

ESTIMATE USER GUIDE

Essentials



Release 26.3
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INTRODUCTION

Course description

This course covers the concepts and functionality you need to know in order to use the InEight Estimate software successfully. As a result, you will be able to build cost estimates and bid proposals with precision and efficiency.

Course objectives

As a result of this course, you will be able to use the InEight Estimate software to:

- Construct and modify cost estimates
- Calculate profit and finalize bid proposals

How to use this manual

This training manual serves as the working guide during the *E101 Essentials of Project Modeling and Estimating* instructor-led course. The first seven lessons of this document follow a natural progression of putting an estimate together, from set up of a project to finalization of a bid. The remaining lessons cover additional functionality that will help you build and review your project estimate more effectively.

Lessons

The following lessons are covered in this course:

Course Lessons	
Lesson	Topic
Lesson 1	Estimating Core Concepts
Lesson 2	General Navigation

Course Lessons

Lesson 3 Library Setup

Lesson 4 Project Setup

Lesson 5 Estimate Direct Costs

Lesson 6 Estimate Indirect Costs

Lesson 7 Finalize the Estimate

Lesson format

This manual is designed to be a “hands on” learning guide. As such, each lesson is organized into sections:

Section	Description
Objectives	Specify what you will learn in each lesson.
Topics	Organize the subject matter, with explanations of key concepts and terms.
Step by Steps	Walk you through the “mechanics” of how to perform specific functions in the software. For each step by step, you will use the Training Job that comes pre-loaded in the InEight Estimate Estimating software.
Exercises	Allow you to practice and reinforce what you learn. For each exercise, you will use the Training Job that comes pre-loaded in the InEight Estimate Estimating software.
Review	Asks you questions to check what you have learned within each lesson.

Call-outs

Throughout the document, you will also find important call-out banners.

Tips are for important notes and information you want to remember.

Notes are for critical information you need to know.

Ongoing use

This manual is also designed to be a comprehensive reference guide you can use outside of the classroom and revisit as needed. Each lesson is compartmentalized so that you can refer back to each lesson as needed.

LESSON 1 – ESTIMATING CORE CONCEPTS

Lesson Duration: 30 Minutes

Lesson Objectives

After completing this lesson, you will be able to:

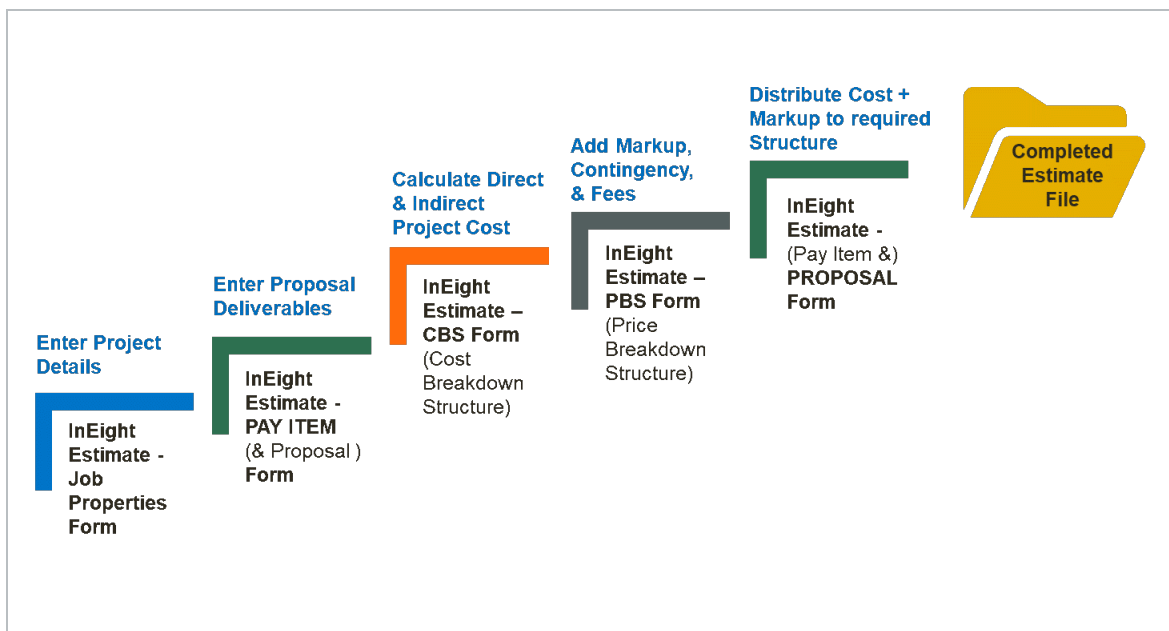
- Explain the estimating process in InEight Estimate
- Explain key terms and concepts

1.1 OVERVIEW OF THE ESTIMATING PROCESS

The estimating process typically progresses through the following five steps. If you are an Owner you may not take part in all five of these steps, but may instead do a few in an iterative process as you progress through stage gate approval phases.

1. Enter project details.
2. Enter proposal deliverables.
3. Calculate Direct & Indirect Project Cost.
4. Add Markup, Contingency, & Fees.
5. Distribute Cost + Markup to required structure.

The below table displays how these five steps correspond with specific forms in InEight Estimate:



Note the forms used in InEight Estimate to accomplish the steps above:

- Job Properties
- Pay Item & Proposal
- CBS (Cost Breakdown Structure)
- PBS (Price Breakdown Structure)

The rest of this section walks you through an overview of each step in the process and its corresponding form in InEight Estimate.

Step 1 - Enter project details

When you decide to estimate a new project, the first step is to create a new estimate and set it up with the general project details. In InEight Estimate, you'll enter basic information and project specific settings in the Job Properties form from the Setup tab.

The Job Properties form is organized into tabs to help you keep track of all the basic information and settings for the project. It begins with the Overview tab. You will move from left to right entering your project specific information and adjusting any settings that differ from the default.

The screenshot displays the InEight Estimate software interface. The top menu bar includes 'File', 'Setup', 'Estimate', 'Quote', 'Price', 'Execution', 'System', and 'Integrations'. Below the menu is a toolbar with icons for 'Job Properties', 'Foundation Setup Data', 'Pay Item & Proposal', 'Bid Wizard', 'Resource Rates', 'Equipment', 'Materials', 'Resource Assemblies', 'Cost Item Assemblies', 'Standard Tables', and 'Reports'. The main window title is 'Training Job - Estimate'. The 'Job Properties' section is highlighted with a red box and contains the following fields:

- Identification:** Location (I-10 MP 100 to MP 120), City (Phoenix), County (Maricopa), Country (United States), State (Arizona), Latitude (0.00000), Longitude (0.00000), Type (Highway and General Engineering), Engineer (Example Engineer -- Fred Jones), Owner (Example Owner -- Jerry Slate), Architect (Example Architect -- Robert Frost), Contract Duration (160), Time Measure (Contract Days), Forecast Start (6/11/2019), Forecast Finish (11/20/2019), Duration (162).
- Proposal:** Bid Date (12/23/2013), Bid Time (10:00:00 PM), Estimator (Example Prime Contractor 1 -- Tom Cross), Bid Location (Engineer's Office), Opening Type (Public), Proposal Type (Unit Price), Plan Holders (5), Owners Estimate (\$6,000,000.00), Liquidated Damages (\$1,000.00), Liq. Damages Per (Day).
- RFQ Contact:** Example Prime Contractor 1 -- Tom Cross

At the bottom of the form, there are 'OK' and 'Cancel' buttons. The status bar at the very bottom shows 'As-Entered Currency', 'As-Entered Units', 'v19.1 HD_19_1_QA2016', 'Training Job', and 'Accrued Costs OFF'.

Step 2 - Enter proposal deliverables

For Contractors who are submitting a proposal to a client, this step enables you to enter the client provided deliverables clients are requesting pricing for. Most Owners will skip this step unless there is a need to track various funding sources or prepare for internal or external company billing.

In InEight Estimate this list of items is recorded in the Pay Item & Proposal Register on the Setup tab.

- Notice that your pay items have no pricing when first entered because you have yet to figure out costs. You will come back to this form later in the process to distribute your costs and markup.

Pay Item & Proposal Register

	Current	Target	Forecast	Variance	
Price:	\$6,569,735.00	\$5,569,734.28	\$5,577,223.80	\$1.28	ADD
Markup:	\$984,119.24	\$984,119.62	\$1,041,388.54	\$57,268.92	CUT
Margin%:	14.98	14.98	15.83	\$66,079.81	CUT

Item Recap - 200 SITEWORK & ROADWAY

Description	Unit Price (Current)	Total Price (Balance)	Unit Price (Current)	Total Price (Current)
Price		\$3,402,700.00		\$3,402,700.00
Distribution		\$649,496.57		\$688,140.07
Markup		\$478,396.13		\$717,152.33
Profit (Markup records)		\$313,781.00		\$552,537.20

Pay Items Table:

Position Code	Pay Item Number	Description	Pay Quantity	Forecast (FC) Quantity	Unit of Measure	Currency	Unit Price (Current)	Total Price (Current)	Unit Markup (Balance)	Lock Quantity	Total Markup (Balance)	Lock Price	Unit Distribution	Total Distribution	Unit Mar (Current)
1	200	SITEWORK & ROADWAY				U.S. Dollar		\$3,402,700.00			\$478,396.13			\$649,383.87	
1.1	941 0100	Mobilization	1.00	1.00	Lump Sum	U.S. Dollar	\$395,600.00	\$395,600.00	\$2,848.15		\$2,848.15			\$6,553.48	
1.2	201 0102	Cleaning & Grubbing	50.00	50.00	Acre	U.S. Dollar	\$5,960.00	\$59,800.00	\$976.24		\$9,762.36			\$1,973.26	\$19,731.56
1.3	202 0103	Unsurfaced Excavation	50,000.00	50,000.00	Cubic Yard	U.S. Dollar	\$5.50	\$275,000.00	\$1.11		\$55,694.42			\$1.55	\$2,412.49
1.4	302 5912	Aggregate Base	40,000.00	45,000.00	Ton	U.S. Dollar	\$25.50	\$1,050,000.00	\$3.02		\$120,771.08			\$4.14	\$165,733.22
1.5	303 4263	Asphalt Concrete Hot Mix Type A	38,000.00	35,000.00	Ton	U.S. Dollar	\$42.45	\$1,613,100.00	\$7.61		\$269,320.12			\$9.87	\$74,948.12
2	400	WATER & SEWER				U.S. Dollar		\$718,550.00			\$112,985.42			\$154,981.81	
2.1	41303 0464	36 Inch RCP Culvert Class III	1,000.00	1,024.00	Linear Feet	U.S. Dollar	\$97.45	\$97,450.00	\$14.30		\$14,297.53			\$19,96	\$19,959.48
2.2	800 0220	10 Inch PVC Force Main (DOR2)	12,000.00	12,000.00	Linear Feet	U.S. Dollar	\$29.50	\$354,000.00	\$4.62		\$55,406.82			\$6.25	\$74,950.37

Step 3 - Calculate direct and indirect project cost

Once you've set up your estimate, you will perform take-offs and cost analysis to determine the total estimated cost to complete the entire scope of work.

The **Cost Breakdown Structure (CBS) Register** is the main form where you will do your cost estimating.

- It is the hierarchy of work activities that make up the estimate
- Each row in the CBS represents a work activity and is called a cost item

CBS Position Code	Description	Optional Code	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Allocated
	JOB		20.00	Mile	\$293,095.93	\$5,861,918.63	
	Prime Bond	PRIME BOND	1.00	Lump Sum	\$47,069.88	\$47,069.88	
	Price % Add-On	PRICE % ADD-ON	1.00	Lump Sum	\$294,928.95	\$294,928.95	
	Job Financing	FINANCE EXPENSE	1.00	Lump Sum	\$0.00	\$0.00	
	Indirect Cost Escalation	INDIRECT COST ESCAL...	1.00	Lump Sum	\$0.00	\$0.00	
	Direct Cost Escalation	DIRECT COST ESCALAT...	1.00	Lump Sum	\$18,837.35	\$18,837.35	
	Indirect Cost Add-On	INDIRECT COST ADD-ON	1.00	Lump Sum	\$0.00	\$0.00	
	Job Management & Equipment	JOB MANAGEMENT & E...	1.00	Lump Sum	\$157,096.28	\$157,096.28	
	General Expense	GENERAL EXPENSE	1.00	Lump Sum	\$4,200.00	\$4,200.00	
	Direct Cost Add-On	DIRECT COST ADD-ON	1.00	Lump Sum	\$104,301.10	\$104,301.10	
1	Mobilization	641 0100	1.00	Lump Sum	\$11,909.51	\$11,909.51	
2	Clearing & Grubbing	201 0102	10.00	Acre	\$3,918.50	\$39,184.97	
3	Unclassified Excavation	202 0183	50,000.00	Cubic Yard	\$4.68	\$233,915.81	
3.1	Excavation	3.1	50,000.00	Cubic Yard	\$3.00	\$149,922.88	
3.2	Embankment	3.2	50,000.00	Cubic Yard	\$1.68	\$83,992.94	
4	Aggregate Base	303 5912	45,000.00	Ton	\$15.40	\$692,928.99	
4.1	Furnish & Haul Base Material	4.1	45,000.00	Ton	\$11.54	\$519,513.30	
4.2	Finegrade Subgrade	4.2	400,000.00	Square Yard	\$0.19	\$75,848.36	
4.3	Install Aggregate Base	4.3	45,000.00	Ton	\$3.17	\$142,567.33	
						\$5,861,918.63	

Step 4 - Add markup, contingency, and fees

Once you have estimated all project costs, you may need to add markup, contingency or other fees and define the job’s profit in the Price Breakdown Structure form.

Description	Assigned	Unassigned	Total	% of Target
▼ ▲ Price Breakdown Structure				
▼ ▲ Target Price	\$5,252,19...	\$645,755.99	\$5,897,950.68	100.00
▼ ▲ Markup	\$0.00	\$315,692.95	\$315,692.95	5.35
▼ ▲ Target Profit		\$0.00	\$0.00	0.00
▲ Indirect Cost Markup		\$0.00	\$0.00	0.00
▲ Direct Cost Markup		\$0.00	\$0.00	0.00
▼ ▲ Business Overhead	\$0.00	\$315,692.95	\$315,692.95	5.35
□□ Price % Add-On	\$0.00	\$265,407.78	\$265,407.78	4.50
□□ Job Financing	\$0.00	\$33,105.26	\$33,105.26	0.56
□□ Indirect Cost Escala...	\$0.00	\$2,131.11	\$2,131.11	0.04
□□ Direct Cost Escalation	\$0.00	\$15,048.80	\$15,048.80	0.26
■ Business Overhead ...	\$0.00	\$0.00	\$0.00	0.00
▼ ▲ Total Cost	\$5,252,19...	\$330,063.05	\$5,582,257.73	94.65
▼ ▲ Indirect Cost	\$0.00	\$329,063.05	\$329,063.05	5.58
▼ ▲ Job Overhead	\$0.00	\$329,063.05	\$329,063.05	5.58
□□ Prime Bond	\$0.00	\$43,789.75	\$43,789.75	0.74
□□ Indirect Cost A...	\$0.00	\$5,888.67	\$5,888.67	0.10
□□ Direct Cost Add...	\$0.00	\$104,088.34	\$104,088.34	1.76
■ Job Overhead I...	\$0.00	\$175,296.28	\$175,296.28	2.97
▼ ▲ Direct Cost	\$5,252,19...	\$1,000.00	\$5,253,194.68	89.07
■ Direct Cost Items	\$5,252,19...	\$1,000.00	\$5,253,194.68	89.07

Step 5 - Distribute cost + markup to required structure

You now have a target price or total estimated value that you can spread to your required project deliverables, back in the Pay Item & Proposal form. InEight Estimate has tools within this form to help automatically distribute your cost, overhead and all markups to the listed items.

Pay Item & Proposal Register

	Current	Target	Forecast	Variance	
Price:	\$6,455,450.00	\$6,553,976.75	\$6,462,850.00	\$98,526.75	ADD
Profit:	\$544,294.64	\$642,821.40	\$604,568.97	\$38,252.43	ADD
Margin%:	8.43	9.81	9.35	\$32,502.50	ADD

Item Recap - 641 0100 Mobilization

	Balanced Unit	Current Unit
Price:	\$18,300.00	\$386,800.00
Profit:	\$2,049.63	\$370,501.39
Total Cost:	\$16,298.61	\$16,298.61
Business Overhead:	\$840.31	
Job Overhead:	\$3,546.52	
Unassigned Direct Cost:	\$2.26	
Assigned Direct Cost:	\$11,909.51	

Drag columns here to group: Find: Saved views:

Pay Item Number	Description	Pay Quantity	Forecast (T/O) Quantity	Unit of Measure	Currency	Unit Price (current)	Total Price (current)	Unit Price (balanced)	Total Price (balanced)
+ 641 0100	Mobilization	1.00	1.00	Lump Sum	U.S. Dollar	\$386,800.00	\$386,800.00	\$18,300.00	\$18,300.00
+ 201 0102	Clearing & Grubbing	10.00	10.00	Acre	U.S. Dollar	\$6,120.00	\$61,200.00	\$5,867.33	\$58,673.33
+ 202 0183	Unclassified Excavation	50,000.00	50,000.00	Cubic Yard	U.S. Dollar	\$8.50	\$425,000.00	\$6.31	\$315,500.00
+ 303 5912	Aggregate Base	40,000.00	40,000.00	Cubic Yard	U.S. Dollar	\$22.00	\$880,000.00	\$19.47	\$778,800.00
+ 303 4263	Asphalt Concrete Hot Mix Type A	38,000.00	38,000.00	Square Yard	U.S. Dollar	\$35.00	\$1,330,000.00	\$52.28	\$1,986,640.00
+ 413(B) 0464	36 Inch RCP Culvert Class III	1,000.00	1,000.00	Linear Feet	U.S. Dollar	\$100.00	\$100,000.00	\$87.19	\$87,190.00
+ 800 0220	10 Inch PVC Force Main (SDR21)	12,000.00	12,000.00	Linear Feet	U.S. Dollar	\$28.00	\$336,000.00	\$29.82	\$357,840.00
+ 800 0330	24 Inch PVC Gravity Sewer (SDR35)	3,000.00	3,000.00	Linear Feet	U.S. Dollar	\$64.00	\$192,000.00	\$64.13	\$192,390.00
+ 800 0400	4 Foot Diameter Manhole	16.00	16.00	Each	U.S. Dollar	\$4,500.00	\$72,000.00	\$4,579.64	\$73,274.24
							\$6,455,450.00		\$6,553,976.75

1.2 KEY CONCEPTS AND TERMS

To help you get started in InEight Estimate, you should know a few key terms:

- Job Folder
- Library
- Form
- Cost Item
- Pay Item
- Resource
- Assembly

1.2.1 Job folder

Job folders hold all the information for an individual project estimate. It is possible to import master data into a job folder, but when you work in a job folder it is independent, meaning any activity performed in that folder will not affect any other jobs and will not affect the library.

When moving back and forth between jobs, make sure to always double-check that you are in the right job.

1.2.2 Library

The Library is a storehouse for master data, such as:

- Labor, equipment, and material unit cost rates
- Standard account codes
- Units of measure

When you create a new job from scratch, default data and settings copy from the Library into your new job folder, except for the resource rates. Multiple list of resource rates can be maintained in the library so you must select which rates to populate a new estimate with. Four tag fields are available to filter the resource rates you bring into an estimate from the master library. For example, you may select a subset of your labor rates based on the geographical location of the project.

1.2.3 Form

Any screen you open in InEight Estimate is considered a Form. There are three types of forms: Standard, Register, and Record forms.

Standard Forms resemble typical data entry forms with fields available to fill in key project information. They also may contain radio buttons or checkboxes to define settings for the job.

The screenshot displays the 'Job Properties' form with the following elements highlighted:

- Entry Fields:** Text input fields for 'Work Hours per Shift' (8.00), 'Pay Hours per Shift' (8.00), 'Shifts per Day' (1.00), and 'Days per Week' (5.00).
- Checkboxes:** A group of checkboxes under the 'Rules' section, including 'Lock Cost Items to Pay Items' (checked), 'Pay Item Unit Price Precision' (2), 'Activate PBS Changes Log', 'Activate Quantity Checking', and 'Maintain CBS Structure at Level' (0).
- Radio buttons:** Two radio buttons under 'When man-count changes': 'Change UM / Man-Hour' (selected) and 'Change Days'.
- Other Fields:** 'Scale 1: 100.00 %', 'Scale 2: 0.00 %', 'Scale 3: 0.00 %', 'Default Currency: U.S. Dollar', and 'Sales Tax Rate: 5.00 %'.
- Navigation:** A horizontal tab bar at the top with tabs for Overview, Security, Cover Sheet, Cost Basis, Minority Setup, Fuel Cost, Job Tracking, Job Folder Tags, Competitors, Pricing, Schedule, Cash Flow, and Equipment.

InEight Estimate uses tabs to group and organize entry fields and settings in a logical way, so that the information is easy to access.

Register forms have a grid format of rows and columns, giving it a spreadsheet look and feel. Register forms allow you to see information for multiple items at once. The Cost Breakdown Structure (CBS) Register is an example of a register form.

CBS Position Code	Description	Optional Code	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Allocated
+ 1	Mobilization	641 0100	1.00	Lump Sum	\$11,909.51	\$11,909.51	<input type="checkbox"/>
+ 2	Clearing & Grubbing	201 0102	10.00	Acre	\$3,918.50	\$39,184.97	<input type="checkbox"/>
[-] 3	Unclassified Excavation	202 0183	50,000.00	Cubic Yard	\$4.54	\$226,856.16	<input type="checkbox"/>
+ 3.1	Excavation	3.1	50,000.00	Cubic Yard	\$2.86	\$142,863.22	<input type="checkbox"/>
+ 3.2	Embankment	3.2	50,000.00	Cubic Yard	\$1.68	\$83,992.94	<input type="checkbox"/>
[-] 4	Aggregate Base	303	0.00	Ton	\$15.40	\$692,928.99	<input type="checkbox"/>
+ 4.1	Furnish & Haul Base Material	4.1	0.00	Ton	\$11.54	\$519,513.30	<input type="checkbox"/>
+ 4.2	Finegrade Subgrade	4.2	0.00	Square Yard	\$0.19	\$75,848.36	<input type="checkbox"/>
[-] 4.3	Install Aggregate Base	4.3	0.00	Ton	\$2.17	\$97,567.33	<input type="checkbox"/>
+ 4.3.1	Place Aggregate Base	4.3.1	45,000.00	Ton	\$1.63	\$73,460.92	<input type="checkbox"/>
+ 4.3.2	Blue Top Aggregate Base	4.3.2	400,000.00	Square Yard	\$0.06	\$24,106.42	<input type="checkbox"/>
[-] 5	Asphalt Concrete Hot Mix Type A	303 4263	35,000.00	Ton	\$42.62	\$1,491,580.59	<input type="checkbox"/>
+ 5.1	Furnish & Haul Hot Mix	5.1	35,000.00	Ton	\$39.27	\$1,374,562.54	<input type="checkbox"/>
+ 5.2	Install Hot Mix Type A	5.2	35,000.00	Ton	\$3.34	\$117,018.05	<input type="checkbox"/>
[-] 6	36 Inch RCP Culvert Class III	413(B) 0464	1,024.00	Linear Feet	\$67.54	\$69,159.49	<input type="checkbox"/>
+ 6.1	Furnish RCP Materials	6.1	1,024.00	Linear Feet	\$33.48	\$34,286.70	<input type="checkbox"/>
+ 6.2	Excavate RCP Trench	6.2	1,858.56	Cubic Yard	\$4.51	\$8,379.59	<input type="checkbox"/>
+ 6.3	Install RCP Pipe	6.3	1,024.00	Linear Feet	\$11.74	\$12,017.60	<input type="checkbox"/>

View multiple items at once

In a register form, you can open a **Record** for individual items you want to drill into.

The Tab key is the best way to move among fields in InEight Estimate (instead of the Enter key).

The below figure displays a Cost Item Record accessed by double clicking on that item on the Cost Breakdown Structure (CBS) Register.

Cost Breakdown Structure (CBS) Register Cost Item Record

CBS Code: Optional Code: Description: Forecast (T/O) Qty: Unit of Measure:

4	303 5912	AggregateBase	45,000.00	Ton
4.1	4.1	Furnish & Haul Base Material	45,000.00	Ton

PI Assignment: PI Line Number: PI Description: Cost Segment:

303 5912 40 AggregateBase Direct Cost

Cost Item Summary Detail : \$11.54 Plug : \$0.00

Drag columns here to group Find: Saved views: Previous View

Row Number	Code	Resource Assembly	Description	Quantity (Less Waste)	Waste % Add-on	Qua
+ 1	LT1		Teamster			
+ 2	ETDT		Dump Truck			
+ 3	MBR		Aggregate Base Rock	45,500.00	5.00	

Record focuses on 1 item

1.2.4 Cost item

Cost items are the individual cost-related activities that make up the project. Cost items are organized into a hierarchy in the Cost Breakdown Structure (CBS) Register. Each row in the CBS is considered a cost item.

CBS Position Code	Description	Optional Code	Forecast (T/O) Quantity	Unit of Measure	Unit Cost
+ 1	Mobilization	641 0100	1.00	Lump Sum	\$11,909.51
+ 2	Clearing & Grubbing	201 0102	10.00	Acre	\$3,918.50
[-] 3	Unclassified Excavation	202 0183	50,000.00	Cubic Yard	\$4.68
+ 3.1	Excavation	3.1	50,000.00	Cubic Yard	\$3.00
+ 3.2	Embankment	3.2	50,000.00	Cubic Yard	\$1.68
[-] 4	Aggregate Base	303 5912	45,000.00	Ton	\$15.40
+ 4.1	Furnish & Haul Base Material	4.1	45,000.00	Ton	\$11.54
+ 4.2	Finegrade Subgrade	4.2	400,000.00	Square Yard	\$0.19
[-] 4.3	Install Aggregate Base	4.3	45,000.00	Ton	\$2.17
+ 4.3.1	Place Aggregate Base	4.3.1	45,000.00	Ton	\$1.63
+ 4.3.2	Blue Top Aggregate Base	4.3.2	400,000.00	Square Yard	\$0.06

1.2.5 Pay item

Pay items typically represent the owner required deliverables a contractor must submit pricing for. Pay items are used to distribute the cost calculated in the Cost Breakdown Structure, with all markup,

including any fees or contingencies calculated in the Price Breakdown Structure. This allows the total estimate value to be distributed to a structure that is different than the CBS. Pay Items are predominantly used by contractors to prepare a bid sheet. Owners may use pay items to identify funding sources or for various reporting needs.

Position Code	Pay Item Number	Description	Pay Quantity	Forecast (T/O) Quantity	Unit of Measure	Currency	Unit Price (current)	Total Price (current)
→ 1	200	SITEWORK & ROADWAY				U.S. Dollar		\$3,402,700.00
+ 1.1	641 0100	Mobilization	1.00	1.00	Lump Sum	U.S. Dollar	\$395,600.00	\$395,600.00
+ 1.2	201 0102	Clearing & Grubbing	10.00	10.00	Acre	U.S. Dollar	\$5,900.00	\$59,000.00
+ 1.3	202 0183	Unclassified Excavation	50,000.00	50,000.00	Cubic Yard	U.S. Dollar	\$5.50	\$275,000.00
+ 1.4	303 5912	Aggregate Base	40,000.00	45,000.00	Ton	U.S. Dollar	\$26.50	\$1,060,000.00
+ 1.5	303 4263	Asphalt Concrete Hot Mix Type A	38,000.00	35,000.00	Ton	U.S. Dollar	\$42.45	\$1,613,100.00
2	400	WATER & SEWER				U.S. Dollar		\$718,550.00
+ 2.1	413(B) 0464	36 Inch RCP Culvert Class III	1,000.00	1,024.00	Linear Feet	U.S. Dollar	\$97.45	\$97,450.00
+ 2.2	800 0220	10 Inch PVC Force Main (SDR21)	12,000.00	12,000.00	Linear Feet	U.S. Dollar	\$29.50	\$354,000.00

1.2.6 Resource

Resources are the building blocks of a detailed cost estimate.

Resources are the people, equipment, material, and supplies needed to complete the project.

Resources are employed to cost items to develop an estimate, and are organized into seven categories or types:

1. Labor
2. Construction Equipment
3. Rented Construction Equipment
4. Installed Equipment
5. Installed Materials
6. Supplies
7. Unique

1.2.7 Resource assembly

A **Resource Assembly** is a group of resources that are often used together. For example, for civil work, you may group together an operator foreman, operator, and laborer, along with a loader and excavator. When estimating, you can employ this assembly which includes all of the pre-selected resources.

Resource Assembly Register													
Drag columns here to group													
Code	Description	Resource File Description	Quantity	Unit of Measure	Unit Cost	Total Cost	Currency	Organizational Category	Geographic Area				
- CCNC	Concrete Crew	Standard Assembly File	1.00	Hour	\$375.03	\$375.03	U.S. Dollar	Concrete					
	Row Number	Resource Code	Description	Quantity	Unit of Measure	Unit Cost	Currency	Cost Driver	Resource File Description	Organizational Category	Geographic Area	Wage Zone	
	→ 1	LC2	Carpenter Journeyman	2.00	Each	\$28.92	U.S. Dollar	CI Dura...	Standard Labor Rate File	Carpenter	Southwest	Wage Zon...	
		2	LF2	Finisher	1.00	Each	\$28.07	U.S. Dollar	CI Dura...	Standard Labor Rate File	Finisher - Conc...	Southwest	Wage Zon...
		3	LW1	Iron Worker	1.00	Each	\$35.55	U.S. Dollar	CI Dura...	Standard Labor Rate File	Iron Worker	Southwest	Wage Zon...
		4	LL2	Laborer	1.00	Each	\$26.37	U.S. Dollar	CI Dura...	Standard Labor Rate File	Laborer	Southwest	Wage Zon...
		5	ECRHC	Hydraulic Crane 25 Ton	1.00	Each	\$117.60	U.S. Dollar	CI Dura...	Standard Equipment Rate...	Crane		
		6	LC1	Carpenter Apprentice	1.00	Each	\$27.48	U.S. Dollar	CI Dura...	Standard Labor Rate File	Carpenter	Southwest	Wage Zon...
		7	LO2	Operator Class 2	1.00	Each	\$28.07	U.S. Dollar	CI Dura...	Standard Labor Rate File	Operator	Southwest	Wage Zon...
		8	ETFT	Flatbed Truck	1.00	Each	\$22.60	U.S. Dollar	CI Dura...	Standard Equipment Rate...	Truck		
		9	LC3	Carpenter Foreman	1.00	Each	\$31.47	U.S. Dollar	CI Dura...	Standard Labor Rate File	Carpenter	Southwest	Wage Zon...
+ CGRADE	Grading Crew	Standard Assembly File	1.00	Hour	\$234.73	\$234.73	U.S. Dollar	Earthwork					
+ CMAINT	Equipment Maintenance	Standard Assembly File	1.00	Each	\$73.60	\$73.60	U.S. Dollar	Mechanic					
+ CPAVE	Paving Crew	Standard Assembly File	1.00	Hour	\$476.24	\$476.24	U.S. Dollar	Asphalt					

1.2.8 Cost item assembly

A **Cost Item Assembly** is a predefined group of cost items that has cost based on estimator inputs to a set of questions. Cost item assemblies provide parameter-driven estimating and can also refer to reference tables. They allow companies to create intelligent construction systems to automatically estimate various scopes of work, based upon a user providing specification and dimension variables.

Cost Item Assembly Register										
Drag columns here to group										
Code	Description	Assembly File Description	Default Quantity	Default Unit of Measure	Default Unit Cost	Default Total Cost	Default Currency	Organizational Category	Geographic Area	
RW01	Standard Retaining Wall Assembly	Standard Cost It...	20.00	Cubic Yard	\$424.67	\$8,493.38	U.S. Dollar	Concrete		
TEST	TEST		1.00	Each	\$0.00	\$0.00	U.S. Dollar			
TEST - DRS	Test Cost Item Assembly - Ductbank	Standard Cost It...	1.00	Each	\$0.00	\$0.00	U.S. Dollar	Concrete	Northeast	
TEST DS	Test Cost Item Assembly - Ductbank	Standard Cost It...	1.00	Each	\$0.00	\$0.00	U.S. Dollar	Excavator	Southwest	

Lesson 1 - Review

1. Which InEight Estimate form is used to enter basic information about the job as well as define our cost basis?
 - a. Pay Item & Proposal
 - b. Job Properties
 - c. Library
 - d. Job Folder

2. All default data and settings copy from the Library into your new job folder *except*:
 - a. Labor rates
 - b. Equipment rates
 - c. Material rates
 - d. All of the above

3. These are considered the “building blocks” of the job – you employ them to cost items to develop your estimate.
 - a. Assemblies
 - b. Pay Items
 - c. Resources
 - d. Forms

Lesson 1 - Summary

As a result of this lesson, you can:

- Explain the estimating process in InEight Estimate
- Explain key terms and concepts

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LESSON 2 – NAVIGATION

Lesson Duration: 60 Minutes

Lesson Objectives

After completing this lesson, you will be able to use the following forms and explain their purpose:

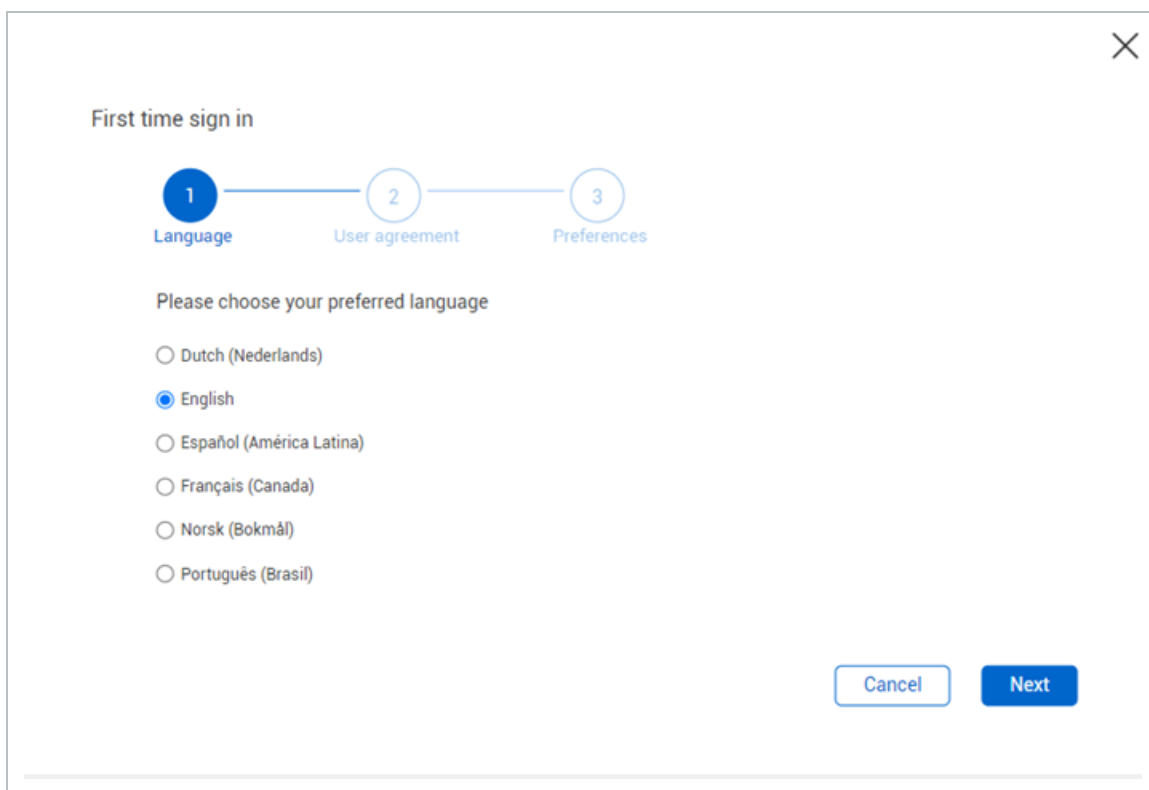
- Navigate the InEight Estimate system interface
- Navigate system settings
- Manage columns in InEight Estimate registers

2.1 GENERAL NAVIGATION

As a new user to the InEight, the First-time sign in dialog box opens when you first sign in, and presents questions about your working environment in the Project Suite environment. Preferences are set for language, date, and number formats and the User Agreement, which you must accept before you begin. The First-time sign in dialog boxes only show for the initial sign-in to any of the InEight products.

Estimate preferences setup

1. Select your **preferred language**, and then click **Next**.



The screenshot shows a 'First time sign in' dialog box with a close button (X) in the top right corner. A progress indicator at the top shows three steps: 1. Language (highlighted in blue), 2. User agreement, and 3. Preferences. Below the progress indicator, the text reads 'Please choose your preferred language'. There are six radio button options: Dutch (Nederlands), English (selected), Español (América Latina), Français (Canada), Norsk (Bokmål), and Português (Brasil). At the bottom right, there are two buttons: 'Cancel' and 'Next'.

2. Scroll to the bottom of the user agreement, and then select the **check box** for the terms and conditions and privacy policy. **Click Next**.

Make sure you have scrolled to the end of the user agreement

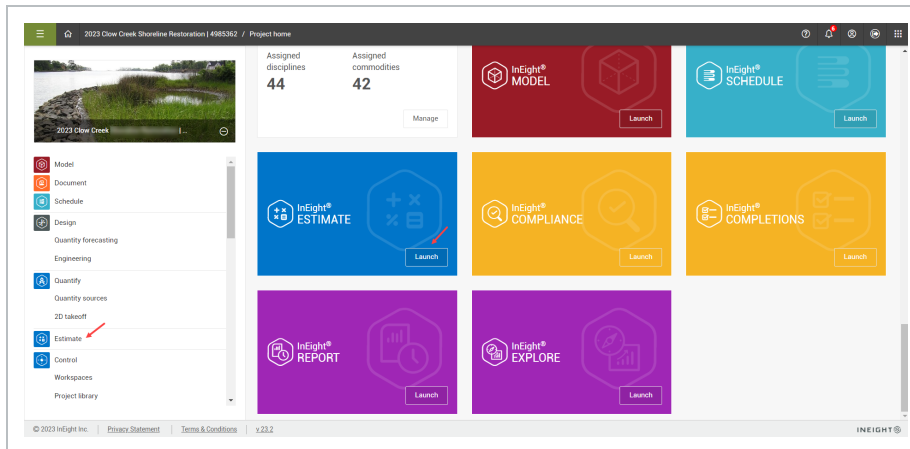
3. Select a **date format** and **number format**, and then click **Next**.

2.2 FIRST TIME ACCESS

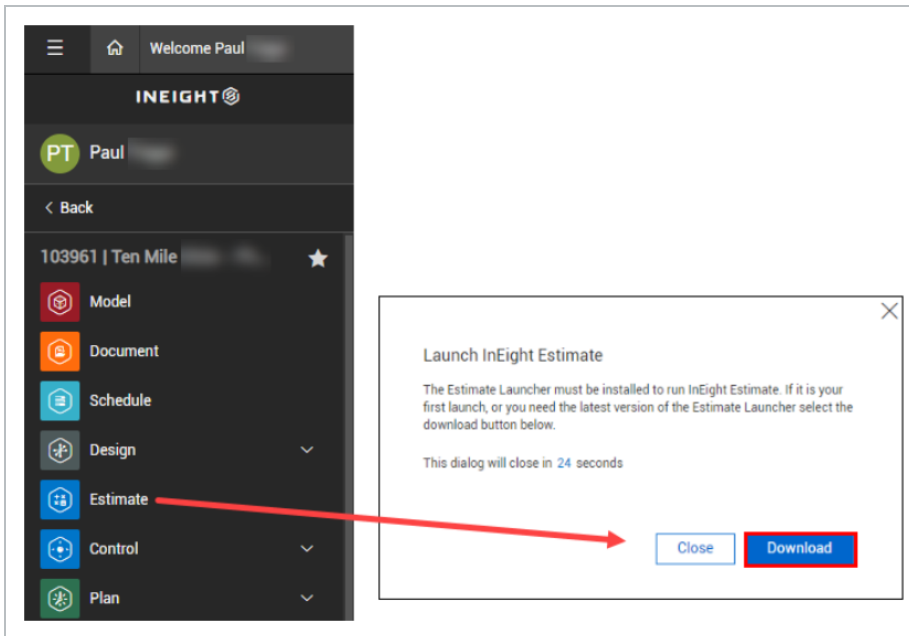
Platform's primary function lets you connect and share data between all Eight applications involved in managing a project. This allows project management workflows to pass between jobsite, field office, and front office seamlessly in a consistent and standardized user interface.

Launch Estimate

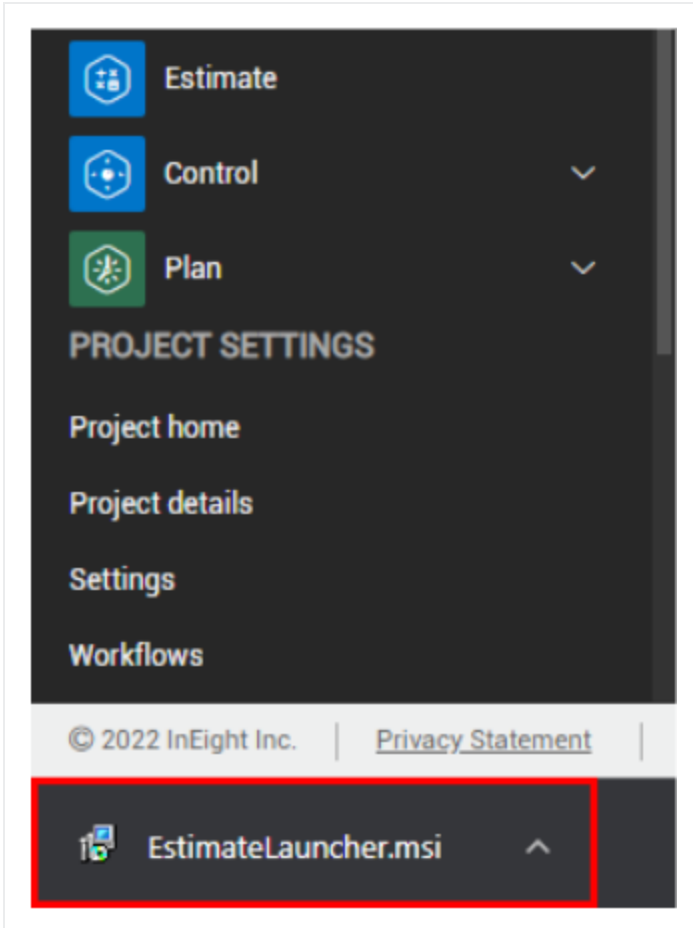
1. After selecting a project from the home page, you can access Estimate from the Main menu in Platform by selecting **Estimate**, or by clicking **Launch** on the **Estimate** tile.



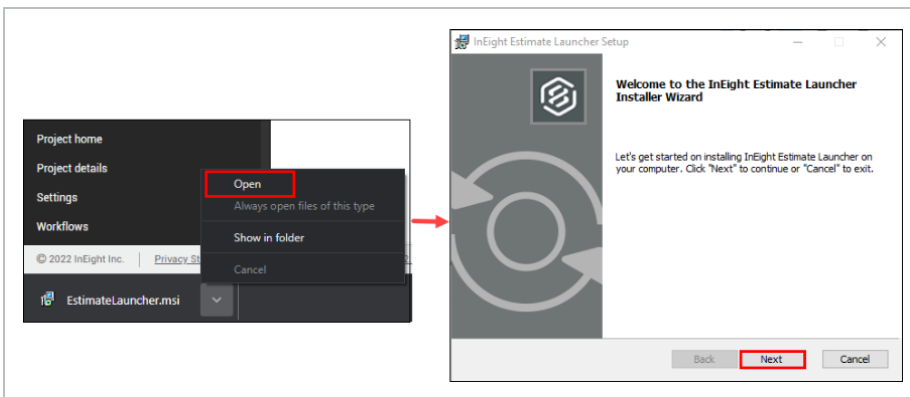
2. When you select Estimate from the home page for the first time, you must click **Download** to access the Estimate Launcher file.



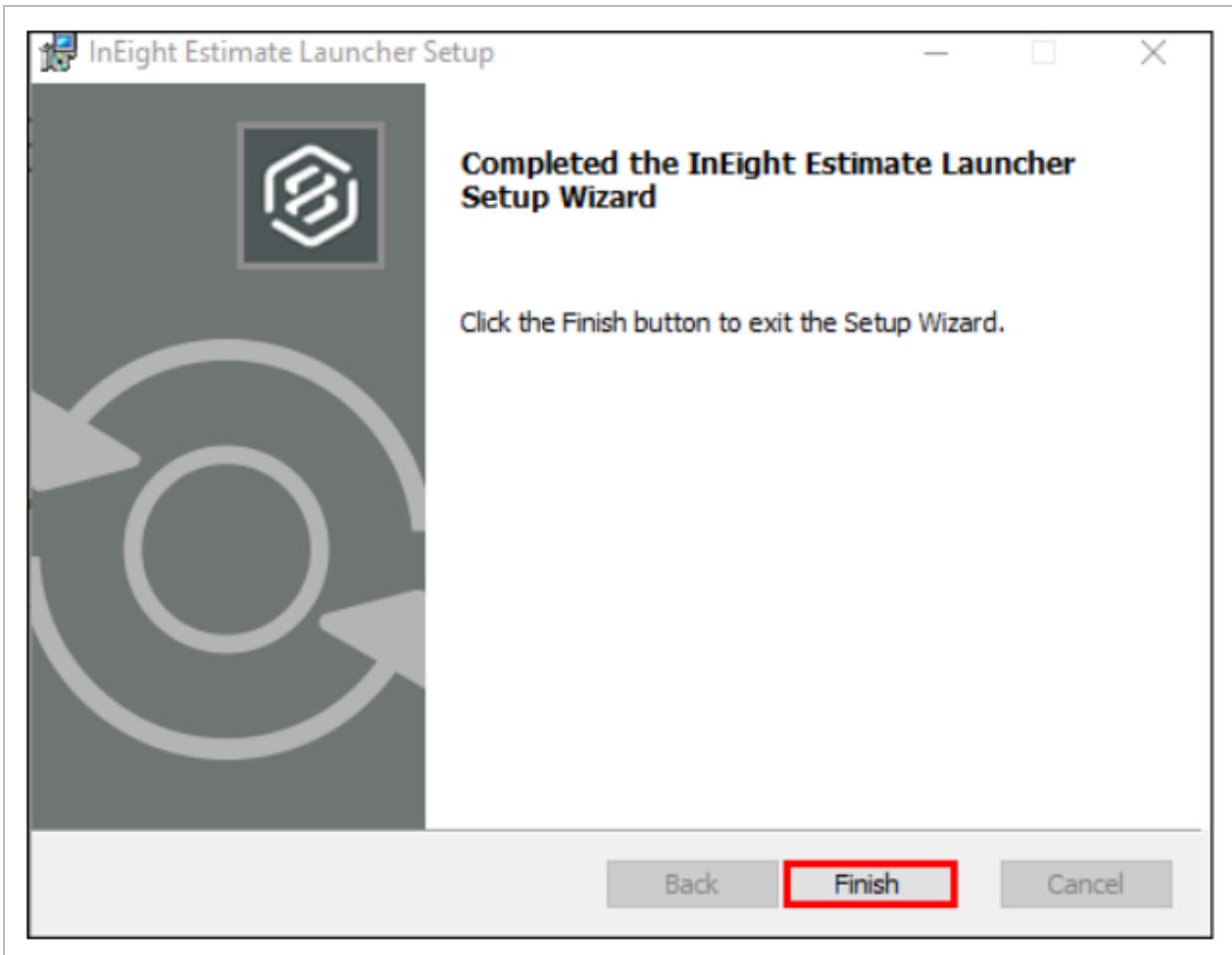
- The EstimateLauncher.msi file shows.



