

**Gestão de Projetos Software
Microsoft Project (365)**

Paulo Matos
2023/2024

MS Project 365
Conta de acesso

Comparar opções

Project (Plano 1) (highlighted with a yellow border)

Project (Plano 3)

Project (Plano 5)

<http://www.microsoft.com/pt-pt/microsoft-365/project/project-plan-1>

MS Project 365

Conta de acesso

Project (Plano 1)

Faça a gestão de projetos facilmente com a ajuda de ferramentas simples e visuais no Project (Plano 1).

- Comece a trabalhar rapidamente e assuma o controlo de qualquer projeto.
- Utilize o controlo simples e eficiente de planos e estados.
- Colabore com outras pessoas em praticamente qualquer lugar.

[Comprar agora](#)

[Versão de avaliação gratuita >](#)

Falar com um especialista

Para falar com um especialista em vendas, contacte 800 208 975. Disponível de seg. a sex., das 9:00 às 17:00

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MS Project 365

Conta de acesso



Começar a trabalhar com o **Project (Plano 1)**

1 Vamos começar

Introduza o seu endereço de e-mail escolar ou profissional. Iremos verificar se tem de criar uma nova conta para Project (Plano 1).

E-mail

Ao continuar, confirma que utiliza o e-mail da sua organização. A sua organização poderá ter direitos de acesso e gestão dos seus dados e conta.

[Saiba Mais](#)

[Seguinte](#)

2 Fale-nos sobre si

3 Crie a identidade da sua empresa

4 Termine de se inscrever para este serviço

5 Começar a utilizar Project (Plano 1)

4

MS Project 365

Conta de acesso

The screenshot shows the first step of the Microsoft Project Plan 1 Trial sign-up process. At the top, the Microsoft logo and the title "Project Plan 1 Trial" are displayed. Below this, a progress bar shows three steps: "About you" (highlighted in blue), "Sign-in details", and "Complete & get started". The main content area features the heading "Let's get you started" and the sub-instruction "Enter your work or school email address, we'll check if you need to create a new account for Project Plan 1 Trial." A placeholder email address "arestabinaria@gmail.com" is shown. Two buttons are present: a blue "Next" button and a white "Change my email" button. Below the buttons, two promotional messages are displayed: "Signing up for your trial" and "25 users allowed in 1-month free trial". In the bottom right corner of the screenshot area, there is a small black circle containing the number "5".

MS Project 365

Conta de acesso

The screenshot shows the second step of the Microsoft Project Plan 1 Trial sign-up process. The progress bar now highlights "Sign-in details". The main content area features the heading "How you'll sign in" and the sub-instruction "This username is what you'll use to sign in each time you use your apps. The domain name is a suggestion. You can change your domain now, or later at any time with your own custom domain." Below this, there are input fields for "Username" (containing "PauloMatos") and "Domain name" (containing ".onmicrosoft.com"). An "Edit" link is next to the domain field. There are also fields for "Password" and "Confirm password". Below these fields, a note states: "By selecting Next, you agree to our [trial agreement](#)". A checkbox for accepting the trial agreement is present. At the bottom of the form, there are two additional checkboxes: one for receiving information from Microsoft and another for sharing information with select partners. A "Next" button is located at the bottom left of the form. To the right of the form, there is a sidebar with promotional text: "Modern, collaborative project management", "Start fast - Get started quickly with familiar Office 365 app experience", "Work the way you want - Use methodologies and tools to match project type and preferred work style", and "Work with confidence - Minimize business risks with highly compliant and secure platform". In the bottom right corner of the screenshot area, there is a small black circle containing the number "6".

MS Project 365

Conta de acesso

Confirmation details

Thanks for signing up for Project Plan 1 Trial

Your username is **PauloMatos@nerba2022.onmicrosoft.com**

We've sent a confirmation email to **arestabinaria@gmail.com**

[Get Started](#)

[Manage your subscription](#)

Signing up for your trial

25 users allowed in 1-month free trial

Modern, collaborative project management

Start fast - Get started quickly with familiar Office 365 app experience

Work the way you want - Use methodologies and tools to match project type and preferred work style

Work with confidence - Minimize business risks with highly compliant and secure platform

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MS Project 365

Conta de acesso

The screenshot shows the Microsoft Account settings interface. On the left, a sidebar lists account management options: A Minha Conta (selected), Descrição Geral, Informações de segurança, Dispositivos, Palavra-passe, Organizações, Definições e Privacidade, Os meus inícios de sessão, Aplicações do Office, and Subscrições.

The main area displays the user's profile information:

- Paulo Matos**
- Email: PauloMatos@nerba2022.onmicrosoft.com
- Phone: 0918153028
- Link: [Por que não consigo editar? ⓘ](#)

A callout box highlights the "Informações de segurança" section, which includes a link to update information.

On the right, there is a "Dispositivos" (Devices) section.

At the bottom right of the screenshot area is a black circle containing the number 8.

MS Project 365

Aplicações

Aplicações

- OneDrive
- Word
- Excel
- PowerPoint
- OneNote
- SharePoint
- Power Automate
- Administrador

[Todas as aplicações →](#)

Documentos



Os seus documentos

Office →

Office →

← Anterior

Procurar em todas as suas aplicações

- Lists
- OneDrive
- OneNote
- Power Automate
- PowerPoint
- Project**
- Segurança
- SharePoint
- Suplementos

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Admin Center

Gestão de utilizadores

Microsoft 365 admin center

Search

Your organization

Users

Subscriptions

Learn

Manage who can access apps and services. Add or remove users, manage licenses, and reset passwords.

[+ Add a user](#) [Reset password](#)

Name ↑

Username for sign-in

Licenses

PM Paulo Matos

:PauloMatos@nerba2022.onmicrosoft.com

Project Plan 1

Word

PowerPoint

SharePoint

Admin

10

MS Project 365

Criar projeto

Project

+ Novo projeto em branco

Favoritos

Os projetos e mapas de objetivos marcados como favoritos serão apresentados aqui.

Recentes Partilhados comigo Criados por mim



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MS Project 365

Criar projeto (1ª vez ...)



Bem-vindo(a) ao Project

A configurar o Project...

Parece que é a primeira pessoa na sua organização a utilizar o Project! Aguarde alguns minutos enquanto configuramos tudo. Iremos enviar-lhe um e-mail quando estiver tudo pronto.

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MS Project 365

Vista grelha

The screenshot shows the Microsoft Project 365 interface in 'Grid View'. The top navigation bar is green with the title 'Project' and tabs for 'Grelha' (selected), 'Quadro', and 'Linha Cronológica'. Below the tabs, it displays the project name 'Projeto sem título' and the date range '29/03 - 30/03'. A search bar and filter options ('Filtros (0)', 'Membros do grupo') are also present. The main area lists seven tasks:

Ordem	Ação	Duração
1	Atribuir esta tarefa a alguém	1 dia
2	Marcar esta tarefa como concluída	1 dia
3	✓ Clique com o botão direito do rato e abra os detalhes da tarefa	1 dia
4	Anexar um ficheiro a esta tarefa	1 dia
5	Adicionar outra dependência a esta tarefa	1 dia
6	Clique com o botão direito do rato e transforme-a numa subtarefa	1 dia
7	Abrir linha cronológica para ver a tarefa de marco	0 dias

A button '+ Adicionar nova tarefa' is located at the bottom left. A small black circle in the bottom right corner contains the number '13'.

MS Project 365

Vista Quadro de tarefas

The screenshot shows the Microsoft Project 365 interface in 'Task Board View'. The top navigation bar is green with the title 'Project' and tabs for 'Grelha' (selected), 'Quadro' (selected), and 'Linha Cronológica'. Below the tabs, it displays the project name 'Projeto sem título' and the date range '29/03 - 30/03'. A green button 'Adicionar grupo' is visible. The main area shows a single group named 'Grupo 1' containing two tasks:

Ordem	Ação	Data	Responsável
1	Abrir linha cronológica para ver a tarefa de marco	0 dias	
2	✓ Clique com o botão direito do rato e transforme-a numa subtarefa	1 dia	

A button '+ Adicionar tarefa' is located at the top left of the task list. A small black circle in the bottom right corner contains the number '14'.

MS Project 365

Linha cronológica

The screenshot shows the Microsoft Project 365 interface in the 'Linha Cronológica' (Timeline) view. The timeline spans from March 14 to April 4. A vertical red line marks the timeline. Seven tasks are listed on the left, each with a circular icon and a brief description:

- 1 Atribuir esta tarefa a algu...
- 2 Marcar esta tarefa como ...
- 3 Clique com o botão dir...
- 4 Anexar um ficheiro a e...
- 5 Adicionar outra dependê...
- 6 Clique com o botão direi...
- 7 Abrir linha cronológica p...

A blue diamond icon is positioned at the end of the timeline on March 29. Below the tasks, there is a link to 'Adicionar nova tarefa' (Add new task). The top navigation bar includes tabs for 'Project', 'Grelha' (Grid), 'Quadro' (Table), 'Linha Cronológica' (Timeline), 'Filtros (0)' (Filters), 'Zoom' (Zoom), and 'Ir para a data' (Go to date).

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MS Project 365

Detalhes do projeto

The screenshot shows the Microsoft Project 365 'Projeto sem título' (Untitled Project) details page. Key information displayed includes:

- Gestor de Projeto:** Paulo Matos
- Início:** 23/03/2022 (highlighted with a yellow box)
- Conclusão:** 30/03/2022
- Duração:** 2 dias
- % Concluída:** 0%
- Esforço:**

Concluída	Restante	Total
0 horas	+ 0 horas	= 0 horas
- Calendário:** Default Work Template (highlighted with a yellow box)

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MS Project 365

V. Quadro tarefas – Agrupamento por estado/situação

The screenshot shows the Microsoft Project 365 Task Board interface. At the top, there's a green header bar with the title "Project". Below it, the board is titled "O meu primeiro projeto" with the date range "23/03 - 1/04". The interface includes tabs for "Grelha", "Quadro" (which is selected), and "Linha Cronológica". On the right side, there are buttons for "Filtros (0)" and "Agrupar". The board is divided into four main sections: "Orçamento", "Encomenda", "Receção", and "Pagamentos". Each section has a "Adicionar tarefa" button. Under "Encomenda", there are two items: "Pedir orçamento para AB55" (status: Concluída, 2 dias, due 24/03) and "Encomendar referência X21" (status: Concluída, 2 dias, 100%, due 24/03). Under "Receção", there is one item: "Receção encomenda X21" (status: Concluída, 3 dias, 100%, due 25/03). Under "Pagamentos", there is one item: "Pagamento de X21" (status: Pendente, 8 dias, due 01/04). A green button "Adicionar grupo" is located at the bottom right of the board area. In the bottom right corner of the slide, there is a black circle with the number "17".

**MS
Project
365**
Quadro de
tarefas –
Criação tarefa

The screenshot shows the Microsoft Project 365 Task Board interface. At the top, there's a green header bar with the title "Project". Below it, the board is titled "O meu primeiro projeto" with the date range "29/03 - 30/03". The interface includes tabs for "Grelha", "Quadro" (which is selected), and "Linha Cronológica". On the right side, there are buttons for "Adicionar grupo" and "Adicionar tarefa". The board is divided into three main sections: "Grupo 1", "O meu primeiro projeto", and "Grupo 1". The "Grupo 1" section contains a "Adicionar tarefa" button. The "O meu primeiro projeto" section contains a task: "Abrir linha cronológica para ver a tarefa de março" (status: Pendente, 0 dias, due 29/03). The "Grupo 1" section below it contains a task: "Encomendar referência X21" (status: Pendente, 2 dias, due 24/03). This task has a user profile icon for "Paulo Matos". A green button "Adicionar tarefa" is located at the bottom right of the board area. In the bottom right corner of the slide, there is a black circle with the number "18".

MS Project 365

Quadro de tarefas – Detalhes tarefa

○ Encomendar referência X21

 PM Paulo Matos

Notas

Adicione uma nota...

Inicio

23/03/2022

Conclusão

24/03/2022

Duração

2 dias

% Concluída

0

Grupo

Grupo 1

▼ Lista de Verificação

Adicionar um item

▼ Esforço

Concluída

0 horas

Restante

16 horas

Total

16 horas

Depende de

Esta tarefa não depende de outras tarefas

[Adicionar dependência](#)

Anexos

[Adicionar anexo](#)

Conversação



Adicionar este projeto a um canal do Teams, depois iniciar uma conversa sobre esta tarefa no Teams [Saber Mais](#)

[Adicionar este projeto a uma equipa](#)

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MS Project 365

Quadro de tarefas – Detalhes tarefa

○ Encomendar referência X21

 PM Paulo Matos

Notas

50 caixas de 500 unidades. Consultar fornecedor A e B.

Inicio

23/03/2022

Conclusão

24/03/2022

Duração

2 dias

% Concluída

25

Grupo

Grupo 1

▼ Lista de Verificação 0 / 3

- Ordem de encomenda emitida
- Email de encomenda
- Confirmação de receção
- Adicionar um item

▼ Esforço

Concluída

4 horas

Restante

12 horas

Total

16 horas

Depende de

Esta tarefa não depende de outras tarefas

[Adicionar dependência](#)

Anexos

[Adicionar anexo](#)

Conversação



Adicionar este projeto a um canal do Teams, depois iniciar uma conversa sobre esta tarefa no Teams [Saber Mais](#)

[Adicionar este projeto a uma equipa](#)

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MS Project 365

Filtros

O meu primeiro projeto
23/03 - 1/04

Grelha Quadro Linha Cronológica

Nome	Pesquisa rápida	Atribuída a	Duração	Depende de
1. Encomendar referência X21	0/3	PM Paulo Matos	2 dias	
2. Receção encomenda X21		PM Paulo Matos	3 dias	
3. Pedir orçamento para AB55		PM Paulo Matos	2 dias	
Nome	Pesquisa rápida	Atribuída a	Duração	Depende de

Filtrar Tarefas Desmarcar tudo

Filtrar por palavra-chave

Data de conclusão (0)

Em atraso

Hoje

Amanhã

Esta semana

Próxima semana

Futuras

Sem data

Progresso (0)

Grupos (0)

Atribuída a (1)

Não Atribuído

PI Paulo IPB

PM Paulo Matos

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MS Project 365

Quadro de tarefas -Agrupado por etapas

Segundo projeto
23/03 - 7/04

Grelha Quadro Linha Cronológica

Agendado	Atribuído	Execução	Concluído
+ Adicionar tarefa	+ Adicionar tarefa	+ Adicionar tarefa	+ Adicionar tarefa
○ Semáforos CMC 5 dias 07/04 PM	○ Parque infantil M091 1 semana 29/03 PM		
○ Encomenda CMB 3 dias 30/03 PM			

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MS Project 365

Quadro de tarefas – P/Atribuição

Segundo projeto
23/03 - 7/04

Grelha

Quadro

Linha Cronológica

Não atribuídas

+ Adicionar tarefa

PM Paulo Matos

+ Adicionar tarefa

○ Parque infantil M091

Atribuído

1 semana

29/03

PM

○ Encomenda CMB

Agendado

3 dias

30/03

PM

○ Semáforos CMC

Agendado

5 dias

07/04

PM

23

MS Project 365

Quadro de tarefas – P/Progresso

Segundo projeto
23/03 - 7/04

Grelha

Quadro

Linha Cronológica

Não iniciada

+ Adicionar tarefa

○ Encomenda CMB

Atribuído

3 dias

30/03

Em curso

+ Adicionar tarefa

○ Parque infantil M091

Execução

1 semana 20%

29/03

PM

24

MS Project 365

Quadro de tarefas - P/Data conclusão

Segundo projeto

23/03 - 7/04

Grelha

Quadro

Linha Cronológica

Próxima semana

+ Adicionar tarefa

Parque infantil M091

Execução

1 semana 20%

 29/03

PM

Encomenda CMB

Atribuído

3 dias

 30/03

PM

Futuras

+ Adicionar tarefa

Semáforos CMC

Agendado

5 dias

 07/04

PM

25

MS Project 365

Grelha

Segundo projeto

23/03 - 8/04

Grelha

Quadro

Linha Cronológica

 Filtros (0)

 Membros

Nome ▾

Pesquisa rápida ▾

Atribuída a ▾

Duração ▾

Conclusão ▾

Início ▾

1 Parque infantil M091

0/3

 Paulo Matos

1 semana

29/3/2022

23/3/2022

2 Encomenda CMB

 Paulo Matos

3 dias

1/4/2022

30/3/2022

3 Semáforos CMC

 Paulo Matos

5 dias

8/4/2022

4/4/2022

+ Adicionar nova tarefa

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MS Project 365

Grelha

Duração	Conclusão	Ínicio		+ Adicionar coluna
1 semana	29/3/2022	23/3/2022	[123] % concluída	+ Novo campo
3 dias	1/4/2022	30/3/2022	[123] Depende de	
5 dias	8/4/2022	4/4/2022	[123] Dependentes (depois)	

[123] Esforço
[123] Esforço concluído
[123] Esforço restante
[123] Grupo
[123] Número do nível hierárquico

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MS Project 365

Grelha - Colunas

Duração	Conclusão	Ínicio		+ Adicionar coluna
1 semana	29/3/2022	23/3/2022	[123] % concluída	+ Novo campo
3 dias	1/4/2022	30/3/2022	[123] Depende de	
5 dias	8/4/2022	4/4/2022	[123] Dependentes (depois)	

[123] Esforço
[123] Esforço concluído
[123] Esforço restante
[123] Grupo
[123] Número do nível hierárquico

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MS Project 365

Grelha - Detalhes

The screenshot shows the Microsoft Project 365 interface with the 'Task Details' view selected. At the top, there are filters for 'Pesquisa rápida' (Search), 'Atribuída a' (Assigned to), 'Duração' (Duration), and 'Conclusão' (Completion). Below these are three tasks assigned to 'Paulo Matos':

	Atribuída a	Duração	Conclusão
<input type="checkbox"/>	PM Paulo Matos	1 semana	29/3/2022
<input type="checkbox"/>	PM Paulo Matos	3 dias	1/4/2022
<input type="checkbox"/>	PM Paulo Matos	5 dias	8/4/2022

On the right side, detailed information for the first task is shown:

- Parque infantil M091**
- Atribuído a:** PM Paulo Matos
- Notas:** Encomenda E221/2022
- Início:** 23/03/2022
- Conclusão:** 29/03/2022
- Duração:** 1 semana
- % Concluída:** 20
- Grupo:** Execução
- Lista de Verificação:** Baloíço (checked), Escorregá, Casa de brincar, Adicionar um item
- Esforço:** Concluída: 8 horas, Restante: 32 horas, Total: 40 horas

A black circle with the number 29 is located in the bottom right corner.

MS Project 365

Grelha - Outras funcionalidades

- Confirmação de conclusão
- Alteração de ordem
- Adicionar tarefas
- Conversão tarefa – sub tarefa
- Informação de detalhe
- Notas

The screenshot shows the Microsoft Project 365 interface with the 'Task Grid' view selected. A context menu is open over the task 'Manutenção no local' (task 8). The menu options are:

- Abrir detalhes
- Realizar subtarefa
- Promover subtarefa
- Cortar tarefa
- Copiar a tarefa
- Colar a tarefa
- Inserir tarefa acima
- Eliminar a tarefa
- Copiar a ligação para a tarefa
- Adicionar dependência
- Remover dependências

A black circle with the number 30 is located in the bottom right corner.

MS Project 365

Grelha – Dependências

Segundo projeto

23/03 - 7/04

Grelha Quadro Linha Cronológica

	Nome ▾	Duração ▾	Conclusão ▾	Início ▾	Depende de ▾
4	Manutenção Parque Infantil da Cova	5 dias	29/3/2022	23/3/2022	
5	Levantamento do estado	4 horas	Hoje	23/3/2022	
6	Recolha de equipamentos para manutenção em fábrica	1 dia	24/3/2022	23/3/2022	5
7	Manutenção em fábrica	2 dias	28/3/2022	24/3/2022	6
8	Reposição equipamentos	1 dia	29/3/2022	28/3/2022	7
9	Manutenção no local	1 dia	24/3/2022	23/3/2022	5
10	Verificação com inspetor	4 horas	29/3/2022	29/3/2022	8 9

+ Adicionar nova tarefa

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MS Project 365

Linha cronológica

Segundo projeto

23/03 - 7/04

Grelha Quadro Linha Cronológica

mar 14	4	Manutenção Parque Inf...
mar 14	5	Levantamento do esta...
mar 14	6	Recolha de equipame...
mar 14	7	Manutenção em fábrica
mar 14	8	Reposição equipamen...
mar 14	9	Manutenção no local
mar 14	10	Verificação com inspet...

+ Adicionar nova tarefa

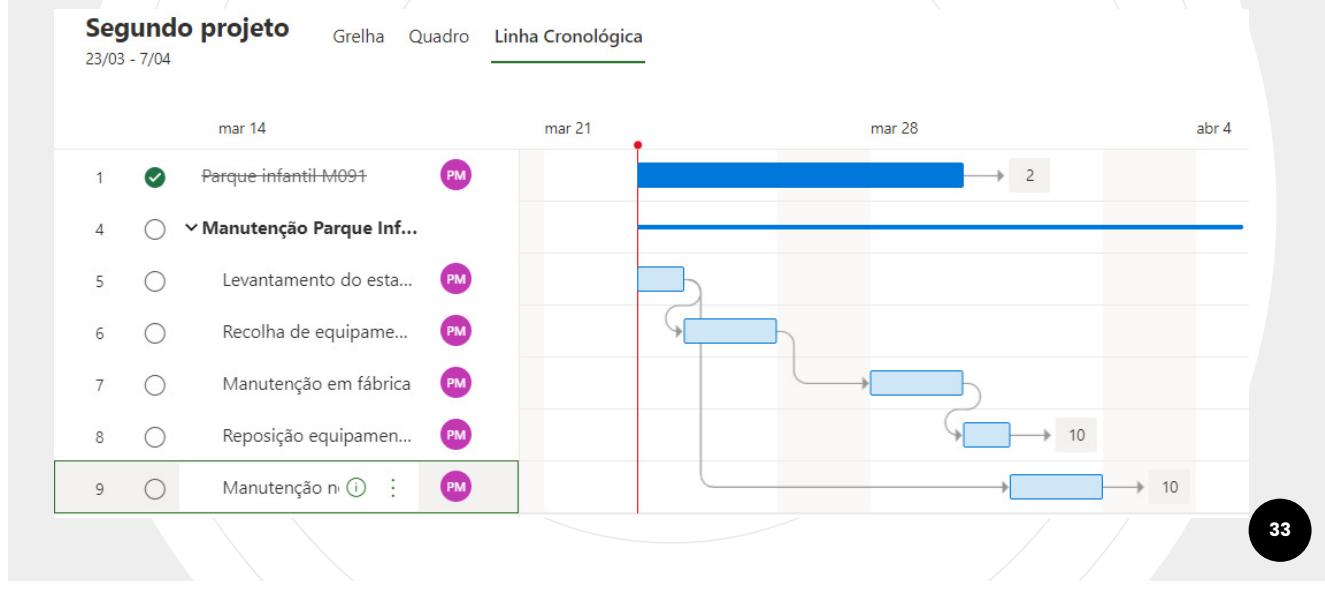
mar 28
29

32

- Dependências
- Escalonar tarefas
- Visualização temporal (deslocação)

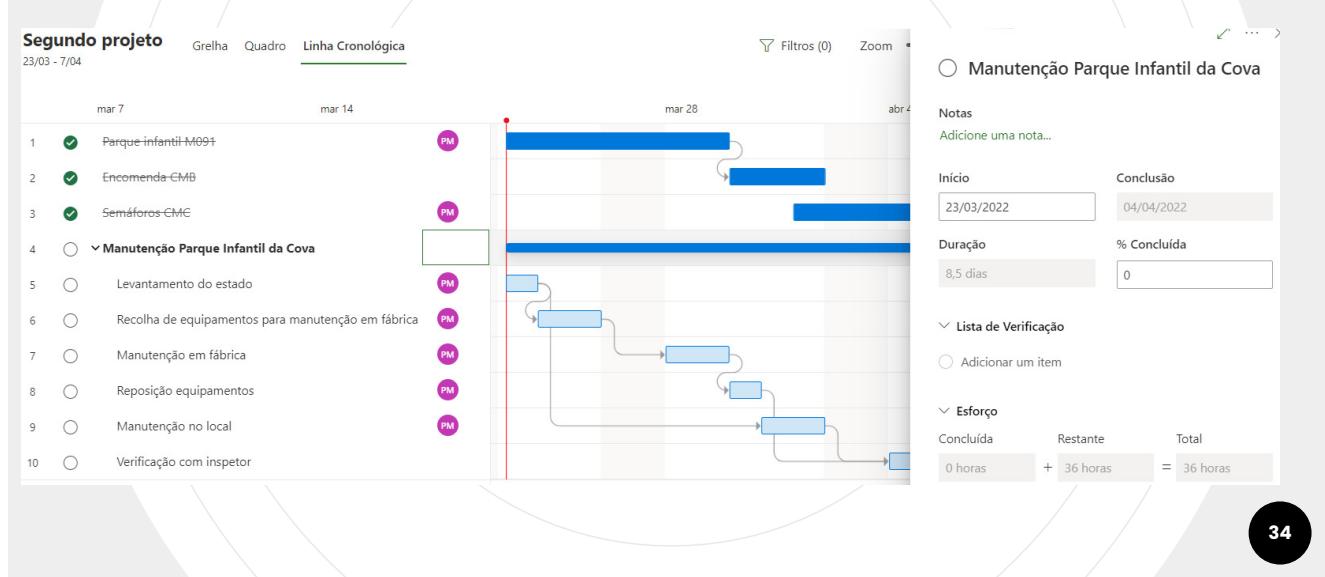
MS Project 365

Linha cronológica



MS Project 365

Linha cronológica - Detalhes atividades agregadoras



MS Project 365

Grupos & Partilha de projetos

Grupo

Adicione membros para criar um grupo. Já tem um?
Selecione um grupo existente.

