

## Economical analysis

 [help.fractal.com/hc/en-us/articles/25021776779789-Economical-analysis](https://help.fractal.com/hc/en-us/articles/25021776779789-Economical-analysis)

In this module, it is possible to analyze the economic resources that have been executed or planned in maintenance management (such as inventories, services, and human resources) over a determined period, through the following submodules:

- Resources to Execute
- Executed Resources
- Cost Pivot Table

Business Intelligence

Economical Analysis

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2025-04-23 / 2025-05-23

|                                                                                                                                                                                                                                                                                      | WO Creation date | Actual Schedule Date | Resource Creation Date... | WO Id ↓     | Percentage of Comp... | Task type          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------|---------------------------|-------------|-----------------------|--------------------|
| <input type="checkbox"/>                                                                                                                                                                                                                                                             |                  |                      |                           |             |                       |                    |
| <input type="checkbox"/>          | 2024-05-22 10:11 | 2025-05-22 10:07     | 2024-05-22 10:11          | OT-27-FER   | 100                   | PREDITIVA          |
| <input type="checkbox"/>          | 2024-05-22 10:11 | 2025-05-22 10:07     | 2024-05-22 10:11          | OT-27-FER   | 100                   | PREDITIVA          |
| <input type="checkbox"/>       | 2025-02-21 09:21 | 2025-05-02 09:00     | 2025-02-21 16:45          | OT-2366-FRA |                       | MANTENIMIENTO P... |
| <input type="checkbox"/>    | 2025-02-12 19:30 | 2025-05-12 11:53     | 2025-02-12 19:31          | OT-2323-FRA |                       | MANTENIMIENTO P... |
| <input type="checkbox"/>    | 2025-02-11 09:42 | 2025-04-30 12:03     | 2025-02-20 10:47          | OT-2317-FRA | 100                   | MANTENIMIENTO P... |
| <input type="checkbox"/>    | 2024-11-29 08:42 | 2025-05-07 09:04     | 2024-11-29 08:43          | OT-2079FRA  |                       | MONTAJE            |
| <input type="checkbox"/>    | 2024-05-07 06:04 | 2025-05-06 15:27     | 2024-05-10 09:45          | OT-153-FRIG |                       | PREVENTIVO         |
| <input type="checkbox"/>    | 2024-05-07 06:04 | 2025-05-06 15:27     | 2024-05-07 06:06          | OT-153-FRIG |                       | PREVENTIVO         |
| <input type="checkbox"/>    | 2025-04-15 16:00 | 2025-05-14 07:45     | 2025-05-07 15:22          | OT1034UFSM  |                       | VERIFICACIÓN       |
| <input type="checkbox"/>                                                                                       | 2025-05-22 11:12 | 2025-05-22 11:01     | 2025-05-22 11:53          | OT1023MTO   | 100                   | CORRECTIVO         |
| <input type="checkbox"/>    | 2025-05-21 11:17 | 2025-05-21 11:06     | 2025-05-21 12:10          | OT1017MTO   |                       | 00 Correctivo      |

Showing 50 of 77

# Resources to Execute:

JC

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2024-05-23 / 2025-05-22

Qty

Inhouse Personnel

Day

|                        |       | Week 21 - Thursday, May 23/2024 |        |        |        | Week 22 - Monday, May 27/2024 |        |        |        | Week 23 - Monday, May 31/2024 |        |        |        |
|------------------------|-------|---------------------------------|--------|--------|--------|-------------------------------|--------|--------|--------|-------------------------------|--------|--------|--------|
| Description            | Unit  | Thu 23                          | Fri 24 | Sat 25 | Sun 26 | Mon 27                        | Tue 28 | Wed 29 | Thu 30 | Fri 31                        | Sat 01 | Sun 02 | Mon 03 |
| Inhouse Personnel      |       |                                 |        |        | 1,00   |                               |        |        |        |                               |        |        |        |
| Administrativo         | Hours |                                 |        |        |        |                               |        |        |        |                               |        |        |        |
| Ajudante               | Hours |                                 |        |        |        |                               |        |        |        |                               |        |        |        |
| ALMACENISTA            | Hours |                                 |        |        |        |                               |        |        |        |                               |        |        |        |
| Analista de manutenção | Hours |                                 |        |        |        |                               |        |        |        |                               |        |        |        |
| ASEO Y LIMPIEZA        | Hours |                                 |        |        |        | 1,00                          |        |        |        |                               |        |        |        |

Showing 1 - 10 of manyload more...

This interface shows the resources projected to be used. These resources may be:

1. Human Resources: Refers to the use of human talent according to the specification of a profession or position. It is important to remember that these profiles are created from the configuration module, in the auxiliary catalogs section.



3. Services: These are services provided by third parties. Specific information is added directly in the third-party module, within the corresponding profile. It must be specified in the services section.

JC

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2024-05-23 / 2025-05-22

Qty

Services

Day

| Description                                            | Unit     | Thu<br>23 | Fri<br>24 | Sat<br>25 | Sun<br>26 | Mon<br>27 | Tue<br>28 | Wed<br>29 | Thu<br>30 | Fri<br>31 | Sat<br>01 | Sun<br>02 | Mon<br>03 | Tue<br>04 | W |
|--------------------------------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---|
| <div><div></div>Alquiler de máquina de limpieza</div>  | Hora     |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| <div><div></div>ANALISIS DE AGUA</div>                 | ANALISIS |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| <div><div></div>ANALISIS DE AGUAS</div>                | CONTRATO |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| <div><div></div>APOYO A MANTENIMIENTO PREVENTIVO</div> | HORAS    |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| <div><div></div>APOYO EN MATENIMIENTO GENERAL</div>    | HORAS    |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| <div><div></div>CALIBRACION DE EQUIPOS</div>           | EQUIPO   |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| <div><div></div>Cambio de filtros</div>                | SERVICIO |           |           |           |           |           |           |           |           |           |           |           |           |           |   |

Showing 1 - 8 of manyload more...

Filtering by:

This option is offered to users to obtain more precise information. There are three filter options:

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2024-05-23 / 2025-05-22

Qty

Services

| Description                      | Unit     | Thu<br>23 | Fri<br>24 | Sat<br>25 | Sun<br>26 | M | Actual Schedule Date | Creation Date | Start Date | End Date | Fri<br>31 | Sat<br>01 | Sun<br>02 | Mon<br>03 | Tue<br>04 | W |
|----------------------------------|----------|-----------|-----------|-----------|-----------|---|----------------------|---------------|------------|----------|-----------|-----------|-----------|-----------|-----------|---|
| Alquiler de máquina de limpieza  | Hora     |           |           |           |           |   |                      |               |            |          |           |           |           |           |           |   |
| ANALISIS DE AGUA                 | ANALISIS |           |           |           |           |   |                      |               |            |          |           |           |           |           |           |   |
| ANALISIS DE AGUAS                | CONTRATO |           |           |           |           |   |                      |               |            |          |           |           |           |           |           |   |
| APOYO A MANTENIMIENTO PREVENTIVO | HORAS    |           |           |           |           |   |                      |               |            |          |           |           |           |           |           |   |
| APOYO EN MATENIMIENTO GENERAL    | HORAS    |           |           |           |           |   |                      |               |            |          |           |           |           |           |           |   |
| CALIBRACION DE EQUIPOS           | EQUIPO   |           |           |           |           |   |                      |               |            |          |           |           |           |           |           |   |
| Cambio de filtros                | SERVICIO |           |           |           |           |   |                      |               |            |          |           |           |           |           |           |   |

Showing 1 - 8 of manyload more...

- **Scheduled Date:** The date the preventive maintenance plan was created. When filtering by this option, only the scheduled maintenance date is considered.
- **Start Date:** The date the work order was assigned.
- **End Date:** The date the work order was completed.

### From - To:

This option allows retrieving information from the last month, the last 6 months, the last year, or setting a custom date range.