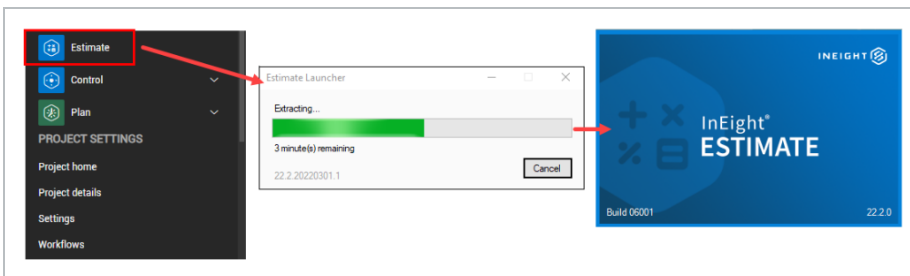
- Opening the EstimateLauncher.msi file opens the InEight Estimate Launcher Setup window.
3. Select **Open**, and then click **Next** to start the one-time Estimate Launcher download. Afterwards, you will be able to open Estimate from the Main menu or the home page.



4. Click **Finish** to complete the Estimate Launcher Setup installation.



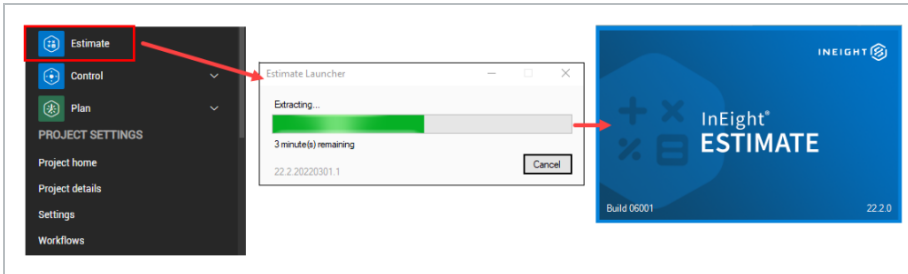
- 5. Select **Estimate** again to start the Estimate Launcher, which extracts the required files to launch the Estimate application.



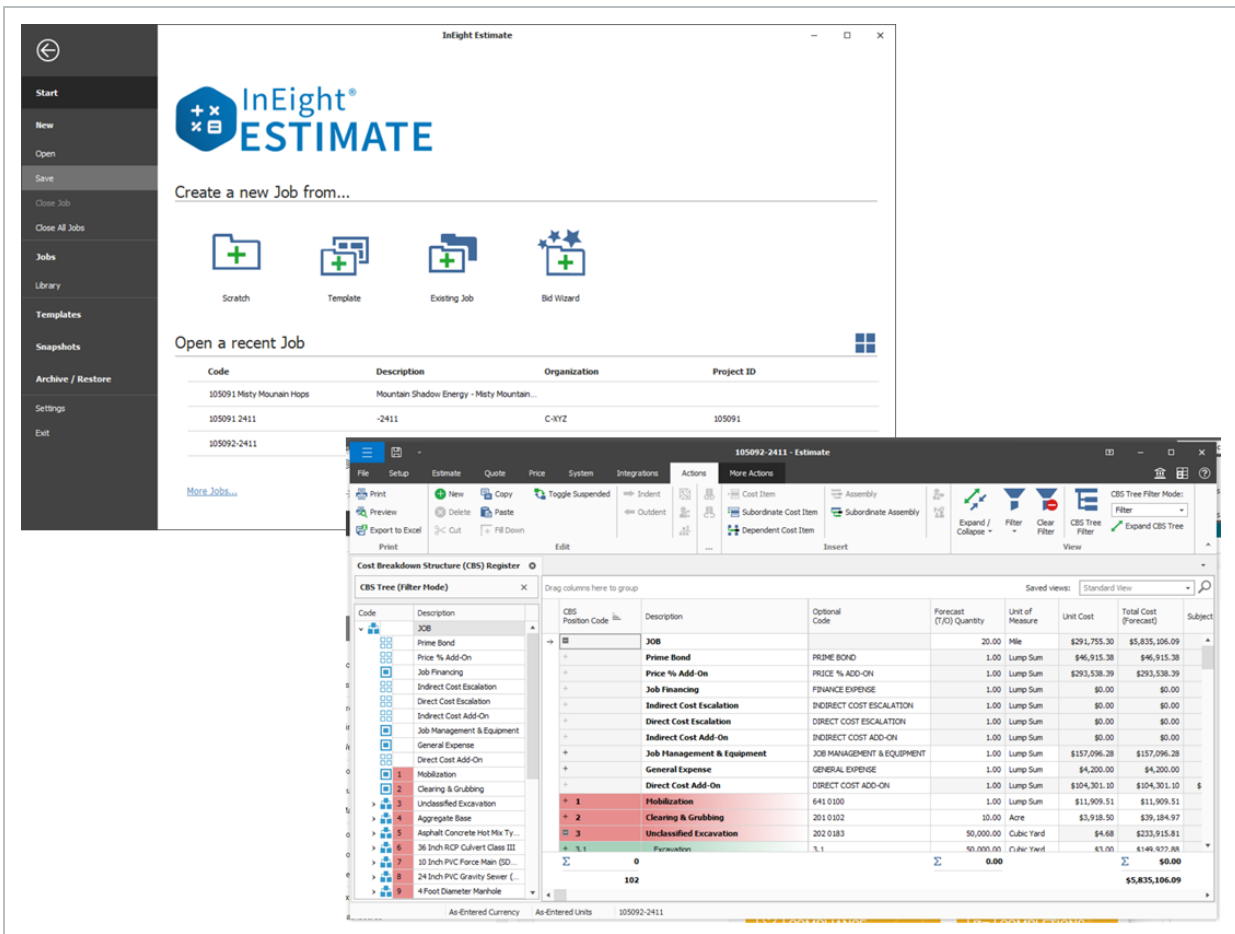
After setting up your Estimate preferences and installing the Estimate launcher, you can begin using Estimate.

Estimate subsequent use

1. Launch Estimate by selecting **Estimate** from the Main menu.



- Estimate in the cloud looks and functions much like the Estimate on-premise version. For example, opening a job from the landing page brings you to the Cost Breakdown Structure register, or the register designated as the start page in the application settings.

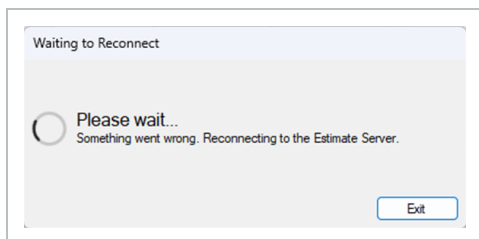


2.3 ESTIMATE RESILIENCY

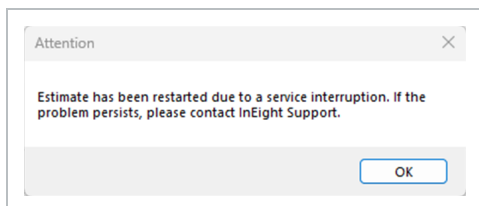
As a SaaS product, Estimate is sometimes made the casualty of server-side interruptions in service, which are out of Estimate's control. The auto-save function makes attempts to save your data prior to Estimate shutting down.

When an unexpected disruption occurs in Estimate and causes it to shut down, notifications show alerting you of the restore process to minimize the impact on you when these interruptions occur:

- A Waiting to Reconnect notification box shows, alerting you that it is reconnecting to the server.

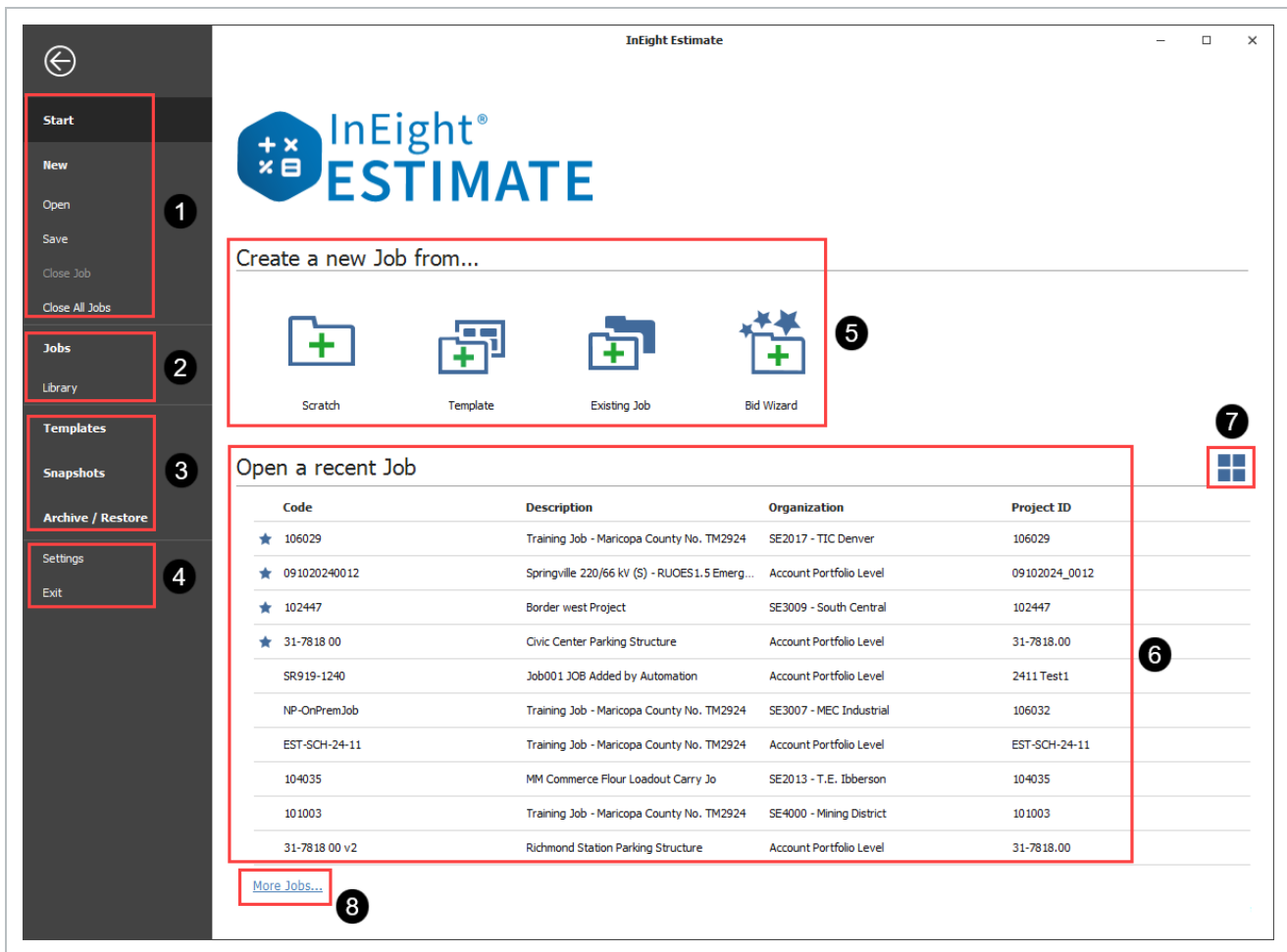


- When Estimate restarts, an Attention notification shows, alerting you that Estimate is being restarted due to a service interruption.



2.4 BACKSTAGE VIEW

When you open Estimate, you land in the Backstage view. You can also get to the Backstage view from other tabs, by selecting the File menu.



Section	Description
1	Create new jobs, open, save, or close opened jobs.
2	Access the library and open the Jobs page. In the Jobs page, you can access the following options: <ul style="list-style-type: none"> • Job Register • Delete Job • Compare Jobs • Connected Analytics
3	Access templates, snapshots, and archive or restore options. <ul style="list-style-type: none"> • Templates - Create job templates. • Snapshots - Open the Snapshots page where you can create job snapshots and open the Snapshot Register to access previously created snapshots. • Archive / Restore - Open the Archive / Restore page where you can access

Section	Description
	<p>the following options:</p> <ul style="list-style-type: none"> ◦ Archive Job ◦ Restore job ◦ Merge Jobs with Archive ◦ Archive Template ◦ Restore Template
4	<p>Open the Settings page where you can access the following options:</p> <ul style="list-style-type: none"> • General - Customize General, Title Bars, Navigation Bar, Job Startup, and Language options. • Decimal Precision - Manage decimal precision for various values in Estimate. • Restore Defaults - Click to restore default values for selected settings.
5	<p>Create a new job from scratch, from a template, from an existing job, or by using the Bid Wizard..</p>
6	<p>View up to 10 recently opened jobs as a list or thumbnail tiles to quickly access recently opened jobs. You can click the Favorites icon to the left of the job code to label up to five jobs as favorites. The jobs labeled as favorites show at the top of the list.</p>
7	<p>Change between the list view or tile view using the List-Tile view icon at the top right of the section. The source for the thumbnail images in the tiles is from the estimate project in InEight Platform. The following image shows the tile view.</p>

Section	Description

8 Open the Job Register where you can search and open jobs that do not show in Open a recent job list.

2.4.1 Archive / Restore

From the Backstage View, you can back up and restore your jobs using the Archive/Restore feature. For more information, see [Archive and Restore Jobs](#) in Estimate Data Management.

2.4.2 Settings

From the **Settings** in the Backstage view, you can adjust some system settings. For more information, see [System Settings options](#).

2.4.3 Prompt to save

An important setting to visit in the Tools menu is **Prompt to Save**. InEight Estimate does not automatically save your work. Instead, it will prompt you to save as often as you specify in the general settings.

2.4.4 Decimal precision

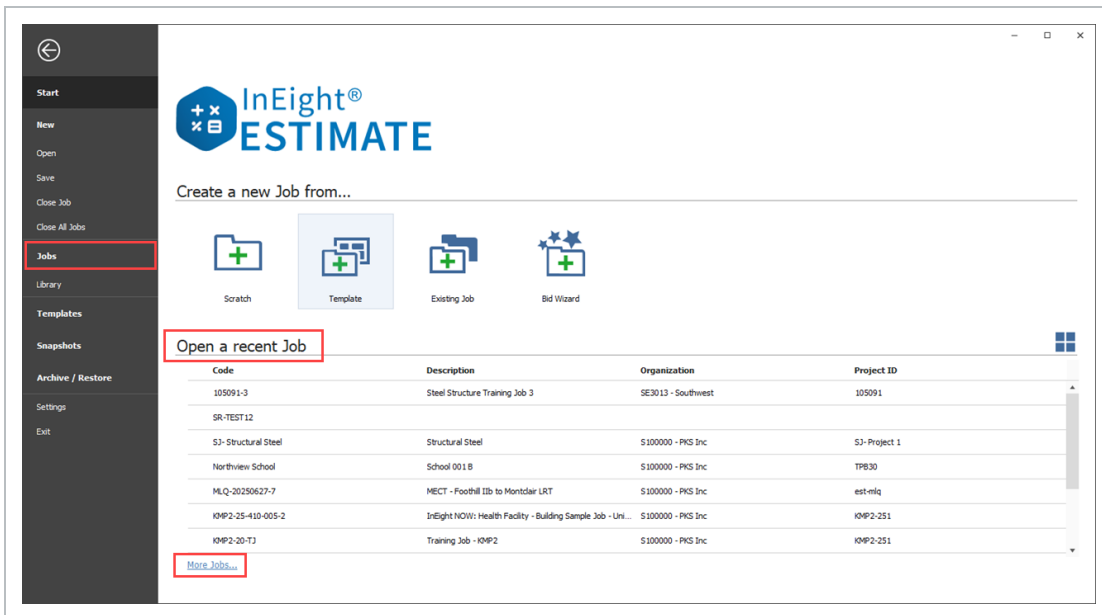
The **Decimal Precision** setting is also helpful. This is where you can specify the way your numbers display in the system. For example, you may want your costs to display to the hundredth decimal place (2), and your quantities to display as whole numbers with nothing to the right of the decimal (0).

Changing decimal precision does not affect the way your numbers are calculated.

2.5 LOAD A JOB

From the Backstage view, you can load a job by:

- Selecting a job from the Open a recent Job section.
- Clicking **More Jobs** to select from the Job Register.
- Clicking **Jobs** from the left menu and then clicking **Job Register**.

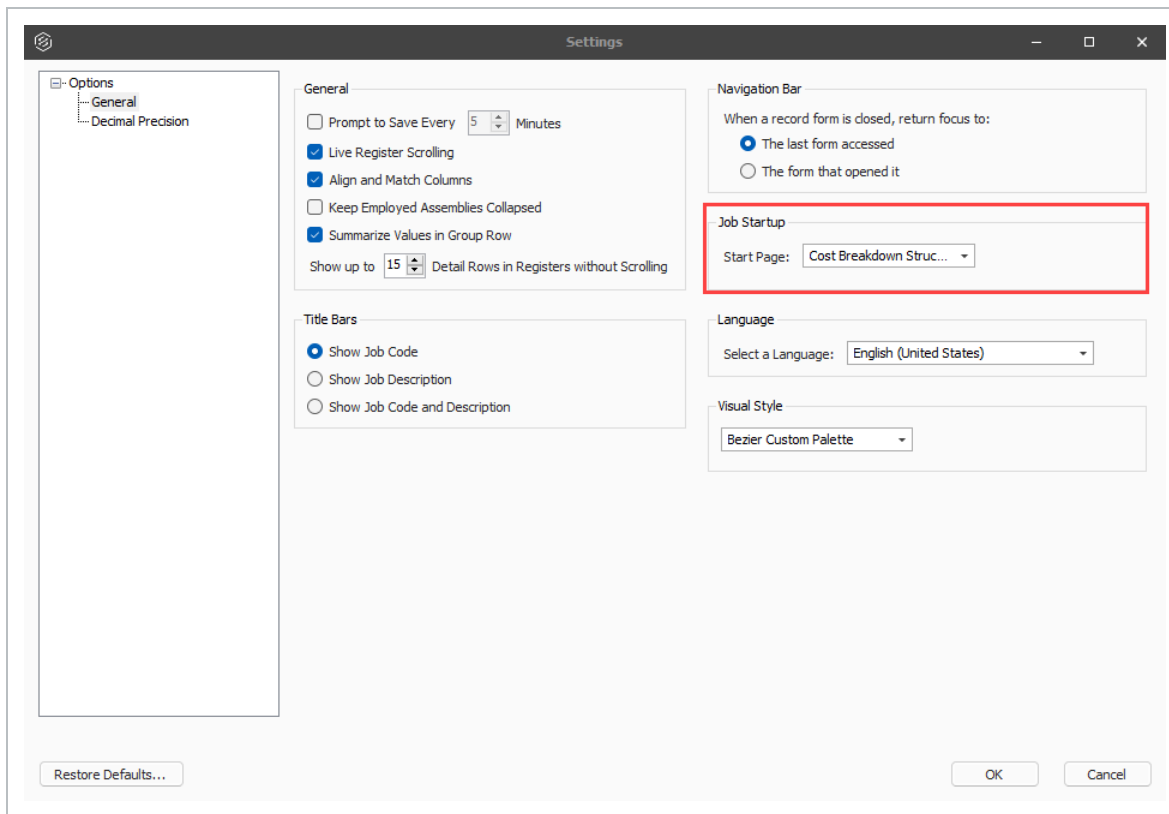


There are multiple ways to load a job from the Job Register. For more information, see [Manage jobs from the Job Register](#).

When you load a job, it loads into the Cost Breakdown Structure Register by default.

CBS Position Code	Description	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Currency	Quote Group
	JOB	20.00	Mile	\$293,609.18	\$5,872,183.61	U.S. Dollar	
+	Prime Bond	1.00	Lump Sum	\$47,271.25	\$47,271.25	U.S. Dollar	
+	Price % Add-On	1.00	Lump Sum	\$296,741.22	\$296,741.22	U.S. Dollar	
+	Job Financing	1.00	Lump Sum	\$0.00	\$0.00	U.S. Dollar	
+	Indirect Cost Escalation	1.00	Lump Sum	\$0.00	\$0.00	U.S. Dollar	
+	Direct Cost Escalation	1.00	Lump Sum	\$0.00	\$0.00	U.S. Dollar	
+	Indirect Cost Add-On	1.00	Lump Sum	\$0.00	\$0.00	U.S. Dollar	
+	Job Management & Equipment	1.00	Lump Sum	\$157,096.28	\$157,096.28	U.S. Dollar	
+	General Expense	1.00	Lump Sum	\$4,200.00	\$4,200.00	U.S. Dollar	
+	Direct Cost Add-On	1.00	Lump Sum	\$104,958.33	\$104,958.33	U.S. Dollar	
+ 1	Mobilization	1.00	Lump Sum	\$11,909.51	\$11,909.51	U.S. Dollar	
+ 2	Clearing & Grubbing	10.00	Acre	\$3,918.50	\$39,184.97	U.S. Dollar	
+ 3	Unclassified Excavation	50,000.00	Cubic Yard	\$4.68	\$233,915.81	U.S. Dollar	
Σ	0	Σ 0.00			Σ \$0.00		
	102				\$5,872,183....		

You can change the default form that opens when you load a job in Backstage view > Settings > Options > **General**. In the Job Startup section, select a form from the Start Page drop-down list.



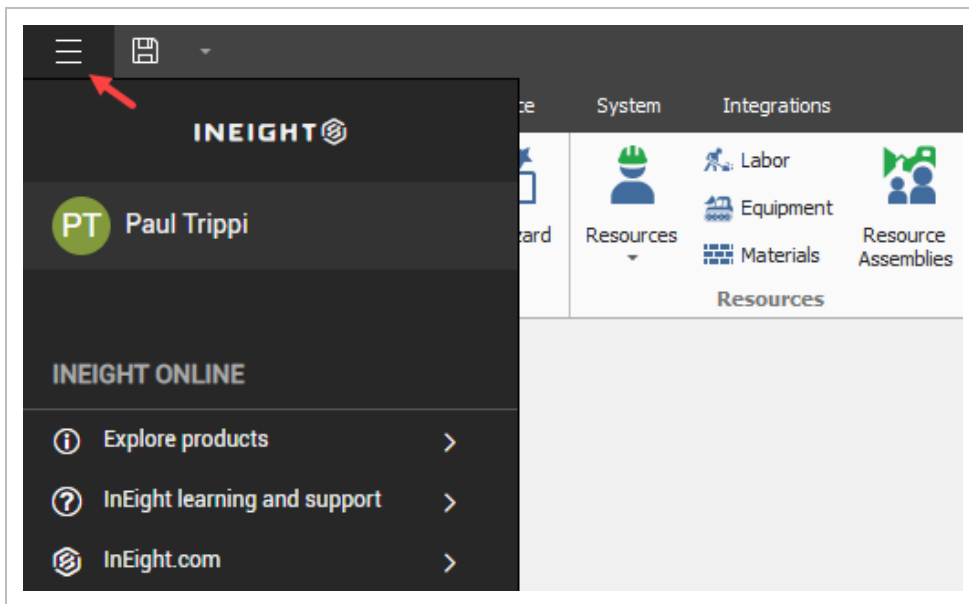
In the Job Register, you can easily access a job's properties. For more information, see [Open a job's properties from the Job Register](#).

For more information about job properties, see [Job properties](#).

2.6 COMMON NAVIGATION

Access the common navigation slide-out panel by selecting the main menu located on the top left side of the Estimate page. This feature provides a common navigation user experience that is shared amongst all InEight products. The primary intent of this navigation menu is to provide a consistent InEight product experience, with similar Project Suite graphical interfaces, while working within multiple InEight products.

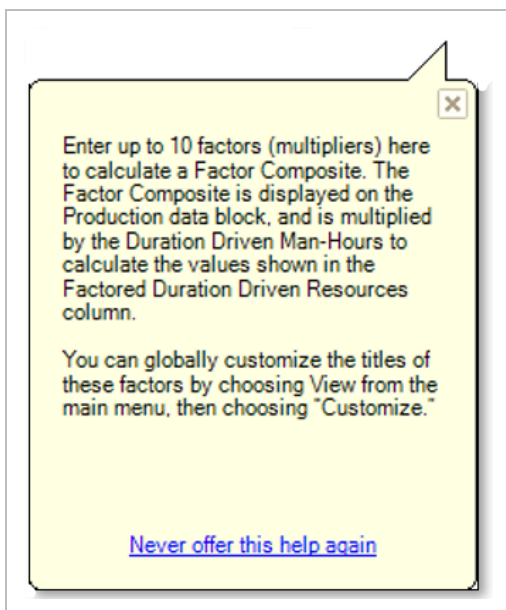
Estimate's on-premise software is authenticated by your Windows login credentials, which is shown below the main menu.



2.6.1 Help bubbles

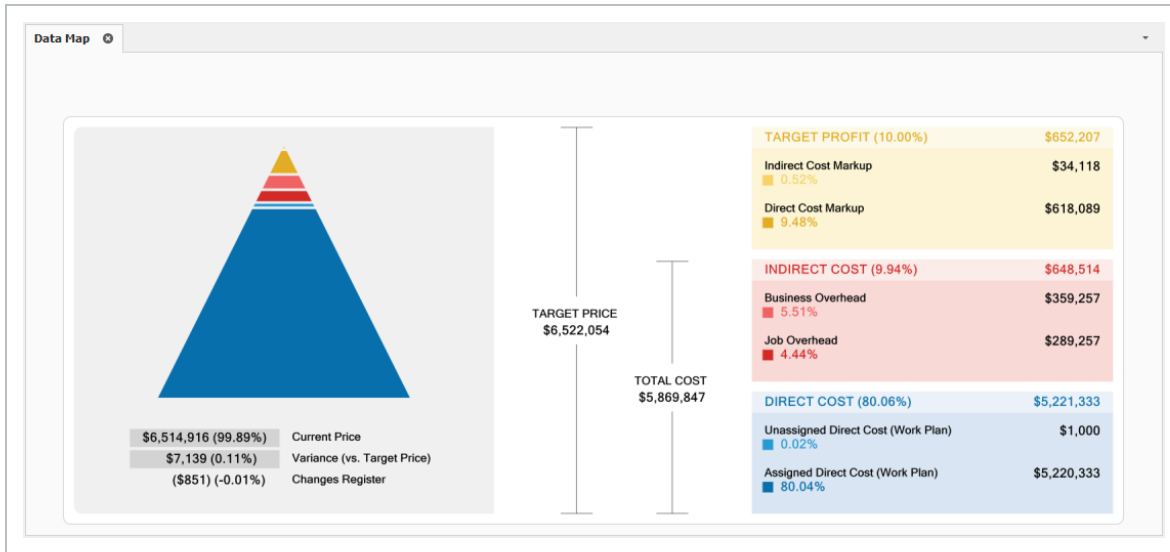
Help bubbles appear at various times in InEight Estimate, including the first time you open InEight Estimate. These messages contain important information to clarify key functions in the system.

You can dismiss the message until the next time by closing it with the X in the corner or dismiss it permanently by clicking the **Never offer this help again** link.



2.6.2 Data Map

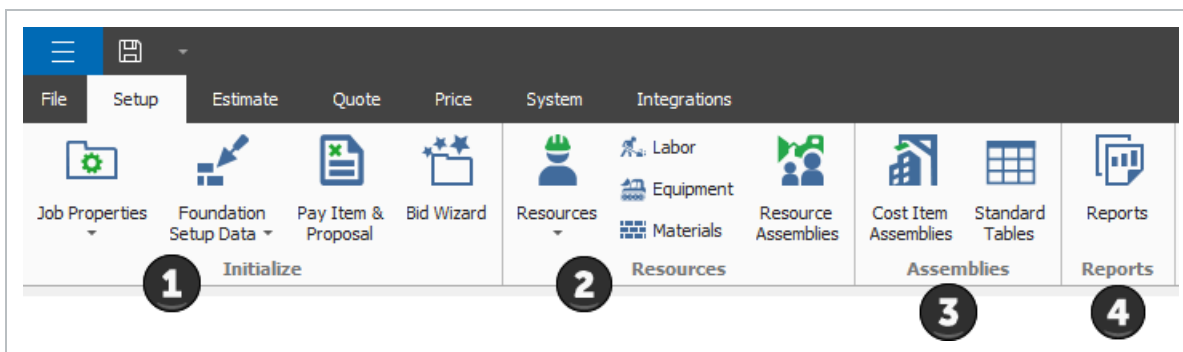
Found in the Price tab, the Data Map is a great way to view a high level summary of your estimate and can be accessed at any time during the estimating process. You can see totals of direct costs, indirect costs, profit, and overall bid price.



2.7 INEIGHT ESTIMATE LAYOUT

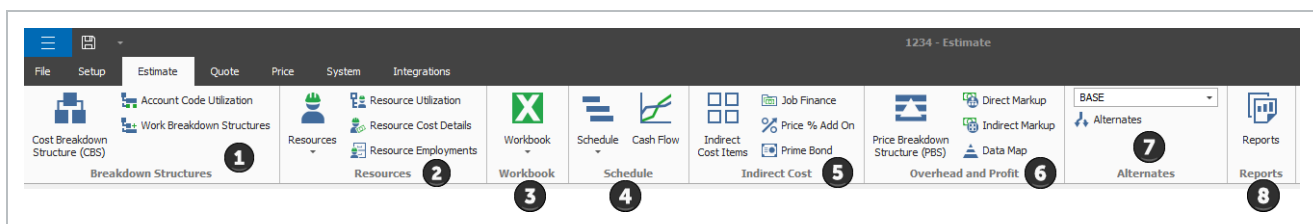
The layout of InEight Estimate is workflow based. You will move from left to right on the tabs as you enter your data for the project and work on developing your estimate.

2.7.1 Setup tab overview



Section		Description
1	Initialize	From the initialize section, you can access the following registers. Job Properties is where you enter the basic project details. Foundation Setup Data is where you populate all account codes and validated fields. The Pay item & Proposal Register provides an alternate structure to distribute estimated values. Bid Wizard helps automate the process of setting up estimates by copying information that already exists in other jobs.
2	Resources	In the Resources section, Resource Rates opens the Resource Rate Register, where detail costs for labor, equipment and material is stored. The Resource Assemblies opens the Resource Assembly Register, where you create a combination of resources as an assembly and reuse it as needed in multiple cost items.
3	Assemblies	You can create a Cost Item Assembly to automatically estimate different scopes of work based on input values. Standard tables - allow you to create tables of reference data that can be accessed in any cost item assembly.
4	Reports	The Reports section is available from any tab. Depending on the tab you access it from will bring you to reports specific to that tabs data. Here you will find reports on resources such as Resources Changes, Resource Utilization, and Resource Cost Details.

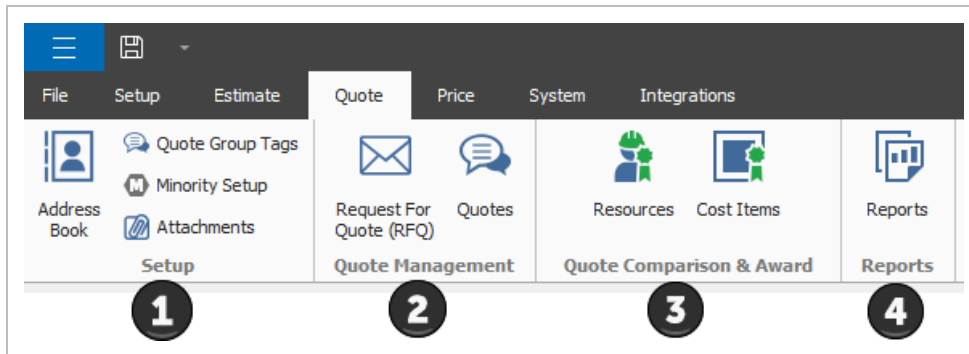
2.7.2 Estimate tab overview



Section		Description
1	Quantity Takeoff	Import and manage quantity takeoff data using the Quantity Item Sources, Quantity Item, and Quantity Item Employments registers.
2	Breakdown Structures	Access the Cost Breakdown Structure (CBS) Register, Account Code Utilization Register, and Work Breakdown Structures (WBS) Register.

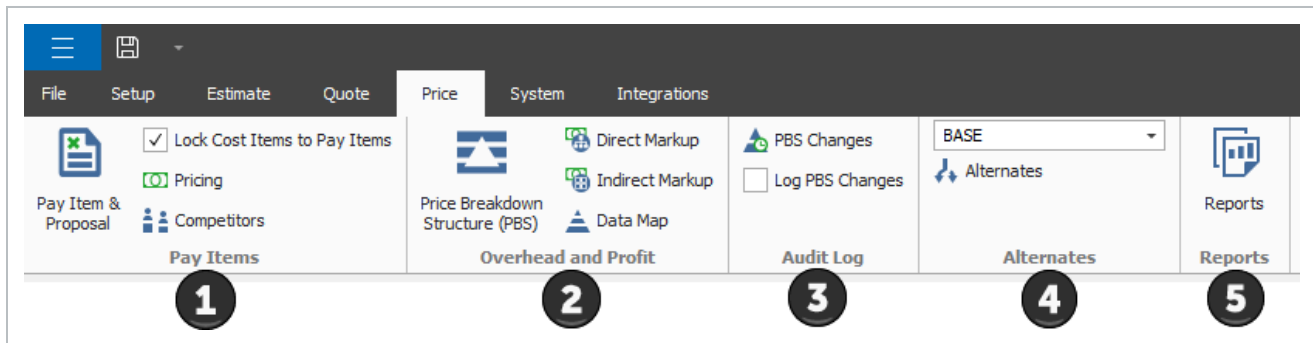
Section	Description
3 Resources	Resource Rate Register is where you create or modify the rate charged for labor, material and equipment resources. Different views of the Resource Rate register such as Resource Utilization and Resource Cost Details are available from the Resources section.
4 Workbook	InEight Estimate's integration with Microsoft Excel is a two-way integration that allows you to update register fields in Estimate with data contained in an Excel workbook, and update Excel cells with data contained in a register field in Estimate. This is where you open the embed excel workbook which is maintained as part of the estimate job folder and where you preform the sync functions to send values back and forth.
5 Schedule	Access bi-directional integration with InEight Schedule, Microsoft Project, and Oracle Primavera. The Cash Flow graph displays the projected cash flow of your project, along with the job financing expense, individual cost category costs and resource utilization.
6 Indirect Cost	Indirect Cost Items filters the CBS register to display cost items that contain overhead costs that are not directly associated with any particular deliverable items. Clicking on % Price Add on or Prime Bond opens up these individual records.
7 Overhead and Profit	Price Breakdown Structure (PBS) Register is a visual run-down of the costs and profit that make up your Target Price. You can access the Direct and Indirect Markup records or see totals of direct costs, indirect costs, profit and overall bid price summarized in a Data Map.
8 Alternates	Alternates are used to define alternate scenarios in order to assess the impact of those scenarios.
9 Reports	Run reports on CBS Summary, CBS Details, CBS Outline, CBS Estimate Summary, CBS Currency Comparison.

2.7.3 Quote tab overview



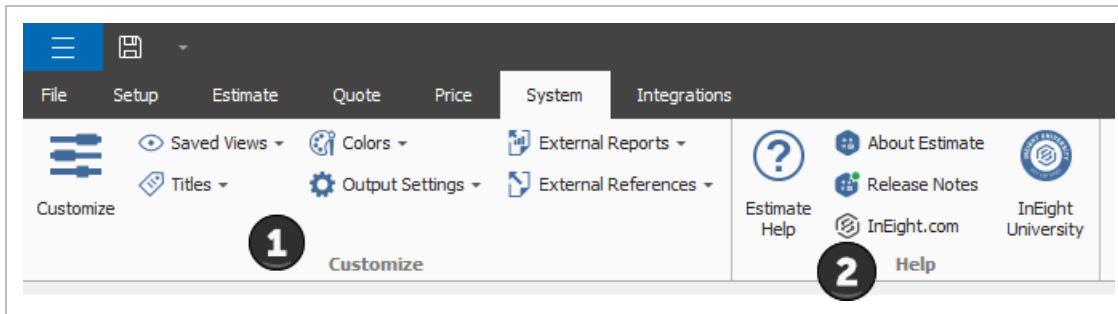
Section		Description
1	Setup	Quotes are organized using Address book, Quote Group Tags, Minority Setup and attachments in the Setup section. Address book stores and maintains all information pertaining to subcontractors, vendors, architects/engineers, etc. that you work with regularly. The Minority Setup tab within Job Properties stores information about the agency that authorizes the status of Minority Enterprises along with their different types. You can use Quote Group Tags to group together multiple resources or cost items that will be sent in a single request for quote package to solicited contractors or vendors..
2	Quote Management	Quote Management allows you to access the Requests for Quote (RFQs) register and Quotes. Request for Quotes (RFQs) are invitations to sellers, requesting that they submit pricing to provide services, equipment or material based on the line items and resources included in your estimate. The Quote Register stores all of the quote responses you receive for that job.
3	Quote Comparison & Award	The Quote Comparison & Award section allows you to perform comparative analysis across all the quotes you've received. You can view a comparison of submitted pricing by resources or cost items.
4	Reports	From the Reports section in Quotes you can run reports on Quote Summary, Quote Record, Compare & Award, and Minority Participation.

2.7.4 Price tab overview



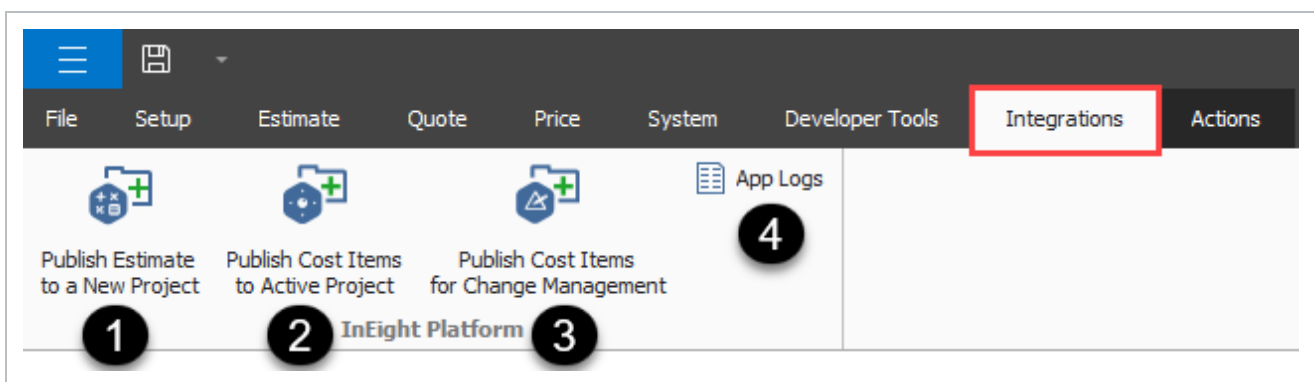
Section		Description
1	Pay Items	From the Pay Items section you can lock Cost items to Pay items and access the Pay item & Proposal register. Under Pricing in Job Properties, you can set up how the tool calculates profit and spreads pricing to your pay items. In the Competitors section, you can keep track of companies that have submitted bids as well as record and track competitor bid prices.
2	Overhead and Profit	The Price Breakdown Structure (PBS) Register is a visual run-down of the costs and profit that make up your Target Price. You can access the Direct and Indirect Markup records or see totals of direct costs, indirect costs, profit and overall bid price summarized in a Data Map.
3	Audit Log	You can access the PBS Changes register (which logs any changes that effect the Target Price) and turn on/off logging PBS changes..
4	Alternates	Alternates are used to define alternate scenarios in order to assess the impact of those scenarios on the total estimate value.
5	Reports	From the Reports section in the Price tab, you can generate reports for Standard Proposal, DOT Proposal, Pay Item Summary, Pay Item Currency Comparison, Pay Item Price Breakdown.

2.7.5 System tab overview



Section		Description
1	Custom	You can customize the titles and colors for different fields. You can export and import saved Views, Titles, Colors and Output Settings. You can customize reports generated by Estimate using External reports. External References allows you to open external programs with Estimate.
2	Help	You can access a comprehensive help system from the Help menu. You can get information about the Estimate Version and all new updates about the different versions.

2.7.6 Integrations tab overview



Section		Description
1	Publish Estimate to a New Project	Sends job data to InEight Platform Integration. You can continue using Estimate during the publish and will be notified after the data has been sent successfully.

	Section	Description
2	Publish Cost Items to Active Project	Sends cost items to the active project.
3	Publish Cost Items for Change Management	Sends cost items to InEight Platform Integration to import to InEight Change.
4	App Logs	Shows a list of InEight Project Suite application logs that you can export to Excel.

2.7.7 Library

Click on the Library icon and the Library opens in its own window.



Users with sufficient security can access master information available in the Library.

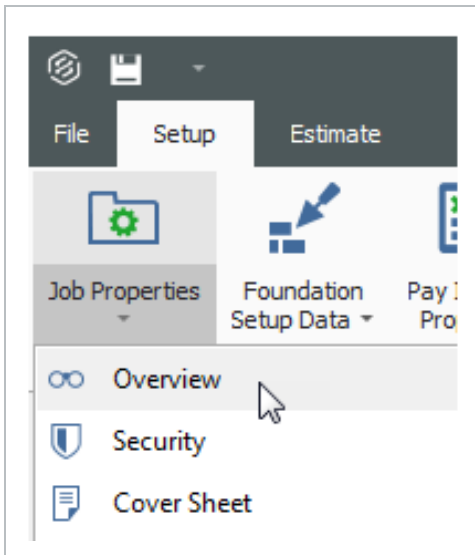
The Library is covered in greater detail in 3.1 Library overview on page 84

2.7.8 Open forms

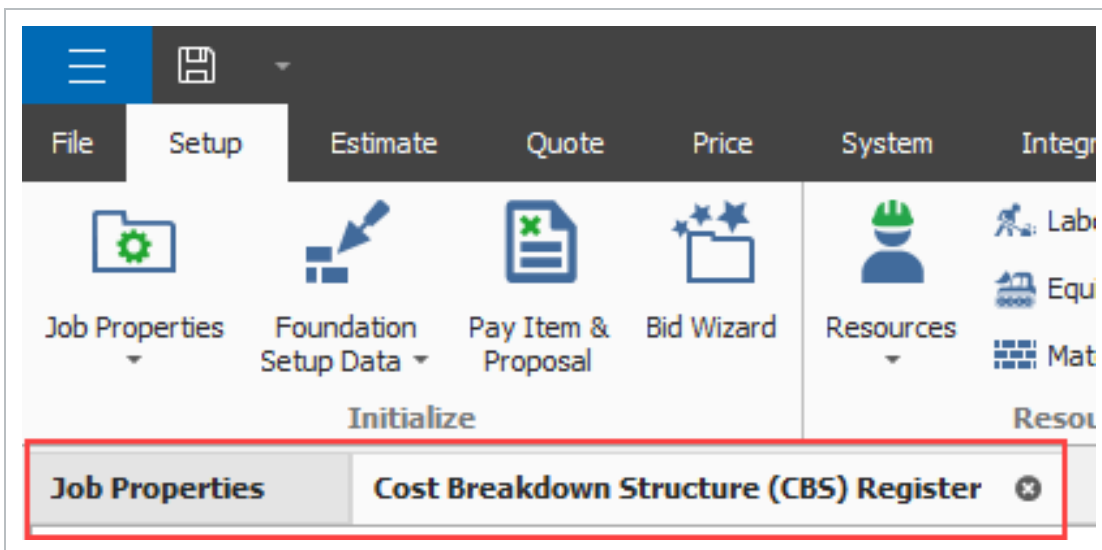
The following steps assume you already opened the Training Job.

Open forms

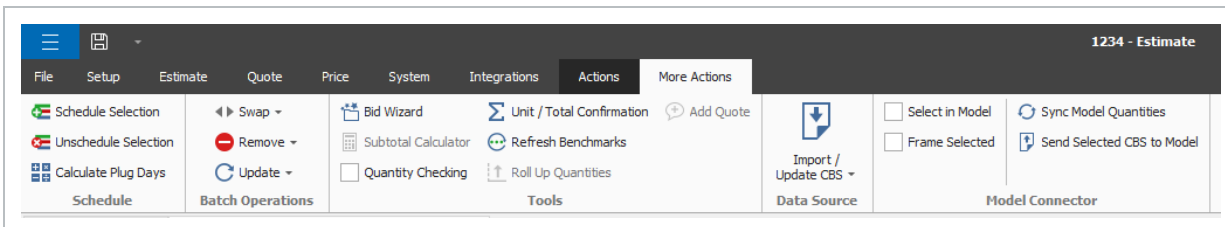
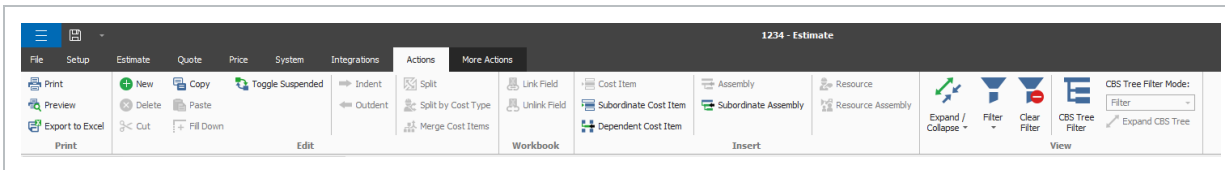
1. Click on the **Setup** tab.
2. In the Initialize section of the Setup tab, click on the **drop-down menu** for Job Properties.
3. Select **Overview** to open the Job Properties form.



