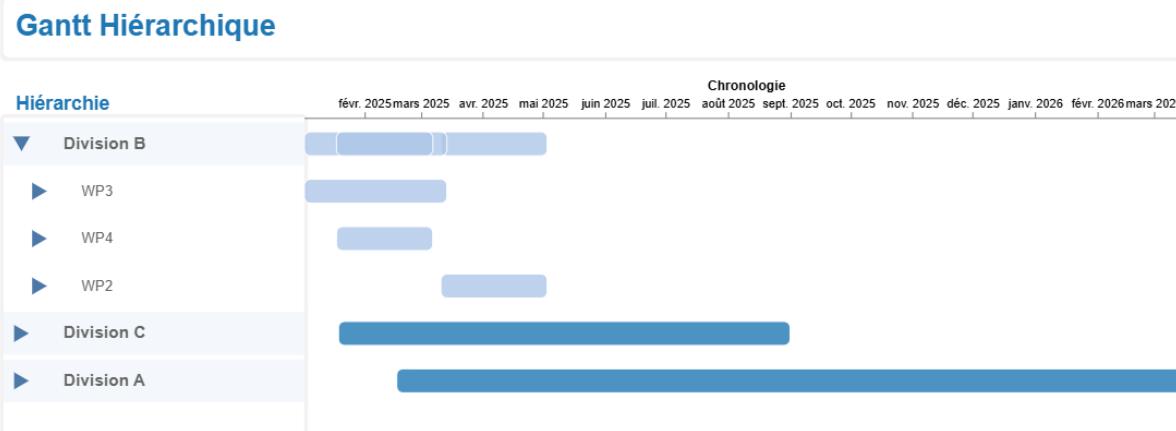
| Level   | Depth 1 | Depth 2 | Depth 3 | Depth 4 | Depth 5 |
|---------|---------|---------|---------|---------|---------|
| Level 1 | 1       | 2       | 3       | 4       | 5       |
| Level 2 |         | 2       | 3       | 4       | 5       |
| Level 3 |         |         | 3       | 4       | 5       |
| Level 4 |         |         |         | 4       | 5       |
| Level 5 |         |         |         |         | 5       |

A = Quel est la superposition que je souhaite afficher ?

Example 1: Level 1 (Category), depth 1, A = 1 → display the Category itself:



Example 2: Level 1 (Category), depth 2, A = 2 → display the level 2 children on the Category row



In this example 2, we can clearly see that Division B is equal to the overlap of the light blue rectangles below.

Note: In the matrix, you can enter a value A greater than the depth. This means that a parent element can display its descendants (of a level x) on top of itself, even if these descendants are not yet displayed in their respective rows.

Be careful, if you enter values in the matrix greater than the number of levels you have (if you enter 5 when you only have 3 hierarchical levels), then nothing will be displayed.

The screenshot shows the Power BI Desktop interface with the following details:

- Top Bar:** Fichier, Accueil, Insérer, Modélisation, Afficher, Optimiser, Aide, Format, Données / Explorer.
- Left Sidebar:** Outils (Copier, Coller, Reproduire la mise en forme, Presse-papiers), Données (Obtenir des données, Catalogue OneLake, SQL Server données, Sources récentes, Requêtes, Transformer les données, Zones de texte, Plus de visuels, Calculs, Confidentialité, Publier, Préparer les données pour Copilot).
- Right Sidebar:** Données (Tableau1: Color, Division, Milestone, Shape, Subtask, Task, Team, Type, WorkPackage), Visualisations.
- Content Area:**
  - Gantt Chart:** Title that you can change. You can change the subtitle if you change the parameter called 'SubTitle' in the code. It shows three hierarchical levels: Division B (blue bar), Division A (pink bar), and Division C (orange bar). The bars represent time periods from 01/02/25 to 01/06/25.
  - Data Grid:** Data set: AllRectangles. The grid contains 66 rows of data with columns: Id, Start, End, Category, and SubcategoryFull. The data represents various tasks and milestones across different divisions and categories.
  - Code Editor:** Specification tab showing a JSON-like configuration file for the 'DisplayRectangles' matrix. A red circle with the number 17 is overlaid on the code editor area.

- In "DisplayRectangles" (17) you can modify the values of this matrix. For example, on the level 1 row, you can decide that regardless of the Gantt chart's development, level 5 children will move to the level 1 row by placing 5s throughout the row. Then run "run".