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Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2024-05-23 / 2025-05-22

🕒 Qty

🔗 Services

| Description                        | Unit     | Thu<br>23 | Fri<br>24 | Sat<br>25 | Sun<br>26 | Mon<br>27 | Tue<br>28 | Wed<br>29 | Thu<br>30 | Fri<br>31 | Sat<br>01 | Tue<br>04 | W |
|------------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---|
| 🕒 Alquiler de máquina de limpieza  | Hora     |           |           |           |           |           |           |           |           |           |           |           |   |
| 🕒 ANALISIS DE AGUA                 | ANALISIS |           |           |           |           |           |           |           |           |           |           |           |   |
| 🕒 ANALISIS DE AGUAS                | CONTRATO |           |           |           |           |           |           |           |           |           |           |           |   |
| 🕒 APOYO A MANTENIMIENTO PREVENTIVO | HORAS    |           |           |           |           |           |           |           |           |           |           |           |   |
| 🕒 APOYO EN MATENIMIENTO GENERAL    | HORAS    |           |           |           |           |           |           |           |           |           |           |           |   |
| 🕒 CALIBRACION DE EQUIPOS           | EQUIPO   |           |           |           |           |           |           |           |           |           |           |           |   |
| 🕒 Cambio de filtros                | SERVICIO |           |           |           |           |           |           |           |           |           |           |           |   |

Showing 1 - 8 of many[load more...](#)

Today

Yesterday

Last Week

Last Month

Last year

Tomorrow

Next Week

Next Month

Next Year

Date range

Information Grouping:

The next filter groups the table data by day, week, or month.

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Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2024-05-23 / 2025-05-22

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🔍

🔗

🕒 Qty

🔗 Services

| Description                        | Unit     | Thu<br>23 | Fri<br>24 | Sat<br>25 | Sun<br>26 | Mon<br>27 | Tue<br>28 | Wed<br>29 | Thu<br>30 | Fri<br>31 | Sat<br>01 | Sun<br>02 | Mon<br>03 | Tue<br>04 | Wed<br>05 |
|------------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 🕒 Alquiler de máquina de limpieza  | Hora     |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| 🕒 ANALISIS DE AGUA                 | ANALISIS |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| 🕒 ANALISIS DE AGUAS                | CONTRATO |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| 🕒 APOYO A MANTENIMIENTO PREVENTIVO | HORAS    |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| 🕒 APOYO EN MATENIMIENTO GENERAL    | HORAS    |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| 🕒 CALIBRACION DE EQUIPOS           | EQUIPO   |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| 🕒 Cambio de filtros                | SERVICIO |           |           |           |           |           |           |           |           |           |           |           |           |           |           |

Showing 1 - 8 of many[load more...](#)

Day

Week

Month

**Export:**

Using this icon, you can export the information displayed in the interface to a flat Excel file.

Additionally, you can group the interface information by quantity or cost.

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2024-05-23 / 2025-05-22

Qty

Services

Day

| Description                      | Unit     | Thu<br>23 | Fri<br>24 | Sat<br>25 | Sun<br>26 | Mon<br>27 | Tue<br>28 | Wed<br>29 | Thu<br>30 | Fri<br>31 | Sat<br>01 | Sun<br>02 | Mon<br>03 | Tue<br>04 | W |
|----------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---|
|                                  |          |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| Alquiler de máquina de limpieza  | Hora     |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| ANALISIS DE AGUA                 | ANALISIS |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| ANALISIS DE AGUAS                | CONTRATO |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| APOYO A MANTENIMIENTO PREVENTIVO | HORAS    |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| APOYO EN MATENIMIENTO GENERAL    | HORAS    |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| CALIBRACION DE EQUIPOS           | EQUIPO   |           |           |           |           |           |           |           |           |           |           |           |           |           |   |
| Cambio de filtros                | SERVICIO |           |           |           |           |           |           |           |           |           |           |           |           |           |   |

Showing 1 - 8 of many[load more...](#)

Executed Resources:

This interface shows information on the resources used within a work order, divided as follows:

Iconography:

1. View WO Details: Redirects you to the work order where the resource was used.



2. View Asset Details: Redirects you to the asset intervened during the work order.



3. View Resource Details: Redirects you to the resource requested during the work order.





## Details:

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2025-04-23 / 2025-05-23

|                          | WO Creation date | Actual Schedule Date | Resource Creation Date... | WO Id ↓     | Percentage of Comp... | Task type          |
|--------------------------|------------------|----------------------|---------------------------|-------------|-----------------------|--------------------|
| <input type="checkbox"/> | 2024-05-22 10:11 | 2025-05-22 10:07     | 2024-05-22 10:11          | OT-27-FER   | 100                   | PREDITIVA          |
| <input type="checkbox"/> | 2024-05-22 10:11 | 2025-05-22 10:07     | 2024-05-22 10:11          | OT-27-FER   | 100                   | PREDITIVA          |
| <input type="checkbox"/> | 2025-02-21 09:21 | 2025-05-02 09:00     | 2025-02-21 16:45          | OT-2366-FRA |                       | MANTENIMIENTO P... |
| <input type="checkbox"/> | 2025-02-12 19:30 | 2025-05-12 11:53     | 2025-02-12 19:31          | OT-2323-FRA |                       | MANTENIMIENTO P... |
| <input type="checkbox"/> | 2025-02-11 09:42 | 2025-04-30 12:03     | 2025-02-20 10:47          | OT-2317-FRA | 100                   | MANTENIMIENTO P... |
| <input type="checkbox"/> | 2024-11-29 08:42 | 2025-05-07 09:04     | 2024-11-29 08:43          | OT-2079FRA  |                       | MONTAJE            |
| <input type="checkbox"/> | 2024-05-07 06:04 | 2025-05-06 15:27     | 2024-05-10 09:45          | OT-153-FRIG |                       | PREVENTIVO         |
| <input type="checkbox"/> | 2024-05-07 06:04 | 2025-05-06 15:27     | 2024-05-07 06:06          | OT-153-FRIG |                       | PREVENTIVO         |
| <input type="checkbox"/> | 2025-04-15 16:00 | 2025-05-14 07:45     | 2025-05-07 15:22          | OT1034UFSM  |                       | VERIFICACIÓN       |
| <input type="checkbox"/> | 2025-05-22 11:12 | 2025-05-22 11:01     | 2025-05-22 11:53          | OT1023MTO   | 100                   | CORRECTIVO         |
| <input type="checkbox"/> | 2025-05-21 11:17 | 2025-05-21 11:06     | 2025-05-21 12:10          | OT1017MTO   |                       | 00 Correctivo      |

Showing 50 of 77

- **WO Creation Date:** The date a person in charge and a consecutive number are assigned to a preventive or corrective task.
- **Scheduled Date:** The projected date for task execution.
- **Resource Assignment Date:** The date the resource is assigned within a work order.
- **WO ID:** The consecutive work order number.
- **Progress Percentage:** The work order's progress.
- **Task Type:** Specifies the type of task being executed, whether corrective, preventive, or according to the indication added when created.

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2025-04-23 / 2025-05-23



|      | Percentage of Comp... | Task type          | Status          | Resource code | Resource Description        | Resource Source                | Resource Utilization |
|------|-----------------------|--------------------|-----------------|---------------|-----------------------------|--------------------------------|----------------------|
| ER   | 100                   | PREDITIVA          | ● Closed        |               | Termografia                 | Soluciones Eléctricas SL       | 2024-05-22 10:11     |
| ER   | 100                   | PREDITIVA          | ● Closed        | dsf4ds56f456  | Eletricista                 | alberto ferreira               | 2024-05-22 10:11     |
| -FRA |                       | MANTENIMIENTO P... | ● Cancelled     | DET-001       | DETERGENTE { DET-001 }      | ALMACEN GENERAL DE RE...       | 2025-02-21 16:45     |
| -FRA |                       | MANTENIMIENTO P... | ● Open WO's     | TEC-022       | Analista de manutenção      | Alan Everton Ferreira da Silva | 2025-02-12 19:31     |
| -FRA | 100                   | MANTENIMIENTO P... | ● Complete WO's |               | Especialista en Motores     | JORGE TORO                     | 2025-02-20 10:47     |
| FRA  |                       | MONTAJE            | ● Open WO's     | DET-001       | DETERGENTE { DET-001 }      | ALMACEN DE NERDS KITCH...      | 2024-11-29 08:42     |
| -RIG |                       | PREVENTIVO         | ● Open WO's     | Ton-M6x10     | Tonillos M6x100             | Abot Armazem                   | 2024-05-10 09:45     |
| -RIG |                       | PREVENTIVO         | ● Open WO's     |               | electricista                | Alexander Fuentes              | 2024-05-07 06:06     |
| UFSM |                       | VERIFICACIÓN       | ● Open WO's     | CHU-BAS-01    | CHUMACERA BASALTICA { ...   | ALMACEN DE BASALTICA           | 2025-05-07 15:21     |
| MTO  | 100                   | CORRECTIVO         | ● Closed        |               | NEUMATICO MINICARGADOR      | External: SUPERMERCADO ...     | 2025-05-22 11:50     |
| MTO  |                       | 00 Correctivo      | ● Open WO's     |               | FILTRO AIRE INTERIOR MOT... | ALAMCEN SUCRUSAL 2             | 2025-05-21 12:10     |