- Notice that each form opens in its own tab within the active job folder



- You can tab between these forms as you are working in InEight Estimate
- Once you are in a register, the Actions and More Actions tabs are available to you. The options available are contextual to that register

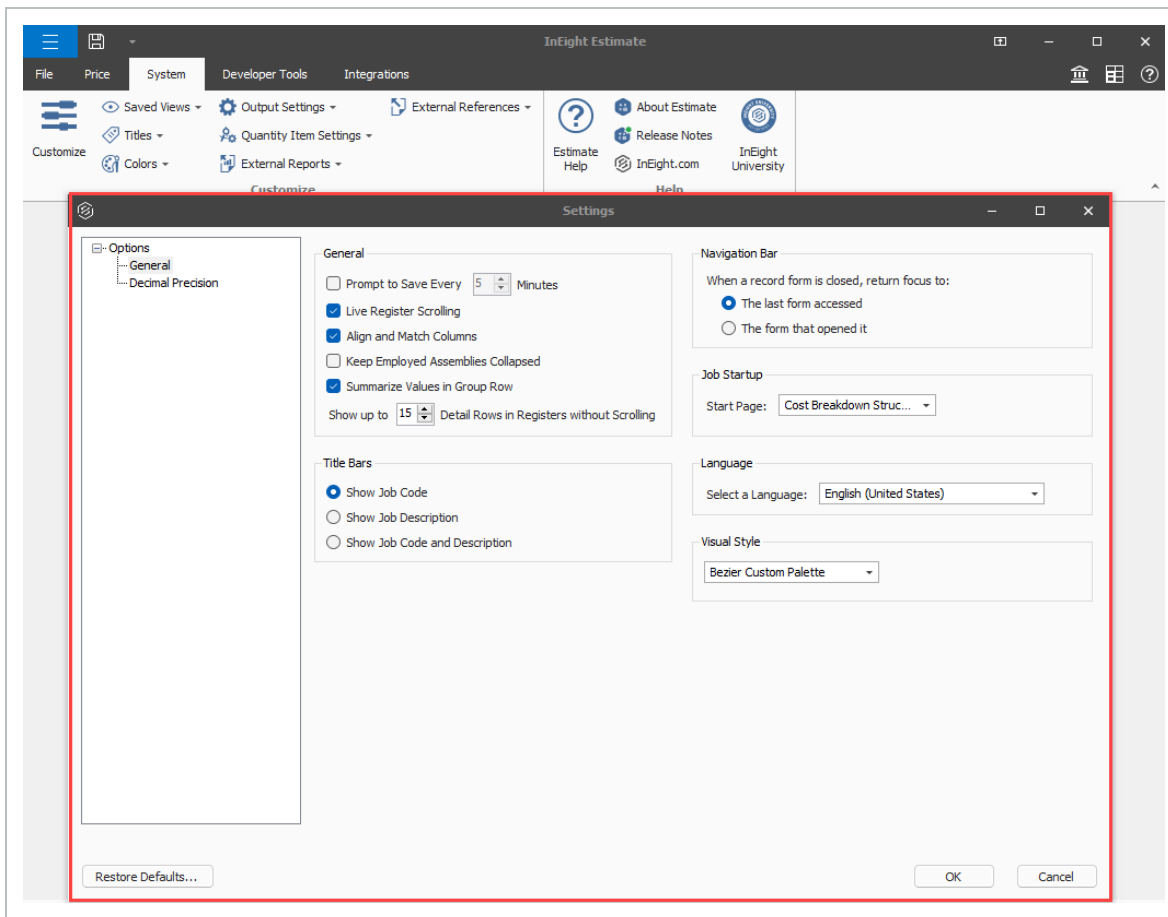


2.8 SYSTEM SETTINGS OPTIONS

From the Backstage View, you can access system settings. System settings contain options and settings that effect the entire InEight Estimate system. These settings include:

- General settings (options)
- Title Bars
- Navigation Bar
- Job Startup
- Language
- Visual Style

All of the settings under the Options branch are user-level settings.

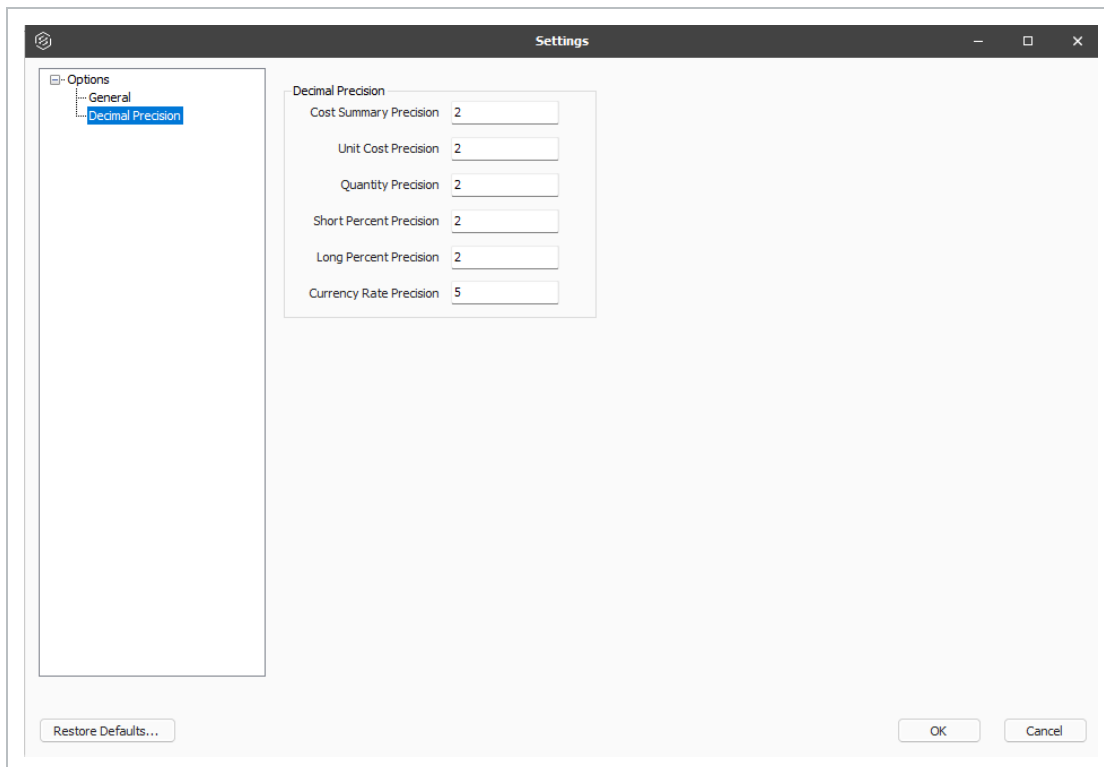


The following step by step walks you through configuring general settings (options).

Decimal precision

1. With InEight Estimate open, click on the **File** tab to go to the Backstage view.
2. Select **Settings**.
3. Select **General** under Options in the node tree on the left.
4. To activate Prompt to Save, select the **Prompt to Save** checkbox.
5. Select how often you want to be prompted (in minutes).
6. Select **Decimal Precision** in the tree on the left.
7. Review the default settings.

Units of Measure will default to English, and Currency will default to U.S. Dollar.



2.9 NAVIGATION

2.10 REGISTERS AND COLUMNS OVERVIEW

In the Estimate registers, you can manage data to access data quickly and easily. You can do the following in each register:

- Move columns to organize them
- Sort and filter columns to organize and view specific data
- Group columns to view the information the way you need to see it

Unit Cost	Total Cost (Forecast)	Currency	Optional Code
\$5,861,800...	\$5,861,800.79	U.S. Dollar	
\$47,069.28	\$47,069.28	U.S. Dollar	
\$294,923.52	\$294,923.52	U.S. Dollar	
\$0.00	\$0.00	U.S. Dollar	
\$0.00	\$0.00	U.S. Dollar	

Customize ✕

Drag a column from below to place it into the register.

[Custom Caption](#) [Default Caption](#)

Optional Code	Optional Code
Owned Equipment Billing...	Owned Equipment Billing...
Owned Equipment Total...	Owned Equipment Total...
Owned Equipment Total Cost	Owned Equipment Total Cost
Owned Equipment Unit Cost	Owned Equipment Unit Cost
Pay Hours Rules	Pay Hours Rules
Pay Item Assignment	Pay Item Assignment
Pay Item Description	Pay Item Description
Pay Item Line Number	Pay Item Line Number

- You can also unhide a column using the Go To Column feature
4. Right click on a **column** header and select **Go To Column**.
 5. Click on the **drop-down menu** and select the column you want to unhide.

Go To Column — □ ✕

Column:

Include columns that are not currently in the view

6. Click **OK**.

2.12 SORT AND FILTER COLUMNS

You can sort and filter your columns to drill down to specific information.

Sort columns

You can sort on any column by clicking once on the column header.

1. In the CBS Register, click on the **Total Cost (Forecast)** column to sort the column in ascending order (e.g., 1 to 10, A to Z).
2. Click the **Total Cost (Forecast)** column a second time to sort in descending order (e.g., 10 to 1, Z to A).

Use Ctrl-click to unsort a column and reset it to its original state.

Filter columns

1. In the CBS, hover over the **Unit of Measure** column header for the filter icon to show.
2. Click on the **filter** icon in the Unit of Measure column to select a filter value.
 - From the filter list, you can select any of the values defined for that column or you can use one of the predefined values (Custom, Blanks, Non blanks).

Unit of Measure	Unit Cost	Total Cost (Forecast)
Values Text Filters		
Enter text to search...		
<input checked="" type="checkbox"/> (All)	<input type="checkbox"/> Month	
<input type="checkbox"/> Acre	<input type="checkbox"/> Pound	
<input type="checkbox"/> Cubic Yard	<input checked="" type="checkbox"/> Square Feet	
<input checked="" type="checkbox"/> Each	<input type="checkbox"/> Square Yard	
<input type="checkbox"/> Linear Feet	<input type="checkbox"/> Ton	
<input checked="" type="checkbox"/> Lump Sum		
<input type="checkbox"/> Mile		
Clear Filter	Filter Editor	Close

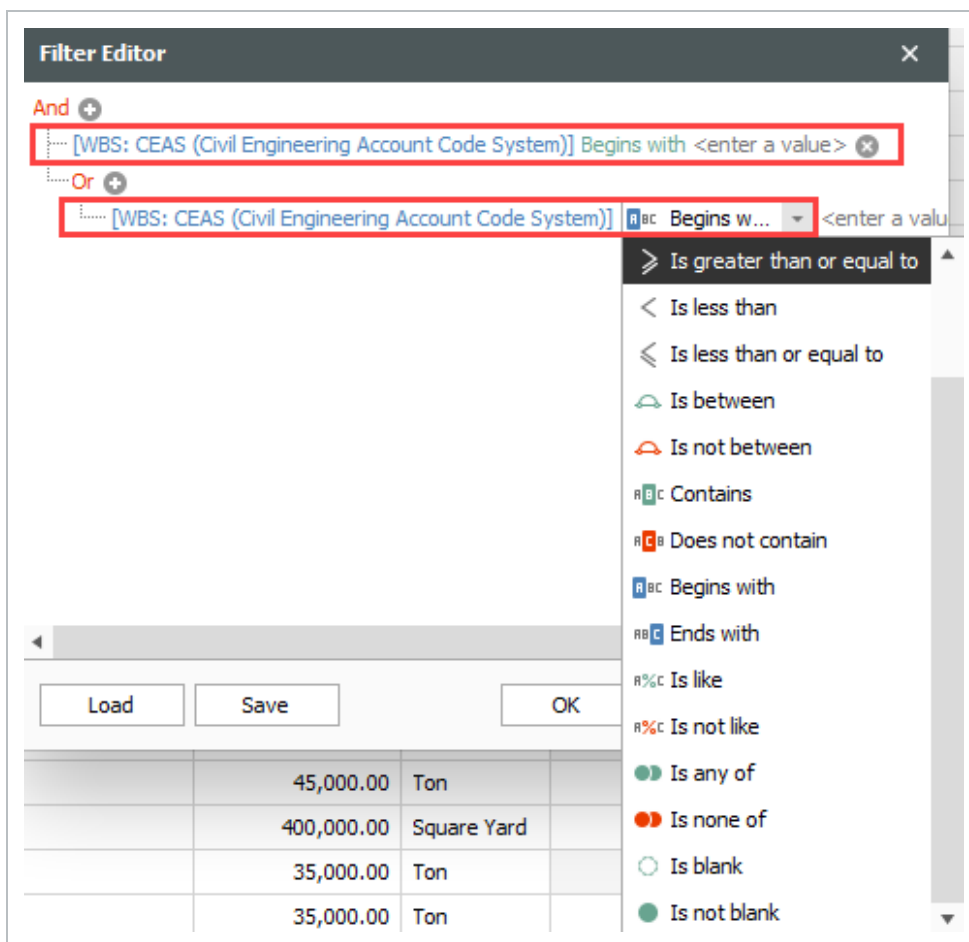
3. Make your selection, then click **Close**.
4. To clear the filter, click on the **red X** at the bottom of the form or click the filter icon on the header of the column you filtered and select **(All)**, then click **OK**.

2.12.1 Filter editor overview

Column filters can be managed on individual columns or for the entire register using the Filter Editor. The Filter Editor tool lets you work with all the column filters for a register view in one place as well as creating more complex filters through the use of grouping and applying And/Or statements.

When you add a new Group, a new Condition is automatically added to that Group.

With each additional Condition statement, select an operator and a value in order for your customized filter to take effect on your chosen column. Comparison operators are shown below:



2.12.1.1 Creating complex filters using the Filter Editor

You can define filters across any of the columns available in the CBS register. You can also open the Filter Editor using the button in the column filter drop-down, but regardless of how you access it, the Filter Editor dialog permits defining a filter for the entire register and not just the selected column.

Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Subject Cost	Subject Cost Rate	Allocated	Allocation Source	Currency
1.00	Lump Sum	\$6,508,579.45	\$6,508,579.45			<input checked="" type="checkbox"/>		U.S. Dollar
						<input type="checkbox"/>		U.S. Dollar
						<input type="checkbox"/>		U.S. Dollar
						<input type="checkbox"/>		U.S. Dollar
						<input type="checkbox"/>		U.S. Dollar
						<input type="checkbox"/>		U.S. Dollar
						<input type="checkbox"/>		U.S. Dollar
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						<input type="checkbox"/>		U.S. Dollar
						<input type="checkbox"/>		U.S. Dollar
						<input type="checkbox"/>		U.S. Dollar
						<input type="checkbox"/>		U.S. Dollar

Filter Editor [X]

And [+]

UM/Day [v] Begins with <enter a value> [+]

- UM/Day
- UM/ Equip-Hour
- UM/ Hour
- UM/ Man-Hour
- UM/ Shift
- Undefined Billing Adjustment Amount
- Undefined Billing Adjustment Percent
- Undefined Billing Unit Rate
- Undefined Cost Adjustment Amount
- Undefined Cost Adjustment Percent
- Undefined Total Billing Amount
- Undefined Total Cost
- Undefined Unit Cost
- Unit Cost
- Unit of Measure

[Cancel] [Apply]

Because all the register fields are available, more complex filters can be created by using Grouping and Or operators. In the following example, a filter has been defined to return all Terminal Cost Items that either have a cost source of Plug, or exceed \$100,000 of Total Cost (Forecast).

The screenshot displays the 'Cost Breakdown Structure (CBS) Register' interface. It features a table with columns for CBS Position Code, Description, Optional Code, Forecast (T/O) Quantity, Unit of Measure, Unit Cost, Total Cost (Forecast), Is Terminal, and Cost Source. A 'Filter Editor' dialog box is open, showing a logical filter expression: 'And [Is Terminal] Equals Checked OR [Cost Source] Equals Plug AND [Total Cost (Forecast)] is greater than 100,000.00'. A red arrow points from the 'Edit Filter' button in the table to the Filter Editor dialog. The table shows a total of 26 items with a total cost of \$4,830,378.06. A status bar at the bottom indicates the active filter: 'x ([Cost Source] EQUAL 'Plug' OR [Total Cost (Forecast)] GREATER THAN 100000) AND [Is Terminal] EQUAL True'.

When modifying a filter, the Filter Editor can be invoked by clicking the Edit Filter button located on the bottom right of the CBS page.

Cost Breakdown Structure (CBS) Register

Drag columns here to group

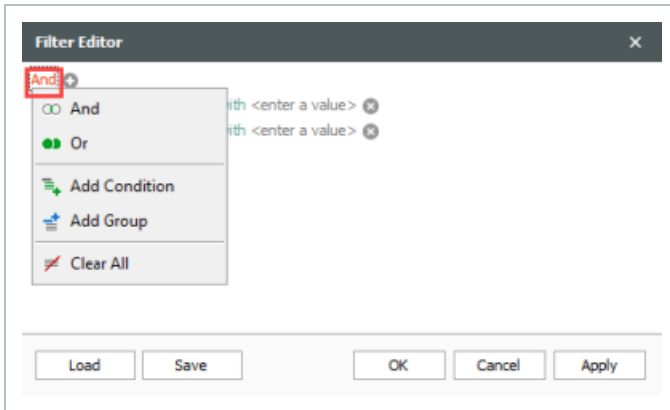
CBS Position Code	Description	Account Code	Unit of Measure	Total Cost (Forecast)	Unit
	JOB		Mile	\$5,666,162.55	
+	Prime Bond	7000	Lump Sum	\$45,861.93	\$
+	Price % Add-On	7000	Lump Sum	\$284,057.38	\$28
+	Direct Cost Escalation	7000	Lump Sum	\$13,933.28	\$
+	Direct Cost Add-On	7000	Lump Sum	\$99,962.10	\$
1	SITWORK & ROADWAY		Each	\$2,387,025.45	\$
+ 1.2	Clearing & Grubbing	1110	Acre	\$39,184.97	
1.3	Unclassified Excavation	1122	Cubic Yard	\$158,985.21	
+ 1.3.2	Embankment	1122.200	Cubic Yard	\$69,678.93	
1.4	Aggregate Base	1120	Ton	\$692,928.99	
+ 1.4.1	Furnish & Haul Base Material	1120.100	Ton	\$519,513.30	
1.5	Asphalt Concrete Hot Mix Type A	1240	Ton	\$1,486,222.28	
+ 1.5.1	Furnish & Haul Hot Mix	1240.100	Ton	\$1,374,562.54	
2	WATER & SEWER		Each	\$519,502.60	\$5
Σ	0			\$0.00	
	78			\$5,615,073.91	

Filter Editor: [Unit of Measure] EQUAL 'Cubic Yard' OR [Total Cost (Forecast)] GREATER THAN 10000 OR [Account Code] EQUAL '1122'

Edit Filter

Filter editor

1. In the CBS, hover over the **Unit of Measure** column header for the filter icon to show.
2. Click the **Filter** icon in the Unit of Measure column to select a filter value, and then select a UoM.
3. Select the **Filter Editor** button. The Filter Editor data box shows.
 - By default, an **And** statement is created with a **Begins with** operator and a blank value.
4. Select an operator, and then enter in a value.
5. To add additional **And/Or** statements, select the word **And** in the top left corner. A drop-down shows.



6. Choose which **And/Or** statement to add and then select the **Preferred Operator**.
7. Enter in your **Preferred Value** to complete your additional statement.
8. Click **OK**.
 - Select the **X** to delete a single statement.
9. Select the **And** statement in the top left corner to begin clearing all And/Or statements.
10. From the drop-down, select the option **Clear All**.
11. When finished, select **Apply**, and then click **OK**.

2.12.2 Include subordinates filter

When applying filters in the CBS, you can select the Include subordinates option to show subordinate items of superior items that are filtered. When selected, subordinate items under the filtered superior items are shown even if they do not match the filtered text. This option is useful when estimating large CBS structures where similar work shows across multiple areas, so you do not have to scroll to find and update superior related items.

For example, when you apply a text filter using the *Contains* option for *concrete* without selecting the Include Subordinates option, the following superior items are shown without their subordinates:

The screenshot shows the 'S3 - Training Job A - Estimate' window. At the top, there are tabs for 'Values' and 'Text Filters'. The 'Text Filters' tab is active, showing a filter set to 'Contains concrete'. Below this, there are options for 'Assembly', 'Subordinate Assembly', 'Filter', 'Clear Filter', and 'Include Subordinates'. The 'Include Subordinates' checkbox is checked. On the left, there is a 'CBS Tree (Filter Mode)' sidebar with a tree view of project categories. The main area displays a table with columns: CBS Position Code, Description, Forecast (T/O) Quantity, Unit of Measure, Unit Cost, Total Cost (Forecast), and Currency. A red box highlights the first three rows of the table, which are subordinates of the 'STRUCTURAL CONCRETE & BRIDGES' item. A red arrow points from the 'Include Subordinates' checkbox to the highlighted rows.

CBS Position Code	Description	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Currency
1.5	Asphalt Concrete Hot Mix Type A	35,000.00	Ton	\$42.46	\$1,486,222.28	U.S. Dollar
3	STRUCTURAL CONCRETE & BRIDGES	1.00	Each	\$487,563.31	\$487,563.31	U.S. Dollar
5.1.2	Concrete Reinforcement	1.00	Lump Sum	\$1,500.00	\$1,500.00	U.S. Dollar
5.1.3	Cast in Place Concrete	1.00	Lump Sum	\$3,500.00	\$3,500.00	U.S. Dollar
5.1.4	Concrete Masonry Units	1.00	Lump Sum	\$2,900.00	\$2,900.00	U.S. Dollar
Σ 0		Σ 0.00		Σ \$0.00		
5					\$7,900.00	

When you use the same filter criteria and select the Include Subordinates option, the results include the *concrete* superior items with their subordinates, allowing you to see everything related to the superior items without using complex sorting and filtering.

SJ- Training Job A - Estimate
🏠 📄 ?

Tools Integrations Actions More Actions

Cost Item Assembly

Subordinate Cost Item Subordinate Assembly

Dependent Cost Item

Expand / Collapse

Filter

Clear Filter

Include Subordinates

CBS Tree Filter Mode:

Filter

CBS Tree Filter

Expand CBS Tree

Drag columns here to group Saved views: Previous View 🔍

CBS Position Code	Description	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Currency
1.5	Asphalt Concrete Hot Mix Type A	35,000.00	Ton	\$42.46	\$1,486,222.28	U.S. Dollar
+ 1.5.1	Furnish & Haul Hot Mix	35,000.00	Ton	\$39.27	\$1,374,562.54	U.S. Dollar
+ 1.5.2	Install Hot Mix Type A	35,000.00	Ton	\$3.19	\$111,659.74	U.S. Dollar
3	STRUCTURAL CONCRETE & BRIDGES	1.00	Each	\$487,563.31	\$487,563.31	U.S. Dollar
3.1	Structural Excavation & Backfill	800.00	Cubic Yard	\$21.79	\$17,435.14	U.S. Dollar
+ 3.1.1	Structure Excavation	800.00	Cubic Yard	\$2.32	\$1,859.56	U.S. Dollar
+ 3.1.2	Backfill & Furnish Materials	800.00	Cubic Yard	\$19.47	\$15,575.58	U.S. Dollar
3.2	Steel Reinforcement	30,000.00	Pound	\$1.48	\$44,408.30	U.S. Dollar
+ 3.2.1	Furnish Lifting Crane for Rebar	30,000.00	Pound	\$0.08	\$2,408.30	U.S. Dollar
+ 3.2.2	Subcontract Rebar	30,000.00	Pound	\$1.40	\$42,000.00	U.S. Dollar
3.3	Retaining Wall	850.00	Cubic Yard	\$411.76	\$349,992.85	U.S. Dollar
3.3.1	Standard Retaining Wall Assembly	850.00	Cubic Yard	\$411.76	\$349,992.85	U.S. Dollar
+ 3.3.1.1	Furnish Retaining Wall Materials	850.00	Cubic Yard	\$147.91	\$125,719.65	U.S. Dollar
3.3.1.2	Retaining Wall Footings	450.00	Cubic Yard	\$162.98	\$73,340.24	U.S. Dollar
+ 3.3.1.2.1	Form Footing	7,300.00	Square Feet	\$6.29	\$45,908.78	U.S. Dollar
+ 3.3.1.2.2	Pour Footing	450.00	Cubic Yard	\$26.95	\$12,128.54	U.S. Dollar
+ 3.3.1.2.3	Strip Footing	7,300.00	Square Feet	\$2.10	\$15,302.93	U.S. Dollar
3.3.1.3	Retaining Wall Wall	400.00	Cubic Yard	\$377.33	\$150,932.96	U.S. Dollar
+ 3.3.1.3.1	Form Wall	21,600.00	Square Feet	\$4.19	\$90,559.78	U.S. Dollar
+ 3.3.1.3.2	Pour Wall	400.00	Cubic Yard	\$53.90	\$21,561.85	U.S. Dollar
+ 3.3.1.3.3	Strip Wall	21,600.00	Square Feet	\$1.80	\$38,811.33	U.S. Dollar
3.4	Paint Existing Steel Bridge Structure	1.00	Lump Sum	\$75,727.01	\$75,727.01	U.S. Dollar
+ 3.4.1	Setup Equipment	1.00	Lump Sum	\$2,714.88	\$2,714.88	U.S. Dollar
+ 3.4.2	Wash-Remove-Dispose of Water	25,000.00	Square Feet	\$0.35	\$8,820.79	U.S. Dollar
+ 3.4.3	Sandblast	2,500.00	Square Feet	\$3.83	\$9,566.59	U.S. Dollar
+ 3.4.4	Apply Primer	25,000.00	Square Feet	\$0.99	\$24,658.61	U.S. Dollar
+ 3.4.5	Paint Top Coat	25,000.00	Square Feet	\$1.20	\$29,966.15	U.S. Dollar
+ 5.1.2	Concrete Reinforcement	1.00	Lump Sum	\$1,500.00	\$1,500.00	U.S. Dollar
+ 5.1.3	Cast in Place Concrete	1.00	Lump Sum	\$3,500.00	\$3,500.00	U.S. Dollar
+ 5.1.4	Concrete Masonry Units	1.00	Lump Sum	\$2,900.00	\$2,900.00	U.S. Dollar
		Σ		Σ	Σ	
		0		0.00	\$0.00	
		30			\$1,981,685.59	

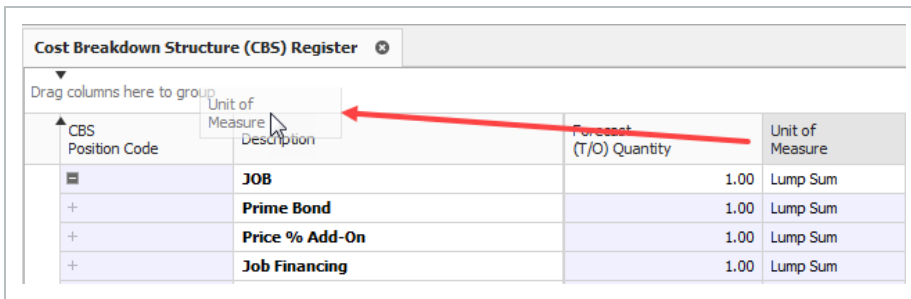
× [Description] CONTAINS 'concrete' Edit Filter

2.13 GROUP COLUMNS

Sometimes you may want to organize your information into groups. Instead of filtering your information down to one value (e.g., unit of measure = Ton), you can look at your information with a separate group for each value (e.g., a group for Tons, a group for Cubic Feet, etc.).

Group columns

1. From the CBS register, group the Unit of Measure column by dragging it into the grouping area (where it says “Drag columns here to group”).



- Notice that the cost items in the register are now grouped together by their units of measure, and each group of cost items is subtalled by costs, hours, quantities, etc.

Unit of Measure	CBS Position Code	Description	Optional Code	Forecast (T/O) Quantity	Unit Cost	Total Cost (Forecast)
<input type="checkbox"/> Acre	1			10.00		\$39,184.97
<input type="checkbox"/> Cubic Yard	19			117,865.76		\$498,571.36
<input type="checkbox"/> Each	29			59.00		\$1,684,854.23
<input type="checkbox"/> LF	1			2,083.95		\$0.00
<input type="checkbox"/> Linear Feet	11			30,248.00		\$459,303.91
<input type="checkbox"/> Lump Sum	23			22.00		\$667,772.98
<input type="checkbox"/> Mile	1			0.00		\$0.00
<input type="checkbox"/> Month	2			2.00		\$10,000.00
<input type="checkbox"/> Pound	3			60,000.00		\$44,408.30
<input type="checkbox"/> Square Feet	9			136,300.00		\$276,594.95
<input type="checkbox"/> Square Yard	2			800,000.00		\$99,954.78
<input type="checkbox"/> Ton	8			160,000.00		\$2,034,391.05

2. To ungroup, right click in the grouping area and select **Clear Grouping**

- The column returns to its original location

You can group by more than one column to have multiple grouping levels.

2.14 SAVED VIEWS

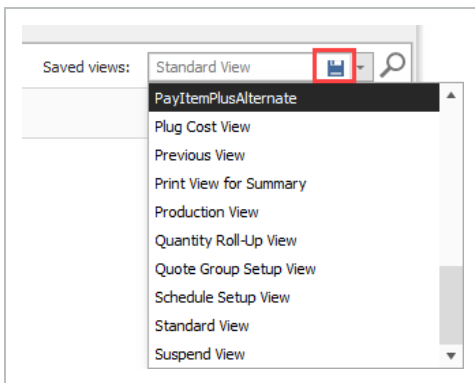
Once you have set up a view the way you like it, you can save the view so you won't have to configure it again later. InEight Estimate also comes with some pre-built views to help you organize the screen the way you want to see it.

Views are accessed from the **Saved Views** menu in the top right portion of a register.

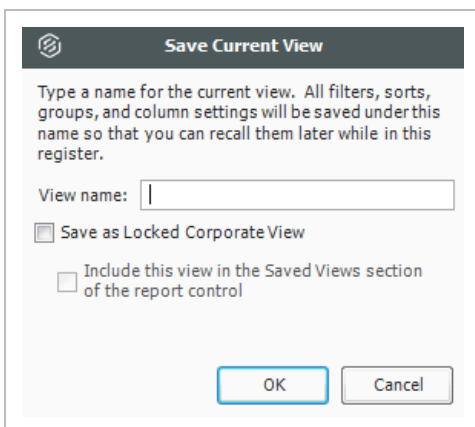
The following steps assume you have made changes to your register view and want to save it for future use.

Save a view

1. In the CBS register, click on the **Saved views** drop-down menu. The Save disc icon shows.



2. Click the **Save disc** icon. The Save Current View window shows.



3. Enter the **View name**, and then select **OK**. The new view shows in the drop-down menu.

Saved views are user-specific; you will only see your own saved views when you are logged in.

2.15 REGISTER RUNNING TOTALS

You can select multiple rows in a register and see the sum total amount at the bottom of the register.

For example, you can hold down the CTRL key and multi-select cost items 2.1.1, 2.2.1, and 2.3.2 in the CBS register, you can see the sum of the three selected cost items toward the bottom row of the register.

Description	CBS Position Code	Description	Forecast (FQ) Quantity	List of Measure	Unit Cost	Total Cost (Percent)	Labor Total Cost	Owned Equipment Total Cost	Rented Equipment Total Cost	Supplies Total Cost	Materials Total Cost	Subcontract Total Cost
308 Prime Bond			1.00	Each	\$553,789.30	\$553,789.30	\$129,366.37	\$116,635.21	\$3,652.11	\$0.00	\$289,860.00	\$0.00
Price % Add-On			1,024.00	Linear Feet	\$67.54	\$69,159.46	\$20,073.46	\$13,802.73	\$949.15	\$0.00	\$32,654.00	\$0.00
308 Financing			1,024.00	Linear Feet	\$23.48	\$24,036.30	\$0.00	\$0.00	\$0.00	\$0.00	\$24,036.30	\$0.00
Indirect Cost Escalation			1,898.96	Cubic Yard	\$4.51	\$8,579.59	\$4,363.36	\$3,186.03	\$0.00	\$0.00	\$0.00	\$0.00
Direct Cost Escalation			1,024.00	Linear Feet	\$11.74	\$12,017.60	\$6,605.19	\$5,412.41	\$0.00	\$0.00	\$0.00	\$0.00
Indirect Cost Add-On			1,587.20	Cubic Yard	\$9.12	\$14,475.59	\$6,504.71	\$4,974.28	\$949.15	\$0.00	\$0.00	\$0.00
Direct Cost Add-On			12,000.00	Linear Feet	\$23.18	\$279,113.67	\$54,765.77	\$56,697.60	\$0.00	\$0.00	\$169,772.00	\$0.00
SEWERAGE & ROADWAY			3,000.00	Linear Feet	\$13.89	\$41,670.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41,670.00	\$0.00
WATER & SEWERS			12,000.00	Linear Feet	\$9.38	\$111,403.37	\$54,765.77	\$56,697.60	\$0.00	\$0.00	\$0.00	\$0.00
STRUCTURAL CONCRETE & INDUSTRIAL & REMEDIATION			3,000.00	Linear Feet	\$49.67	\$149,011.37	\$40,869.88	\$34,371.68	\$2,702.96	\$0.00	\$67,054.00	\$0.00
COMMERCIAL			3,000.00	Linear Feet	\$3.90	\$9,605.96	\$2,973.84	\$6,031.60	\$0.00	\$0.00	\$0.00	\$0.00
LANDFILL & DEMING			1,590.00	Cubic Yard	\$1.95	\$2,712.65	\$1,008.84	\$1,703.21	\$0.00	\$0.00	\$0.00	\$0.00
Indirect Costs			3,610.00	Cubic Yard	\$1.74	\$6,293.44	\$1,965.05	\$4,328.39	\$0.00	\$0.00	\$0.00	\$0.00
2.3.1.2			3,000.00	Linear Feet	\$22.93	\$68,792.44	\$33,676.44	\$14,176.40	\$0.00	\$0.00	\$67,054.00	\$0.00
2.3.2			4,500.00	Cubic Yard	\$9.12	\$41,223.34	\$24,219.93	\$14,555.08	\$2,702.96	\$0.00	\$0.00	\$0.00
2.4			16.00	Each	\$3,944.03	\$63,104.47	\$13,717.27	\$11,763.20	\$0.00	\$0.00	\$30,880.00	\$0.00
2.4.1			16.00	Each	\$2,001.50	\$32,024.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30,880.00	\$0.00
2.4.2			16.00	Each	\$1,992.53	\$32,080.47	\$13,717.27	\$11,763.20	\$0.00	\$0.00	\$0.00	\$0.00
			3			\$299,779.84	\$13,676.44	\$14,174.40	\$0.00	\$0.00	\$258,980.00	\$0.00
			18			\$553,789.30	\$129,366.37	\$116,635.21	\$3,652.11	\$0.00	\$289,860.00	\$0.00

Estimate calculates subtotals for quantities when the UOMs match. Superior cost items are not included in the subtotals to avoid any double counting in the subtotal.

It is not necessary to export data to Microsoft Excel and run separate calculations to better understand costs of multiple items. The sigma symbol shows in the subtotal row to indicate it is the total of the selected rows.

2.16 FIND FEATURE

The Find feature lets you search across all columns in the register with a single operation. The matching results are then highlighted in yellow. A scroll bar annotation is provided to indicate the rows in the grid containing matches. This lets you easily navigate to the search results in the register.

The Find feature also includes the flexibility to perform more precise searches using various syntax in the search bar. The Find search bar shows the currently selected and total number of search results.

If you type in two words, such as **total cost**, the grid considers them as individual conditions and selects records that contain either **total** or **cost**.

Search Syntax	Example
+	To find records that contain both search terms like total cost , type + before the second word. For example: total +cost .
-	Type - to exclude records that contain a specific word, for example: total-cost . You can combine different operators. Use + and - to select records that contain both pay and item , excluding records that contain assignment . For example: pay +item - assignment .
"quotes"	To search for a string that contains a space character, you need to enclose this string in quotation marks. For example: "total cost" .
:	To search against a specific column, type the first letters of the column's display name plus a colon character. For example: optional: unassigned . Now the grid displays records containing unassigned in the optional code column.

If you add another column-specific condition, the grid joins them using the + logical operator. Then the record shows the result that matches both options. The same happens when you join a column-specific condition with the one applied to all columns. An example of this search criteria looks like this: **optional: unassigned +"pay item"**.

Find feature

1. From the Cost Breakdown Structure (CBS) Register, bring up the Find feature using **CTRL+F**.
2. In the search bar, type in **Materials**.

- When all the searches are highlighted in yellow, use the **up** or **down** arrows to the right of the search bar to navigate to the next search result in the register.

Drag columns here to group								material 1/13	
CBS Position Code	Description	Optional Code	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Subject		
+ Indirect Cost Add-On	INDIRECT COST ADD-ON		1.00	Lump Sum	\$0.00	\$0.00			
+ Job Management & Equipment	JOB MANAGEMENT & EQUIPMENT		1.00	Lump Sum	\$157,096.28	\$157,096.28			
+ General Expense	GENERAL EXPENSE		1.00	Lump Sum	\$4,200.00	\$4,200.00			
+ Direct Cost Add-On	DIRECT COST ADD-ON		1.00	Lump Sum	\$98,633.23	\$98,633.23			
+ 1 Mobilization	641 0100		1.00	Lump Sum	\$11,909.51	\$11,909.51			
+ 2 Clearing & Grubbing	201 0102		10.00	Acre	\$3,918.50	\$39,184.97			
- 3 Unclassified Excavation	202 0183		50,000.00	Cubic Yard	\$4.68	\$233,915.81			
+ 3.1 Excavation	3.1		50,000.00	Cubic Yard	\$3.00	\$149,922.88			
+ 3.2 Embankment	3.2		50,000.00	Cubic Yard	\$1.68	\$83,992.94			
- 4 Aggregate Base	303 5912		45,000.00	Ton	\$15.40	\$692,928.99			
→ + 4.1 Furnish & Haul Base Material	4.1		45,000.00	Ton	\$11.54	\$519,513.30			
+ 4.2 Finegrade Subgrade	4.2		400,000.00	Square Yard	\$0.19	\$75,848.36			
- 4.3 Install Aggregate Base	4.3		45,000.00	Ton	\$2.17	\$97,567.33			
+ 4.3.1 Place Aggregate Base	4.3.1		45,000.00	Ton	\$1.63	\$73,460.92			
+ 4.3.2 Blue Top Aggregate Base	4.3.2		400,000.00	Square Yard	\$0.06	\$24,106.42			
- 5 Asphalt Concrete Hot Mix Type A	303 4263		35,000.00	Ton	\$42.62	\$1,491,580.59			

- To add the Find feature to the register functions header, select the **Options** icon to the far right of the search bar. Then select **Always Expanded**.
- To search in a specific column only, select the **Options** icon to the far right of the search bar. Then select **Search in Selected Column Only**. Search a specific term in your selected column.
- To close the Find functionality, click the **Close** icon to the left of the search bar. You can also hold down the **Shift** key and then select the **F3** key to use this feature.

A drop-down can be used to see a list of previous searches.

2.17 KEYBOARD SHORTCUTS

2.17.1 Navigating in a register

Press	To
Arrow keys	Move one cell up, down, left, or right

Press	To
Tab	Move to the next cell in the same row
SHIFT+Tab	Move to the previous cell in the same row
Home	Move to the beginning of the cell
End	Move to the end of the cell
Page Down	Move to the last row in the register
ALT+Down Arrow	Shows the contents of drop-down list choices for applicable fields
Numpad *	Expands the subordinate leaves of a tree structure for the currently highlighted branch
Numpad + key	Expands the currently highlighted section to display subordinate sections
Numpad - key	Collapses the currently highlighted section to remove the display of subordinate sections
CTRL+Spacebar	Selects and Deselects a row
CTRL+Tab	Toggles the display of open windows
ALT	Activates form menus
ALT+F4	Closes active form
CTRL+G	Opens the Go To Column navigator

2.17.2 Navigating in a record

Press	To
Left and right arrow keys	Move one character left or right in an editable field
TAB	Move to the next editable field in the record
SHIFT+TAB	Move to the previous editable field in the record
Home	Move to the beginning of the field
End	Move to the end of the field

Press	To
ALT+Down Arrow	Shows the contents of drop-down list choices for applicable fields
F4	Shows the contents of drop-down list choices for applicable fields
CTRL+Spacebar	Selects and deselects a row
CTRL+TAB	Toggles the display of open windows
ALT	Activates form menus
ALT+F4	Closes active form
CTRL+G	Opens the Go To Column navigator

2.17.3 Menu and keystroke commands

All forms have their own set of commands specific to the form. Commands for a form show in the ribbon on contextual tabs (Actions and More Actions) when it is open and the form is active. Click a command on the tab to order it. Some routine commands can be ordered using the standard Windows keystroke combinations (e.g., Ctrl+C, Ctrl+V) or right-click with the mouse when the field is selected.

2.17.4 Function keys in Estimate

Key	Function
F1	Open to the Help
F2 (grid)	Edit cell value: Enter edit mode for cells that are editable on the grid
F2 (tree list)	Edit cell value: Enter edit mode for cells that are editable on the tree list
F3	Find next: Finds the next value based on the search criteria
F4 (grid)	Show selection register or options in the drop down
F5	Refresh, wherever available
F5	Collapse subordinate Items
F6	Expand subordinate Items

In the Account Code Utilization Register, F5 can either refresh or collapse subordinates based on whether an account code is selected.

Lesson 2 - Review

1. The _____ is a great way to get a summary view of your bid. You can see totals of direct costs, indirect costs, profit and the overall bid price.
 - a. Job Folder
 - b. Data Map
 - c. System tab
 - d. Resource Rate Register

2. You can group by more than one column to have multiple grouping levels.
 1. True
 2. False

3. Display settings for Units of Measure, Currency, and Colors can be adjusted from the _____ tab.
 - a. Setup
 - b. Estimate
 - c. System
 - d. Help

Lesson 2 - Summary

As a result of this lesson, you can:

- Navigate the InEight Estimate system interface
- Navigate system settings
- Manage columns in InEight Estimate registers

LESSON 3 – LIBRARY SETUP

Lesson Duration: 60 minutes

Lesson Objectives

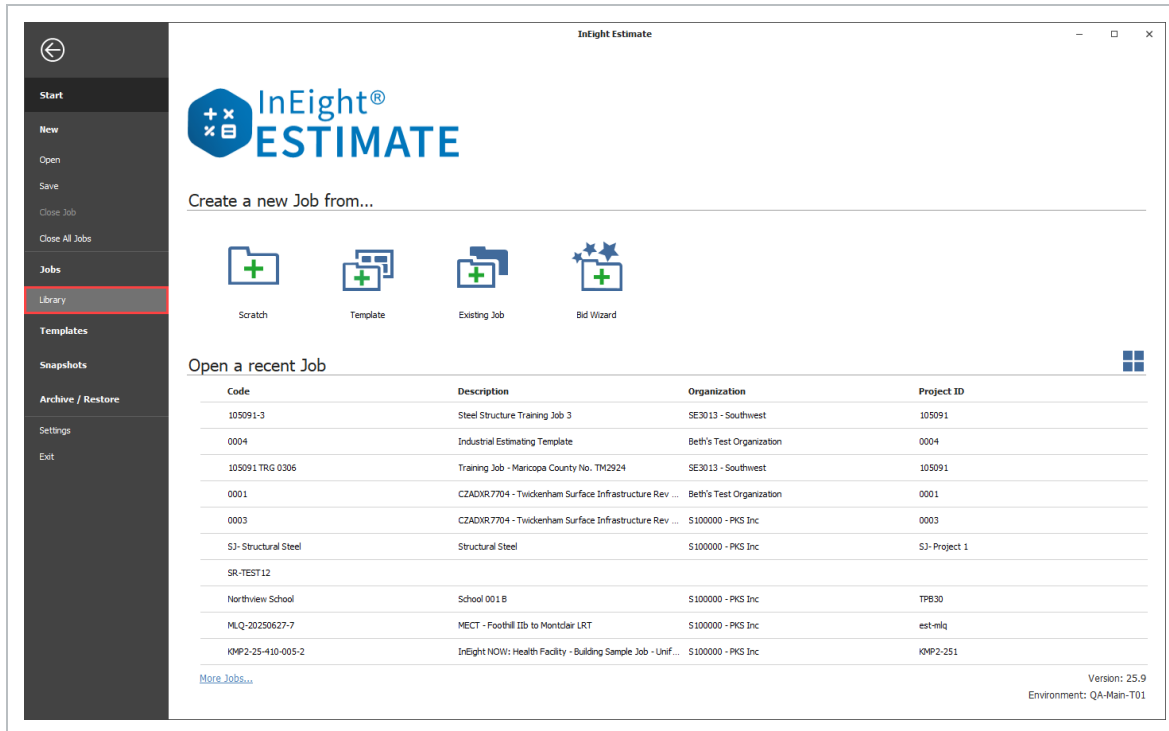
After completing this lesson, you will be able to use the following forms and explain their purpose:

- Library Job Properties
- Library Foundation Setup Data Register
- Library Resource Rate Register
- Library Assembly Register

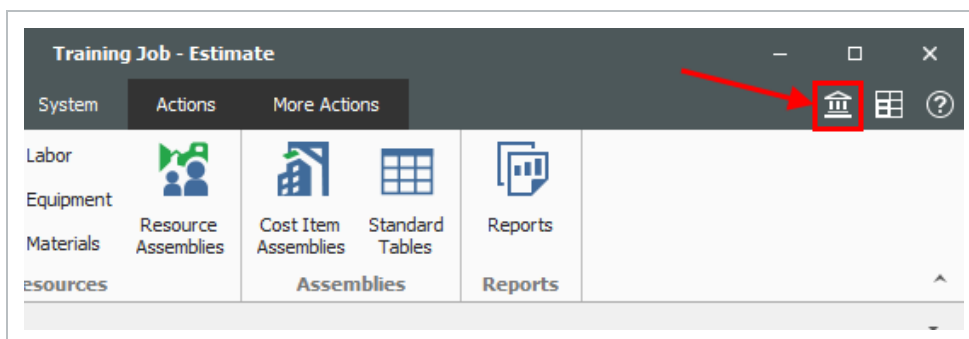
3.1 LIBRARY OVERVIEW

The Library is where you set up and maintain master information that imports into your projects, including resource rates, tags, units of measure, cost item assemblies, and master breakdown structures. It is also where security roles and permissions are configured.

You access the Library from the Backstage view in Estimate. Click the **Library** button to open.



You can also access the Library by clicking the **Library** icon, when on the InEight Estimate landing page.



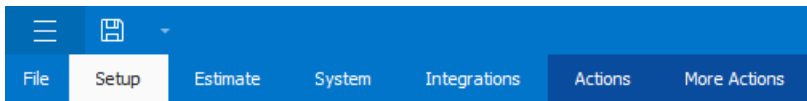
When the Library opens, you see ribbons available under the main menu tabs. Each menu tab has unique sections which hold the necessary forms.