## Setting up the Milestone Matrix

18

The screenshot shows the Power BI Desktop interface with the 'Specification' tab selected. On the left, there is a code editor with the following content:

```

16 // Dataset that you inject into Vega | Dataset que vous injectez dans Vega //
17 "name": "dataset"
18 },
19 {
20     // DisplayRectangles matrix, here you decide where and how to display the rectangles (I am
21     // level 1, my depth is 1 so I display my level children...on my row) | Matrice d'affichage de
22     // rectangles, ici vous décidez où et comment afficher les rectangles (je suis de niveau 1, ma
23     // profondeur est 1 alors j'affiche mes enfants de niveau...sur ma ligne) //
24     "name": "DisplayRectangles",
25     "values": [
26         {"Level": 1,"Depth 1": 5, "Depth 2": 5, "Depth 3": 5, "Depth 4": 5, "Depth 5": 5},
27         {"Level": 2,"Depth 1": "X", "Depth 2": 2, "Depth 3": 2, "Depth 4": 2, "Depth 5": 2},
28         {"Level": 3,"Depth 1": "X", "Depth 2": "X", "Depth 3": 3, "Depth 4": 3, "Depth 5": 3},
29         {"Level": 4,"Depth 1": "X", "Depth 2": "X", "Depth 3": "X", "Depth 4": 4, "Depth 5": 4},
30         {"Level": 5,"Depth 1": "X", "Depth 2": "X", "Depth 3": "X", "Depth 4": "X", "Depth 5": 5}
31     ],
32     // DisplayMilestones matrix, here you decide where and how to display the milestones (I am
33     // level 1, my depth is 1 so I display my level children...on my row) | Matrice d'affichage de
34     // milestones, ici vous décidez où et comment afficher les milestones (je suis de niveau 1, ma
35     // profondeur est 1 alors j'affiche mes enfants de niveau...sur ma ligne) //
36     "name": "DisplayMilestones",
37     "values": [
38         {"Level": 1,"Depth 1": 1, "Depth 2": 1, "Depth 3": 1, "Depth 4": 1, "Depth 5": 1},
39         {"Level": 2,"Depth 1": "X", "Depth 2": 2, "Depth 3": 2, "Depth 4": 2, "Depth 5": 2},
40         {"Level": 3,"Depth 1": "X", "Depth 2": "X", "Depth 3": 3, "Depth 4": 3, "Depth 5": 3},
41         {"Level": 4,"Depth 1": "X", "Depth 2": "X", "Depth 3": "X", "Depth 4": 4, "Depth 5": 4},
42         {"Level": 5,"Depth 1": "X", "Depth 2": "X", "Depth 3": "X", "Depth 4": "X", "Depth 5": 5}
43     ],
44     // You can match your colors to your Legend | Vous pouvez associer vos couleurs à votre
45     // Legend //
46     "name": "Color",
47     "values": [
48         {"Legend": "Development","Color": "#00008B"}, // Dark Blue
49         {"Legend": "Research","Color": "#800020"} // Maroon
50     ]
51 }
52
53 // You can change the subtitle if you change the parameter called 'SubTitle' in the code
54
55 
```

The main area displays a 'Hierarchie' visualization with a timeline from 01/02/25 to 01/06/25. It shows three divisions: Division B, Division A, and Division C, each with planning, reporting, and validation phases. Below this is a 'DisplayMilestones' table:

| ID   | Start         | End           | Category   | SubcategoryFull   |
|--|---------------|---------------|------------|-------------------|
| Division B                                     | 1735772400000 | 1746223200000 | Division B | null              |
| Division B_Team 2                              | 1735772400000 | 1746223200000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_WP3                          | 1735772400000 | 1741906800000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_WP3_Prototype 1              | 1735772400000 | 1741906800000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_WP3_Prototype 1_Planning 3   | 1735772400000 | 1737932400000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_WP3_Prototype 1_Report 1     | 1741474800000 | 1741906800000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_WP2                          | 1741647600000 | 1746223200000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_WP2_Testing 1                | 1741647600000 | 1743372000000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_WP2_Testing 1_Planning 3     | 1741647600000 | 1743372000000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_WP2_Prototype 3              | 1744632000000 | 1746223200000 | Division B | Division_B_Team 2 |
| Division_B_Team_2_WP2_Prototype 3_Validation 3 | 1744632000000 | 1746223200000 | Division B | Division_B_Team 2 |
| Division_B_Team_3                              | 1737154800000 | 1741302000000 | Division B | Division_B_Team 3 |

- In the "DisplayMilestones" table (18), you can modify the values of this matrix. Its operation is similar to the previous matrix, but this matrix manages the behavior of the Milestones. Therefore, the Milestones are independent of the rectangles.