Showing 50 of 77

- **Status:** Indicates the work order status (in process, under review, canceled, or completed).
- **Resource Description:** Describes the type of resource used.
- **Resource Source:** Indicates where the resource was taken from.
- **Resource Type:** Specifies if the resource is human, a service, or part of inventory.

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2025-04-23 / 2025-05-23

| Resource Utilization Date | Resource Type     | Is cataloged | Qty | Real Used Qty | Issued Qty | Unit     |
|---------------------------|-------------------|--------------|-----|---------------|------------|----------|
| 2024-05-22 10:11          | Services          | Yes          | 1   | 1             | 1          | SERVICIO |
| 2024-05-22 10:11          | Inhouse Personnel | Yes          | 1   | 1             | 1          | Hour     |
| 2025-02-21 16:45          | Inventory         | Yes          | 10  | 5             | 5          | LITROS   |
| 2025-02-12 19:31          | Inhouse Personnel | Yes          | 1   | 1             | 1          | Hour     |
| 2025-02-20 10:47          | Inhouse Personnel | Yes          | 1   | 1             | 1          | Hour     |
| 2024-11-29 08:42          | Inventory         | Yes          | 99  |               |            | LITROS   |
| 2024-05-10 09:45          | Inventory         | Yes          | 35  | 35            | 35         | Unidade  |
| 2024-05-07 06:06          | Inhouse Personnel | Yes          | 3   | 3             | 3          | Hour     |
| 2025-05-07 15:21          | Inventory         | Yes          | 2   | 2             | 2          | UNID.    |
| 2025-05-22 11:50          | Inventory         | No           | 1   | 1             | 1          | UNIDAD   |
| 2025-05-21 12:10          | Inventory         | Yes          | 1   | 1             |            |          |

Showing 50 of 77

- **Cataloged:** Indicates if the resource is within the software inventory or not. "Cataloged" means it is in the software inventory; "Not cataloged" means it is not but was assigned to the work order with a name and cost.
- **Quantity:** The projected quantity to be delivered within the work order.
- **Actual Quantity Used:** The quantity used by the technician or person responsible.
- **Quantity Delivered:** The amount delivered to the work order responsible from the warehouse.

| Actual Resource Usage |            | Cost Pivot Table |                  | Planned Resource Usage |                                                        | Actual Schedule Date                      |                    |
|-----------------------|------------|------------------|------------------|------------------------|--------------------------------------------------------|-------------------------------------------|--------------------|
|                       |            |                  |                  |                        |                                                        | 2025-04-23 / 2025-05-23                   |                    |
| Real Used Qty         | Issued Qty | Unit             | Unit Cost        | Total cost             | Is part of                                             | Asset                                     | Asset code         |
| 1                     | 1          | SERVICIO         | € EUR 45,00      | € EUR 45,00            | // Global Ruth/ Area de producción/ Utilidades/ Áre... | Chiller ( Global-Chiller-001 ) Xerox      | Global-Chiller-001 |
| 1                     | 1          | Hour             | € EUR 10,00      | € EUR 10,00            | // Global Ruth/ Area de producción/ Utilidades/ Áre... | Chiller ( Global-Chiller-001 ) Xerox      | Global-Chiller-001 |
| 5                     | 5          | LITROS           | € EUR 2,50       | € EUR 12,50            | // TESLA/                                              | GT38 ACT                                  | GT382              |
| 1                     | 1          | Hour             | € EUR 100,00     | € EUR 100,00           | // FERRONOR/                                           | { GT38-2003 } LOCOMOTORA GT3 ACL          | GT38-2003          |
| 1                     | 1          | Hour             | € EUR 0,00       | € EUR 0,00             | // MOSQUEDA EMPRESA/ ROBUPACK/                         | { GT38-1 } LOCOMOTORA GT38                | GT38-1             |
|                       |            | LITROS           | € EUR 2.003,40   | € EUR 0,00             | // CENTRO COMERCIAL EL TESORO/                         | AGREGADO 1 2009 2009 { AGR-030-001 } 2009 | AGR-030-001        |
| 35                    | 35         | Unidade          | € EUR 300,00     | € EUR 10.500,00        | // FERMOS/ HAL ALUMINIUM MÉXICO/                       | { } unidad hidráulica 2                   |                    |
| 3                     | 3          | Hour             | € EUR 25,00      | € EUR 75,00            | // FERMOS/ HAL ALUMINIUM MÉXICO/                       | { } unidad hidráulica 2                   |                    |
| 2                     | 2          | UNID.            | € EUR 1.000,00   | € EUR 2.000,00         | // Planes Fabian/ AREA TABLERO ELECTRICO/              | CALDERA { FR-FABIAN-0005 HUB }            | FR-FABIAN-0005 HUB |
| 1                     | 1          | UNIDAD           | € EUR 0,00       | € EUR 0,00             | // TAMBO/                                              | { MC03.EJ.TAM } MINICARGADOR CAT          | MC03.EJ.TAM        |
| 1                     |            |                  | € EUR 5.000,00   | € EUR 5.000,00         | // HAYCO/                                              | { HOR-01 } HORNO 01                       | HOR-01             |
| 2                     | 2          |                  | € EUR 200.000,00 | € EUR 400.000,00       | //                                                     | { JAR-PIN } JARDIN PINOS                  | JAR-PIN            |
| 1.5                   | 1.5        | GALONES          | € EUR 16.000,00  | € EUR 24.000,00        | //                                                     | { JAR-PIN } JARDIN PINOS                  | JAR-PIN            |
|                       |            | LITROS           | € EUR 25.073,55  | € EUR 0,00             | //                                                     | { JAR-PIN } JARDIN PINOS                  | JAR-PIN            |
| 4                     | 4          | Hour             | € EUR 15,00      | € EUR 60,00            | // Cable Instalaciones/ Charge Guru/                   | { CI-CG-PC } Parador de Caceres           | CI-CG-PC           |
|                       |            | PIEZA            | € EUR 0,00       | € EUR 0,00             | // Cable Instalaciones/ Charge Guru/                   | { CI-CG-PC } Parador de Caceres           | CI-CG-PC           |
|                       |            | LITROS           | € EUR 0,00       | € EUR 0,00             | // Cable Instalaciones/ Charge Guru/                   | { CI-CG-PC } Parador de Caceres           | CI-CG-PC           |
|                       |            | Unidad           | € EUR 0,00       | € EUR 0,00             | // Cable Instalaciones/ Charge Guru/                   | { CI-CG-PC } Parador de Caceres           | CI-CG-PC           |
| 2                     | 2          | Hour             | € EUR 15,00      | € EUR 30,00            | // Cable Instalaciones/ Charge Guru/                   | { CI-CG-PM } Parador de mérida            | CI-CG-PM           |

Showing 50 of 77

- Unit: The resource's unit of measurement.
- Unit Cost: The individual cost of each resource.
- Total Cost: The total cost, calculated by multiplying unit cost by actual quantity used.
- Located At or Part Of: The asset's location.
- Asset: The asset intervened in the work order.

