



Microsoft
Dynamics 365

Dynamics 365 For Construction

V1.0



Pavilion
Information Technology





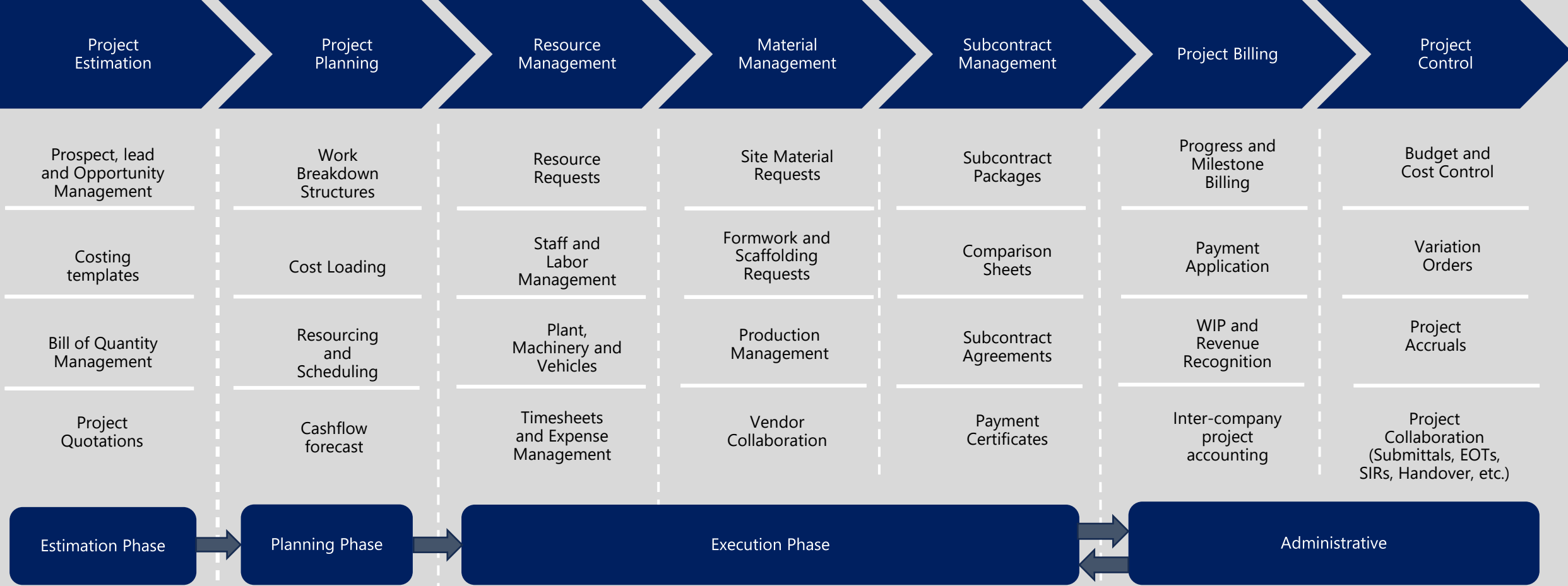
Dynamics 365 for Construction

Empower your organization with the visibility, collaboration and insight needed to drive success across operations – from prospect to profit. Microsoft Dynamics 365 for Construction connects sales, planning, project management, and finance teams within a single application to win more deals, accelerate project delivery, and maximize profitability.



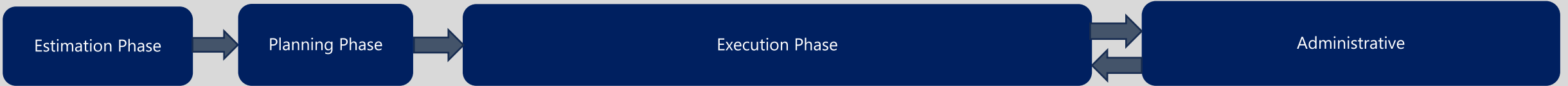
End-to-end Construction Management

Construction Business Value Chain



Typical Project lifecycle of Construction Companies

Disparate systems and data silos are impacting success



Redundant workstreams, disconnected tools

Lack of visibility across projects and into cost of resources

Lack of visibility into success of projects and cash flow

Inaccurate budgets and timelines



Excel

ORACLE
PRIMAVERA



Manual Process



Excel



Timesheets



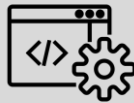
ERP Software



3rd Party estimation tools



Microsoft Project



Purpose built software



Microsoft Project

ORACLE
PRIMAVERA



Document Management

Dynamics 365 for Construction

Unify your construction business in a single application



Microsoft Dynamics 365 Project Operations with Pavilion IT Construction Projects Management

| | | | | | | |
|---|---------------------------|-----------------------------------|-----------------------------------|------------------------|----------------------------------|--|
| Prospect, lead and Opportunity Management | Work Breakdown Structures | Resource Requests | Site Material Requests | Subcontract Packages | Progress and Milestone Billing | Budget and Cost Control |
| Costing templates | Cost Loading | Staff and Labor Management | Formwork and Scaffolding Requests | Comparison Sheets | Payment Application | Variation Orders |
| Bill of Quantity Management | Resourcing and Scheduling | Plant, Machinery and Vehicles | Production Management | Subcontract Agreements | WIP and Revenue Recognition | Project Accruals |
| Project Quotations | Cashflow forecast | Timesheets and Expense Management | Vendor Collaboration | Payment Certificates | Inter-company project accounting | Project Collaboration (Submittals, EOTs, SIRs, Handover, etc.) |



3rd Party estimation tools

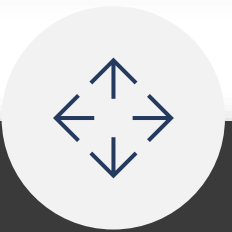
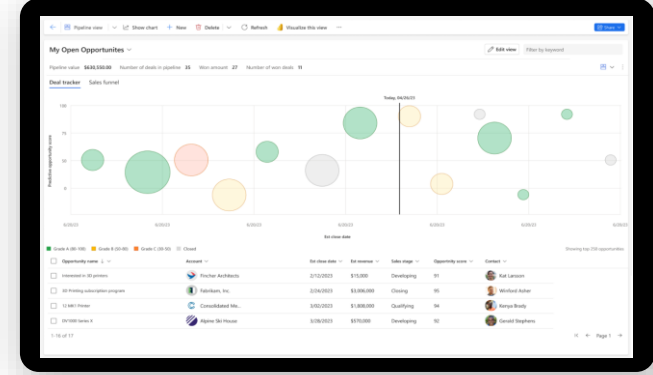
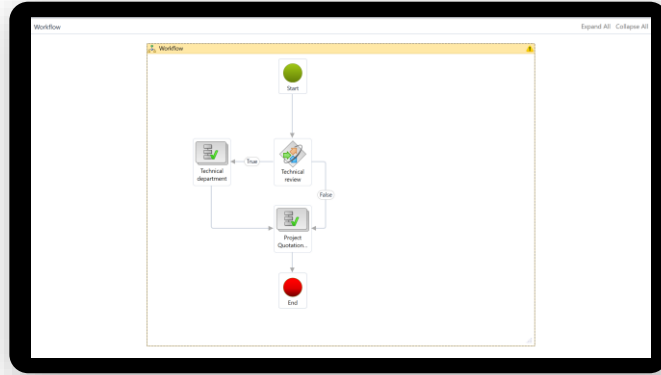


Possible integrations (if required)

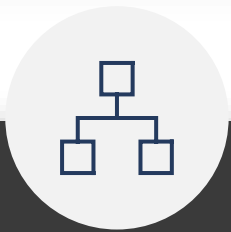
Project Estimation



| ID | Name | Unit | Bill quantity | Final quant. | Project category | Description | Unit cost price | Unit sales price | Total cost price | Total sales price |
|-----------|--|------|---------------|--------------|------------------|---------------------------|-----------------|------------------|------------------|-------------------|
| 00000228 | PRELIMINARIES & GENERAL REQUIREMENTS | | | | | | 14,815,222.81 | 1,546,484.28 | 14,815,222.81 | 1,546,484.28 |
| 2.1 | SITE WORKS | | | | | | 3,218,482.11 | 3,314,677.34 | 3,218,482.11 | 3,314,677.34 |
| 2.2 | DEWATERING WORKS | | | | | | | | | |
| 2.3 | CONCRETE CAST IN-SITU REINFORCED PILES | | | | | | 1,199,876.34 | 1,604,228.89 | 1,199,876.34 | 1,604,228.89 |
| 2.3.1 | PILEING AND SHORING WORKS | | | | | | | | | |
| 2.3.1.1 | Installation & De-installation for Piling... | Each | 1.00 | 1.00 | | | 1,199,876.34 | 1,604,228.89 | 1,199,876.34 | 1,604,228.89 |
| 2.3.2 | Concrete cast in-situ reinforced concrete... | Each | 26.00 | 26.00 | | | 14,507.88 | 16,744.80 | 379,406.88 | 434,314.40 |
| 2.3.2.1 | 100mm Diameter bored pile (Type P3) | Each | 61.00 | 61.00 | | | 10,017.37 | 11,169.81 | 611,667.37 | 679,358.81 |
| 2.3.2.2 | 100mm Diameter bored pile (Type P4) | Each | 70.00 | 70.00 | | | 5,952.84 | 6,950.82 | 416,758.80 | 486,687.40 |
| 2.3.2.3 | 750mm Diameter bored pile (Type P5) | Each | 4.00 | 4.00 | | | 4,500.00 | 4,500.00 | 18,000.00 | 18,000.00 |
| 2.3.2.3.1 | 457 MC211001 | Item | 400.00 | 475.00 | | Ready Mix Concrete Supply | 45.00 | 2,500.00 | 18,000.00 | 2,500.00 |
| 2.3.2.3.2 | 0.66 MC211002 | Item | 3,200.00 | 3,750.00 | | Steel Reinforcement Bar | 2,250.00 | 3,375.00 | 7,125.00 | 3,375.00 |
| 2.3.2.3.3 | 3.60 MC211003 | Item | 1,000.00 | 1,000.00 | | Formwork | 18.00 | 18.00 | 18,000.00 | 18,000.00 |
| 2.3.2.3.4 | 4.00 MC211004 | Item | 1,000.00 | 1,000.00 | | Formwork | 18.00 | 18.00 | 18,000.00 | 18,000.00 |
| 2.3.3 | PILE TRYING | | | | | | 40,000.00 | 50,000.00 | 40,000.00 | 50,000.00 |
| 2.4 | SHORING WORKS | | | | | | 1,816,573.79 | 1,838,858.35 | 1,816,573.79 | 1,838,858.35 |
| 2.4.1 | Installation of Shoring system with steel... | | | | | | 1,816,573.79 | 1,838,858.35 | 1,816,573.79 | 1,838,858.35 |
| 2.4.1.1 | Shoring wall system using UC 150x60x20... | Each | 187.00 | 187.00 | | | 11,888.84 | 11,846.18 | 2,223,163.12 | 2,223,163.12 |
| 3 | GOVERNMENT RATE | | | | | | 16,000,000.00 | 16,000,000.00 | 16,000,000.00 | 16,000,000.00 |
| 4 | PROFIT OVERHEADS & PROVISIONS | Each | 1.00 | 1.00 | | | | | | |



Quickly translate your customer inquiries to a Bill of Quantity and use costing templates to build your estimates



Easily collaborate with procurement, technical, finance or other departments on your estimates.