Criar grupo Adicionar a um grupo

O meu primeiro projeto
Privado

Escreva um nome para adicionar um membro

Grupo

OM O meu primeiro projeto
Private

Membros Outras pessoas

Criar

Os membros deste projeto fazem parte do grupo O meu primeiro projeto. Todos os utilizadores deste grupo da Microsoft 365 têm acesso a todos os ficheiros, páginas do OneNote, conversas do Teams e outros materiais relacionados com este grupo.

Grupo

OM O meu primeiro projeto
Private

Membros Outras pessoas

Paulo IPB

PI Paulo IPB

Os membros deste projeto fazem parte do grupo O meu primeiro projeto. Todos os utilizadores deste grupo da Microsoft 365 têm acesso a todo o projeto e a quaisquer ficheiros, páginas do OneNote, conversas do Teams e outros materiais relacionados com este grupo.

Introduza nomes para adicionar membro:

PI Paulo IPB

PM Paulo Matos

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MS Project 365

Grupos & Partilha de projetos

Project

+ New blank project

Favorites

Projects and roadmaps marked as favorites will appear here.



Recent

Shared with me

Created by me

Name

O meu primeiro projeto

Segundo projeto

Source

Project

Project

Type to filter list

PI

Paulo IPB

pipb@nerba2022.onmicrosoft...

[View account](#)

[My Office profile](#)

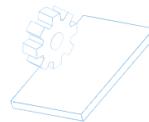
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MS Project 365

Instalação (Project Plan 3 Trial +)



Advanced setup



Install Office

Add users

Install Office

You can download and install Office for your device now. Selecting an option below will assign a Project Plan 3 license to you, if you don't have one already. If you want to install a different language, the 64-bit version, or other apps available with your subscription [view other install options](#).



Project

Track projects, schedules, resources and tasks.



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MS Project

Tópicos

- ❑ Nivelamento de recursos
- ❑ Campos – tipos, customização, ver cálculo efetivo
- ❑ Baselines
- ❑ Gestão de múltiplos projetos
- ❑ Vistas – quais existem, para que servem e configuração para impressão
- ❑ Relatórios – padrão e customizados

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MS Project

Topics

- ❑ Resource leveling
- ❑ Fields – types, customization, see effective calculation
- ❑ Baselines
- ❑ Multiple project management
- ❑ Views – what are there, what are they for and configuration for printing
- ❑ Reports – standard and custom

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MS Project

Nivelamento de recursos

- ❑ Para cada recurso sobre alocado, o MS Project identifica as tarefas que estão causar a sobre alocação;
- ❑ Verifica quais dessas tarefas podem ser atrasadas;
- ❑ As tarefas que não podem ser atrasadas são do tipo:
 - *Deve iniciar em ...*
 - *Deve terminar em ...*
 - *Deve iniciar o mais tarde possível* (se projeto com data de início)
 - *Deve iniciar o mais cedo possível* (se projeto com data de término)
- ❑ Ou cuja prioridade é de 1000 – indicação de que não deve ser nivelada
- ❑ Ou a data de início seja a presente.

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MS Project

Resource leveling

- ❑ For each overallocated resource, MS Project identifies the tasks that are causing the overallocation;
- ❑ Checks which of these tasks can be delayed;
- ❑ Tasks that cannot be delayed are of the type:
 - ❑ Must start in...
 - ❑ Must end in...
 - ❑ Must start as late as possible (if project with start date)
 - ❑ Must start as early as possible (if project with end date)
 - ❑ Or whose priority is 1000 – an indication that it should not be leveled
 - ❑ Or the start date is the present.

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MS Project

Nivelamento de recursos

- ❑ Prioridades das tarefas
- ❑ Prioridades do projeto
- ❑ Opções de nivelamento

Task Information

General | Predecessors | Resources | Advanced | Notes | Custom Fields |

Name:

T3

Duration: 3 days

Estimated

Percent complete: 0%

Priority: 100

Inactive

Schedule Mode: Manually Scheduled
 Auto Scheduled

Dates

Start: Tue 05/04/22

Finish: Thu 07/04/22

- Prioridade igual a 1000 faz com que a tarefa não seja alterável pelo nivelamento

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MS Project

Resource leveling

- Task priorities
- Project priorities
- Leveling options

Task Information

General | Predecessors | Resources | Advanced | Notes | Custom Fields |

Name: T3 Duration: 3 days Estimated

Percent complete: 0% Priority: 100 Inactive

Schedule Mode: Manually Scheduled Auto Scheduled

Dates Start: Tue 05/04/22 Finish: Thu 07/04/22

- Priority of 1000 makes the task unchangeable by leveling

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MS Project

Nivelamento de recursos

- Prioridades das tarefas
- Prioridades do projeto
- Opções de nivelamento

Project View Help Gantt Chart Format Tell me what you want to do

Project Information Project Link Between WPS Change Calculate Set Move Update Project

Start date: Wed 30/03/22 Current date: Wed 30/03/22

Finish date: Thu 28/04/22 Status date: NA

Schedule from: Project Start Date Calendar Standard

All tasks begin as soon as possible. Priority: 300

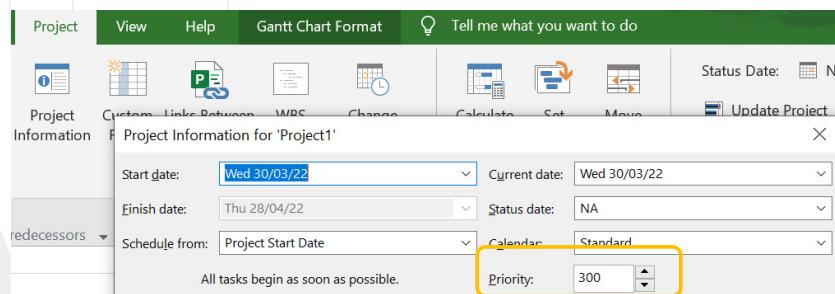
- A prioridade aplica-se entre projetos

44

MS Project

Resource leveling

- Task priorities
- Project priorities
- Leveling options



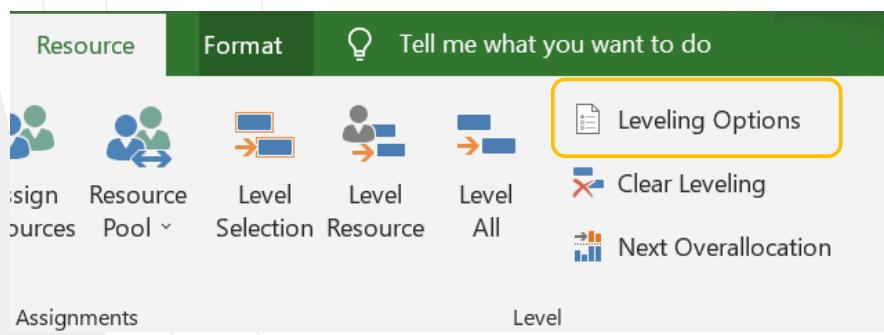
- Priority applies between projects

45

MS Project

Nivelamento de recursos

- Task priorities
- Project priorities
- Leveling options

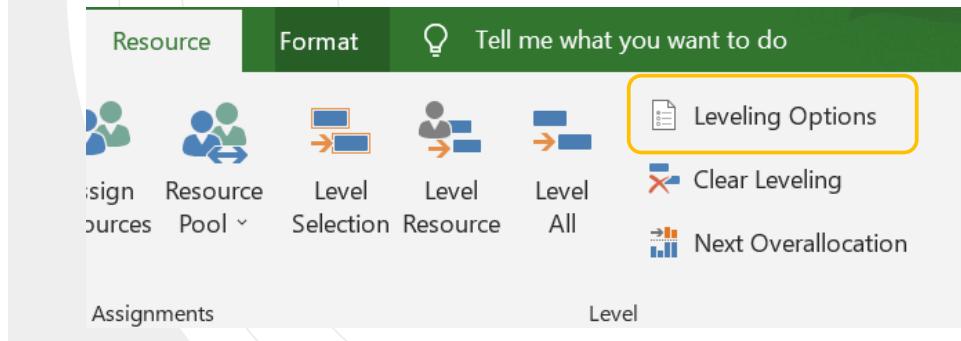


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MS Project

Resource leveling

- Task priorities
- Project priorities
- Leveling options



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MS Project

Nivelamento de recursos

The screenshot shows a Microsoft Project Gantt chart. At the top, there is a table with columns: Task Mode, Task Name, Duration, Predecessors, Resource Names, Leveling Delay, Priority, and a date range from April 2022 (23, 31, 03, 06, 09). The 'Leveling Delay' column is highlighted with a yellow box. Below the table is the Microsoft Project ribbon with the 'Format' tab selected. The 'Leveling Options' button is also highlighted with a yellow box.

Task Mode	Task Name	Duration	Predecessors	Resource Names	Leveling Delay	Priority	April 2022
	T0	1 day			0 edays	500	23
	T6	5 days	1	B	0 edays	50	31
	T7	5 days	1	B;A	0 edays	500	03
	T8	5 days	1	B	0 edays	100	06

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MS Project

Resource leveling

The screenshot shows the Microsoft Project ribbon with the 'Resource' tab selected. Below the ribbon, there are several buttons for managing resources: 'Assign Resources', 'Resource Pool', 'Level Selection', 'Level Resource', 'Level All', 'Level Options', 'Clear Leveling', and 'Next Overallocation'. A callout bubble highlights the 'Leveling Options' button.

Task Mode	Task Name	Duration	Predecessors	Resource Names	Leveling Delay	Priority	Date
	T0	1 day			0 edays	500	23
●	T6	5 days	1	B	0 edays	50	31
●	T7	5 days	1	B;A	0 edays	500	03
●	T8	5 days	1	B	0 edays	100	06
							09

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MS Project

Nivelamento de recursos

The screenshot shows the 'Resource Leveling' dialog box. It includes sections for 'Leveling calculations' (set to 'Manual' basis 'Day by Day'), 'Leveling range for 'Project1'' (set to 'Level entire project' from 'Wed 30/03/22' to 'Wed 06/04/22'), and 'Resolving overallocations' (with a dropdown menu set to 'Priority, Standard'). Several checkboxes are present under 'Resolving overallocations': 'Level only within available slack' (unchecked), 'Leveling can adjust individual assignments on a task' (checked), 'Leveling can create splits in remaining work' (checked), 'Level resources with the proposed booking type' (unchecked), and 'Level manually scheduled tasks' (checked). At the bottom are buttons for 'Help', 'Clear Leveling...', 'Level All', 'OK', and 'Cancel'.

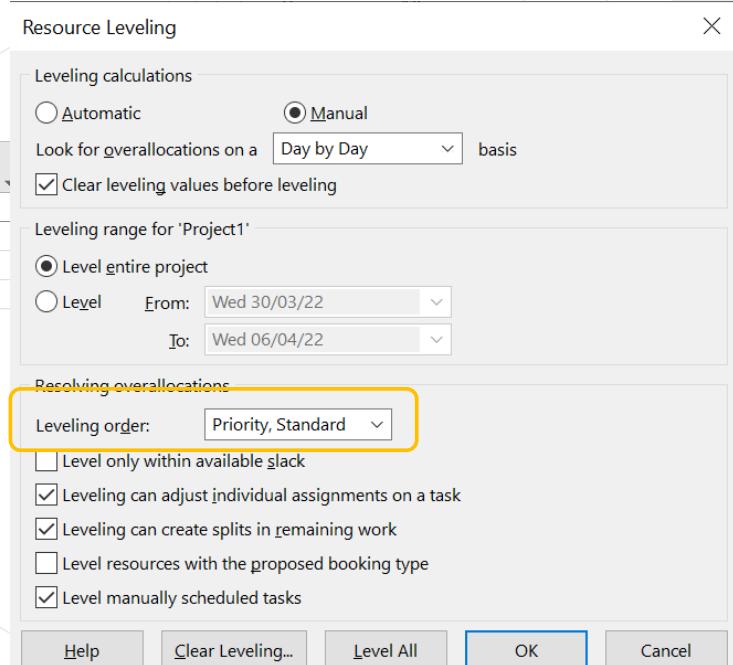
Task Mode	Task Name	Duration	Predecessors	Resource Names
	T0	1 day		
●	T6	5 days	1	B
●	T7	5 days	1	B;A
●	T8	5 days	1	B

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MS Project

Resource leveling

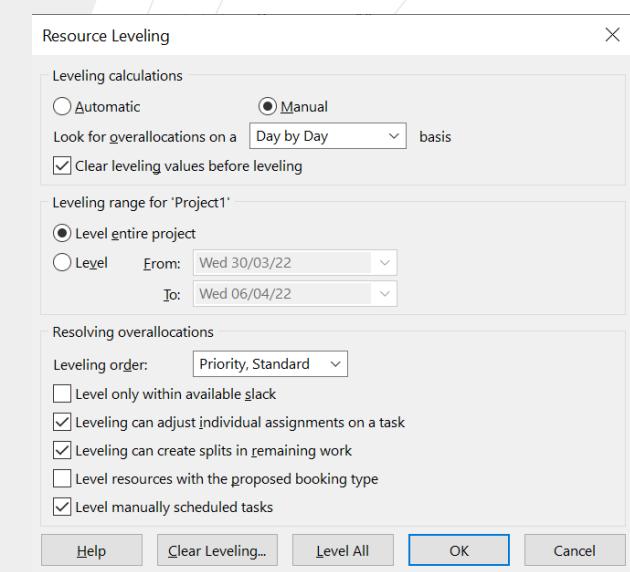
	Task Mode	Task Name	Duration	Predecessors	Resources Names
		T0	1 day		
●	→	T6	5 days	1	B
●	→	T7	5 days	1	B;A
●	→	T8	5 days	1	B



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MS Project

Nivelamento de recursos

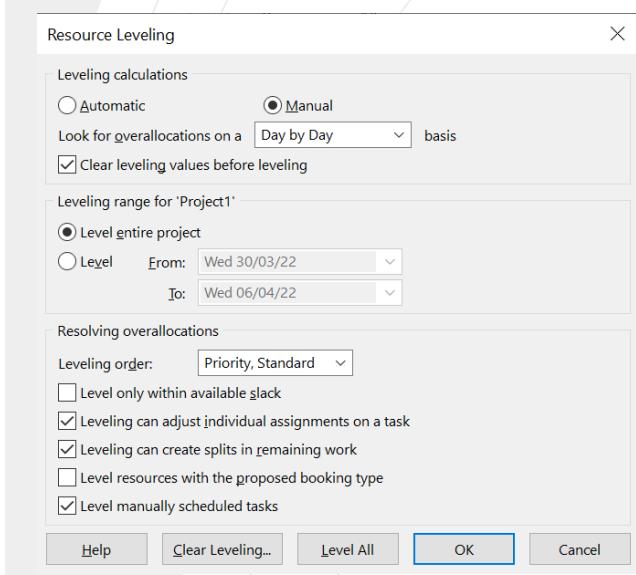


- Automatic** – Alterações feita de imediato pelo MS Project
- Manual** – Alterações feitas a pedido do utilizador
- Look for ...** – Identifica o nível mínimo que define a sobrealocação
- Clear leveling ...** – Antes de aplicar novo procedimento de nivelamento, remove nivelamentos anteriores
- Levelement range ...** – Permite escolher entre todo o projeto ou apenas um período temporal

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MS Project

Resource leveling

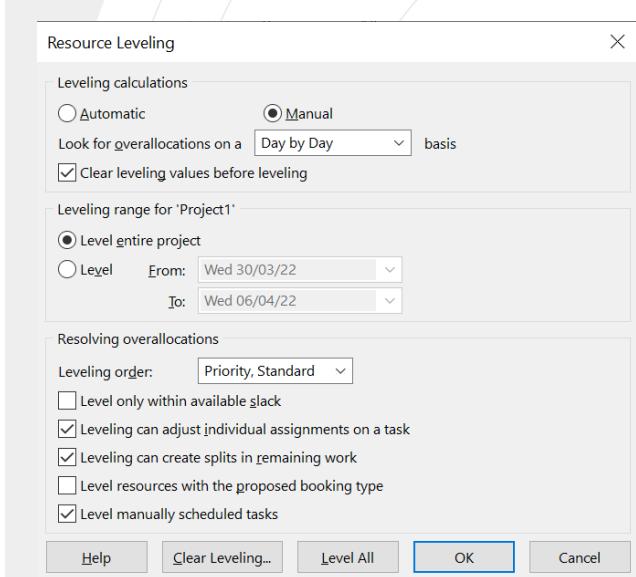


- Automatic** – Changes made immediately by MS Project
- Manual** – Changes made at the user's request
- Look for ...** – Identifies the minimum level that defines over-allocation
- Clear leveling ...** – Before applying new leveling procedure, remove previous leveling
- Leveling range ...** – Allows to choose between the entire project or just a time period

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MS Project

Nivelamento de recursos

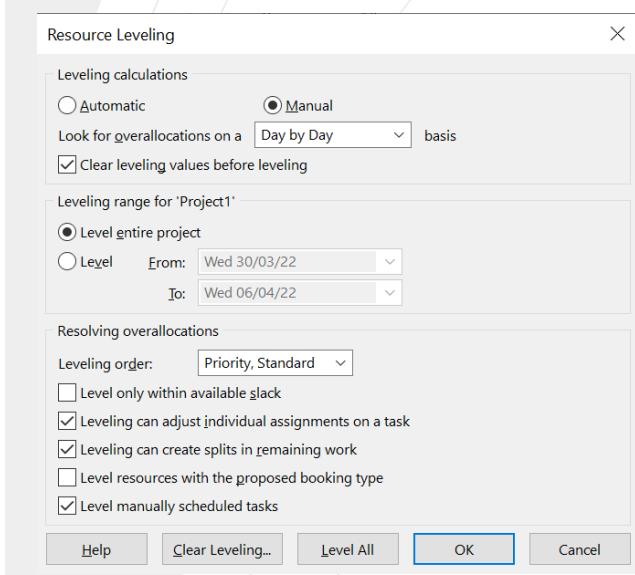


- Leveling order** – Define a ordem pela qual o nivelamento é aplicado
 - **ID Only** – As tarefas com menor ID são mais prioritárias
 - **Standard** – A prioridade tem em conta a folga (menor folga=>mais prioritário), data de início (mais tarde=>menos prioritária), prioridade das tarefas; e restrições que possam existir
 - **Priority, Standard** – A prioridade é tida como fator mais relevante (quant maior o valor, mais prioritária). Em caso de igualdade, aplica-se o Standard

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MS Project

Resource leveling

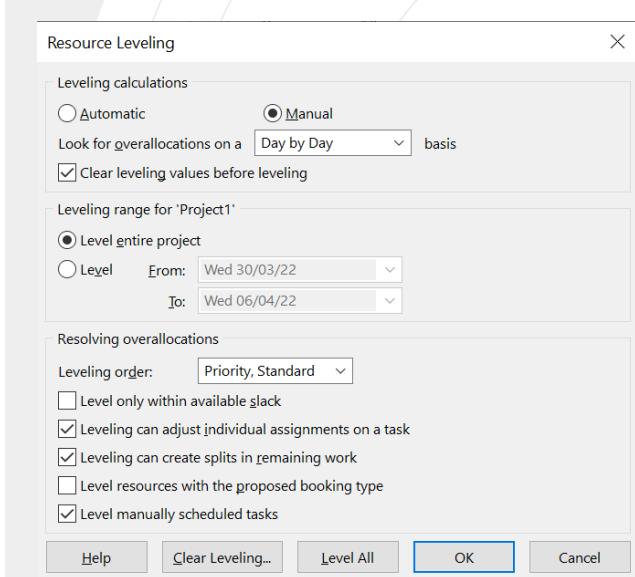


- **Leveling order** – Sets the order in which leveling is applied
- **ID Only** – Tasks with lower ID are given higher priority
- **Standard** – Priority takes into account slack (lowest slack=>most priority), start date (later=>least priority), task priority; and restrictions that may exist
- **Priority, Standard** – Priority is taken as the most relevant factor (the higher the value, the more priority). In case of equality, the Standard applies

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MS Project

Nivelamento de recursos

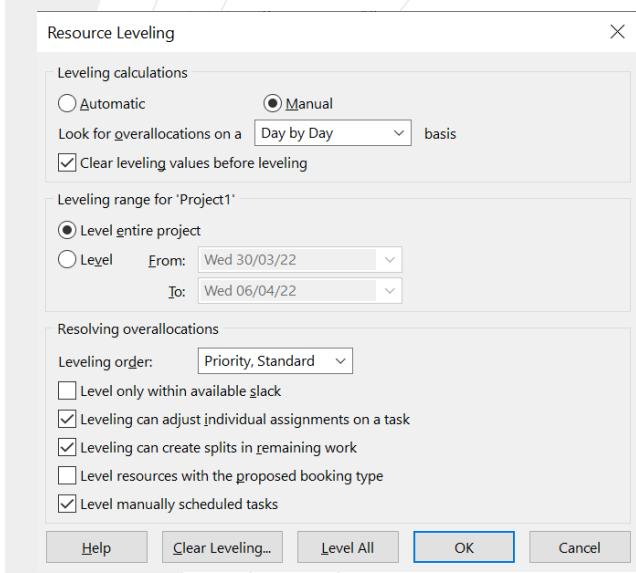


- **Level only ...** – O nivelamento faz-se dentro da folga existente – impedindo que a data de término do projeto seja adiada
- **Leveleing can adjust ...** – Permite que o nivelamento seja ajustado quando um recurso trabalha em uma tarefa independente dos outros recursos que trabalham na mesma tarefa.
- **Leveleing can create ...** – Permite interromper tarefas criando divisões no trabalho restante em tarefas ou atribuições de recursos.

