ProjectPro Procore Connector Setup Guide

This guide provides step-by-step instructions for installing and configuring the Procore Connector Application in both ProjectPro and Procore.

Project

Overview

This integration enables seamless synchronization between ProjectPro Business Central (BC) and Procore for project-related data.

The process ensures that when a project is created in BC, its corresponding structure — including Segments, Sub Jobs, Job Tasks, and Planning Lines — is systematically reflected in Procore.

Entity: Project (Customized in BC)

In ProjectPro Business Central, the Project entity (customized from the standard Job table) serves as the primary master record for project data. A new Boolean field named "Send to Procore" has been introduced to control when the project should be pushed to Procore.

Process Flow

Step 1: Segment Creation in Procore

Before creating a new project in Procore, we must ensure that all Segments (structural breakdowns or cost code classifications) exist in Procore.

- Segment codes are created in BC and synchronized in Procore.
- Segments define the cost code hierarchy that aligns with Business Central's project structure.
- Each segment in Procore automatically syncs with Sub Job entries under the same hierarchy.

Business Logic:
Segments are created in Procore through API calls.
Once created, they automatically sync with Sub Job records in Procore.
These Sub Jobs correspond to Segment Codes in Business Central.

Step 2: Project Creation in Business Central

Once the required Segments and Sub Jobs exist in Procore:

- A new Project is created in Business Central.
- When the Boolean field "Send to Procore" is set to TRUE, the integration triggers an API call to create the corresponding Project in Procore.

System Behaviour:

- On enabling "Send to Procore", BC sends the project metadata (Project Name, Number, Customer, etc.) to Procore via REST API.
- Once the Project is successfully created in Procore, a confirmation is logged in BC (with Procore Project ID reference).
- When the Boolean field "Send Budget Line to Procore" is enabled, the system triggers synchronization of Job Planning Lines from Business Central to Procore under the corresponding project.
- Each Job Planning Line is mapped to its respective Cost Code Segment (or Sub Job) in Procore.
- This ensures that the Budget Lines in Procore reflect the same structure, quantities, and cost amounts as defined in Business Central.

Step 3: Job Task Creation

After the Project is successfully created in BC:

- Job Tasks are created in Business Central.
- Each Job Task corresponds to a Cost Code Segment or Sub Job in Procore.
- After sync, these Job Tasks reflect as structured cost breakdowns under the same Project in Procore.

Step 4: Job Planning Line Creation

Finally, Job Planning Lines are created under each Job Task in Business Central. Once the Planning Line is created, the "Send Budget Line to Procore" boolean is enabled to ensure the corresponding line is created in Procore.

These represent detailed line items like materials, labour, and cost details.
The integration ensures that Planning Lines are also pushed to Procore under the relevant Project and Cost Code Segment.

Purchase Order

Overview

This integration ensures that Purchase Orders (POs) created in Business Central (BC) are automatically synchronized with Commitments in Procore.
The integration simplifies the procurement workflow by aligning purchase transactions in Business Central with project-level commitments in Procore, ensuring consistent and real-time financial visibility between both systems.

Entity: Purchase Order (Customized in BC)

A new Boolean field named “Send to Procore” has been introduced in the Purchase Order page (header & lines) of Business Central.

This field acts as a trigger for integration — once enabled, the system automatically sends the PO details to Procore to create a corresponding Commitment record.

Process Flow

Step 1: Purchase Order Creation in Business Central

- The user creates a Purchase Order (PO) in Business Central in the usual way.
- The Job No. field must be populated on the PO to associate the purchase with a specific project.
- Once the Job No. is filled, the system identifies the corresponding Procore Project ID linked to that Job in Business Central.