Submit and follow up on your technical and commercial quotations for complete pipeline analysis

Bill of Quantity Management

Enhance visibility and control over your estimates

- Record customer Bill of Quantity with requested Sales Quantities.
- Build your cost breakdown for each line by cost categories and record budget final quantity.
- Use flexible cost coding hierarchies for easier review and reporting.
- Apply markup percent to calculate your margins.
- Save your estimate as a template and use it for other inquiries.
- Use the excel add-in for bulk upload of BOQ and estimate lines from your working sheets or third-party estimation tools.

Bill of quantity | 00000228 : Pavilion IT Ltd. Office Building

My view * v

00000228: Pavilion IT Ltd. Office Building

Version date
9/13/2023 Draft

+ New Delete +E Outdent +E Indent ↑ Move up ↓ Move down Expand to Details Import Export Attachments

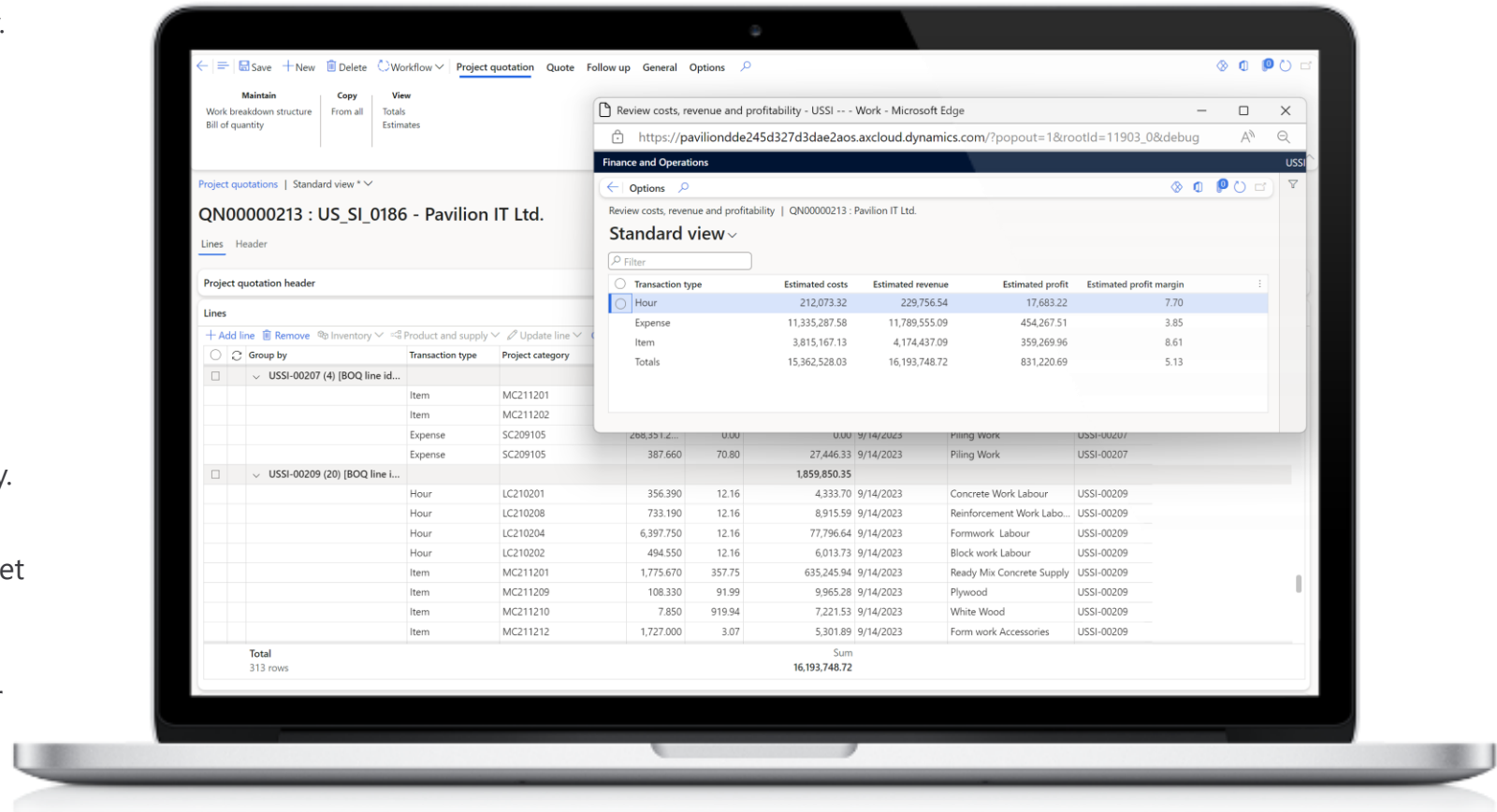
View
Filter (Cost estimate)

| BOQ | Name | Unit | Bill quantity | Final quantity | Project category | Item | Unit sales price | Total cost price | Total sales price |
|---------|---|------|---------------|----------------|------------------|-------------------|---------------------|---------------------------|-------------------------------------|
| 1 | PRELIMINARIES & GENERAL REQUIREMENTS | | | | | | | | |
| 2 | SITE WORKS | | | | | | | | |
| 2.1 | EARTHWORKS | | | | | | | | |
| 2.2 | DEWATERING WORKS | | | | | | | | |
| 2.3 | CONCRETE CAST IN-SITE BORED PILES | | | | | | | | |
| 2.3.1 | PILING AND SHORING WORKS | | | | | | | | |
| 2.3.1.1 | Mobilization & De-mobilization for Piling a... | Each | 1.00 | 1.00 | | | | | |
| 2.3.2 | Construct cast in-situ reinforced concrete b... | | | | | | | | |
| 2.3.2.1 | 1000mm Diameter bored piles (Type-P1) | Each | 28.00 | 26.00 | | | | | |
| 2.3.2.2 | 1000mm Diameter bored piles (Type-P2) | Each | 61.00 | 60.00 | | | | | |
| 2.3.2.3 | 750mm Diameter bored piles (Type-P3) | Each | 78.00 | 78.00 | | | | | |
| | | | | | | 4.97 MC211201 | Item | Ready Mix Concrete Supply | 406.80 475.30 2,021.80 2,362.24 |
| | | | | | | 0.84 MC211202 | Item | Steel Deformed Bar | 3,250.00 3,797.26 2,730.00 3,189.70 |
| | | | | | | 3,440.40 SC209105 | Expense | Piling Work | |
| | | | | | | 4.97 SC209105 | Expense | Piling Work | 60.60 70.80 301.18 351.88 |
| 2.3.3 | PILE TESTING | | | | | | | 40,000.00 | 50,289.78 |
| 2.4 | SHORING WORKS | | | | | | | 1,819,573.79 | 1,859,850.35 |
| 2.4.1 | Installation of Shoring system with steel H-... | | | | | | | 1,819,573.79 | 1,859,850.35 |
| 2.4.1.1 | Shoring wall system using UC 356x406x287... | Each | 157.00 | 157.00 | | | 11,589.64 11,846.18 | 1,819,573.79 | 1,859,850.35 |
| 3 | GOVERNMENT PLOT | | | | | | | 10,651,535.72 | 11,164,666.08 |
| 4 | HEAD OFFICE OVERHEADS & PROFITS | Each | 1.00 | | | | | | |

Project Quotation Management

Enhance visibility and control over your estimates

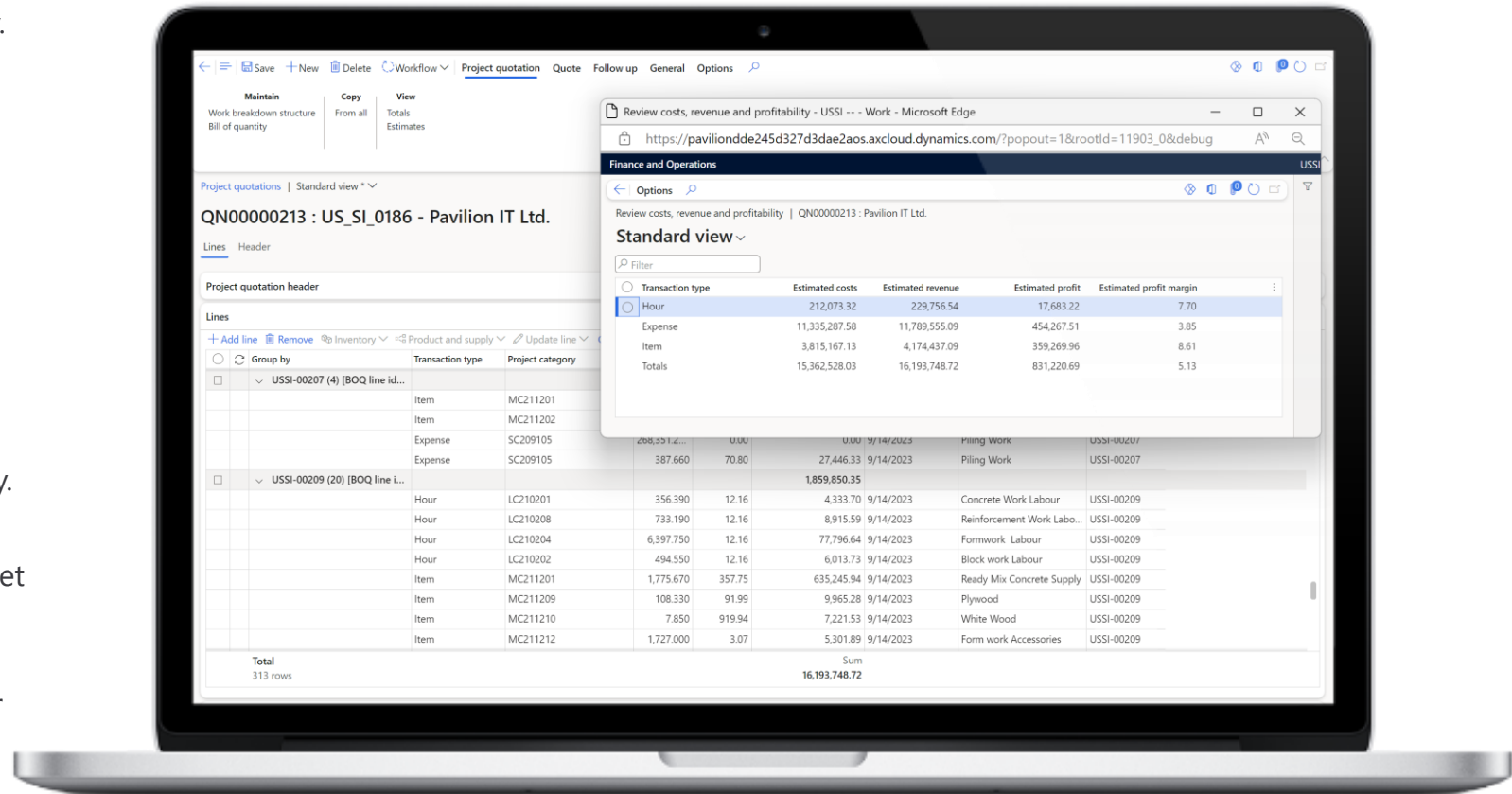
- Aggregate your BOQ lines and review budget by category.
- Collaborate on your estimate with other departments:
 - Technical department for review
 - Procurement department for vendor pricing (RFQs)
 - Commercial department for subcontractor pricing
 - Finance department for financial review and approval
 - Etc.
- Follow up on quotations with your customers, revise and negotiate your final offer with full version history.
- Perform pipeline analysis on prognosis and win probability.
- Automatically transfer your estimate BOQ to project budget and project contract for won bids.
- Prepare quotations for variation requests and update your projects with revised BOQ.