3.1.1 Library tabs

The Library has four tabs which organizes the forms under sections:

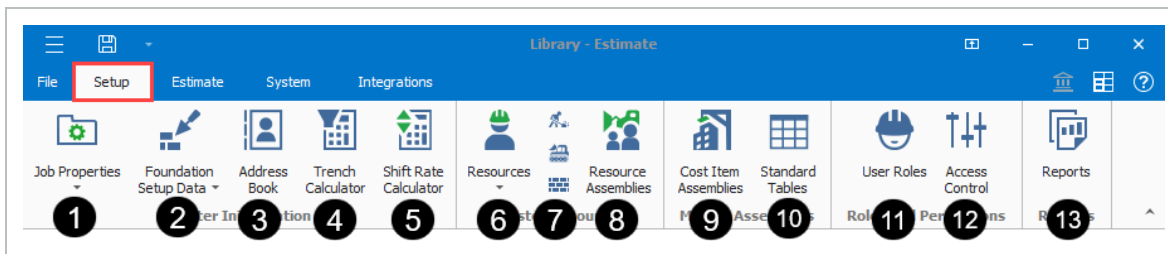
- Setup
- Estimate
- System
- Integrations

The Actions and More Actions tabs show when you open a register and contain functions for the register you have active.



3.1.1.1 Setup tab

The following image and table show an overview of the Setup tab:

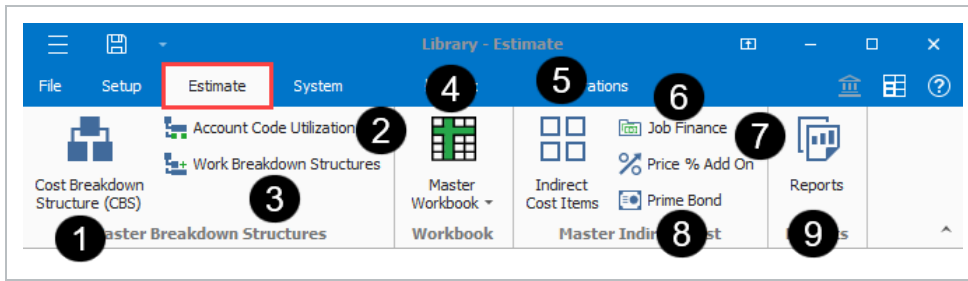


Name		Description
1	Job Properties	The job properties maintained in the library will serve as the default settings for any new estimate that is created from scratch. When creating a new job it will inherit all the job properties set in the master library.
2	Foundation Setup Data	A master set of account codes, tags, and units of measure. When a new folder is created, the master set is automatically copied from the Library to the new folder.

	Name	Description
3	Address Book	Used to store and maintain all information pertaining to the companies with whom you work and contact regularly (subcontractors, vendors, architects, etc.).
4	Trench Calculator	Stores and maintains common trench configurations that are used from project to project.
5	Shift Rate Calculator	Allows you to set up shift rate configurations that you can access at the project level.
6	Resources	Opens the Library Resource Rate Register where you can create and edit all resources and resource cost details available for import into your projects.
7	Most Used Resources	For quick access to the Labor, Equipment and Materials tabs of the Master Resource Rate Register.
8	Resource Assemblies	Takes you to the Library Resource Assembly Register where you can set up resource assemblies to import into individual projects.
9	Cost Item Assemblies	Cost Item Assemblies are predictive models to quickly and accurately estimate elements of a job that can be repetitive in nature on the job or from job to job.
10	Standard Tables	The Standard Tables are used to create and/or list job-level table data that is accessible by any of the Cost Item Assemblies that exist in a job. The Standard Table Record allows the user to create and or modify a Table record. The Standard Table Register lists all the job level tables created / available in the project.
11	User Roles	Opens the User Roles Register that shows user role names and their description which you can use in the Access Control Register.
12	Access Control	Allows you to customize your system permissions by restricting destinations or commands that only designated roles should have access to.
13	Reports	Opens the Reports window, where you can access all system reports and configure the default report settings.

3.1.1.2 Estimate tab

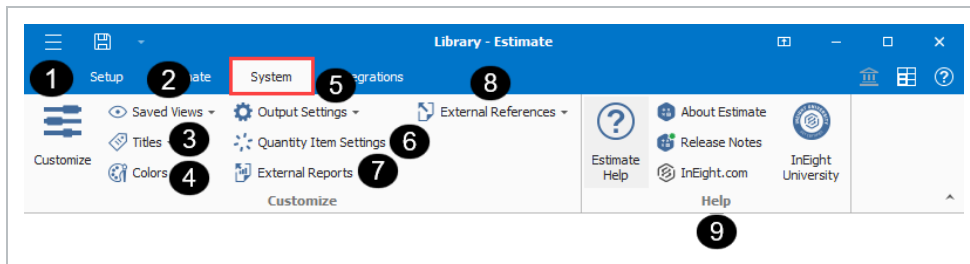
The following image and table show an overview of the Estimate tab:



Name		Description
1	Cost Breakdown Structure (CBS)	Opens the Library Cost Break Structure register, where you can define the CBS that will automatically import when a new project is created.
2	Account Code Utilization	Used to roll estimate line items into an account code hierarchy and benchmark against historical projects in a way that is consistent across projects.
3	Work Breakdown Structures	Opens the Library Work Breakdown Structure register, where you can define additional Work Breakdown Structures that will automatically import when a new project is created.
4	Master Workbook	Opens the master Microsoft Excel template which will be embed into each new estimate job folder. The cells in the embed excel workbook can be linked to send information to or from InEight Estimate Fields.
5	Indirect Cost Items	Takes you to the Library Cost Breakdown Structure Register where you can edit and define indirect cost items.
6	Job Finance	Takes you to the Library Cost Breakdown Structure Register where you can edit the Job Financing cost item.
7	Price % Add On	Takes you to the Price % Add On record, where you can define the price % add to be included in the Library CBS.
8	Prime Bond	Opens to the Library Prime Bond record where you can define the bond tables that will import automatically when a new project is created.
9	Reports	Opens the Reports window, where you can access all system reports and configure their report settings.

3.1.1.3 System tab

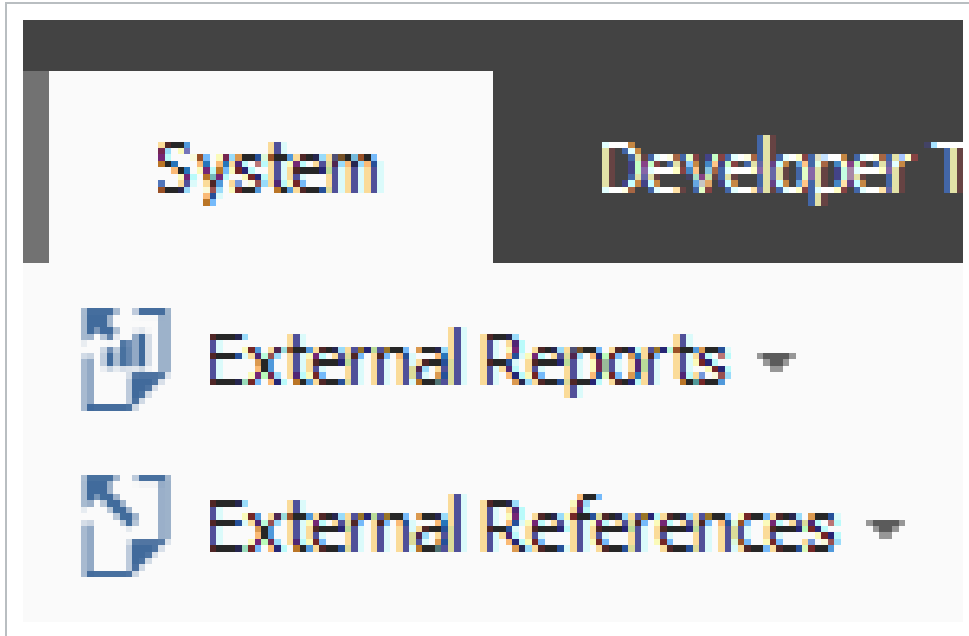
The following image and table show an overview of the System tab:



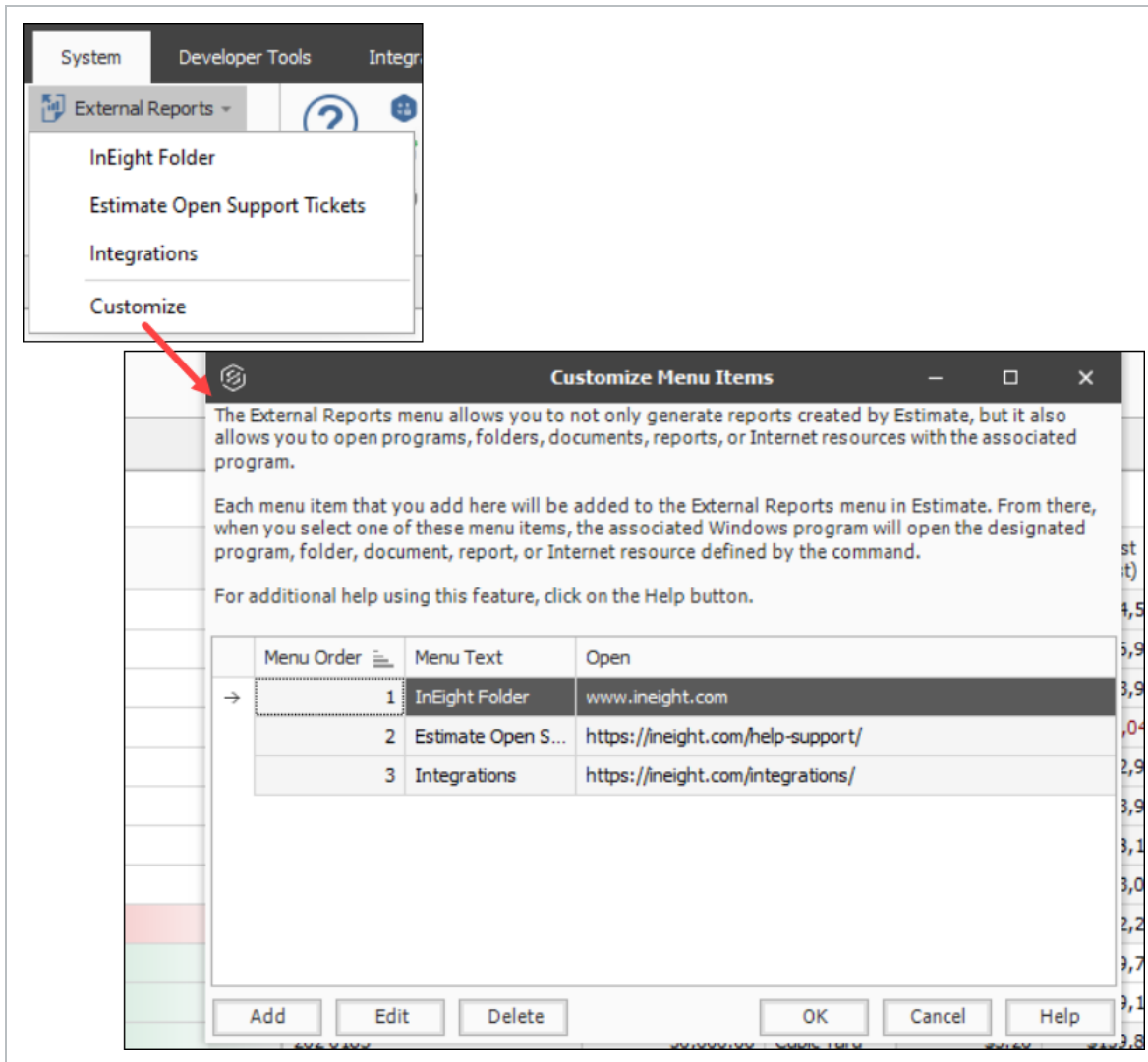
	Name	Description
1	Customize	Opens the Customize settings page to customize the field titles that are shown throughout various pages in Estimate, including all cost category titles, user-defined tags, and more.
2	Saved Views	Allows you to save your views onto a disk or load from a disk.
3	Titles	Allows you to save titles onto a disk or load from a disk.
4	Colors	Allows you to save your colors onto a disk or load from a disk.
5	Output Settings	Allows you to save your output settings onto a disk or load from a disk.
6	Quantity Item Settings	Save your mapped quantity item source settings to your computer. You can then load the saved mapped settings into your Quantity Item Sources Register.
7	External Reports	Menu to not only generate reports created by Estimate, but also to open programs, folders, documents, reports, or Internet resources with the associated program.
8	External References	Allows you to open programs, folders, documents, reports, or Internet resources with the associated program.
9	Help Section	Offers you links to Estimate's general Help menu, information about Estimate (i.e., version number, system information, tech support, etc.), What's New in the new version, and InEight's external website.

External reports

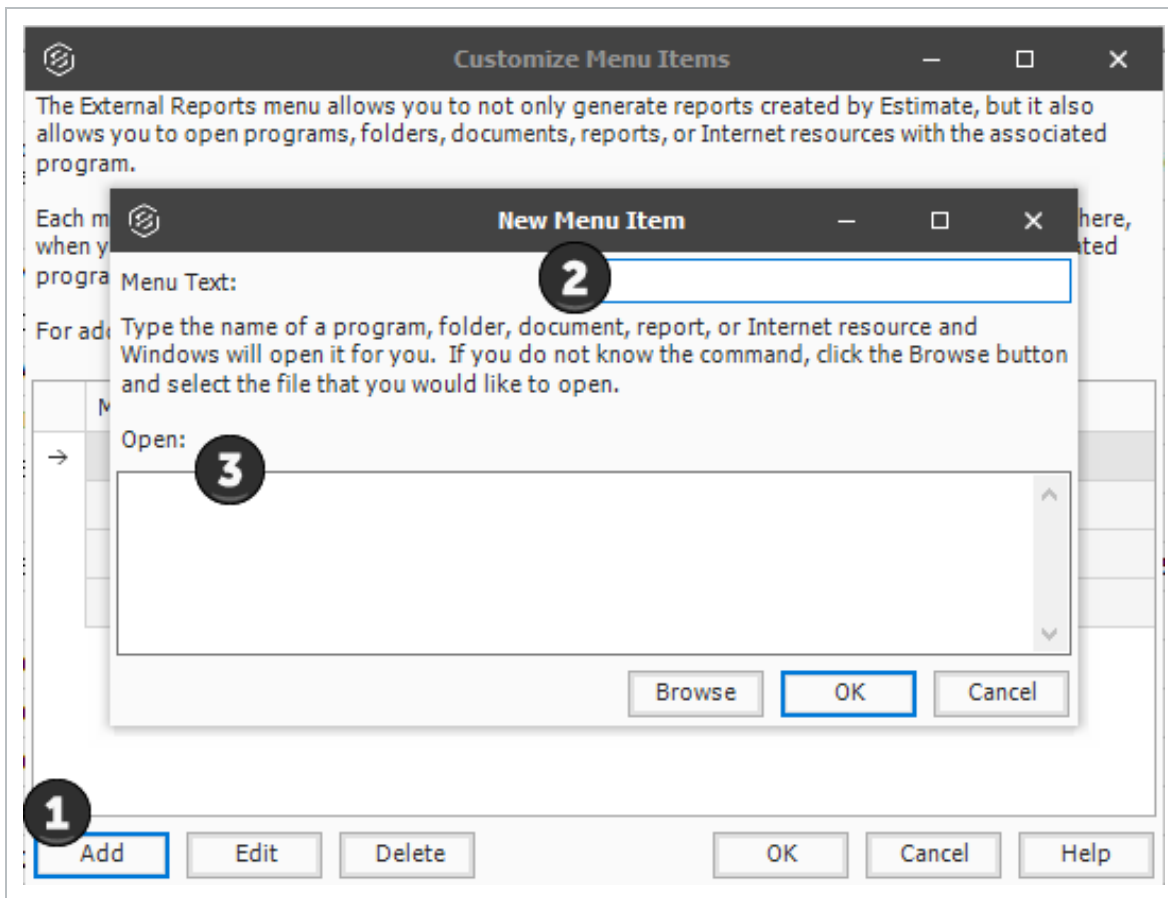
The External Reports menu lets you generate reports created by Estimate, and also lets you open program files, folders, documents, or other internet resources.



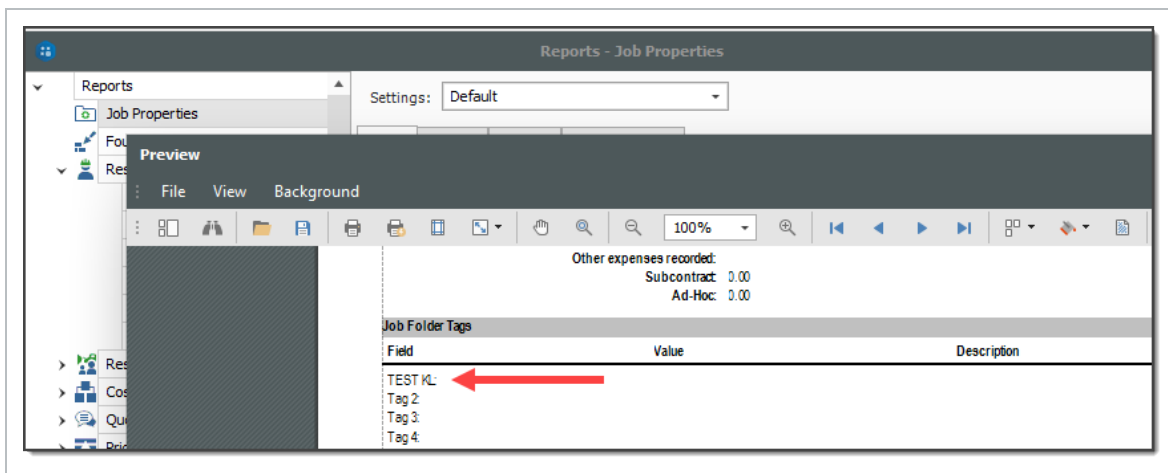
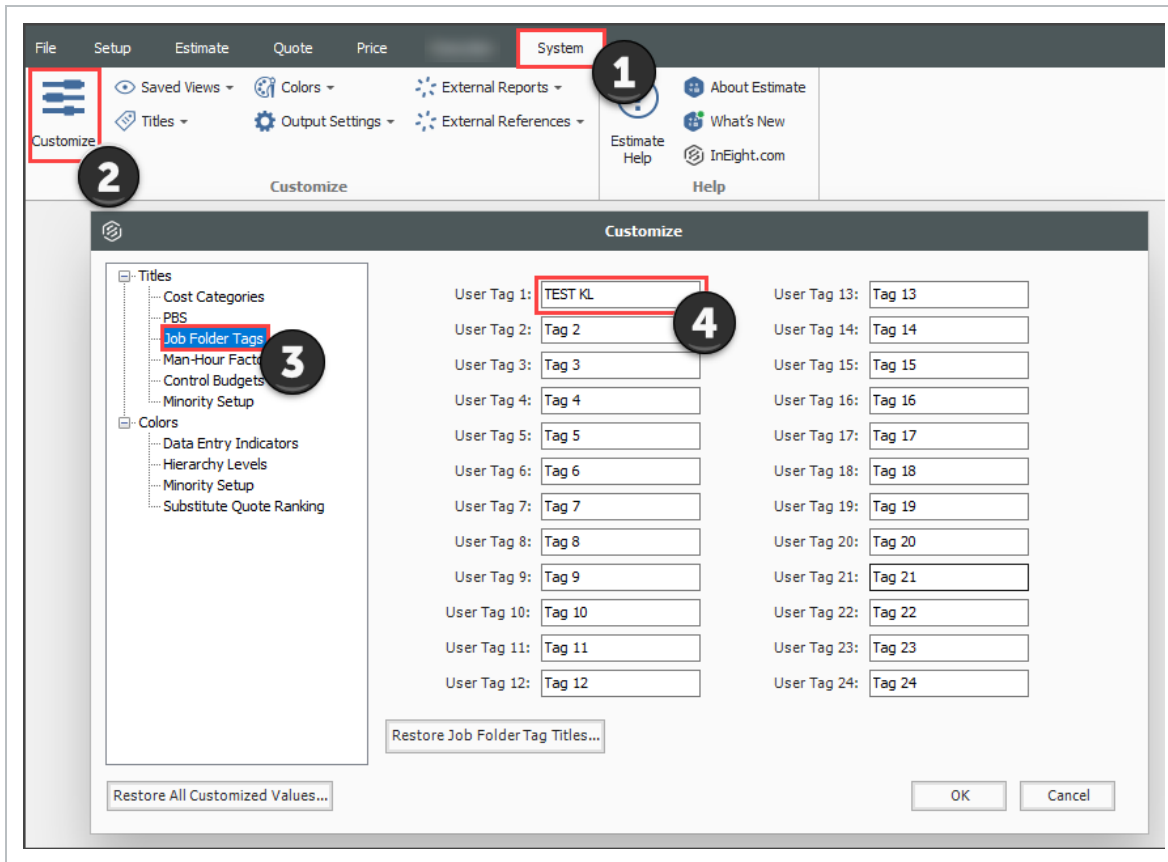
Each menu item can be added to the External Reports menu. Upon selecting one of the menu items, the associated program, file, folder document or URL will open, as defined by the command entered in the Open column.



To add a new menu text, first select the **Add** button and enter a name in the **Menu Text** field, and then type in the location of the new Menu text under the Open field.

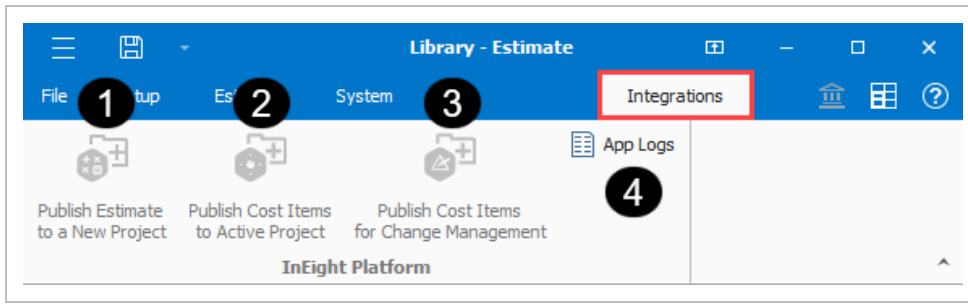


Customized Job Folder Tags match the view of the fields in the Job Properties form.



3.1.1.4 Integrations

The following image and table show an overview of the Integrations tab:



	Name	Description
1	Publish Estimate to a New Project	Lets you publish an estimate job to a new project. This requires the installation of the data provider plug-in.
2	Publish Cost Items to Active Project	Lets you publish cost items to an active project. This requires the installation of the data provider plug-in.
3	Publish Cost Items for Change Management	Lets you publish cost items to InEight Change. This requires the installation of the data provider plug-in.
4	App Logs	Lets you open the Estimate application logs in Project Suite, view log details, and export to Excel.

App logs

The InEight Project Suite App Log lets you drill down to the Detail level which helps you find, analyze and solve application errors.

The screenshot shows a table of application logs with columns: Level, Time, Domain, Area, Message, ExceptionMessage, ExceptionType, Route, and CorrelationId. A red arrow points to a specific log entry. Below the table, a detailed view of that log entry is shown, including the level (Error), timestamp, domain (HDDesign), area (Design), correlation ID, and the full exception message.

Level	Time	Domain	Area	Message	ExceptionMessage	ExceptionType	Route	CorrelationId
Details	Error	2023/11/28 11:21:18 AM	HDDesign	Design	EntityChange -> Publish NoMessageTargetsException:	No ESB subscriptions exist that match top...	..ng NoMessageTargetsException	0b1c7752-578f-4e12-b02b-ccd8fa6d148d
Details	Error	2023/11/28 11:10:53 AM	HDDesign	Design	EntityChange -> Publish NoMessageTargetsException:	No ESB subscriptions exist that match top...	..ng NoMessageTargetsException	94fdca9-38b9-4696-a07c-0884457262...
Details	Error	2023/11/28 9:46:24 AM	HDDesign	Design	EntityChange -> Publish NoMessageTargetsException:	No ESB subscriptions exist that match top...	..ng NoMessageTargetsException	12ca03b-76ea-4908-9330-3d57b4b31...
Details	Error	2023/11/28 9:45:44 AM	HDDesign	Design	EntityChange -> Publish NoMessageTargetsException:	No ESB subscriptions exist that match top...	..ng NoMessageTargetsException	205bc14b-fa41-428b-b9cd-9270e460ba...
Details	Error	2023/11/28 8:26:02 AM	HDDesign	Design	EntityChange -> Publish NoMessageTargetsException:	No ESB subscriptions exist that match top...	..ng NoMessageTargetsException	2c9a0ea7-e898-4612-97b8-57a194732...
Details	Error	2023/11/28 8:16:04 AM	HDDesign	Design	EntityChange -> Publish NoMessageTargetsException:	No ESB subscriptions exist that match top...	..ng NoMessageTargetsException	244b84e1-f82b-4c17-894d-d5851b31...
Details	Error	2023/11/28 8:06:00 AM	HDDesign	Design	EntityChange -> Publish NoMessageTargetsException:	No ESB subscriptions exist that match top...	..ng NoMessageTargetsException	30d6c546-2581-42fd-aa1c-2341b8c9e...
Details	Error	2023/11/28 7:56:01 AM	HDDesign	Design	EntityChange -> Publish NoMessageTargetsException:	No ESB subscriptions exist that match top...	..ng NoMessageTargetsException	509fa27-f3b8-417e-ab07-a495120e36...
Details	Error	2023/11/28 7:49:44 AM	HDDesign	Design	EntityChange -> Publish NoMessageTargetsException:	No ESB subscriptions exist that match top...	..ng NoMessageTargetsException	432e359a-4e04-4040-b5df-f6470a550f0...
Details	Error	2023/11/28 7:43:58 AM	HDDesign	Design	EntityChange -> Publish NoMessageTargetsException:	No ESB subscriptions exist that match top...	..ng NoMessageTargetsException	c664150-6ecc-4f82-b2c7-14d2d91770c...

InEight Project Suite App Logs - #42329000

Level: **Error**

Timestamp: 2023-11-28 11:21:18 -0700 [Received: 2023-11-28 11:21:18 -0700]

Domain: HDDesign

Area: Design

CorrelationId: 0b1c7752-578f-4e12-b02b-ccd8fa6d148d [Browse Chain](#)

Expires: 2023-12-13 11:21:18 -0700

Machine: pd1sdwk000INM

Message

EntityChange -> Publish NoMessageTargetsException:

InEight.Platform.Messaging.NoMessageTargetsException

No ESB subscriptions exist that match topic=DesignCostItem, workType=EntityChange, sourceDomain=De...
 at InEight.Platform.Messaging.ESBPublisher.<PublishWorkMessageAsync>d__10`1.MoveNext()...
 --- End of stack trace from previous location where exception was thrown ---
 at System.Runtime.CompilerServices.TaskAwaiter.ThrowForNonSuccess(Task task)
 at System.Runtime.CompilerServices.TaskAwaiter.HandleNonSuccessAndDebuggerNotification(Task task)
 at System.Runtime.CompilerServices.TaskAwaiter.ValidateEnd(Task task)
 at InEight.Design.Common.BusinessLogic.Services.EntityChangeService.<Publish>d__3`1.MoveNext() in C:\...ice.cs:line 81

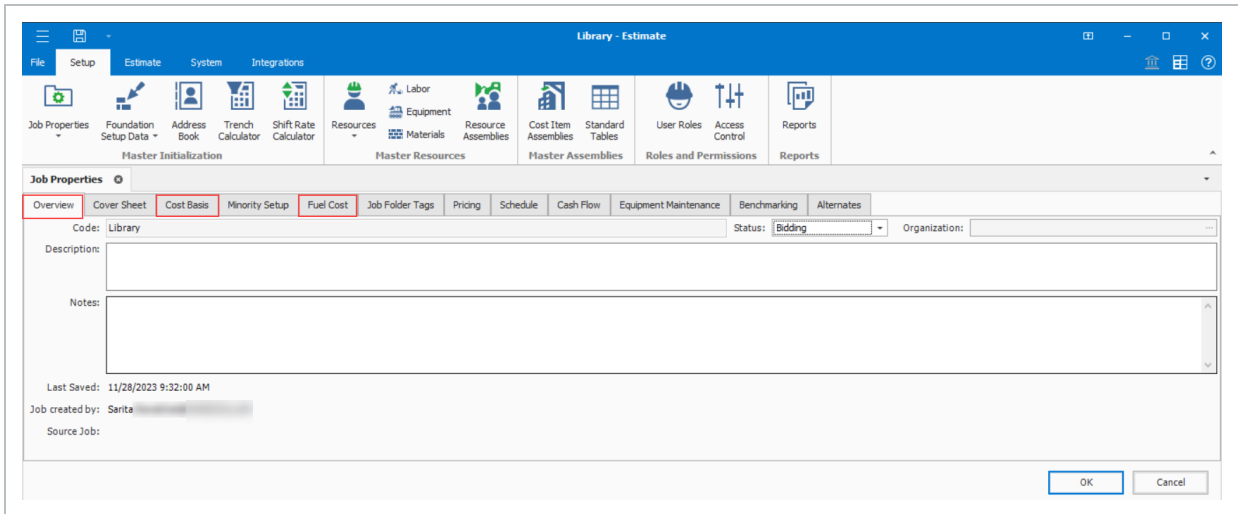
3.2 LIBRARY JOB PROPERTIES

The Library Job Properties form serves as a template for new jobs. Some of the tabs on the Library Job Properties form hold basic settings that will require a default selection which will apply to all new jobs created from scratch. Time can be saved when utilizing Library Job Properties, because the data and settings you fill out will be automatically imported into a new job. Once imported, these settings can be changed at the job level if necessary.

It may be helpful to complete the following tabs / fields at the Library level:

- **Overview Tab Notes Field:** Filling out the Notes section at the Library level would be helpful for any instructions or reminders that you want to display on all projects' Job Properties form. For example, "Always double check currency exchange rates"
- **Cost Basis Tab:** Shift arrangements may or may not be standard across all projects, as well as wage rates and scales. The cost basis default rules should be established within the library.
- **Fuel Cost Tab:** Entering a default fuel cost here will factor with the utilization of your equipment

to be included in your equipment rates



3.3 LIBRARY ADDRESS BOOK

Estimate's vendor and contact information in the address book register integrate with InEight Platform's vendor and contact master data libraries.

Vendors and contacts are created and maintained in Platform's master data library as a single source repository of vendor and contact data.

The screenshot shows the 'Vendors' interface in the software. At the top, there's a navigation bar with 'Master data libraries / Vendors' and 'VENDORS' / 'VENDOR TYPES'. Below this is a table of vendors with columns for ID, Name, Alternate name, and Type. A red arrow points from a vendor entry in this table to the 'Address Book Register' table below. The 'Address Book Register' table has columns for Vendor ID, Vendor Name, Vendor Type, Tax ID, Tax Jurisdiction, Address 1, Address 2, Country / Region, City, and State. It shows a list of vendors with their associated contact information.

The vendor and contact data structure shows a new hierarchy where multiple contacts can be assigned to one vendor.

This screenshot shows a detailed view of the 'Address Book Register'. It highlights a vendor with ID '0010106729' named '1128354 Alberta Ltd'. To the right, a separate table shows the contacts for this vendor, including 'Frank' (Matty Alberta) and 'Tom' (Cross Alberta Ltd), each with their own primary email address.

3.3.1 Pre-existing Estimate data

Upon upgrading to version 23.6, address book records show a combined list of both pre-existing Estimate Address Book records and Platform vendors and contacts. Pre-existing Estimate Address Book records are still editable, but Platform records are not. The pre-existing disconnected vendors and

contacts show a red glyph to the left of the Vendor ID column which shows that these records are disconnected from Platform.

Address Book Register	
Drag columns here to group	
Vendor ID	Vendor Name
+	Alpha
+	Al.Ven1
+	Ed-Sub2
+	Example Vendor 4 DBE

The existing contact records also have a vendor record associated with it. New vendors and contacts must be added via Platform, and changes to any Platform originated records must be modified in Platform. This promotes the use of Platform as the single source of creation and maintenance for vendor master data.

3.3.2 Estimate specific data

Certain vendor affiliated qualification information required for estimating purposes such as licensed, bonded and insured data, or minority participation, is maintained directly in Estimate only rather than in Platform.

There can be other Estimate vendor and contact data that only exist in Estimate and not in Platform, such as License, Bond, Insurance and Minority Certifications, and Default Quotes.

Address Book Register **Vendor Record**

Vendor Details

Vendor ID: 1_NP - Vendor2
 Vendor Name: * 1_NP - Vendor2
 Vendor Type: 1_NP Vendor
 Tax ID: 12345
 Tax Jurisdiction: abc
 Address 1: 90th Street
 Address 2:
 Country / Region: United States Of America
 City: Scottsdale
 State: Arizona
 Postal / Zip Code: 85258
 Phone Number: 99999999
 Fax Number: 963258741
 Web Site URL:
 Reference Number:

License / Bond / Insurance

Licensed

Licensor: Jeff Lewis
 Class: A
 Identification: GDIMNDG83

Bonded

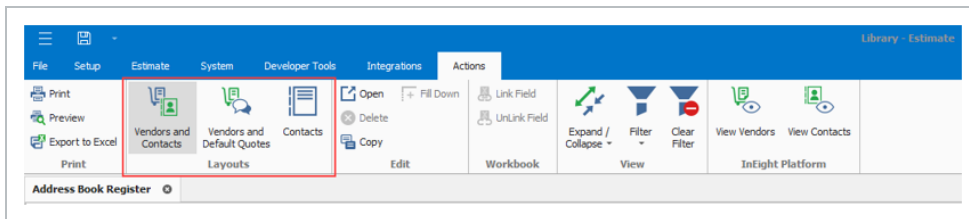
Company: Owens Inc
 Agent: Phil Jones
 Phone:
 Cost per 1,000: 0.00

Insured

Company: Evergreen Insurance
 Agent:

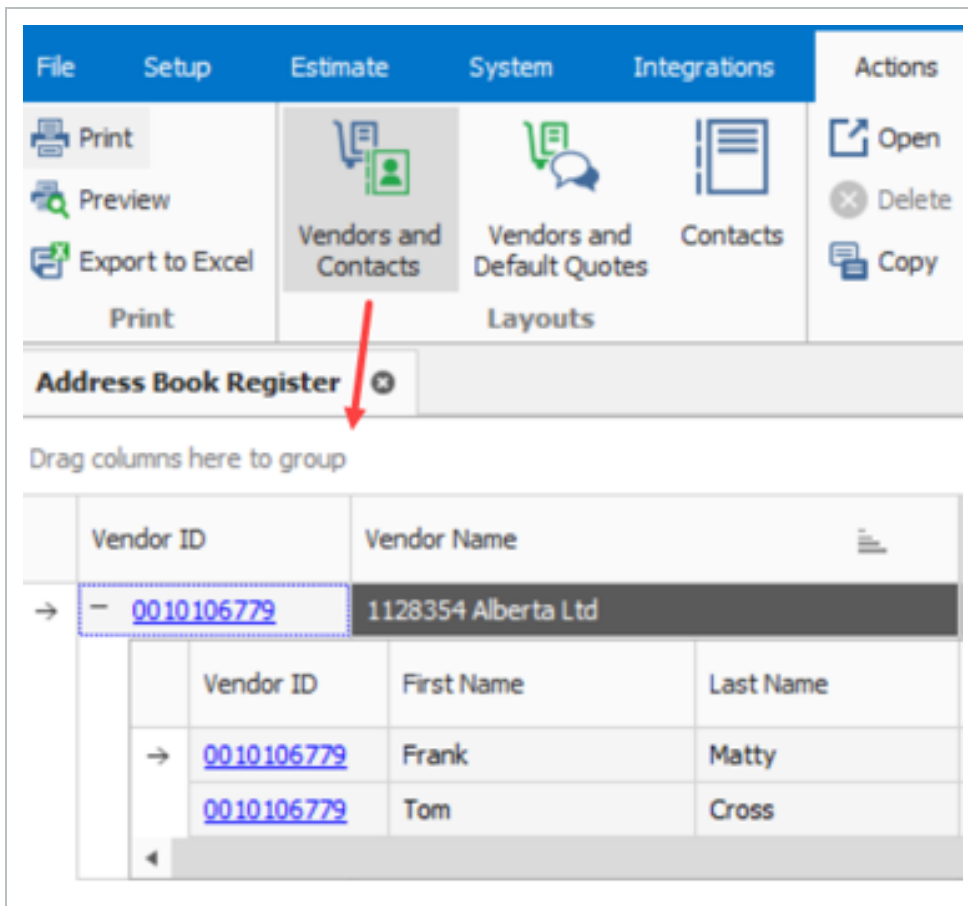
3.3.3 Address Book layouts

You can choose between three address book page arrangements, vendors and contacts, vendors and default quotes, and contacts.



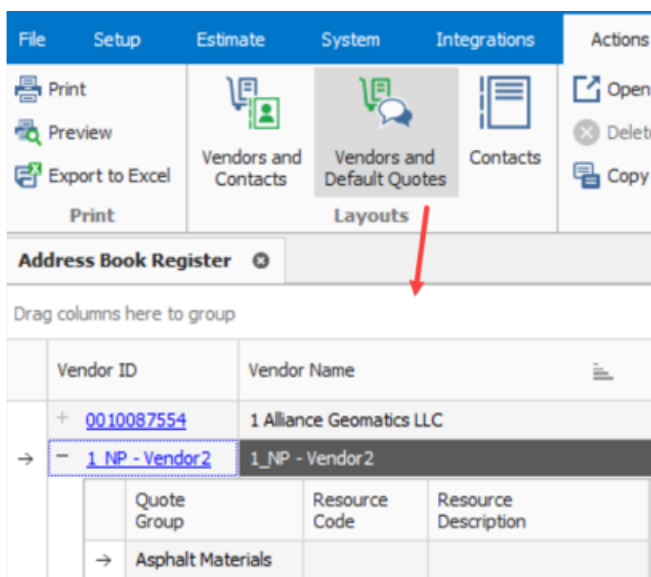
3.3.3.1 Vendors and Contacts

Vendors and Contacts are arranged where the vendor is the primary record in the register, and the contacts associated with the vendor are shown as secondary detail records.



3.3.3.2 Vendors and Default Quotes

Vendors and default quotes are arranged where the vendor is the primary record in the register, and the default quote group assignments for the vendor are shown as secondary detail records.



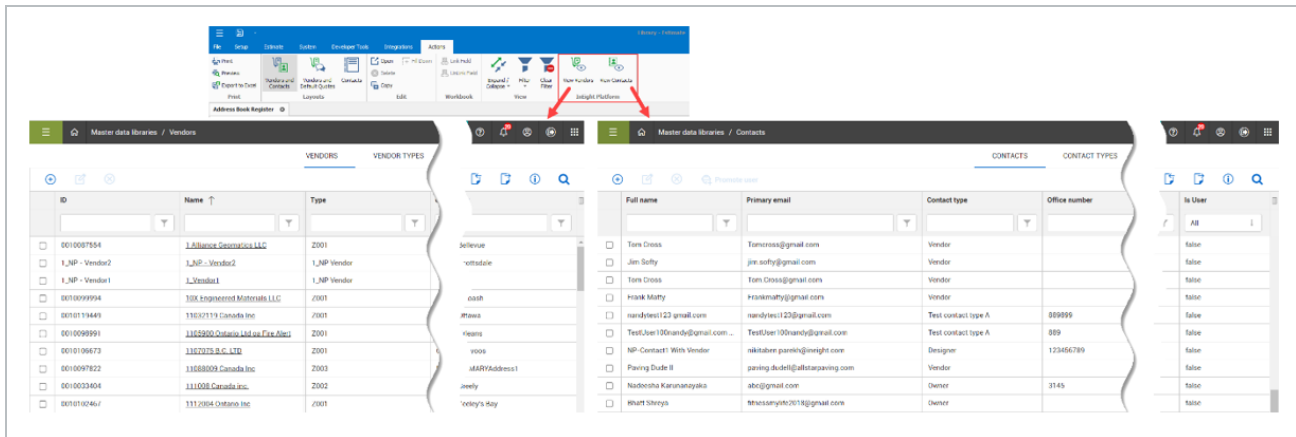
3.3.3.3 Contacts

Contacts are arranged where the contacts are shown in a flat list and are not secondary detail records under the Vendor. This layout can be used to search more easily for contacts regardless of their vendor assignment.

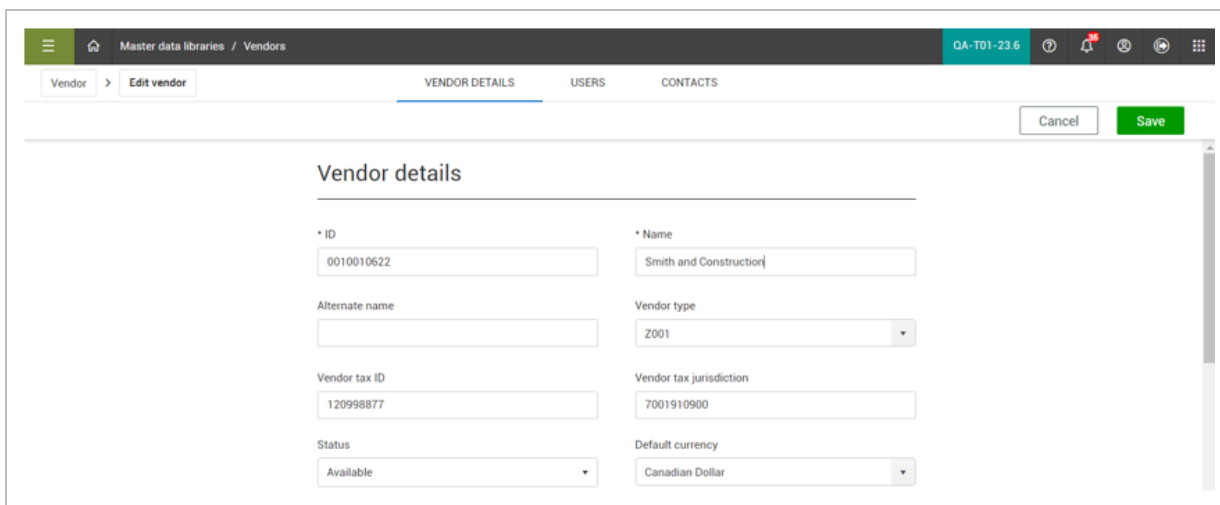
First Name	Last Name	Company
Nadeesha	Karunanayaka	AXN
Joe	Langmore	You.Inc
TestUser 103@gmail.c...	TestUser 103@gm...	TestUser 103@gmail.com

3.3.4 View vendors and contacts in InEight Platform

Select View Vendors or View Contacts to open a new InEight Platform master data vendors and contacts browser.



To view or edit a vendor, click the Vendor ID. The Platform edit vendor > **Vendor Details** page opens.



3.3.5 Vendor and contact creation

You can quickly create ad hoc vendors and contacts via the Quote Register and Record forms.

After you receive vendor quotes and you are ready to enter quote information, it can be an optimal moment to create new vendors and contacts if they are not currently in the Address Book. Creating vendors and contacts on the fly while the vendor quote information is readily available, and then entering the quote information is more expedient than leaving the quote to create the vendor and contact in Platform. This is especially useful when you have multiple new vendor quotes.

You can create vendors and contacts on the fly in both the Quote Register > **Address Book Register Library** and directly from the Quote record.

Quote Register

Description	Quote Status	Vendor	Vendor Name	Contact	Quote Total	Awarded Total
Asphalt Materials	Received	Lewis Concrete -- AA1	Lewis Concrete	<Ad-Hoc Contact>	\$1,115,975...	\$0
Guard Rail Items	Invalid	_PC1 -- _PC1	_PC1	SUB18 -- 1111 test	\$0.00	\$0
Guard Rail Items	Invalid	SUB4	SUB4	SUB4 -- Harry Belefony	\$0.00	\$0
new J-11	Received	SJ-5 -- SJ-5				
Pipe Materials	Received	Ven10				
Pipe Materials	Received	Example Vendor 4 DBE				
sa	Received	Example Prime Contra				
Sign Items	Invalid	Example Sub #34 DBE				
Sign Items	Incomplete	[Enter Vendor Name]				
Site work	Received	Civilworks Inc. -- Ven				
test	Received	[Enter Vendor Name]				

Quote Record

Quote Register | Quote Record

Header

Descriptions: Asphalt Materials

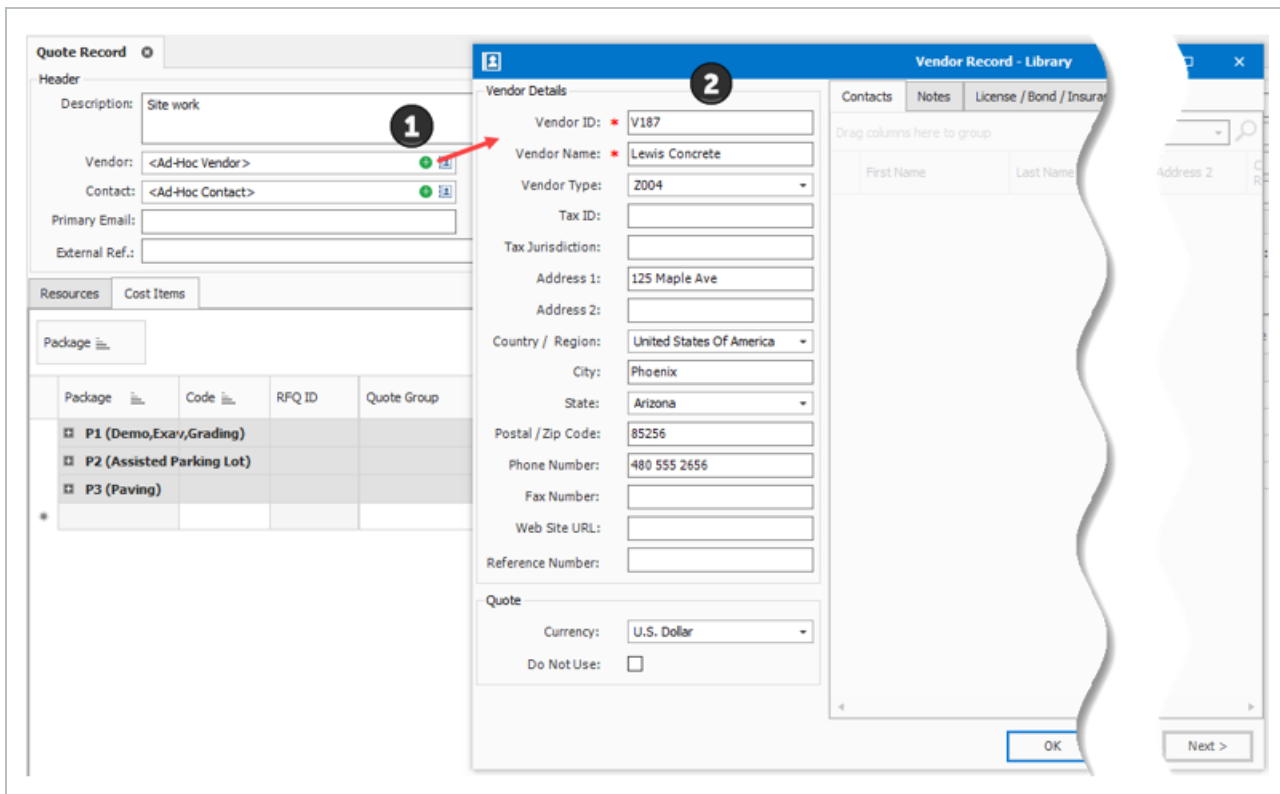
Vendor: <Ad-Hoc Vendor>

Contact: <Ad-Hoc Contact>

Primary Email:

External Ref.:

For example, when you are in a quote record and need to quickly create a new vendor because the vendor you received a quote from does not yet exist, you can select the **Vendor Quick Add** button, and then enter in the vendor details in the Vendor Record – Library form.