Step 2: Send to Procore Trigger

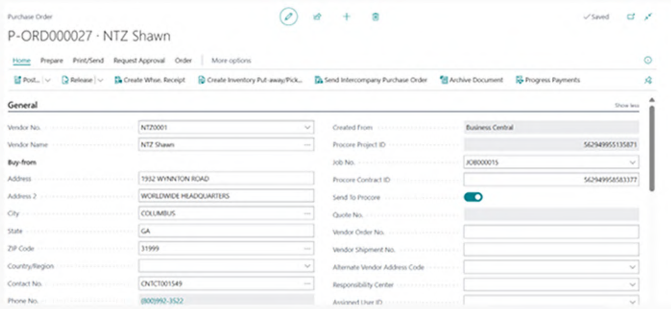
- When the Boolean field “Send to Procore” is set to TRUE, the integration logic initiates.
- The system validates mandatory fields such as:
- Job No. (Project linkage)
- Vendor No.
- At least one valid PO line
- Cost Type, Project Task No., and Segment Code (mandatory for sync)

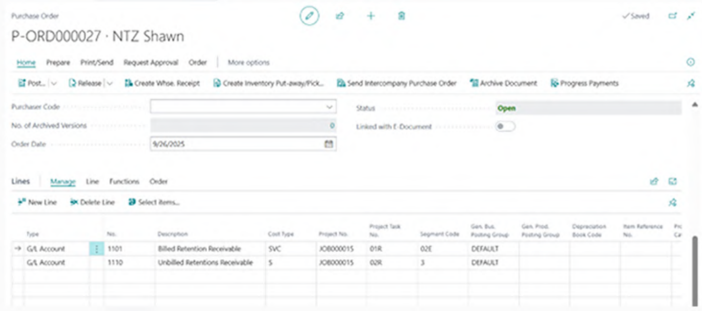
Upon validation, a REST API call is made from BC to Procore Commitments API to create a new Commitment under the corresponding project.

Step 3: Commitments Creation in Procore

The integration creates a Commitment (equivalent to a Purchase Order) in Procore under the matching Project.

- Each PO Line in BC is mapped to a Line Item within the Procore Commitment.





Posted Purchase Invoice

Overview

This integration automates the synchronization between Posted Purchase Invoices in Business Central (BC) and Commitment Invoices (Direct Costs) in Procore.
When a Purchase Order (PO) is created and the “Send to Procore” Boolean is turned ON, the integration first creates a Commitment in Procore. Once that PO is posted in Business Central, generating a Posted Purchase Invoice, the system automatically creates a Commitment Invoice (Direct Cost) in Procore. This ensures a complete flow of procurement and financial data from PO creation to invoice posting across both systems.

Entities Involved

In Business Central

- Purchase Order – Original purchase document linked with a project and vendor.
- Posted Purchase Invoice – Represents the finalized invoice after posting the PO.

In Procore

- Commitment – Created from the Purchase Order synchronization.
- Commitment Invoice (Direct Cost) – Automatically created when the PO invoice is posted in BC.

Process Flow

Step 1: Purchase Order Creation in Business Central

- A Purchase Order is created and linked with a Job No. (Project).
- The user enables the Boolean “Send to Procore”, which triggers the creation of a Commitment in Procore via REST API.

Step 2: Posting the Purchase Order

- When the PO is posted, Business Central creates a Posted Purchase Invoice.
- The system verifies that the original PO has already been successfully synced with Procore (Commitment created and Procore Commitment ID exists).

Step 3: Automatic Creation of Commitment Invoice in Procore

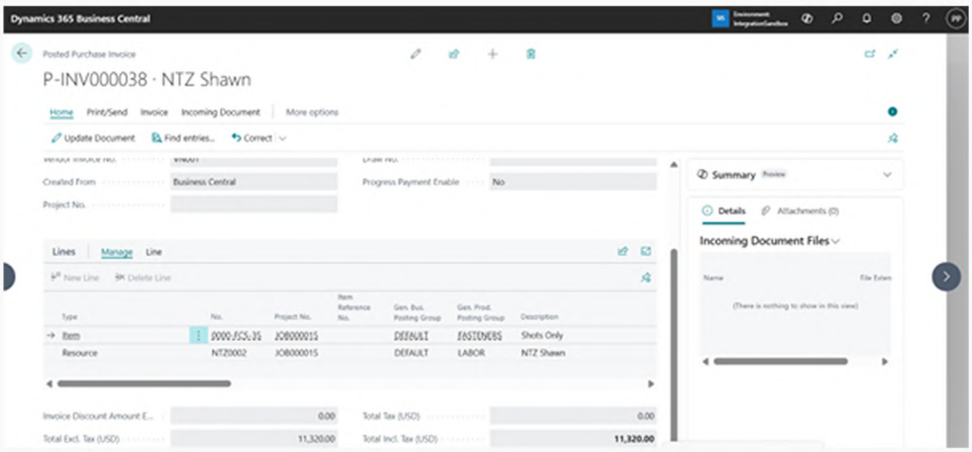
Once the Posted Purchase Invoice is created in BC:

1. The integration triggers the Commitment Invoice creation process in Procore.
2. Each Posted Invoice is sent as a Direct Cost / Commitment Invoice under the related Commitment in Procore.
3. This ensures financial alignment between actual supplier invoices in BC and corresponding commitments in Procore.

