Microsoft Dynamics 365

Dynamics 365 Project Operations - Resource Management

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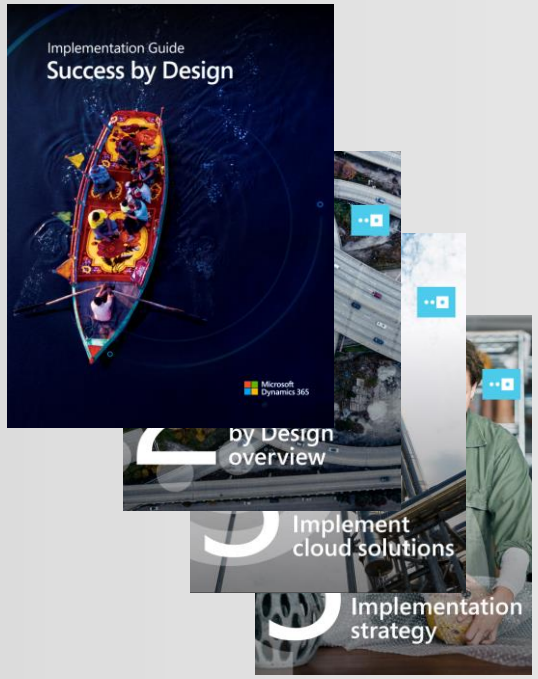
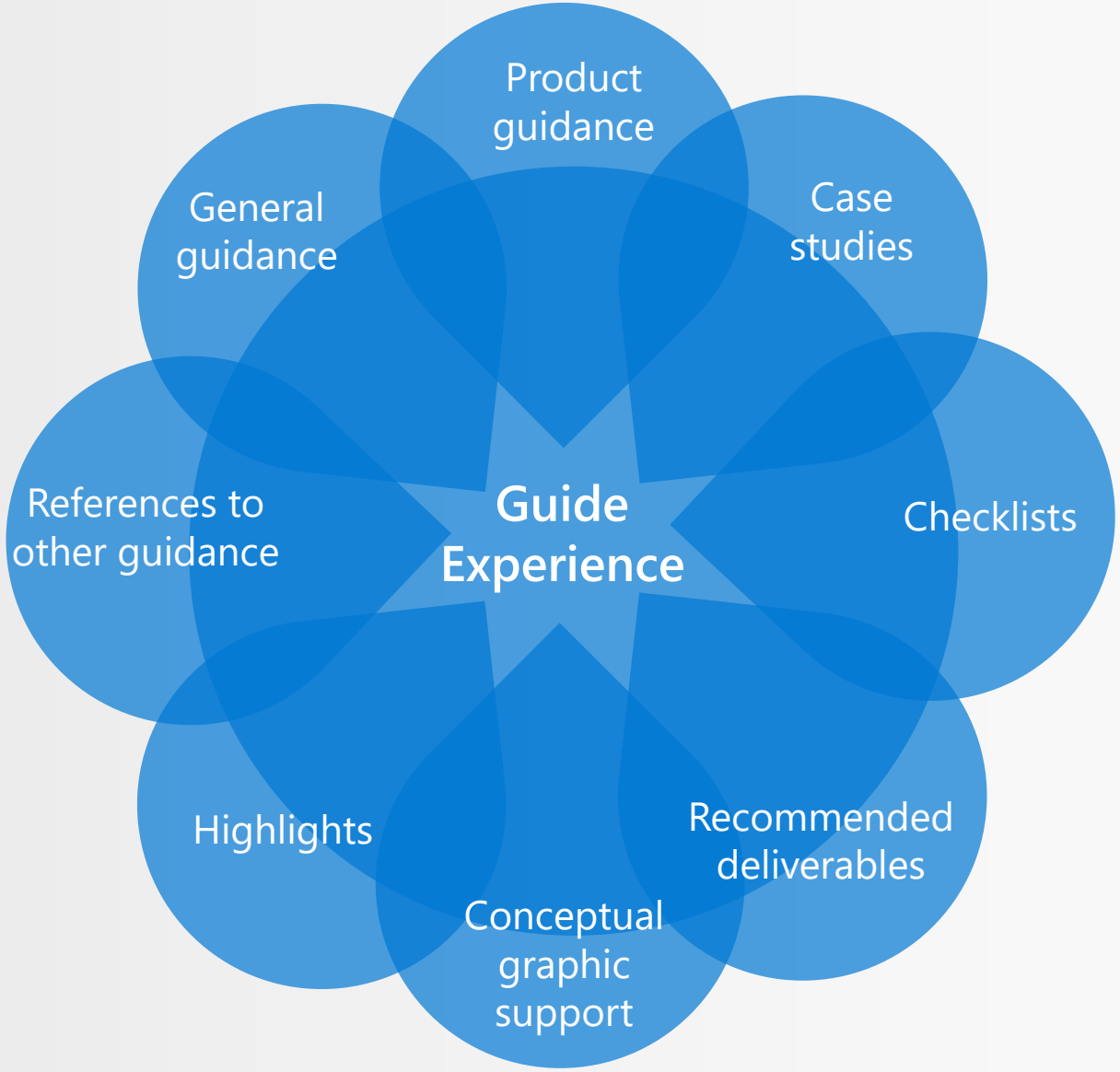
Dynamics 365 Implementation Guide

Collective experience gained through thousands of Dynamics 365 implementations





Available at: https://aka.ms/d365implementationguide

Objectives of this TechTalk

1. Resource Management concepts in Project Operations*
2. Resource Management processes in Project Operations*

* for lite and resource/non-stocked based scenarios deployment types

What it doesn't cover

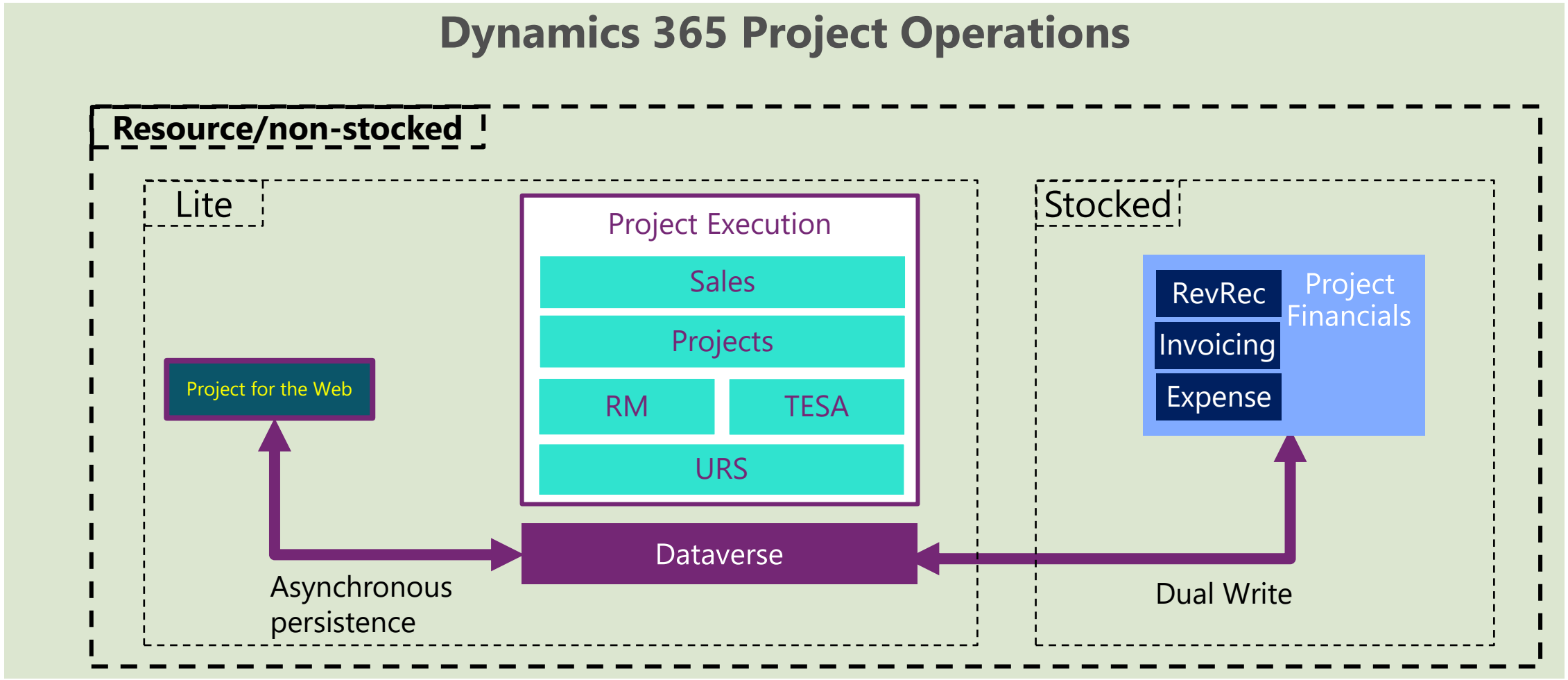
1. Deployment considerations
2. Detailed aspects of Data Migration/Integrations
3. Comparison with other Dynamics 365 Customer Engagement Apps
4. Licensing considerations
5. Technical details