Sales Pipeline Analysis

Enhance visibility and control over your estimates

- Aggregate your BOQ lines and review budget by category.
- Collaborate on your estimate with other departments:
 - Technical department for review
 - Procurement department for vendor pricing (RFQs)
 - Commercial department for subcontractor pricing
 - Finance department for financial review and approval
 - Etc.
- Follow up on quotations with your customers, revise and negotiate your final offer with full version history.
- Perform pipeline analysis on prognosis and win probability.
- Automatically transfer your estimate BOQ to project budget and project contract for won bids.
- Prepare quotations for variation requests and update your projects with revised BOQ.

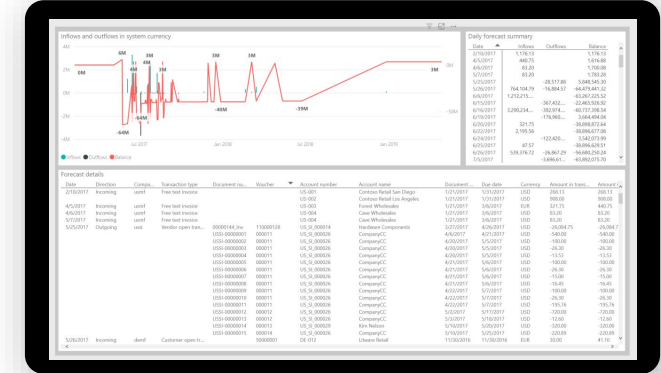




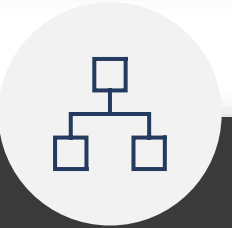
Project Planning

| WBS ID | WBS name | Predecessors | Category | Effort in hours | Est. start date | Est. end date | Quantity | Units | Resource | Reserve % | 15113.00 |
|--------|--------------------------------------|--------------|---------------------------|-----------------|-----------------|---------------|----------|-------|-------------|-----------|----------|
| 1 | General Conditions | | G.C. General Management | 183.00 | 6/1/2023 | 6/23/2023 | 17.00 | 100 | Not staffed | | 193.00 |
| 1.1 | Remove exterior ground and top | | G.C. General Management | 24.00 | 6/1/2023 | 6/26/2023 | 3.00 | 100 | Not staffed | | 24.00 |
| 1.2 | Excavate foundation and structure | | G.C. General Management | 20.00 | 6/6/2023 | 6/26/2023 | 3.00 | 100 | Not staffed | | 20.00 |
| 1.3 | Prepare and install stamp sheets | | G.C. General Management | 20.00 | 6/16/2023 | 6/16/2023 | 3.00 | 100 | Not staffed | | 20.00 |
| 1.4 | Prepare and install schedule of work | | G.C. General Management | 17.00 | 6/16/2023 | 6/16/2023 | 3.00 | 100 | Not staffed | | 17.00 |
| 1.5 | Obtain building permits | | G.C. General Management | 32.00 | 6/16/2023 | 6/16/2023 | 4.00 | 100 | Not staffed | | 32.00 |
| 1.6 | Submit preliminary shop drawings | | G.C. General Management | 80.00 | 6/16/2023 | 6/23/2023 | 10.00 | 100 | Not staffed | | 80.00 |
| 1.7 | Submit monthly reports for permit | | G.C. General Management | 0.00 | 6/23/2023 | 6/23/2023 | 1.00 | 100 | Not staffed | | 0.00 |
| 2 | Long Lead Procurement | | | 960.00 | 6/7/2023 | 6/7/2023 | 70.00 | 100 | Not staffed | | 960.00 |
| 2.1 | Submit shop drawings and order | | Steel Erection Contractor | 80.00 | 6/7/2023 | 6/20/2023 | 10.00 | 100 | Not staffed | | 80.00 |
| 2.2 | Submit shop drawings and order | | Rebarbing Contractor Mkt. | 80.00 | 6/20/2023 | 7/27/2023 | 10.00 | 100 | Not staffed | | 80.00 |
| 2.3 | Submit shop drawings and order | | Rebarbing Contractor Mkt. | 80.00 | 6/20/2023 | 7/27/2023 | 10.00 | 100 | Not staffed | | 80.00 |
| 2.4 | Submit shop drawings and order | | Pumbing Contractor Mkt. | 80.00 | 6/20/2023 | 7/27/2023 | 10.00 | 100 | Not staffed | | 80.00 |
| 2.5 | Submit shop drawings and order | | Electric Contractor Mkt. | 80.00 | 6/20/2023 | 7/27/2023 | 10.00 | 100 | Not staffed | | 80.00 |
| 2.6 | Submit shop drawings and order | | MEAC Contractor Mkt. | 80.00 | 6/20/2023 | 7/27/2023 | 10.00 | 100 | Not staffed | | 80.00 |
| 2.7 | Detail, fabricate and deliver steel | | Steel Erection Contractor | 480.00 | 6/21/2023 | 6/21/2023 | 40.00 | 100 | Not staffed | | 480.00 |
| 3 | Mainline on Site | | | 160.00 | 6/21/2023 | 6/21/2023 | 12.00 | 100 | Not staffed | | 160.00 |
| 3.1 | Install temporary power | | Electric Contractor Mkt. | 16.00 | 6/21/2023 | 6/21/2023 | 2.00 | 100 | Not staffed | | 16.00 |
| 3.2 | Install temporary water service | | Pumbing Contractor Mkt. | 16.00 | 6/21/2023 | 6/21/2023 | 2.00 | 100 | Not staffed | | 16.00 |
| 3.3 | Set up the office | | G.C. Supervision | 24.00 | 6/16/2023 | 6/16/2023 | 4.00 | 100 | Not staffed | | 24.00 |
| 3.4 | Set line and grade benchmarks | | G.C. Survey Crew | 24.00 | 6/16/2023 | 6/16/2023 | 3.00 | 100 | Not staffed | | 24.00 |
| 3.5 | Prepare site (top survey and land) | | G.C. Labor Crew | 172.00 | 6/16/2023 | 6/21/2023 | 3.00 | 100 | Not staffed | | 172.00 |
| 4 | Site Grading and Utilities | | | 390.00 | 6/21/2023 | 6/21/2023 | 31.00 | 100 | Not staffed | | 390.00 |

| Resource name | Engagement ID and name | Engagement type | Task name | Start time | End time | Resource type | Reserved % |
|----------------------|------------------------|-----------------|-----------|------------|----------|---------------|------------|
| Project Engineer | | | | | | | |
| Assistant Engineer | | | | | | | |
| Senior Engineer | | | | | | | |
| Junior Engineer | | | | | | | |
| Design Engineer | | | | | | | |
| Structural Engineer | | | | | | | |
| MEP Engineer | | | | | | | |
| Electrical Engineer | | | | | | | |
| Plumbing Engineer | | | | | | | |
| Construction Manager | | | | | | | |
| Site Engineer | | | | | | | |
| Surveyor | | | | | | | |
| Electrician | | | | | | | |
| Plumber | | | | | | | |
| Construction Worker | | | | | | | |
| Site Worker | | | | | | | |
| Surveyor | | | | | | | |
| Electrician | | | | | | | |
| Plumber | | | | | | | |



Maintain your Work Breakdown Structure with efforts and duration. Assign resource roles required for each activity. Load your cost estimates from BOQ and link to your WBS



Maintain your project resources and characteristics. Schedule resource request and plan material constraints using planning optimization.



Maintain your project forecasts and cashflow forecasts.

Work Breakdown Structure Management

Optimize resource utilization

- Maintain WBS directly on the system. Or alternatively use Microsoft Excel or Microsoft project with direct integration.
- Option for integration with Primavera using Data Management Framework and XML templates.
- Assign resource roles needed and build resource characteristics needed for each role.
- Load cost from BOQ and allocate to activities for progress tracking.

Work breakdown structure | 00000228: Pavilion IT Ltd. Office Building

Standard view *
00000228: Pavilion IT Ltd. Office Building
Draft

+ New Delete Outdent Indent Move up Move down Expand to Details Import Export Attachments Auto scheduling Resource Product dimension

Filter View Scheduling Auto scheduling Show schedule errors

| WBS ID | S... | N... | Task name | Predecessors | Category | Effort in hours | Task start date | Task end date | Duration | Num... | Staffing status | Unstaffed ho... |
|----------|------|------|---------------------------------------|--------------|------------------------------|-----------------|------------------|------------------|---------------|--------|--------------------|-----------------|
| 00000228 | | | General Conditions | | | 7,913.68 | 6/1/2023 | 8/7/2024 | 310.00 | | Not staffed | 7,913.68 |
| 1 | | | General Conditions | | | 193.60 | 6/1/2023 | 6/23/2023 | 17.00 | | Not staffed | 193.60 |
| 1.1 | | | Receive notice to proceed and sig... | | G.C. General Management | 24.00 | 6/1/2023 | 6/5/2023 | 3.00 | 1.00 | Not staffed | 24.00 |
| 1.2 | | | Submit bond and insurance docu... | 1.1 | G.C. General Manage... | 20.00 | 6/6/2023 | 6/8/2023 | 3.00 | 1.00 | Not staffed | 20.00 |
| 1.3 | | | Prepare and submit project sched... | 1.2 | G.C. General Management | 20.00 | 6/9/2023 | 6/13/2023 | 3.00 | 1.00 | Not staffed | 20.00 |
| 1.4 | | | Prepare and submit schedule of va... | 1.3 | G.C. General Management | 17.60 | 6/14/2023 | 6/16/2023 | 3.00 | 1.00 | Not staffed | 17.60 |
| 1.5 | | | Obtain building permits | 1.1 | G.C. General Management | 32.00 | 6/6/2023 | 6/9/2023 | 4.00 | 1.00 | Not staffed | 32.00 |
| 1.6 | | | Submit preliminary shop drawings | 1.5 | G.C. General Management | 80.00 | 6/12/2023 | 6/23/2023 | 10.00 | 1.00 | Not staffed | 80.00 |
| 1.7 | | | Submit monthly requests for paym... | 1.1 | G.C. General Management | | | | | | | |
| 2 | | | Long Lead Procurement | | | | | | | | | |
| 2.1 | | | Submit shop drawings and order l... | 1.7 | Steel Erection Contractor... | | | | | | | |
| 2.2 | | | Submit shop drawings and order l... | 1.6 | Roofing Contractor Mana... | | | | | | | |
| 2.3 | | | Submit shop drawings and order l... | 1.6 | Elevator Contractor Man... | | | | | | | |
| 2.4 | | | Submit shop drawings and order l... | 1.6 | Plumbing Contractor Ma... | | | | | | | |
| 2.5 | | | Submit shop drawings and order l... | 1.6 | Electric Contractor Mana... | | | | | | | |
| 2.6 | | | Submit shop drawings and order l... | 1.6 | HVAC Contractor Manag... | | | | | | | |
| 2.7 | | | Detail, fabricate and deliver steel | 2.1 | Steel Erection Contractor... | | | | | | | |
| 3 | | | Mobilize on Site | | | | | | | | | |
| 3.1 | | | Install temporary power | 1.1 | Electric Contractor Mana... | | | | | | | |
| 3.2 | | | Install temporary water service | 1.1 | Plumbing Contractor Ma... | | | | | | | |
| 3.3 | | | Set up site office | 3.1, 3.2 | G.C. Superintendent | | | | | | | |
| 3.4 | | | Set line and grade benchmarks | 3.3 | G.C. Survey Crew | 24.00 | 6/14/2023 | 6/16/2023 | 3.00 | 1.00 | Not staffed | 24.00 |
| 3.5 | | | Prepare site - lay down yard and t... | 3.4 | G.C. Labor Crew | 17.60 | 6/19/2023 | 6/21/2023 | 3.00 | 1.00 | Not staffed | 17.60 |
| 4 | | | Site Grading and Utilities | | | 360.00 | 6/22/2023 | 8/9/2023 | 35.00 | | Not staffed | 360.00 |