Step 4: System Behavior

On posting a Purchase Order in BC where “Send to Procore” = TRUE, the system performs the following steps:

1. Validates that the related Procore Commitment ID exists.
2. Reads all Posted Purchase Invoice Header and Line details.
3. Constructs a REST API payload and sends it to the Procore Commitment Invoices (Direct Costs) endpoint.



Project Journal

Overview

This integration enables automatic synchronization between **Project Journals** in **Business Central (BC)** and **Direct Costs** in **Procore**.

Whenever a Project Journal is **posted** in BC, the system automatically sends the corresponding data to **Procore as Direct Cost**, ensuring real-time cost visibility across both systems.

This integration ensures that all direct project expenses recorded in Business Central are accurately reflected in Procore's Direct Cost module, maintaining transparency and consistency in project financials.

Entity: Project Journal (Customized in BC)

The Project Journal has been customized to support synchronization with Procore. Each journal entry represents a project-related expense and includes additional validation and mapping logic to ensure data consistency.

Process Flow

Step 1: Project Journal Creation in BC

- The user creates a Project Journal in BC and fills in:
    - Job No., Job Task No., and Segment Code.
    - Entry Type = Budget (this is mandatory for sync).
    - Amount, Description, and Posting Date.
- Each line represents a cost item to be transferred to Procore.

If the **Entry Type** is not **Budget**, the system will **not allow posting** and will display a notification such as: "Only Journal Lines with Entry Type = 'Budget' are eligible for Procore Direct Cost synchronization."

Step 2: Posting the Journal

- When the user posts the Project Journal:
    - BC validates all mandatory fields:
        - Job No.
        - Job Task No.
        - Segment Code
        - Entry Type = Budget
        - Amount > 0

If all validations pass, the journal is posted and triggers an API call to Procore Direct Cost.

Step 3: Direct Cost Creation in Procore

• After posting, the integration sends each journal line as a Direct Cost record under the corresponding Project in Procore.
• The system uses the Procore Project ID linked to the BC Job to identify the correct project.
• The Direct Cost entry in Procore includes details such as cost code, amount, date, and description.

Step 4: System Behavior

When the Project Journal is posted: The system validates all required fields and checks that Entry Type = Budget. If validation passes, each line is converted into a Direct Cost payload and sent via REST API to Procore's Direct Cost endpoint.

Regular Change Order

Overview

This integration automates the synchronization of Regular Change Orders (RCOs) created in Procore with their corresponding Projects (Jobs) in Business Central (BC).

When a Regular Change Order is created and approved in Procore, the system retrieves its details via REST API and creates corresponding Change Order records in Business Central.

Additionally, the Project Class field in BC is automatically updated to reflect that a Change Order exists under the project, ensuring project classification and financial tracking remain consistent.

Entities Involved

In Procore
• Change Orders (COs): Represent modifications to the original project scope or budget, approved for implementation. Each CO can contain multiple line items related to different cost codes or segments.

In Business Central
• Project (Job): The master record representing the project in BC.
• Project Class Field: A custom field in the Project (Job) table that is automatically updated when at least one Change Order is synced under that project.

Process Flow

Step 1: Regular Change Order Creation in Procore

- A Regular Change Order is created and approved within Procore under a specific project.
- It contains essential details like Change Order number, title, cost code, amount, segment, and description.