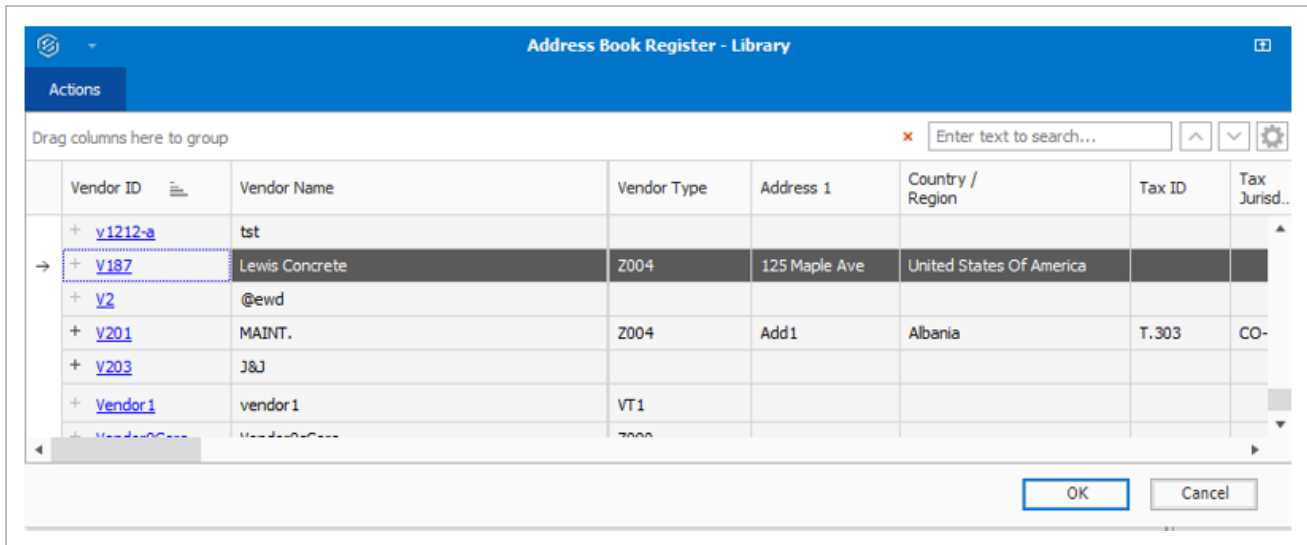


You can also add additional qualification information in the License/Bond/Insurance and Minority Certifications tabs.

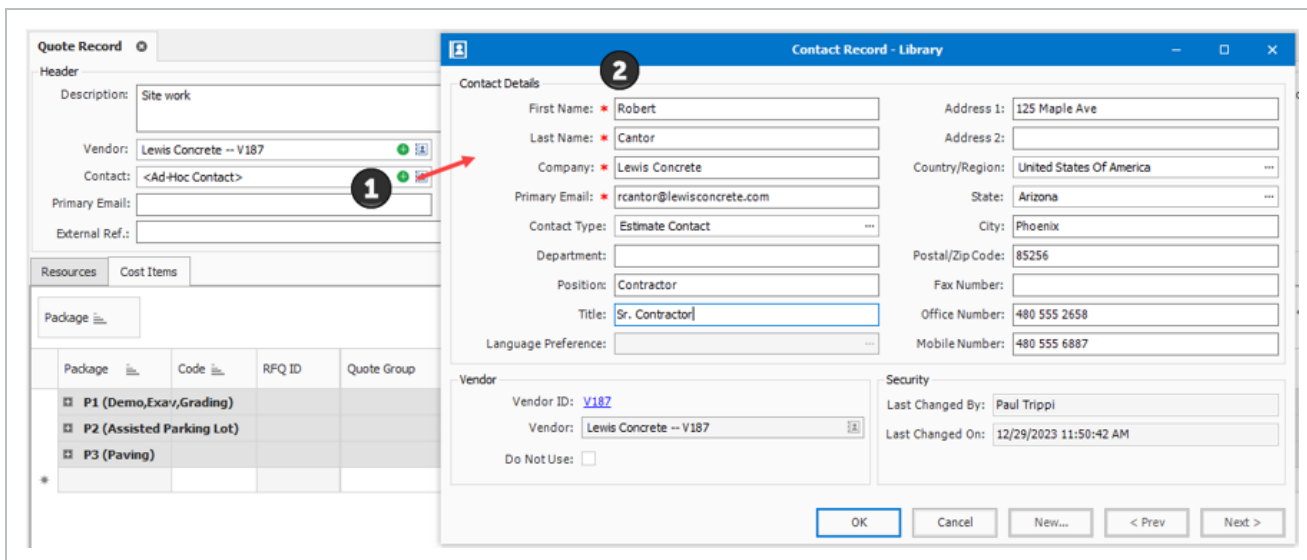
The screenshot displays the 'Vendor Record - Library' application window. The 'License / Bond / Insurance' tab is active, showing fields for 'Licensed', 'Bonded', and 'Insured' status. The 'Minority Certifications' tab is also visible, showing a table for 'Authority and Certification Number' with columns for certification type and number. The 'Vendor Details' section on the left includes fields for Vendor ID (V187), Vendor Name (Lewis Concrete), Vendor Type (Z004), Tax ID, Tax Jurisdiction, Address (125 Maple Ave), Country/Region (United States Of America), City (Phoenix), State (Arizona), Postal/Zip Code (85256), Phone Number (480 555 2656), Fax Number, Web Site URL, and Reference Number. The 'Quote' section shows Currency (U.S. Dollar) and a 'Do Not Use' checkbox. The 'License / Bond / Insurance' section includes fields for Licensor (John Lewis), Class (General Engineering), Identification (ROC 338065), Company (Hartley Bonding), Agent (Jim Smith), Phone (480 555 6582), and Cost per 1,000 (\$3.00). The 'Insured' section includes fields for Company (Bribrick), Agent (Tom Jones), and Phone (480 568 6584). The 'Minority Certifications' section includes a table with columns for Name, Authority and Certification Number, and checkboxes for DBE, MBE, WBE, and OBE1 through OBE7. The OBE1 checkbox is checked with the value CL038746. A 'Certification Comments' field is also present.

The additional qualification information is added and maintained in Estimate and cannot be added to the vendor record when creating vendors directly in Platform.

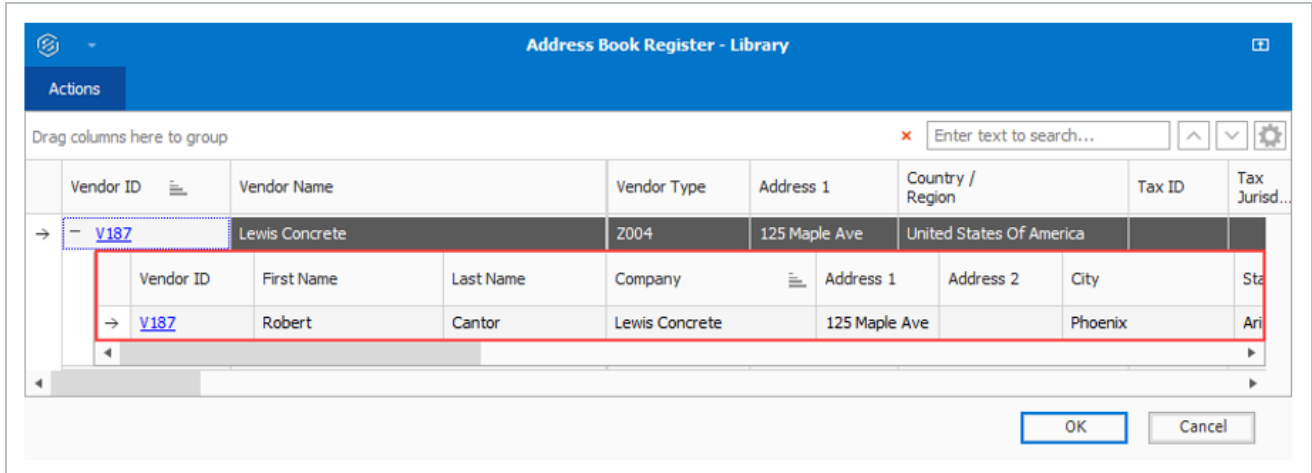
After the vendor is created, it is included in the Library Address Book and can be chosen as a vendor to be used on a quote.



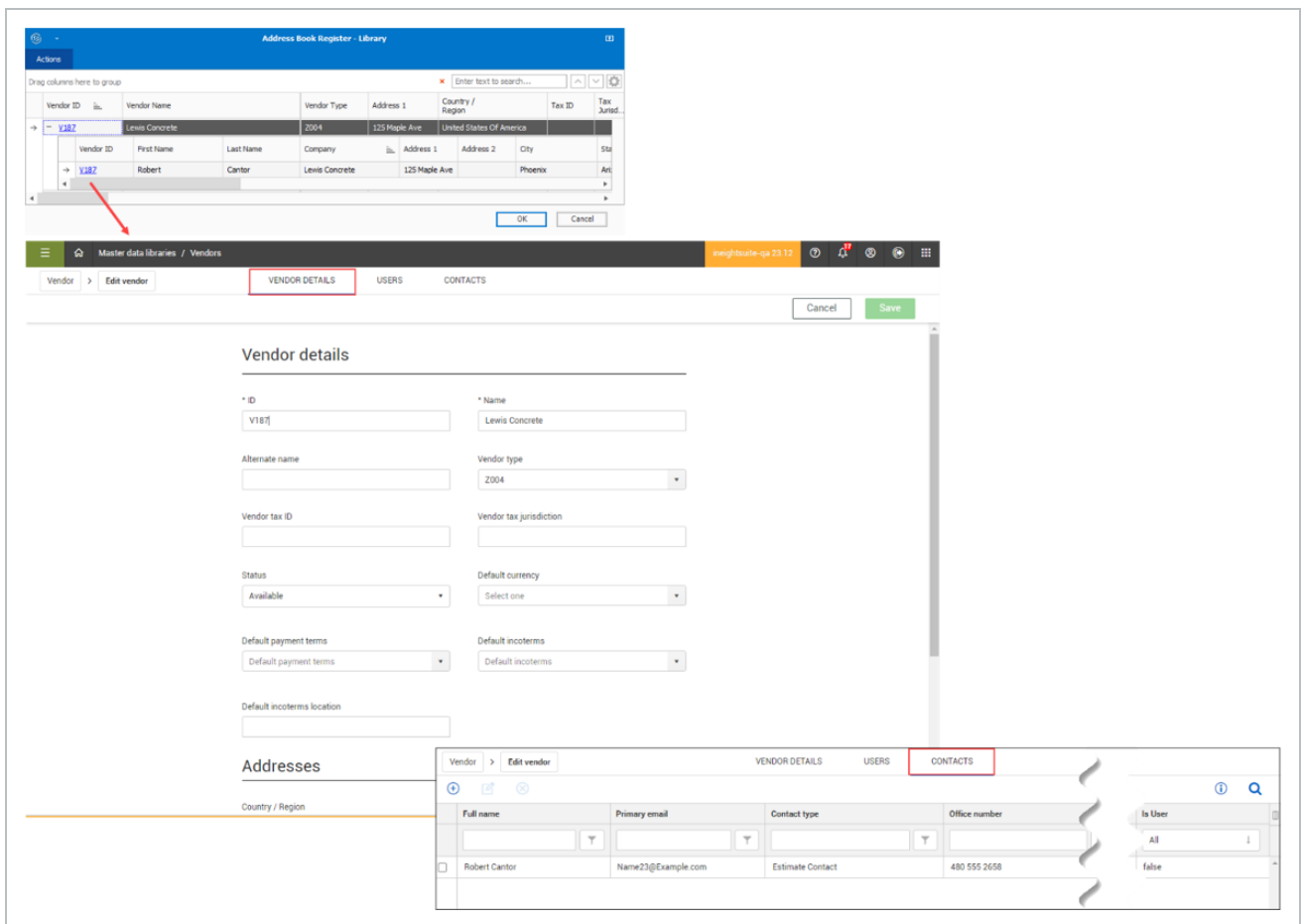
If you have a new contact to add, you can select the **Contact Quick Add** button, and then enter the contact information.



After the contact is created, it becomes associated with the newly created vendor in the Library Address Book.



The vendor and contact information are stored in Platform where it can be easily accessed by selecting one of the vendor ID links in the Library Address Book. The vendor can also be used by other Platform applications.



3.3.6 Merge and upload contacts and vendors into Platform

You can manage and retain all vendor information in the Estimate Address Book that are not linked (disconnected) with Platform, including contacts and companies that are referenced in multiple estimates, quotes and RFQs.

Disconnected Vendors and Contacts can be merged with existing Platform vendors and contacts, or they can be uploaded to create new Platform vendors and contacts by navigating to the Library > Setup > **Address Book**. You can also upload new Estimate vendors and contacts into Platform's master data repository.

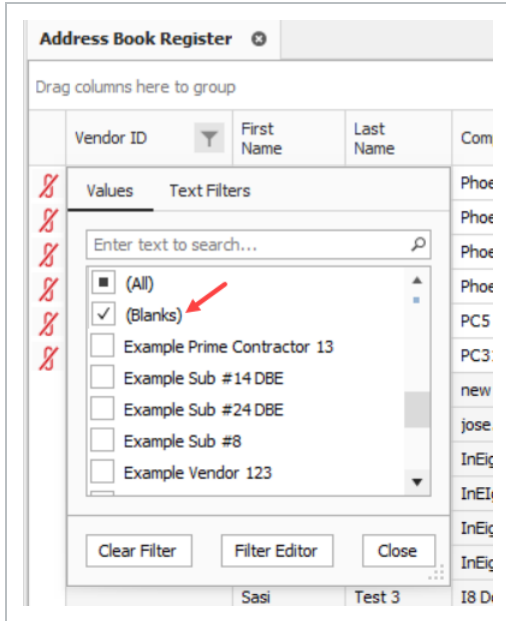
Estimate's process of uploading contacts and vendors into Platform's master data library (as a means for all InEight products to access as a source system of contact and vendor data) not only lets you send this information to Platform, but it provides you with a mechanism to clean up and simplify existing Estimate Address Book data. For example, your current Estimate Address Book might contain many duplicate contacts containing the same first and last name, but with different addresses, emails, or mobile numbers. Merging these records helps administer customer data better so that you can eventually only maintain a single contact or vendor that has the most up to date and most accurate information.

Address Book Register				
Drag columns here to group				
	Vendor ID	Company	Vendor	Address 1
✂		Phoenix Contractors	Example Vendor 1888	100 Tenth Street
✂		Phoenix Contractors	Example Vendor 1666	100 Tenth Street
✂		Phoenix Contractors	Example Vendor 5551	100 Tenth Street
✂		Phoenix Contractors	Example Vendor 222	100 Tenth Street

3.3.6.4 Disconnected contacts and vendors

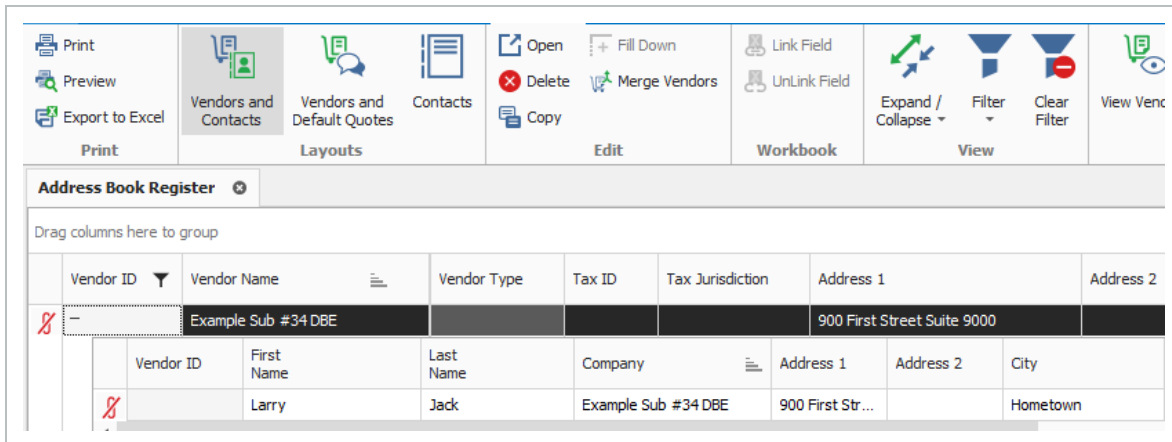
Pre-existing Estimate vendors and contacts that are disconnected from Platform show a red glyph to the left of the Vendor ID column, and only exist in Estimate at this time. To only show the disconnected records, click the column filter in the Vendor ID column, and then select (Blanks). You can either delete the disconnected records or choose to merge or upload them into Platform.

Showing only the disconnected vendors or contacts helps you see the vendors and contacts that are not connected with Platform.



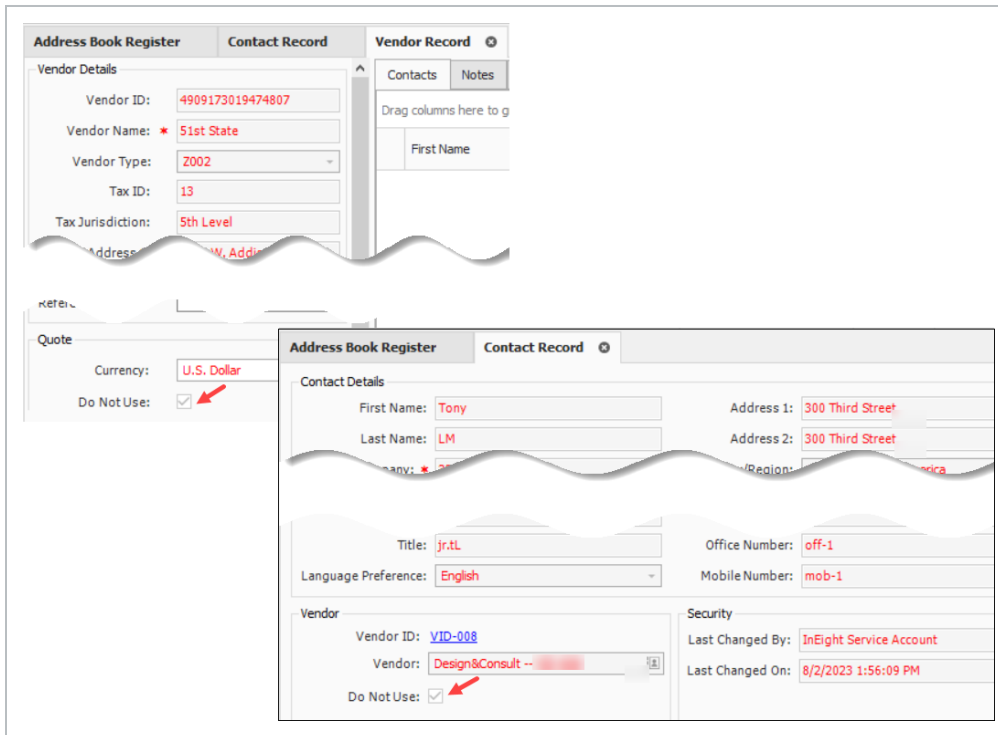
All new library address book records must be created in Platform.

Vendor and contact ID's that show a blank do not currently have an associated Platform vendor association, as these vendors were originally created in Estimate. These vendors have not been merged into Platform, and therefore have no association with the vendor master data that resides in Platform.

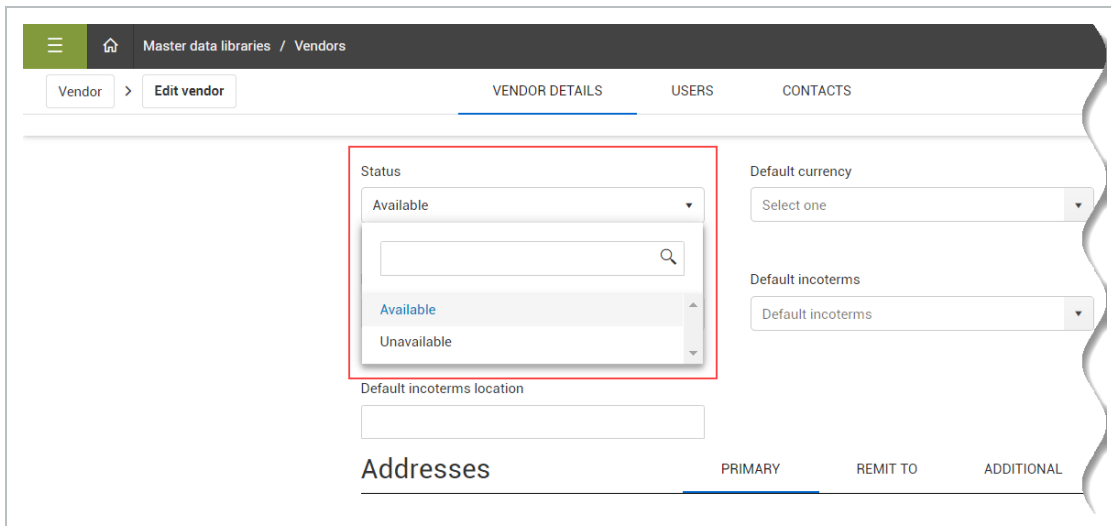


Inactive contacts and vendors

You can mark a vendor as *Do Not Use* in a contact record, which indicates the status of the contacts associated vendor, and can only be set in Estimate when vendors are disconnected from Platform. The record changes to red to signify it is inactive and cannot be used, but is not deleted from the system.

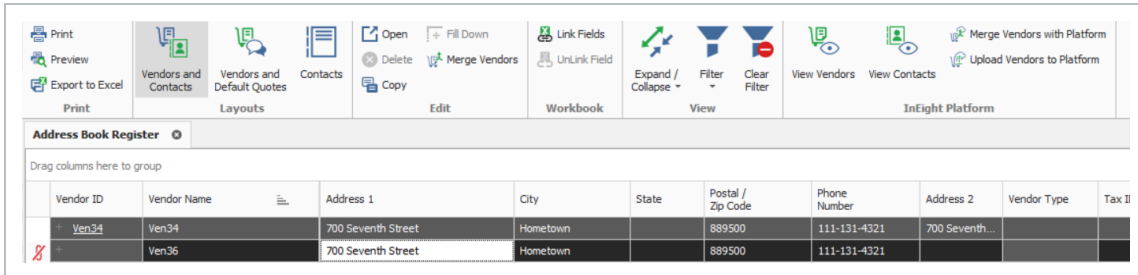


To change the *Do Not Use* status, select the Vendor ID Platform link for the vendor record in Estimate. In Platform, the *Do Not Use* flag can be maintained by selecting the Status field in Master Data Libraries > **Vendors**, and automatically integrates with Estimate.



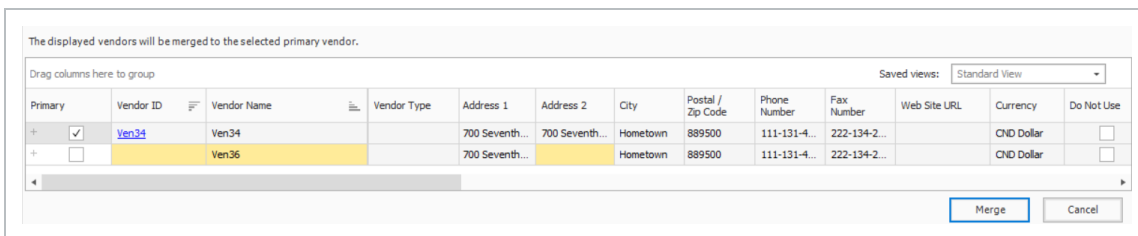
Merge Estimate vendors to Platform

1. Choose one connected and disconnected vendor, then select **Merge Vendors with Platform**.

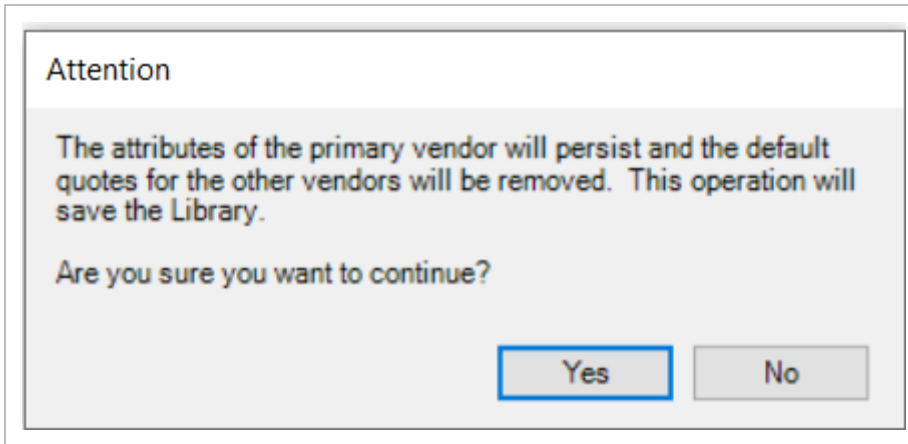


- Note that the connected Estimate vendor previously exists in Platform, prior to the merge of the two vendor records.

2. Select **Merge**.

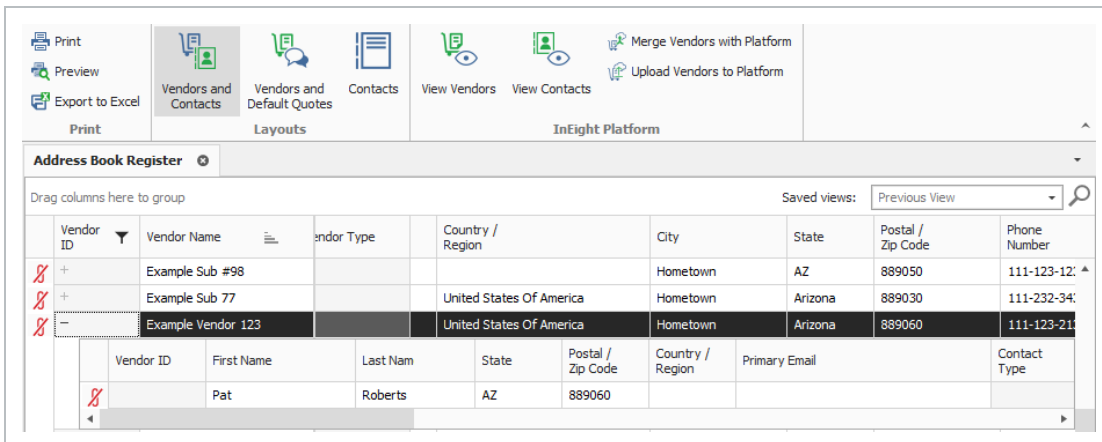


- Notice that the primary vendor is checked, as this record already exists in Platform.
 - Other records where the Primary field is not checked are records to be merged into the primary record.
 - Fields in yellow for the non-primary records are deltas. These deltas will not be merged, and differences will be lost once they are merged, as the data that exists in Platform takes precedence. If you want any of the disconnected data to exist in Platform, you need to manually change the data in Platform. The advantage for this is to allow for the disconnected Estimate vendors to become associated with an already existing Platform vendor, which lets the contact to still be keyed in areas it was used in Estimate, such as in Quotes and RFQs.
3. Select **Yes** in the Attention dialogue box to acknowledge that the attributes of the primary contact will exist.

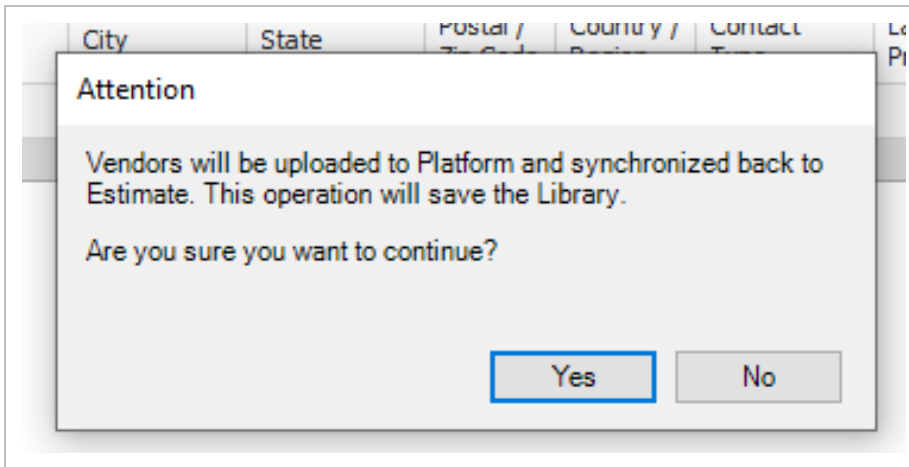


Upload Estimate vendors to Platform

1. Choose a disconnected vendor with an associated contact, and then select **Upload Vendors to Platform**.

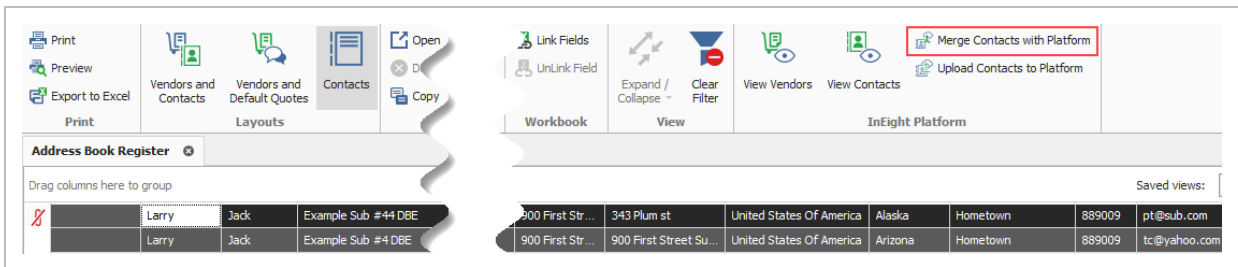


2. Click the **+** symbol to the left of the Vendor ID to expand all the records. Select **Upload** to sync the vendor shown with the contact in this window to Platform.
 - The preview dialog box opens.
3. Select **Yes** in the Attention dialogue box to confirm that the vendor will be uploaded to Platform and synchronized back to the Estimate Address Book library.

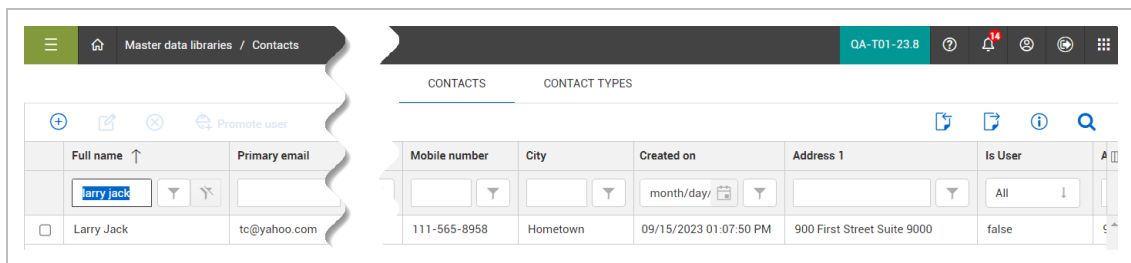


Merge contacts to Platform

1. Choose one connected and one disconnected contact, and then select **Merge Contacts with Platform**.



- Prior to the merge, note that the connected Estimate contact previously exists in Platform, prior to the merge of the two contact records.



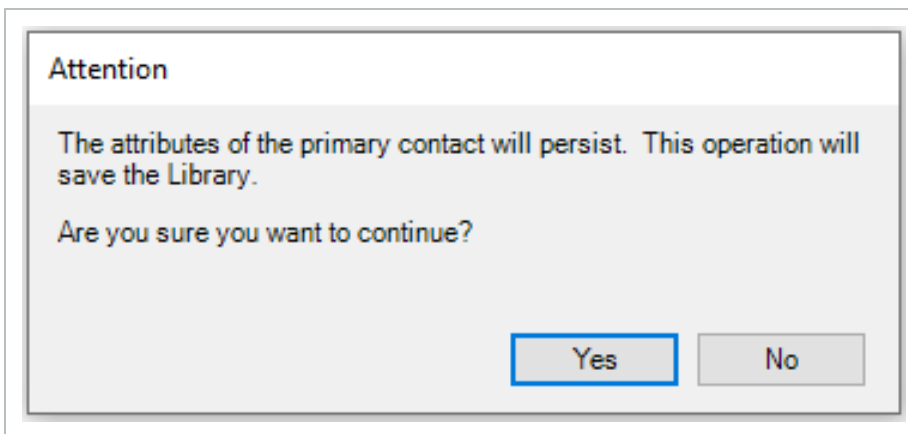
2. Select **Merge**.

The displayed contacts will be merged to the selected primary contact.

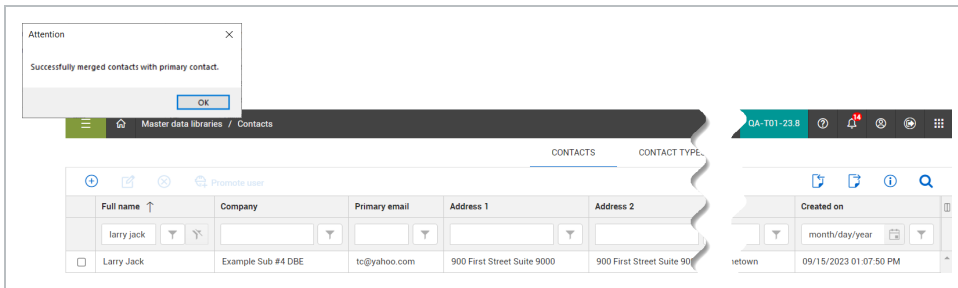
Drag columns here to group Saved views: Previous View

Primary	First Name	Last Name	Company	Primary Email	Contact Type	Address 1	Address 2	Country / Region	State	City	Postal / Zip Code	Mobile Number	Office Number
<input checked="" type="checkbox"/>	Larry	Jack	Example Sub #4 DBE	tc@yahoo.com	Estimate Cont...	900 First Stree...	900 First Str...	United State...	Arizona	Hometown	889009	111-565-8...	111-332-4...
<input type="checkbox"/>	Larry	Jack	Example Sub #44 DBE	pt@sub.com		900 First Stree...	343 Plum st	United State...	Alaska	Hometown	889009		111-332-4...

- Notice that the primary contact is checked, as this record already exists in Platform.
 - Other records where the Primary field is not checked are records to merge into the primary record.
 - Fields in yellow for the non-primary records are deltas. These deltas will not be merged, and differences will be lost after they are merged, as the data that exists in Platform takes precedence. If you want any of the disconnected data to exist in Platform, you need to manually change the data in Platform. The advantage for this is to allow for the disconnected Estimate contact to become associated with an already existing Platform contact, which lets the contact to still be keyed in areas it was used in Estimate, such as in Quotes and RFQs.
3. Select **Yes** in the Attention dialogue box to acknowledge that the attributes of the primary contact will exist.

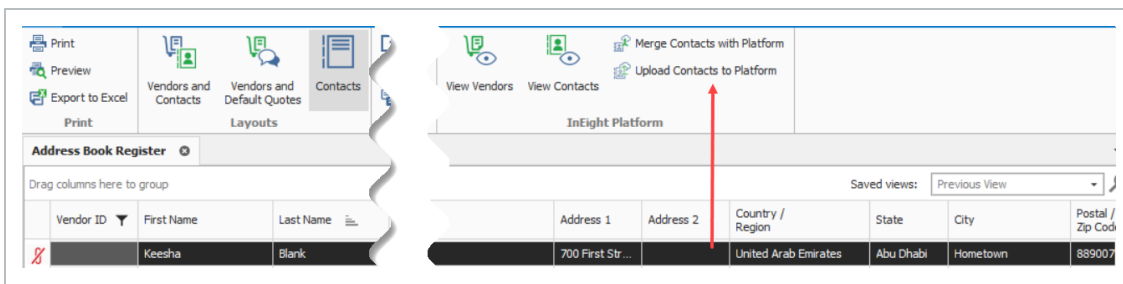


- A message shows it was successful, and the entry is created in Platform.

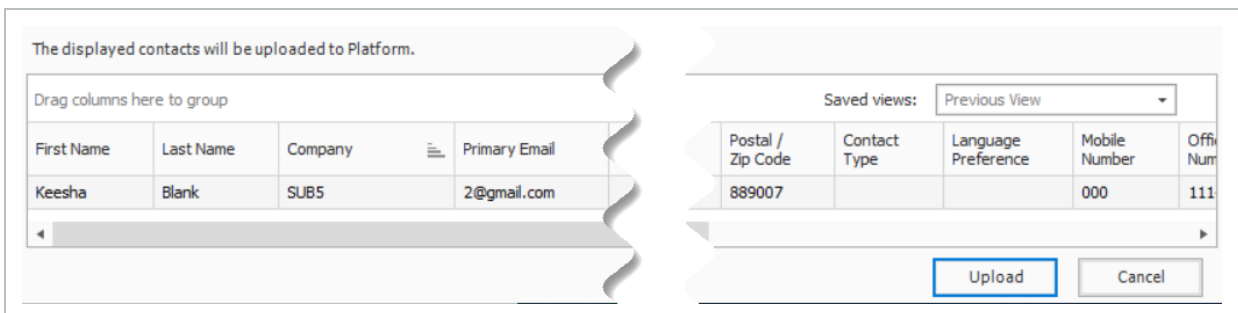


Upload contacts to Platform

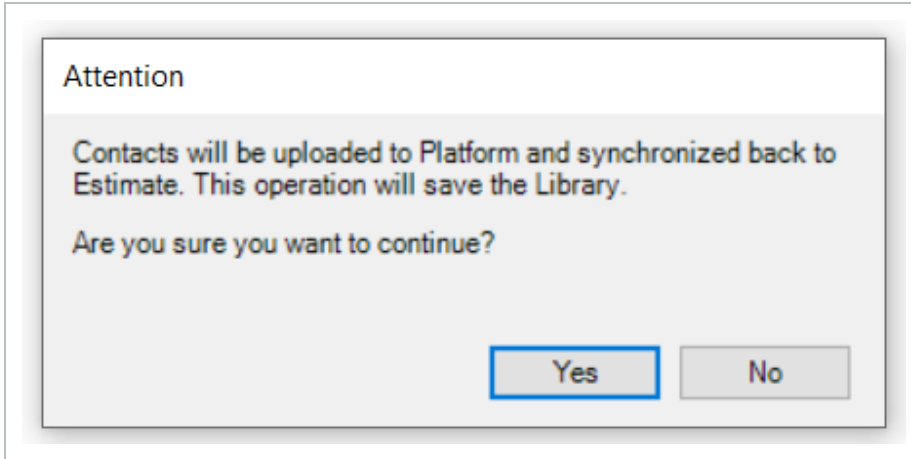
1. Choose a disconnected contact, and then select **Upload Contacts to Platform**.



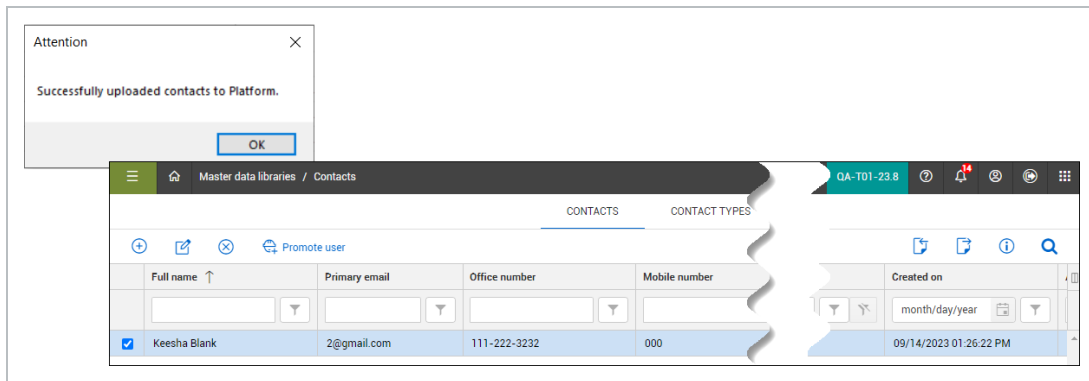
2. Select **Upload** to send the contact shown in this window to Platform.
 - The purpose of the preview dialog is to let you see what will be created in Platform, and to correct any issues before completing the operation.



3. Select **Yes** in the Attention dialogue box to upload the contact to Platform, synchronize back to Estimate, and save to the library.

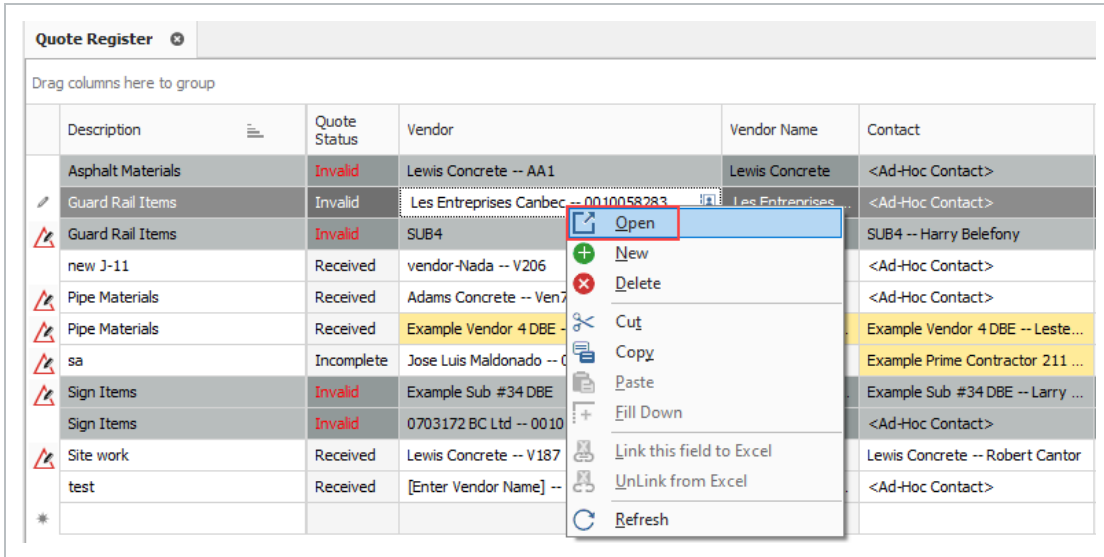


- A message shows it was successful, and the entry is created in Platform.

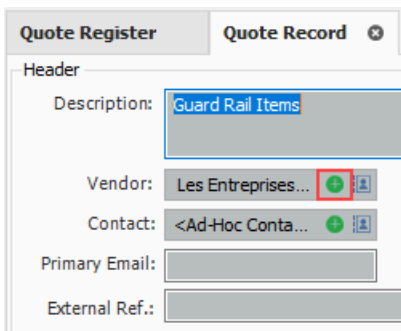


Create vendors and contacts via Quote Record

1. Navigate to the Quote register and open an existing quote.



2. Click the **Vendor Quick Add** icon in the Quote Record register.



3. In the Vendor Record - Library window, enter a new **Vendor ID** and **Vendor Name**. Under the Vendor Name field, enter in the other non-required information such as the Address and Phone Number.

Vendor Record - Library

Vendor Details

Vendor ID: * Ven7869

Vendor Name: * Adams Concrete

Vendor Type: 2002

Tax ID:

Tax Jurisdiction:

Address 1: 1029 King St

Address 2:

Country / Region: United States Of America

City: Scottsdale

State: Arizona

Postal / Zip Code: 85258

Phone Number: 480 555 6987

Fax Number:

Web Site URL:

Reference Number: ABL-3947

Quote

Currency: U.S. Dollar

Do Not Use:

Contacts

Tag 1: Concrete

Tag 2:

Tag 3:

Last Changed By: Paul

Last Changed On: 1/24/2024 2:11:49 PM

Notes:

OK Cancel New... < Prev Next >

4. On the right side of the window, enter any relevant information in the tabs, such as vendor notes and license, bond and insurance information, and then click **OK**.

Contacts

Tag 1: Concrete

Tag 2: +

Tag 3: +

Last Changed By: Paul

Last Changed On: 1/24/2024 2:17:05 PM

Notes:

- Use this vendor for project work in the Phoenix metro area.

- Reference number must be included on the work invoice upon project completion.

OK Cancel New... < Prev Next >

The new vendor is now added to the Estimate Address Book Register - Library.

The screenshot displays the 'Address Book Register - Library' interface. At the top, there is a blue header with the title and a search bar. Below the header is a toolbar with various actions like 'New', 'Copy', 'Expand / Collapse', 'Filter', 'Clear Filter', 'View Vendors', and 'View Contacts'. A table lists vendors with columns for Vendor ID, Vendor Name, Vendor Type, Address 1, Country / Region, City, and State. The vendor 'Adams Concrete' (Vendor ID: Ven7869) is highlighted. A 'Quote Record' window is open over the table, showing details for 'Adams Concrete'. The quote includes a description of 'Pipe Materials' and a list of resources with their respective quantities and costs. The total quote amount is \$259,056.00.