Agenda

1. Before we start
2. Core concepts
3. Resource management
4. What’s coming
5. Resources

Before we start

Architecture



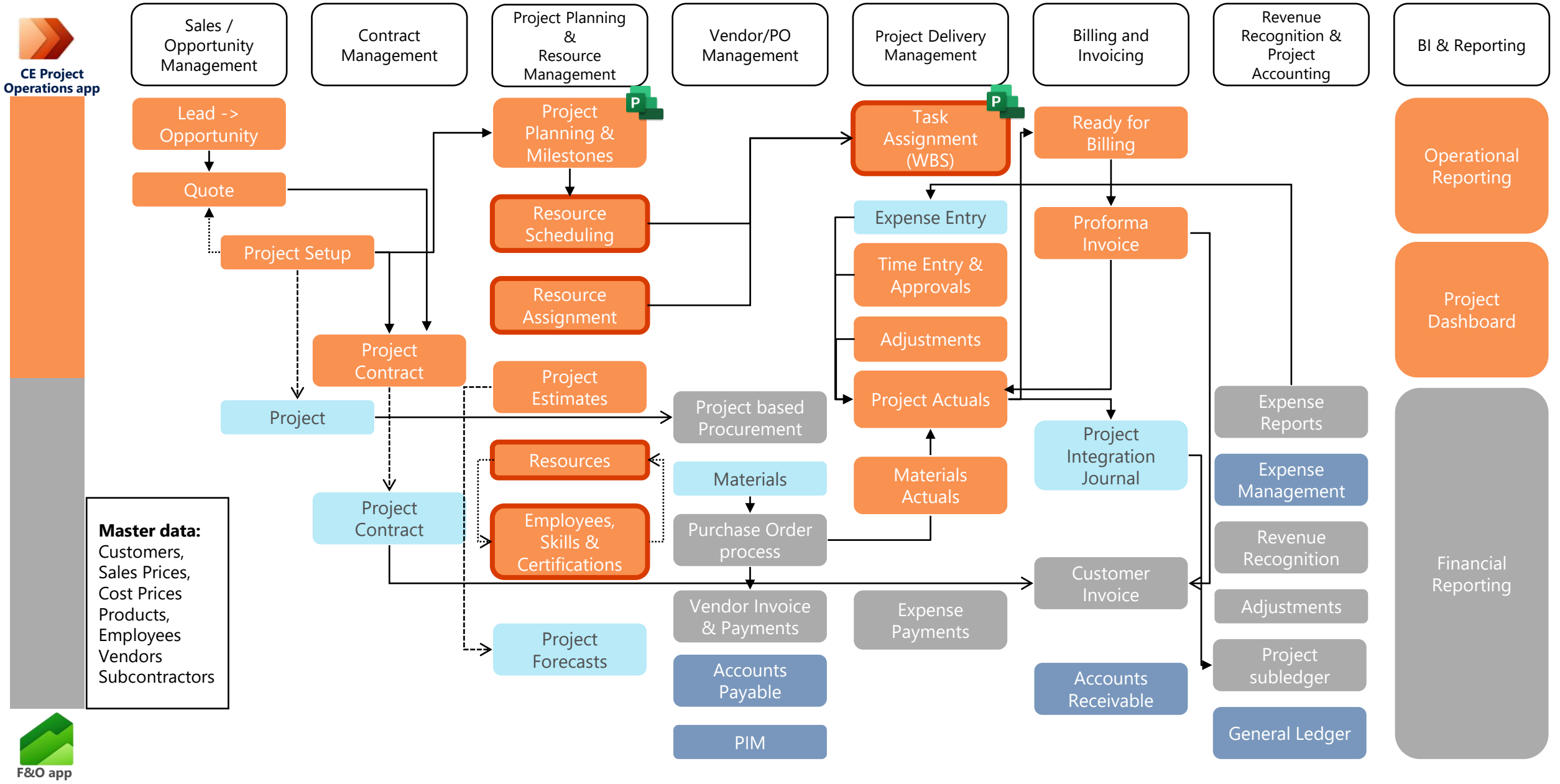
Key

M365 Services | D365 CE App

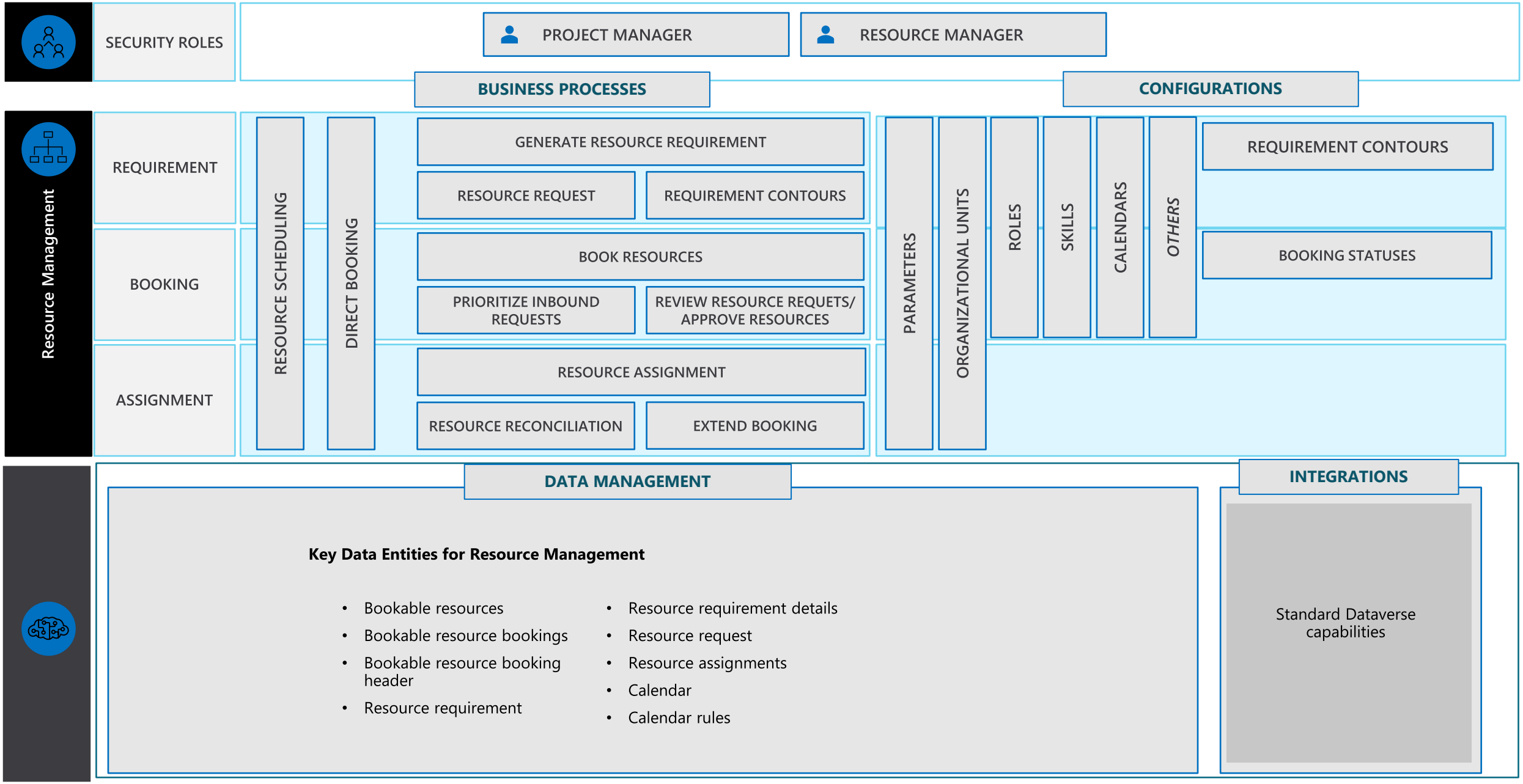
Dataverse | D365 F&O App

RM = Resource Management
TESA = Time, Expense, Status, Approvals
URS = Universal Resource Scheduling
RevRec = Revenue Recognition

End to End Process flow



Resource Management – Process Catalog



Resource management

Resources are the most important asset of a service-based organization.

The ability to find the right resources at the right time, book those resources on projects and keep them utilized, helps the organization meet revenue targets and customer satisfaction goals.