Step 2: Fetch Change Orders into Business Central

- An integration process (manual trigger or scheduled job) in BC calls the Procore REST API to fetch approved Regular Change Orders for each project.
- The system filters Change Orders using:
    - Project ID (Procore Project Reference)
    - Project Class = Master Job
    - Status = Approved

Step 3: Create Change Orders in Business Central

For each fetched Change Order:

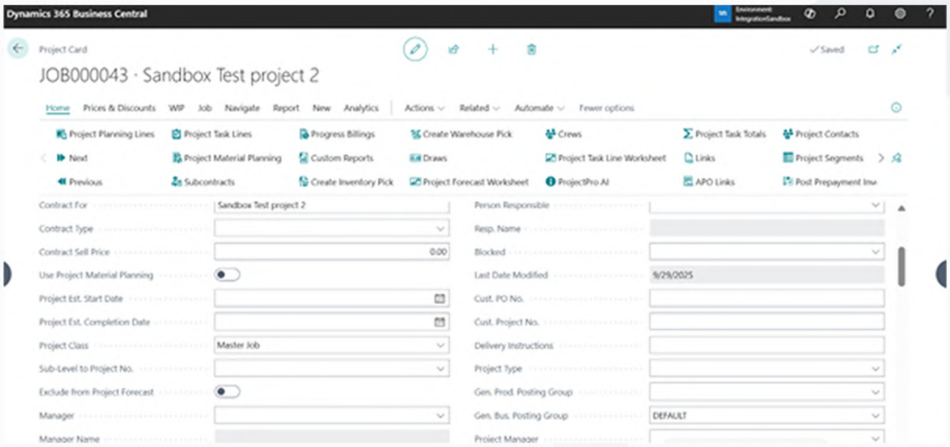
1. The system checks if a record with the same Procore Change Order ID already exists in BC.
2. If not, it creates a new Change Order Header under the corresponding Project (Job).
3. Line items are created under Change Order Lines, mapping cost codes, quantities, and amounts to the correct Job Task and Segment Code.
4. The Project Class field in BC is updated automatically to indicate that one or more Change Orders exist for the project.

Example: Project Class is updated from Base Project □ Project with Change Order.

Step 4: System Behavior

During synchronization:

- The system fetches all approved Regular Change Orders from Procore.
- For each Change Order:
- Checks if already present in BC using the Procore Change Order ID.
- If not, creates a new Change Order record under the corresponding Project (Job).
- Inserts all related lines (Cost Code, Segment, Amount).
- Updates the Project Class field in the Job record to mark that the project contains Change Orders.
- This can be used for reporting or filtering projects with variations.
- Marks the Change Order record as “Synced” and stores the Procore CO ID for traceability.



NPC Change Order

Overview

This integration handles the synchronization of NPC (Non-Project Change) Orders from Procore to Business Central (BC).

When an NPC Change Order is created in Procore under a project (with the Boolean field "NPC = True"), a new Project (Job) is automatically created in Business Central.

This new project is linked to the parent project (the one under which the NPC was originally created in Procore), and the Project Class and Project ID fields are updated to reflect the relationship between both.
This approach ensures that all NPC-related work is tracked as a separate project in BC, while maintaining a logical and traceable connection to its originating project in Procore.

Entities Involved

In Procore

• NPC Change Order: Represents a non-project-specific or independent change order created under an existing project. It carries a Boolean flag NPC = True to differentiate it from a Regular Change Order.
• Parent Project: The main project in Procore under which the NPC Change Order is raised.

In Business Central

• Parent Project (Job): The existing project corresponding to the Procore Project ID under which the NPC Change Order was created.
• Linked Project (New NPC Project): A new project automatically created in BC to represent the NPC Change Order.
• Project Class: Updated to indicate the presence of a Change Order.
• Linked Project ID: Establishes the relationship between the parent project and its NPC-derived project.

Process Flow

Step 1: NPC Change Order Creation in Procore

- A Non-Project Change (NPC) Order is created in Procore under an existing project.
- The NPC flag (Boolean field "NPC = True") identifies that this Change Order is to be treated as a separate standalone scope.
- The Change Order includes essential metadata such as:
  - NPC Boolean flag = True
  - Project ID (Parent Project)
  - Change Order ID
  - Title / Description
  - Date
  - Cost Code / Segment
  - Amount

Step 2: Fetch NPC Change Orders into Business Central

- A scheduled or on-demand integration job in BC retrieves all approved NPC Change Orders from Procore using the Procore REST API.
- The integration filters records using:
  - NPC = True
  - Status = Approved
  - Change Order Type = NPC Change Order