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MS Project

Resource leveling

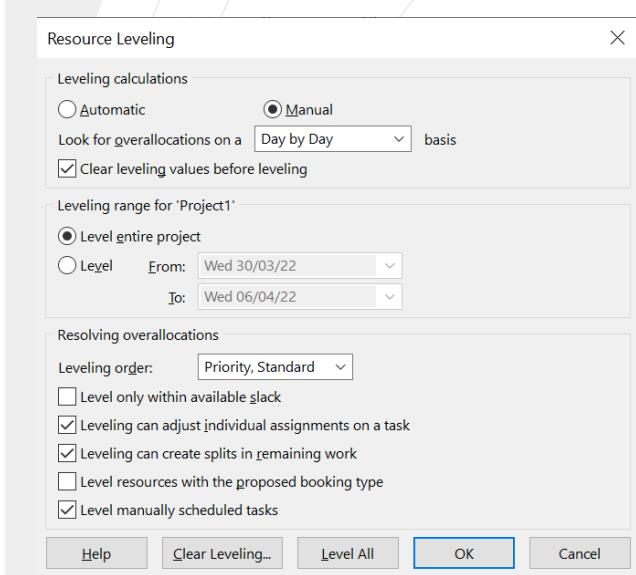


- **Level only ...** – Leveling is done within the existing gap – preventing the project finish date from being delayed
- **Leveleing can adjust ...** – Allows the leveling to be adjusted when a resource works on a task independently of other resources working on the same task.
- **Leveleing can create ...** – Allows to interrupt tasks by creating splits in the remaining work into tasks or resource assignments.

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MS Project

Nivelamento de recursos

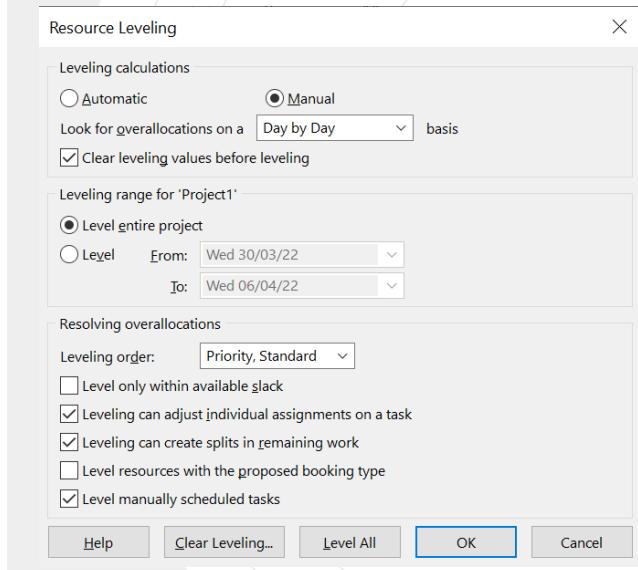


- **Level resources with ...** – Inclui tarefas usando recursos propostos, bem como recursos confirmados no processo de nivelamento.
- **Level manually ...** – Permite que o nivelamento se faça sobre tarefas agendadas manualmente.

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MS Project

Resource leveling

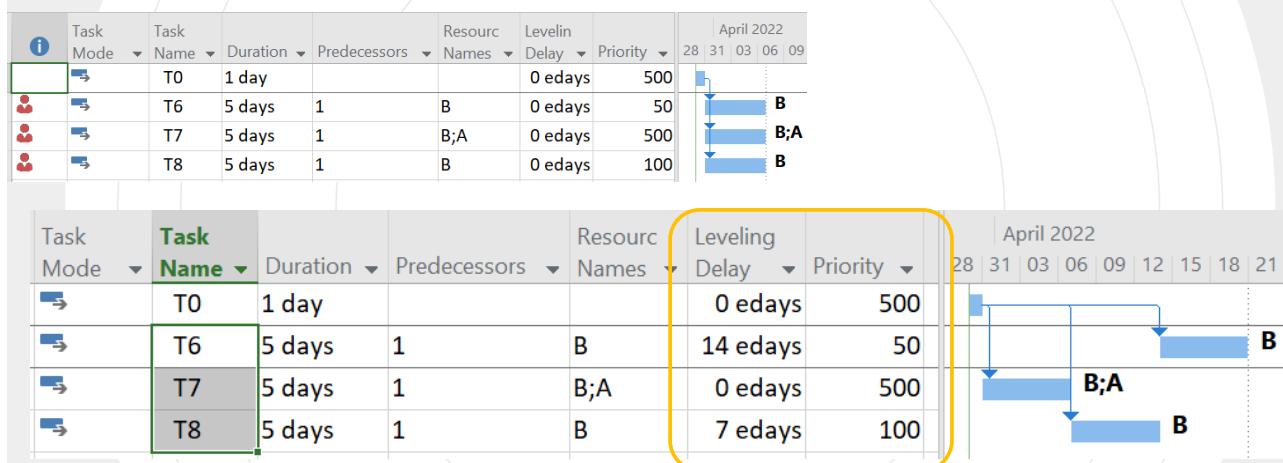


- **Level resources with ...** – Includes tasks using proposed resources as well as resources confirmed in the leveling process.
- **Level manually ...** – Allows leveling to be done on manually scheduled tasks.

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MS Project

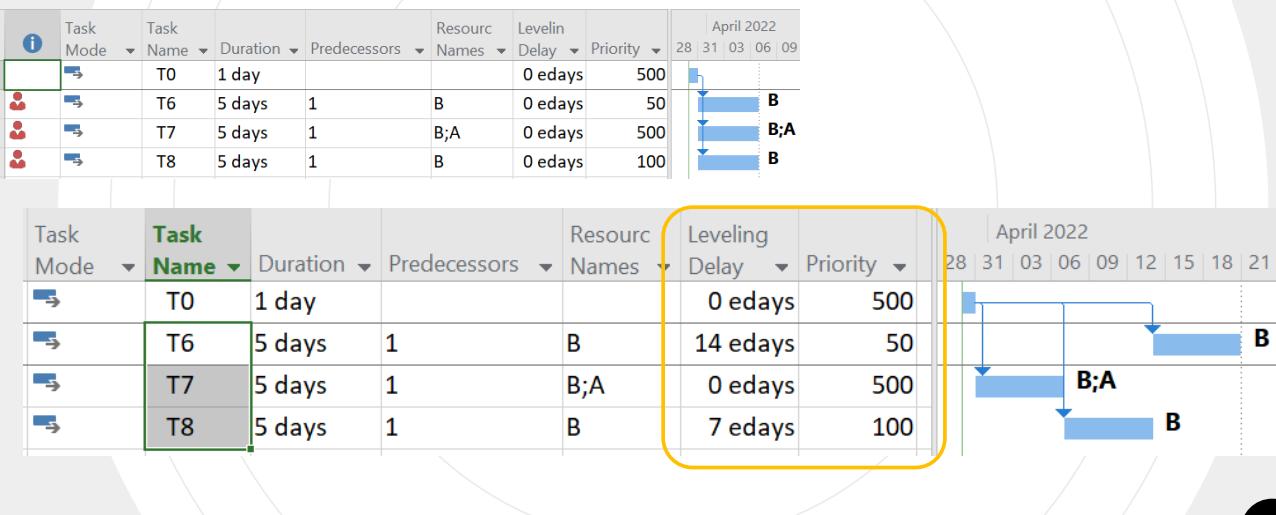
Nivelamento de recursos



60

MS Project

Resource leveling



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MS Project

Alternativas ao nivelamento de recursos

- Substituir o recurso sobre alocado por outros com disponibilidade.
- Substituir o recurso sobre alocado por outros mais eficazes (capazes de fazerem o mesmo em menos tempo)
- Rever as dependências, removendo as que possam não ser estritamente necessárias (poderá ser solução)
- Revisão do âmbito do projeto, no sentido de eliminar tarefas
- Aumentar a duração das tarefas sobre alocadas, distribuindo a carga de trabalho, reduzindo assim os número/quantidade de recursos necessários
- Se possível, reduzir a carga de trabalho, para assim reduzir os recursos necessários
- Aumentar o número de horas de trabalho/dia dos recursos sobre alocados

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MS Project

Alternatives to resource leveling

- Replace the overallocated resource with available ones.
- Replace the overallocated resource with more effective ones (able to do the same in less time)
- Review dependencies, removing those that may not be strictly necessary
- Review the scope of the project, in order to eliminate tasks
- Increase the duration of overallocated tasks, distributing the workload, thus reducing the number/amount of resources needed
- If possible, reduce the workload, in order to reduce the resources needed
- Increase the number of work hours/day of over-allocated resources
- Adopt other alternatives (outsourcing, more efficient tools, ...)

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MS Project

Tipo de tarefa

Task Information

X

General | Predecessors | Resources | Advanced | Notes | Custom Fields |

Name: T4 Duration: 4 days Estimated

Constrain task

Deadline: NA

Constraint type: As Soon As Possible Constraint date: NA

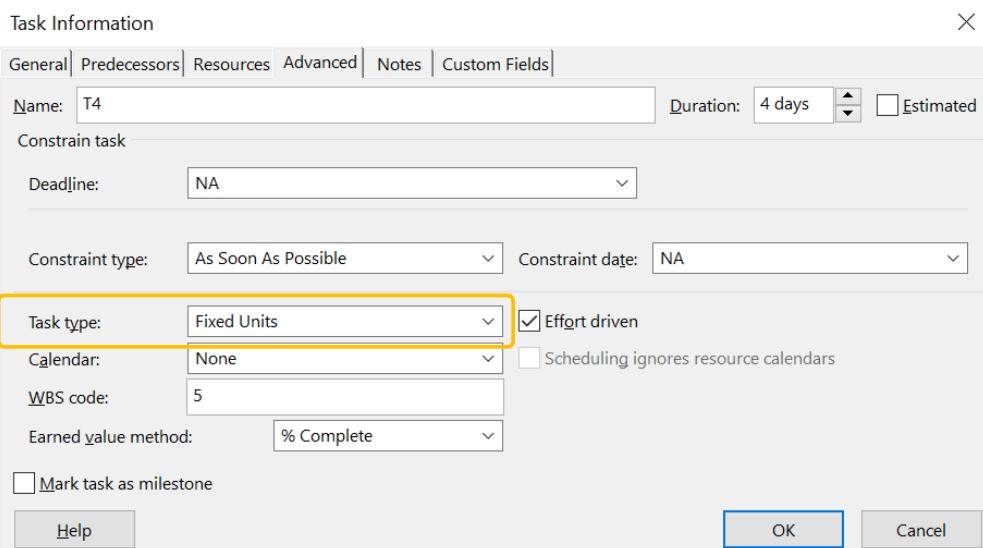
Task type: Fixed Units Effort driven
Calendar: None Scheduling ignores resource calendars

WBS code: 5

Earned value method: % Complete

Mark task as milestone

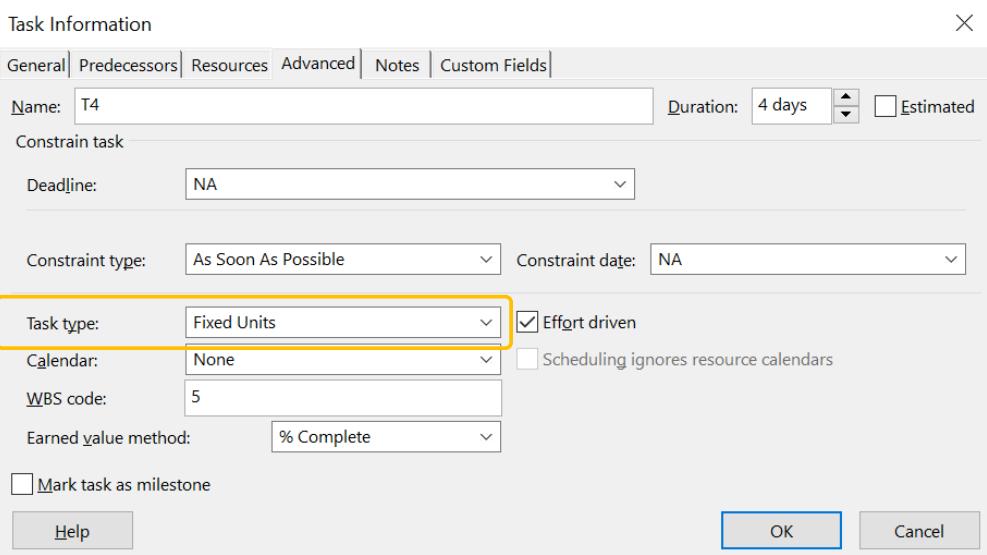
Help OK Cancel



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MS Project

Task type



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MS Project

Tipo de tarefa

- MS Project considera que o **Trabalho = Duração x Unidades** de atribuição
- **Unidades fixas** – Pressupõe que o número de recursos a utilizar é conhecido e inalterável, independentemente da duração da tarefa
- **Trabalho fixo** – Pressupõe que a quantidade de trabalho é fixa, mesmo em caso de alteração da duração ou unidades.
- **Duração fixa** – Pressupõe que a duração da tarefa é fixa, independentemente das unidades afetas

	Alterando Unidades	Alterando a duração	Alterando o trabalho
Unidades fixas	Duração recalculada	Trabalho recalculado	Duração recalculada
Trabalho fixo	Duração recalculada	Unidades recalculadas	Duração recalculada
Duração fixa	Trabalho recalculado	Trabalho recalculado	Unidades recalculadas

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MS Project

Task type

- MS Project assumes that **Work = Duration x Assignment Units**
- **Fixed Units** – Assumes that the number of resources to use is known and unalterable, regardless of task duration
- **Fixed work** – Assumes that the amount of work is fixed, even if duration or units change
- **Fixed Duration** – Assumes that the duration of the task is fixed regardless of affected units

	Changing Units	Changing duration	Changing work
Fixed units	Duration recomputed	Work recomputed	Duration recomputed
Fixed work	Duration recomputed	Units recomputed	Duration recomputed
Fixed duration	Work recomputed	Work recomputed	Units recomputed

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MS Project

Tipo de tarefa – Unidades Fixas

- Por omissão, as tarefas são do tipo Unidades Fixas
- Com a afetação da primeira unidade, o trabalho fica definido (Duração x Unidade)
- Ao mudar as unidades, o MS Project facilita três opções:

You added resources to this task. Do you want to:

- Reduce duration but keep the same amount of work.
- Increase the amount of work but keep the same duration.
- Reduce the hours resources work per day (units), but keep the same duration and work.

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MS Project

Task type – Fixed units

- By default, tasks are of type Fixed Units
- With the allocation of the first unit, the work is defined (Duration x Unit)
- When changing units, MS Project provides three options:

You added resources to this task. Do you want to:

- Reduce duration but keep the same amount of work.
- Increase the amount of work but keep the same duration.
- Reduce the hours resources work per day (units), but keep the same duration and work.

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MS Project

Tipo de tarefa – Unidades Fixas

- Reduzir a duração mantendo a quantidade de trabalho
 - A duração é reduzida na proporção inversa dos recursos (unidades) afetas à tarefa
- Aumentar a quantidade de trabalho, mantendo a duração
 - A realização da tarefa, passou a requerer mais trabalho
- Reduzir as horas de trabalho por dia dos recursos, mantendo a mesma duração e quantidade de trabalho
 - O trabalho é dividido (de princípio uniformemente) pelos recursos (unidades) afetas à tarefa

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MS Project

Task type – Fixed units

- Reduce the duration while maintaining the amount of work
 - The duration is reduced in inverse proportion to the resources (units) allocated to the task

- Increase the amount of work while maintaining duration
 - Carrying out the task required more work.

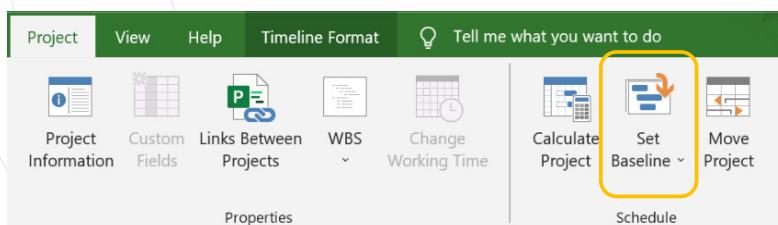
- Reduce the work hours per day of resources, keeping the same duration and amount of work
 - The work is divided (in principle evenly) by the resources (units) allocated to the task

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MS Project

Baselines

- Baseline (base de referência) – corresponde à situação num dado momento temporal do projeto
- Presta-se a definir pontos (bases) de referência para avaliação da execução do projeto
- Engloba dados sobre tarefas, recursos, custos, afetações, trabalho realizado, entre outros.

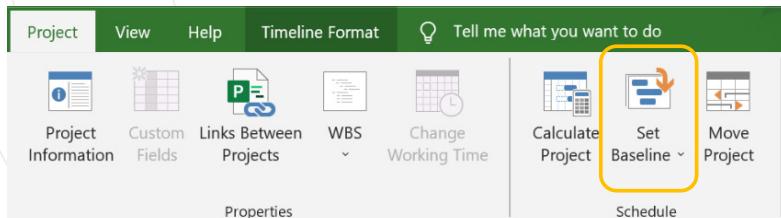


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MS Project

Baselines

- ❑ Baseline – corresponds to the situation at a given time point in the project
- ❑ It lends itself to defining points (bases) of reference for evaluating the execution of the project
- ❑ It includes data on tasks, resources, costs, allocations, work performed, among others.



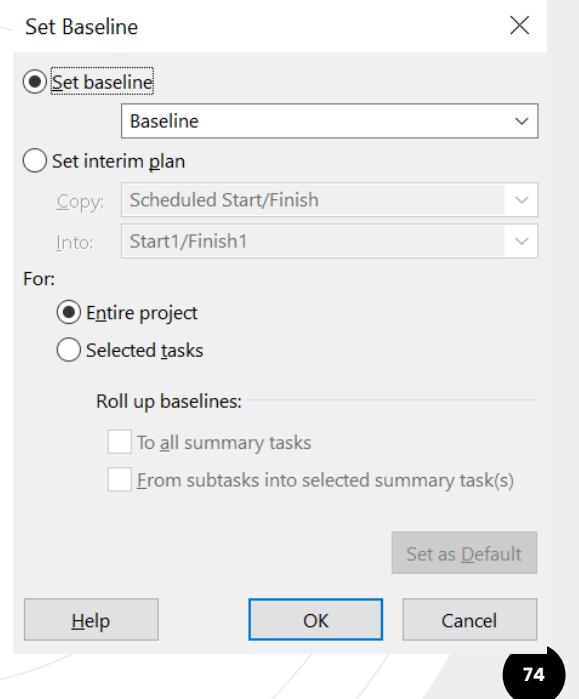
73

MS Project

Baselines

- ❑ Para lá do baseline por omissão, há mais 10 baselines disponíveis por projeto
- ❑ São quase 20 os campos salvaguardados por baseline, designadamente:

Baseline Budget Cost
Baseline Budget Work
Baseline Cost
Baseline Deliverable Finish
Baseline Deliverable Start
Baseline Duration
Baseline Estimated Duration
Baseline Estimated Finish
Baseline Estimated Start
Baseline Finish
Baseline Fixed Cost
Baseline Fixed Cost Accrual
Baseline Start
Baseline Work



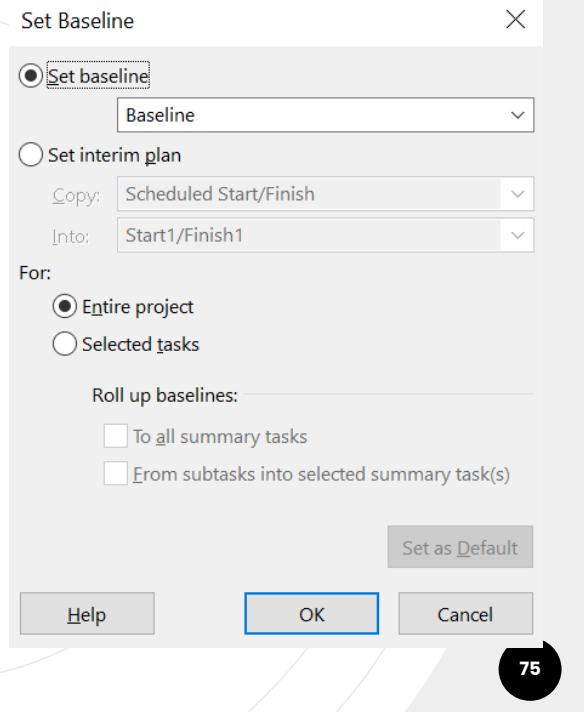
74

MS Project

Baselines

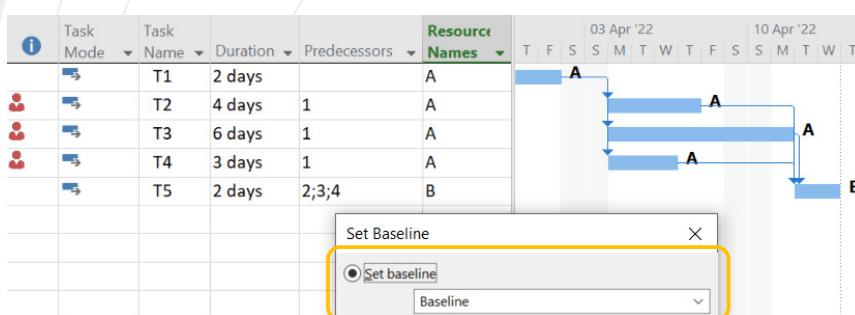
- ❑ In addition to the default baseline, there are 10 more baselines available per project.
- ❑ There are almost 20 fields safeguarded by baseline, namely:

Baseline Budget Cost
Baseline Budget Work
Baseline Cost
Baseline Deliverable Finish
Baseline Deliverable Start
Baseline Duration
Baseline Estimated Duration
Baseline Estimated Finish
Baseline Estimated Start
Baseline Finish
Baseline Fixed Cost
Baseline Fixed Cost Accrual
Baseline Start
Baseline Work