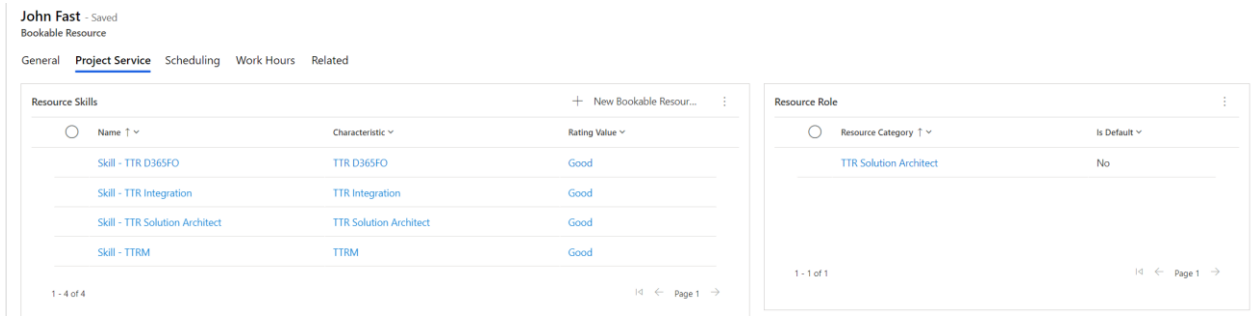
Core concepts

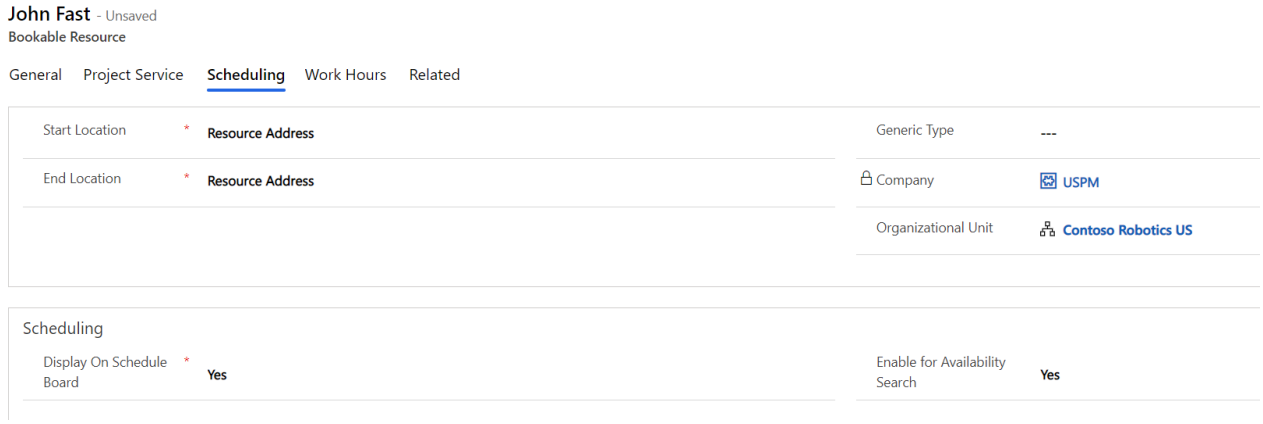
Core concepts

Resources

What defines a resource?

- Characteristics / Skills (for example: Accounting)
- Categories / Roles (for example: Manager)
- Territories (for example: Washington state)
- Organizational Unit (for example: Seattle service delivery)
- Location (for example: Location agnostic)
- Resource Type (for example: User)
- Calendars / Working Hours





Longitude & latitude should be filled if you choose a location different from agnostic.

Core concepts

Type of resources

- **User**: The resource is a person and a member of your organization.
- **Account** or **Contact**: The resource isn't directly a part of your organization, but it needs to be scheduled. A common example is subcontractors. This also allows the scheduling framework to more easily apply to an organization's existing Dynamics system that may be using accounts and contacts to manage workers, partners, and contractors.
- **Equipment**: The resource is a piece of equipment, tool, or machine that must be scheduled.
- **Generic**: Only use when you plan your project, and the resource is not none.

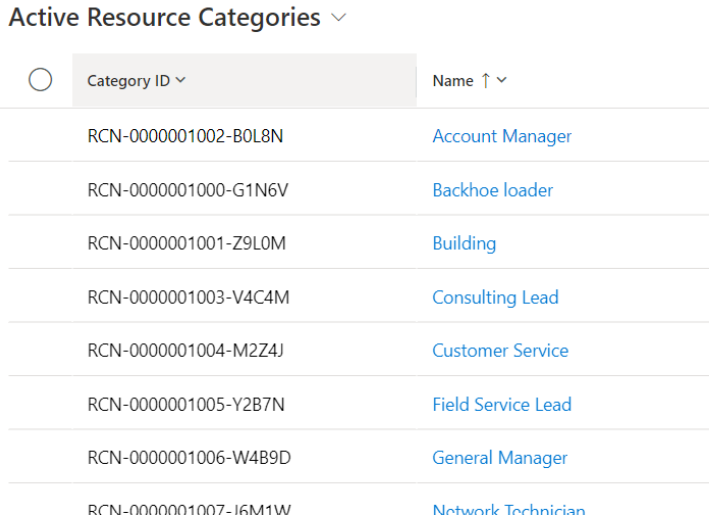
Facility, Crews and Pools are not supported.

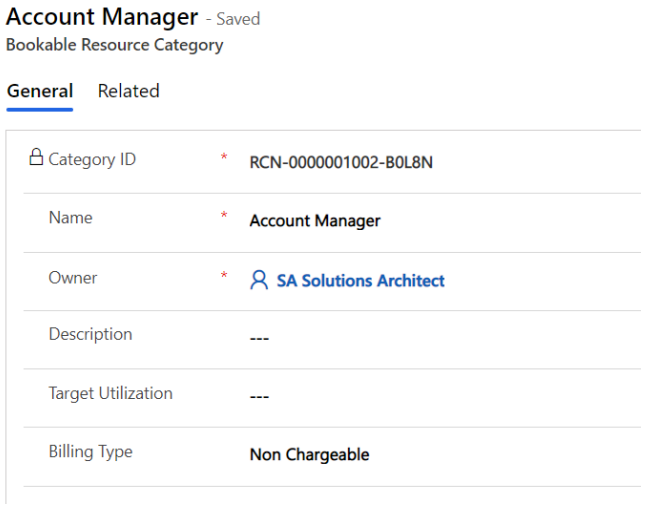
Core concepts

Categories/ Roles

- Roles can facilitate broad grouping of bookable resources by type (e.g. technician, supervisor, subcontractor).

- Roles can have specific target utilization and billing type; Billing type can always be changed in a project when it comes to the customer billing stage.





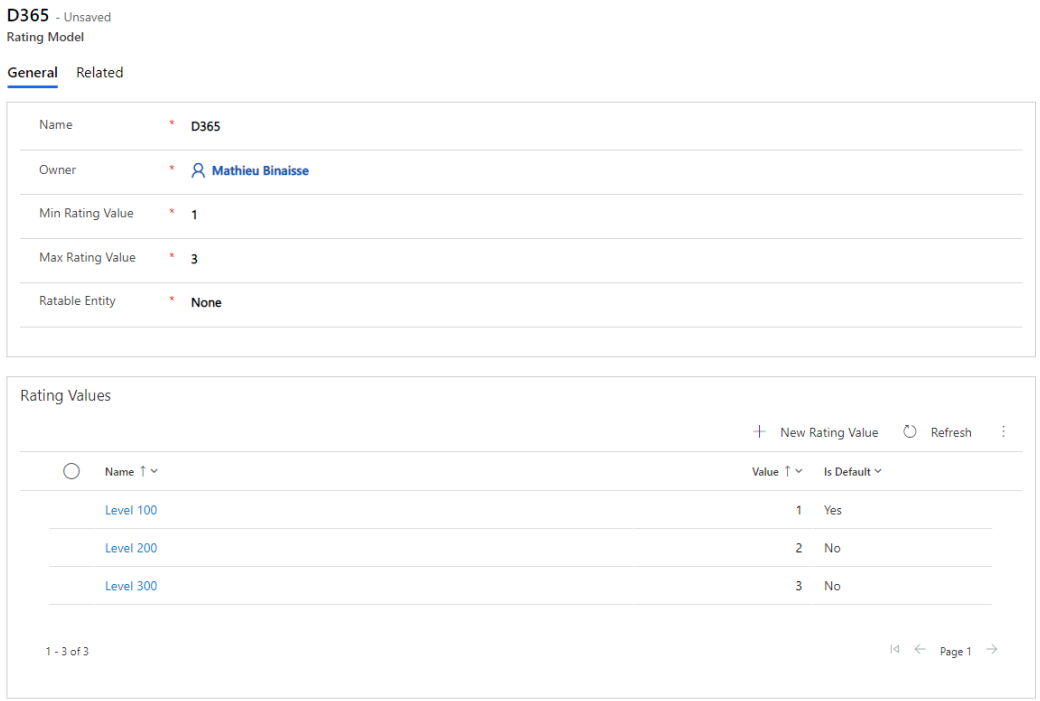
Roles can be defined at the project task level to allow a resource to fulfill multiple roles within a project.

Core concepts

Skills and proficiency models

Characteristics are used to enrich the attributes describing the abilities of a resource. Each characteristic of a resource can be described as a **Skill** or a **Certification**.

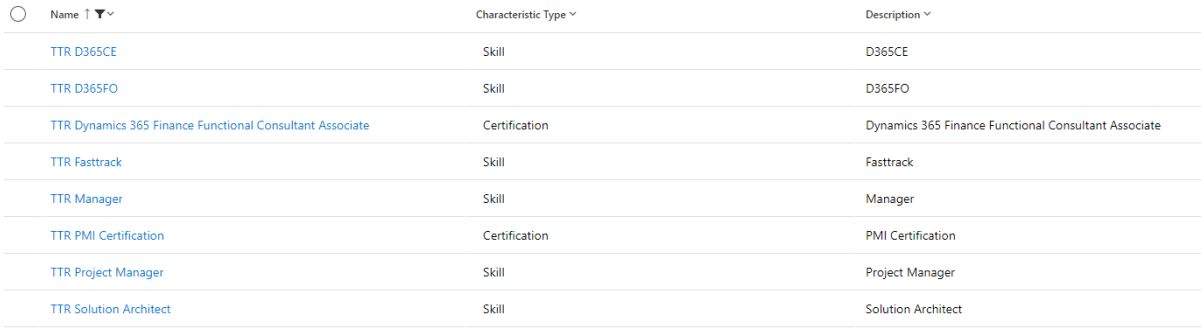
Proficiency allows to define skills level.



Skills can be defined on resources, roles and requirements. They enable a project and a resource manager to find resources for a project.