Characteristics type: Skill

AVAILABLE CHARACTERISTICS

| Name | Description |
|------------|----------------------|
| CCCchief | Carpenter crew chief |
| FCarpentry | Finish Carpentry |
| RCarpentry | Rough Carpentry |
| TCarpentry | Trim Carpenter |

SEARCH CRITERIA

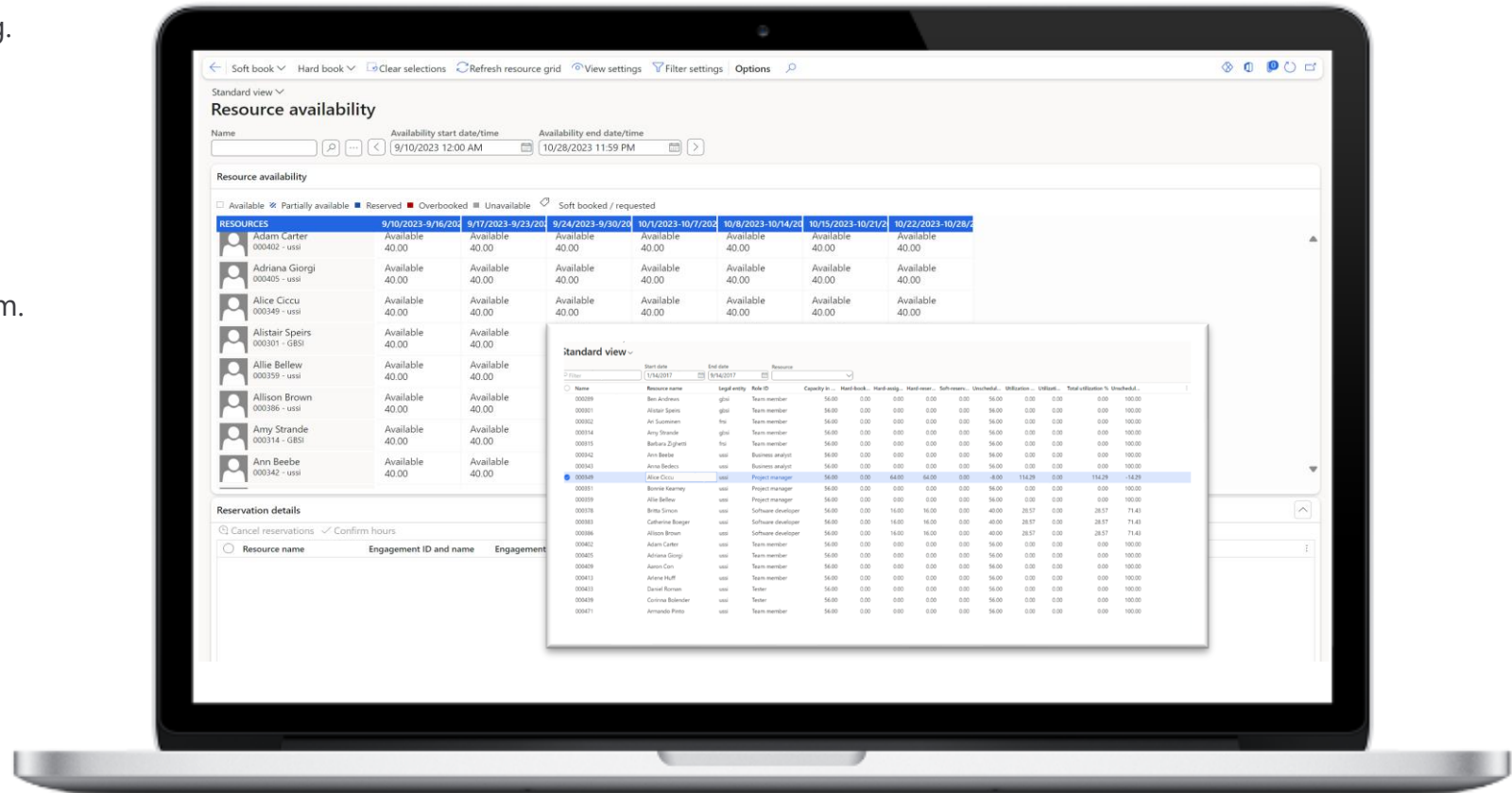
Name

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Resource Scheduling

Optimize resource utilization

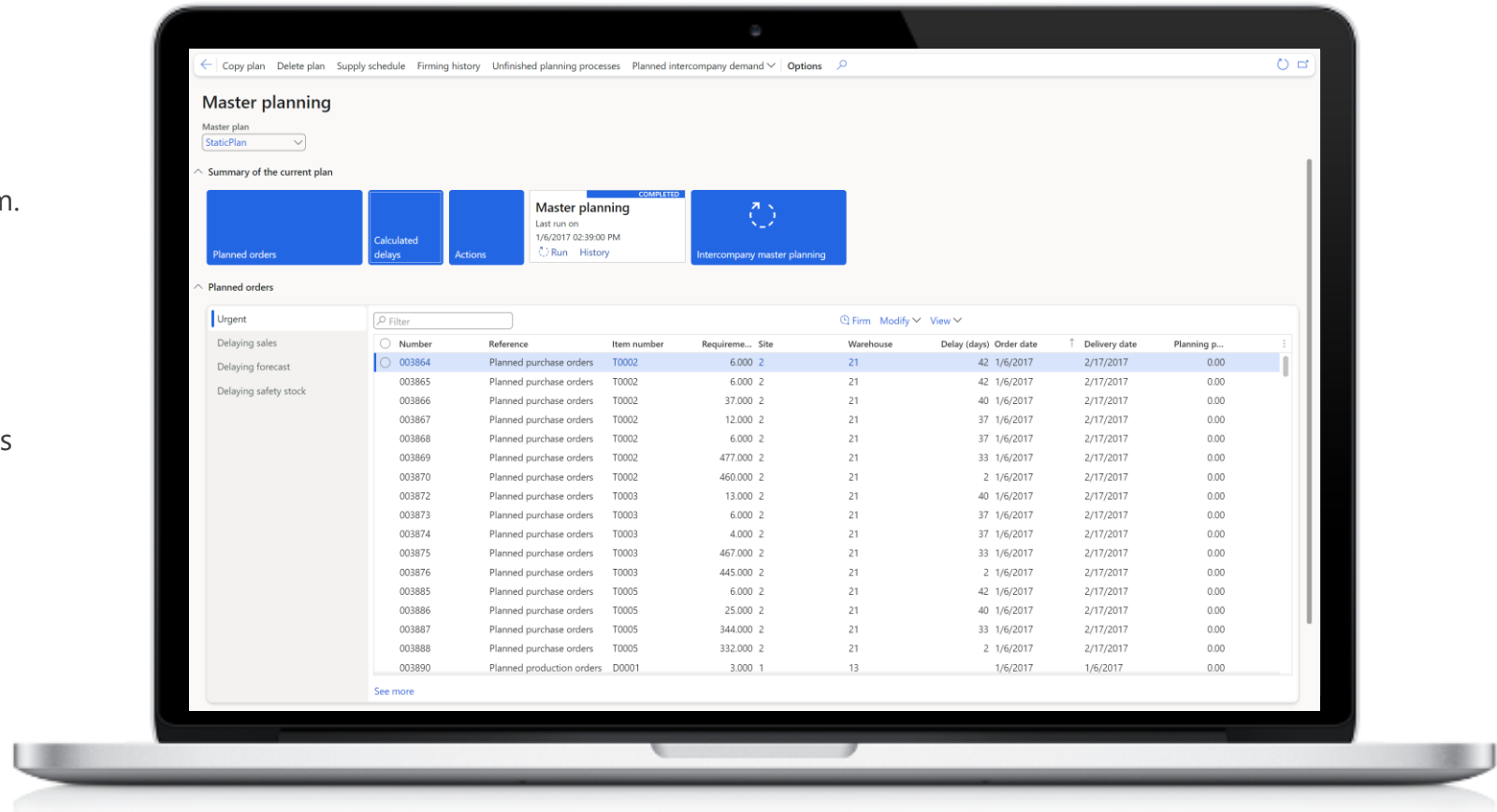
- Maintain resource list for all types of project resources (e.g. labor, equipment, etc.)
- Fulfill resource requests from projects automatically based on roles or assign manually.
- Prepare deployment schedules and share with project team.
- Check resource availability
- Monitor resource utilization.