MS Project

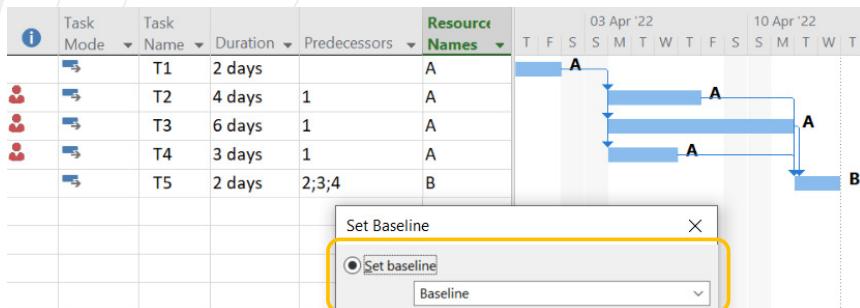
Baselines - Exemplo



- ❑ Planeamento atual afeto à Baseline por omissão

MS Project

Baselines - Example

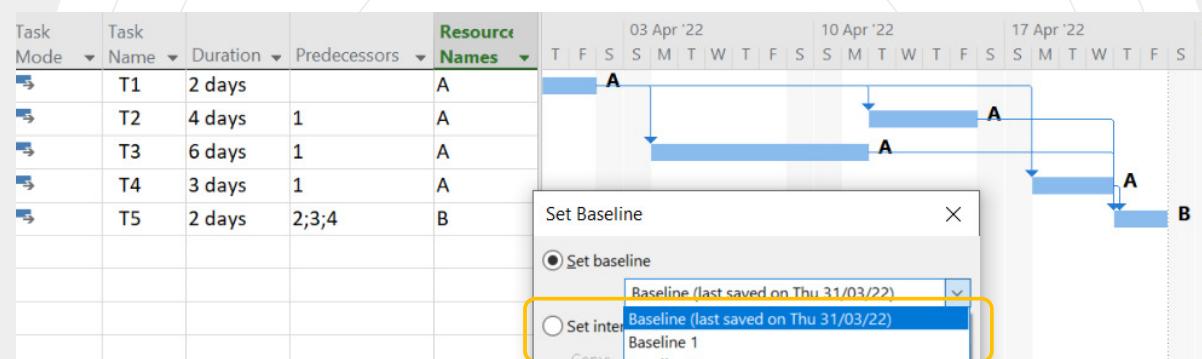


- Current planning assigned to Baseline by default

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MS Project

Baselines - Exemplo

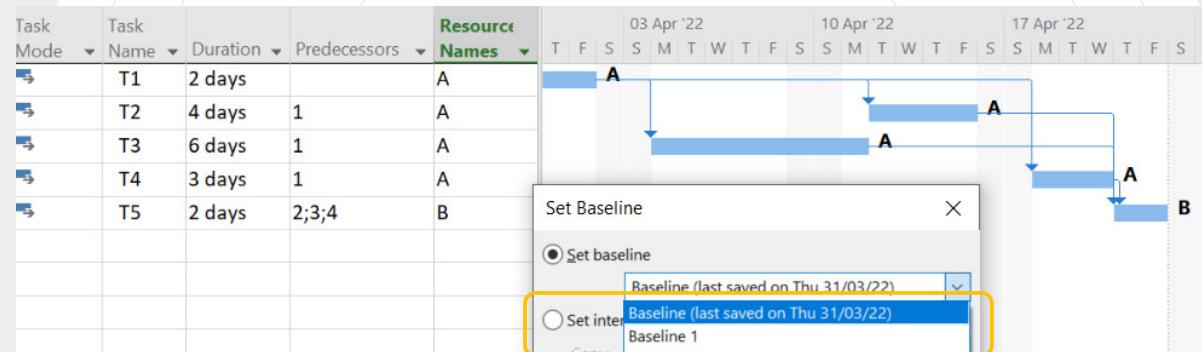


- Associa-se o novo planeamento ao Baseline1

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MS Project

Baselines – Example



- Associate the new schedule with Baseline1

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MS Project

Baselines – Exemplo

- Comparação entre baselines

Task Mode	Task Name	Duration	Predecessors	Resource Names	Baseline Duration	Baseline1 Duration	Baseline Start	Baseline1 Start
→	T1	2 days		A	2 days	2 days	Thu 31/03/22	Thu 31/03/22
→	T2	4 days	1	A	4 days	4 days	Mon 04/04/22	Tue 12/04/22
→	T3	6 days	1	A	6 days	6 days	Mon 04/04/22	Mon 04/04/22
→	T4	3 days	1	A	3 days	3 days	Mon 04/04/22	Mon 18/04/22
→	T5	2 days	2;3;4	B	2 days	2 days	Tue 12/04/22	Thu 21/04/22

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MS Project

Baselines – Example

- Comparison between baselines

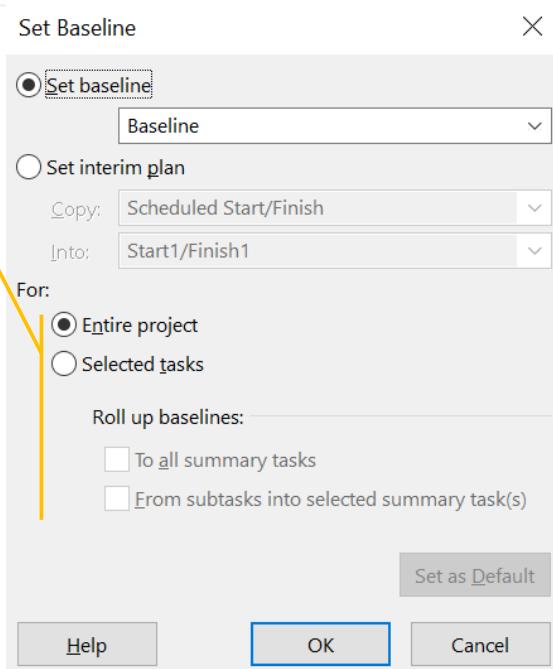
Task Mode	Task Name	Duration	Predecessors	Resource Names	Baseline Duration	Baseline1 Duration	Baseline Start	Baseline1 Start
→	T1	2 days		A	2 days	2 days	Thu 31/03/22	Thu 31/03/22
→	T2	4 days	1	A	4 days	4 days	Mon 04/04/22	Tue 12/04/22
→	T3	6 days	1	A	6 days	6 days	Mon 04/04/22	Mon 04/04/22
→	T4	3 days	1	A	3 days	3 days	Mon 04/04/22	Mon 18/04/22
→	T5	2 days	2;3;4	B	2 days	2 days	Tue 12/04/22	Thu 21/04/22

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MS Project

Baselines

- As baselines podem ser definidas para todo o projeto ou para determinadas tarefas
- **Roll up baselines to all ...** – inclui as tarefas agregadoras, compatibilizando com os valores das sub tarefas.
- **Roll up baselines from ...** – os dados as tarefas agregadoras não incluem os dados das sub tarefas já salvaguardadas em baselines anteriores

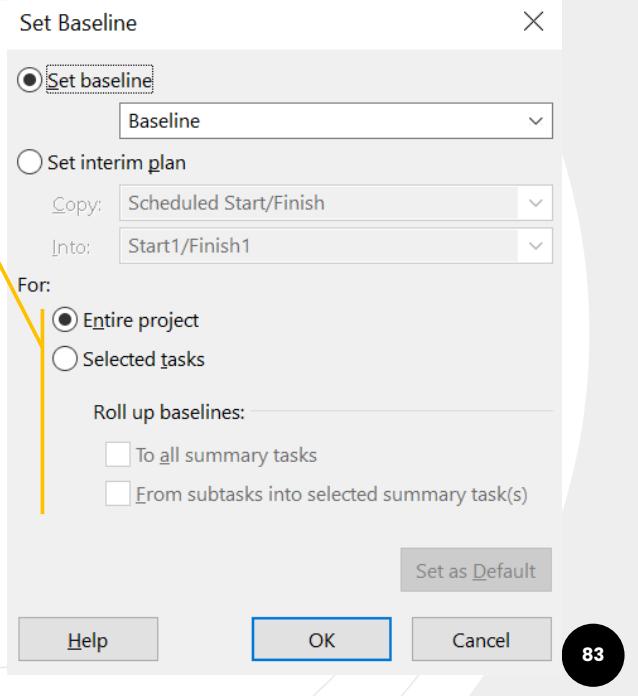


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MS Project

Baselines

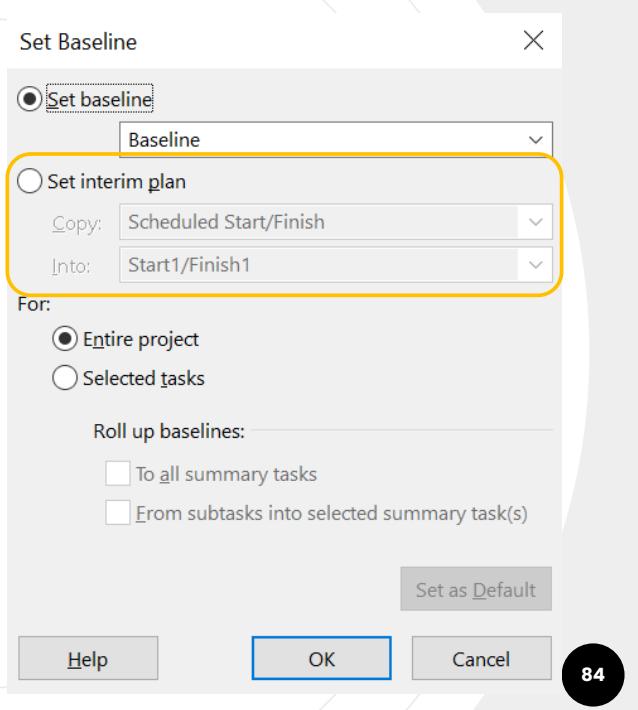
- Baselines can be defined for the entire project or for specific tasks.
- Roll up baselines to all ...** - includes the aggregating tasks, making it compatible with the values of the sub tasks.
- Roll up baselines from ...** - data from aggregator tasks does not include data from subtasks already backed up in previous baselines



MS Project

Interim plans

- São uma versão reduzida de baselines, que incluem essencialmente as Datas Atuais de Início e de Conclusão
- Prestam-se a comparações mais ligeiras do estado de execução do projeto
- Para lá do Internal plan de base, há mais 10 que podem ser utilizados



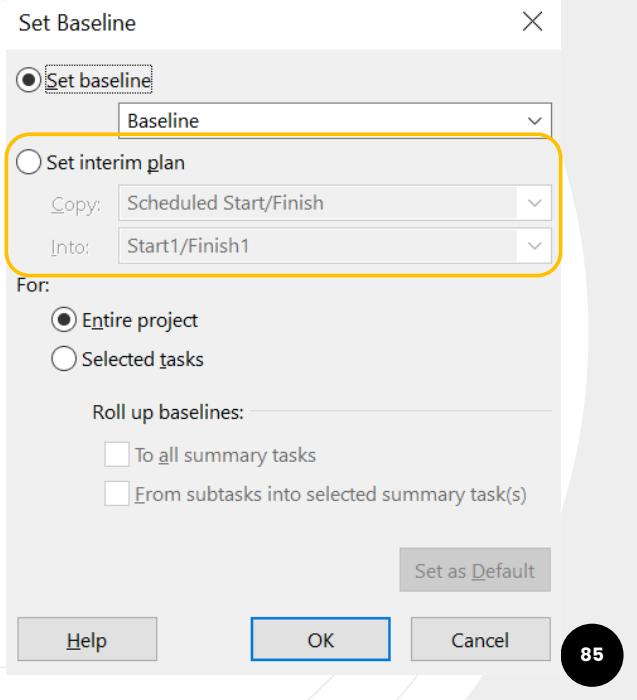
83

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MS Project

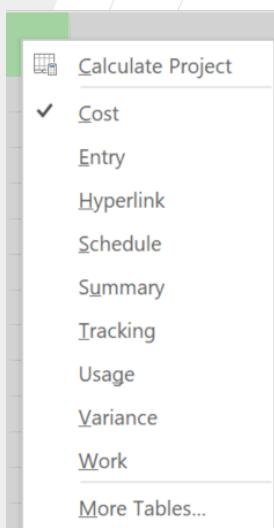
Interim plans

- ❑ They are a shortened version of baselines, which essentially include the Current Start and End Dates
- ❑ They lend themselves to lighter comparisons of the state of execution of the project
- ❑ In addition to the base Internal plan, there are 10 more that can be used



MS Project

Vistas pré definidas

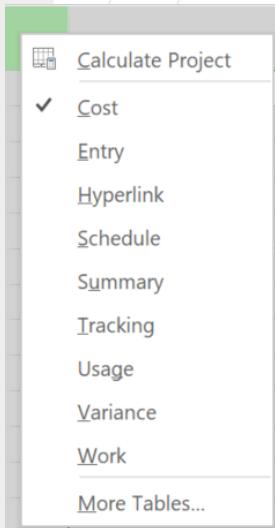


- ❑ **Entry:** vista por omissão, que contém essencialmente campos relativos à duração, precedências, recursos e data de início e de conclusão.

Task Mode	Task Name	Duration	Predecessors	Start	Finish	Resource Names
→	T1	2 days		Thu 31/03/22	Fri 01/04/22	A
→	T2	4 days	1	Tue 12/04/22	Fri 15/04/22	A
→	T3	6 days	1	Mon 04/04/22	Mon 11/04/22	A
→	T4	3 days	1	Mon 18/04/22	Wed 20/04/22	A
→	T5	2 days	2;3;4	Thu 21/04/22	Fri 22/04/22	B
→	T6	5 days	5	Mon 25/04/22	Fri 29/04/22	
→	T7	2 days		Mon 25/04/22	Tue 26/04/22	B
→	T8	3 days	7	Wed 27/04/22	Fri 29/04/22	B

MS Project

Predefined views



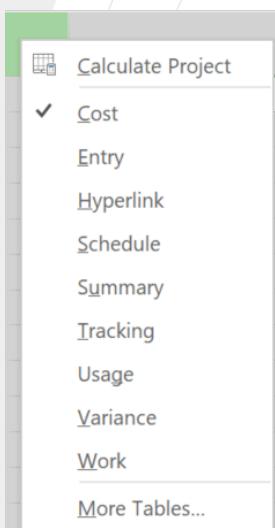
- ❑ **Entry:** view by default, which essentially contains fields related to duration, precedence, resources and start and end date

Task Mode	Task Name	Duration	Predecessors	Start	Finish	Resource Names
→	T1	2 days		Thu 31/03/22	Fri 01/04/22	A
→	T2	4 days	1	Tue 12/04/22	Fri 15/04/22	A
→	T3	6 days	1	Mon 04/04/22	Mon 11/04/22	A
→	T4	3 days	1	Mon 18/04/22	Wed 20/04/22	A
→	T5	2 days	2;3;4	Thu 21/04/22	Fri 22/04/22	B
→	T6	5 days	5	Mon 25/04/22	Fri 29/04/22	
→	T7	2 days		Mon 25/04/22	Tue 26/04/22	B
→	T8	3 days	7	Wed 27/04/22	Fri 29/04/22	B

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MS Project

Vistas pré definidas



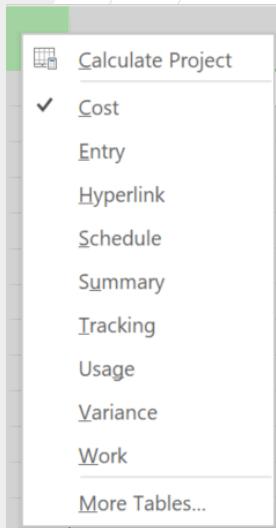
- ❑ **Cost:** vista das tarefas por custos previstos, operacionais, incluindo relativos à linha de referência

Task Name	Fixed Cost	Accrual	Total Cost	Baseline	Variance	Actual	Remaining
T1	0.00 €	Prorated	320.00 €	0.00 €	320.00 €	192.00 €	128.00 €
T2	0.00 €	Prorated	480.00 €	0.00 €	480.00 €	0.00 €	480.00 €
T3	0.00 €	Prorated	960.00 €	0.00 €	960.00 €	0.00 €	960.00 €
T4	0.00 €	Prorated	640.00 €	0.00 €	640.00 €	0.00 €	640.00 €
T5	0.00 €	Prorated	480.00 €	0.00 €	480.00 €	0.00 €	480.00 €
T6	0.00 €	Prorated	160.00 €	0.00 €	160.00 €	0.00 €	160.00 €

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MS Project

Predefined views



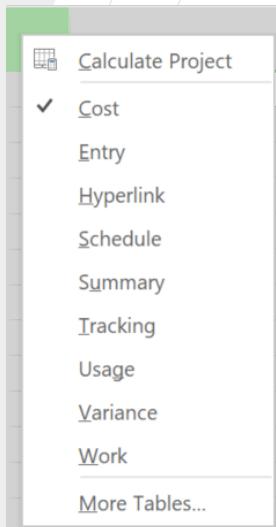
- **Cost:** view of tasks by expected, operational costs, including those relative to the baseline

Task Name	Fixed Cost	Accrual	Total Cost	Baseline	Variance	Actual	Remaining
T1	0.00 €	Prorated	320.00 €	0.00 €	320.00 €	192.00 €	128.00 €
T2	0.00 €	Prorated	480.00 €	0.00 €	480.00 €	0.00 €	480.00 €
T3	0.00 €	Prorated	960.00 €	0.00 €	960.00 €	0.00 €	960.00 €
T4	0.00 €	Prorated	640.00 €	0.00 €	640.00 €	0.00 €	640.00 €
T5	0.00 €	Prorated	480.00 €	0.00 €	480.00 €	0.00 €	480.00 €
T6	0.00 €	Prorated	160.00 €	0.00 €	160.00 €	0.00 €	160.00 €

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MS Project

Vistas pré definidas



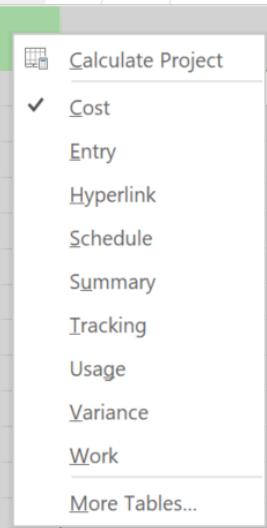
- **Schedule:** vista com datas e folgas (data de início/fim, data mais tarde de início/fim, folga relativa e folga absoluta)

Task Mode	Task Name	Start	Finish	Late Start	Late Finish	Free Slack	Total Slack
→	T1	Thu 31/03/22	Fri 01/04/22	Thu 31/03/22	Fri 01/04/22	0 days	0 days
→	T2	Tue 12/04/22	Fri 15/04/22	Fri 15/04/22	Wed 20/04/22	3 days	3 days
→	T3	Mon 04/04/22	Mon 11/04/22	Mon 11/04/22	Wed 20/04/22	7 days	7 days
→	T4	Mon 18/04/22	Wed 20/04/22	Mon 18/04/22	Wed 20/04/22	0 days	0 days
→	T5	Thu 21/04/22	Fri 22/04/22	Thu 21/04/22	Fri 22/04/22	0 days	0 days
→	T6	Mon 25/04/22	Fri 29/04/22	Mon 25/04/22	Fri 29/04/22	0 days	0 days
→	T7	Mon 25/04/22	Tue 26/04/22	Mon 25/04/22	Tue 26/04/22	0 days	0 days
→	T8	Wed 27/04/22	Fri 29/04/22	ed 27/04/22	Fri 29/04/22	0 days	0 days

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MS Project

Predefined views



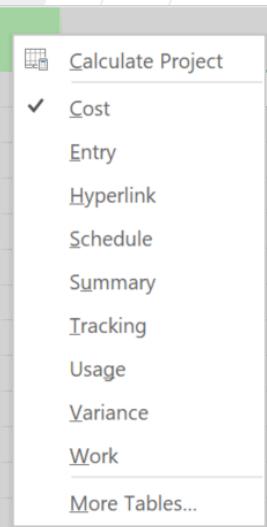
- ☐ **Schedule:** view with dates and slack (start/end date, latest start/end date, relative slack and absolute slack)

Task Mode	Task Name	Start	Finish	Late Start	Late Finish	Free Slack	Total Slack
→	T1	Thu 31/03/22	Fri 01/04/22	Thu 31/03/22	Fri 01/04/22	0 days	0 days
→	T2	Tue 12/04/22	Fri 15/04/22	Fri 15/04/22	Fri 20/04/22	3 days	3 days
→	T3	Mon 04/04/22	Mon 11/04/22	Mon 13/04/22	Fri 20/04/22	7 days	7 days
→	T4	Mon 18/04/22	Wed 20/04/22	Mon 18/04/22	Ed 20/04/22	0 days	0 days
→	T5	Thu 21/04/22	Fri 22/04/22	Thu 21/04/22	Fri 22/04/22	0 days	0 days
→	T6	Mon 25/04/22	Fri 29/04/22	Mon 25/04/22	Fri 29/04/22	0 days	0 days
→	T7	Mon 25/04/22	Tue 26/04/22	Mon 25/04/22	Tue 26/04/22	0 days	0 days
→	T8	Wed 27/04/22	Fri 29/04/22	Ed 27/04/22	Fri 29/04/22	0 days	0 days

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MS Project

Vistas pré definidas



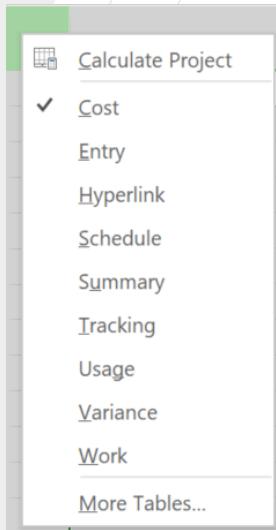
- ☐ **Summary:** vista sumária do plano, com duração, data início/fim, custos, horas (trabalho) e % de conclusão

Task Mode	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
→	T1	2 days	Thu 31/03/22	Fri 01/04/22	0%	0.00 €	16 hrs
→	T2	4 days	Tue 12/04/22	Fri 15/04/22	0%	0.00 €	32 hrs
→	T3	6 days	Mon 04/04/22	Mon 11/04/22	0%	0.00 €	48 hrs
→	T4	3 days	Mon 18/04/22	Wed 20/04/22	0%	0.00 €	24 hrs
→	T5	2 days	Thu 21/04/22	Fri 22/04/22	0%	0.00 €	16 hrs
→	T6	5 days	Mon 25/04/22	Fri 29/04/22	0%	0.00 €	40 hrs
→	T7	2 days	Mon 25/04/22	Tue 26/04/22	0%	0.00 €	16 hrs
→	T8	3 days	Wed 27/04/22	Fri 29/04/22	0%	0.00 €	24 hrs

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MS Project

Predefined views



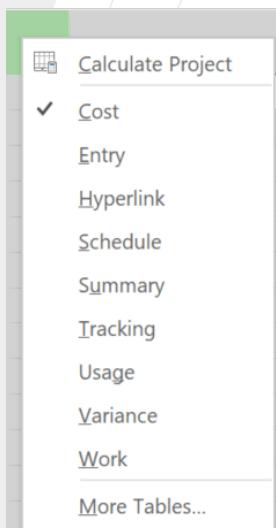
- **Summary:** summary view of the plan, with duration, start/end date, costs, hours (work) and % complete

Task Mode	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
▶	T1	2 days	Thu 31/03/22	Fri 01/04/22	0%	0.00 €	16 hrs
▶	T2	4 days	Tue 12/04/22	Fri 15/04/22	0%	0.00 €	32 hrs
▶	T3	6 days	Mon 04/04/22	Mon 11/04/22	0%	0.00 €	48 hrs
▶	T4	3 days	Mon 18/04/22	Wed 20/04/22	0%	0.00 €	24 hrs
▶	T5	2 days	Thu 21/04/22	Fri 22/04/22	0%	0.00 €	16 hrs
▶	T6	5 days	Mon 25/04/22	Fri 29/04/22	0%	0.00 €	40 hrs
▶	T7	2 days	Mon 25/04/22	Tue 26/04/22	0%	0.00 €	16 hrs
▶	T8	3 days	Wed 27/04/22	Fri 29/04/22	0%	0.00 €	24 hrs

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MS Project

Vistas pré definidas



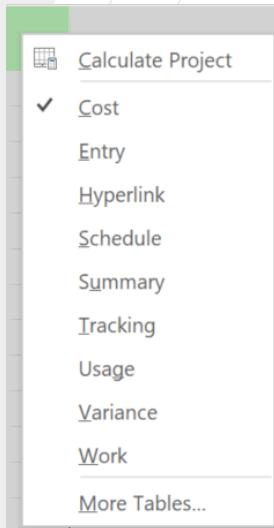
- **Tracking:** vista de seguimento do projeto, com data efetiva de início/fim; duração, custo e trabalho já realizado; trabalho por realizar; e % de concluída.