Two types :

- Skill
- Certification



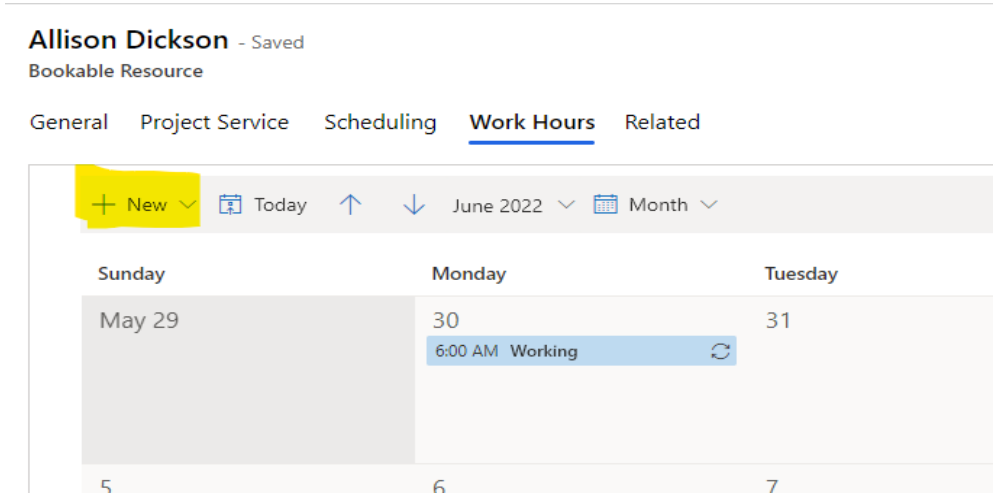
Name	Characteristic Type	Description
TTR D365CE	Skill	D365CE
TTR D365FO	Skill	D365FO
TTR Dynamics 365 Finance Functional Consultant Associate	Certification	Dynamics 365 Finance Functional Consultant Associate
TTR Fasttrack	Skill	Fasttrack
TTR Manager	Skill	Manager
TTR PMI Certification	Certification	PMI Certification
TTR Project Manager	Skill	Project Manager
TTR Solution Architect	Skill	Solution Architect

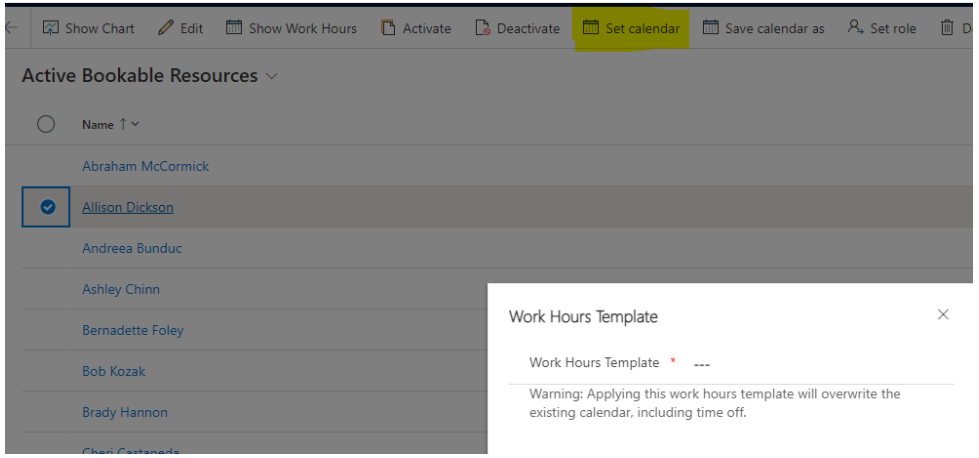
Only one proficiency model can be linked to skills (Ratable entity field)
On schedule board only resource's skills are considered

Core concepts

Calendars

- Each bookable resource working on a project must have a calendar of working hours to define their availability.
- Workings hours for a resource can be defined in two ways:
  - Define individual calendar rules for a resource
  - Apply an existing calendar template for the resource
- The calendar template defines the following project attributes:
  - Working hours, including start and end time
  - Working days
  - Calendar exceptions such as non-working days



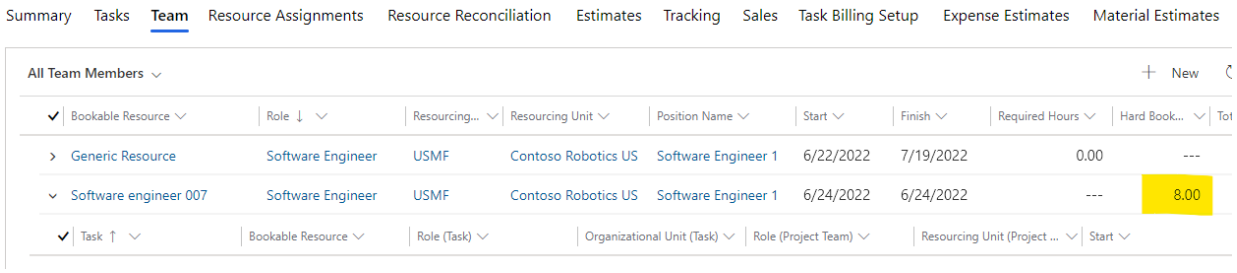


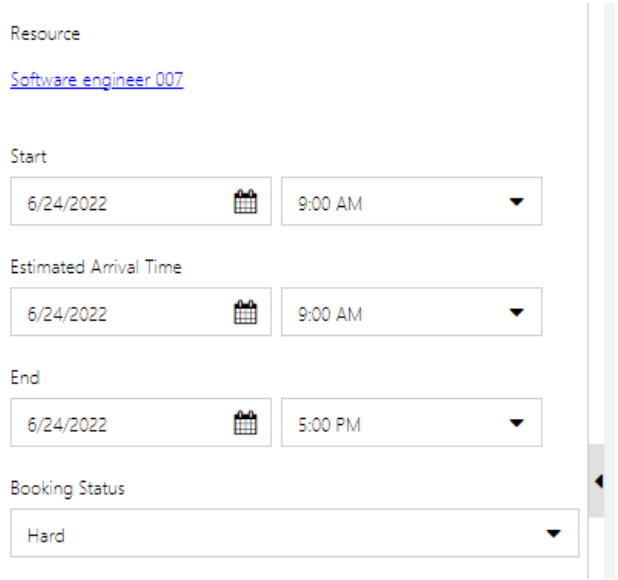
To update a calendar template, you need to create a new resource and then apply it to the calendar template When you change the calendar template on a project, new tasks will take this template, but old tasks remain in the original template until a new task for the associated resource is created.

Core concepts

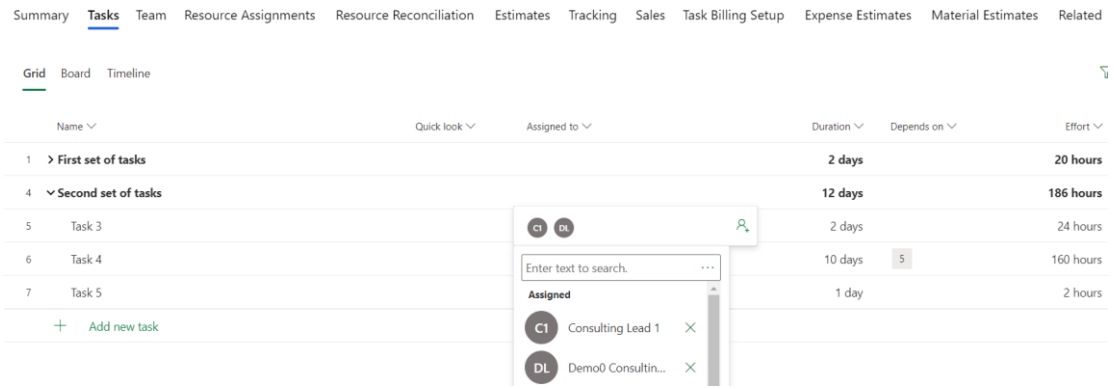
Bookings vs assignments

Bookings are the hard or soft allocation of resources to a project. They are a project-level concept.





Assignments are the commitment of resources to project tasks in the project schedule. The resources can be named or generic.



Resource	Total	6/12/2022	6/19/2022	6/26/
Demo0 Consulting Lead	**2.00**	2.00		
Booked	2.00	2.00		
Assigned				
Demo2 Consulting Lead	**2.00**		2.00	

Core concepts

Booking statuses

Depending on the type of allocation of resources to a project

Soft

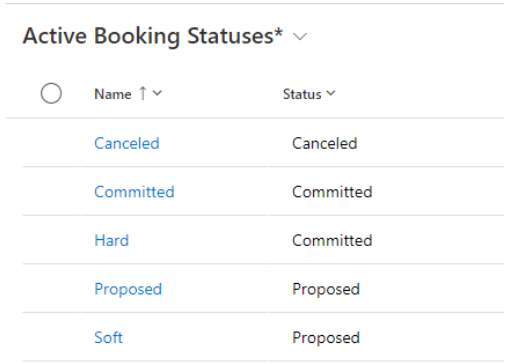
- does not consume a resource's available capacity
- used to show the intent of assigning a resource to the project
- generic resources cannot be soft booked, nor can a soft booking fulfill a request for a generic resource.