Material Planning

Optimize resource utilization

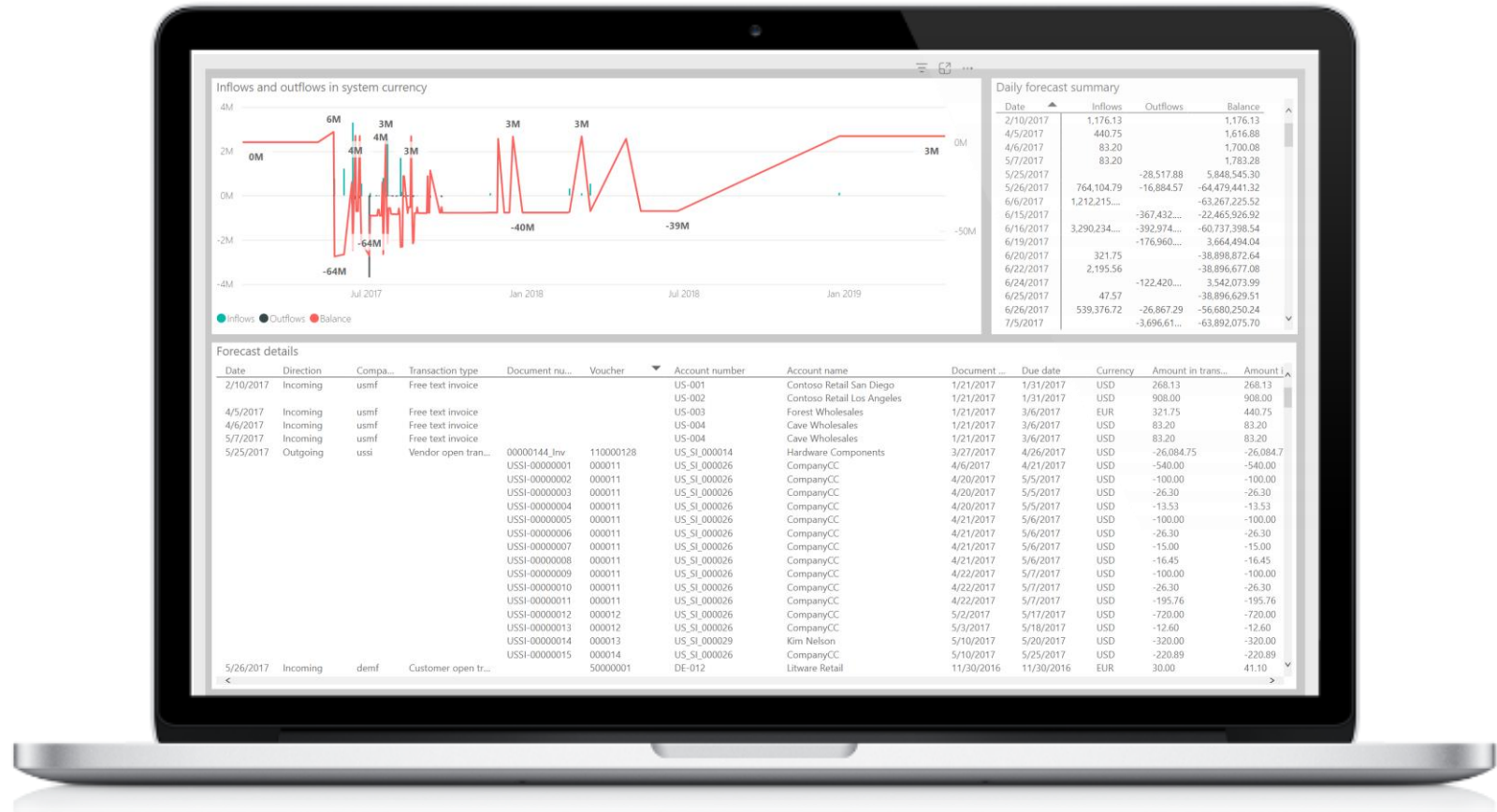
- Plan for any material constraints on the project.
- Planning optimization will check for constrained item supply and propose planned transfer, purchase or production orders based on the sourcing policy of the item.
- Anticipate any delays in material receipts and impact on project.
- Review actions for material advance or delay with suppliers based on schedule updates.



Cashflow Forecasting

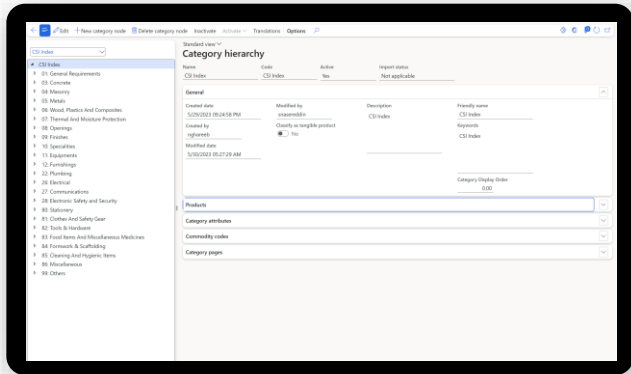
Enhance visibility and control over your estimates

- Cashflow forecasts will be automatically updated from project WBS forecasts.
- Cashflow forecast analysis on multiple levels:
 - Legal entity
 - Project portfolio
 - Project Group
 - Project.



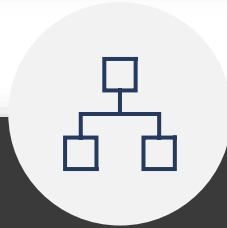


Project Execution

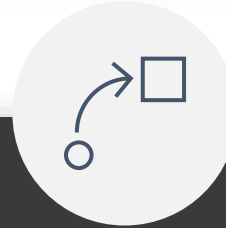


Manage materials, resources and subcontractors on your projects, track their cost against your budget.

| Programs | Amount | Quantity | General | | | | |
|----------|---------|----------|---|------|------|------------|------------|
| 1 | 0000020 | | | | | | 11.91 |
| 1.1 | | | PRELIMINARIES & GENERAL REQUIREMENTS | | | | 0.00 |
| 1.1.1 | | | These General Requirements are applicable to the all. | Each | 2.00 | | 0.00 |
| 1.2 | | | The site of the works is shown on the Site plan. | Each | 2.00 | | 0.00 |
| 1.3 | | | The works comprises the construction, completion of. | Each | 2.00 | | 0.00 |
| 1.4 | | | The Contractor shall allow for allowing all. | Each | 2.00 | 8,000.00 | 12,000.00 |
| 1.5 | | | The Contractor shall allow for setting up the site in. | Each | 2.00 | 14,843.33 | 14,843.33 |
| 1.7 | | | Supply and Erect 2 nos. of Project Identification Signs. | Each | 1.00 | 5,000.00 | 5,000.00 |
| 1.8 | | | The Contractor shall establish necessary offices, and f. | Each | 1.00 | 24,973.50 | 24,973.50 |
| 1.9 | | | The Contractor shall allow for full responsibility for the. | Each | 1.00 | | 0.00 |
| 1.10 | | | The Contractor shall provide separate telephone lines. | Each | 2.00 | | 0.00 |
| 1.11 | | | The Contractor shall provide covered parking for the. | Each | 1.00 | | 0.00 |
| 1.12 | | | The Contractor shall take full responsibility for the all. | Each | 1.00 | 11,294.00 | 11,294.00 |
| 1.14 | | | The Contractor shall take full responsibility for provide. | Each | 1.00 | 94,342.36 | 94,342.36 |
| 1.15 | | | The Contractor shall ensure that an efficient organized. | Each | 1.00 | 97,167.00 | 97,167.00 |
| 1.16 | | | The Contractor shall provide, erect, maintain, move to. | Each | 1.00 | 46,619.73 | 46,619.73 |
| 1.17 | | | Provide and maintain temporary sheds for the string. | Each | 1.00 | 13,120.50 | 13,120.50 |
| 1.18 | | | Provide all constructional plant, crane, string equipme. | Each | 1.00 | 207,091.86 | 207,091.86 |
| 1.19 | | | Provide and maintain telephone, fax line and internet. | Each | 1.00 | | 0.00 |
| 1.20 | | | The Contractor shall comply with requirements of a. | Each | 2.00 | | 0.00 |
| 1.21 | | | The Contractor shall allow for meetings/working for. | Each | 1.00 | | 0.00 |
| 1.22 | | | The Contractor shall allow for testing of materials as l. | Each | 1.00 | 9,000.00 | 9,000.00 |
| 1.23 | | | Provide all necessary temporary surfacing for the ac. | Each | 1.00 | 5,000.00 | 5,000.00 |
| 1.24 | | | Progress photographs and videography shall be provi. | Each | 1.00 | 8,400.00 | 8,400.00 |



Automate your project billing, WIP and earned value management, and use pay-when-paid with your contractors.

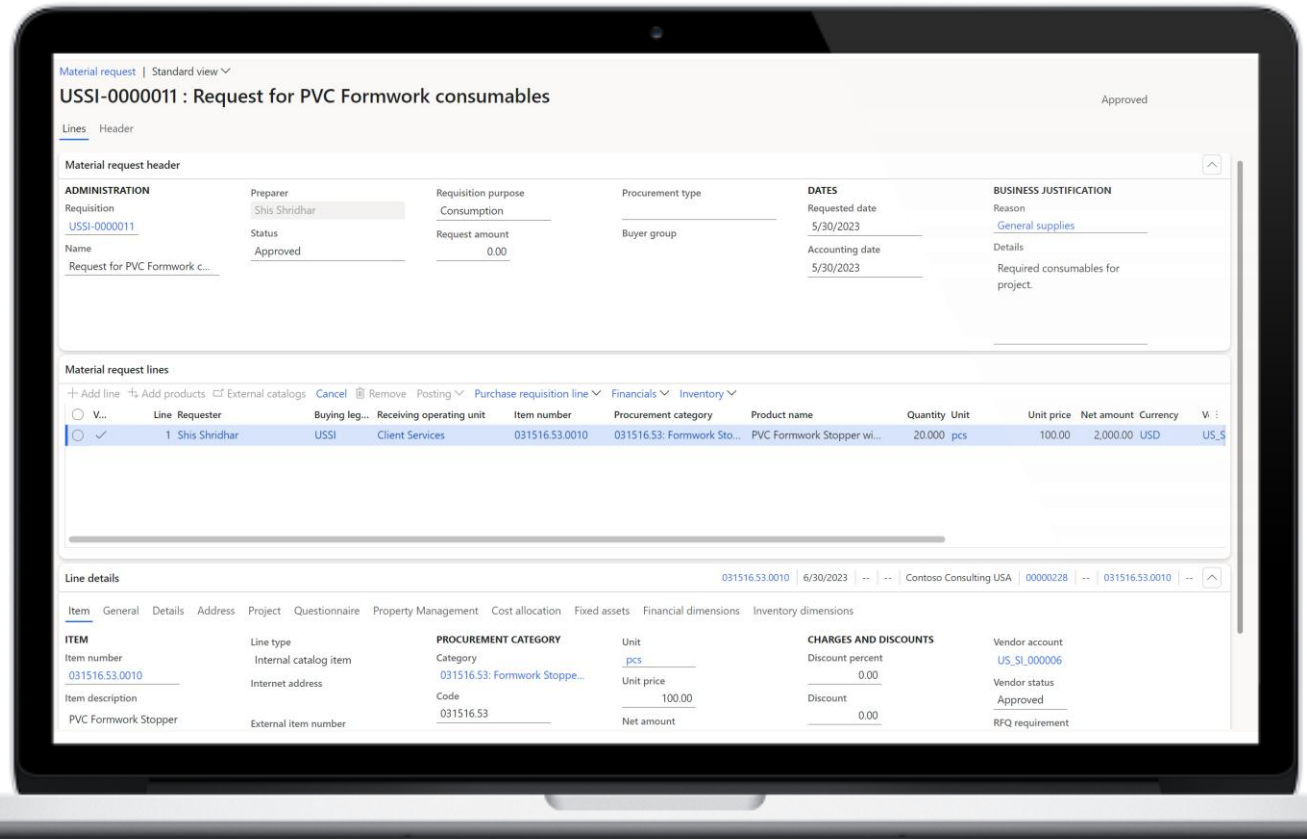


Control your project budget and prepare job cost reports with multiple Cost To Complete (CTC) trends. Analyze project performance and collaborate with your clients using portals.