Vendor ID	Vendor Name	Vendor Type	Address 1	Country / Region	City	State
+ Ven7869	Adams Concrete	Z002	1029 King St	United States Of America	Scottsdale	Arizona
+ VEN202	ven 202				city=SAGA	Saga
+ Ven 07	Civilworks Inc.					Arizon
+ V300	Vendor 300					Adr
+ V3	Q2 V3					

Quote Record

Header

Description: Pipe Materials

Vendor: Adams Concret... Vendor Name: Adams Concrete

Contact: <Ad-Hoc Conta... First Name: Last Name:

Primary Email: External Ref.:

\$246,720.00
\$12,336.00
\$0.00
\$259,056.00

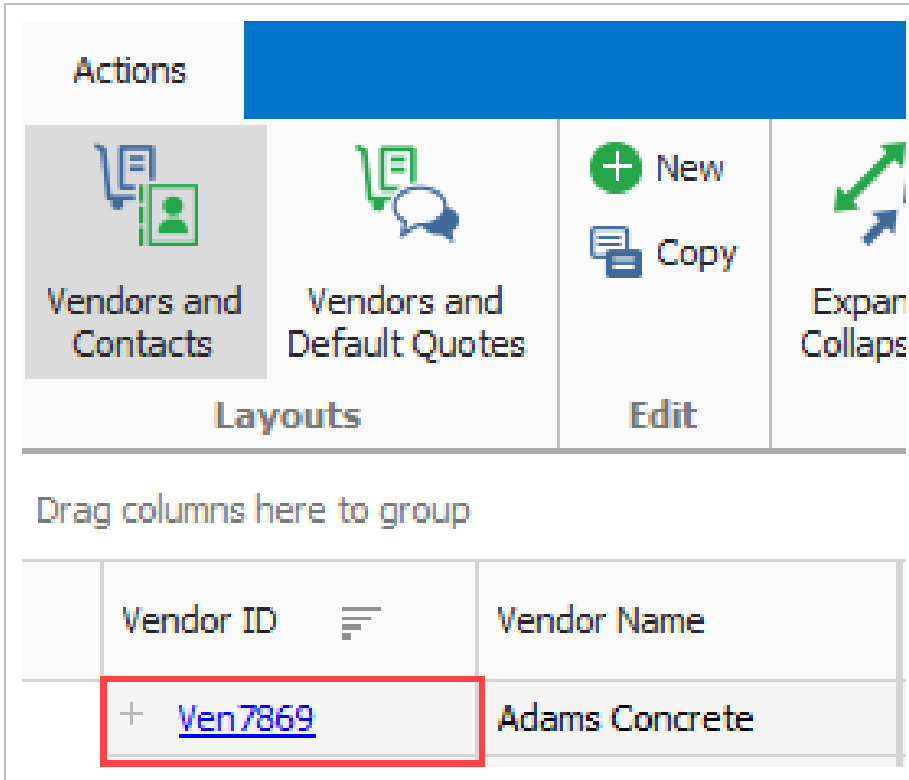
Resources Cost Items

Drag columns here to group Saved views: Previous View

Code	Quote Group	Description	No Split
MPP10	Pipe Materials	Pipe 10" PVC SDR21	<input checked="" type="checkbox"/>
MPP24	Pipe Materials	Pipe 24" PVC SDR35	<input checked="" type="checkbox"/>
MPP36	Pipe Materials	Pipe RCP 36 In	<input checked="" type="checkbox"/>
*			<input type="checkbox"/>

The following steps help to confirm that the vendor was created correctly, and that it can be used to update or maintain the vendor after it has already been created, including steps to create a new contact on the fly.

5. Click the new **Vendor ID** in the Estimate Address Book Register - Library.



The new vendor opens in Project Suite > Master data libraries > **Vendors**.

- Click the **Contact Quick Add** icon in the Quote Record register.

- In the Contact Record - Library window, enter the **First Name, Last Name, Company,** and **Primary Email.** Under the Primary Email field, enter in the other non-required information such as the Address and Phone Number, and then click **OK.**

Contact Record - Library
— □ ×

Contact Details

First Name: * Tom	Address 1: 123 Maple Dr
Last Name: * McHenry	Address 2:
Company: * Vendor 1	Country/Region: United States Of America ...
Primary Email: * Name25@Example.com	State: Arizona ...
Contact Type: Estimate Contact ...	City: Scottsdale
Department: Estimating	Postal/Zip Code: 85259
Position: Estimator	Fax Number:
Title: Lead Estimator	Office Number:
Language Preference:	Mobile Number: 480 555 3659

<p>Vendor</p> <p>Vendor ID: Vend 1</p> <p>Vendor: Vendor 1 -- Vend 1</p> <p>Do Not Use: <input type="checkbox"/></p>	<p>Security</p> <p>Last Changed By: Paul Trippi</p> <p>Last Changed On: 1/25/2024 9:11:43 AM</p>
---	---

OK Cancel New... < Prev Next >

The new contact is now added to the Estimate Address Book Register - Library.

Actions

Vendors and Contacts
Vendors and Default Quotes
New
Copy

Expand / Collapse
Filter
Clear Filter

View Vendors
View Contacts

Layouts Edit View InEight Platform

Drag columns here to group Saved views: Previous View Enter text to search...

Vendor ID	Vendor Name	Vendor Type	Address 1	Country / Region	City	State
Ven7869	Adams Concrete	2002	1029 King St	United States Of America	Scottsdale	Arizona

Quote Record

Header

Description: Pipe Materials

Vendor: Adams Concrete -- Ven7869 Vendor Name: Adams Concrete

Contact: Adams Concrete -- Tom Henrys First Name:

Primary Email: Last Name:

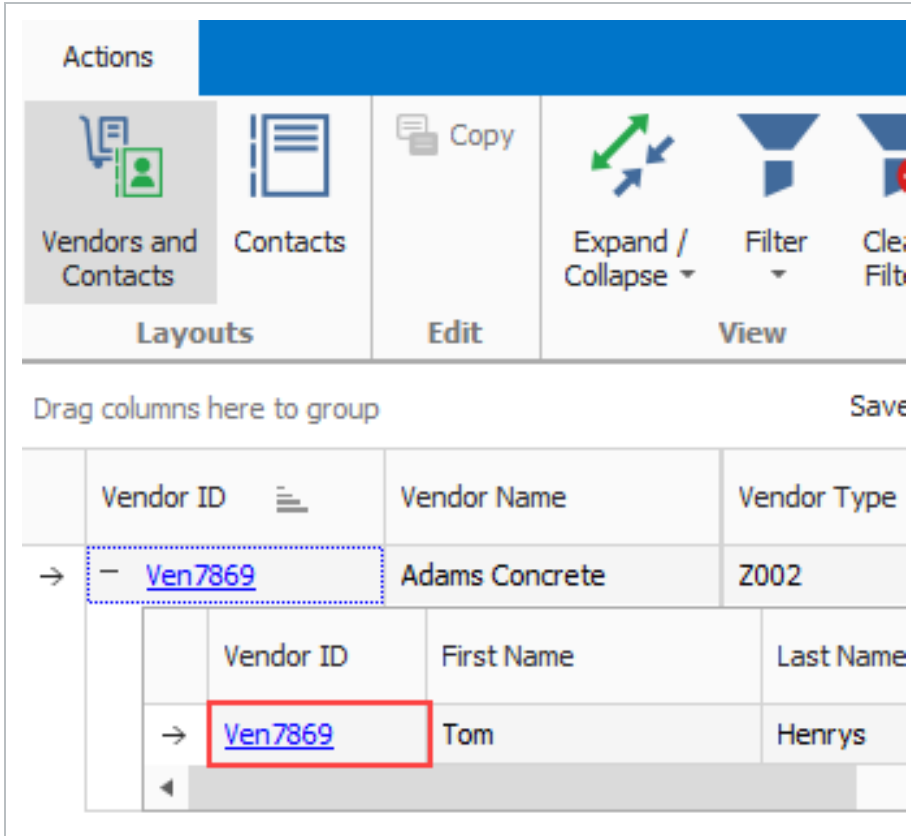
External Ref.:

Resources Cost Items

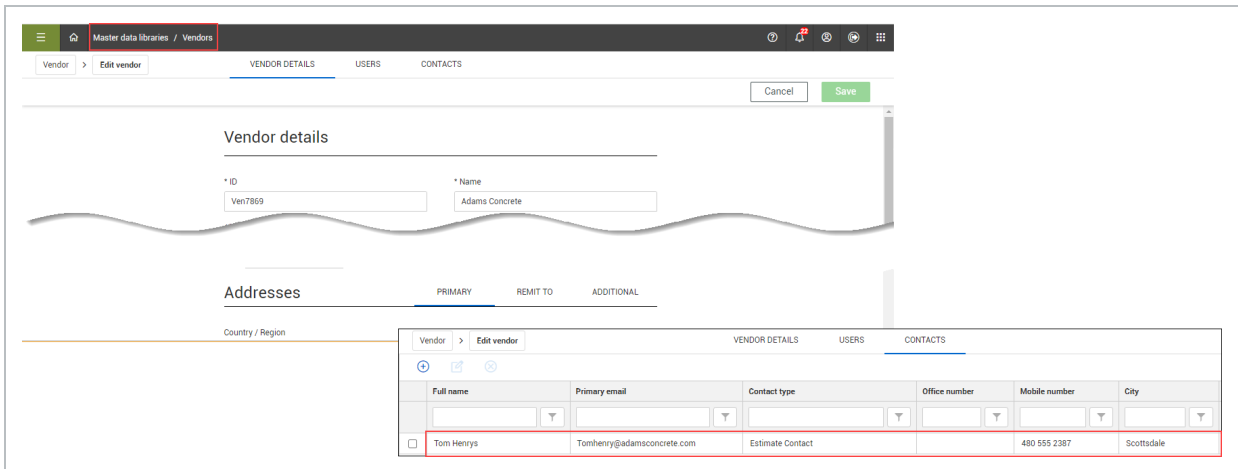
Drag columns here to group

Code	Quote Group	Description	No Split	Free	Awarded	Du
MPP10	Pipe Materials	Pipe 10" PVC SDR21	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MPP24	Pipe Materials	Pipe 24" PVC SDR35	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MPR36	Pipe Materials	Pipe RCP 36 In	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8. Click the new contact **Vendor ID** in the Estimate Address Book Register - Library.



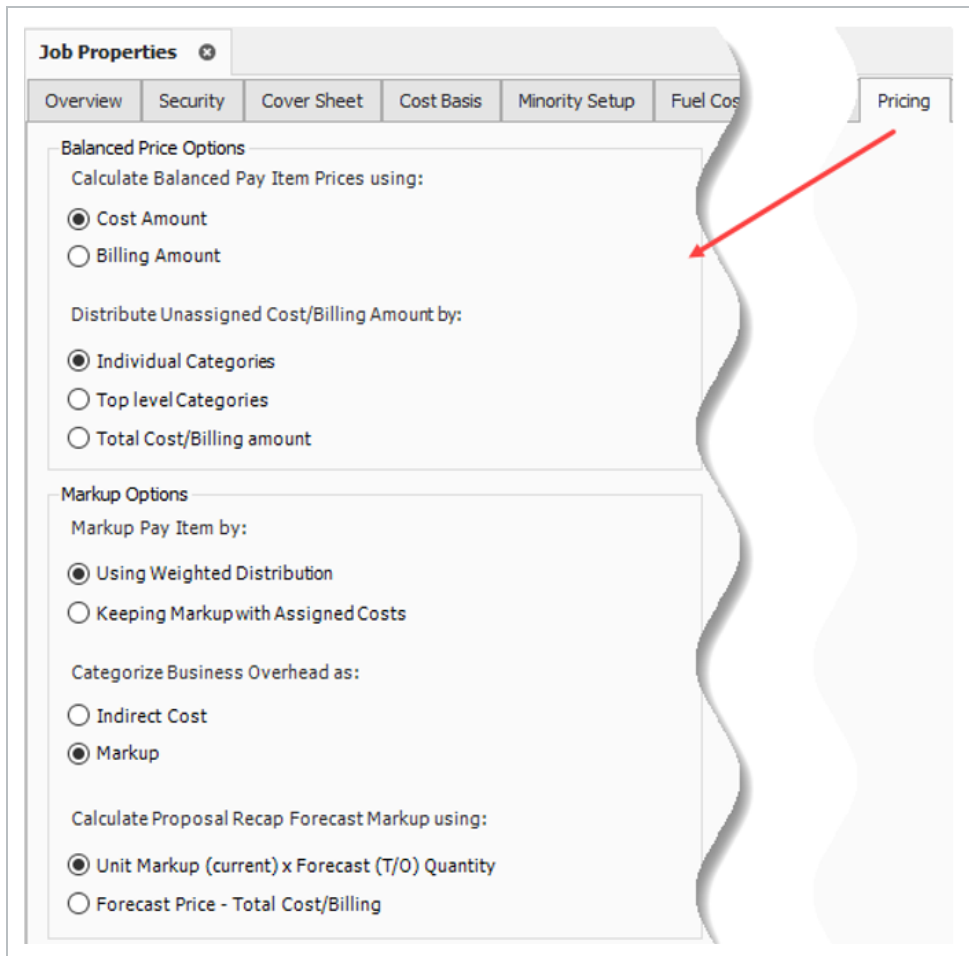
The vendor opens in Project Suite > Master data libraries > **Vendors**, and includes the new contact.



3.4 LIBRARY JOB PROPERTIES PRICING

3.4.1 Job Properties overview

In Job Properties Overview > **Pricing**, there are balanced price and markup options in the bid pricing area which lets you categorize costs, markup various costs in an estimate, and distribute that markup throughout the bid which establishes balanced bid prices.



3.4.2 Balanced Price Options

This option determines if a pay item will use the cost or billing amount values of the assigned cost items as the basis for determining a balanced bid price. This also determines if the AutoPrice command will use the cost or billing amount values.

3.4.2.1 Calculate Balanced Pay Item Prices using Cost Amount:

Balanced Price Options

Calculate Balanced Pay Item Prices using:

Cost Amount

Billing Amount

Price Breakdown Structure										
Description	Assigned	Unassigned	Total	% of Target	% of Subject	Assigned Billing	Unassigned Billing	Total Billing	% of Target	% of Subject
Price Breakdown Structure										
Target Price	\$5,040,796.20	\$1,222,999.47	\$6,263,795.67	100.00		\$5,164,800.00	\$1,123,410.00	\$6,288,210.00	100.00	
Markup	\$0.00	\$896,159.52	\$896,159.52	14.31		\$0.00	\$755,068.85	\$755,068.85	12.01	
Target Profit		\$594,133.61	\$594,133.61	9.49	11.13	\$0.00	\$447,511.92	\$447,511.92	7.12	8.00
Indirect Cost Markup		\$14,730.68	\$14,730.68	0.24	5.00	\$0.00	\$27,331.76	\$27,331.76	0.43	8.00
Direct Cost Markup		\$579,402.94	\$579,402.94	9.25	11.49	\$0.00	\$420,180.16	\$420,180.16	6.68	8.00
Business Overhead	\$0.00	\$302,025.90	\$302,025.90	4.82		\$0.00	\$307,556.93	\$307,556.93	4.89	
Price % Add-On	\$0.00	\$281,870.81	\$281,870.81	4.50		\$0.00	\$281,870.81	\$281,870.81	4.48	
Job Financing	\$0.00	\$5,762.53	\$5,762.53	0.09		\$0.00	\$5,762.53	\$5,762.53	0.09	
Indirect Cost Escalation	\$0.00	\$2,131.11	\$2,131.11	0.03		\$0.00	\$2,983.55	\$2,983.55	0.05	
Direct Cost Escalation	\$0.00	\$12,261.46	\$12,261.46	0.20		\$0.00	\$16,940.05	\$16,940.05	0.27	
Business Overhead Items	\$0.00	\$0.00	\$0.00	0.00		\$0.00	\$0.00	\$0.00	0.00	
Total Cost	\$5,040,796.20	\$326,839.95	\$5,367,636.15	85.69		\$5,164,800.00	\$368,342.37	\$5,533,142.37	87.99	
Indirect Cost	\$0.00	\$325,839.95	\$325,839.95	5.20		\$0.00	\$367,342.37	\$367,342.37	5.84	
Job Overhead	\$0.00	\$325,839.95	\$325,839.95	5.20		\$0.00	\$367,342.37	\$367,342.37	5.84	
Prime Bond	\$0.00	\$45,618.98	\$45,618.98	0.73		\$0.00	\$45,618.98	\$45,618.98	0.73	
Indirect Cost Add-On	\$0.00	\$5,734.95	\$5,734.95	0.09		\$0.00	\$6,640.46	\$6,640.46	0.11	
Direct Cost Add-On	\$0.00	\$99,189.74	\$99,189.74	1.58		\$0.00	\$103,316.14	\$103,316.14	1.64	
Job Overhead Items	\$0.00	\$175,296.28	\$175,296.28	2.80		\$0.00	\$211,766.79	\$211,766.79	3.37	
Direct Cost	\$5,040,796.20	\$1,000.00	\$5,041,796.20	80.49		\$5,164,800.00	\$1,000.00	\$5,165,800.00	82.15	
Direct Cost Items	\$5,040,796.20	\$1,000.00	\$5,041,796.20	80.49		\$5,164,800.00	\$1,000.00	\$5,165,800.00	82.15	

3.4.2.2 Calculate Balanced Pay Item Prices using Billing Amount:

Balanced Price Options

Calculate Balanced Pay Item Prices using:

Cost Amount

Billing Amount

Description	Assigned	Unassigned	Total	% of Target	% of Subject	Assigned Billing	Unassigned Billing	Total Billing	% of Target	% of Subject
Price Breakdown Structure										
▼ Target Price	\$5,040,796.20	\$1,222,999.47	\$6,263,795.67	100.00		\$5,164,800.00	\$1,123,410.00	\$6,288,210.00	100.00	
▼ Markup	\$0.00	\$896,159.52	\$896,159.52	14.31		\$0.00	\$755,068.85	\$755,068.85	12.01	
▼ Target Profit		\$594,133.61	\$594,133.61	9.49	11.13	\$0.00	\$447,511.92	\$447,511.92	7.12	8.00
▼ Indirect Cost Markup		\$14,730.68	\$14,730.68	0.24	5.00	\$0.00	\$27,331.76	\$27,331.76	0.43	8.00
▼ Direct Cost Markup		\$579,402.94	\$579,402.94	9.25	11.49	\$0.00	\$420,180.16	\$420,180.16	6.68	8.00
▼ Business Overhead	\$0.00	\$302,025.90	\$302,025.90	4.82		\$0.00	\$307,556.93	\$307,556.93	4.89	
Price % Add-On	\$0.00	\$281,870.81	\$281,870.81	4.50		\$0.00	\$281,870.81	\$281,870.81	4.48	
Job Financing	\$0.00	\$5,762.53	\$5,762.53	0.09		\$0.00	\$5,762.53	\$5,762.53	0.09	
Indirect Cost Escalation	\$0.00	\$2,131.11	\$2,131.11	0.03		\$0.00	\$2,983.55	\$2,983.55	0.05	
Direct Cost Escalation	\$0.00	\$12,261.46	\$12,261.46	0.20		\$0.00	\$16,940.05	\$16,940.05	0.27	
Business Overhead Items	\$0.00	\$0.00	\$0.00	0.00		\$0.00	\$0.00	\$0.00	0.00	
▼ Total Cost	\$5,040,796.20	\$326,839.95	\$5,367,636.15	85.69		\$5,164,800.00	\$368,342.37	\$5,533,142.37	87.99	
▼ Indirect Cost	\$0.00	\$325,839.95	\$325,839.95	5.20		\$0.00	\$367,342.37	\$367,342.37	5.84	
▼ Job Overhead	\$0.00	\$325,839.95	\$325,839.95	5.20		\$0.00	\$367,342.37	\$367,342.37	5.84	
Prime Bond	\$0.00	\$45,618.98	\$45,618.98	0.73		\$0.00	\$45,618.98	\$45,618.98	0.73	
Indirect Cost Add-On	\$0.00	\$5,734.95	\$5,734.95	0.09		\$0.00	\$6,640.46	\$6,640.46	0.11	
Direct Cost Add-On	\$0.00	\$99,189.74	\$99,189.74	1.58		\$0.00	\$103,316.14	\$103,316.14	1.64	
Job Overhead Items	\$0.00	\$175,296.28	\$175,296.28	2.80		\$0.00	\$211,766.79	\$211,766.79	3.37	
▼ Direct Cost	\$5,040,796.20	\$1,000.00	\$5,041,796.20	80.49		\$5,164,800.00	\$1,000.00	\$5,165,800.00	82.15	
▼ Direct Cost Items	\$5,040,796.20	\$1,000.00	\$5,041,796.20	80.49		\$5,164,800.00	\$1,000.00	\$5,165,800.00	82.15	

3.4.2.3 Distribution of Unassigned Costs/Billing Amount by Individual Categories

Distribute Unassigned Cost/Billing Amount by:

- Individual Categories
- Top level Categories
- Total Cost/Billing amount

Any costs in the estimate not assigned to a pay item needs to be proportionally spread back to all pay items to determine a balanced bid price. This option lets the user choose the basis for calculating the weighted distribution of any unassigned costs plus markup.

- Individual Categories - this option uses each individual cost categories as the basis for establishing the weighted distribution amounts.

Pay Item	Description	Total Cost	Labor									Balanced Price
			Gross Wages			Taxes			Fringes			
			Cost	Weight	Distribution	Cost	Weight	Distribution	Cost	Weight	Distribution	
641 0100	Mobilization	\$13,106	\$1,763	0.9%	\$949	\$588	0.9%	\$290	\$294	0.9%	\$145	
201 0102	Clearing & Grubbing	\$41,346	\$9,994	5.0%	\$5,379	\$3,331	5.0%	\$1,643	\$1,666	5.0%	\$822	
202 0183	Unclassified Excavation	\$90,455	\$20,923	10.4%	\$11,260	\$6,974	10.4%	\$3,441	\$3,487	10.4%	\$1,720	
303 5912	Aggregate Base	\$646,910	\$68,717	34.2%	\$36,981	\$22,906	34.2%	\$11,300	\$11,453	34.2%	\$5,650	
303 4263	Asphalt Concrete Hot Mix Type A	\$1,756,802	\$85,169	42.4%	\$45,835	\$28,390	42.4%	\$14,005	\$14,195	42.4%	\$7,003	
413(B) 0464	36 Inch RCP Culvert Class III	\$73,220	\$14,114	7.0%	\$7,596	\$4,705	7.0%	\$2,321	\$2,352	7.0%	\$1,160	
	Total Direct Costs	\$2,621,839	\$200,681		\$108,000	\$66,894		\$33,000	\$33,447		\$16,500	
	Unassigned Cost	\$300,000	\$90,000			\$30,000			\$15,000			
	Markup	\$45,000	\$18,000			\$3,000			\$1,500			
	Total Distribution	\$345,000	\$108,000			\$33,000			\$16,500			
	Target Price	\$2,966,839										

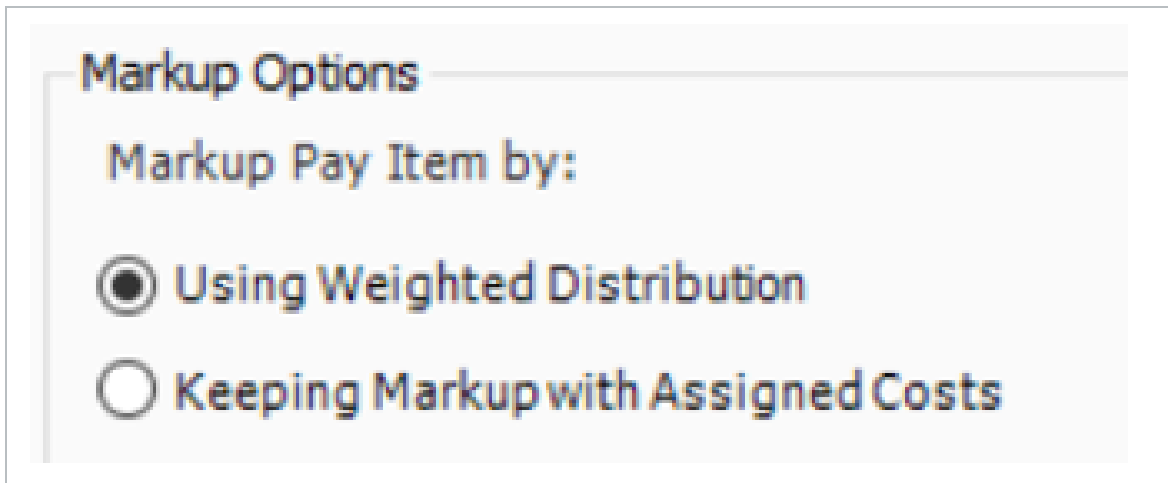
- Top Level Cost Categories - This option uses the ten top level cost categories (labor, owned equipment, rented equipment, supplies, materials, etc.) as the basis for establishing the weighted distribution amounts.

Pay Item	Description	Total Cost	Labor			Owned Equipment			Materials			Balanced Price
			Cost	Weight	Distribution	Cost	Weight	Distribution	Cost	Weight	Distribution	
641 0100	Mobilization	\$13,106	\$2,939	0.9%	\$1,582	\$9,642	2.1%	\$2,332	\$0	0.0%	\$0	\$17,020
201 0102	Clearing & Grubbing	\$41,346	\$16,657	5.0%	\$8,964	\$23,587	5.2%	\$5,705	\$0	0.0%	\$0	\$56,015
202 0183	Unclassified Excavation	\$90,455	\$34,872	10.4%	\$18,767	\$55,583	12.2%	\$13,443	\$0	0.0%	\$0	\$122,665
303 5912	Aggregate Base	\$646,910	\$114,528	34.2%	\$61,635	\$118,815	26.1%	\$28,736	\$394,728	22.6%	\$12,431	\$749,712
303 4263	Asphalt Concrete Hot Mix Type A	\$1,756,802	\$141,949	42.4%	\$76,392	\$235,310	51.7%	\$56,911	\$1,316,700	75.4%	\$41,465	\$1,931,570
413(B) 0464	36 Inch RCP Culvert Class III	\$73,220	\$23,524	7.0%	\$12,660	\$11,877	2.6%	\$2,873	\$35,078	2.0%	\$1,105	\$89,857
	Total Direct Costs	\$2,621,839	\$334,469		\$180,000	\$454,814		\$110,000	\$1,746,506		\$55,000	\$2,966,839
	Unassigned Cost	\$300,000	\$150,000			\$100,000			\$50,000			
	Markup	\$45,000	\$30,000			\$10,000			\$5,000			
	Total Distribution	\$345,000	\$180,000			\$110,000			\$55,000			
	Target Price	\$2,966,839										

- Total Cost[/Billing Amount] - This option uses Total Cost as the basis for establishing the weighted distribution amounts.

Pay Item	Description	Total Cost	Weight	Distribution	Balanced Price
641 0100	Mobilization	\$13,106	0.5%	\$1,725	\$14,831
201 0102	Clearing & Grubbing	\$41,346	1.6%	\$5,441	\$46,787
202 0183	Unclassified Excavation	\$90,455	3.5%	\$11,903	\$102,358
303 5912	Aggregate Base	\$646,910	24.7%	\$85,125	\$732,035
303 4263	Asphalt Concrete Hot Mix Type A	\$1,756,802	67.0%	\$231,172	\$1,987,974
413(B) 0464	36 Inch RCP Culvert Class III	\$73,220	2.8%	\$9,635	\$82,855
	Total Direct Costs	\$2,621,839		\$345,000	\$2,966,839
	Unassigned Cost	\$300,000			
	Markup	\$45,000			
	Total Distribution	\$345,000			
	Target Price	\$2,966,839			

3.4.2.4 Markup Options



This option determines how markup is applied to pay items when establishing a balanced bid price.

- Using Weighted Distribution. Marking up Pay Items using weighted distribution takes the total markup and proportionally spreads the amount using the chosen weighted distribution method.

Pay Item	Description	Total Cost				Weight	Distribution	Balanced Price
		Labor	Equipment	Material	Total			
201 0102	Clearing & Grubbing	\$14,000	\$24,000	\$0	\$38,000	4.0%	\$4,556	\$42,556
202 0183	Unclassified Excavation	\$62,000	\$172,000	\$0	\$234,000	24.8%	\$28,055	\$262,055
303 5912	Aggregate Base	\$112,000	\$157,000	\$404,000	\$673,000	71.2%	\$80,689	\$753,689
	Total Direct Costs	\$188,000	\$353,000	\$404,000	\$945,000		\$113,300	\$1,058,300
	Markup							
	Markup Percent	20%	10%	10%				
	Markup Amount	\$37,600	\$35,300	\$40,400	\$113,300			
	Target Price				\$1,058,300			

- Keeping Markup rates to Assigned Costs. This option uses the cost category amounts of all assigned cost items and calculates the markup by applying markup percentages as defined in the direct and indirect cost markup records. Excluding cost items from the dependency tab of the markup record precludes the application of that markup percentage to the assigned costs on that pay item.

Pay Item	Description	Labor			Equipment			Material			Total		
		Cost	Markup	Price	Cost	Markup	Price	Cost	Markup	Price	Cost	Markup	Price
201 0102	Clearing & Grubbing	\$14,000	\$2,800	\$16,800	\$24,000	\$2,400	\$26,400	\$0	\$0	\$0	\$38,000	\$5,200	\$43,200
202 0183	Unclassified Excavation	\$62,000	\$12,400	\$74,400	\$172,000	\$17,200	\$189,200	\$0	\$0	\$0	\$234,000	\$29,600	\$263,600
303 5912	Aggregate Base	\$112,000	\$22,400	\$134,400	\$157,000	\$15,700	\$172,700	\$404,000	\$40,400	\$444,400	\$673,000	\$78,500	\$751,500
	Total Direct Costs	\$188,000	\$37,600	\$225,600	\$353,000	\$35,300	\$388,300	\$404,000	\$40,400	\$444,400	\$945,000	\$113,300	\$1,058,300
	Markup Percentages												
	Labor	20%											
	Equipment	10%											
	Material	10%											

3.4.2.5 Categorize Business Overhead as Indirect Cost



This option controls where cost items with a cost segment of business overhead appear in the PBS.

- Indirect Cost - Business Overhead is included as a subcategory of indirect costs in the PBS.

Job Properties	Pay Item & Proposal Register	Price Breakdown Structure			Cost Breakdown Structure (C)	
Description	Assigned	Unassigned	Total	% of Target	% of Subject	
▼ ▲ Price Breakdown Structure						
▼ ▲ Target Price	\$5,263,291.67	\$1,259,783.56	\$6,523,075.24	100.00		
▼ ▲ Markup	\$0.00	\$638,732.42	\$638,732.42	9.79		
▶ ▲ Target Profit		\$638,732.42	\$638,732.42	9.79		11.52
▼ ▲ Total Cost	\$5,263,291.67	\$621,051.14	\$5,884,342.81	90.21		
▼ ▲ Indirect Cost	\$0.00	\$620,051.14	\$620,051.14	9.51		
▶ ▲ Business Overhead	\$0.00	\$340,453.76	\$340,453.76	5.22		
▶ ▲ Job Overhead	\$0.00	\$279,597.38	\$279,597.38	4.29		
▼ ▲ Direct Cost	\$5,263,291.67	\$1,000.00	\$5,264,291.67	80.70		
▶ ▲ Direct Cost Items	\$5,263,291.67	\$1,000.00	\$5,264,291.67	80.70		

- Markup - Business Overhead is included as a subcategory of Markup in the PBS.

Job Properties	Pay Item & Proposal Register	Price Breakdown Structure	Cost Breakdown Structure (C		
Description	Assigned	Unassigned	Total	% of Target	% of Subject
▼ ▲ Price Breakdown Structure					
▼ ▲ Target Price	\$5,263,291.67	\$1,259,783.56	\$6,523,075.24	100.00	
▼ ▲ Markup	\$0.00	\$979,186.18	\$979,186.18	15.01	
> ▲ Target Profit		\$638,732.42	\$638,732.42	9.79	11.52
> ▲ Business Overhead	\$0.00	\$340,453.76	\$340,453.76	5.22	
▼ ▲ Total Cost	\$5,263,291.67	\$280,597.38	\$5,543,889.05	84.99	
▼ ▲ Indirect Cost	\$0.00	\$279,597.38	\$279,597.38	4.29	
> ▲ Job Overhead	\$0.00	\$279,597.38	\$279,597.38	4.29	
▼ ▲ Direct Cost	\$5,263,291.67	\$1,000.00	\$5,264,291.67	80.70	
▲ Direct Cost Items	\$5,263,291.67	\$1,000.00	\$5,264,291.67	80.70	

3.4.2.6 Calculate Proposal Recap Forecast Markup

Calculate Proposal Recap Forecast Markup using:

Unit Markup (current) x Forecast (T/O) Quantity

Forecast Price - Total Cost/Billing

This option determines how the Markup is determined in the Forecast column of the Proposal Recap data block on the Pay Item & Proposal form.

- Unit Markup (current) x Forecast (T/O) Quantity - The Forecast Markup amount is determined as the sum of each Pay Items Unit Markup (current) multiplied by the Pay Items Forecast (T/O) Quantity.

Proposal Recap - Training Job									
	Current	Target	Forecast	Variance					
Price:	\$6,455,450.00	\$6,523,075.24	\$6,462,850.00	\$67,625.24	ADD				
Markup:	\$571,107.19	\$638,732.42	\$631,560.32	\$7,172.10	ADD				
Margin%:	8.85	9.79	9.77	\$1,413.30	ADD				

Job Properties	Pay Item & Proposal Register	Price Breakdown Structure	Cost Breakdown Structure (CBS) Register						
Drag columns here to group									
Position Code	Pay Item Number	Description	Forecast (T/O) Quantity	Unit of Measure	Unit Price (current)	Total Price (current)	Unit Markup (current)	Total Markup (current)	Unit (be
+ 1	641 0100	Mobilization	1.00	Lump Sum	\$386,800.00	\$386,800.00	\$370,596.05	\$370,596.05	
+ 2	201 0102	Clearing & Grubbing	10.00	Acre	\$6,120.00	\$61,200.00	\$1,007.30	\$10,072.97	
+ 3	202 0183	Unclassified Excavation	50,000.00	Cubic Yard	\$8.50	\$425,000.00	\$3.04	\$151,909.18	
+ 4	303 5912	Aggregate Base	45,000.00	Ton	\$22.00	\$880,000.00	\$4.64	\$185,711.50	
+ 5	303 4263	Asphalt Concrete Hot Mix Type A	35,000.00	Ton	\$35.00	\$1,330,000.00	(\$12.23)	(\$464,653.94)	
+ 6	413(B) 0464	36 Inch RCP Culvert Class III	1,024.00	Linear Feet	\$100.00	\$100,000.00	\$23.17	\$23,166.27	
+ 7	800 0220	10 Inch PVC Force Main (SDR21)	12,000.00	Linear Feet	\$28.00	\$336,000.00	\$1.46	\$17,550.62	
+ 8	800 0330	24 Inch PVC Gravity Sewer (SDR35)	3,000.00	Linear Feet	\$64.00	\$192,000.00	\$7.46	\$22,394.31	
+ 9	800 0400	4 Foot Diameter Manhole	16.00	Each	\$4,500.00	\$72,000.00	\$448.18	\$7,170.88	
+ 10	501(A) 1306	Structural Excavation & Backfill	800.00	Cubic Yard	\$30.00	\$24,000.00	\$5.25	\$4,201.04	
+ 11	506(A) 1322	Steel Reinforcement	30,000.00	Pound	\$1.60	\$48,000.00	(\$0.01)	(\$363.37)	
+ 12	503(A) 1313	Retaining Wall	850.00	Cubic Yard	\$535.00	\$454,750.00	\$60.79	\$51,669.32	
+ 13	600 0300	Paint Existing Steel Bridge Structure	1.00	Lump Sum	\$100,000.00	\$100,000.00	\$10,918.94	\$10,918.94	
+ 14	700	Process Equipment	1.00	Each	\$1,920,500.00	\$1,920,500.00	\$170,356.68	\$170,356.68	
+ 15	1000	Removal of Underground Storage Tanks	2.00	Each	\$12,500.00	\$25,000.00	\$1,571.46	\$3,142.91	
+ 16	1010	Disposal of Contaminated Soil	800.00	Cubic Yard	\$25.00	\$20,000.00	\$2.25	\$1,802.45	
+ 17	1200 0100	Toll Booth	1.00	Each	\$30,000.00	\$30,000.00	\$2,169.15	\$2,169.15	
+ 18	1500 0100	Guardrail Type 2	1,000.00	Linear Feet	\$24.00	\$24,000.00	(\$2.06)	(\$2,059.88)	
+ 19	1500 0200	Guardrail Type 3A	200.00	Linear Feet	\$31.00	\$6,200.00	(\$2.66)	(\$532.14)	
+ 20	1600 0230	Type 4 Signs	1,000.00	Square Feet	\$13.00	\$13,000.00	(\$1.12)	(\$1,115.77)	
+ 21	CO1	Realignment of Water Line	1.00	Each	\$7,000.00	\$7,000.00	\$7,000.00	\$7,000.00	
						\$6,455,450.00		\$571,107.19	

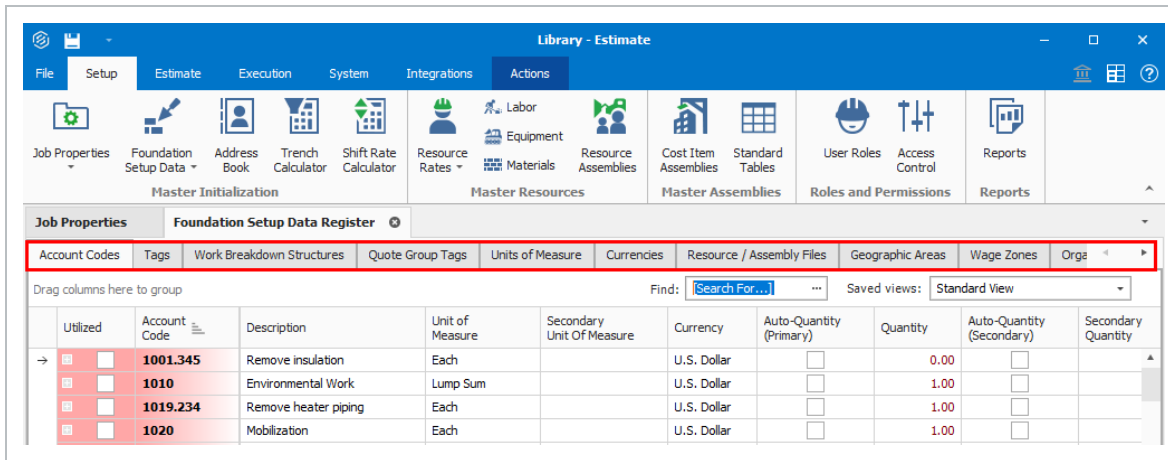
- Forecast Price Total Price - Total Cost/Billing. The markup amount is determined by subtracting the sum of the total jobs cost based on forecast (T/O) quantities from the forecast bid price, which is the sum of all pay item current unit prices multiplied by the pay items forecast (T/O quantity).

Proposal Recap - Training Job					
	Current	Target	Forecast	Variance	
Price:	\$6,455,450.00	\$6,523,075.24	\$6,462,850.00	\$67,625.24	ADD
Markup:	\$571,107.19	\$638,732.42	\$627,743.91	\$10,988.51	ADD
Margin%:	8.85	9.79	9.71	\$5,643.97	ADD

Job Properties		Pay Item & Proposal Register	Price Breakdown Structure	Cost Breakdown Structure (CBS) Register					
Position Code	Pay Item Number	Description	Forecast (T/O) Quantity	Unit of Measure	Unit Price (current)	Total Price (current)	Unit Markup (current)	Total Markup (current)	Unit (ba)
+ 1	641 0100	Mobilization	1.00	Lump Sum	\$386,800.00	\$386,800.00	\$370,596.05	\$370,596.05	
+ 2	201 0102	Clearing & Grubbing	10.00	Acre	\$6,120.00	\$61,200.00	\$1,007.30	\$10,072.97	
+ 3	202 0183	Unclassified Excavation	50,000.00	Cubic Yard	\$8.50	\$425,000.00	\$3.04	\$151,909.18	
+ 4	303 5912	Aggregate Base	45,000.00	Ton	\$22.00	\$880,000.00	\$4.64	\$185,711.50	
+ 5	303 4263	Asphalt Concrete Hot Mix Type A	35,000.00	Ton	\$35.00	\$1,330,000.00	(\$12.23)	(\$464,653.94)	
+ 6	413(B) 0464	36 Inch RCP Culvert Class III	1,024.00	Linear Feet	\$100.00	\$100,000.00	\$23.17	\$23,166.27	
+ 7	800 0220	10 Inch PVC Force Main (SDR21)	12,000.00	Linear Feet	\$28.00	\$336,000.00	\$1.46	\$17,550.62	
+ 8	800 0330	24 Inch PVC Gravity Sewer (SDR35)	3,000.00	Linear Feet	\$64.00	\$192,000.00	\$7.46	\$22,394.31	
+ 9	800 0400	4 Foot Diameter Manhole	16.00	Each	\$4,500.00	\$72,000.00	\$448.18	\$7,170.88	
+ 10	501(A) 1306	Structural Excavation & Backfill	800.00	Cubic Yard	\$30.00	\$24,000.00	\$5.25	\$4,201.04	
+ 11	506(A) 1322	Steel Reinforcement	30,000.00	Pound	\$1.60	\$48,000.00	(\$0.01)	(\$363.37)	
+ 12	503(A) 1313	Retaining Wall	850.00	Cubic Yard	\$535.00	\$454,750.00	\$60.79	\$51,669.32	
+ 13	600 0300	Paint Existing Steel Bridge Structure	1.00	Lump Sum	\$100,000.00	\$100,000.00	\$10,918.94	\$10,918.94	
+ 14	700	Process Equipment	1.00	Each	\$1,920,500.00	\$1,920,500.00	\$170,356.68	\$170,356.68	
+ 15	1000	Removal of Underground Storage Tanks	2.00	Each	\$12,500.00	\$25,000.00	\$1,571.46	\$3,142.91	
+ 16	1010	Disposal of Contaminated Soil	800.00	Cubic Yard	\$25.00	\$20,000.00	\$2.25	\$1,802.45	
+ 17	1200 0100	Toll Booth	1.00	Each	\$30,000.00	\$30,000.00	\$2,169.15	\$2,169.15	
+ 18	1500 0100	Guardrail Type 2	1,000.00	Linear Feet	\$24.00	\$24,000.00	(\$2.06)	(\$2,059.88)	
+ 19	1500 0200	Guardrail Type 3A	200.00	Linear Feet	\$31.00	\$6,200.00	(\$2.66)	(\$532.14)	
+ 20	1600 0230	Type 4 Signs	1,000.00	Square Feet	\$13.00	\$13,000.00	(\$1.12)	(\$1,115.77)	
+ 21	CO1	Realignment of Water Line	1.00	Each	\$7,000.00	\$7,000.00	\$7,000.00	\$7,000.00	
						\$6,462,850.00	\$6,455,450.00	\$571,107.19	

Job Properties		Pay Item & Proposal Register	Price Breakdown Structure	Cost Breakdown Structure (CBS) Register		
CBS Position Code	Description	Optional Code	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)
	JOB		20.00	Mile	\$291,755.30	\$5,835,106.09
	Prime Bond	PRIME BOND	1.00	Lump Sum	\$46,915.38	\$46,915.38
	Price % Add-On	PRICE % ADD-...	1.00	Lump Sum	\$293,538.39	\$293,538.39
	Job Financing	FINANCE EXPE...	1.00	Lump Sum	\$0.00	\$0.00
	Indirect Cost Escalation	INDIRECT COS...	1.00	Lump Sum	\$0.00	\$0.00
	Direct Cost Escalation	DIRECT COST ...	1.00	Lump Sum	\$0.00	\$0.00
	Indirect Cost Add-On	INDIRECT COS...	1.00	Lump Sum	\$0.00	\$0.00
	Job Management & Equipment	JOB MANAGEM...	1.00	Lump Sum	\$157,096.28	\$157,096.28
	General Expense	GENERAL EXPE...	1.00	Lump Sum	\$4,200.00	\$4,200.00
	Direct Cost Add-On	DIRECT COST ...	1.00	Lump Sum	\$104,301.10	\$104,301.10
+ 1	Mobilization	641 0100	1.00	Lump Sum	\$11,909.51	\$11,909.51
+ 2	Clearing & Grubbing	201 0102	10.00	Acre	\$3,918.50	\$39,184.97
+ 3	Unclassified Excavation	202 0183	50,000.00	Cubic Yard	\$4.68	\$233,915.81
+ 3.1	Excavation	3.1	50,000.00	Cubic Yard	\$3.00	\$149,922.88
+ 3.2	Embankment	3.2	50,000.00	Cubic Yard	\$1.68	\$83,992.94
+ 4	Aggregate Base	303 5912	45,000.00	Ton	\$15.40	\$692,928.99
+ 4.1	Furnish & Haul Base Material	4.1	45,000.00	Ton	\$11.54	\$519,513.30
+ 4.2	Finegrade Subgrade	4.2	400,000.00	Square Yard	\$0.19	\$75,848.36
+ 4.3	Install Aggregate Base	4.3	45,000.00	Ton	\$2.17	\$97,567.33
+ 4.3.1	Place Aggregate Base	4.3.1	45,000.00	Ton	\$1.63	\$73,460.92
+ 4.3.2	Blue Top Aggregate Base	4.3.2	400,000.00	Square Yard	\$0.06	\$24,106.42
+ 5	Asphalt Concrete Hot Mix Type A	303 4263	35,000.00	Ton	\$42.62	\$1,491,580.59
+ 5.1	Furnish & Haul Hot Mix	5.1	35,000.00	Ton	\$39.27	\$1,374,562.54
						\$5,835,106.09

Foundation Setup Data is where all drop-down options within Estimate fields are stored. These can serve as category labels, alternate structures or validated tag fields. The different validated fields are organized into tabs on this form.



You should be aware of the category labels on the following table:

Category Labels	
Name	Definition
Account Codes	These codes will be set up on the back end and will help you compare your cost and production rates to similar cost items in past projects.
Tags	Some tags are already set up for you. Additional tags can be created and used to group and filter your items.
Work Breakdown Structures	Use this format when you need to have multiple variations and summary reports of an estimate. WBS retains the same relationships between items as in the original estimate and only changes the view and how items are arranged in hierarchy.
Units of Measure	These are standardized to relate to one another by a conversion factor. If you need to create a new unit of measure, you will need to reference it to a base unit of measure and can include a conversion factor to allow you to convert back and forth between English and Metric.
Currencies	The default currency is set to U.S. Dollar, but you can also enter the exchange rate for other currencies (such as Canadian) so you can estimate with whatever currency you need. Multiple currencies can be used in the same project. The system base currency can be changed from USD in the

Category Labels

backstage view settings, but is a global change for the entire estimate environment.