Task Name	Act. Start	Act. Finish	% Comp.	Phys. % Comp.	Act. Dur.	Rem. Dur.	Act. Cost	Act. Work
T1	Thu 31/03/22	NA	60%	0%	1.2 days	0.8 days	192.00 €	9.6 hrs
T2	NA	NA	0%	0%	0 days	4 days	0.00 €	0 hrs
T3	NA	NA	0%	0%	0 days	6 days	0.00 €	0 hrs
T4	NA	NA	0%	0%	0 days	3 days	0.00 €	0 hrs
T5	NA	NA	0%	0%	0 days	2 days	0.00 €	0 hrs
▶ T6	NA	NA	0%	0%	0 days	5 days	0.00 €	0 hrs
T7	NA	NA	0%	0%	0 days	2 days	0.00 €	0 hrs
T8	NA	NA	0%	0%	0 days	3 days	0.00 €	0 hrs

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MS Project

Predefined views



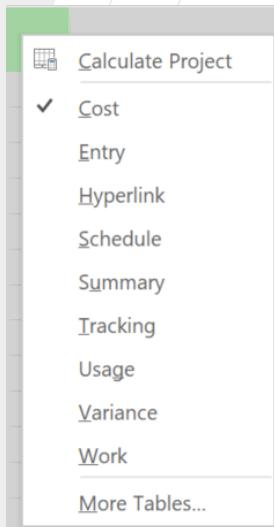
- ❑ **Tracking:** project follow-up view, with effective start/end date; duration, cost and work already done; work to be done; and % completed.

Task Name	Act. Start	Act. Finish	% Comp.	Phys. % Comp.	Act. Dur.	Rem. Dur.	Act. Cost	Act. Work
T1	Thu 31/03/22	NA	60%	0%	1.2 days	0.8 days	192.00 €	9.6 hrs
T2		NA	0%	0%	0 days	4 days	0.00 €	0 hrs
T3		NA	0%	0%	0 days	6 days	0.00 €	0 hrs
T4		NA	0%	0%	0 days	3 days	0.00 €	0 hrs
T5		NA	0%	0%	0 days	2 days	0.00 €	0 hrs
T6		NA	0%	0%	0 days	5 days	0.00 €	0 hrs
T7		NA	0%	0%	0 days	2 days	0.00 €	0 hrs
T8		NA	0%	0%	0 days	3 days	0.00 €	0 hrs

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MS Project

Vistas pré definidas



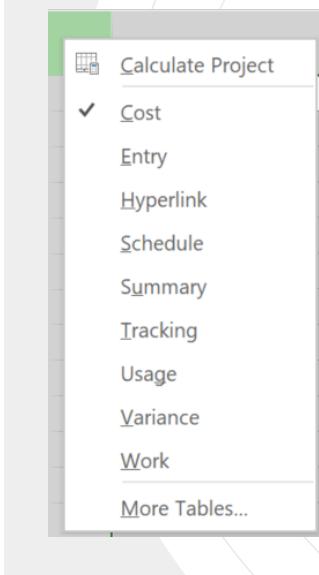
- ❑ **Work:** vista do trabalho, trabalho do baseline por omissão, trabalho realizado, trabalho em falta, % de trabalho realizado e variância

Task Name	Work	Baseline	Variance	Actual	Remaining	% W. Comp.
T1	16 hrs	16 hrs	0 hrs	9.6 hrs	6.4 hrs	60%
T2	32 hrs	32 hrs	0 hrs	0 hrs	32 hrs	0%
T3	48 hrs	48 hrs	0 hrs	0 hrs	48 hrs	0%
T4	24 hrs	24 hrs	0 hrs	0 hrs	24 hrs	0%
T5	16 hrs	16 hrs	0 hrs	0 hrs	16 hrs	0%
T6	40 hrs	0 hrs	40 hrs	0 hrs	40 hrs	0%
T7	16 hrs	0 hrs	16 hrs	0 hrs	16 hrs	0%
T8	24 hrs	0 hrs	24 hrs	0 hrs	24 hrs	0%

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MS Project

Predefined views



- ❑ **Work:** work view, default baseline work, work done, work to go, % work done, and variance

Task Name	Work	Baseline	Variance	Actual	Remaining	% W. Comp.
T1	16 hrs	16 hrs	0 hrs	9.6 hrs	6.4 hrs	60%
T2	32 hrs	32 hrs	0 hrs	0 hrs	32 hrs	0%
T3	48 hrs	48 hrs	0 hrs	0 hrs	48 hrs	0%
T4	24 hrs	24 hrs	0 hrs	0 hrs	24 hrs	0%
T5	16 hrs	16 hrs	0 hrs	0 hrs	16 hrs	0%
T6	40 hrs	0 hrs	40 hrs	0 hrs	40 hrs	0%
T7	16 hrs	0 hrs	16 hrs	0 hrs	16 hrs	0%
T8	24 hrs	0 hrs	24 hrs	0 hrs	24 hrs	0%

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MS Project

Campos

- ❑ **Critical:** Indica se a tarefa faz ou não parte do caminho crítico.
- ❑ **Budget Cost of Work Performed (BCWP):** também designado por Earned Value (EV), é o valor acumulado da percentagem concluída da tarefa, recurso ou atribuição, multiplicada pelos custos da fase temporal do baseline.
- ❑ **Budget Cost of Work Scheduled (BCWS):** O custo orçamentado do trabalho agendado (BCWS), também chamado de valor planeado (PV), é a soma do orçamento para todo o trabalho agendado a ser realizado em determinado período de tempo. Inclui o custo do trabalho anterior concluído e pode abordar um período específico de execução ou uma data no tempo.
- ❑ ...

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MS Project

Fields

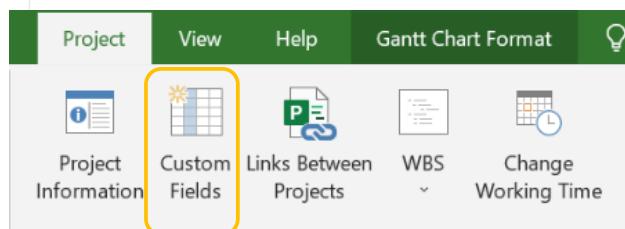
- Critical:** Indicates whether or not the task is part of the critical path.
- Budget Cost of Work Performed (BCWP):** also known as Earned Value (EV), it is the accumulated value of the percentage completed of the task, resource or assignment, multiplied by the costs of the baseline time phase.
- Budget Cost of Work Scheduled (BCWS):** Budgeted Cost of Work Scheduled (BCWS), also called the Planned Value (PV), is the sum of the budget for all work scheduled to be accomplished with a given time period. It also includes the cost of previous work completed and can address a specific period of performance or a date in time.
- ...

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MS Project

Campos customizaveis

- Date, Cost, Duration, Number, Flag, Start, Finish, Outline Code, Text ...

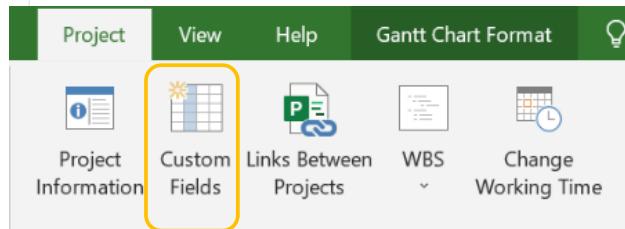


100

MS Project

Customizable fields

- Date, Cost, Duration, Number, Flag, Start, Finish, Outline Code, Text ...

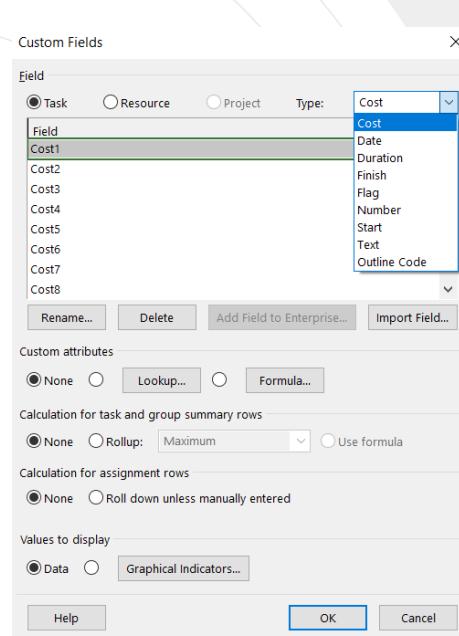


101

MS Project

Campos customizados

- Campos configuráveis pelo utilizador
- Há campos para Tarefa e para Recurso
- No MS Project Enterprise também há campos de projeto
- Os campos definíveis são Costx, Datex, Durationx, Finishx, Flagx, Numberx, Startx, Textx e Outline Codex, alguns com 10 possibilidades e outros com 30
- Os campos têm implicitamente um tipo (valor, texto, data, ...)

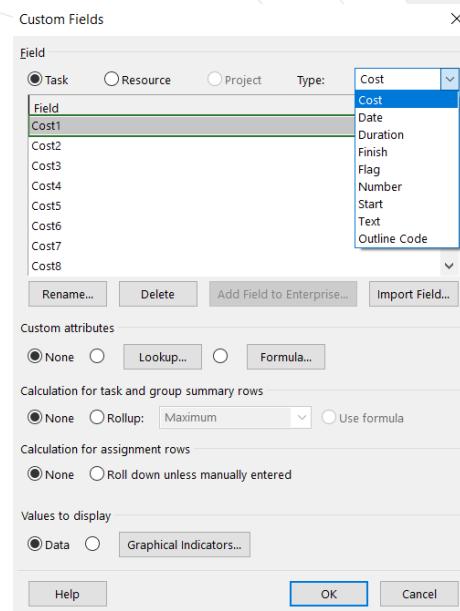


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MS Project

Customizable fields

- ❑ User configurable fields
- ❑ There are fields for Task and for Resource
- ❑ In MS Project Enterprise there are also project fields
- ❑ The definable fields are Costx, Datex, Durationx, Finishx, Flagx, Numberx, Startx, Textx and Outline Codex, some with 10 possibilities and others with 30
- ❑ Fields implicitly have a type (value, text, date, ...)

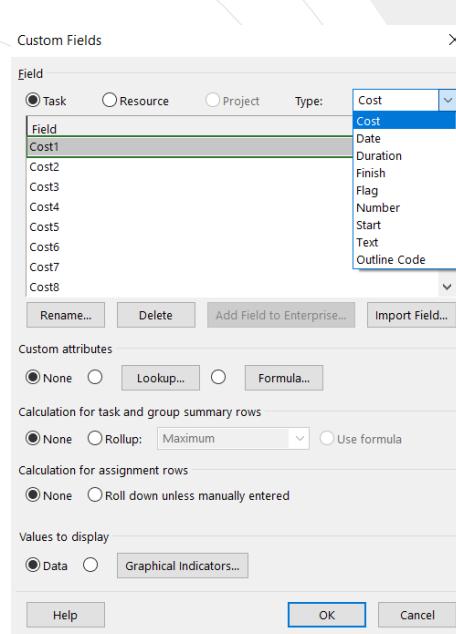


103

MS Project

Campos customizados

- ❑ Um campo de recurso, não obstante ter o mesmo nome de um campo de tarefa, são campos distintos
- ❑ O campo pode ser renomeado e configurado em termos de visualização em Rename

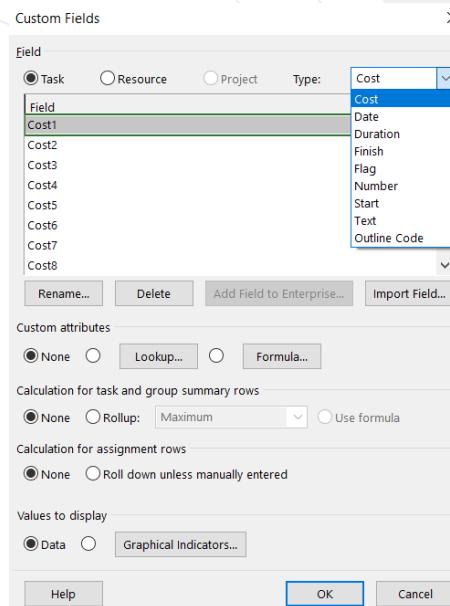


104

MS Project

Customizable fields

- ❑ A resource field, despite having the same name as a task field, are separate fields
- ❑ The field can be renamed and configured in terms of the view in Rename

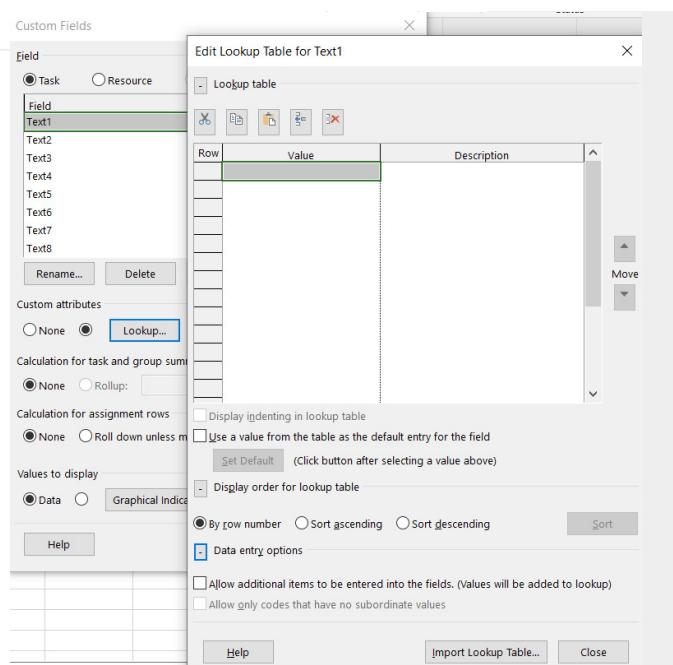


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MS Project

Campos customizados

- ❑ **Lookup** - permite definir os valores possíveis que esse campo pode assumir (através de uma tabela)
- ❑ A ordenação dos valores na tabela, define a ordem pela qual são apresentados
- ❑ Aceita a definição de um valor por omissão
- ❑ Bem com a ordenação
- ❑ Permite também que o utilizador possa afetar outros valores que não os definidos na tabela

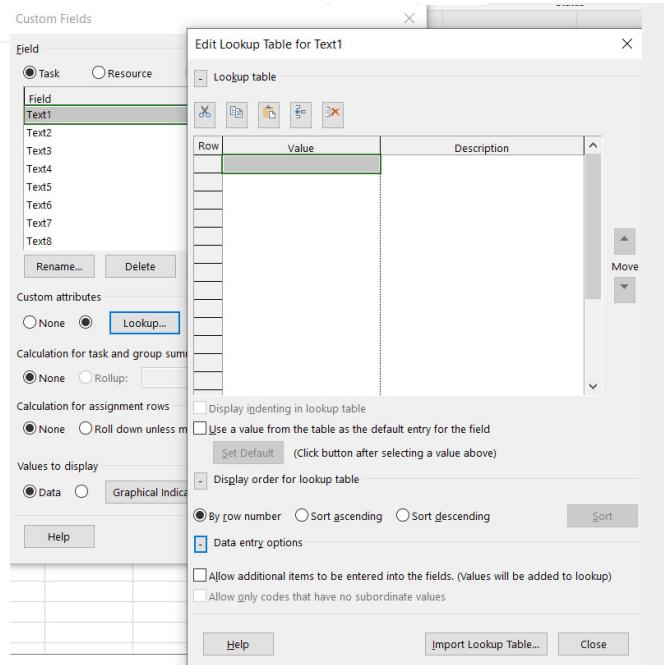


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MS Project

Customizable fields

- Lookup** - allows defining the possible values that this field can assume (through a table)
- The ordering of values in the table defines the order in which they are presented
- Accepts setting a default value
- Accepts to set a sort criteria
- It also allows the user to affect values other than those defined in the table.

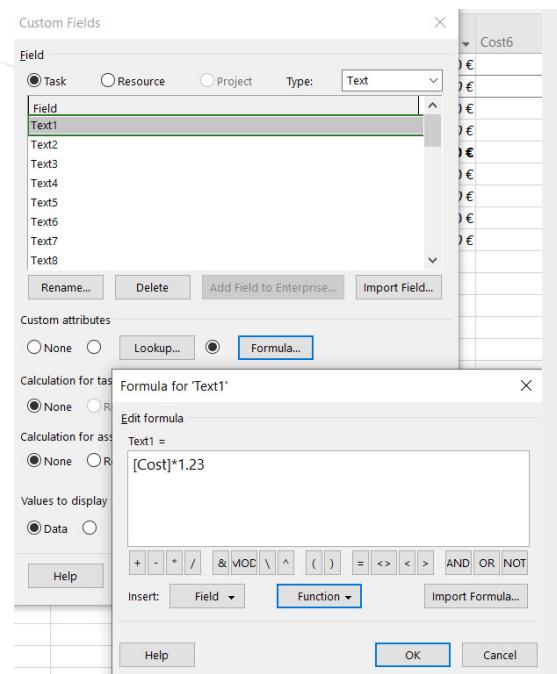


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MS Project

Campos customizados

- Formula** – Permite definir uma equação de cálculo para o campo, com base em outro campos e/ou funções
- A referência a outros campos faz-se: [Nome do campo]
- Ter em conta que o resultado deve ser compatível com o tipo de campo

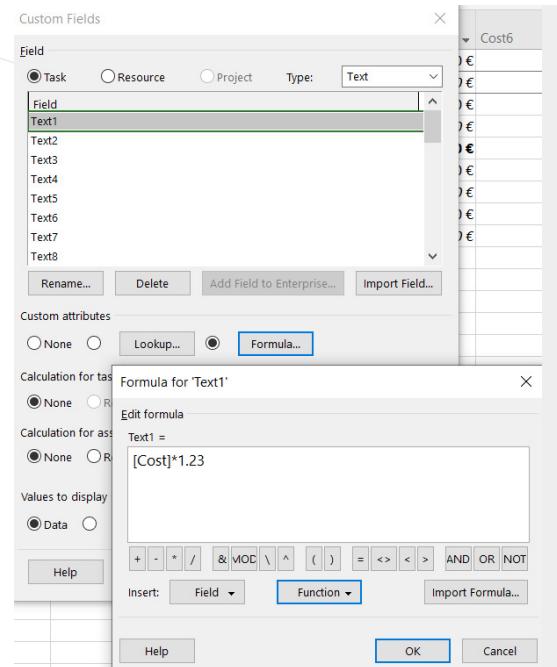


108

MS Project

Customizable fields

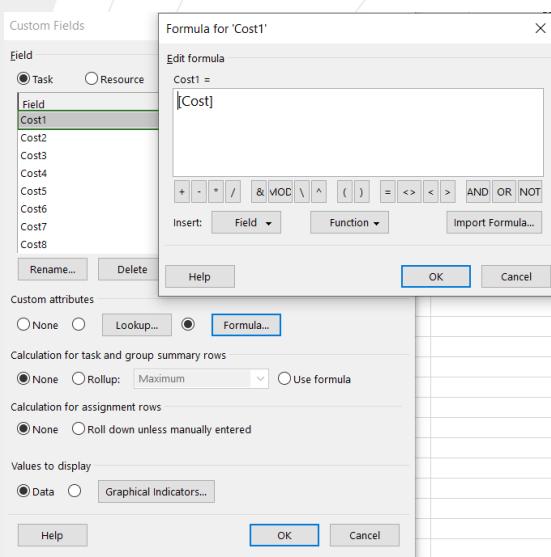
- Formula** – Allows you to define a calculation equation for the field, based on other fields and/or functions
- Reference to other fields is made: [Field name]
- Bear in mind that the result must be compatible with the field type



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MS Project

Campos customizados



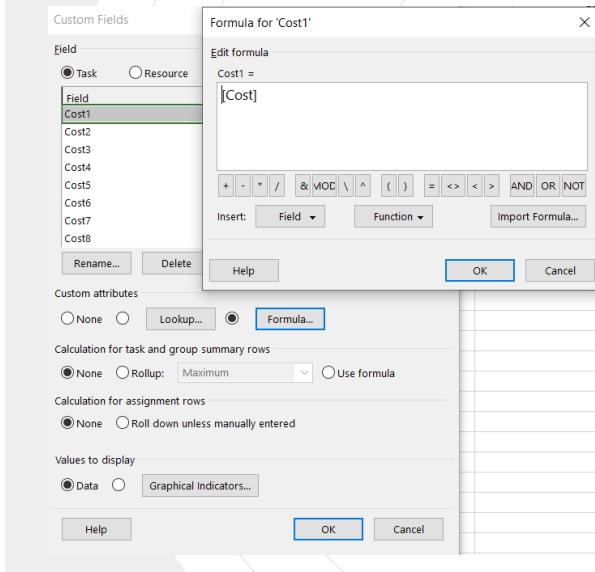
Calculation for task and ... :

- None** - o cálculo apenas é aplicado à tarefa/recurso de base (não se aplica aos elementos agregadores)
- As duas seguintes opções só estão disponíveis se o campo é calculado por uma fórmula.
- Rollup** – Nesta opção, os valores para os elementos agregadores são calculados com base numa das funções pré definidas (soma, máximo, ...)
- Use formula** – Nesta opção, nos campos agregadores é utilizada a mesma fórmula dos campos de base

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MS Project

Customizable fields

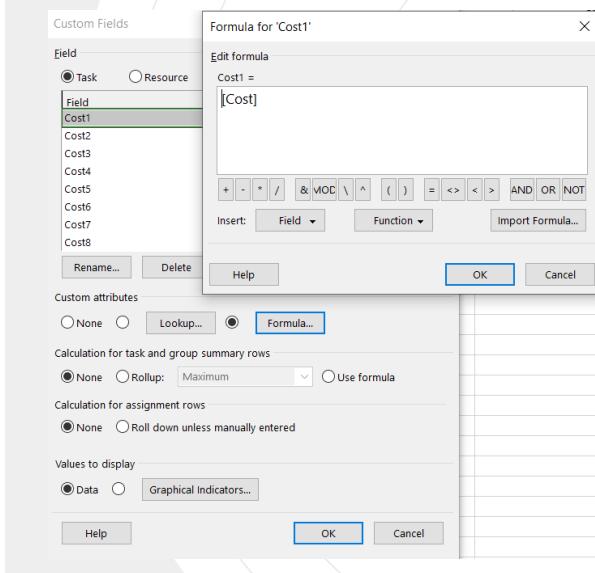


- Calculation for task and ... :**
- None** - calculation is only applied to the base task/resource (does not apply to aggregator elements)
- The following two options are only available if the field is calculated by a formula.
- Rollup** – In this option, the values for the aggregator elements are calculated based on one of the predefined functions (sum, maximum, ...)
- Use formula** – In this option, the aggregator fields use the same formula as the base fields

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MS Project

Campos customizados

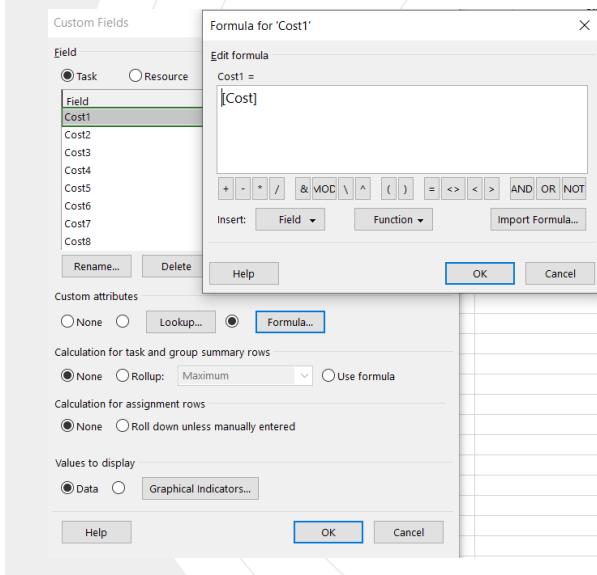


- Calculation for assignment rows :**
- None** - o cálculo apenas é aplicado à tarefa/recurso de base (não se aplica aos elementos agregadores)
- Roll down ...** –
- Values to display:**
- Visualização de dados** – conforme apurados pelo Lookup ou pela fórmula
- Graphical Indicators** – permite que seja afeto um grafismo iconográfico aos valores, segundo uma expressão por ícone.