Material Management

Simplify project procurement

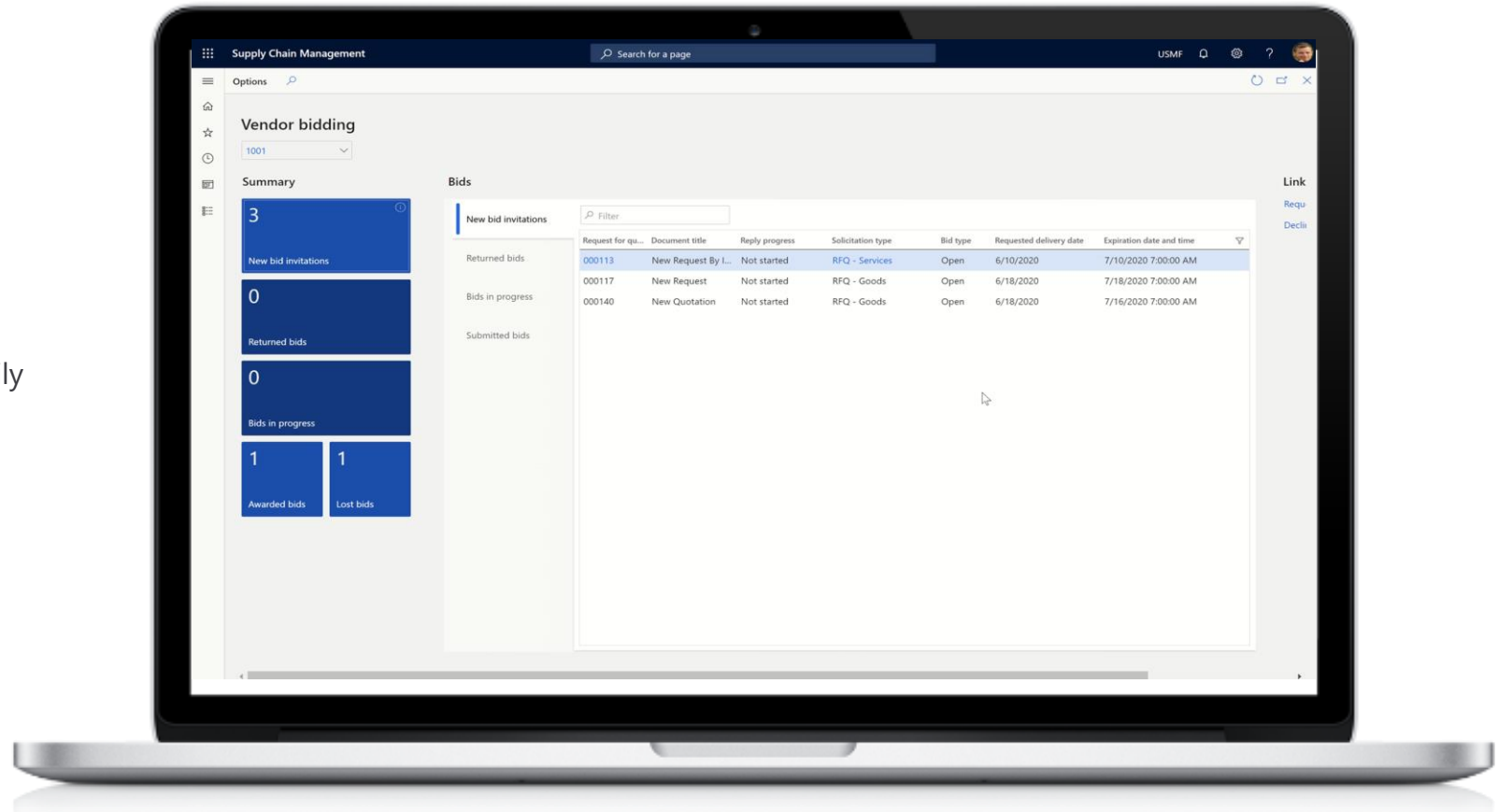
- Initiate Material requests from by project engineers. Multiple request classifications can be used for Standard materials, Permanent materials, or fixed assets.
- Maintain inventory for each project site and provide visibility for store supervisors on inventory in the main warehouse.
- Integrate weigh bridge for receiving tickets and recording material and transportation costs on the project.
- Categorize project materials using flexible category hierarchies (e.g., CSI index for divisions and sub-divisions) to make it easier for users to find and reduce human error.
- Configurable workflow for approval (project manager, cost control, store supervisor)
- Automatic budget check against material requests.
- Material request fulfillment can be either:
 - Through transfer from main store
 - Through a purchase requisition.
- Requests for quotations can be initiated from purchase requisitions automatically.
- Vendor collaboration portal can be used by suppliers to submit their bids for comparison sheets.
- Purchase orders are approved through workflows with electronic signature capabilities.
- Product receipts are recorded against the Purchase Orders.
- Utilize production control for items that need processing or fabrication
- Material is then received at site and issued against the material request on the project with full traceability on the associated procurement cycle.



Vendor Collaboration

Manage vendors and facilitate collaboration

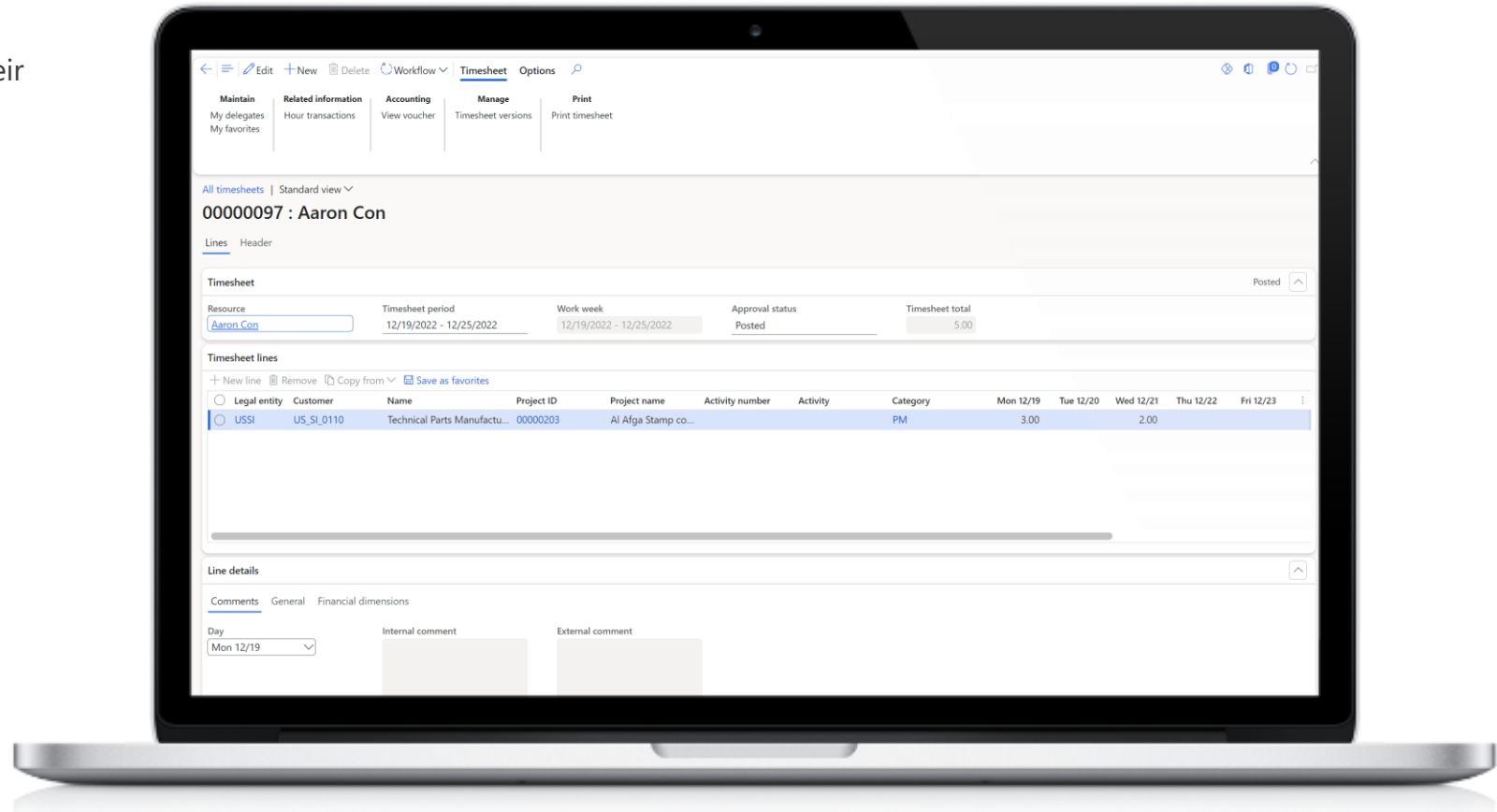
- Collaborate with external vendors using a vendor collaboration interface that displays information about bids, orders, and invoices
- Set up a workflow to provision new interface users and manage their security roles
- Use the vendor collaboration mobile workspace to help vendors stay informed on order statuses and respond easily to orders that are awaiting approval
- Retain records of all collaboration actions for vendor performance evaluations and auditing purposes



Resource Management

Collaboration and simplified time and expenses

- Use resource timesheets to record their time and book their cost on projects.
- Timesheets can be created by the resource, or on their behalf for a group of resources by their crew leader.
- Timesheets have approval workflow for processing and posting depending on the resource type.
- Utilize intercompany timesheets for resources owned by sister companies on the system.
- Resource requests are available for multiple types of resources:
 - Staff or labor request.
 - Plant request.
- Use formwork and scaffolding requests to request their allocation on the project.
- Resource requests are checked against the project budget during approval workflow.
- Leverage the Integration with Microsoft Teams for easier collaboration between employee resources.



Asset Management

Ensure business continuity

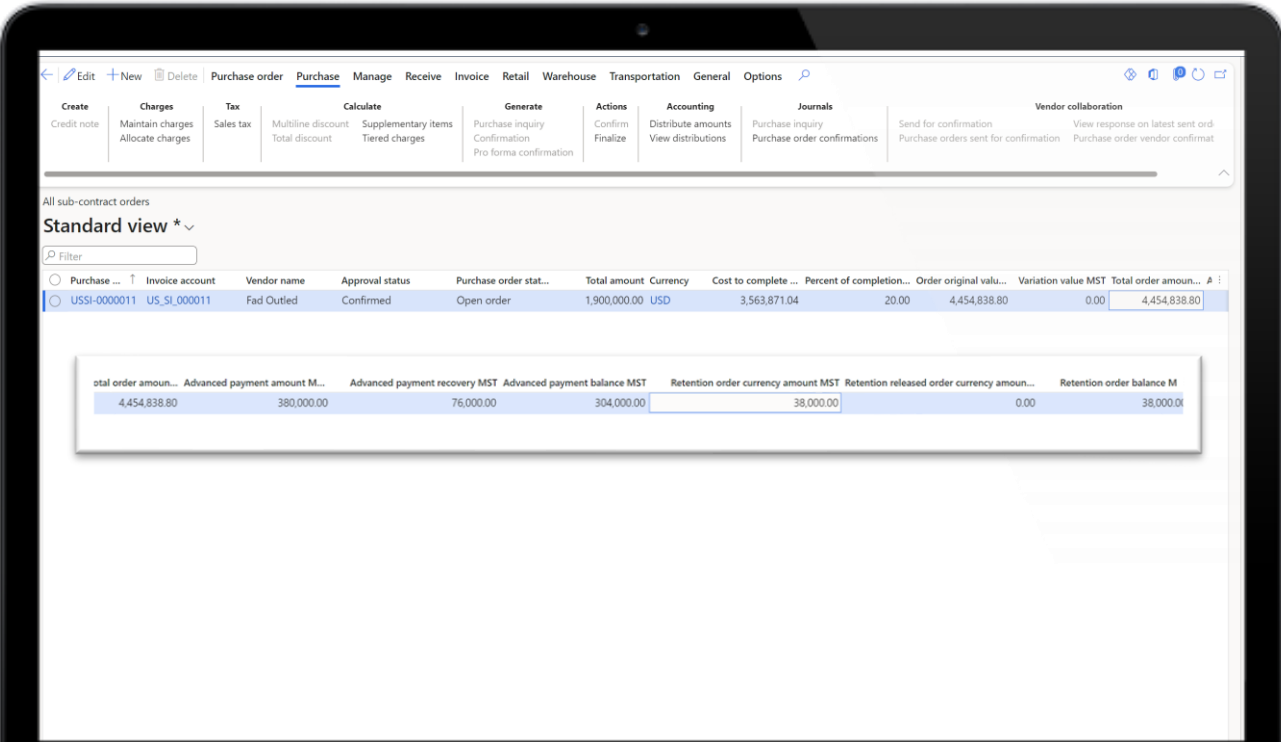
- Maintain a comprehensive list of all company assets and operation resources with their make, manufacturer and warranty details in each functional location.
- Track the total cost of ownership for operations assets and manage ongoing maintenance for those assets
- Manage the full lifecycle for an asset while keeping track of asset locations and hierarchies
- Use preventive maintenance to track, manage, and monitor assets based on the manufacturer's recommendations
- Plan—automatically or manually—using key parameters such as worker capacity, availability, or work order criticality
- Track spare parts to effectively manage inventory