Currency Name	Exchange Rate	Currency Symbol	Positive Currency Format	Negative Currency Format	Decimal Symbol
CND Dollar	1.00000	\$	\$1.1	(\$1.1)	Period (.)
U.S. Dollar	1.00000	\$	\$1.1	(\$1.1)	Period (.)

When you create a new job folder, all category labels defined in the Library Foundation Setup Data Register will be copied to the new job folder automatically.

3.4.3 Quote group tags user defined fields

You can use three user defined fields (UDF) in the Quote Groups tag register to enter certain key information such as responsible party or certain other attributes for better visibility. If preferred, these UDF fields can be viewed in Quote Compare and Award forms and Session Recap register.

Quote Register												
Foundation Setup Data Register												
Account Codes	Tags	Work Breakdown Structures	Quote Group Tags	Units of Measure	Currencies	Resource / Assembly Files	Geographic Areas	Wage Zones	Organizational Categories	Worker's Comp	Weather Tags	Cost Curves
Drag columns here to group										Find: [Search For...] ...		Saved views: Previous View
Description	Award Status	Utilized In Quotes	Utilized In Resources	Utilized In Cost Items	Reviewed	Last Reviewed	Quote Last Changed	User Defined 1	User Defined 2	User Defined 3		
+ Concrete, Precast	Complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/11/2018 4:00:19 PM	7/11/2018 4:28:31 PM					
+ Concrete, Sitework	Incomplete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/11/2018 4:32:54 PM	3/18/2020 2:40:25 AM					
+ Concrete, Structural	Complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/11/2018 4:15:41 PM	7/11/2018 4:43:23 PM					
+ Doors & Windows	Complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/19/2018 5:40:26 PM	7/19/2018 5:39:08 PM					
+ Electrical	Complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/11/2018 2:09:10 PM	7/11/2018 2:08:49 PM					
+ Finishes (Div 9)	Complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/19/2018 6:10:04 PM	7/20/2018 9:55:41 AM					
+ Fire Protection	Complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/11/2018 1:47:17 PM	7/11/2018 10:30:10 AM	James				
+ Foundations	Complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/11/2018 1:47:17 PM	6/30/2017 5:47:22 PM					
+ HVAC	Incomplete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/11/2018 1:47:17 PM	7/11/2018 1:36:37 PM					
+ Landscaping Work	Complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/11/2018 1:47:17 PM	7/11/2018 1:46:44 PM					
+ Masonry	Complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/11/2018 1:47:17 PM	3/18/2020 2:44:35 AM	Joe	Add Inspection			
+ Plumbing	Incomplete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7/11/2018 1:47:17 PM	7/11/2018 1:36:37 PM					

3.5 RESOURCES

3.6 RESOURCES OVERVIEW

InEight Estimate refers to labor, equipment and material items as Resources. You will use these resources as the basic building blocks used to detail the costs in your estimates.

InEight Estimate organizes resources into seven types:

Resources	
Name	Description
Labor	The human resources that perform direct or indirect work. Direct labor is typically classified by trade (e.g., pipefitters, electricians, iron workers) and title (e.g., foreman, journeyman, laborer).
Construction Equipment	Owned construction equipment.
Rented Construction Equipment	Construction equipment rented from a third party.
Installed Material	Materials that will remain installed on site after the project is completed, (e.g., concrete, piping, aggregate).
Installed Equipment	Equipment that will remain installed on site after the project is completed, (e.g., boilers, heat exchangers, vessels, cooling towers).
Supplies	Expendable items that will not be permanently installed (e.g., small tools, consumables).
Unique	Resources that are of a “unique” nature and do not fit well into the other types (e.g., dump fees, hauling charges and equipment rented by the month).

After creating a new job folder, you can import a filtered set of resources from the Library into the new project. This is done on the Cost Basis tab of the Job Properties form.

In the following section, you will learn more about the resources stored in your Library in the Library Resource Rate Register.

3.7 LIBRARY RESOURCE RATE REGISTER

To open the Library Resources Register, click the **Resources** icon in the Master Resources ribbon. Alternatively, you can click the **Labor**, **Equipment**, or **Materials** icons to navigate directly to those tabs in the register.



Name		Description
1	Tabs	There are tabs along the top of the form for each of the seven resource types, in addition to an <i>All</i> tab that holds the resources of all types. <ul style="list-style-type: none"> • Notice that you are on the Labor Tab
2	Resource Code	Each record (or row in the register) represents a single resource.
3	Description	The Description provides more detail about the resource.
4	Resource Rate per Unit	This is the resource cost per unit.
5	Utilization Count	Tells you how many units of that resource are being used in the job.
6	Unit of Measure	Each resource is defined with a Unit of Measure.
7	Register	This register includes columns for the resource attribute categories so you can filter and group your resources.

The screenshot shows the 'Resource Rate Register' window. Callout 1 points to the window title. Callout 2 points to the 'All' tab. Callout 3 points to the 'Drag column to group' area. Callout 4 points to the 'Unit Cost (Scale 1)' column. Callout 5 points to the 'Utilization Count' column. Callout 6 points to the 'Find: [For...]' search field. Callout 7 points to the 'Saved views: Previous View' dropdown.

Resource Code	Description	Unit Cost (Scale 1)	Unit Cost (Scale 2)	Unit Cost (Scale 3)	Utilization Count	Unit of Measure	Resource File Description	Wage Zone	Organizational Category
+ LC1	Carpenter Apprentice	\$27.48	\$41.22	\$54.96	594.37	Hour	Standard Labor Rate...	Wage Zone A	Carpenter
+ LC2	Carpenter Journey...	\$28.92	\$43.38	\$57.84	1,188.73	Hour	Standard Labor Rate...	Wage Zone A	Carpenter
+ LC3	Carpenter Foreman	\$31.47	\$47.20	\$62.94	594.37	Hour	Standard Labor Rate...	Wage Zone A	Carpenter
+ LF1	Finisher Apprentice	\$26.80	\$40.20	\$53.60	0.00	Hour	Standard Labor Rate...	Wage Zone A	Finisher - Concrete
+ LF2	Finisher	\$28.07	\$42.10	\$56.13	594.37	Hour	Standard Labor Rate...	Wage Zone A	Finisher - Concrete
+ LF3	Finisher Foreman	\$32.32	\$48.48	\$64.64	0.00	Hour	Standard Labor Rate...	Wage Zone A	Finisher - Concrete

Source Job and Source System name fields

The Source Job field provides visibility into the jobs from which the data may have originated from.

The Source System Name helps to see the source of the data when integrating with other systems.

Resource Type	Resource Code	Source Job	Source System Name
+ Construction Equipment Rate	EMTB	Library	System
+ Installed Material Rate	MDIRTB	Library	System
+ Construction Equipment Rate	ETDT	Library	System
+ Supply Rate	SFM	Library	System
+ Supply Rate	SFH	Library	System
+ Installed Material Rate	MPD16	Library	System

You cannot add new resources on the *All* tab. You can search for resources in the Resource Rate Register using the *Find* field.

3.8 RESOURCE RATE RECORD

If you need to add cost to a resource, adjust a rate, or just view a more detailed breakdown, you can open the resource’s rate record. From the Library Resource Rate Register, double click the row header for the resource you need to view in greater detail.

Double click on the row header to open resource rate record

		Resource File Description	Unit of Measure	Productivity Factor	
→	+ LC1	Carpenter Apprentice	Standard Labor Rate...	Hour	1.00
	+ LC1	Carpenter Apprentice	Standard Labor Rate...	Hour	1.00
	+ LC2	Carpenter Journey...	Standard Labor Rate...	Hour	1.00
	+ LC2	Carpenter Journey...	Standard Labor Rate...	Hour	1.00
	+ LC3	Carpenter Foreman	Standard Labor Rate...	Hour	1.00

	Name	Description
1	Record	The record references the resource you are editing.
2	Charge Rate	The Charge Rate tab is the tab the record defaults to and is where you define the cost of the resource.
3	Scale Buttons	The Scale buttons only show up on labor resources. They are used for defining regular time, overtime and double time rates for the resource.
4	Cost Category Breakdown	The Cost Category Breakdown is where you enter the costs for the resource. The categories will depend on what type of resource it is (e.g., equipment resources will have equipment cost categories and materials will have material cost categories).
5	Special Instructions / Base Wage Factors	The right side of the record will have additional options to help you define the rate. These options change depending on what type of resource it is.

Resource Rate Register | Labor Rate Record

Code: * LC1 | Description: Carpenter Apprentice

Setup | Charge Rate | Billing Rate

Scale 1 | Scale 2 | Scale 3 | All Scales

Cost Category Breakdown	Amount	Percent	Is Taxed	Is Insured
Total	Varies			
Labor	Varies			
Labor Base	Varies			
Labor Burden	Varies			
Labor Fringes	Varies			
Labor Insurance	Varies			
Labor Taxes	Varies			
Undefined Labor B...	\$0.00	0.00		
Undefined Labor	\$0.00	0.00		
Materials	\$0.00			
Undefined	\$0.00			

Special Instructions

Use the Materials cost category to add additional labor cost for materials and supplies.

Worker's Comp values for this resource can be adjusted automatically when this resource is employed in a job, based on the geographic location of the work, and the Worker's Comp Override listed on the Cost Item on which the resource is employed.

Standard Worker's Comp Overrides can be defined in the Library's Foundation Setup Data Register.

Base Wage Factors for Overtime

Use Base Wage Factors for Scales 2 and 3

Scale 2 Factor: 1.50 x Base Wage

Scale 3 Factor: 2.00 x Base Wage

This option multiplies the Scale 1 base wage by the factors entered here to automatically calculate the base wage for Scales 2 and 3.

Name	Description
6 Setup	You can define the resource's attributes, plus other settings. These attributes are used for filtering which resource rates to load into a new estimate.
7 Cost Driver	Labor resources default Cost Driver is CI Duration which means their costs are driven by time.
8 Default Quantity	The Default Quantity is typically set to 1 for most cases if you are bringing in the resource you are using at least one.

Setup | Charge Rate | Billing Rate

Resource File: Standard Labor Rate File

Geographic Area: Southwest

Wage Zone: Wage Zone A

Org. Category: Carpenter

Account Code: []

Cost Driver: CI Duration

Cost Curve: Employed Cost Item

Tag 1: Non Union

Tag 2: Hourly

Tag 3: []

Productivity Factor: 1.00

Default Quantity: 1.00

Currency: U.S. Dollar

3.8.1 Use cost item's quantities

In the Setup tab, you can select to use the cost item's quantity as the default quantity for the following resources:

- Installed material
- Installed equipment
- Supplies
- Unique

The screenshot shows the 'Resource Rate Register' window for an 'Installed Equipment Rate Record'. The 'Code' is 'IEBMT' and the 'Description' is 'Blended Material Tank'. The 'Setup' tab is active, showing various configuration fields. A red box highlights the checkbox labeled 'Use Cost Item Quantity as Default Quantity' at the bottom of the form. Other fields include 'Resource File', 'Geographic Area', 'Wage Zone', 'Org. Category', 'Account Code', 'Cost Driver', 'Cost Curve', 'Tag 1-3', 'Quote Group Tag', 'Minority Percent', 'Waste % Add-on', 'Quantity Roll-Up', 'Default Quantity', and 'Currency'.

For more information, see [Use cost item quantity option](#).

3.9 RESOURCES

Resources are used as the basic building blocks to detail costs in your estimates. You can manage the following resources in the Resource Rate Register:

- Labor
- Construction Equipment
- Rented construction equipment
- Installed material

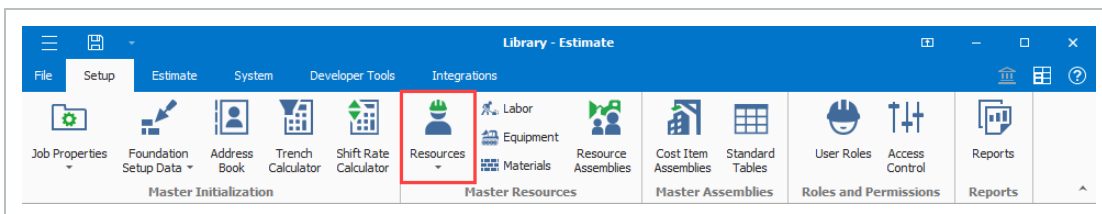
- Installed equipment
- Supplies
- Unique

3.9.1 Labor resources

Labor resources perform direct or indirect work. Looking at your Labor resources more closely, you will see all the Resource Codes for the Labor resources begin with an L. This is a best practice for naming and organizing your resources, but you can also use another organizational method of your choice.

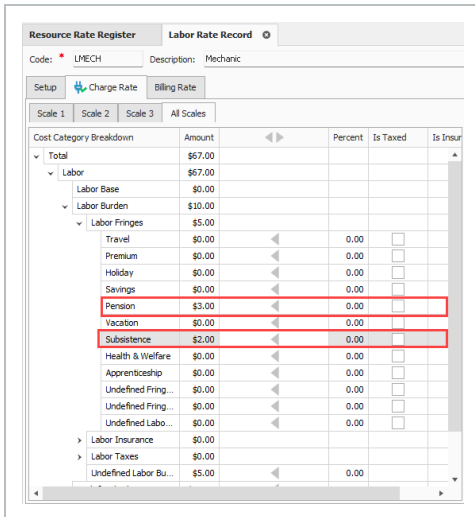
Create a labor resource

1. From the Library landing page, on the Setup tab, click the **Resources** button in the Master Resources section. The Library Resource Rate Register opens



2. Select the **Labor** tab.
4. Right-click any row header and select **New**. A new Labor Rate Record shows.
5. In the Code field, type **L + [your initials]**.
6. Press the **Tab** key.
7. Fill in the Description field.
8. Click on the resource's **Setup** tab, and then select **Standard Labor Rate File** from the Resource File drop-down list.
9. Select a **location** for the Geographic Area.
10. Select **Wage Zone A** for Wage Zone.
11. Select a **labor type** for the Organizational Category.
12. For Tag 1, select a **code**.
13. For Tag 2, select a **code**.

13. On the Charge Rate tab, enter a **dollar value** for your Labor Base.
14. Expand Labor Burden and under Labor Fringes, type in a **dollar value** for Pension and Subsistence.



When you enter a value in the Amount column, the gray arrow **Indicator** icon points to the amount side (left), indicating that the value is entered in that column. When the Percent column amount shows *Varies*, it is because the percent amount varies depending on the amount entered.

When you enter a value in the Percent column, the gray arrow **Indicator** icon points to the percent side (right) indicating that the the value is entered in that column. When the Amount column amount shows *Varies*, it is because the amount varies depending on the percent entered.

Code: * LMECH Description: Mechanic

Setup Charge Rate Billing Rate

Scale 1 Scale 2 Scale 3 All Scales

Cost Category Breakdown	Amount		Percent	Is Taxed	Is Insur
▼ Total	\$69.00				
▼ Labor	\$69.00				
Labor Base	\$0.00				
▼ Labor Burden	\$12.00				
▼ Labor Fringes	\$7.00				
Travel	\$2.00	◀	0.00	<input type="checkbox"/>	
Premium	\$0.00	▶	5.00	<input type="checkbox"/>	
Holiday	\$0.00	◀	0.00	<input type="checkbox"/>	
Savings	\$0.00	◀	0.00	<input type="checkbox"/>	
Pension	\$3.00	◀	0.00	<input type="checkbox"/>	
Vacation	\$0.00	◀	0.00	<input type="checkbox"/>	
Subsistence	\$2.00	◀	0.00	<input type="checkbox"/>	
Health & Welfare	\$0.00	◀	0.00	<input type="checkbox"/>	
Apprenticeship	\$0.00	◀	0.00	<input type="checkbox"/>	
Undefined Fring...	\$0.00	◀	0.00	<input type="checkbox"/>	
Undefined Fring...	\$0.00	◀	0.00	<input type="checkbox"/>	
Undefined Labo...	\$0.00	◀	0.00	<input type="checkbox"/>	
> Labor Insurance	\$0.00				
> Labor Taxes	\$0.00				
Undefined Labor Bu...	\$5.00	◀	0.00		

- Define an overtime and double-time rate for the resource. Select the **checkbox** for Use Base Wage Factors for Scales 2 and 3.
- Set the Scale 2 Factor to **1.50** x Base Wage and Scale 3 Factor to **2.00** x Base Wage.

Base Wage Factors for Overtime

Use Base Wage Factors for Scales 2 and 3

Scale 2 Factor: x Base Wage

Scale 3 Factor: x Base Wage

This option multiplies the Scale 1 base wage by the factors entered here to automatically calculate the base wage for Scales 2 and 3.

- Click **OK**, to close the record.

3.9.2 Construction equipment resources

Similar to Labor Resources, construction equipment resources are also duration driven resources by default. Construction equipment resources contain cost categories for ownership and operation costs

Resource Rate Register												
All	Labor	Construction Equipment	Rented Construction Equipment	Installed Material	Installed Equipment	Supplies	Unique					
Drag columns here to group												
Find: <input type="text" value="Search For..."/> Saved views: <input type="text" value="Previous View"/>												
Resource Code	Description	Resource File Description	Unit of Measure	Productivity Factor	Default Quantity	Waste % Add-on	Unit Cost (Scale 1)	Currency	Utilization Count	Organizational Category	Geograph Area	
+ EAPAV	Asphalt Paver	Standard Equipment Rate...	Hour	1.00	1.00		\$53.40	U.S. Dollar	0.00	Asphalt		
+ EARL	Asphalt Roller	Standard Equipment Rate...	Hour	1.00	1.00		\$21.00	U.S. Dollar	0.00	Asphalt		
+ ECOMP1	Compactor Smooth D...	Standard Equipment Rate...	Hour	1.00	1.00		\$7.00	U.S. Dollar	0.00	Compactor		
+ ECOMP2	Compactor Sheeps F...	Standard Equipment Rate...	Hour	1.00	1.00		\$28.00	U.S. Dollar	0.00	Compactor		
+ ECR110	Crane 110 Ton	Standard Equipment Rate...	Hour	1.00	1.00		\$196.00	U.S. Dollar	0.00	Crane		
+ ECRBT	Boom Truck 15 Ton	Standard Equipment Rate...	Hour	1.00	1.00		\$28.00	U.S. Dollar	0.00	Crane		
+ ECRHC	Hydraulic Crane 25 Ton	Standard Equipment Rate...	Hour	1.00	1.00		\$84.00	U.S. Dollar	0.00	Crane		
+ ED6	Dozer D6	Standard Equipment Rate...	Hour	1.00	1.00		\$84.00	U.S. Dollar	0.00	Dozer		
+ ED8	Dozer D8	Standard Equipment Rate...	Hour	1.00	1.00		\$140.00	U.S. Dollar	0.00	Dozer		
+ EG14G	Grader 14G	Standard Equipment Rate...	Hour	1.00	1.00		\$35.00	U.S. Dollar	0.00	Grader		
+ EG16GH	Grader 160H	Standard Equipment Rate...	Hour	1.00	1.00		\$91.00	U.S. Dollar	0.00	Grader		

These resources are the fleet of construction equipment that you own.

3.9.3 Rented construction equipment resources

Rented construction equipment resources represent the construction equipment that you rent and are duration driven resources by default. They contain cost categories for rental and operation cost as well as additional fees.

On the Rental Construction Equipment Record, you can view a tab named *Quote*. In the Tax section, you can select the check box to **Apply Standard Tax**, which pulls the Sales Tax percentage defined on the Cost Basis tab in Job Properties. You can also manually specify a unique sales tax rate

Tax

Apply Standard Tax

Unique Sales Tax Rate: %

Create a rented construction equipment resource

1. Open the Library Resource Rates Register.
2. Select the **Rented Construction Equipment** tab.
3. Right-click any row header, and then choose **New**. A new Installed Rented Equipment Rate Record shows.
4. In the Code field, type **RECR + [your initials]**, and then press **Tab**.
5. In the Description field, type **Crane 110 Ton**.
6. Click the resource's **Setup** tab, and then select **Standard Rental Rate File** from the Resource File drop-down list.
7. Select a resource from the Organizational Category drop-down list.

The screenshot shows a software window with the following fields and tabs:

- Code:** RECR110
- Description:** Crane 110 Ton
- Tabs:** Setup (selected), Charge Rate, Quote, Billing Rate
- Resource File:** Standard Rental Rate File (dropdown)
- Geographic Area:** (dropdown)
- Wage Zone:** (dropdown)
- Org. Category:** Crane (dropdown)
- Account Code:** (text field)
- User Defined 1-5:** (five empty text fields)

8. Click the **Charge Rate** tab, and then enter the charge rate using the relevant fields. You can also use the Non-Hourly Period Charge Rates section on the bottom left to calculate hourly rates for fixed rates such as weekly or monthly rates. See the **Non-Hourly Rate Calculator** section below.

3.9.3.1 Equipment consumption rates

The Construction Equipment and Rented Construction Equipment Resource Rate Records include consumption rates that factor with the fuel cost you define on the **Library Job Properties > Fuel Cost** tab to give a fuel cost for your equipment rate.

Job Properties **Construction Equipment Rate Record**

Code: * EAPAV Description: Asphalt Paver

Setup Charge Rate Billing Rate

Cost Category Breakdown	Amount
Total	\$199.00
Owned Equipment	\$199.00
OE Ownership	\$0.00
OE Operation	\$199.00
OE Repair Parts	\$0.00
OE Repair Labor	\$0.00
OE Fuel	\$144.00
OE Lube	\$0.00

Fuel

Fuel Type: Gasoline Consumption Rate: 12.00 Gallon/Hour

Consumption Rate factored with cost per liter gives you a fuel cost.

Automatically calculate Maintenance Labor Man-Hours for this resource

The below figure shows where consumption rates are defined on the Construction Equipment Resource Rate Record.

3.9.3.2 Non-hourly rate calculator

For owned and rented construction equipment, the rate entered must be hourly. If your rate is weekly or monthly, you can use the Non-Hourly Rate Calculator on the Construction Equipment Resource Record to come up with the hourly rate.

Using the Non-hourly rate calculator

1. Refer back to your last entry's rate amount. Under Non-Hourly Period Charge Rates on the right, check the **Calculate Non-Hourly Period Charge Rates** check box.
2. On the resulting prompt, click **OK**.
3. In the Period field, select **Weekly**.
4. In the Amount Per Period field, type in a number value.
5. Type in a number of hours in the Hours Per Period field.

Non-Hourly Period Charge Rates

Calculate Non-Hourly Period Charge Rates for RE Rental

Period:

Amount Per Period:

Hours Per Period:

Code: * Description:

Cost Category Breakdown	Amount
▼ Total	\$200.00
▶ Rented Equipment	\$200.00
▶ Fees	\$0.00
Undefined	\$0.00

6. Click **OK** to close the record.

3.9.4 Installed materials, installed equipment, and supplies resources

When you compare the Installed Material & Equipment resources to those covered so far, you will note that the unit of measure is not Hour for materials, but it is specific to the kind of material. It is a quantity-driven resource, as opposed to duration-driven like your labor and equipment resources.

You will also note the tax field can pull your standard tax settings from the Cost Basis tab in Job Properties, or a unique sales tax rate can be manually entered in each record.

On record for these resource types, you notice a tab named *Quote*. This tab shows because you may have to shop around and get quotes for these resources.

In the Setup tab a field named *Waste % Add-on* shows. Here you can account for approximate waste percentages

Cost categories differ on each type of resource record.

Job Properties		Resource Rate Register				
All	Labor	Construction Equipment	Rented Construction Equipment	Installed Material	Installed Equipment	Supplies
Drag columns here to group						
Resource Code	Description	Unit Cost (Scale 1)	Utilization Count	Unit of Measure	Resource File Description	
+ MAAM	Asphalt Mix (Finish)	\$32.50	0.00	Ton	Standard Material Rate...	
+ MAC	Asphalt Cement	\$195.00	0.00	Ton	Standard Material Rate...	
+ MACA1-1/2	Coarse Aggregate 1-1/2 In	\$9.10	0.00	Ton	Standard Material Rate...	
+ MAFA	Fine Aggregate	\$7.80	0.00	Ton	Standard Material Rate...	
+ MAHAUL	Aggregate Haul Quarry to P...	\$2.60	0.00	Ton	Standard Material Rate...	
+ MAIA3/4	Intermediate Aggregate 3/4...	\$10.40	0.00	Ton	Standard Material Rate...	
+ MASAND	Sand	\$7.80	0.00	Ton	Standard Material Rate...	
+ MATK	Tack	\$1.30	0.00	Gallon	Standard Material Rate...	
+ MBR	Aggregate Base Rock	\$8.45	0.00	Ton	Standard Material Rate...	
+ MC2000	Concrete 4000 PSI	\$110.50	0.00	Cubic Yard	Standard Material Rate...	
+ MC3500	Concrete 3500 PSI	\$104.00	0.00	Cubic Yard	Standard Material Rate...	
+ MDIRTA	Dirt Class A	\$1.30	0.00	Cubic Yard	Standard Material Rate...	
+ MDIRTB	Dirt Class B	\$6.50	0.00	Ton	Standard Material Rate...	

Above is an example of the Installed Material tab in the Library Resource Rate Register.

Create an installed material resource

1. Select **Resource Rates** from the Library landing page. The Resource Rate Register displays
2. Select the **Installed Material** tab.
3. Right-click any row header, and then select **New** from the drop-down menu. A new Installed Material Rate Record shows.
4. In the Code field, type **MGBP + [your initials]**, , and then press **Tab**.
5. In the Description field, type **Brick Pavers**.
6. Select a unit of measure from the Unit of Measure drop-down list.
7. On the resource's Setup tab, under Resource File select **Standard Material Rate File**.
8. On the Charge Rate tab, expand Materials, and then enter a number value in the Installed

Materials Amount field.

Cost Category Breakdown	Amount
Total	\$5.00
Materials	\$5.00
Installed Materials	\$5.00
Undefined Materials	\$0.00
Fees	\$0.00
Undefined	\$0.00

9. Click **OK** to finish adding this resource.

3.9.5 Unique resources

The Unique resource type is a catch-all and can be used for anything from dump fees and security to creating subcontractors as a resource.

The Unique resources are the only resources that have all cost categories available, as well as all units of measure.

Notice the tax field which can pull your standard tax settings from the Cost Basis tab in Job Properties, or a unique sales tax rate can be manually entered in each record.

Resource Code	Description	Resource File Description	Unit of Measure	Productivity Factor	Default Quantity	Waste % Add-on	Unit Cost (Scale 1)	Currency	Utilization Count	Organization Category
+ UCRANE	Crane by the Month	Standard Unique Rate...	Month		1.00	0.00	\$16,500.00	U.S. Dollar	0.00	
+ UDFL	Disposal Fee for Liquids	Standard Unique Rate...	Gallon		1.00	0.00	\$6.00	U.S. Dollar	0.00	Earthwork
+ UDUMP	Dump Fees	Standard Unique Rate...	Load		1.00	0.00	\$100.00	U.S. Dollar	0.00	Earthwork
+ UHAUL	Haul to Job Site 15-20 Miles	Standard Unique Rate...	Ton		1.00	0.00	\$3.00	U.S. Dollar	0.00	Earthwork
+ UPD	Per Diem	Standard Unique Rate...	Day		1.00	0.00	\$150.00	U.S. Dollar	0.00	
+ USS	Security Service	Standard Unique Rate...	Week		1.00	0.00	\$500.00	U.S. Dollar	0.00	

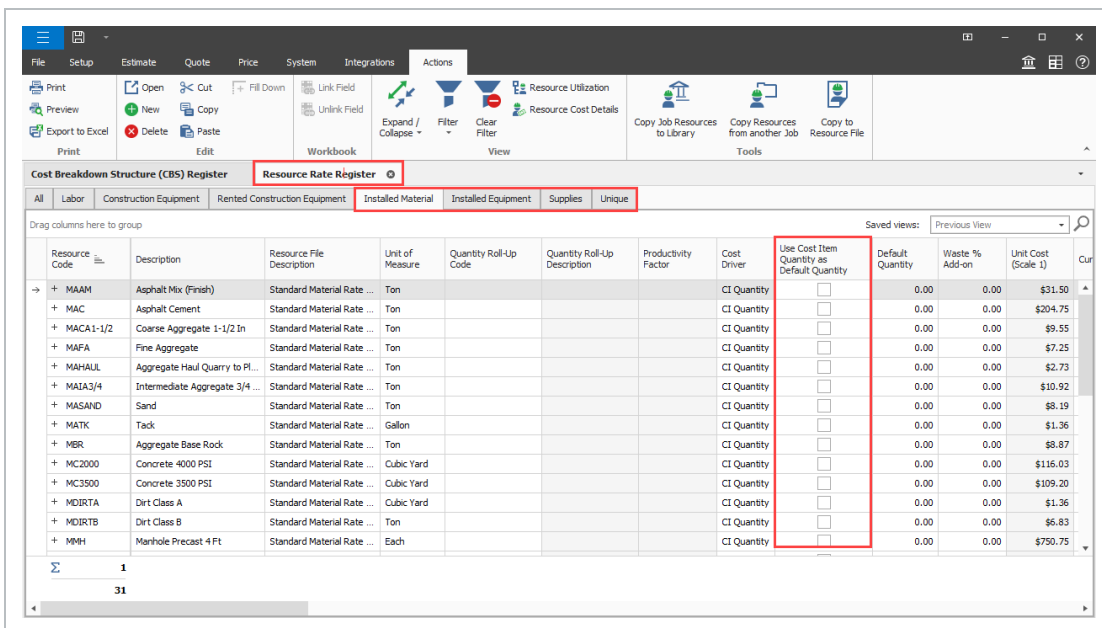
3.10 USE COST ITEM QUANTITY OPTION

In the Resource Rate Register, you can select the *Use Cost Item Quantity as Default Quantity* option for resource rate records. When you select resources in your estimate and the option is selected, the resource rate record inherits the cost item quantity. This saves you time and helps prevent potential

mistakes by eliminating the need to manually re-enter the resources quantity after employing resources.

In the *Use Cost Item Quantity as Default Quantity* column, select the check box for the resource you want to use the cost item quantity as the default quantity. This feature is available for the following quantity based resources:

- Installed material
- Installed equipment
- Supplies
- Unique



Typically, in the Resource Rate Register, resource quantities are set to either zero or one and are employed with those quantities. When the *Use Cost Item Quantity as Default Quantity* check box is selected and you employ a resource with a quantity of one into a cost item with a quantity of 5,000 cubic yards, the newly employed resources inherit the cost item’s quantity of 5,000 cubic yards.

In the example below, the resource *2500 psi Mix* is employed in cost item *Concrete Materials*. When employed, the resource inherits the cost item’s quantity of 5,000 cubic yards.

Resource Code	Description	Use Cost Item Quantity as Default Quantity	Resource File Description	Unit of Measure	Quantity Roll Code			
MCONC2500...	2500 psi Mix	<input checked="" type="checkbox"/>		Cubic Yard				
MCONC2500...	2500 psi Steel Fiber Reinforced	<input type="checkbox"/>	H-C Ductbank	Cubic Yard				
MCONC4500...	3.1.2.2 Concrete Supplies, Materials, Subcontracts				4,000.00 Cubic Yard			
MCONC4500...	3.1.2.2.1 Concrete Supplies				1.00 Lump Sum			
MCONC4500...	3.1.2.2.1 Concrete Supplies				12,000.00 Hour			
MCONC5000...	3.1.2.2.2 Concrete Materials				5,000.00 Cubic Yard			
MCONCAB	An							
MCONCADMIX	Ad							
	Row Number	Code	Resource Assembly	Description	Quantity (Less Waste)	Waste % Add-on	Quantity	Unit of Measure
	1	MCONC2500...		2500 psi Mix	5,000.00	0.00	5,000.00	Cubic Yard
		3.1.2.2.3		Concrete Subcontracts			1.00	Lump Sum
		3.1.3		Pine			74,000.00	Linear Feet

The cost item’s quantity is inherited for any employed resources when you employ the same resource to multiple cost items or employ multiple resources at a time.

The *Use Cost Item Quantity as Default Quantity* option is also available to select when creating or editing a resource rate record.

Resource Rate Register | Installed Equipment Rate Record

Code: * IEBMT | Description: Blended Material Tank

Setup | Charge Rate | Quote | Billing Rate

Resource File: Standard Installed Equipment ... | User Defined 1: |

Geographic Area: | User Defined 2: |

Wage Zone: | User Defined 3: |

Org. Category: Remediation | User Defined 4: |

Account Code: | User Defined 5: |

Cost Driver: CI Quantity | User Defined 6: |

Cost Curve: Employed Cost Item | User Defined 7: |

Tag 1: | User Defined 8: |

Tag 2: | User Defined 9: |

Tag 3: | User Defined 10: |

Quote Group Tag: None | Notes: |

Minority Percent: 100.00

Waste % Add-on: 0.00

Quantity Roll-Up: |

Last Changed On: 1 | Last Changed By: H

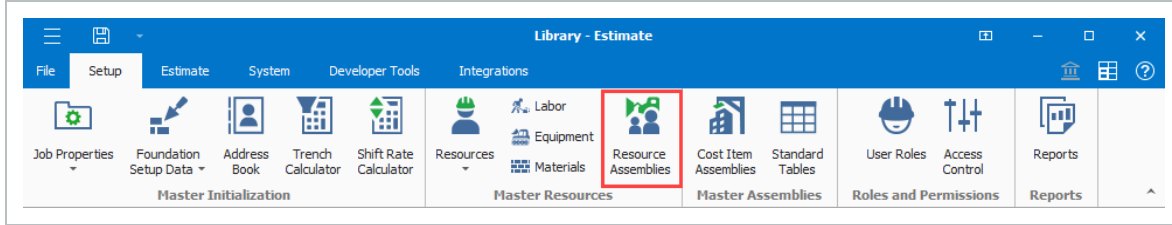
Default Quantity: 1.00

Use Cost Item Quantity as Default Quantity

Currency: U.S. Dollar

3.11 RESOURCE ASSEMBLIES

A Resource Assembly is a group of resources. You can create an assembly once and then reuse it as needed in multiple cost items whenever the same combination of resources is needed.



The most common use for an assembly is to group labor resources into crews (e.g., Pipe Crew, Concrete Crew); however, any resource (equipment, materials, etc.) may be grouped into an assembly. Utilizing assemblies allows you to estimate faster, since you can add and manage an entire group of resources at once.

You can create assemblies in the Library and import them into job folders the same way you import resources.

3.11.1 Library resource assembly register

To open the Library Resource Assembly Register, select the **Library** icon, and then select **Resource Assemblies** from the Master Resources section of the Setup tab. The Resource Assembly Register opens.

The following image and table shows an overview of the library Resource Assembly Register.

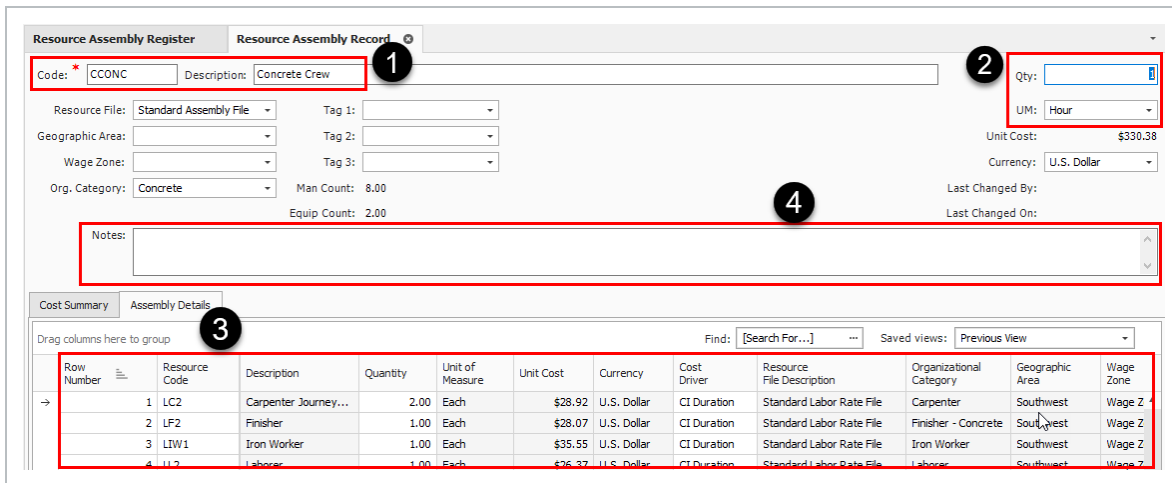
Code	Description	Resource File Description	Quantity	Unit of Measure	Unit Cost	Total Cost	Currency	Organizational Category	Geographic Area	Wage Zone	Man Count
CCONC	Concrete Crew	Standard Assembly...	1.00	Hour	\$330.38	\$330.38	U.S. Dollar	Concrete			
1	LC2	Carpenter Journeyman	2.00	Each	\$28.92	U.S. Dollar	CI Dura...	Standard Labor Rate File	Carpenter	Southwest	Wage Zon...
2	LF2	Finisher	1.00	Each	\$28.07	U.S. Dollar	CI Dura...	Standard Labor Rate File	Finisher - Conc...	Southwest	Wage Zon...
3	LIW1	Iron Worker	1.00	Each	\$35.55	U.S. Dollar	CI Dura...	Standard Labor Rate File	Iron Worker	Southwest	Wage Zon...
4	LL2	Laborer	1.00	Each	\$26.37	U.S. Dollar	CI Dura...	Standard Labor Rate File	Laborer	Southwest	Wage Zon...
5	ECRHC	Hydraulic Crane 25 Ton	1.00	Each	\$84.00	U.S. Dollar	CI Dura...	Standard Equipment Rate...	Crane		
6	LC1	Carpenter Apprentice	1.00	Each	\$27.48	U.S. Dollar	CI Dura...	Standard Labor Rate File	Carpenter	Southwest	Wage Zon...
7	LO2	Operator Class 2	1.00	Each	\$30.21	U.S. Dollar	CI Dura...	Standard Labor Rate File	Operator	Southwest	Wage Zon...
8	ETFT	Flatbed Truck	1.00	Each	\$7.00	U.S. Dollar	CI Dura...	Standard Equipment Rate...	Truck		
9	LC3	Carpenter Foreman	1.00	Each	\$33.87	U.S. Dollar	CI Dura...	Standard Labor Rate File	Carpenter	Southwest	Wage Zon...
CGRADE	Grading Crew	Standard Assembly...	1.00	Hour	\$175.06	\$175.06	U.S. Dollar	Earthwork			
CMAINT	Equipment Maintenance	Standard Assembly...	1.00	Each	\$58.00	\$58.00	U.S. Dollar	Mechanic			
CPAVE	Paving Crew	Standard Assembly...	1.00	Hour	\$346.04	\$346.04	U.S. Dollar	Asphalt			

Section	Description
1	Each row in the register represents a single resource assembly and is defined with an Assembly Code and Assembly Description.
2	Each assembly can be expanded by clicking the plus \oplus icon next to its Assembly Code.
3	Expanding an assembly reveals the list of resources that make up that assembly. <ul style="list-style-type: none"> Best practice for creating Assembly codes is to use C for Crew Assemblies, M for Material Assemblies, etc., however you can have labor, equipment, and materials in the same assembly

3.11.2 Resource assembly record

To open an existing Resource Assembly Record, right-click on the row header of an assembly (row) on the Resource Assembly Register, and then select **Open**.

The following image and table show an overview of the resource assembly record.



Name	Description
1 Assembly Code and Description	Each assembly is defined with an assembly Code and an assembly Description.
2 Quantity	Each assembly has a quantity and unit of measure. The default is 1 EA.

Name	Description
and Unit of Measure	For crew assemblies with all hourly duration driven resources, it is a best practice to change the Qty to Hour, so that when used on a cost item, it will show you the assembly's unit cost per hour.
3 Assembly Details	The rows in the Assembly Details register represent the resources that make up the resource assembly.
4 Notes	An area where the estimators make notes for records related to the resource assemblies for work orders which is commonly performed by a type of crew.

3.11.2.1 Productivity rate indicator in the CBS register

The Productivity Indicator shows the field that contains the as-entered value and is driving the estimate for that cost item. This appears as an arrow aligned to the left of the cell as shown below.

Description	Forecast (T/D) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Currency	Hours (Duration driven)	Hours (Non-Duration driven)
JOB	20.00	Mile	\$228,294.37	\$4,565,887.34	U.S. Dollar	5,191.90	15.36
Prime Bond	1.00	Lump Sum	\$39,357.30	\$39,357.30	U.S. Dollar		
Price % Add-On	1.00	Lump Sum	\$225,515.71	\$225,515.71	U.S. Dollar		
Job Financing	1.00	Lump Sum	\$0.00	\$0.00	U.S. Dollar		
Indirect Cost Escalation	1.00	Lump Sum	\$0.00	\$0.00	U.S. Dollar		
Direct Cost Escalation	1.00	Lump Sum	\$0.00	\$0.00	U.S. Dollar		
Indirect Cost Add-On	1.00	Lump Sum	\$0.00	\$0.00	U.S. Dollar		
Job Management & Equipment	1.00	Lump Sum	\$157,096.28	\$157,096.28	U.S. Dollar	800.00	0.00
General Expense	1.00	Lump Sum	\$4,200.00	\$4,200.00	U.S. Dollar	0.00	0.00
Direct Cost Add-On	1.00	Lump Sum	\$80,770.35	\$80,770.35	U.S. Dollar		
Mobilization	1.00	Lump Sum	\$13,335.70	\$13,335.70	U.S. Dollar	▶ 90.00	0.00
Clearing & Grubbing	10.00	Acre	\$3,518.50	\$39,184.97	U.S. Dollar	80.00	0.00
Unclassified Excavation	50,000.00	Cubic Yard	\$2.21	\$110,560.40	U.S. Dollar	294.67	0.00
Excavation	50,000.00	Cubic Yard	\$0.66	\$33,100.80	U.S. Dollar	128.00	0.00
Embankment	50,000.00	Cubic Yard	\$1.55	\$77,459.60	U.S. Dollar	166.67	0.00

Being able to see productivity drivers on the CBS register makes it easier to review and modify the estimate as a whole while reducing the potential to accidentally overwrite a manually entered data.

Follow the step by step below to create a Resource Assembly.

Create a resource assembly

1. From the Library landing page, under the Master Resources section of the Setup tab, select **Resource Assemblies**. The Resource Assembly Register shows.
2. Right-click on any **row header**, and then select **New** from the drop-down menu. A new Resource Assembly Record is shown.

3. In the Code field, type a code as the unique code for the assembly. For example, you can type *CEXC + [your initials]*.
4. Add a description in the Description field.
5. In the Assembly Details register at the bottom of the screen, click in the **Resource Code** column in the first blank row, and then select the **Resource** icon that shows in the cell.
6. On the Labor tab of the resulting register, select the resource with your description. For example, you can select **LL2Laborer**, and then click **OK** to add this resource to the assembly.
7. You can add additional resources if needed.

You can use the Ctrl and Shift keys to select multiple resources at once.

8. Click **OK** to save and close the new assembly.

Resource Assembly Register					
Drag columns here to group					
	Code	Description	Resource File Description	Quantity	Unit of Measure
	+ CCONC	Concrete Crew	Standard Assembly...	1.00	Hour
→	+ CEXCPB	Excavation Assembly		1.00	Each
	+ CGRADE	Grading Crew	Standard Assembly...	1.00	Hour
	+ CMAINT	Equipment Maintenance	Standard Assembly...	1.00	Each

Exercise 3.1 – Create resources & resource assemblies

In this exercise, you will practice creating resources and assemblies in the InEight Estimate Library. In the Library Resource Rate Register, create resources with the following variables:

Labor Resource

Resource Code	LSFA	Wage Zone	Wage Zone A
Resource Description	Field Administrator	Organizational Category	Supervision
Geographic Area	Southwest	Scale 1 Labor Base	\$33.45
Scale 1 Premium	2 percent	Scale 1 Subsistence	\$0.47
Resource File	Standard Labor Rate File		

Select the checkbox for **Use Base Wage Factors for Scales 2 and 3**.

Scale 2 Factor: 1.50 x Base Wage. **Scale 3 Factor:** 2.00 x Base Wage.

Rented Construction Equipment Resources

Rented Construction Equipment Resource			
Resource Code	RPW3000	RE Rental Amount	\$3.40
Resource Description	Pressure Washer 3000 PSI	Organizational Category	Clean & Inspect
Resource File	Standard Rental Rate File		
Installed Material Resource			
Resource Code	MCCB	Installed Materials Amount	\$300.00
Resource Description	Pre-Cast Concrete Catch Basin	Organizational Category	Concrete
Resource File	Standard Material Rate File		
Unit of Measure	Each		

Uncheck the box for **Apply Standard Tax** and enter a **Unique Sales Tax Rate:** 6%

In the Library Resource Assembly Rate Register, create resource assemblies with the following codes, descriptions, and resources.