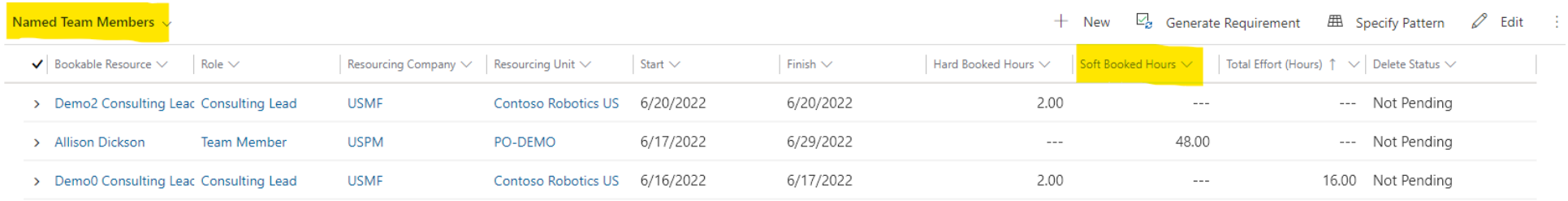
Hard

- consumes a resource's capacity
- only hard bookings are considered when reconciling bookings against assignments.

Standard type of statuses:

- Proposed
- Committed
- Cancelled

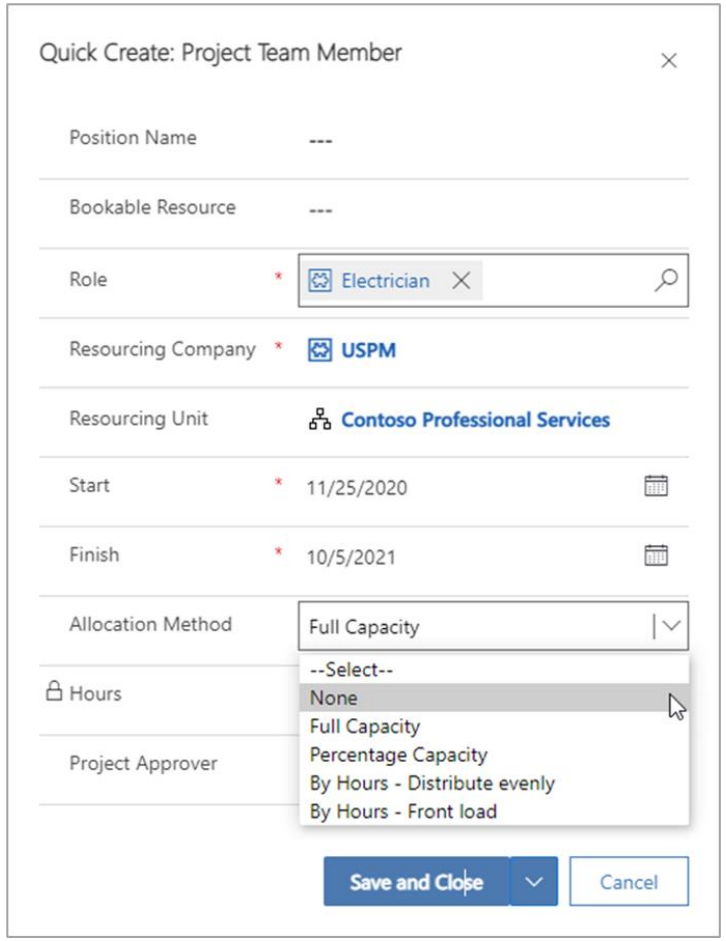




Booking allocation methods

- Full capacity*
- Remaining capacity
- Percentage capacity*
- Evenly distribute hours*
- Front load hours
- None

*can lead to overbooking

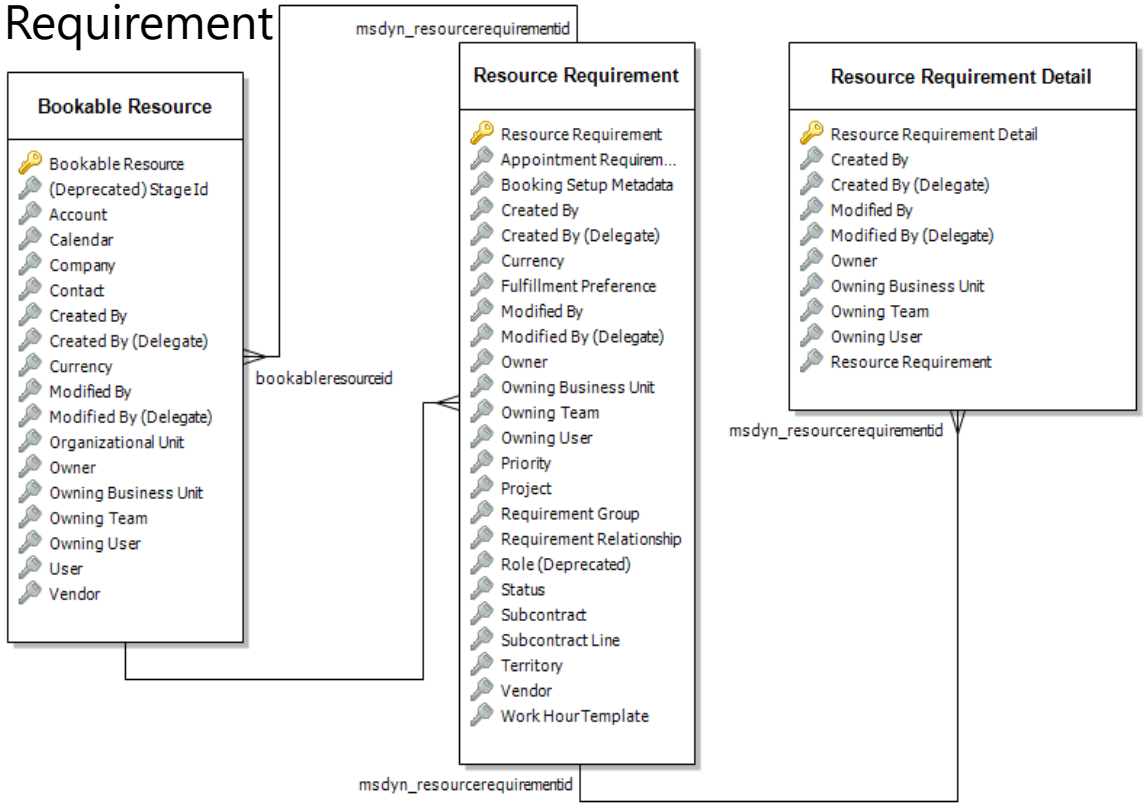


Front load hours

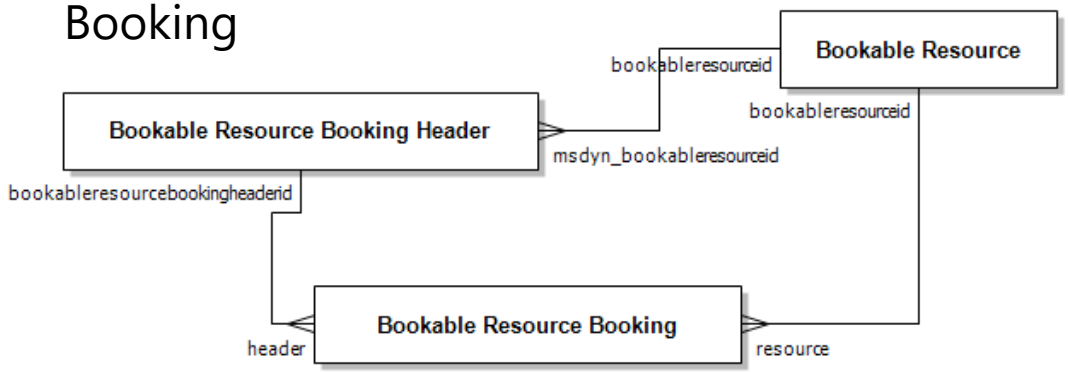
	Day 1	Day 2	Day 3	Day 4	Day 5	Total
Existing bookings	8	8	4	0	0	20
New booking	0	0	4	8	8	20