## Cost Pivot Table:

This interface allows the user to create a pivot table with the following contents and groupings:

First, let's look at each available grouping type:

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2025-04-23 / 2025-05-23

| Table                | Sum        | Year   |
|----------------------|------------|--------|
|                      | Total cost |        |
| Asset Group 1        | Asset      | Year   |
| Asset Group 2        |            | 2024   |
| Asset Type           |            | 2025   |
| Cost center          |            | Totals |
| Issued Qty           |            |        |
| Month                |            |        |
| Qty                  |            |        |
| Real Used Qty        |            |        |
| Resource Description |            |        |
| Resource Source      |            |        |
| Resource Type        |            |        |
| Task                 |            |        |
| Task Group 1         |            |        |

## Grouping 1:

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2025-04-23 / 2025-05-23

| Table                | Sum        | Year   |
|----------------------|------------|--------|
|                      | Total cost |        |
| Asset Group 1        | Asset      | Year   |
| Asset Group 2        |            | 2024   |
| Asset Type           |            | 2025   |
| Cost center          |            | Totals |
| Issued Qty           |            |        |
| Month                |            |        |
| Qty                  |            |        |
| Real Used Qty        |            |        |
| Resource Description |            |        |
| Resource Source      |            |        |
| Resource Type        |            |        |
| Task                 |            |        |
| Task Group 1         |            |        |

- Table
- Table Heatmap
- Table Col Heatmap
- Table Row Heatmap
- Exportable TSV
- Grouped Column Chart
- Stacked Column Chart
- Grouped Bar Chart
- Stacked Bar Chart
- Line Chart
- Dot Chart
- Area Chart
- Scatter Chart
- Multiple Pie Chart

- Table: A data structure organizing information into rows and columns, where each cell holds a unique value. Useful for displaying data in an orderly way.
- Table Heatmap: A visual representation where numerical table values are shown with colors; more intense colors correspond to higher values, lighter colors indicate lower values.
- Table Col Heatmap: Similar to the table heatmap but focuses on highlighting the columns.
- Table Row Heatmap: Focuses on highlighting rows, showing value distribution along rows.
- Exportable TSV: "Tab-separated values," allowing export of data in a text file where values are tab-separated.
- Grouped Column Chart: Similar to grouped bar charts but categories or variables are shown on the X axis as columns.
- Stacked Bar Chart: Bars stacked to show the total sum while comparing categories.
- Grouped Bar Chart: Bars grouped representing different categories or variables and their comparisons.
- Line Chart: Shows the relationship between two datasets via lines, representing trends or changes over time or variables.
- Dot Chart: Similar to line charts but with dots instead of lines, useful to visualize relationships or trends.
- Area Chart: Shows changes in a variable over time by filling areas under lines, helping visualize distribution or trends clearly.
- Scatter Chart: Displays individual points on a Cartesian plane, each point representing two variables, useful to identify relationships.
- Multiple Pie Chart: Shows several pie charts, each representing part of the whole, useful to compare compositions of different datasets.

## Grouping 2:

Actual Resource Usage Cost Pivot Table Planned Resource Usage

Actual Schedule Date  
2025-04-23 / 2025-05-23

Table

Asset Group 1  
Asset Group 2  
Asset Type  
Cost center  
Issued Qty  
Month  
Qty  
Real Used Qty  
Resource Description  
Resource Source  
Resource Type  
Task  
Task Group 1  
Task Group 2

Sum

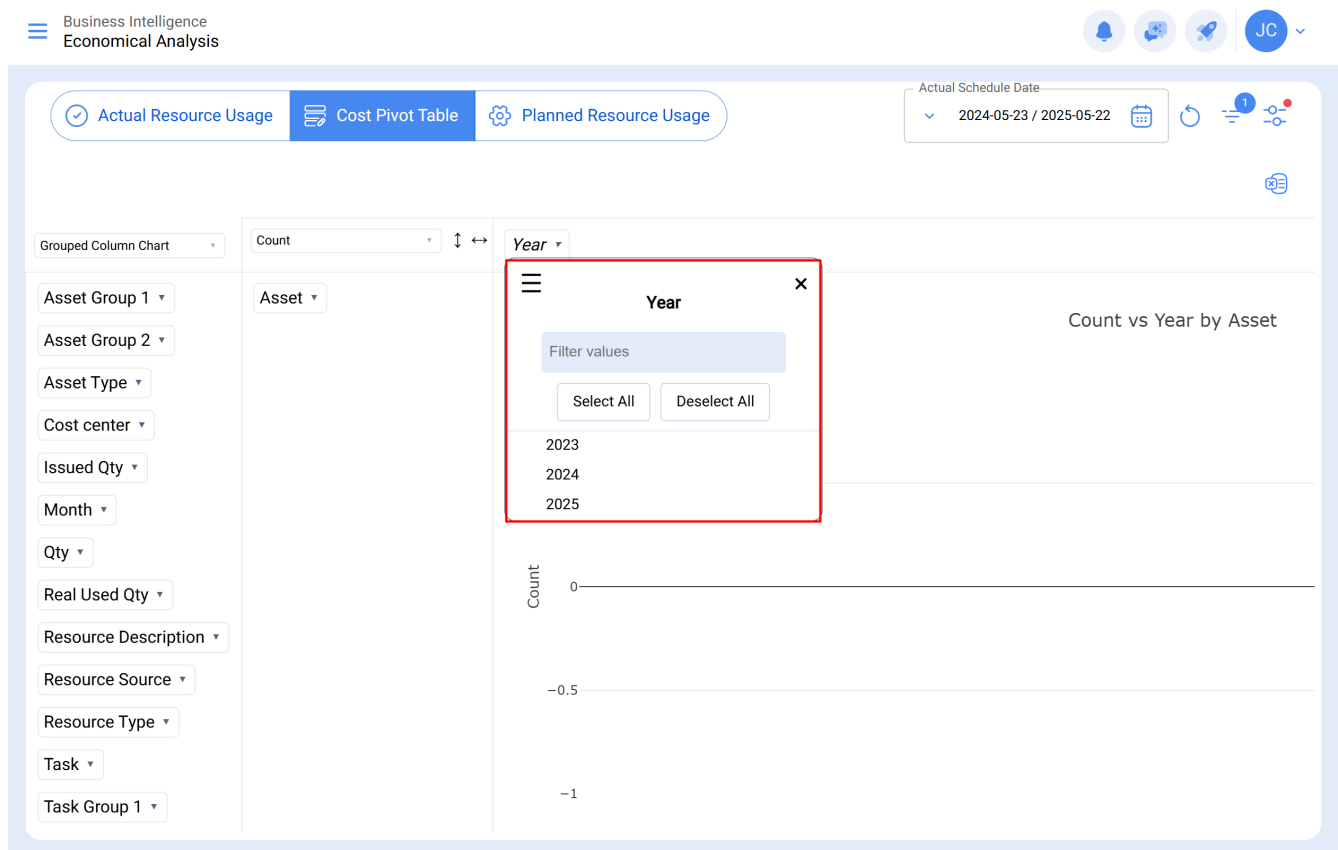
Year

| Asset                                                         | Year | 2024  | 2025         | Totals       |
|---------------------------------------------------------------|------|-------|--------------|--------------|
| Clima Data Center { 001 }                                     |      |       | 12,000.00    | 12,000.00    |
| Clima Data Center { 0022 }                                    |      |       | 50,800.00    | 50,800.00    |
| EQUIPO 2 GLORY { EQ.GG-2 }                                    |      |       | 0.00         | 0.00         |
| HORNO 01 { HOR-01 }                                           |      |       | 22.50        | 22.50        |
| MINISPLIT1 { AA-MS-0001 }                                     |      |       | 0.00         | 0.00         |
| UPS { UPS.0001 }                                              |      |       | 50,000.00    | 50,000.00    |
| 01 - C01 PARQUE DE FÚTBOL EL PLANTÍO (LA CAÑADA) { 01 - C01 } |      |       | 39,900.00    | 39,900.00    |
| 02 - C02.1 PARQUE CARRER 30-PINADA (LA CAÑADA) { 02 - C02.1 } |      |       | 0.83         | 0.83         |
| AUTO 001                                                      |      |       | 50,000.00    | 50,000.00    |
| CENTRO COMERCIAL EL TESORO { CC-TER }                         |      |       | 1,004,000.00 | 1,004,000.00 |
| Chiller { Global-Chiller-001 } Xerox                          |      | 55.00 |              | 55.00        |
| EL CORRAL { ELCO-ELTE-01 }                                    |      |       | 4,500.00     | 4,500.00     |
| GRUPO ELECTROGENO                                             |      |       | 50,000.00    | 50,000.00    |
| MINISPLIT9                                                    |      |       | 20,000.00    | 20,000.00    |
| MOLINO 1 { MOL-01 }                                           |      |       | 142,500.00   | 142,500.00   |
|                                                               |      |       | 0.00         | 0.00         |