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MS Project

Customizable fields



- ❑ **Calculation for assignment rows :**
- ❑ **None** - calculation is only applied to the base task/resource (does not apply to aggregator elements)
- ❑ **Roll down ...** -
- ❑ **Values to display:**
- ❑ **Data visualization** - as determined by Lookup or formula
- ❑ **Graphical Indicators** - allows an iconographic graphic to be assigned to the values, according to an expression per icon.

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MS Project

Gestão de múltiplos projetos

- ❑ Gerir múltiplos projetos pode ser muito complexo
- ❑ Principalmente quando entre os vários projetos há dependências
 - Ter em conta que dependências entre tarefas de projetos distintos resultam dos projetos envolvidos estarem de alguma forma relacionados, mas por diversas outras razões, devem ser geridos separadamente
 - ❑ Ou quando há partilha de recursos – o que é bastante comum
 - Neste caso, os projetos em termos de atividades podem ser totalmente independentes entre si, mas fazem uso no todo ou em parte, dos recursos
- ❑ Pode acontecer de ambas causas anteriores estarem presentes.

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MS Project

Multiple project management

- Managing multiple projects can be very complex
- Especially when there are dependencies between the various projects
- Bear in mind that dependencies between tasks from different projects result from the projects involved being somehow related, but for various other reasons, must be managed separately
- Or when resources are shared – which is quite common
- In this case, the projects in terms of activities can be totally independent of each other, but make use in whole or in part of the resources

- It may happen that both previous causes are present.

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MS Project

Gestão de múltiplos projetos

- O MS Project tem o conceito de projeto *master* e de sub projeto, para auxiliar na gestão destas situações
- Um projeto *master* permite agregar vários sub projetos, vinculando estes últimos ao projeto *master*
- De tal forma que no projeto *master* é possível visualizar todos os detalhes dos sub projetos
- Os sub projetos são apresentados no projeto *master* como tarefas agregadoras, mas assinalados com um ícone próprio.
- Ao atualizar individualmente um dos sub projetos, este é atualizado no projeto *master*
- A utilização de projetos *master* permite também gerar relatórios integrados e efetuar análises envolvendo vários (sub) projetos.

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MS Project

Multiple project management

- ❑ MS Project has the concept of a master project and a sub-project, to help manage these situations.
- ❑ A master project allows to add several sub projects, linking the latter to the master project
- ❑ In such a way that in the master project it is possible to view all the details of the sub projects
- ❑ Subprojects are shown in the master project as aggregating tasks, but marked with their own icon.
- ❑ When individually updating one of the subprojects, it is updated in the master project
- ❑ The use of master projects also makes it possible to generate integrated reports and carry out analyzes involving several (sub) projects.

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MS Project

Gestão de múltiplos projetos

- ❑ Um projeto deve ser decomposto quando:
 - O projeto de base é muito grande e detalhado (mais do que algumas centenas de tarefas)
 - Se algumas partes do projeto base necessitarem de maior detalhe ou de cuidados/atenções específicas
 - Se a organização não é centralizada e há pessoas com competências para gerir parte mais localizadas do projeto
 - Quando há vantagens em termos de responsabilização, tirar proveito da especialização, aumentar a flexibilidade, aumentar a decisão local ... promover a autonomia
 - Quando o gestor lida com vários projetos e precisa de ter uma visão centralizada, mas simultaneamente flexível e pratica de lidar com os projetos, seja na perspetiva individual, seja na perspetiva integrada

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MS Project

Multiple project management

- A project should be decomposed when:
 - The base project is very large and detailed (more than a few hundred tasks)
 - If some parts of the base project need more detail or specific care/attention
 - If the organization is not centralized and there are people with skills to manage a more localized part of the project
 - When there are advantages in terms of accountability, taking advantage of specialization, increasing flexibility, increasing local decision ... promoting autonomy
 - When the manager deals with several projects and needs to have a centralized vision, but at the same time flexible and practical in dealing with projects, either from an individual perspective or from an integrated perspective

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MS Project

Gestão de múltiplos projetos

- Um projeto deve ser decomposto quando:
 - O ponto anterior é reforçado, quando há dependências entre projetos e necessidade de gerir recursos entre projetos
 - Em situações em que os projetos têm uma hierarquia natural entre si – isto é, sub projetos são parte de projetos maiores e estes de outros ainda mais abrangentes
 - Quando há vários utilizadores com “permissões” para alterarem partes específicas do projeto de base
 - Coordenar e estabelecer dependências entre milestones de projetos distintos
 - Quando há várias partes interessadas, com interesses distintos na gestão do projeto
 - Quando é necessário bloquear o acesso (para modificar) a partes de um projeto – essas partes podem passar para um sub projeto, que tem unicamente permissões de leitura no projeto mestre

120

MS Project

Multiple project management

A project should be decomposed when:

- The previous point is reinforced when there are dependencies between projects and the need to manage resources between projects
- In situations where projects have a natural hierarchy to each other – that is, subprojects are part of larger projects and these are part of even larger ones
- When there are multiple users with “permissions” to change specific parts of the base project
- Coordinate and establish dependencies between different project milestones
- When there are several stakeholders with different interests in managing the project
- When it is necessary to block access (to modify) to parts of a project – these parts can be passed to a sub-project, which has read-only permissions in the master project

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MS Project

Gestão de múltiplos projetos

Exemplo

The screenshot shows the Microsoft Project application interface. The ribbon menu is visible at the top, with the 'Project' tab selected. Below the ribbon, there are several toolbars and buttons. On the left, there's a 'Subproject' icon with a yellow box around it. The main area displays a Gantt chart for the week of April 10-17, 2022. A task named 'Tarefa inicial' is listed with a duration of 3 days, starting on Wednesday, April 12, 2022. Another task, 'Tarefa seguinte', is listed with a duration of 7 days, starting on Thursday, April 13, 2022, and is preceded by task 'Tarefa inicial'. Resource assignments show 'S' for the first task and 'A' for the second task. To the right of the Gantt chart, there's a resource calendar for the week.

Task	Mode	Task Name	Duration	Predecessor	Resource Names
1		Tarefa inicial	3 days		S
2		Tarefa seguinte	7 days	1	
3		Parte A	5 days		A
4		Parte B	7 days		B

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MS Project

Multiple project management

Example

The screenshot shows the Microsoft Project application interface. The ribbon menu is visible at the top, with the 'Project' tab highlighted. Below the ribbon, there are several icons for add-ins, project information, custom fields, links between projects, WBS, change working time, calculate project, set baseline, and move project. The main workspace displays a Gantt chart for the week of April 6 to April 12, 2022. A table below the chart lists four tasks: 'Tarefa inicial' (3 days), 'Tarefa seguinte' (7 days, predecessor of Task 1), 'Parte A' (5 days, resource A), and 'Parte B' (7 days, resource B). The Gantt chart shows Task 1 starting on April 10, Task 2 starting on April 11, Task A starting on April 12, and Task B starting on April 13.

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MS Project

Gestão de múltiplos projetos

Exemplo

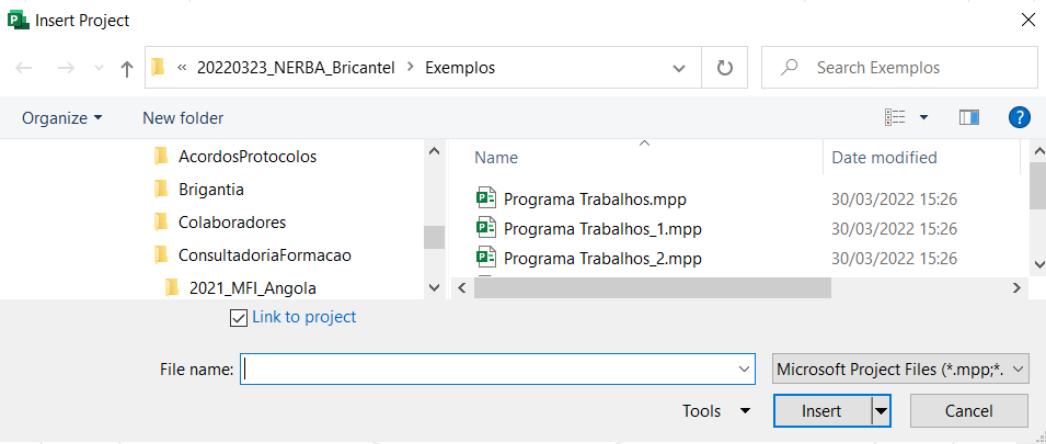
The screenshot shows the 'Insert Project' dialog box. It displays a file browser window showing project files in a folder structure. The files listed are 'Programa Trabalhos.mpp', 'Programa Trabalhos_1.mpp', and 'Programa Trabalhos_2.mpp', all modified on 30/03/2022 at 15:26. There is a checkbox labeled 'Link to project' which is checked. At the bottom of the dialog, there is a 'File name:' input field, a dropdown for 'Tools', and buttons for 'Insert' and 'Cancel'.

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MS Project

Multiple project management

☐ Example

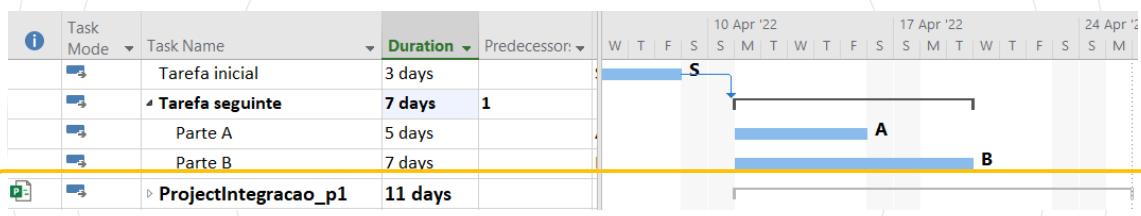


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MS Project

Gestão de múltiplos projetos

☐ Exemplo

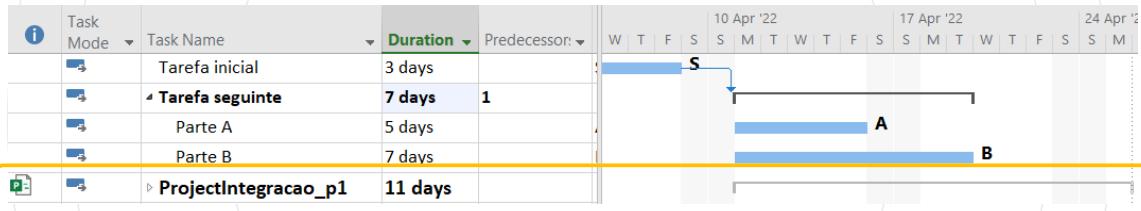


126

MS Project

Multiple project management

Example

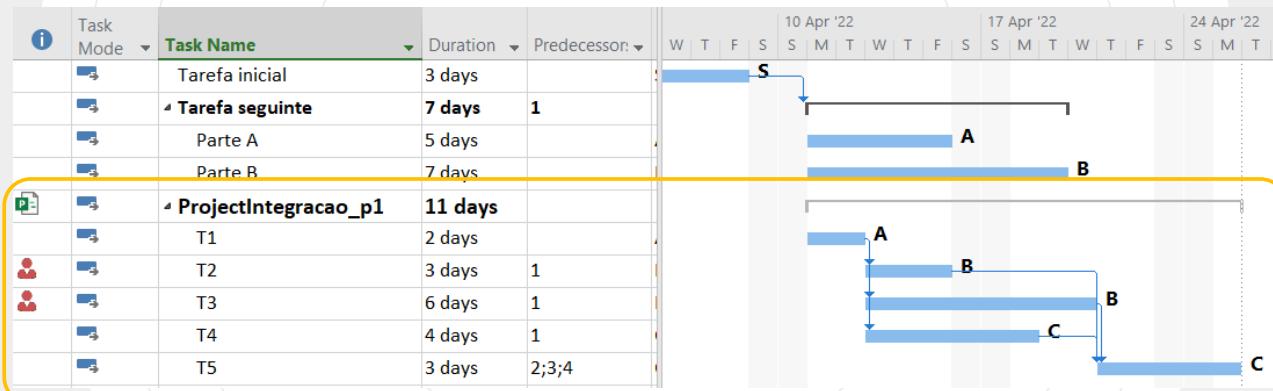


127

MS Project

Gestão de múltiplos projetos

Exemplo

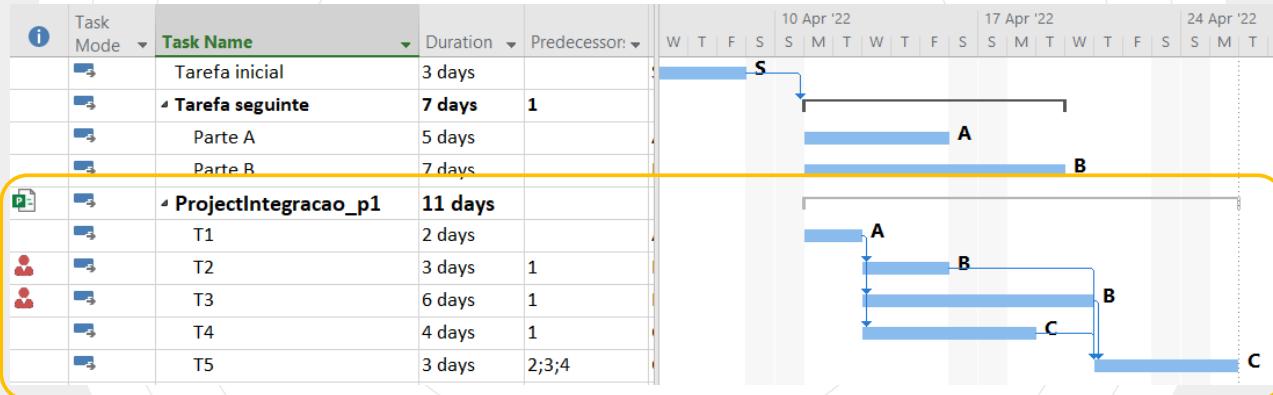


128

MS Project

Multiple project management

Example



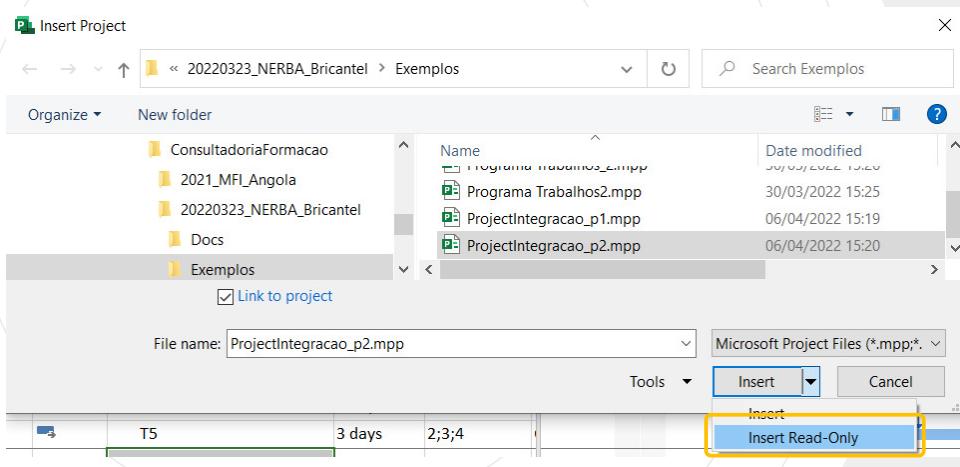
129

MS Project

Gestão de múltiplos projetos

Exemplo

- Apenas com permissões de leitura
- Não é permitido atualizar do master para o sub projeto
- Mas as alterações no sub projeto refletem-se no master



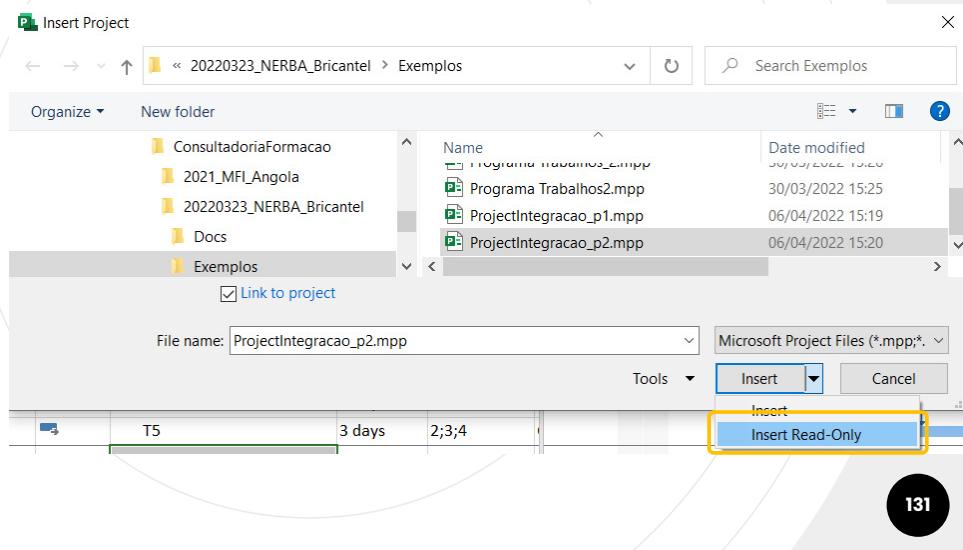
130

MS Project

Multiple project management

Example

- Only with read permissions
- Updating from master to sub project is not allowed
- But changes in the sub project are reflected in the master



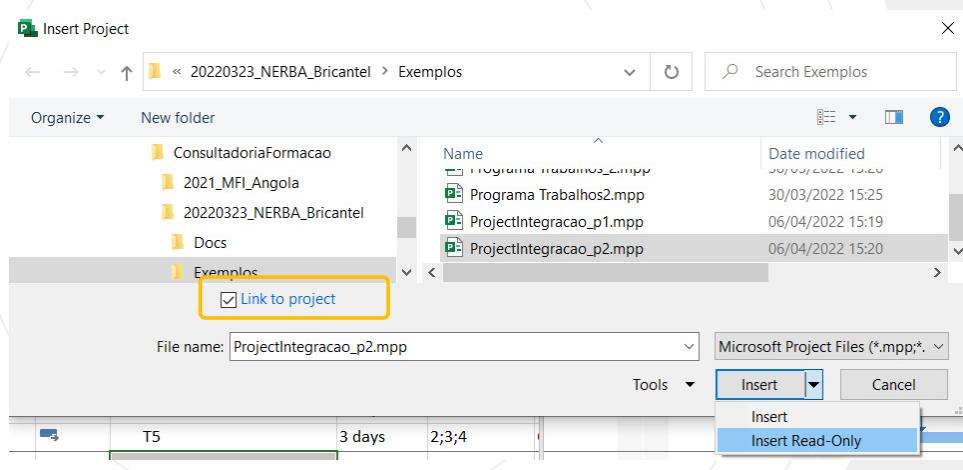
131

MS Project

Gestão de múltiplos projetos

Exemplo

- **Link to project -**
- Mantém o vínculo entre o sub projeto e o master
- Caso contrário, é feito uma cópia do sub projeto para o master



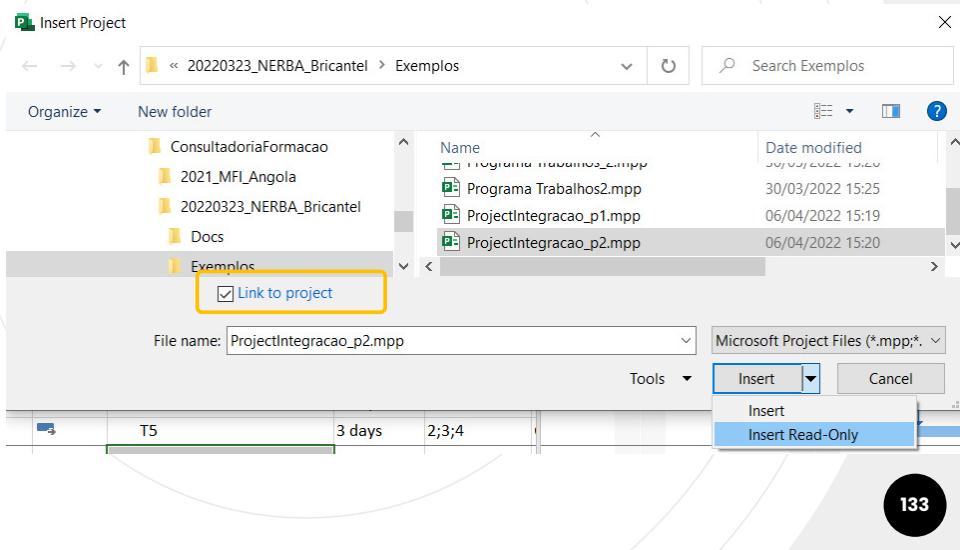
132

MS Project

Multiple project management

Example

- **Link to project -**
- Maintains the link between the sub project and the master
- Otherwise, a copy of the subproject is made to the master



MS Project

Gestão de múltiplos projetos

Exemplo

- Por omissão, os recursos de cada projeto são considerados distintos
- Mesmo que na realidade se tratem dos mesmos recursos

Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
A	Work		A		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
B	Work		B		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
C	Work		C		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
S	Work		S		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
A	Work		A		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
B	Work		B		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	

MS Project

Multiple project management

- Example
 - By default, the resources of each project are considered different
 - Even if in reality they are the same resources

Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
A	Work		A		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
B	Work		B		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
C	Work		C		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
S	Work		S		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
A	Work		A		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
B	Work		B		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	

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MS Project

Gestão de múltiplos projetos – Resource Pools

- A partilha e gestão de recursos entre projetos
 - É perfeitamente possível em MS Project
 - Para o efeito é necessário criar um projeto apenas para recursos – Resource Pool
 - Gravar e manter aberto o ficheiro de recursos
 - NOTA: Recomenda-se que os recursos sejam todos colocados no Resource Pool, mesmo os que vão ser utilizados num único projeto

Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
A	Work		A		100%	20.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
B	Work		B		100%	30.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
C	Work		C		100%	40.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
D	Work		D		100%	25.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	

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MS Project

Multiple project management – Resource Pools

- Sharing and managing resources between projects
 - It's perfectly possible in MS Project
 - For this purpose it is necessary to create a project just for resources – Resource Pool
 - Save and keep resource file open
 - NOTE: It is recommended that all resources be placed in the Resource Pool, even those that will be used in a single project

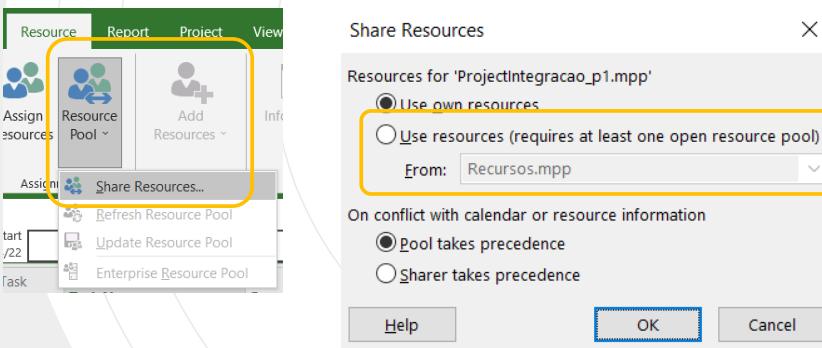
Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
A	Work		A	A	100%	20.00 €/hr	0.00 €/hr	0.00 €	Prorated	Standard
B	Work		B	B	100%	30.00 €/hr	0.00 €/hr	0.00 €	Prorated	Standard
C	Work		C	C	100%	40.00 €/hr	0.00 €/hr	0.00 €	Prorated	Standard
D	Work		D	D	100%	25.00 €/hr	0.00 €/hr	0.00 €	Prorated	Standard

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MS Project

Gestão de múltiplos projetos – Resource Pools

- A partilha e gestão de recursos entre projetos
 - Depois, é necessário importar os recursos para o projeto que os vai utilizar



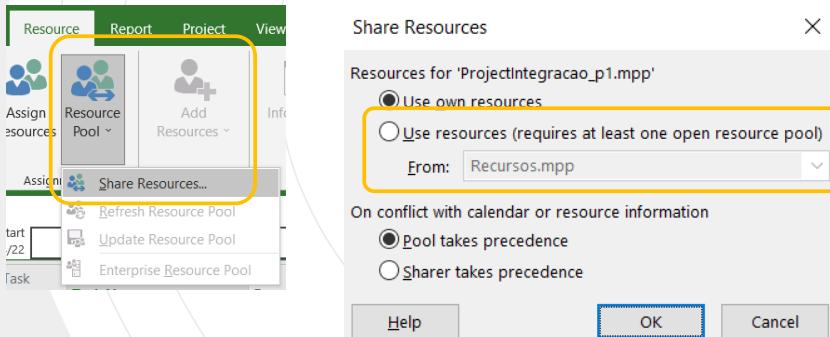
- **Pool takes precedence** – em caso de conflito, a informação sobre os recursos da pool vai ter precedência
- **Sharer takes precedence** – em caso de conflito, a informação dos recursos do projeto vai ter precedência

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MS Project

Multiple project management – Resource Pools

- ❑ Sharing and managing resources between projects
- Afterwards, it is necessary to import the resources to the project that will use them.



- **Pool takes precedence** – in case of conflict, information about pool resources will take precedence
- **Sharer takes precedence** – in case of conflict, project resource information will take precedence

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MS Project

Gestão de múltiplos projetos – Resource Pools

- ❑ A partilha e gestão de recursos entre projetos

- Recursos antes da partilha:

Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
A	Work		A		100%	0.00 €/hr	0.00 €/hr	0.00 € Pr		
B	Work		B		100%	0.00 €/hr	0.00 €/hr	0.00 € Pr		
C	Work		C		100%	0.00 €/hr	0.00 €/hr	0.00 € Pr		

- Recursos após partilha:

Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
A	Work		A		100%	20.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
B	Work		B		100%	30.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
C	Work		C		100%	40.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
D	Work		D		100%	25.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	

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MS Project

Multiple project management – Resource Pools

- Sharing and managing resources between projects

- Resources before sharing:

Share Resources

Resources for 'ProjectIntegracao_p1.mpp'

Use own resources
 Use resources (requires at least one open resource pool)
From: Recursos.mpp

On conflict with calendar or resource information
 Pool takes precedence
 Sharer takes precedence

Help OK Cancel

Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
A	Work		A		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
B	Work		B		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
C	Work		C		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	

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- Recursos após partilha:

Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
A	Work		A		100%	20.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
B	Work		B		100%	30.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
C	Work		C		100%	40.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
D	Work		D		100%	25.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	

MS Project

Gestão de múltiplos projetos – Resource Pools

- A partilha e gestão de recursos entre projetos

- Recursos antes da partilha:

Share Resources

Resources for 'ProjectIntegracao_p1.mpp'

Use own resources
 Use resources (requires at least one open resource pool)
From: Recursos.mpp

On conflict with calendar or resource information
 Pool takes precedence
 Sharer takes precedence

Help OK Cancel

Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
A	Work		A		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
B	Work		B		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
C	Work		C		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	

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- Recursos após partilha:

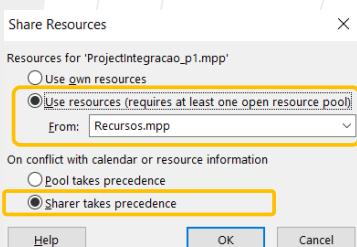
Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
A	Work		A		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
B	Work		B		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
C	Work		C		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
D	Work		D		100%	25.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	

MS Project

Multiple project management – Resource Pools

- Sharing and managing resources between projects

- Resources before sharing:



Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	A
A	Work		A		100%	0.00 €/hr	0.00 €/hr	0.00 € Pr	
B	Work		B		100%	0.00 €/hr	0.00 €/hr	0.00 € Pr	
C	Work		C		100%	0.00 €/hr	0.00 €/hr	0.00 € Pr	

- Recursos após partilha:

Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
A	Work		A		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
B	Work		B		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
C	Work		C		100%	0.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	
D	Work		D		100%	25.00 €/hr	0.00 €/hr	0.00 € Prorated	Standard	

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MS Project

Gestão de múltiplos projetos – Tudo junto

- Bem, então como fazer quando temos projetos partilhados e recursos partilhados?

- Criar o ficheiro de recursos

- Criar os vários sub projetos

- Associar o Resource Pool a cada sub projeto

- Criar o projeto master

- Adicionar os sub projetos ao master

- Os recursos podem ser afetos às tarefas nos sub projetos ou no master

- Os recursos adicionados num sub projeto vão surgir no Resource Pool

- O ficheiro do Resource Pool deve ser mantido aberto enquanto se trabalha no master ou em qualquer um dos sub projetos

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MS Project

Multiple project management – All together

- Well, then what do you do when we have shared projects and shared resources?
 1. Create the resource file
 2. Create the various sub projects
 3. Associate the Resource Pool with each sub-project
 4. Create the master project
 5. Add the sub projects to the master
 - Resources can be assigned to tasks in subprojects or in the master
 - Resources added in a subproject will appear in the Resource Pool
 - The Resource Pool file must be kept open while working on the master or any of the sub projects

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MS Project

Gestão de múltiplos projetos

Exercício

1. Criar um ficheiro para Resource Pool com 4 recursos do tipo Work, com custo/hora de, respetivamente, de 20€, 30€, 40€ e 25€
2. Criar um projeto de nome SubProjeto1, com 6 atividades com dependências entre si (de livre escolha)
3. Criar um projeto de nome SubProjeto2, com 5 atividades com dependências entre si (de livre escolha)
4. Associar o Resource Pool a cada sub projeto
5. Criar o projeto master e adicionar os sub projetos ao master
6. Nivelar recursos em todos os projetos

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MS Project

Multiple project management

☐ Exercise

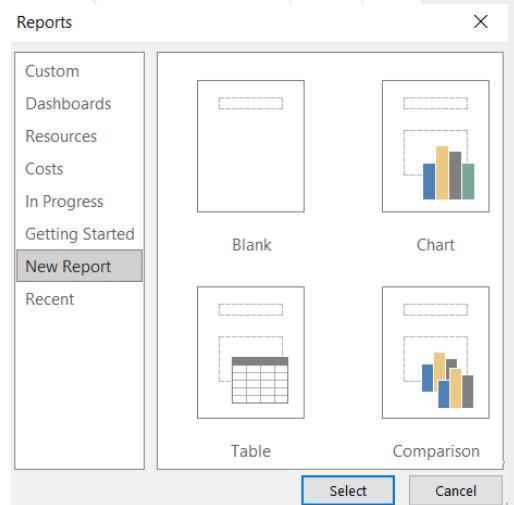
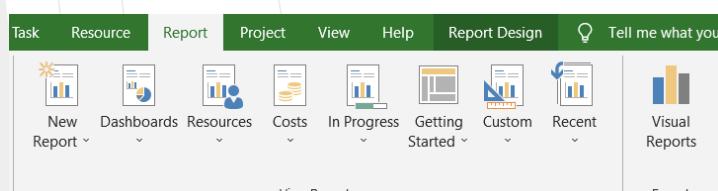
1. Create a file for the Resource Pool with 4 Work-type resources, with a cost/hour of, respectively, €20, €30, €40 and €25
2. Create a project named SubProjeto1, with 6 activities with dependencies between them (of free choice)
3. Create a project named SubProjeto2, with 5 activities with dependencies between them (of free choice)
4. Associate the Resource Pool with each sub-project
5. Create the master project and add the sub projects to the master
6. Level resources across all projects

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MS Project

Relatórios

- ☐ Um dos pontos fortes do MS Project são os relatórios
- ☐ Incluindo a possibilidade de criar relatórios customizados

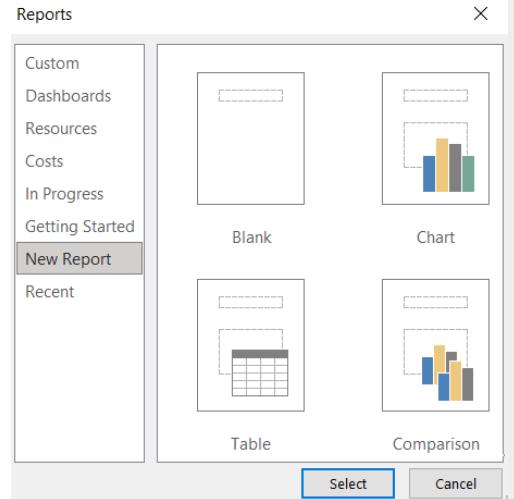
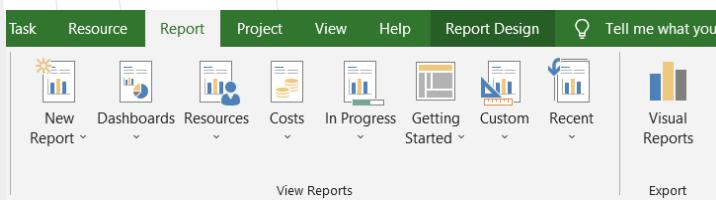


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MS Project

Reports

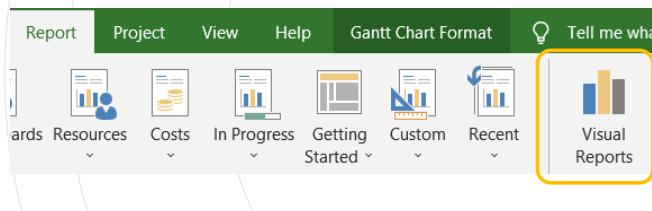
- ❑ One of the strengths of MS Project is the reports
- ❑ Including the possibility to create customized reports



MS Project

Relatórios

- ❑ Cashflow por mês
- No MS Project => Report => Visual Reports

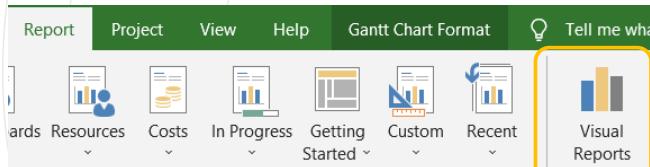


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MS Project

Reports

- ❑ Cashflow per month
- ❑ In MS Project => Report => Visual Reports



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MS Project

Relatórios

- ❑ Cashflow por mês
- Selecionar Cashflow Report + Months => View

Visual Reports - Create Report

Select Template

Show report templates created in: Microsoft Excel Microsoft Visio

Task Summary	Resource Summary	Assignment Summary
All	Task Usage	Resource Usage
Baseline Cost Report	Earned value Over Time Report	Resource Cost Summary Report
Baseline Work Report	Resource Remaining Work Report	Resource Work Availability Report
Budget Cost Report	Resource Work Summary Report	
Budget Work Report		
Cash Flow Report		

New Template...
Edit Template...
Manage Template...

Sample

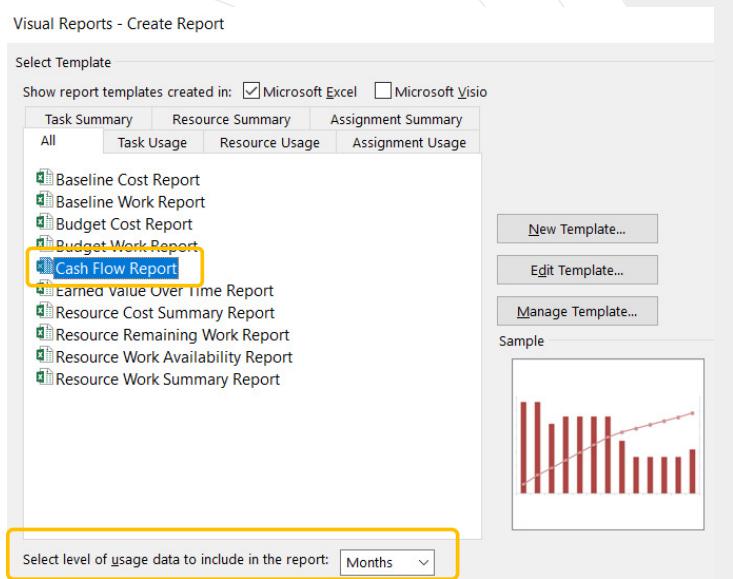
Select level of usage data to include in the report: **Months**

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MS Project

Reports

- Cashflow per month
- Select Cashflow Report + Months => View

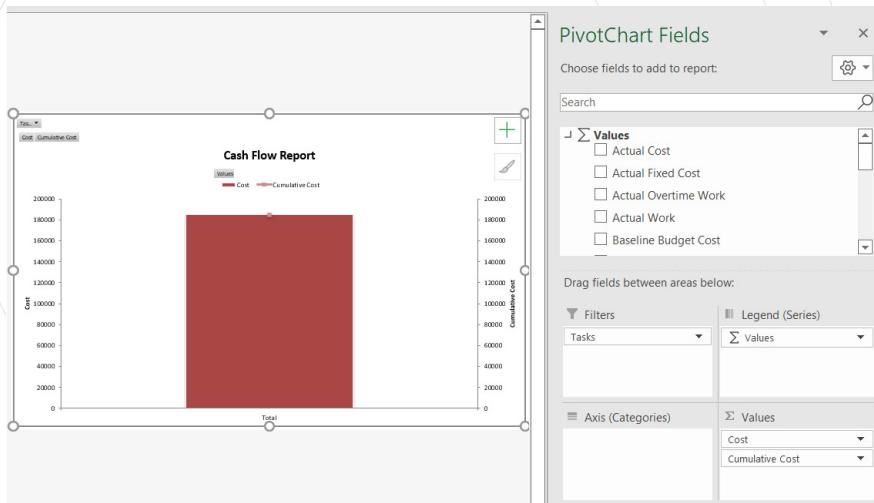


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MS Project

Relatórios

- Cashflow por mês

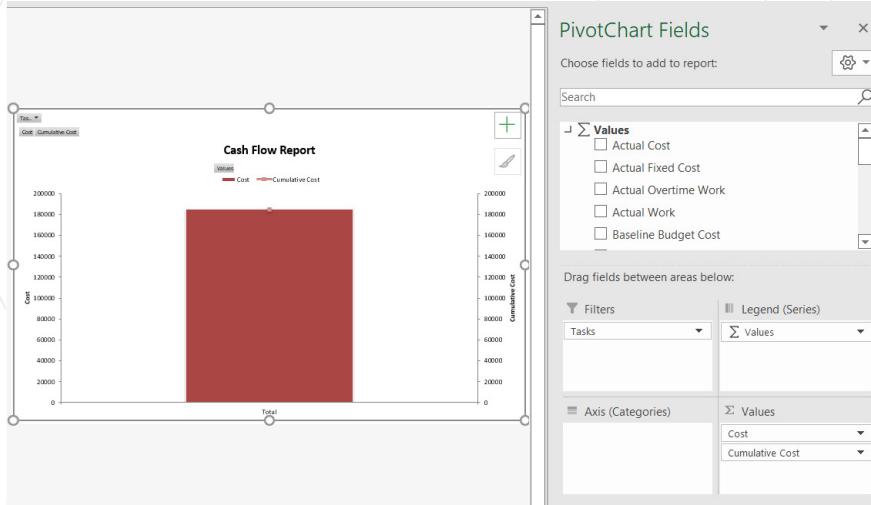


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MS Project

Reports

❑ Cashflow per month



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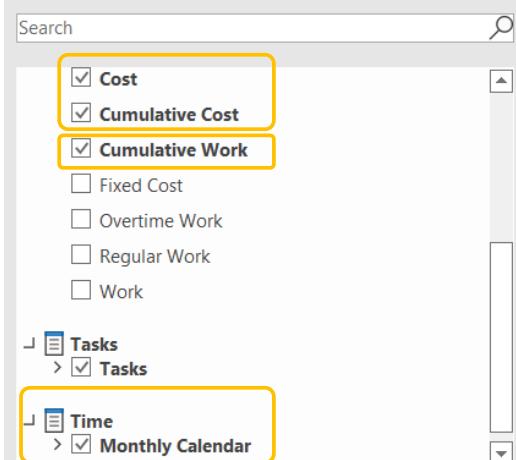
MS Project

Relatórios

- ❑ Cashflow por mês
 - No Excel, na folha Task Usage, painel direito PivotTable/ PivotChart Fields
 - Na dimensão Σ Values, selecionar: Cost, Cumulative Cost e Cumulative Work (ou outro)
 - Na dimensão Time, selecionar: Monthly Calendar

PivotChart Fields

Choose fields to add to report:

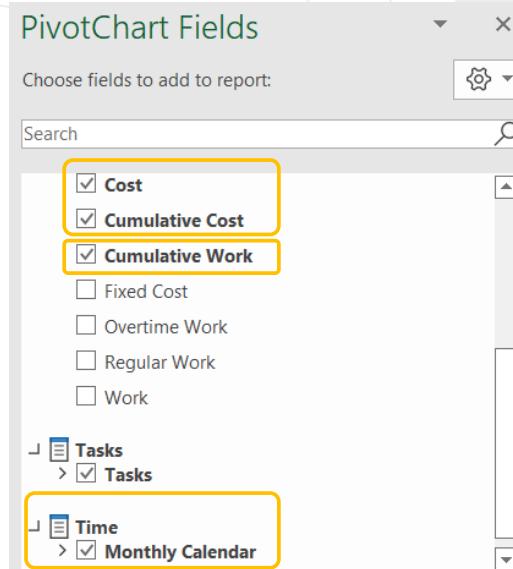


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MS Project

Reports

- ❑ Cashflow per month
 - In Excel, in the Task Usage sheet, right pane PivotTable/ PivotChart Fields
 - In the Σ Values dimension, select: Cost, Cumulative Cost and Cumulative Work (or other)
 - In the Time dimension, select: Monthly Calendar



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MS Project

Relatórios

- ❑ Cashflow por mês
 - No Drag fields colocar Monthly Calendar no Rows
 - E Tasks + Σ Values em Columns
 - E Cost, Cumulative Cost e Cumulative Work em Σ Values

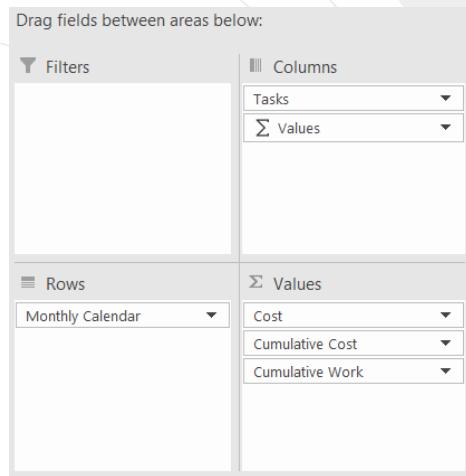
158

		Task Data					
		Concurso Público n.º 3314/OD_DOMH - "R"					
Year	Month	Cost	Cumulative Cost	Cumulative Work	Total Cost	Total Cumulative Cost	Total Cumulative Work
2022	April	56151	56150,9	898	56150,9	56150,9	898
	May	46709	102860,3567	1821	46709,45	102860,3567	1821
	June	36490	139350,3767	2789	36490,02	139350,3767	2789
	July	45540	184890	3968	45539,63	184890	3968
Grand Total		2E+05	184890	3968	184890	184890	3968

MS Project

Reports

- Cashflow per month
- In Drag fields put Monthly Calendar in Rows
- And Tasks + Σ Values in Columns
- And Cost, Cumulative Cost, and Cumulative Work in Σ Values



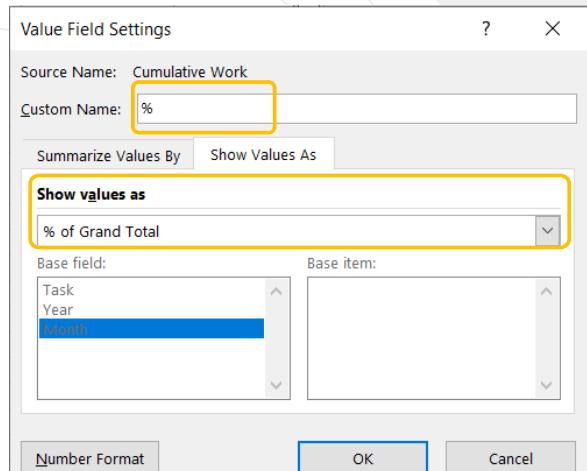
		Task Data					
		Concurso Público n.º 3314/OD_DOMH - "R"					
Year	Month	Cost	Cumulative Cost	Total Cost	Total Cumulative Cost	Total Cumulative Work	
2022	April	56151	56150,9	898	56150,9	56150,9	898
	May	46709	102860,3567	1821	46709,45	102860,3567	1821
	June	36490	139350,3767	2789	36490,02	139350,3767	2789
	July	45540	184890	3968	45539,63	184890	3968
	Grand Total	2E+05	184890	3968	184890	184890	3968