Core concepts

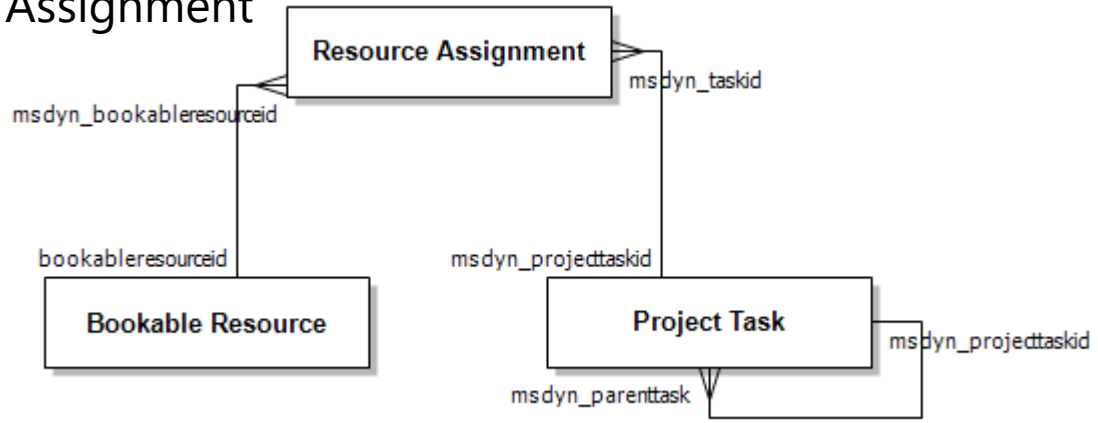
Requirement



Booking



Assignment



Demo – Resource Creation

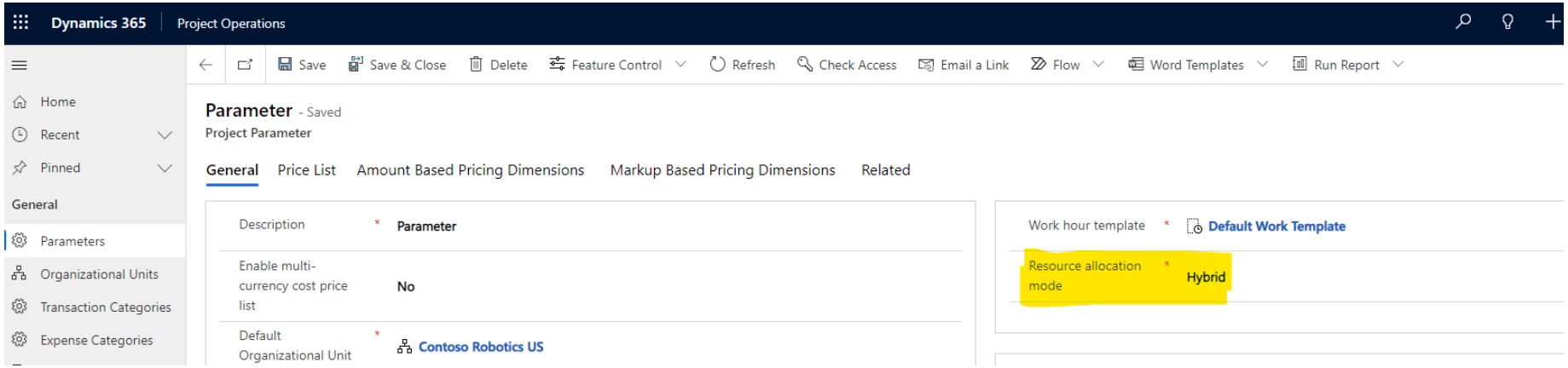
Mathieu Binaisse

Resource management

Resource management modes

- Dynamics 365 Project Operations supports two modes in order for you to execute the overall booking flow:
  - Centralized Mode
  - Hybrid mode

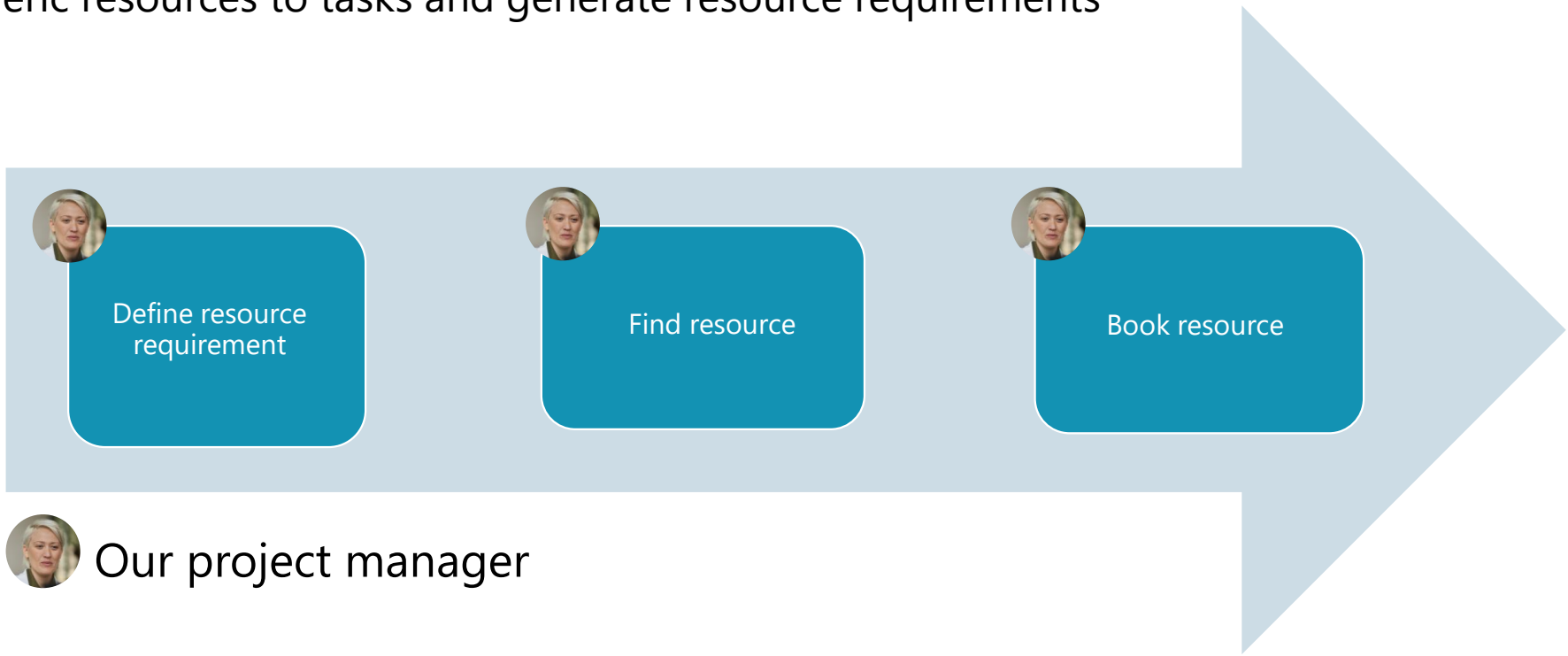
- The mode of management is defined as a project parameter and can be modified if your business needs change.



Hybrid Mode

Both Resource managers and Project managers can book resources using the following methods:

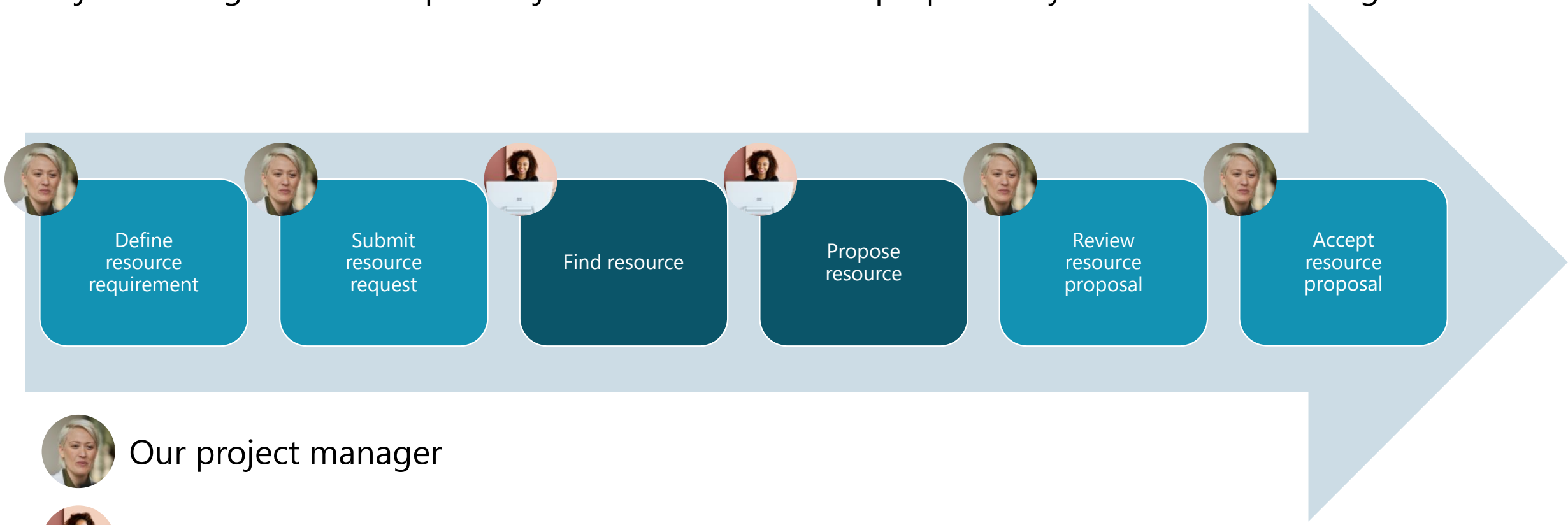
- Add a team member directly to a project
- Book a team member to fulfill resource requirements for a generic resource
- Assign generic resources to tasks and generate resource requirements



Central Mode

Fulfillment of the resource requirements is delegated to a Resource manager.

Project managers can accept or reject resources that are proposed by the Resource manager.