- Count: Counts the number of values in a column or dataset.
- Count Unique Values: Counts distinct values excluding duplicates.
- List Unique Values: Lists all unique values in a column or dataset.
- Sum: Calculates total sum of values.
- Integer Sum: Sum applied specifically to integers (whole numbers).
- Average: Calculates the mean.
- Median: Calculates the median (middle value when data is sorted).
- Sample Variance: Measures how values vary from the mean.
- Sample Standard Deviation: Measures the dispersion of sample data.
- Minimum: Finds the minimum value.
- Maximum: Finds the maximum value.
- First: Returns the first value.

- Last: Returns the last value.
- Sum Over Sum: Calculates the sum of values divided by the total sum.
- Sum as Fraction of Total: Calculates sum as fraction of the grand total.
- Sum as Fraction of Rows: Calculates sum as fraction of row totals.
- Sum as Fraction of Columns: Calculates sum as fraction of column totals.
- Count as Fraction of Total: Counts values as fraction of total.
- Count as Fraction of Rows: Counts values as fraction of row totals.
- Count as Fraction of Columns: Counts values as fraction of column totals.

### Grouping 3:



- Resource Type: Refers to the category of the resource used (labor, materials, equipment, etc.), useful for classifying and organizing resources in a project or activity.
- Resource Description: A brief description or name of the resource used, helpful to clearly identify each resource and its function.



- Resource Source: Indicates where the resource was obtained from (a specific supplier or internal source), useful for tracking acquisition.
- Quantity: Total quantity available or used in the activity or process.
- Quantity Delivered: Amount of resource delivered for use in the activity or project.
- Actual Quantity Used: Amount actually used during execution.
- Unit Cost: Cost per unit of measure.
- Total Cost: Total cost calculated by multiplying used quantity by unit cost.
- Unit: Unit of measure (hours, liters, units, etc.).
- Year and Month: The period during which the resource was or will be used, useful for temporal analysis and tracking.
- Asset: Catalog.
- Asset Classification 1 and 2: Additional categories for more detailed classification of resource condition or status.
- Asset Type: General category or type of the asset.
- Topic: General theme or category of the activity or project involving the resources.
- WO ID: Unique identifier of the work order or task associated with resource usage.
- Cost Center: Cost center to which the resource costs are assigned, facilitating cost tracking by area or department.
- Task Type: Category of the task associated with resource usage, useful for organizing and classifying related tasks.
- Task Classification 1 and 2: Additional categories for more specific classification of tasks related to resource usage.

### **Cost Pivot Table Interface Layout:**

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2024-05-23 / 2025-05-22






1

Table

Asset Group 1

Asset Group 2

Asset Type

Cost center

Issued Qty

Month

Qty

Real Used Qty

Resource Description

Resource Source

Resource Type

Task

Task Group 1

2

Count

Asset

3

Year

| Year   | Totals |
|--------|--------|
| Asset  |        |
| Totals | 0      |

The cost pivot table section is structured in three vertical spaces. The first contains all available options to extract information. Each option represents a type of data or category to be analyzed.

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2024-05-23 / 2025-05-22

Table

Asset Group 1

Asset Group 2

Asset Type

Cost center

Issued Qty

Month

Qty

Real Used Qty

Resource Description

Resource Source

Resource Type

Task

Task Group 1

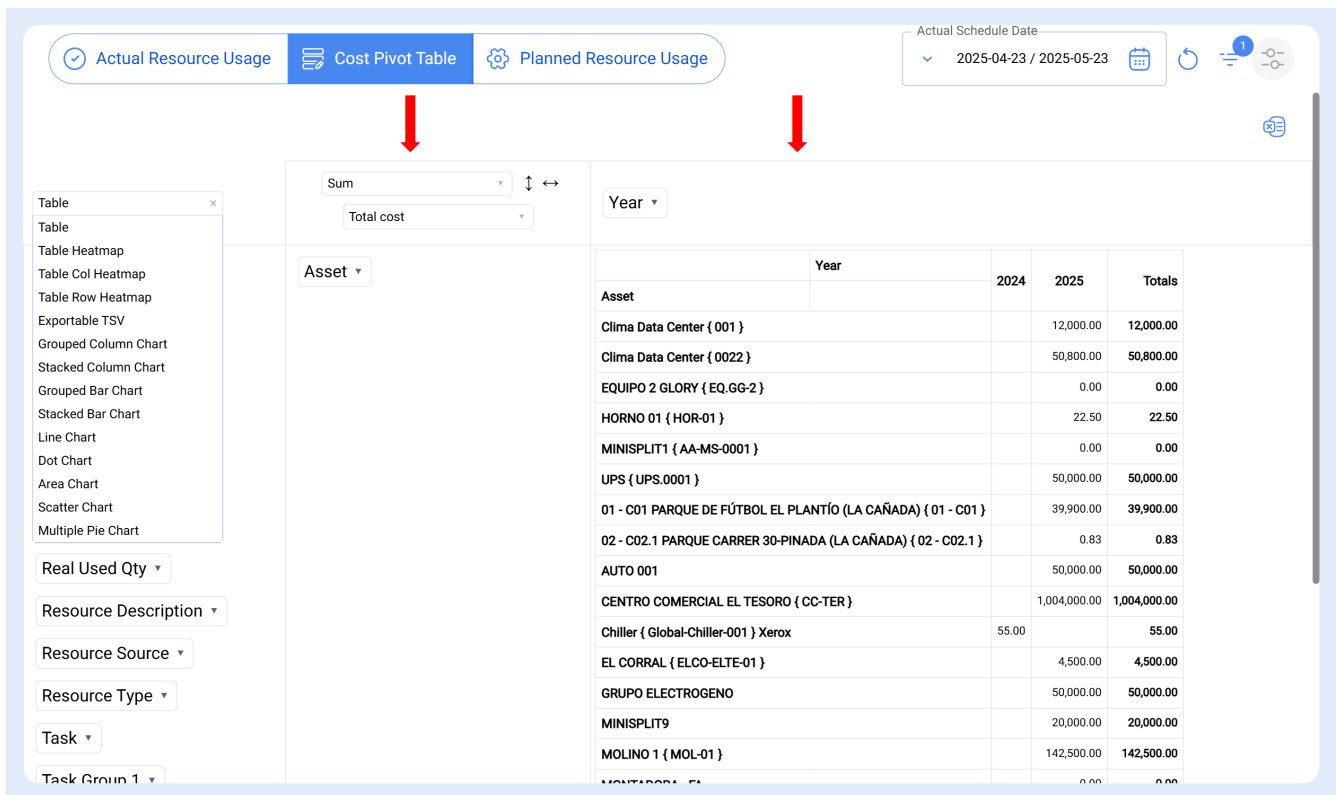
Count

Asset

Year

| Year   | Totals |
|--------|--------|
| Asset  |        |
| Totals | 0      |

The second and third spaces are destination areas where selected options from the first space can be dragged and dropped. Placing an option in one of these spaces initiates a process of extracting specific data related to the chosen option.



It is important to understand that information obtained in the second space can be cross-referenced or combined with information in the third space for a more complete analysis. For example, selecting "assets" in the second space allows cross-referencing this data with time variables like year in the third space, yielding a detailed analysis of asset performance over time.