# Setting the size of shapes

The screenshot shows the Power BI Desktop interface with a Gantt chart visualization titled "Title that you can change". The visualization displays tasks for three divisions over time, with specific milestones highlighted. Below the visualization is a table showing the data source for these tasks. To the left, a large red circle contains the number 20, indicating the row number of the "Shape" table in the JSON specification.

**JSON Specification (Row 20):**

```

20
{
    "name": "Shape",
    "values": [
        {"Shape": "diamond","Size": "500"},
        {"Shape": "circle","Size": "500"},
        {"Shape": "wedge","size": "500"}
    ],
    ...
}
  
```

**Tableau View:**

| ID   | Start         | End           | Category   | SubCategoryFull   |
|--|---------------|---------------|------------|-------------------|
| Division_B                                     | 1735772400000 | 1746223200000 | Division_B | null              |
| Division_B_Team_2                              | 1735772400000 | 1746223200000 | Division_B | Division_B_Team_2 |
| Division_B_Team_2_WP3                          | 1735772400000 | 1741906800000 | Division_B | Division_B_Team_2 |
| Division_B_Team_2_WP3_Prototype_1              | 1735772400000 | 1741906800000 | Division_B | Division_B_Team_2 |
| Division_B_Team_2_WP3_Prototype_1_Planning_3   | 1735772400000 | 1739732400000 | Division_B | Division_B_Team_2 |
| Division_B_Team_2_WP3_Prototype_1_Reportting_1 | 1741474800000 | 1741906800000 | Division_B | Division_B_Team_2 |
| Division_B_Team_2_WP2                          | 1741647600000 | 1746223200000 | Division_B | Division_B_Team_2 |
| Division_B_Team_2_WP2_Testing_1                | 1741647600000 | 1743372000000 | Division_B | Division_B_Team_2 |
| Division_B_Team_2_WP2_Testing_1_Planning_3     | 1741647600000 | 1743372000000 | Division_B | Division_B_Team_2 |
| Division_B_Team_2_WP2_Prototype_3              | 1744063200000 | 1746223200000 | Division_B | Division_B_Team_2 |
| Division_B_Team_2_WP2_Prototype_3_Validation_3 | 1744063200000 | 1746223200000 | Division_B | Division_B_Team_2 |
| Division_B_Team_3                              | 1737154800000 | 1741302000000 | Division_B | Division_B_Team_3 |
| Division_B_Team_3_WP4                          | 1737154800000 | 1741302000000 | Division_B | Division_B_Team_3 |

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- In the "Shape" table (20) you can decide the size of each shape according to the nature of the shape. Otherwise, the default size is 500.

# Visual settings

The screenshot shows the Power BI Desktop interface. On the left, the code editor displays a JSON configuration file with numerous lines of code. A red circle highlights line 1150, which contains the comment // SETTINGS | PARAMETRES. The main workspace shows a visualization titled "Title that you can change" with a subtitle "You can change the subtitle if you change the parameter called 'SubTitle' in the code". The visualization includes a hierarchy tree, a timeline from 01/02/25 to 01/07/25, and a data grid with columns for Id, Start, End, Category, and SubcategoryFull. The data grid lists various items like Division B, Division B\_Team 2, etc., with their respective start and end dates and categories.