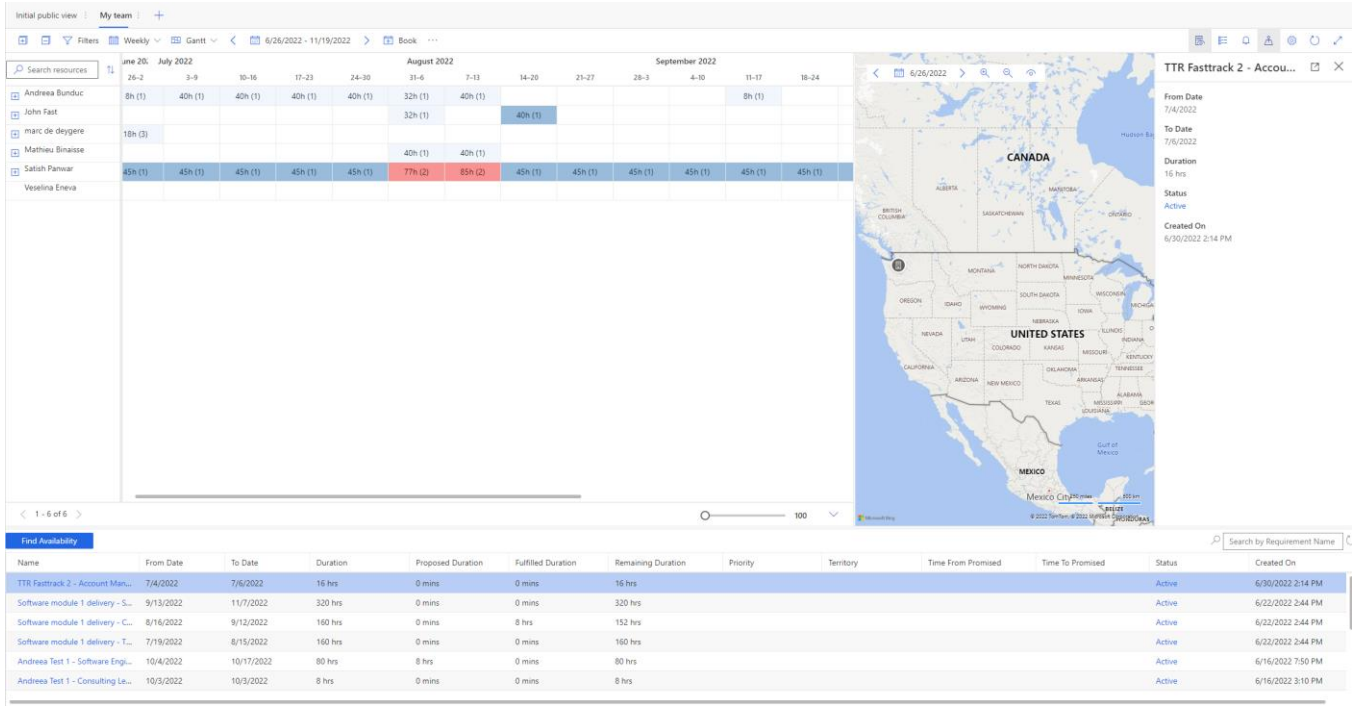


Multiple ways to book a resource

Ways	Mode	Description	Used
From the project main form	Hybrid	From the Project, find a resource and book with zero hour to add to the team	When you need to add someone based on the field criteria available in the schedule assistant
Book from the project's team grid	Hybrid	From the team member grid, add a team member from the quick create and book directly	When you know exactly who you want on your project and for how long
Generic resource fulfillment	Hybrid	From the team member grid, generate a resource requirement and book a resource using the schedule assistant	When you need to add someone based on requirement
Generic resource fulfillment	Central	From the schedule board, book a task derived requirement	When you need to add someone based on requirement
Book from schedule board	Central	Book a resource based upon an inbound list of resource requests	When you need to add several resources based on requirement
Generic resource booking	Central	From the schedule board, book the Project's Primary Requirement	When you need to add someone based on the field criteria available in the schedule assistant

Scheduling board

- Detail panel
- Map view
- Filter (Skills, territory…) & Save filter
- Requirement panel & view
- Alert
- Tab management & configuration



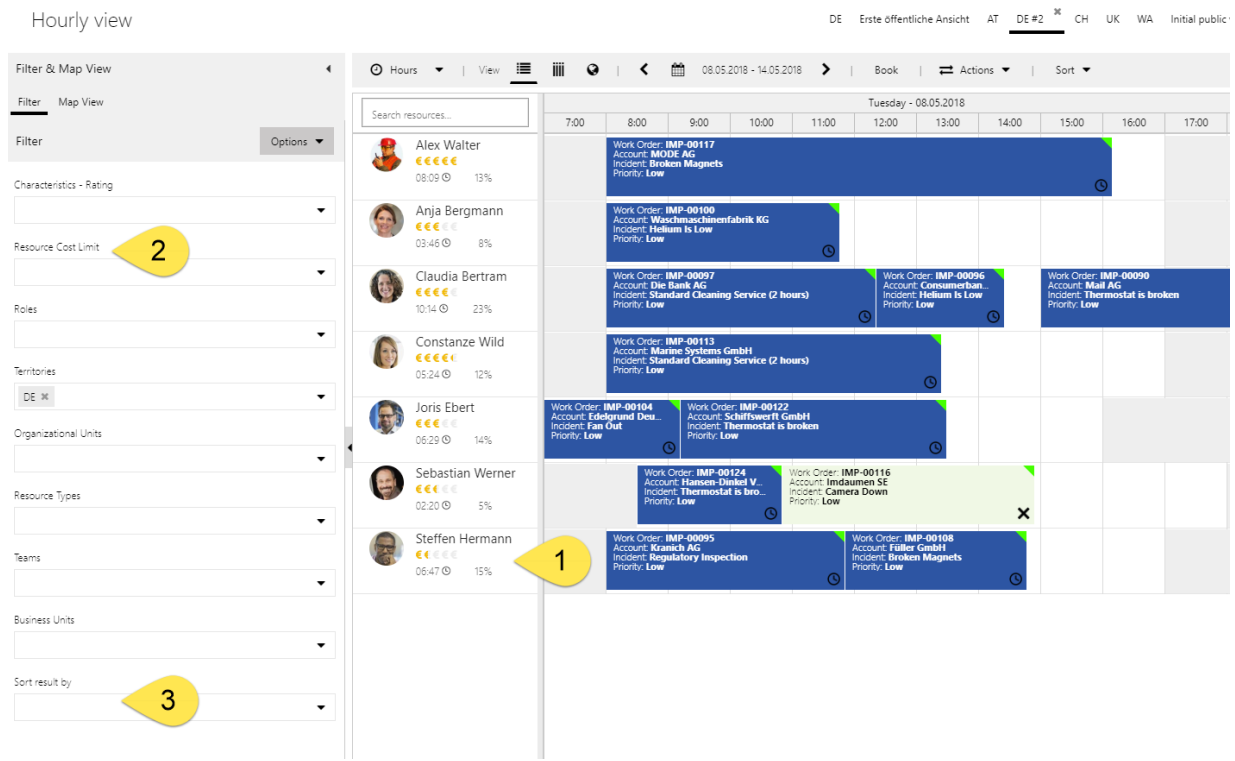
[Detail Configuration on schedule board]

Scheduling board

Custom resource attributes

The schedule board can be customized and extended:

- The resource cells where the resources' names, pictures, and utilization are listed by default
- The fields in the filter pane where dispatchers choose the resources in a view
- The sort options (also located in the filter pane) allowing dispatchers to sort the current resources on the schedule board based on various criteria.



Learn: [Extend Universal Resource Scheduling with Dynamics 365 Project Operations - Learn | Microsoft Docs]

Walkthrough: [Customize the schedule board with a custom resource attribute | Microsoft Docs]

Sample: [Extend Universal Resource Scheduling with custom constraint | Microsoft Docs]