Actual Resource Usage
Cost Pivot Table
Planned Resource Usage

Actual Schedule Date  
2025-04-23 / 2025-05-23

| Table                | Sum                          | Year                                                          | Year | 2024  | 2025         | Totals       |
|----------------------|------------------------------|---------------------------------------------------------------|------|-------|--------------|--------------|
| Asset Group 1        | Sum                          | Asset                                                         |      |       |              |              |
| Asset Group 2        | Count                        | Clima Data Center { 001 }                                     |      |       | 12,000.00    | 12,000.00    |
| Asset Type           | Count Unique Values          | Clima Data Center { 0022 }                                    |      |       | 50,800.00    | 50,800.00    |
| Cost center          | List Unique Values           | EQUIPO 2 GLORY { EQ.GG-2 }                                    |      |       | 0.00         | 0.00         |
| Issued Qty           | Sum                          | HORNO 01 { HOR-01 }                                           |      |       | 22.50        | 22.50        |
| Month                | Integer Sum                  | MINISPLIT1 { AA-MS-0001 }                                     |      |       | 0.00         | 0.00         |
| Qty                  | Average                      | UPS { UPS.0001 }                                              |      |       | 50,000.00    | 50,000.00    |
| Real Used Qty        | Median                       | 01 - C01 PARQUE DE FÚTBOL EL PLANTÍO (LA CAÑADA) { 01 - C01 } |      |       | 39,900.00    | 39,900.00    |
| Resource Description | Sample Variance              | 02 - C02.1 PARQUE CARRER 30-PINADA (LA CAÑADA) { 02 - C02.1 } |      |       | 0.83         | 0.83         |
| Resource Source      | Sample Standard Deviation    | AUTO 001                                                      |      |       | 50,000.00    | 50,000.00    |
| Resource Type        | Minimum                      | CENTRO COMERCIAL EL TESORO { CC-TER }                         |      |       | 1,004,000.00 | 1,004,000.00 |
| Task                 | Maximum                      | Chiller { Global-Chiller-001 } Xerox                          |      | 55.00 |              | 55.00        |
| Task Group 1         | First                        | EL CORRAL { ELCO-ELTE-01 }                                    |      |       | 4,500.00     | 4,500.00     |
|                      | Last                         | GRUPO ELECTROGENO                                             |      |       | 50,000.00    | 50,000.00    |
|                      | Sum over Sum                 | MINISPLIT9                                                    |      |       | 20,000.00    | 20,000.00    |
|                      | Sum as Fraction of Total     | MOLINO 1 { MOL-01 }                                           |      |       | 142,500.00   | 142,500.00   |
|                      | Sum as Fraction of Rows      |                                                               |      |       | 0.00         | 0.00         |
|                      | Sum as Fraction of Columns   |                                                               |      |       |              |              |
|                      | Count as Fraction of Total   |                                                               |      |       |              |              |
|                      | Count as Fraction of Rows    |                                                               |      |       |              |              |
|                      | Count as Fraction of Columns |                                                               |      |       |              |              |

This space distribution approach enables dynamic exploration and analysis of data, facilitating identification of trends, patterns, and meaningful relationships for informed decision-making in cost and resource management.

## Application Example:

Management requested a report analyzing resource distribution used in various assets intervened in maintenance plans scheduled from April to May 2025. It is necessary to understand the number of assets in each description category to make informed decisions about resource management and asset allocation.

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2025-04-23 / 2025-05-23

Table

Sum

Total cost

Year

Asset Group 1

Asset Group 2

Asset Type

Cost center

Issued Qty

Month

Qty

Real Used Qty

Resource Description

Resource Source

Resource Type

Task

Task Group 1

Asset

| Asset                                                         | Year | 2024  | 2025         | Totals       |
|---------------------------------------------------------------|------|-------|--------------|--------------|
| Clima Data Center { 001 }                                     |      |       | 12,000.00    | 12,000.00    |
| Clima Data Center { 0022 }                                    |      |       | 50,800.00    | 50,800.00    |
| EQUIPO 2 GLORY { EQ.GG-2 }                                    |      |       | 0.00         | 0.00         |
| HORNO 01 { HOR-01 }                                           |      |       | 22.50        | 22.50        |
| MINISPLIT1 { AA-MS-0001 }                                     |      |       | 0.00         | 0.00         |
| UPS { UPS.0001 }                                              |      |       | 50,000.00    | 50,000.00    |
| 01 - C01 PARQUE DE FÚTBOL EL PLANTÍO (LA CAÑADA) { 01 - C01 } |      |       | 39,900.00    | 39,900.00    |
| 02 - C02.1 PARQUE CARRER 30-PINADA (LA CAÑADA) { 02 - C02.1 } |      |       | 0.83         | 0.83         |
| AUTO 001                                                      |      |       | 50,000.00    | 50,000.00    |
| CENTRO COMERCIAL EL TESORO { CC-TER }                         |      |       | 1,004,000.00 | 1,004,000.00 |
| Chiller { Global-Chiller-001 } Xerox                          |      | 55.00 |              | 55.00        |
| EL CORRAL { ELCO-ELTE-01 }                                    |      |       | 4,500.00     | 4,500.00     |
| GRUPO ELECTROGENO                                             |      |       | 50,000.00    | 50,000.00    |
| MINISPLIT9                                                    |      |       | 20,000.00    | 20,000.00    |
| MOLINO 1 { MOL-01 }                                           |      |       | 142,500.00   | 142,500.00   |
|                                                               |      |       | 0.00         | 0.00         |