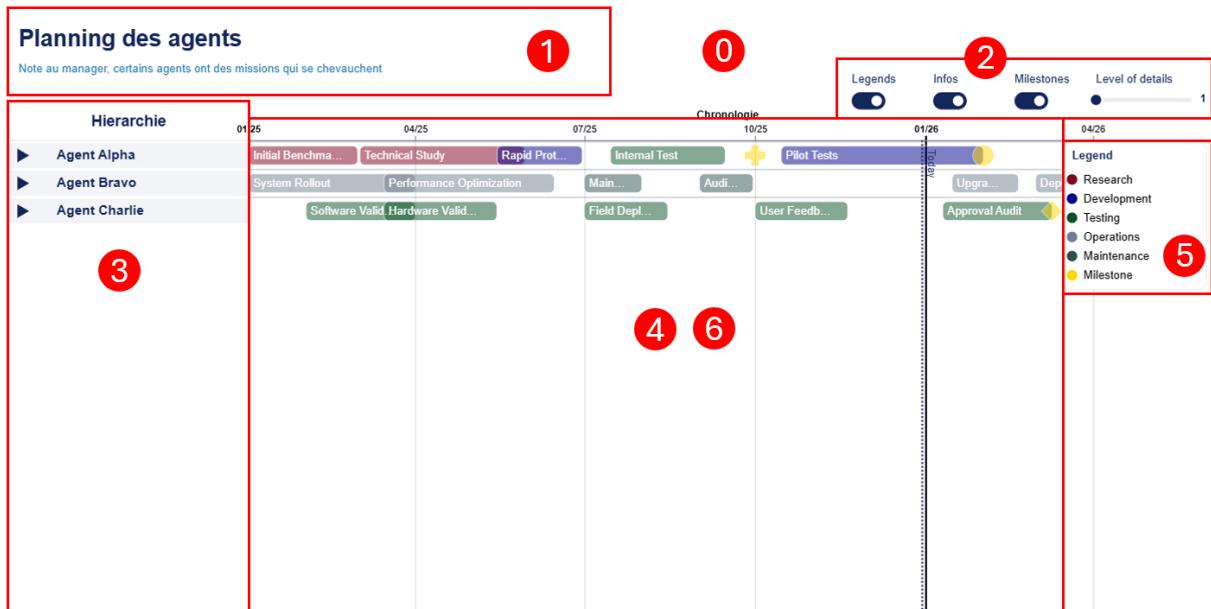
```

1015 "signals": [
1016
1017 // ===== SETTINGS | PARAMETRES ===== //
1018 // ===== //
1019
1020
1021 // General Settings //
1022 {"name": "BgColor", "value": "White"}, // 21
1023 {"name": "MainColor", "value": "#13265C"}, // 21
1024 {"name": "SecondColor", "value": "#1f77b4"}, // 21
1025 {"name": "SlicerInit", "value":1}, // 21
1026
1027 // Header Settings //
1028 {"name": "headerMarginX", "value": 0}, // 21
1029 {"name": "headerMarginY", "value": -130}, // 21
1030 {"name": "headerHeight", "value": 50}, // 21
1031 {"name": "TitleMarginX", "value": 10}, // 21
1032 {"name": "Title", "value": "Title that you can change"}, // 21
1033 {"name": "TitleFontSize", "value": 24}, // 21
1034 {"name": "TitleFontWeight", "value": "bold"}, // 21
1035 {"name": "ButtonWidth", "value":50}, // 21
1036 {"name": "ButtonHeight", "value":20}, // 21
1037 {"name": "ButtonRadius", "value":15}, // 21
1038 {"name": "SubTitle", "value":"You can change the subtitle if you change the parameter called 'SubTitle' in the code"}, // 21
1039 {"name": "SubTitleFontSize", "value":12}, // 21
1040
1041 // Controls Settings //
1042 {"name": "controlsY", "value": -80}, // 21
1043 {"name": "controlsPaddingBetweenItems", "value": 50}, // 21
1044 {"name": "SlicerLength", "value": 100}, // 21
1045 {"name": "controlBoxWidth", "update": "showLegendPaddingX + 105 + 3*controlsPaddingBetweenItems + SlicerLength + 15"}, // 21
1046 {"name": "controlBoxHeight", "value": 60}, // 21
1047 {"name": "showLegendPaddingX", "value": 0}, // 21
1048 {"name": "controlsX", "update": "width - controlBoxWidth"}, // 21
1049
1050 // TaskColumn Settings //
1051 {"name": "taskColumnWidth", "value": 250}. // 21
    
```

Line 1150 is circled in red.

- You can modify pretty much anything you want. To do this, go to the code and scroll down to line 1150 where you will see "SETTINGS" (21). You can change any value of these parameters.

This settings area is divided into several parts. Each part manages a specific area of the visualization. Here are these areas:



0. « General Settings »
1. « Header Settings »
2. « Controls Settings »
3. « TaskColumn Settings »
4. « Gantt Settings » (excluding info bubbles)
5. « Legend Settings »
6. « Tooltip Settings » (or "Info bubbles" excluding Gantt)

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