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MS Project

Relatórios

- Cashflow por mês
- Sobre Cumulative Work (em Σ Values), selecionar Value Field Settings
- Em Custom Name colocar %
- Em Show Values as selecionar % of Grand Total



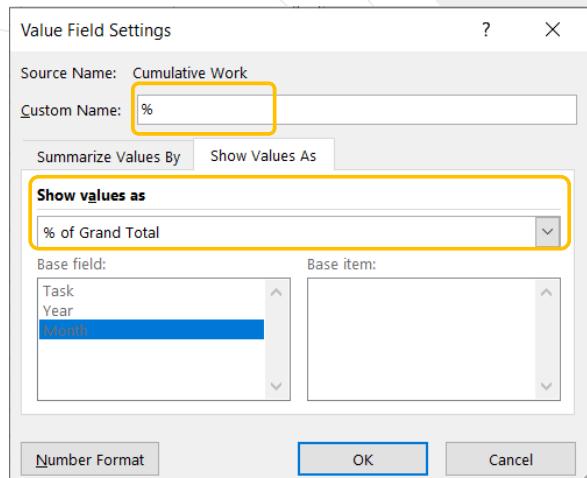
		Task Data					
		Concurso Público n.º 3314/OD_DOMH					
Year	Month	Cost	Cumulative Cost	%	Total Cost	Total Cumulative Cost	Total %
2022	April	56151	56151	23%	56150,9	56150,9	22,63%
	May	46709	102860	46%	46709,45	102860,3567	45,89%
	June	36490	139350	70%	36490,02	139350,3767	70,29%
	July	45540	184890	100%	45539,63	184890	100,00%
	Grand Total	184890	184890	100%	184890	184890	100,00%

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MS Project

Reports

- Cashflow per month
- Under Cumulative Work (under **ΣValues**), select **Value Field Settings**
- In **Custom Name** put %
- In **Show Values as** select **% of Grand Total**



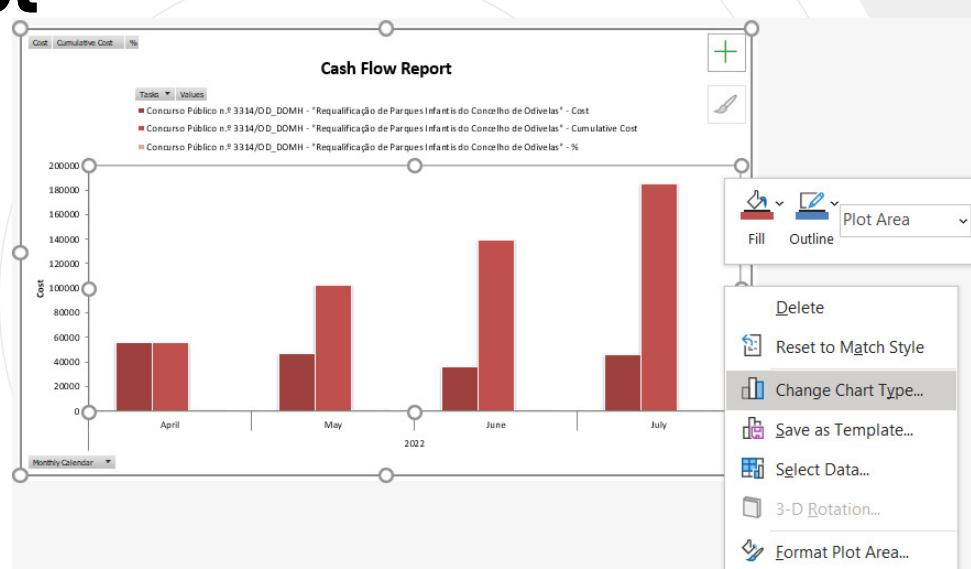
		Task	Data				
		Concurso Público n.º 3314/OD_DOMH			Total Cost	Total Cumulative Cost	Total %
Year	Month	Cost	Cumulative Cost	%			
2022	April	56151	56151	23%	56150,9	56150,9	22,63%
	May	46709	102860	46%	46709,45	102860,3567	45,89%
	June	36490	139350	70%	36490,02	139350,3767	70,29%
	July	45540	184890	100%	45539,63	184890	100,00%
Grand Total		184890	184890	100%	184890	184890	100,00%

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MS Project

Relatórios

- Cashflow por mês

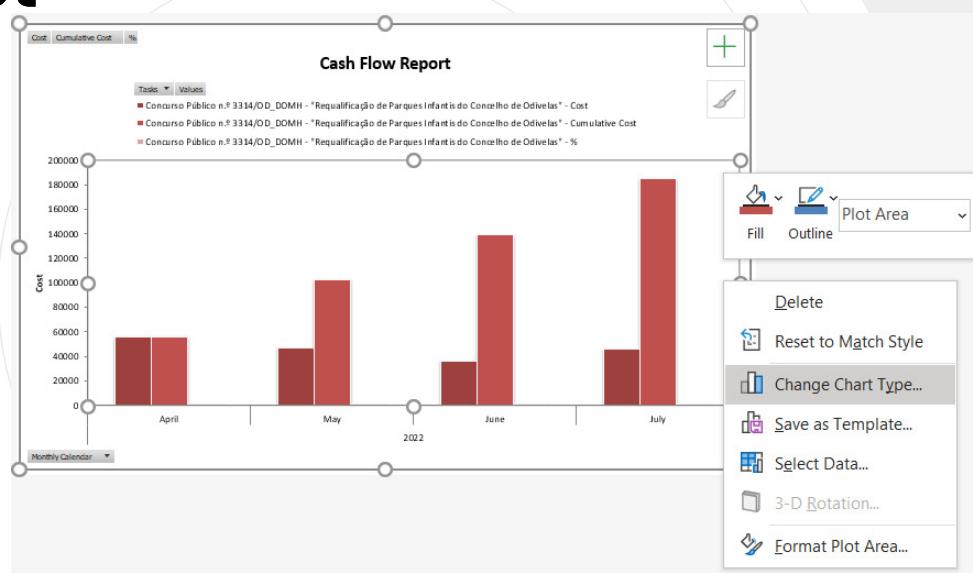


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MS Project

Reports

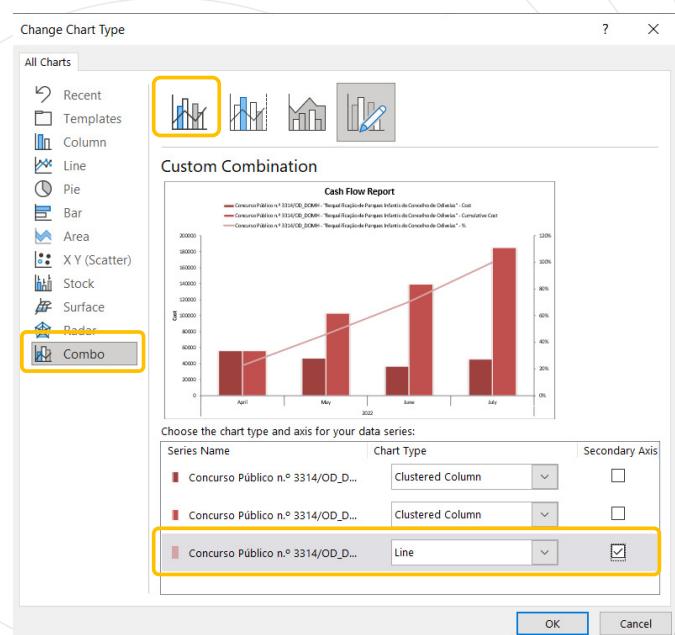
- ❑ Cashflow per month



MS Project

Relatórios

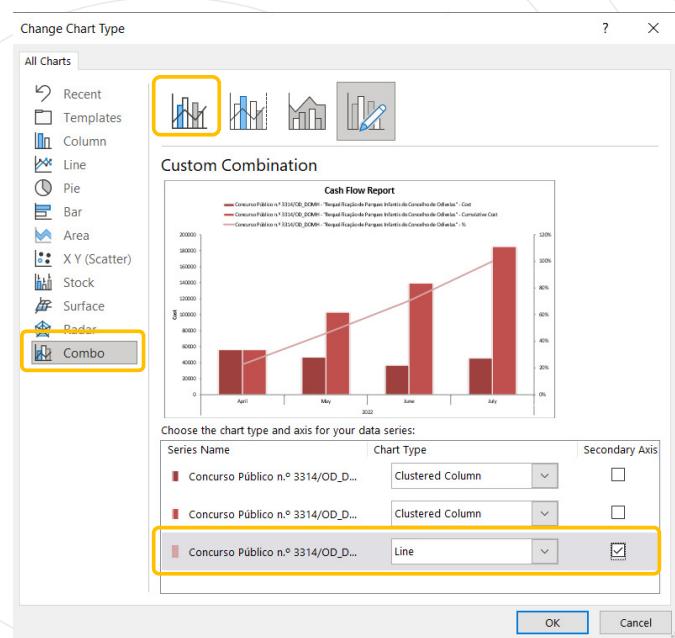
- ❑ Cashflow por mês



MS Project

Reports

- ❑ Cashflow per month

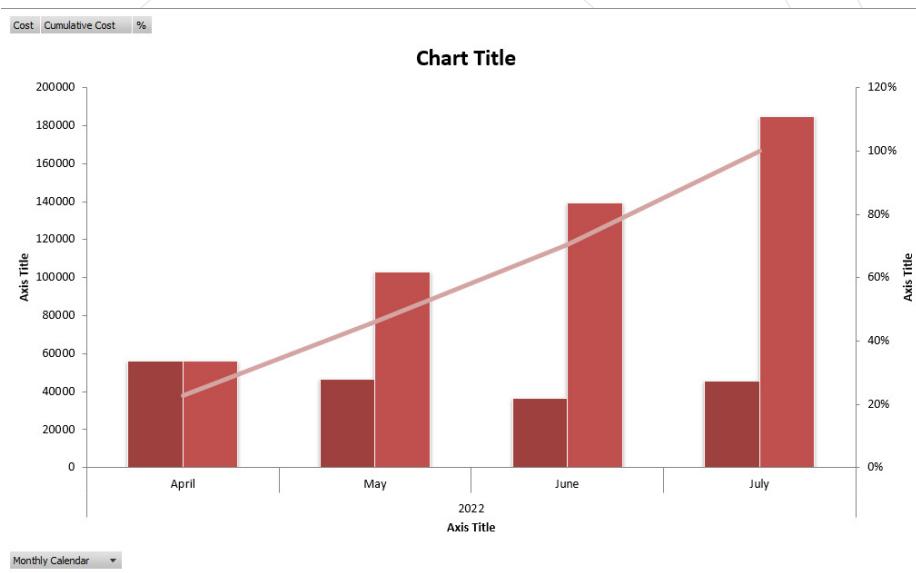


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MS Project

Relatórios

- ❑ Cashflow por mês

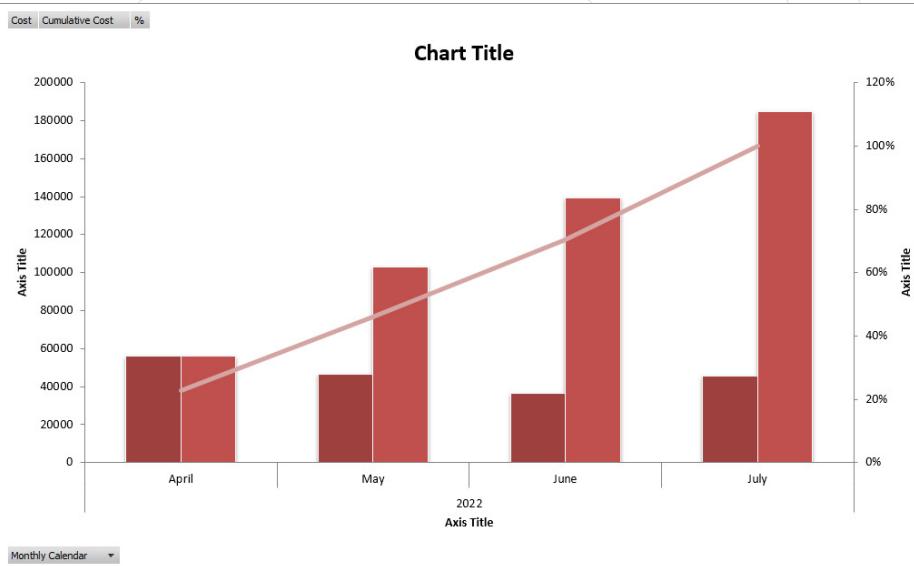


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MS Project

Reports

- Cashflow per month

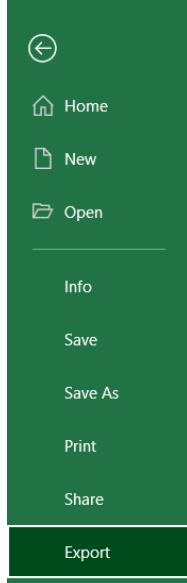


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MS Project

Relatórios

- Cashflow por mês
- Gravar como template



Export

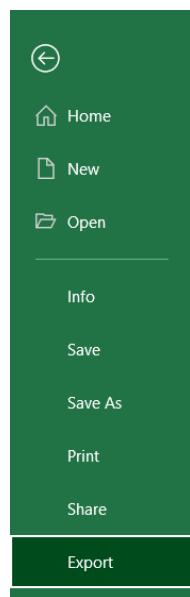
- Create PDF/XPS Document
- Change File Type

168

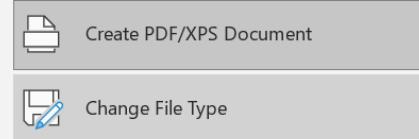
MS Project

Reports

- Cashflow per month
- Save as template



Export



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MS Project

Relatórios

- Cashflow por mês
- Gravar como template

Export



Change File Type

Workbook File Types

	Workbook (*.xlsx) Uses the Excel Spreadsheet format
	OpenDocument Spreadsheet (*.ods) Uses the OpenDocument Spreadsheet format

	Excel 97-2003 Workbook (*.xls) Uses the Excel 97-2003 Spreadsheet format
	Template (*.xltx) Starting point for new spreadsheets

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MS Project

Reports

- Cashflow per month
- Save as template

Export

 Create PDF/XPS Document

 Change File Type

Change File Type

Workbook File Types

 Workbook (*.xlsx)
Uses the Excel Spreadsheet format

 Excel 97-2003 Workbook (*.xls)
Uses the Excel 97-2003 Spreadsheet format

 OpenDocument Spreadsheet (*.ods)
Uses the OpenDocument Spreadsheet format

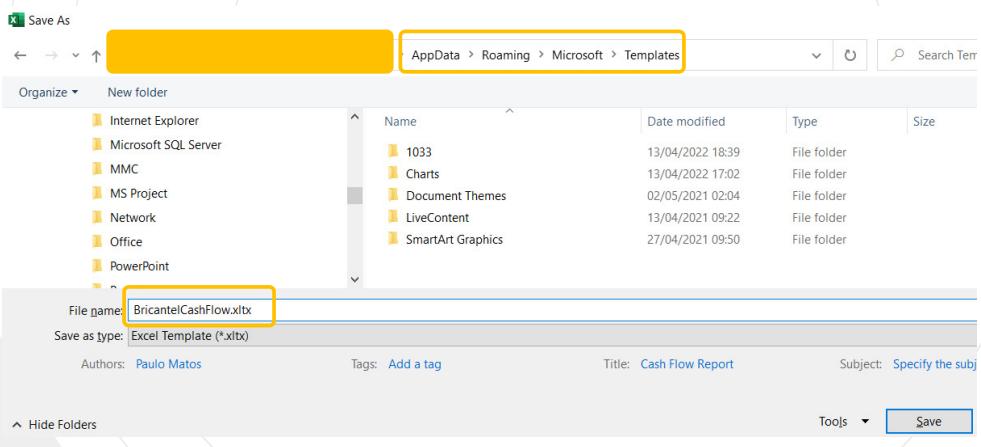
 Template (*.xltx)
Starting point for new spreadsheets

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MS Project

Relatórios

- Cashflow por mês
- Gravar como template

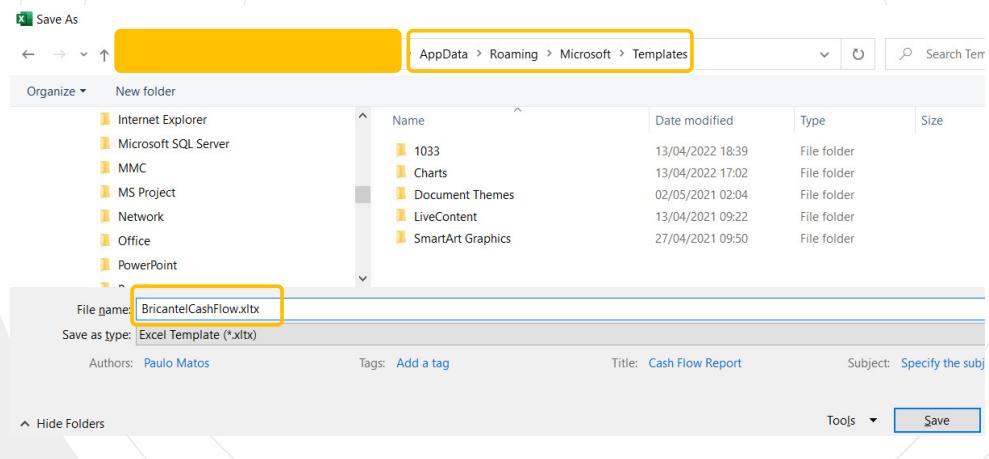


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MS Project

Reports

- Cashflow per month
- Save as template

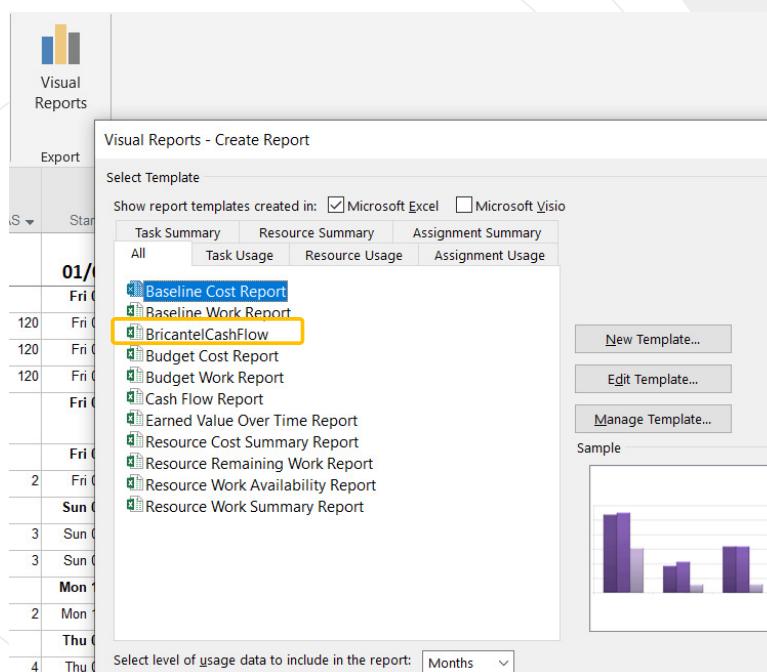


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MS Project

Relatórios

- Cashflow por mês
- Gravar como template

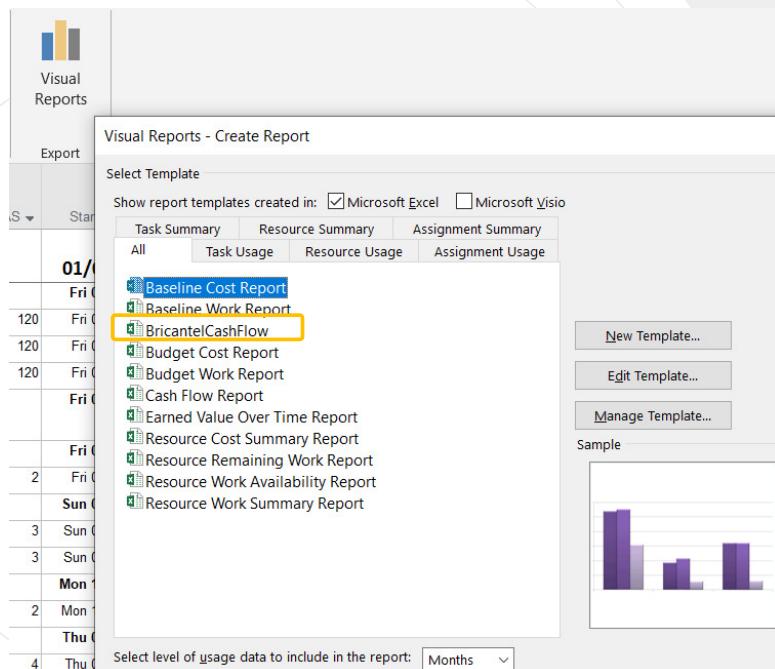


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MS Project

Reports

- Cashflow per month
- Save as template



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MS Project

Relatórios

- Cashflow por mês
- No MS Project => Report => Visual Reports
- Cashflow Report + Months => View
- No Excel, na folha Task Usage, painel direito PivotTable Fields
- => dimensão Time => selecionar Monthly Calendar
- => dimensão Σ Values => Cost, Cumulative Cost e Fixed Work (ou outro)
- No Drag fields colocar Monthly Calendar no Rows
- E Tasks + Somatório Values em Columns
- E Cost, Cumulative Cost e Fixed Cost em Σ Values

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MS Project

Reports

- Cashflow per month
- In MS Project => Report => Visual Reports
- Cashflow Report + Months => View
- In Excel, on the Task Usage sheet, right pane PivotTable Fields
- => Time dimension => select Monthly Calendar
- => dimension Σ Values => Cost, Cumulative Cost and Fixed Work (or other)
- In Drag fields put Monthly Calendar in Rows
- And Tasks + Sum Values in Columns
- And Cost, Cumulative Cost and Fixed Cost in Σ Values

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MS Project

Relatórios

- Cashflow por mês
- Sobre Fixed Work (em Σ Values), selecionar Value Field Settings
- Em Custom Name colocar %
- Em Show Values as selecionar % of Grand Total
- Se necessário formatar os dados associados ao Fixed Work (%)
- Selecionar os meses e os dados das colunas Cost, Cumulative Cost e %
- Inserir um novo gráfico do tipo Cluster Column Line
- Na terceira série de dados, correspondente ao %, colocar o Chart Type como Line e assinalar o Secondary Axis
- E feito

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MS Project

Reports

- Cashflow per month
- Under Fixed Work (in Σ Values), select Value Field Settings
- In Custom Name put %
- In Show Values as select % of Grand Total
- If necessary, format the data associated with Fixed Work (%)
- Select the months and data from the Cost, Cumulative Cost, and % columns
- Insert a new graph of type Cluster Column Line
- In the third series of data, corresponding to the %, set the Chart Type to Line and mark the Secondary Axis
- It is made