Actual Resource Usage

Cost Pivot Table

Planned Resource Usage

Actual Schedule Date

2024-05-23 / 2025-05-22

Table

Count

Year

Asset Group 1

Asset Group 2

Asset Type

Cost center

Issued Qty

Month

Qty

Real Used Qty

Resource Description

Resource Source

Resource Type

Task

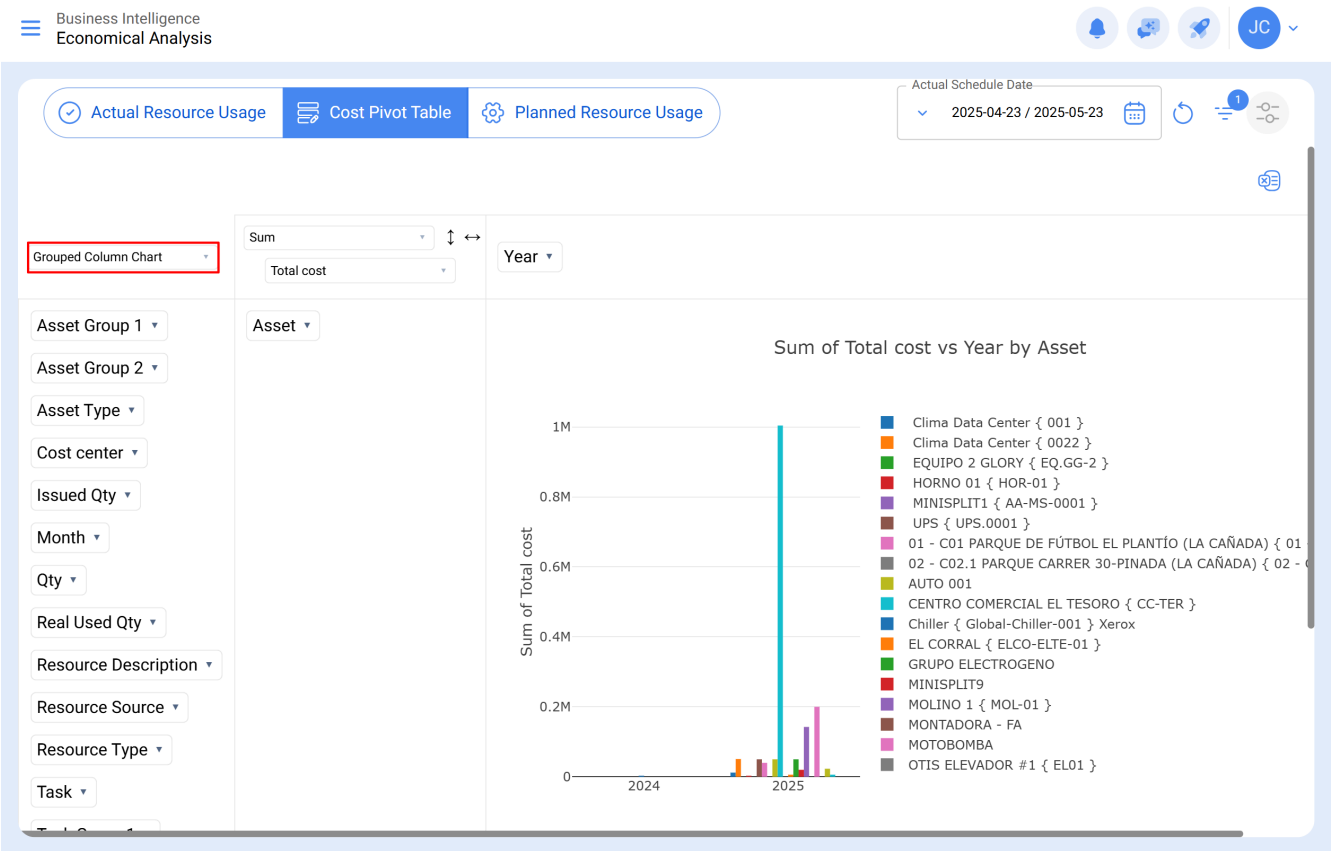
Task Group 1

Asset

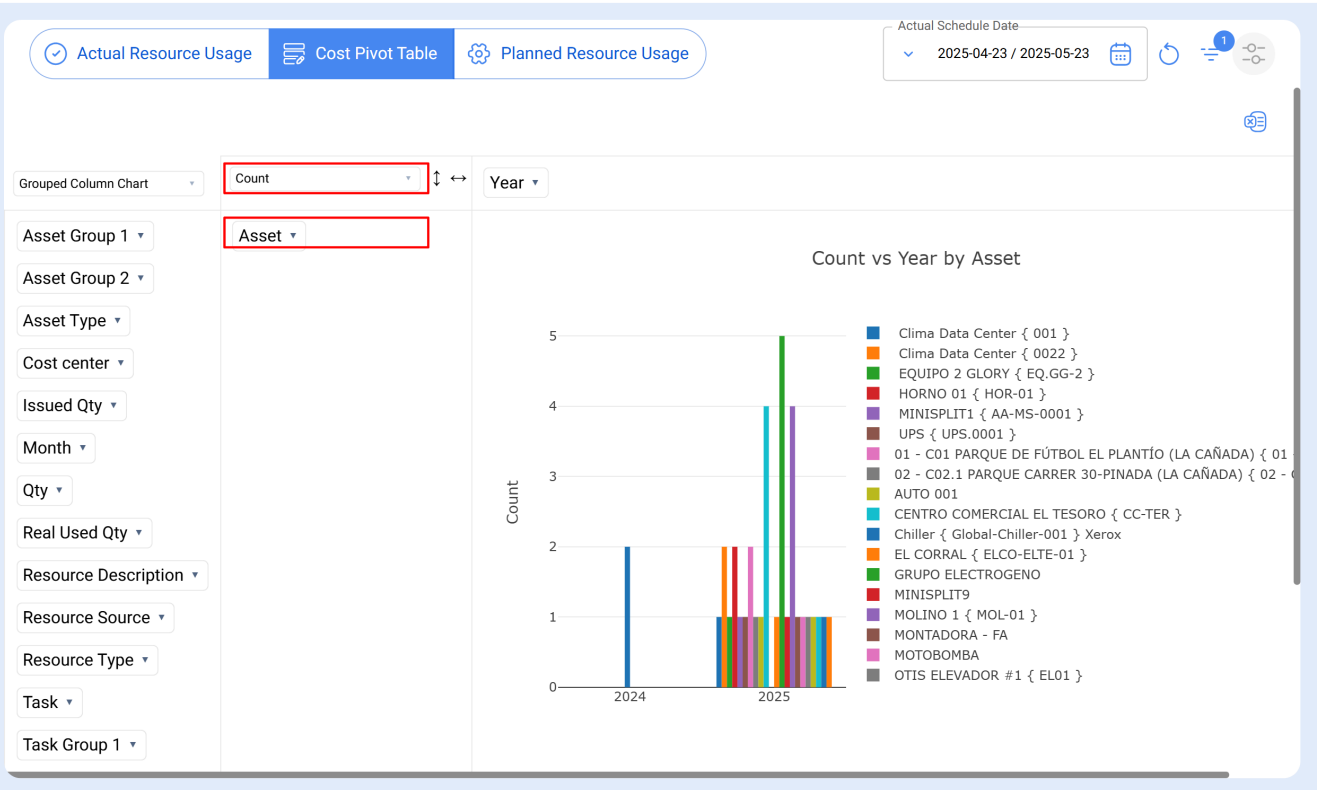
| Asset  | Year | Totals |
|--------|------|--------|
| Totals |      | 0      |

For this case, we can represent data from our business intelligence module in the interface. The first step is to select the three available groupings.

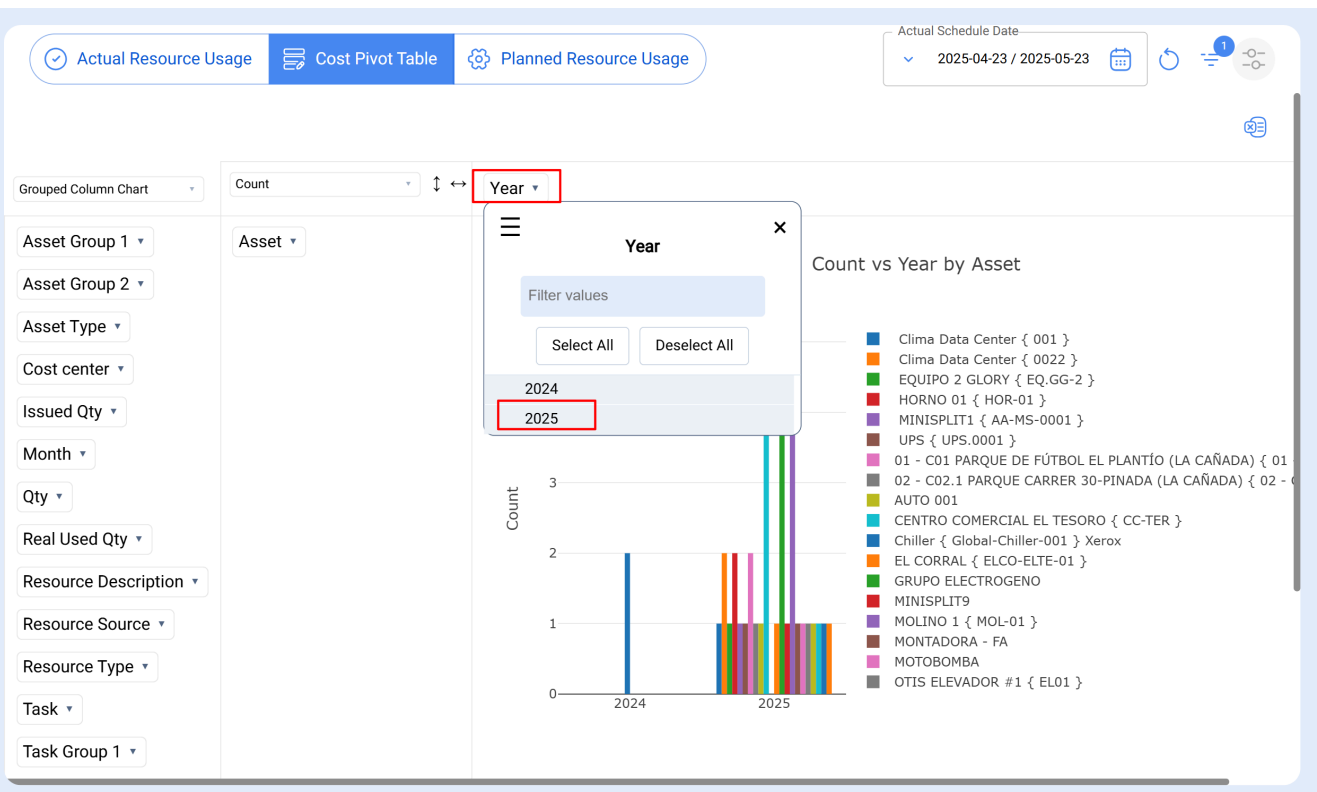
For the first grouping, select the "Grouped column chart" option, which provides a grouped bar chart showing variables on the X axis as columns.