Subcontract Management

Enhance visibility and control

- Use subcontract requests to initiate a request with the commercial department for a subcontractor service. Packages can be copied directly from the project BOQ.
- Subcontractors can use the vendor collaboration portal to submit their bid. Comparison sheet can then be produced to select the appropriate contractor.
- Subcontract agreements keep track of the original and revised contract with the supplier. Allows for multiple types of retention (Performance bond, material on site, etc.). And also multiple types of advanced payments.
- Subcontractors can use the portal to submit their Payment certificate for approval and payment. And will be able to track its status.
- At any time, you can keep report on completed percent, retainage and advanced payment per agreement.



The screenshot displays a software interface for managing sub-contract orders. The interface includes a navigation menu at the top with options like 'Purchase order', 'Purchase', 'Manage', 'Receive', 'Invoice', 'Retail', 'Warehouse', 'Transportation', 'General', and 'Options'. Below the navigation, there are several functional tabs: 'Create', 'Charges', 'Tax', 'Calculate', 'Generate', 'Actions', 'Accounting', 'Journals', and 'Vendor collaboration'. The main content area shows a table titled 'All sub-contract orders' in 'Standard view'. The table has columns for 'Purchase ...', 'Invoice account', 'Vendor name', 'Approval status', 'Purchase order stat...', 'Total amount', 'Currency', 'Cost to complete ...', 'Percent of completion...', 'Order original valu...', 'Variation value MST', and 'Total order amoun...'. A single row is visible with the following data: 'USSI-0000011', 'US_SI_000011', 'Fad Outled', 'Confirmed', 'Open order', '1,900,000.00', 'USD', '3,563,871.04', '20.00', '4,454,838.80', '0.00', and '4,454,838.80'. Below the main table, there is a summary table with columns for 'otal order amoun...', 'Advanced payment amount M...', 'Advanced payment recovery MST', 'Advanced payment balance MST', 'Retention order currency amount MST', 'Retention released order currency amoun...', and 'Retention order balance M'. The summary row shows values: '4,454,838.80', '380,000.00', '76,000.00', '304,000.00', '38,000.00', '0.00', and '38,000.00'.

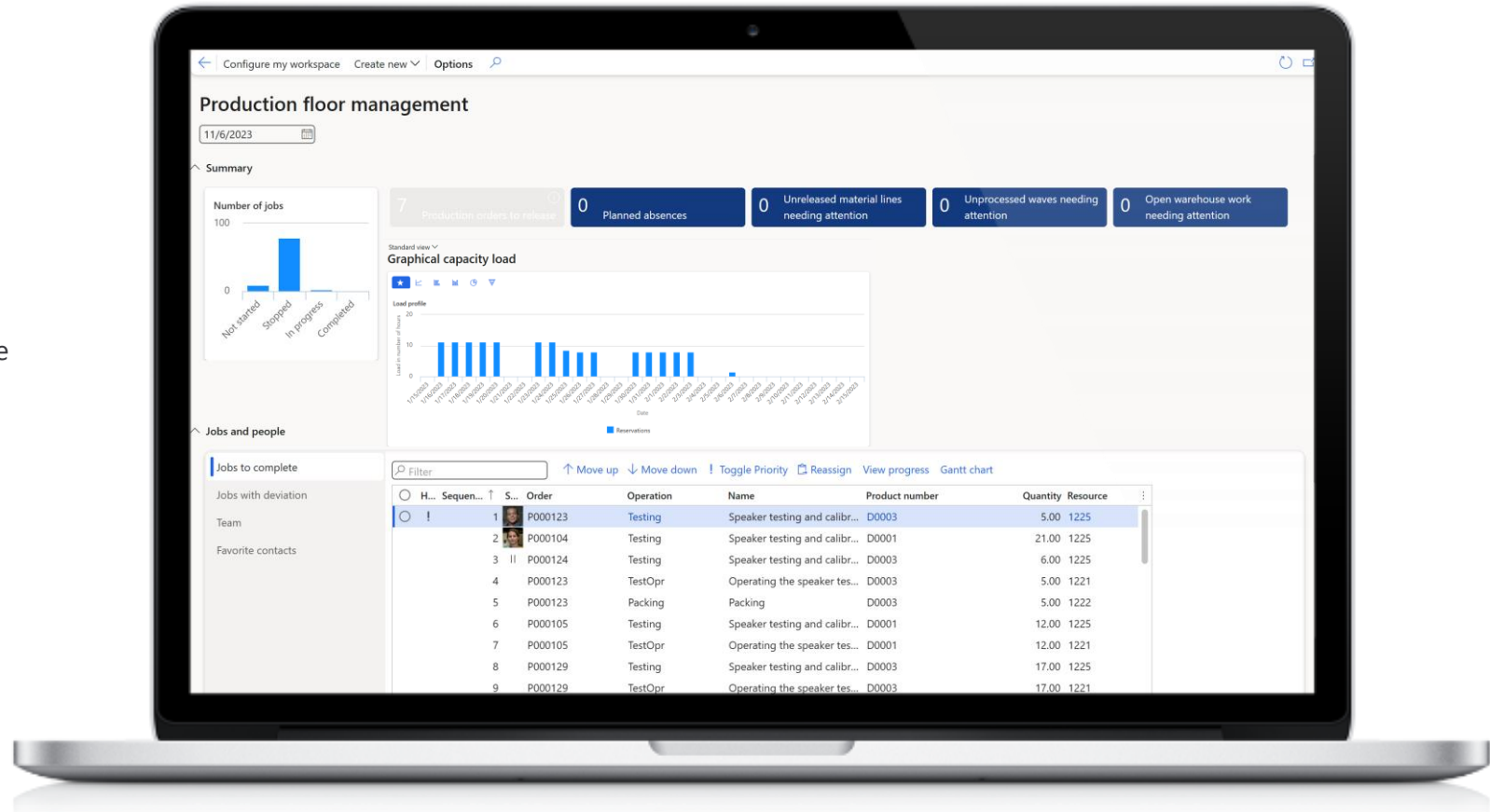
| Purchase ... | Invoice account | Vendor name | Approval status | Purchase order stat... | Total amount | Currency | Cost to complete ... | Percent of completion... | Order original valu... | Variation value MST | Total order amoun... |
|--------------|-----------------|-------------|-----------------|------------------------|--------------|----------|----------------------|--------------------------|------------------------|---------------------|----------------------|
| USSI-0000011 | US_SI_000011 | Fad Outled | Confirmed | Open order | 1,900,000.00 | USD | 3,563,871.04 | 20.00 | 4,454,838.80 | 0.00 | 4,454,838.80 |

| otal order amoun... | Advanced payment amount M... | Advanced payment recovery MST | Advanced payment balance MST | Retention order currency amount MST | Retention released order currency amoun... | Retention order balance M |
|---------------------|------------------------------|-------------------------------|------------------------------|-------------------------------------|--|---------------------------|
| 4,454,838.80 | 380,000.00 | 76,000.00 | 304,000.00 | 38,000.00 | 0.00 | 38,000.00 |

Production Management

Enhance visibility and control

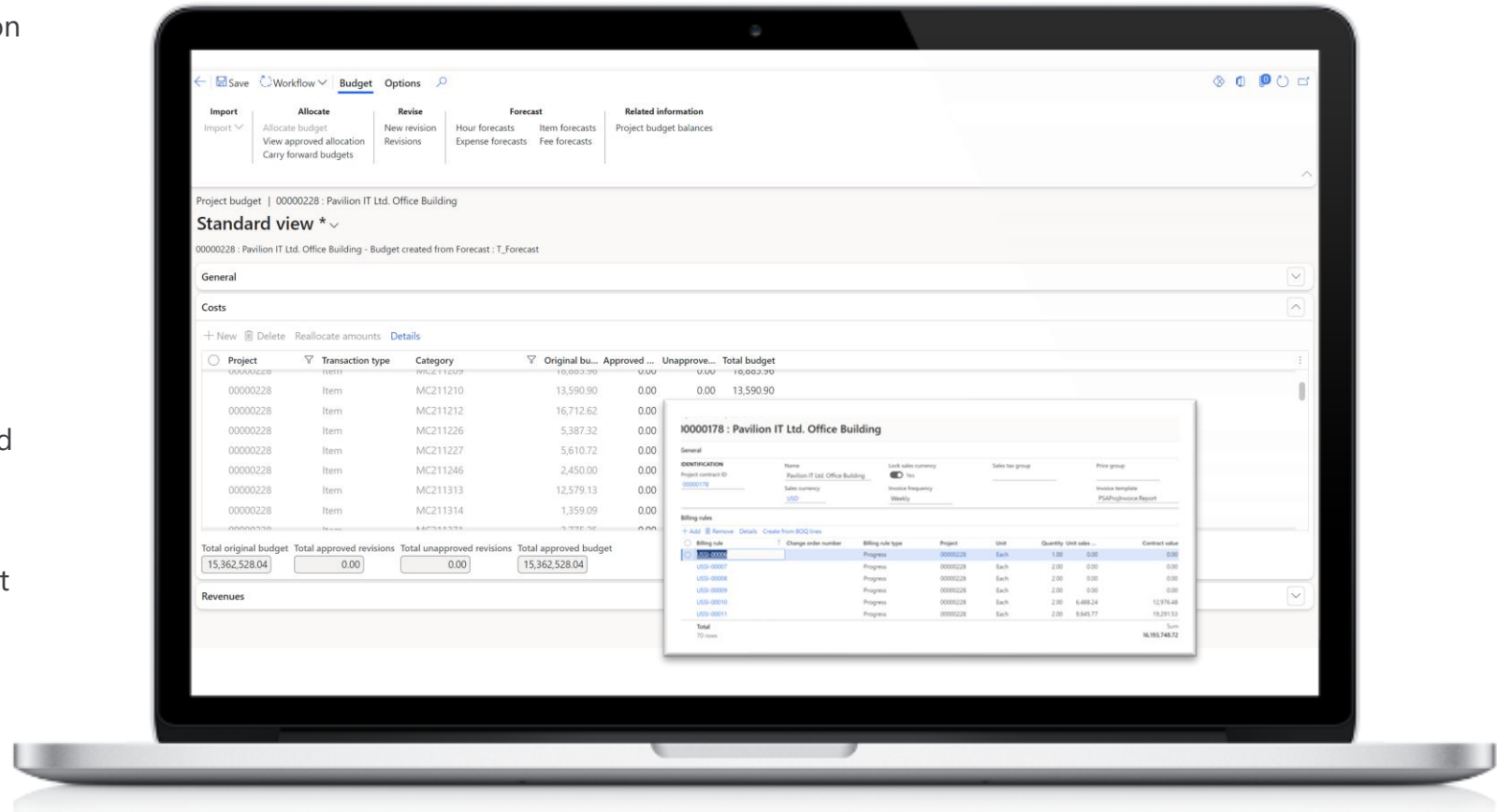
- Manage your project assembly and fabrication needs, batching plants and delivery tickets from a single solution.
 - Production order: A classic order type used to produce a predetermined quantity of a product on a specific date.
 - Batch order: A formula-based order used for process industries and discrete processes
 - Kanban: Used to signal repetitive and lean manufacturing processes
 - Project: Used to assign a schedule and budget to specific products and services
- Manage the steps required to manufacture products—from creation to when a product is ready for shipment, and Calculate estimates for material and resource consumption
- Get immediate insight and make it easier to instruct and guide workers with the information they need to perform their jobs
- Allow managers to easily track production order costs with continuous registration approvals and transfers
- Register and track project activities and nonproductive tasks
- Register material usage on a mobile application