Step 3: Create New Linked Project in Business Central

Once an NPC Change Order is fetched:

1. The system checks whether an NPC project already exists for that Procore NPC Change Order ID.
2. If not, a new Project (Job) is automatically created in Business Central.
3. The new project inherits the following details from the Change Order and parent project:
   - Project Name: Derived from NPC Change Order Title
   - Project Description: NPC CO Description
   - Customer / Vendor: Same as Parent Project
   - Parent Project Link: Stores Parent Project ID from BC
   - Procore Project ID: Linked to parent Procore project
   - NPC Change Order ID: Stored for reference and traceability

4. The Project Class field of the new project is automatically updated to reflect that this is a Change Order-based Project (e.g., Class = "NPC Change Order").
5. The parent project's Project Class field is also updated to indicate the presence of an NPC-related child project.

Step 4: System Behaviour

When NPC Change Orders are detected from Procore:

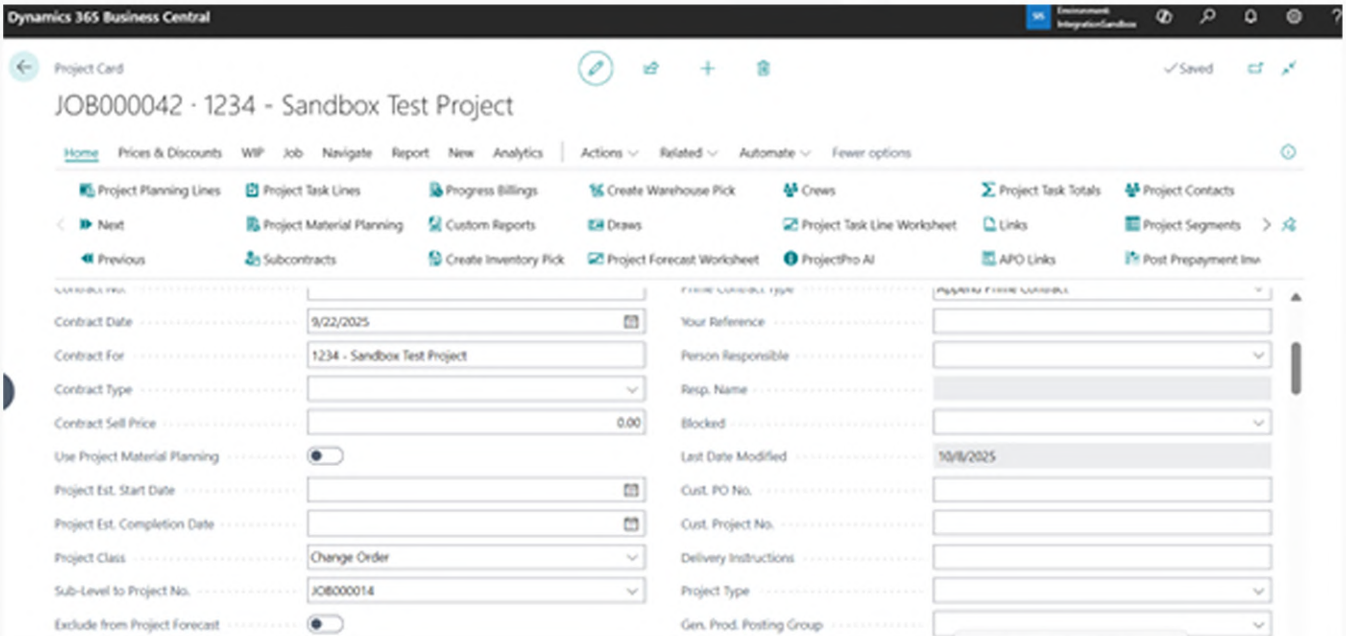
1. The integration validates that NPC = True and Status = Approved.
2. It verifies whether a corresponding NPC project already exists in BC.
3. If not, a new Project (Job) is created in BC using the Change Order data.
4. The new project is linked to the Parent Project using:

- Parent Project No.
  Procore Project ID

5. The Project Class field is updated to indicate "NPC Change Order" for both projects:

- Parent Project: Updated to show a Change Order exists.
- NPC Project: Marked as a Change Order type.