For the second grouping, select the "count" option, which counts the number of values in a column or dataset. Also, add the "asset" parameter in space 2, as it is the data to be analyzed.

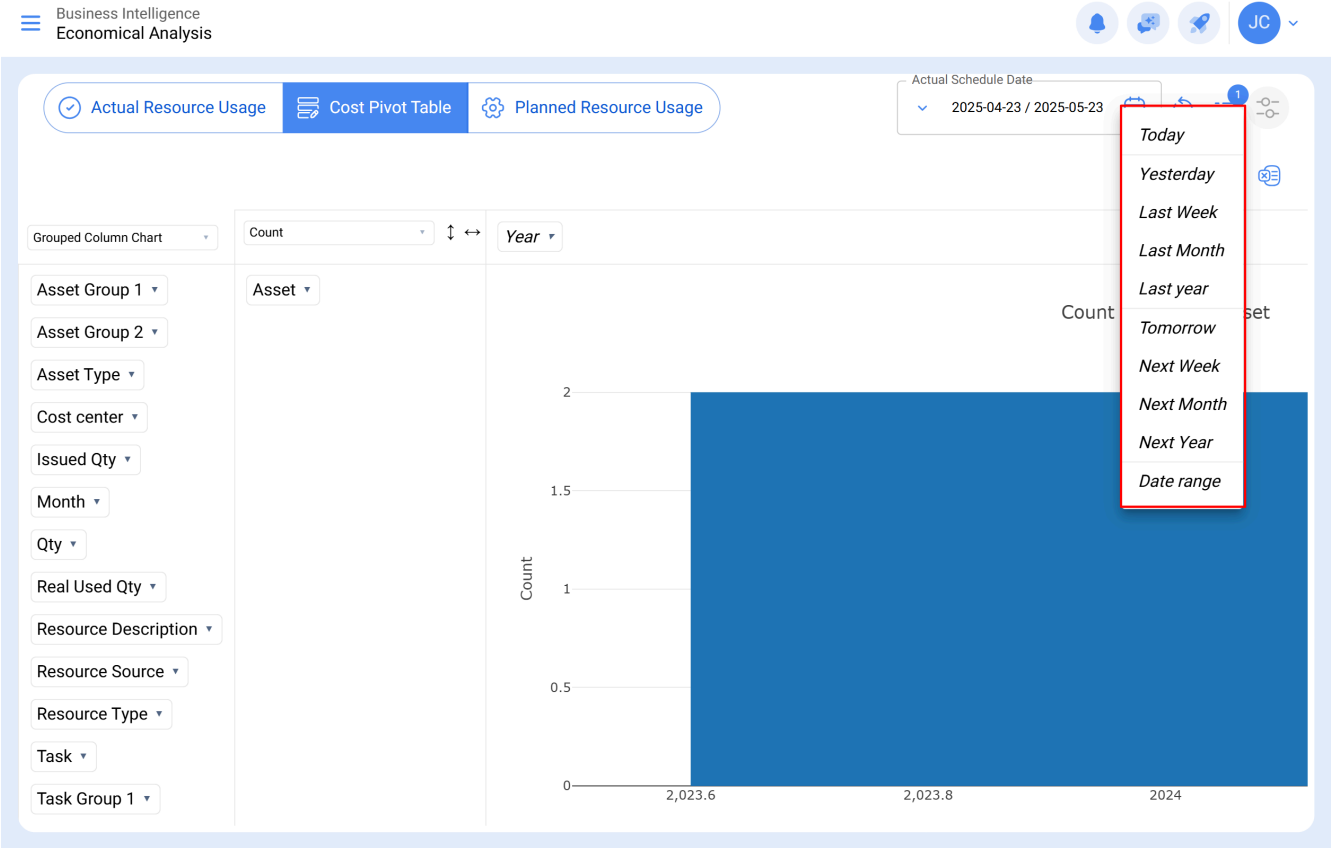


In space 3, add the data with which you want to cross-reference information. In this case, select "Year," specifying 2025 as the reporting period.





The next step is to select the "Scheduled Date" option in the "Filter by" dropdown to retrieve preventive maintenance plans. Also, select the desired time interval in the "From - To" section, as the required dates fall within this period.

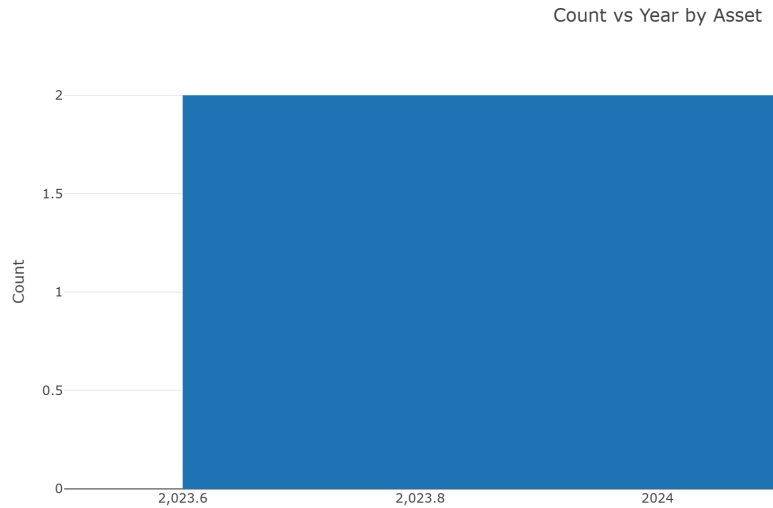


Actual Resource Usage Cost Pivot Table Planned Resource Usage

Grouped Column Chart Count Year

Asset Group 1  
Asset Group 2  
Asset Type  
Cost center  
Issued Qty  
Month  
Qty  
Real Used Qty  
Resource Description  
Resource Source  
Resource Type  
Task  
Task Group 1

Asset



Actual Schedule Date  
Start Date  
End Date

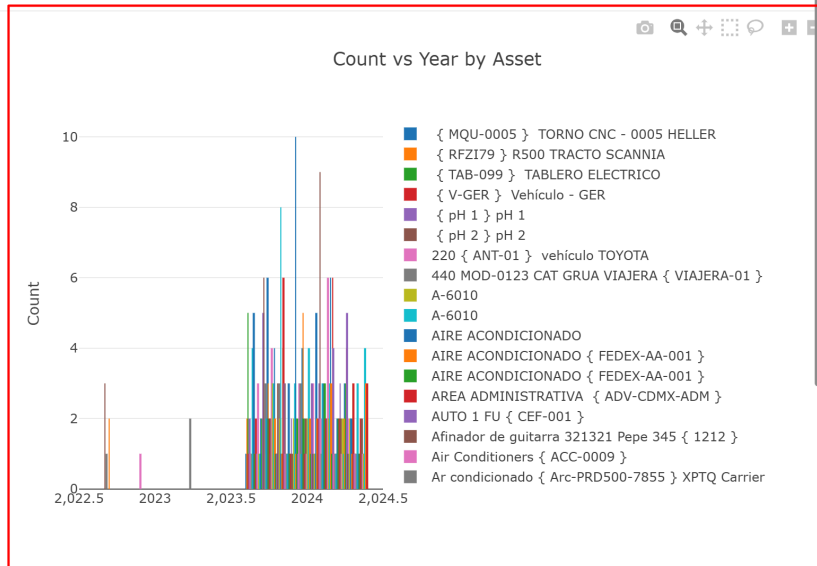
The resulting graph will be displayed as follows:

Actual Resource Usage Cost Pivot Table Planned Resource Usage

Grouped Column Chart Count Year

Asset Group 1  
Asset Group 2  
Asset Type  
Cost center  
Issued Qty  
Month  
Qty  
Real Used Qty  
Resource Description  
Resource Source  
Resource Type  
Task  
Task Group 1

Asset



With this result, we can begin developing the report for management.