Demo – Booking methods - Hybrid

Andreea Bunduc

Demo – Booking methods - Centralized

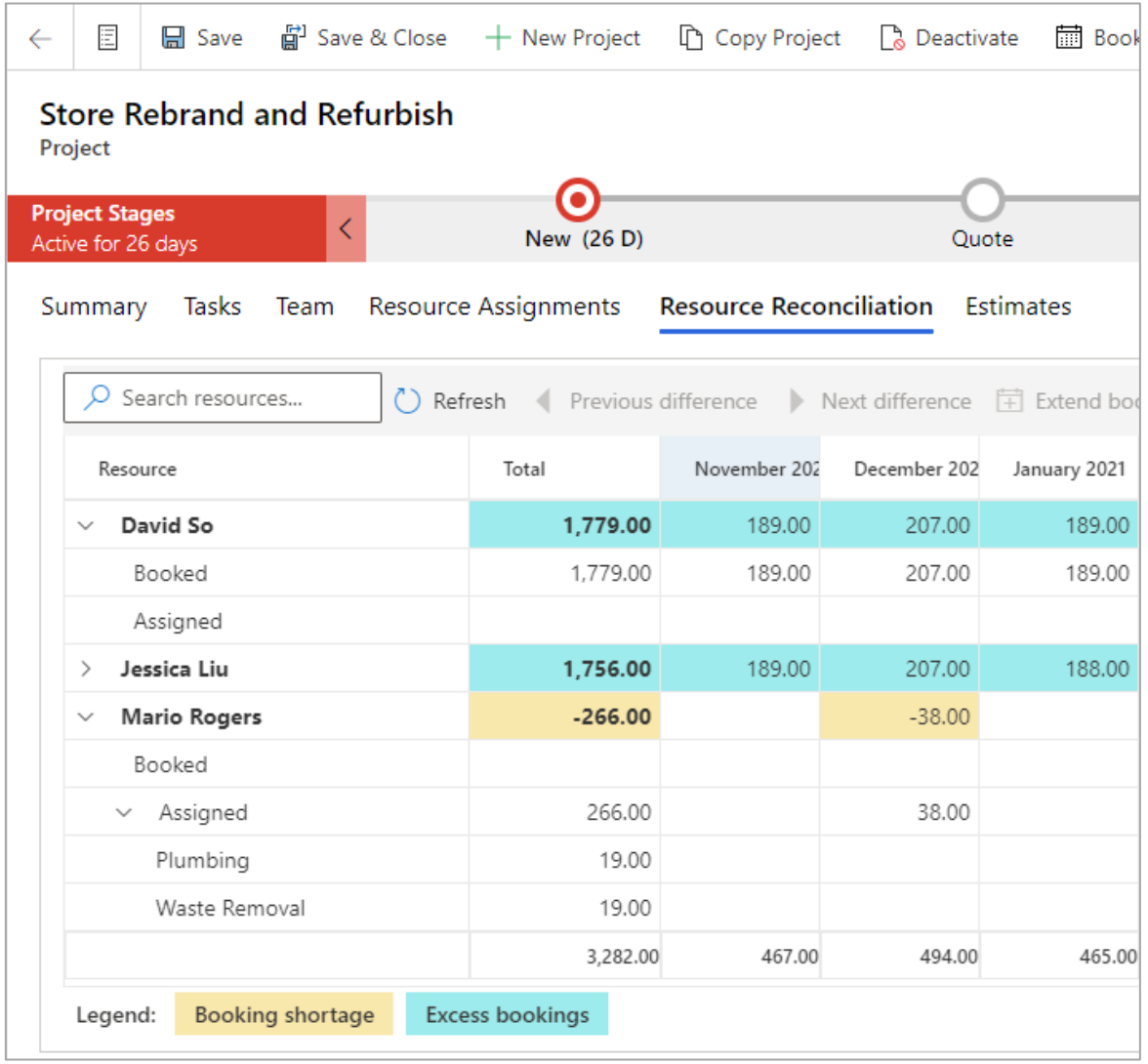
Andreea Bunduc & Mathieu Binaisse

Resource Reconciliation View

Typically, the sum of the bookings for a resource should equal the sum of the resource's assignments across one or many tasks. However, Project Operations **doesn't enforce this**

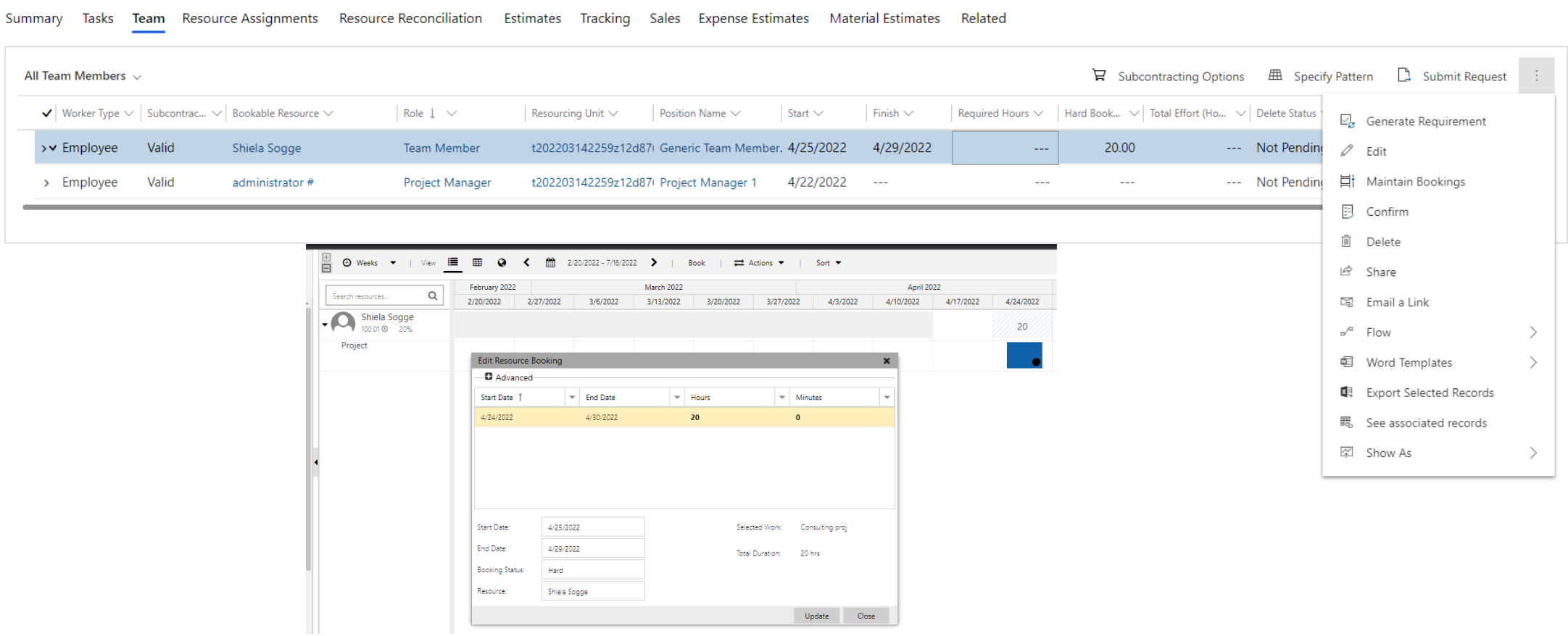
The Resource Reconciliation view displays where a resource's bookings and assignments don't agree.

- **Booking Shortage** is when a resource has more assignments than bookings.
- **Excess Bookings** are when a resource has been booked to the project but hasn't been assigned as much effort on tasks



Maintain and extend bookings

Used when you want to extend or maintain a resource on your project



Demo – Maintain bookings

Andreea Bunduc & Mathieu Binaisse

Resource Utilization

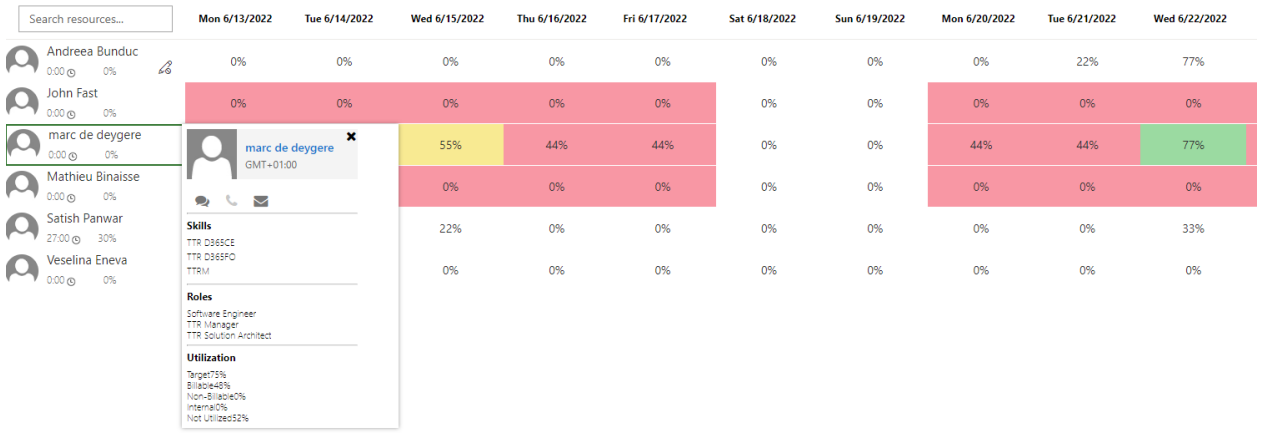
·Utilization calculations are based on the actual hours that resources have reported by using approved time entries.

·The following formulas are used to calculate utilization:

- **Billable Utilization** = Chargeable actual hours ÷ Resource capacity
- **Non-Billable Utilization** = Actual time with billing type ID = Non-chargeable, Complementary, or Not available ÷ Resource capacity
- **Internal** = Actual time with no sales contract ÷ Resource capacity
- **Resource Capacity** = Resource work hours – Out-of-office – Non-working days

·The following formulas are used to color the cells:

- **Green**: Billable utilization >= Resource target utilization
- **Yellow**: Target utilization – 20 <= Billable utilization < Target utilization
- **Red**: Billable utilization < Target utilization – 20



What’s coming

What’s coming in future releases

- New scheduling board
- Editing task assignment contours
- Performance improvements on long running bookings

Resources

Resources - General

- Overview - Dynamics 365 Project Operations | Microsoft Docs
- Overview - Finance and Operations application documentation - Finance & Operations | Dynamics 365 | Microsoft Docs
- Community - Dynamics 365 General - Forums, Blogs, Support
- Roadmap - Product Updates | Microsoft Dynamics 365
- Ideas - Ideas (dynamics.com)
- FastTrack - Microsoft FastTrack, move to the cloud with confidence
- Resource management key concepts | Microsoft Docs

Resources – Documentation and Learning

- Dynamics 365 Project Operations Deployment Options and Scenarios | February 2 & 3, 2022 - Microsoft Dynamics Blog
- Dynamics 365 Project Operations Demonstration | March 16, 2022 - Microsoft Dynamics Blog
- Dynamics 365 Project Operations Data Migration | April 14, 2022 - Microsoft Dynamics Blog
- Documentation
- Developer home page
- TechTalks* Upcoming / Recordings
- YouTube Dynamics 365
- Microsoft Learn

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Useful links on SLA, Compliance, and Support

- Licensing Guide
- Trust Center – For information on privacy, compliance, and security procedures
- Online Services Terms – Terms and Conditions of Microsoft Services
- Support Options

Microsoft Dynamics 365

Q & A

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Reach out!

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Thank you!