Project Variations

Enhance visibility and control

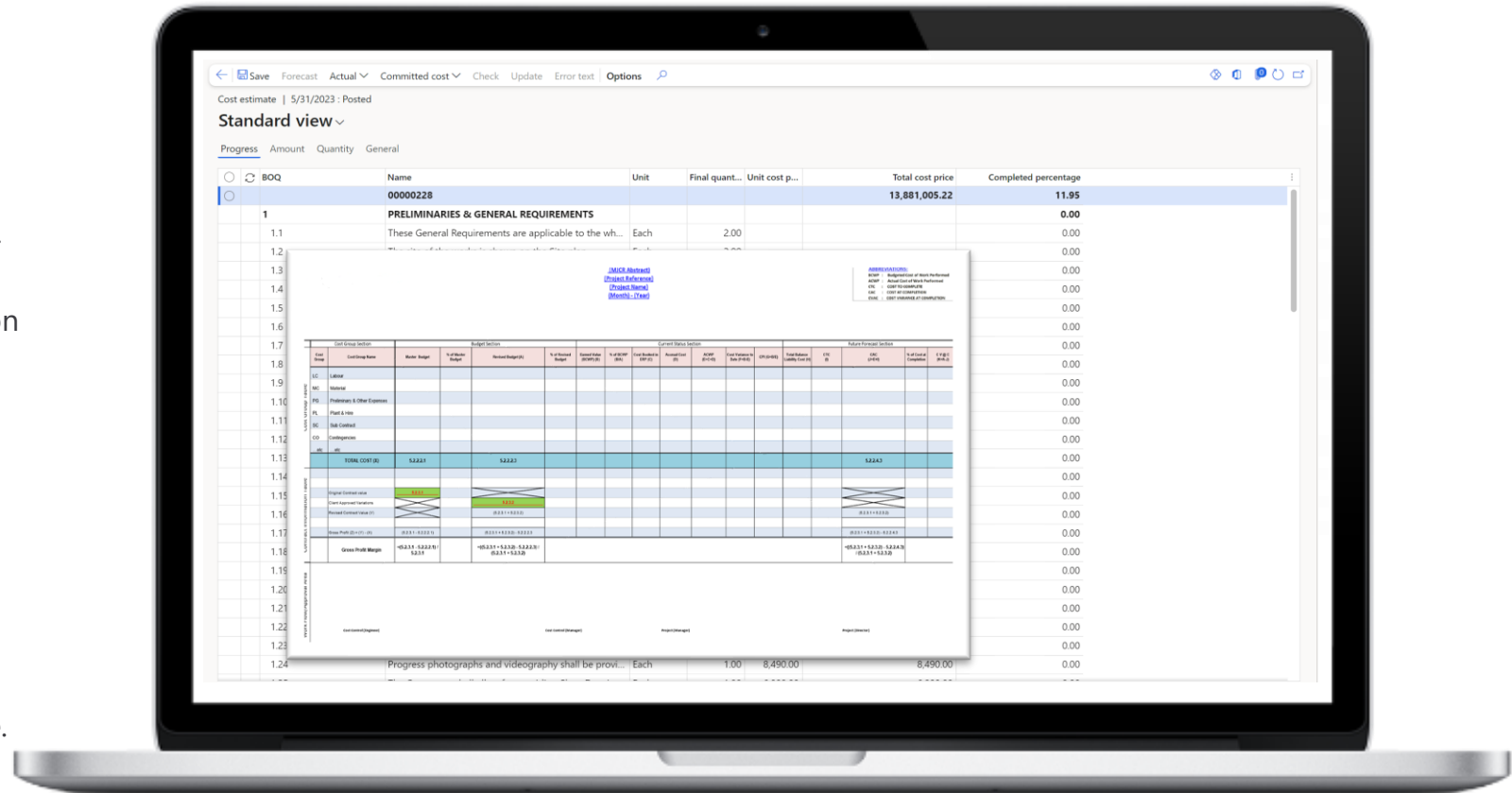
- Process request for variations or variation orders directly on the system with project quotations and project BOQ revisions.
- Revised BOQ will carry a variation order reference for traceability.
- Project budget revision is created based on updated BOQ
- Project contract terms are created with VO reference based on updated BOQ.
- At any time, you can track the original project budget, variation orders and their impact, and final revised project budget and contract values.



Project Estimates and Cost Control

Enhance visibility and control

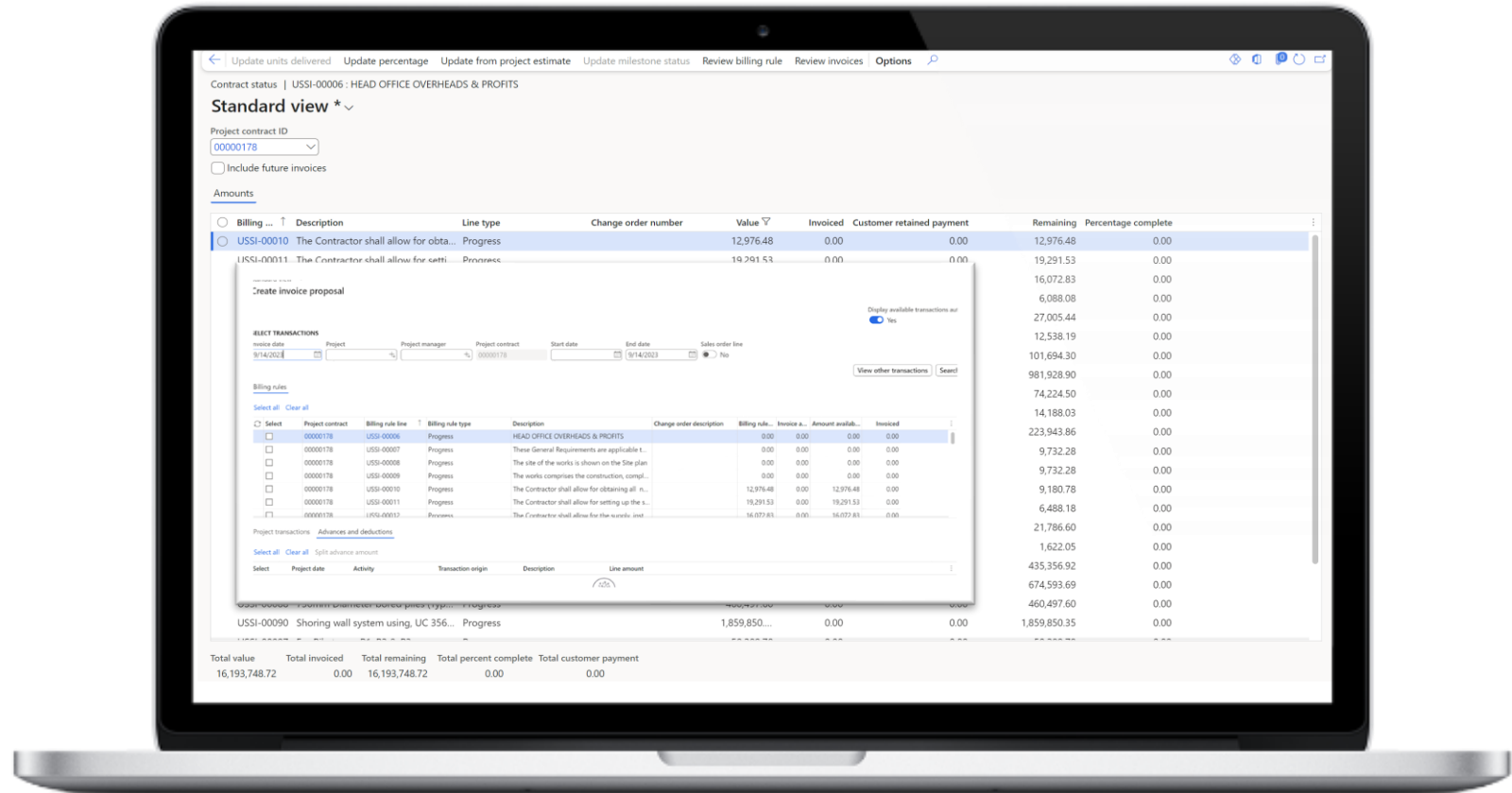
- Prepare your project estimate periodically to calculate project costs
 - Actual booked costs
 - Committed POs and SCOs
 - Accrual cost
- Use Accrual journals to account for any accrued costs (e.g. unsubmitted invoices, etc.) on the project
- Automatically calculate percentage of completion based on completed activities –or opt to use manual entry- for earned value management and accrued revenues.
- Use percentage of completion to apply different trend calculations for cost to complete calculation per cost category:
 - Budget trend
 - Actual trend
 - Recovery trend
 - Manual trend
- Produce monthly job cost reports for project performance.



Project Billing

Enhance visibility and control

- Manage customer advances and recoveries. Manage contract retention and request retention release.
- Automatically update contract status with percentage of completion from monthly project Estimate or enter it manually.
- Prepare project invoice proposal based on percentage of completion or milestone billing.
- Submit the invoice proposal for review as a Payment Application with the client, once confirmed, post it into a project invoice.
- Keep track of invoice amount, invoiced percent, and remaining contract amount.



Project Collaboration

Drive collaboration and improve productivity

- Leverage Dynamics 365 integration with Power Pages portals to collaborate with your clients, consultants, and main contractors.
- Automate project correspondence and submittals using workflows and business processes for notifications and approvals:
 - Extension of Time (EOT)
 - Request for Information (RFI)
 - Confirmation of Verbal Instruction (CVI)
 - Site Inspection Reports (SIR)
 - Non conformance reports (NCR)
 - Engineering Instructions (EI)
 - Schedule of rates (SOR)
 - Shop drawings
 - Material submittals
 - Method statements
 - Variation orders
 - Etc.
- Leverage SharePoint integration for document management and version history.