6. The Procore NPC Change Order ID is stored in BC for synchronization reference.



Time Sheet

Overview

This integration handles the synchronization of Time Sheets from Procore to Crew Time Sheet in Business Central (BC).When a Time Sheet is created in Procore under a specific project, a corresponding Crew Time Sheet is automatically created in Business Central.
This newly created Crew Time Sheet is linked to the same project in BC, and all relevant fields—such as Project ID, Employee Details, Work Date, Project Task No., Project Segments and Hours Worked—are synchronized to ensure data accuracy and consistency.
This approach ensures that all time-tracking data entered in Procore is seamlessly reflected in Business Central, providing a unified and efficient view of labor hours across both platforms.

Entities Involved

In Procore

• Time Sheet: Represents the record of labor hours worked by employees or crews on a specific project. Each Time Sheet includes details such as project association, work date, employee information, and hours worked.

• Project: The active project in Procore under which the Time Sheet is created. It serves as the reference for linking the corresponding Crew Time Sheet in Business Central.

In Business Central

• Crew Time Sheet: The Crew Time Sheet in Business Central is created in the Time Sheet Buffer Table and then it automatically created when a Time Sheet is generated in Procore. It mirrors all relevant details such as project reference, employee or resource information, date, and hours worked. The Budget Code in the Time sheet in Procore is split to Cost Code as Job Task No., Cost Type as Cost type field in the Crew Time Sheet Line Table. The Sub Job is linked to the Segment Code in the Crew Time Sheet Line Table.

After successfully creation of the Crew Time Sheet in the Business Central the Time Sheet Header ID and Time Sheet Line ID is automatically tagged so that no unnecessary repeated time sheets are created in the Business Central.

This synchronization ensures accurate labor tracking and consistent project-level visibility between Procore and Business Central.

Process Flow

Step 1: Time Sheet Creation in Procore

- A Time Sheet is created in Procore under an existing project.
- The Time Sheet includes essential metadata such as:
    - Task Code
    - Hours
    - Description
    - Status

Step 2: Create New Crew Time Sheet in Business Central

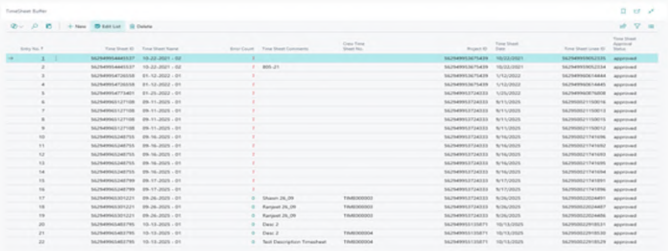
Once a Time Sheet is fetched from Procore:

1. The system checks whether a Time Sheet Exist for that Time Sheet Header ID.
2. The system checks whether the Worker tagged in the Procore Time Sheet exist as a resource in the Business Central.
3. The system checks if the resource created in the Business Central has “Use Crew Time Sheet” Boolean enabled for the creation of new Crew Time Sheet in the Business Central.
4. The System checks if the fetched Time sheet is within the accounting period.

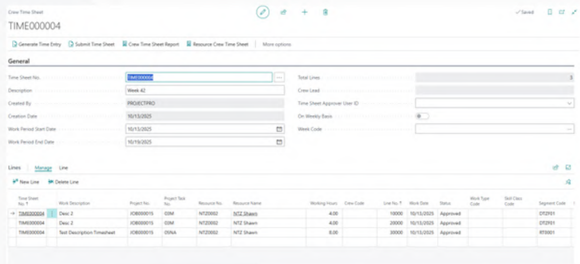
Step 3: Create New Crew Time Sheet in Business Central

When Time Sheet are Fetched from Procore:

1. The integration validates that Time Sheet Status = Approved or Pending.
2. It verifies whether a corresponding Crew Time Sheet already exists in BC.
3. The Procore Time Sheet Header ID is stored in BC for synchronization reference.



This Screenshot shows the Time Sheet Buffer table where the time sheet from Procore stores



This Screenshot shows the Crew Time Sheet Created in Business Central

ProjectPro is a specialized construction management solution built on Microsoft Dynamics 365 Business Central. Designed exclusively for project-based and construction companies, it brings powerful industry-specific functionality to help you take control of every aspect of your business.

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