Assembly #1

Assembly Code	CBRIDGE	
Assembly Description	Bridge Crew	
Resource File	Standard Assembly File	
Unit of Measure	Hour	
Select Wage Zone A Labor Resources for this Assembly.		
Resources on Assembly	Resource Description	Resource Quantity
LC3	Carpenter Foreman	1
LL2	Laborer	2
LF2	Finisher	1
LC2	Carpenter Journeyman	2

Assembly #2

Assembly Code	CRIPRAP	
Assembly Description	Rip Rap Replacement Crew	
Resource File	Standard Assembly File	
Unit of Measure	Hour	
Select Wage Zone A Labor Resources for this Assembly.		
Resources on Assembly	Resource Description	Resource Quantity
LT2	Teamster Foreman	.5
LO3	Operator Class 3	1
LL2	Laborer	2
EX510	Backhoe JD 510	1

Assembly #2 (continued)

ETPU	Pickup	1
EL950	Loader 950	1

You should end up with similar results:

Resource Code	Resource File Description	Organizational Category	Geographic Area	Wage Zone	Description	Unit of Measure
- LSFA	Standard Labor Rate File	Supervision	Southwest		Field Administrator	Hour
	Scale	Total	Labor	Labor Base	Labor Burden	Labor Fringes
→	1	\$33.92	\$33.92	\$33.45	\$0.47	\$0.47
	2	\$50.18	\$50.18	\$50.18	\$0.00	\$0.00
	3	\$66.90	\$66.90	\$66.90	\$0.00	\$0.00

Resource Code / Description	Resource File Description	Unit of Measure	Unit Cost (Scale 1)	Currency	Organizational Category			
RPW3000 Pressure Washer 3000 PSI	Standard Rental Rate File	Hour	\$3.40	U.S. Dollar	Clean & Inspect			
Total	Rented Equipment	RE Rental	RE Rent Expense	RE Overhead	RE Finance Expense	RE Insurance	RE License	RE
\$3.40	\$3.40	\$3.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	

Resource Code / Description	Resource File Description	Unit of Measure	Unit Cost (Scale 1)	Currency	Organizational Category				
MCCB Pre-Cast Concrete Catch Basin	Standard Material Rate File	Each	\$318.00	U.S. Dollar	Concrete				
Total	Materials	Installed Materials	Undefined Materials	Fees	Sales Taxes	Undefined Fees	Undefined	Billing Rate	Billing Mark
\$318.00	\$300.00	\$0.00	\$300.00	\$18.00	\$18.00	\$0.00	\$0.00	\$318.00	

Assembly Code / Description	Resource File Description	Quantity	Unit of Measure	Unit Cost	Total Cost	Currency	Organizational Category	Geographic Area	Wage Zone	
- CBRIDGE Bridge Crew	Standard Assembly File	1.00	Hour	\$170.11	\$170.11	U.S. Dollar				
Row Number / Resource Code	Description	Quantity	Unit of Measure	Unit Cost	Currency	Cost Driver	Resource File Description	Organizational Category	Geographic Area	Wage Zone
1 LC2	Carpenter Journeyman	2.00	Each	\$28.92	U.S. Dollar	CI Duration	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A
2 LC3	Carpenter Foreman	1.00	Each	\$31.47	U.S. Dollar	CI Duration	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A
3 LF2	Finisher	1.00	Each	\$28.07	U.S. Dollar	CI Duration	Standard Labor Rate File	Finisher - Concrete	Southwest	Wage Zone A
4 LL2	Laborer	2.00	Each	\$26.37	U.S. Dollar	CI Duration	Standard Labor Rate File	Laborer	Southwest	Wage Zone A

Code	Description	Resource File Description	Quantity	Unit of Measure	Unit Cost	Total Cost	Currency	Organizational Category	Geographic Area	Wage Zone	
- CRIPRAP	Rip Rap Replacement Crew	Standard Assembly...	1.00	Hour	\$152.89	\$152.89	U.S. Dollar				
Row Number	Resource Code	Description	Quantity	Unit of Measure	Unit Cost	Currency	Cost Driver	Resource File Description	Organizational Category	Geographic Area	Wage Zone
1	LL2	Laborer	2.00	Each	\$26.37	U.S. Dollar	CI Duration	Standard Labor Rate File	Laborer	Southwest	Wage Zone...
2	LO3	Operator Class 3	1.00	Each	\$30.62	U.S. Dollar	CI Duration	Standard Labor Rate File	Operator	Southwest	Wage Zone...
3	LT2	Teamster Foreman	0.50	Each	\$32.32	U.S. Dollar	CI Duration	Standard Labor Rate File	Truck Driver - Teamster	Southwest	Wage Zone...
4	EL950	Loader 950	1.00	Each	\$14.18	U.S. Dollar	CI Duration	Standard Equipment Rate...	Loader		
5	ETPU	Pickup	1.00	Each	\$4.20	U.S. Dollar	CI Duration	Standard Equipment Rate...	Truck		
6	EX510	Backhoe 3D 510	1.00	Each	\$35.00	U.S. Dollar	CI Duration	Standard Equipment Rate...	Excavator		

Congratulations, you have completed this exercise!

3.12 IMPORTING RESOURCES

The following procedures inform you how to setup resources in InEight Estimate from an excel sheet.

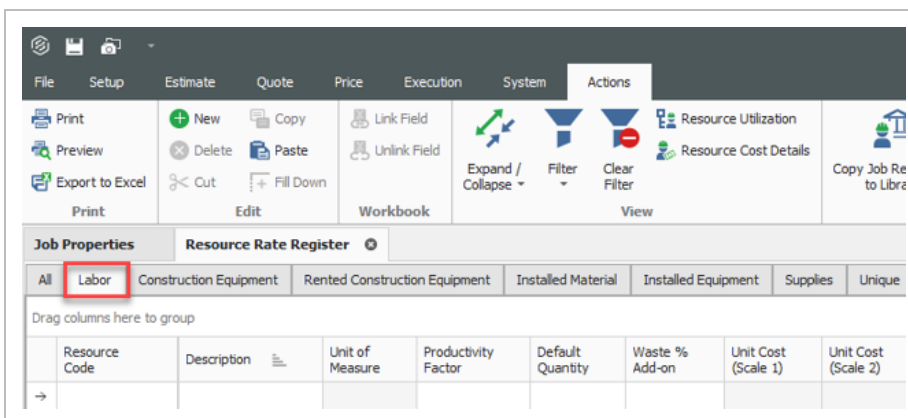
Use of this lesson will draw from other sections of InEight Estimating Manual. Basic understanding of the Sort, Group, Filter, Excel integration functionality in InEight Estimate is required.

3.12.1 Open the Resource Rate Register

You can create resources within the Resource Rate Register. This is the location to build out the structure of those resources.

Opening the Labor tab

1. Open the Job Folder or Library that you're going to be working in.
2. From the Ribbon, select the **Setup** tab.
3. Under the Resources section, select **Resource Rates**. The Resource Rate Register opens.
4. Select the tab you want to add resources to.



The layout of this register and excel file is up to the organization and the decisions that are made during the detail design phase. A basic excel file will be provided to your organization as a starting

point to work from. If that can't be located, you can easily build one utilizing the views within InEight Estimate.

3.12.1.1 Creating a labor saved view - Resource Rate Register

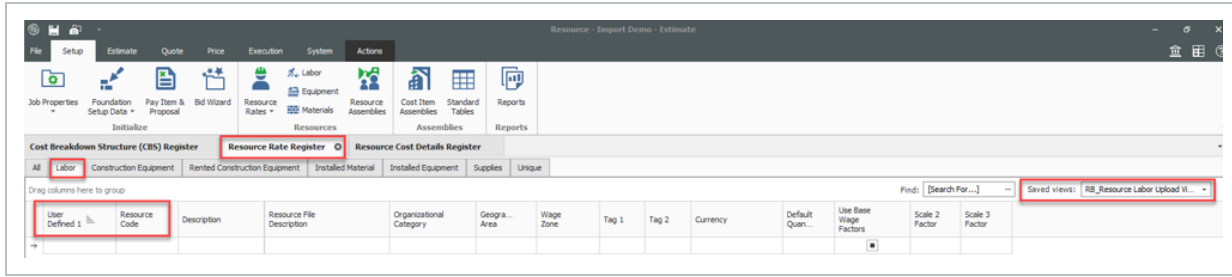
You can create a view to mirror both the register and excel sheets to easily bring information back and forth from the two applications.

Example of columns:

- User Defined 1
- Resource Code
- Description
- Resource File Description - Validated field
- Geographic Area - Validated field
- Wage Zone - Validated field
- Organizational Category - Validated field
- Tag 1 - Validated field
- Tag 2 - Validated field
- Currency - Validated field
- Default Quantity
- Use Base Wage Factors - Scale Factors
- Scale Factor 2 - Scale Factors
- Scale Factor 3 - Scale Factors

For more information on Validated Tags field, see Validated Tags topic. Scale Factors aren't required if you are manually applying rates to each cost category scale.

The view should appear as shown below with **User Defined 1** in the first column. This field is used for sorting and arranging data accurately moving between Estimate and Excel. You are not limited to UDF 1 and can choose to utilize a field of their choice for sorting.



3.12.2 Setting up the excel file

Go to the Excel sheet and make sure the information in the columns shown in the screenshot are filled out. Basic concepts to keep in mind regarding the excel file:

Sort Code - This column needs to have a high sequential number such as **10000**. This is very important to assign as it will help us authenticate all the labor rates.

Resource Code - A unique Naming convention to be assigned to every labor resource. In this example we have all labor resource starting with a **L** followed by the letters that represent the resource description.

Labor Base - The base wage of the labor resource is entered here. Estimate does not allow \$ sign to be pasted, which is why the cells for the Base column are formatted to **Number**.

Resource Rate Register																	Resource Cost Details Register	
UDF1	Resource Code	Description	Resource File Description	Organizational Category	Geographic Area	Wage Zone	Tag 1	Tag 2	Currency	Default Quantity	Use Base Wage Factors	*Scale Factor 2	*Scale Factor 3	Total	Labor Base	Tr		
7	10000 LC2	Carpenter Journeyman	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	\$28.92	22.10			
8	10001 LSLJF	Foreman Pipe	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	\$29.92	23.10			
9	10002 LSLIW	Foreman Iron	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	\$30.92	24.10			
10	10003 LSLUC	Foreman Civil	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	\$31.92	25.10			
11	10004 LSLUBM	Foreman Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	\$32.92	26.10			
12	10005 LPF3	Lead Pipe Fabricator	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	\$33.92	27.10			
13	10006 LPF2	Journeyman Pipefitter	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	\$34.92	28.10			
14	10007 LPF3	Pipefitter A	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	\$35.92	29.10			
15	10008 LPF4	Pipefitter B	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	\$36.92	30.10			
16	10009 LBM2	Lead Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	\$37.92	31.10			
17	10010 LBM2	Journeyman Boilermake	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	\$38.92	32.10			

3.12.2.2 Creating the resource

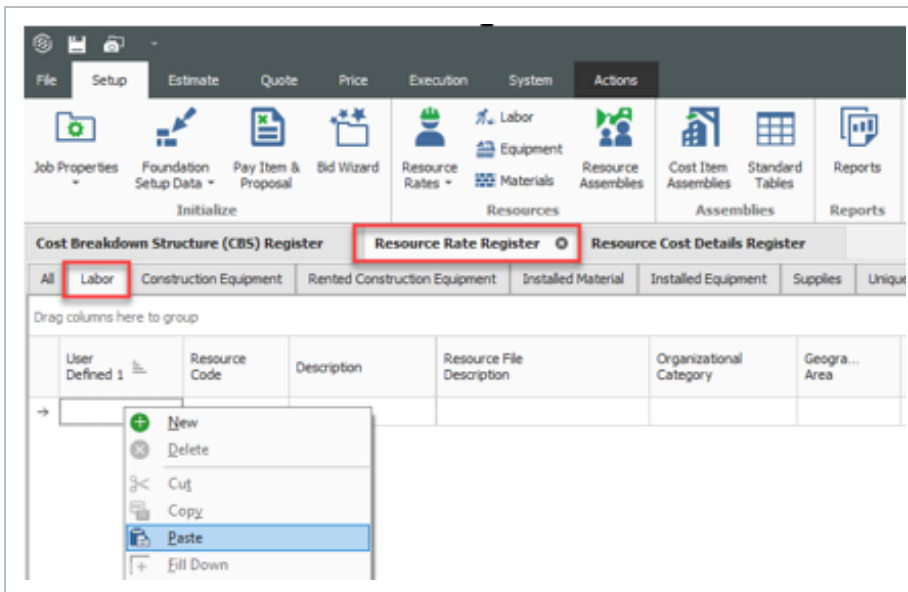
Follow this procedure once you have information filled out in excel.

Creating the resource

1. Open the excel file.
2. Sort the sheet by sequential number in the **Sort Code** field.
3. Highlight the cells you want to bring into the estimate.
4. Copy the cells using right click and selecting **Copy** from the context menu.

User Defined 1	Resource Code	Description	Resource File	Organizational Category	Geographic Area	Wage Zone	Top 1	Top 2	Currency	Default Quantity	Use Rate	Wage Factors	Scale Factor 1	Scale Factor 2	Total	Labor Base
10000	LS2	Carpenter Journeyman	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	2.00	\$28.92	22.10
10001	LSUPF	Foreman Pipe	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	2.00	\$29.92	23.10
10002	LSUHW	Foreman Iron	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	2.00	\$30.92	24.10
10003	LSUC	Foreman Civil	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	2.00	\$31.92	25.10
10004	LSUBM	Foreman Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	2.00	\$32.92	26.10
10005	LPF1	Lead Pipe Fabricator	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	2.00	\$33.92	27.10
10006	LPF2	Journeyman Pipefitter	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	2.00	\$34.92	28.10
10007	LPF3	Pipefitter A	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	2.00	\$35.92	29.10
10008	LPF4	Pipefitter B	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	2.00	\$36.92	30.10
10009	LBM1	Lead Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	2.00	\$37.92	31.10
10010	LBM2	Journeyman Boilermake	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1	TRUE	1.50	2.00	2.00	\$38.92	32.10

5. Open Estimate to the **Resource Rate Register**.
6. Select the **User Defined 1** column in the Labor tab of the Resource Rate Register.



7. Right click the empty cell and select **Paste** from the context menu. A pop up will appear asking **Are you sure you want to insert the selected values?**
8. Select **Yes** to confirm inserting the selected values.

- The cells you copied from the excel sheet are now copied into the Resource Rate Register. The Sort code data is pasted in the User defined 1 column. Resource Code & Resource description data is pasted as well.

The screenshot shows the 'Resource Rate Register' window with a table of resource data. The 'User Defined 1' column is highlighted with a red box. The 'Use Base Wage Factors' column contains checkmarks for all rows.

User Defined 1	Resource Code	Description	Resource File Description	Organizational Category	Geogra. Area	Wage Zone	Tag 1	Tag 2	Currency	Default Quan.	Use Base Wage Factors	Scale 2 Factor	Scale 3 Factor
10000	LC2	Carpenter Journey...	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	0.00	0.00
10001	LSUPF	Foreman Pipe	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	0.00	0.00
10002	LSUW	Foreman Iron	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	0.00	0.00
10003	LSUC	Foreman Civil	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	0.00	0.00
10004	LSBM	Foreman Boilemaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	0.00	0.00
10005	LPF1	Lead Pipe Fabricator	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	0.00	0.00
10006	LPF2	Journeyman Pipefitter	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	0.00	0.00
10007	LPF3	Pipefitter A	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	0.00	0.00
10008	LPF4	Pipefitter B	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	0.00	0.00
10009	LBM1	Lead Boilemaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	0.00	0.00
10010	LBM2	Journeyman Boilem...	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	0.00	0.00

- For Make sure the sorting is on User Defined 1 column. This allows us to see the information being sorted similar to our data in excel file. Base Wage Factors need to be flagged to turn on with the check box. Your first copy and paste should have activated them. You need to copy and paste again in order to apply the factors.

The screenshot shows two parts of the software interface. The top part is an Excel-style table with columns for 'Scale Factor 2', 'Scale Factor 3', 'Total', and 'Labor'. The bottom part is a 'Resource Cost Details Register' table with columns for 'User Defined 1', 'Resource Code', 'Description', 'Resource File Description', 'Organizational Category', 'Geogra... Area', 'Wage Zone', 'Tag 1', 'Tag 2', 'Currency', 'Default Quan...', 'Use Base Wage Factors', 'Scale 2 Factor', and 'Scale 3 Factor'. A red box highlights the 'Scale 2 Factor' and 'Scale 3 Factor' columns in both tables.

Scale Factor 2	Scale Factor 3	Total	Labor
1.50	2.00	\$28.92	
1.50	2.00	\$29.92	
1.50	2.00	\$30.92	
1.50	2.00	\$31.92	
1.50	2.00	\$32.92	
1.50	2.00	\$33.92	
1.50	2.00	\$34.92	
1.50	2.00	\$35.92	
1.50	2.00	\$36.92	
1.50	2.00	\$37.92	
1.50	2.00	\$38.92	

User Defined 1	Resource Code	Description	Resource File Description	Organizational Category	Geogra... Area	Wage Zone	Tag 1	Tag 2	Currency	Default Quan...	Use Base Wage Factors	Scale 2 Factor	Scale 3 Factor
+ 10000	LC2	Carpenter Journey...	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	1.50	2.00
+ 10001	LSUPP	Foreman Pipe	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	1.50	2.00
+ 10002	LSU/W	Foreman Iron	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	1.50	2.00
+ 10003	LSUC	Foreman Civil	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	1.50	2.00
+ 10004	LSUBH	Foreman Boilemaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	1.50	2.00
+ 10005	LPF1	Lead Pipe Fabricator	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	1.50	2.00
+ 10006	LPF2	Journeyman Pipefitter	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	1.50	2.00
+ 10007	LPF3	Pipefitter A	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	1.50	2.00
+ 10008	LPF4	Pipefitter B	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	1.50	2.00
+ 10009	LBM1	Lead Boilemaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	1.50	2.00
+ 10010	LBM2	Journeyman Boilem...	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	Non Union	Hourly	U.S. Dollar	1.00	<input checked="" type="checkbox"/>	1.50	2.00

3.12.2.3 Resource cost details

Labor resources are now in the system a user can apply rates to those resources.

Resource cost detail

1. From the Ribbon, select the **Actions** tab.
2. Under the View section, select the Resource **Cost Details** option. The **Resource Cost Details Register** opens.
3.

Create a view to mirror the accompanying excel sheet or create one to bring in the associated resource cost in the details register.
4. From the Saved views drop down, select the **Labor** view to filter down to only labor resources.
5. Right click a column header and select **Column Chooser**.
6. Drag and drop the columns into the view identified below.

Resource Code	Scale	Total	Labor	Labor Base	Labor Burden	Labor Fringes	Travel	Premium	Holiday	Savings	Pension	Vacation	Apprenticeship	Undefined Fringe 1	Undefined Fringe 2	Undefined Fringe 3
LBH1	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LBH2	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LC2	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LFP1	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LFP2	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LFP3	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LFP4	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LSBM	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LSUC	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LSUV	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LSUP	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Example of columns – The level of detail and utilization of specific cost categories is a decision for each organization:

- User Defined 1 - Non editable fields from resource rates register
- Resource Code - Non editable fields from resource rates register
- Description - Non editable fields from resource rates register
- Resource File Description - Non editable fields from resource rates register
- Geographic Area - Non editable fields from resource rates register
- Wage Zone - Non editable fields from resource rates register
- Organizational Category - Non editable fields from resource rates register
- Scale - Non editable fields from resource rates register
- Labor Base
- Travel
- Premium
- Holiday
- Savings
- Pension
- Vacation
- Subsistence
- Health & Welfare
- Apprenticeship
- Undefined Fringe 1

- Undefined Fringe 2
- Undefined Labor Fringes
- Bodily Injury & Property Damage
- Workers Compensation
- Undefined Insurance1
- Undefined Insurance2
- Undefined Labor Insurance
- FICA
- FUTA
- SUTA
- Undefined Tax1
- Undefined Labor Taxes
- Undefined Labor Burden
- Undefined Labor
- Construction Supplies
- Undefined Materials
- Undefined
- Billing Rate
- Billing Rate Markup
- Billing Rate Markup %

3.12.3 Filter/Sort/Paste - Resource Cost Details Register

The Labor upload view brings in the columns required to enter Labor base, burdens etc. Every Labor resource has three rows created with Scales 1,2,3. The Scale Column is used to setup Straight time, Over time, Double time.

Cost Breakdown Structure (CBS) Register		Resource Rate Register		Resource Cost Details Register				
Drag columns here to group								
Resource Code	Scale	Total	Labor	Labor Base	Labor Burden	Labor Fringes	Travel	
LBM1	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	
LBM1	2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	
LBM1	3	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	
LBM2	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	

Step by Step – Filter Resource Cost Detail Register

1. From the Scale column header, click the filter icon..
2. Set the From and To values to 1.

Cost Breakdown Structure (CBS) Register		Resource Rate Register		Resource Cost Details Register		Labor Rate Record					
Drag columns here to group											
User Defined 1	Resource Code	Description	Resource File Description	Organizational Category	Geographic Area	Wage Zone	Scale	Total	Labor Base	Travel	Prer
→ 10009	LBM1	Lead Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A					\$0.00
10010	LBM2	Journeyman Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A					\$0.00
10000	LC2	Carpenter Journeyman	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A					\$0.00
10005	LPF1	Lead Pipe Fabricator	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A					\$0.00
10006	LPF2	Journeyman Pipefitter	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A					\$0.00
10007	LPF3	Pipefitter A	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A					\$0.00
10008	LPF4	Pipefitter B	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A					\$0.00
10004	LSUBM	Foreman Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A					\$0.00
10003	LSUC	Foreman Civil	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A					\$0.00
10002	LSUIW	Foreman Iron	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A					\$0.00
10001	LSUPF	Foreman Pipe	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A					\$0.00

3. Back on the excel spreadsheet, highlight the base rates to bring in.
4. Right click and select **Copy** in the context menu.

Resource Rate Register				Resource Cost Details Register													
User Defined 1	Resource Code	Description	*Scale Factor 2	*Scale Factor 3	Total	Labor Base	Travel	Premium	Holiday	Savings	Pension	Vacation	Subsistence	Health & Welfare	Apprenticeship	Undefined Fringe 1	Undefined Fringe 2
10000	LC2	Carpenter Journeyman	1.50	2.00	\$28.92	22.10	0.00	0.00	0.22	0.00	0.66	0.44	0.00	0.66	0.00	0.00	0.00
10001	LSUPF	Foreman Pipe	1.50	2.00	\$29.92	23.10	0.00	0.00	0.22	0.00	0.66	0.44	0.00	0.66	0.00	0.00	0.00
10002	LSUIW	Foreman Iron	1.50	2.00	\$30.92	24.10	0.00	0.00	0.22	0.00	0.66	0.44	0.00	0.66	0.00	0.00	0.00
10003	LSUC	Foreman Civil	1.50	2.00	\$31.92	25.10	0.00	0.00	0.22	0.00	0.66	0.44	0.00	0.66	0.00	0.00	0.00
10004	LSUBM	Foreman Boilermaker	1.50	2.00	\$32.92	26.10	0.00	0.00	0.22	0.00	0.66	0.44	0.00	0.66	0.00	0.00	0.00
10005	LFF1	Lead Pipe Fabricator	1.50	2.00	\$33.92	27.10	0.00	0.00	0.22	0.00	0.66	0.44	0.00	0.66	0.00	0.00	0.00
10006	LFF2	Journeyman Pipefitter	1.50	2.00	\$34.92	28.10	0.00	0.00	0.22	0.00	0.66	0.44	0.00	0.66	0.00	0.00	0.00
10007	LFF3	Pipefitter A	1.50	2.00	\$35.92	29.10	0.00	0.00	0.22	0.00	0.66	0.44	0.00	0.66	0.00	0.00	0.00
10008	LFF4	Pipefitter B	1.50	2.00	\$36.92	30.10	0.00	0.00	0.22	0.00	0.66	0.44	0.00	0.66	0.00	0.00	0.00
10009	LBM1	Lead Boilermaker	1.50	2.00	\$37.92	31.10	0.00	0.00	0.22	0.00	0.66	0.44	0.00	0.66	0.00	0.00	0.00
10010	LBM2	Journeyman Boilermaker	1.50	2.00	\$38.92	32.10	0.00	0.00	0.22	0.00	0.66	0.44	0.00	0.66	0.00	0.00	0.00

5. Go to Estimate. Right click and select **Paste** from the context menu.

User Defined 1	Resource Code	Description	Resource File Description	Organizational Category	Geographic Area	Wage Zone	Scale	Total	Labor Base	Travel	Premium	Holiday	Savings	Pension	Vacation	Subsistence
10000	LC2	Carpenter Journeyman	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10001	LSUPF	Foreman Pipe	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10002	LSUIW	Foreman Iron	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10003	LSUC	Foreman Civil	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10004	LSUBM	Foreman Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10005	LFF1	Lead Pipe Fabricator	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10006	LFF2	Journeyman Pipefitter	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10007	LFF3	Pipefitter A	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10008	LFF4	Pipefitter B	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10009	LBM1	Lead Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10010	LBM2	Journeyman Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

6. You will be prompted with a **Are you sure you want to insert these values?** message as before. Select **Yes** to continue.

3.12.4 Manual set up of scales 2 & 3 - Optional

If the organization wants to have more in-depth cost details for each scale rather than using scale factors the same procedure will be utilized to copy Labor burden, fringes, and other add-ons to setup Scale 2 & Scale 3.

For Base Wage Factor Columns will not be active if your organization is using method 2.

3.12.4.4 Resource Rate Register

Cost Breakdown Structure (CBS) Register											
Resource Rate Register											
Resource Code	Resource Type	Description	Resource File Description	Unit of Measure	Productivity Factor	Default Quantity	Waste % Add-on	Unit Cost (Scale 1)	Unit Cost (Scale 2)	Unit Cost (Scale 3)	Currency
+ LBM1	Labor Rate	Lead Boilermaker	Standard Labor Rate File	Hour	1.00	1.00	1.00	\$37.90	\$46.65	\$62.20	U.S. Dollar
+ LBM2	Labor Rate	Journeyman Boilermaker	Standard Labor Rate File	Hour	1.00	1.00	1.00	\$38.90	\$48.15	\$64.20	U.S. Dollar
+ LC2	Labor Rate	Carpenter Journeyman	Standard Labor Rate File	Hour	1.00	1.00	1.00	\$28.90	\$33.15	\$44.20	U.S. Dollar
+ LPF1	Labor Rate	Lead Pipe Fabricator	Standard Labor Rate File	Hour	1.00	1.00	1.00	\$33.90	\$40.65	\$54.20	U.S. Dollar
+ LPF2	Labor Rate	Journeyman Pipefitter	Standard Labor Rate File	Hour	1.00	1.00	1.00	\$34.90	\$42.15	\$56.20	U.S. Dollar
+ LPF3	Labor Rate	Pipefitter A	Standard Labor Rate File	Hour	1.00	1.00	1.00	\$35.90	\$43.65	\$58.20	U.S. Dollar
+ LPF4	Labor Rate	Pipefitter B	Standard Labor Rate File	Hour	1.00	1.00	1.00	\$36.90	\$45.15	\$60.20	U.S. Dollar
+ LSUBM	Labor Rate	Foreman Boilermaker	Standard Labor Rate File	Hour	1.00	1.00	1.00	\$32.90	\$39.15	\$52.20	U.S. Dollar
+ LSUC	Labor Rate	Foreman Civil	Standard Labor Rate File	Hour	1.00	1.00	1.00	\$31.90	\$37.65	\$50.20	U.S. Dollar
+ LSUTW	Labor Rate	Foreman Iron	Standard Labor Rate File	Hour	1.00	1.00	1.00	\$30.90	\$36.15	\$48.20	U.S. Dollar
+ LSUPF	Labor Rate	Foreman Pipe	Standard Labor Rate File	Hour	1.00	1.00	1.00	\$29.90	\$34.65	\$46.20	U.S. Dollar

3.12.4.5 Resource Cost Details Register

Cost Breakdown Structure (CBS) Register									
Resource Cost Details Register									
User Defined 1	Resource Code	Description	Resource File Description	Organizational Category	Geographic Area	Wage Zone	Scale	Total	
→ 10000	LC2	Carpenter Journeyman	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$33.15	
10001	LSUPF	Foreman Pipe	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$34.65	
10002	LSUTW	Foreman Iron	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$36.15	

Manual setup of scales

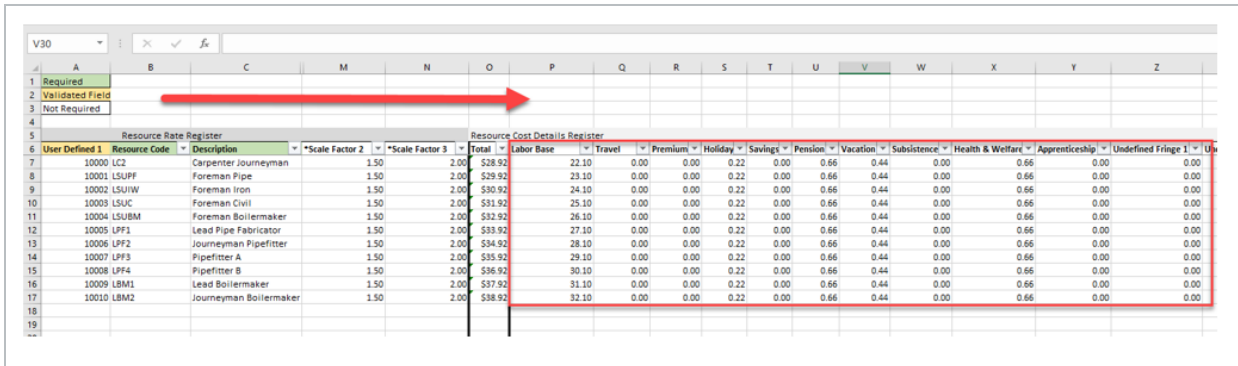
1. From the Scale column header, click the filter icon..
2. Set the From and To values to 2.

Cost Breakdown Structure (CBS) Register											
Resource Cost Details Register											
User Defined 1	Resource Code	Description	Resource File Description	Organizational Category	Geographic Area	Wage Zone	Scale	Total	Labor Base	Travel	
→ 10000	LC2	Carpenter Journeyman	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$33.15			\$0.00
10001	LSUPF	Foreman Pipe	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$34.65			\$0.00
10002	LSUTW	Foreman Iron	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$36.15			\$0.00
10003	LSUC	Foreman Civil	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$37.65			\$0.00
10004	LSUBM	Foreman Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$39.15			\$0.00
10005	LPF1	Lead Pipe Fabricator	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$40.65			\$0.00
10006	LPF2	Journeyman Pipefitter	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$42.15			\$0.00
10007	LPF3	Pipefitter A	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$43.65			\$0.00
10008	LPF4	Pipefitter B	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$45.15			\$0.00
10009	LBM1	Lead Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$46.65			\$0.00
10010	LBM2	Journeyman Boilermaker	Standard Labor Rate File	Carpenter	Southwest	Wage Zone A	2	\$48.15			\$0.00

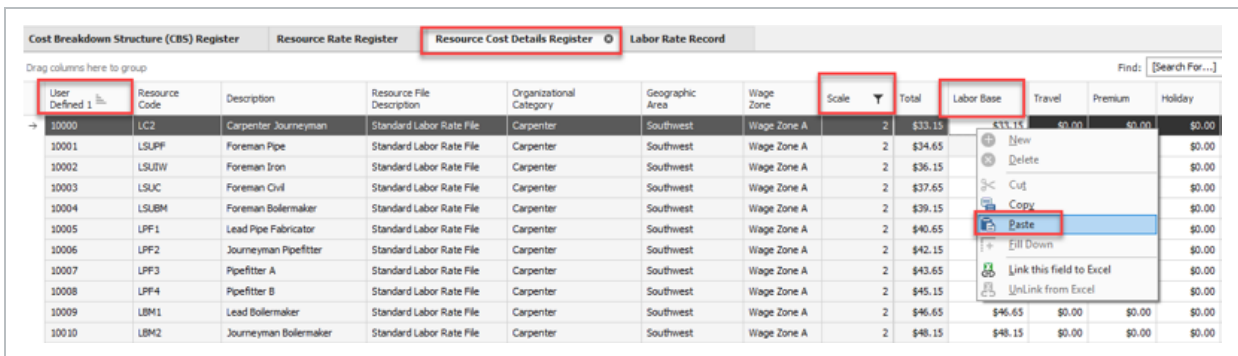
Scale Filter: From 2 To 2

Clear Filter Custom Close

3. Back on the excel spreadsheet, highlight the base rates to bring in.
4. Right click and select **Copy** in the context menu.



5. Go to Estimate. Right click and select **Paste** from the context menu.



6. You will be prompted with a **Are you sure you want to insert these values?** message as before. Select **Yes** to continue.
7. Follow the same procedure for scale 3.

3.12.4.6 Non labor resource setup

The same principles can be applied for the other resource types within InEight Estimate. This procedure covers installed material, but can also be used for the other six resource types.

3.12.5 Creating a materials saved view - Resource Rate Register

Create a view to mirror both the register and excel sheets to easily bring information back and forth from the two applications.

Example of columns

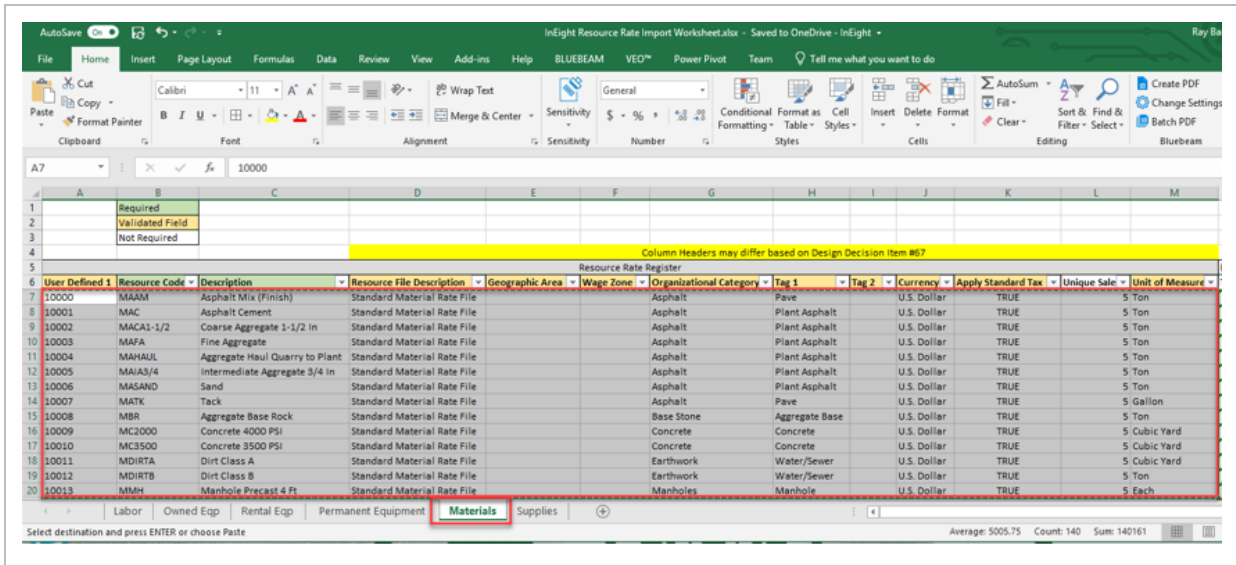
- User Defined 1
- Resource Code
- Description
- Resource File Description - Validated Tag field
- Geographic Area - Validated Tag field
- Wage Zone - Validated Tag field
- Organizational Category - Validated Tag field
- Tag 1 - Validated Tag field
- Tag 2 - Validated Tag field
- Currency - Validated Tag field
- Apply Standard Tax - Validated Tag field
- Unique Sales Tax
- Unit of Measure - Validated Tag field

3.12.6 Creating a material resource

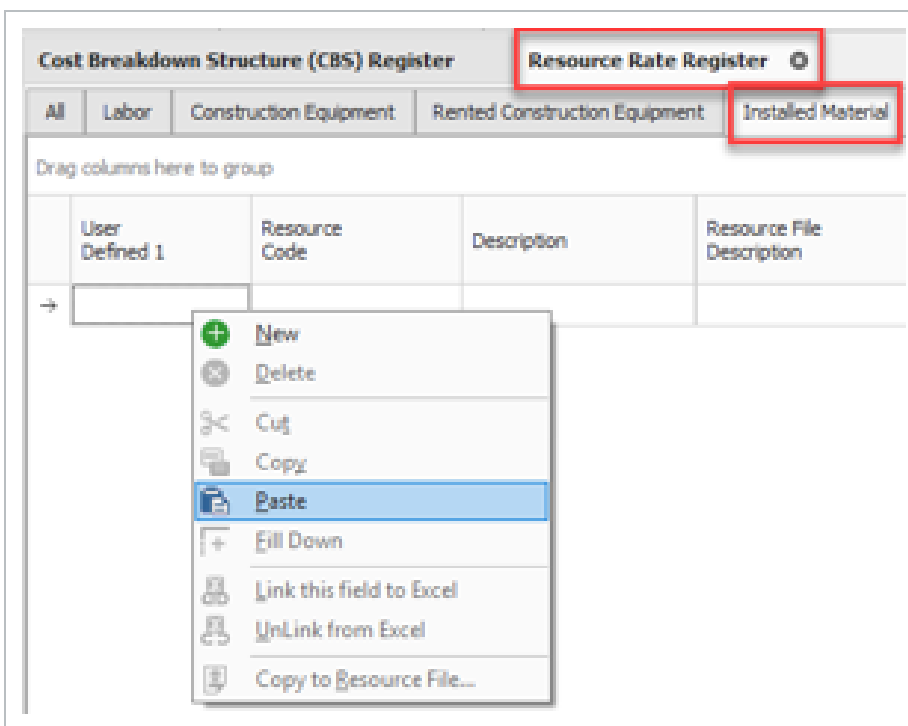
Follow the step by step once you have information filled out in excel.

Creating the resource

1. Open the excel file.
2. Sort the sheet by sequential number in the **Sort Code** field.
3. Highlight the cells you want to bring into the estimate.
4. Copy the cells using right click and selecting **Copy** from the context menu.



5. Open Estimate to the **Resource Rate Register**.
6. Select the **User Defined 1** column in the Installed Material tab of the Resource Rate Register.



7. Right click the empty cell and select **Paste** from the context menu. A pop up will appear asking **Are you sure you want to insert the selected values?**

8. You will be prompted with a **Are you sure you want to insert these values?** message. Click **Yes** to continue.

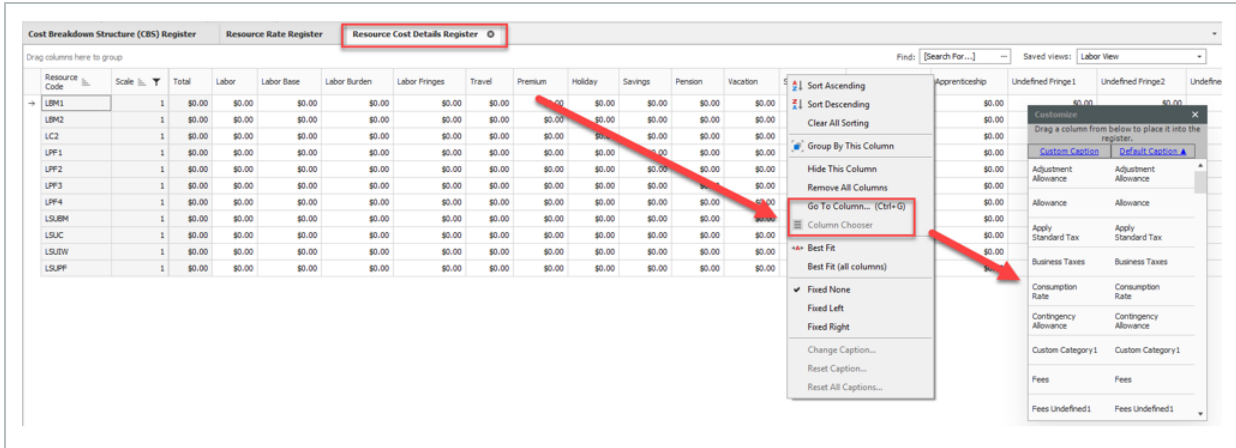
3.12.7 Create a material saved view - Resource Cost Details Register

Installed Material Resources are now in the system. You can apply rates to those resources. Create a view to mirror the accompanying excel sheet or create one to bring in the associated resource cost in the details register.

Material saved view

1. From the Ribbon, select the **Actions** tab.
2. Under the View section, select the Resource **Cost Details** option. The **Resource Cost Details Register** opens.
3.

Create a view to mirror the accompanying excel sheet or create one to bring in the associated resource cost in the details register.
4. From the Saved views drop down, select the **Installed material** view to filter down to only material resources.
5. Right click a column header and select **Column Chooser**.
6. Drag and drop the columns into the view identified below.



Example of columns – The level of detail and utilization of specific cost categories is a decision for each organization:

- User Defined 1 - Non editable fields from resource rates register
- Resource Code - Non editable fields from resource rates register
- Description - Non editable fields from resource rates register
- Resource File Description - Non editable fields from resource rates register
- Geographic Area - Non editable fields from resource rates register
- Wage Zone - Non editable fields from resource rates register
- Organizational Category - Non editable fields from resource rates register
- Unit of Measure - Non editable fields from resource rates register
- Currency - Non editable fields from resource rates register
- Total - Non editable fields from resource rates register
- Installed Materials
- Undefined Materials
- Sales Taxes
- Undefined Fees
- Undefined
- Billing Rate
- Billing Rate Markup
- Billing Rate Markup %

3.13 QUANTITY CHECKING

The Quantity Checking feature allows you to compare the quantity of a superior cost item to the sum of its relevant subordinate cost item quantities. This setting enables the use of the **Quantity Check** and **Quantity Warning** columns in the Cost Breakdown Structure. The use of these columns can assist in confirming whether or not your quantities are correct.

The subordinate cost item quantities need to have the same unit of measure as the superior cost item before you are able to choose the Quantity Check column.

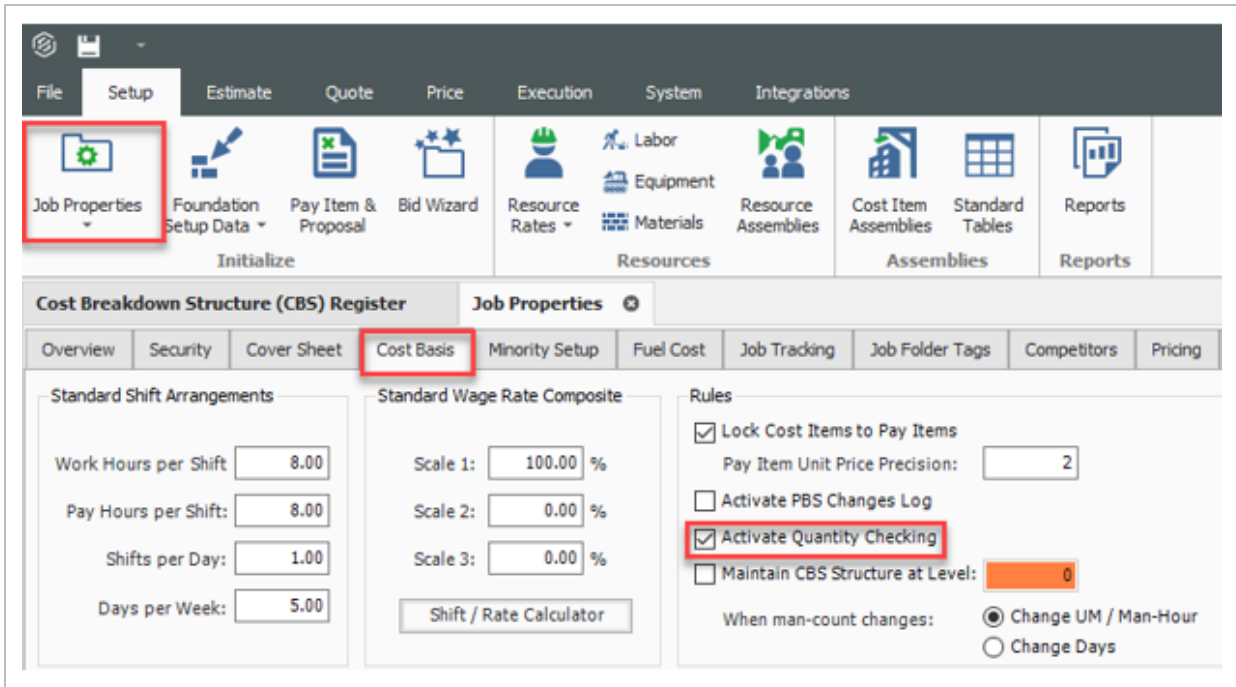
In the example below, break a concrete pour cost item into four subordinate parts. The Forecast (T/O) Quantity of the superior item will be 156875.00 tons of concrete. Start by dividing each of the four parts into 35000.00 tons each. Once you have broken out this concrete pour, determine if you need a fifth pour or if you should distribute the remaining quantity to the four pours. The factors you keep in mind are the trips and time involved in the extra pour vs capacity of equipment.

Quantity checking

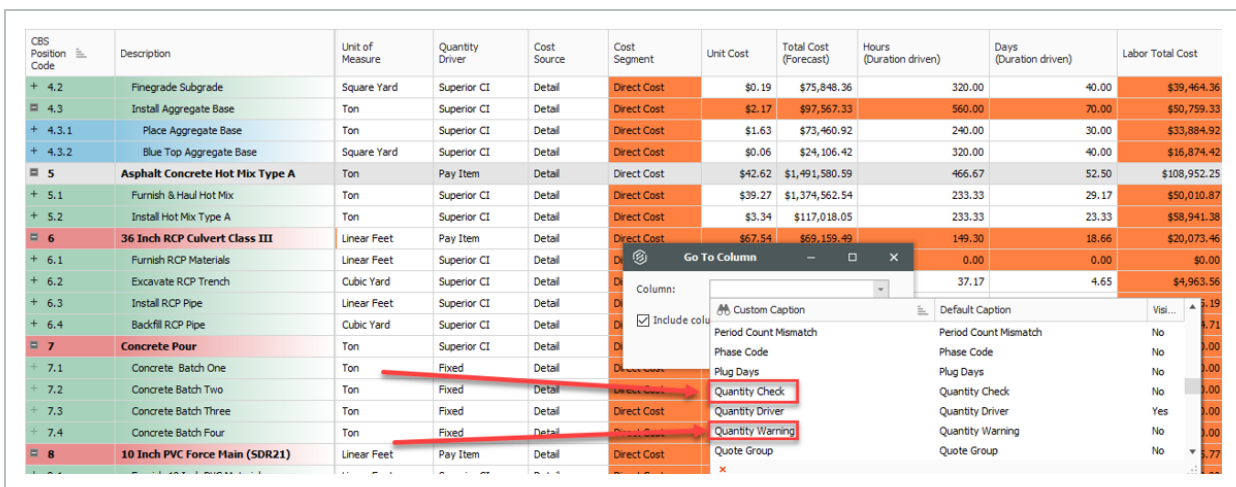
1. From the Ribbon, select the **Setup** tab.
2. Under the section Initialize, select **Job Properties**. Then select the **Cost Basis** tab.

Quantity checking starts by turning the feature on in the Job Properties. If you want to have quantity checking turned on for all jobs in Estimate, then this setting needs to be turned on in the **Master Job Properties**. The Master Job Properties is located in the **Library**.

3. From the Rules data box, select the **Activate Quantity Checking** check box.



4. Next bring a couple of columns into your view on the Cost Breakdown Structure (CBS) Register. Right click on the column header and choose **Go To Column**.
5. The Go To Column dialog box appears. Have the **Include columns that are not currently in the view** check box selected.



6. Click **OK** when you have selected your preferred columns. Next, toggle the check box for the **Quantity Check** column.

7	Concrete Pour	156,875.00	Ton	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Superior CI
+ 7.1	Concrete Batch One	35,000.00	Ton	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fixed
+ 7.2	Concrete Batch Two	35,000.00	Ton	<input type="checkbox"/>	<input type="checkbox"/>	
+ 7.3	Concrete Batch Three	35,000.00	Ton	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fixed
+ 7.4	Concrete Batch Four	35,000.00	Ton	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fixed

7.

As you check Quantity Check for the four batches of Concrete, the superior cost item Quantity Warning turns yellow. This is indicating a quantity warning. Hover your mouse over the superior cost item Quantity Warning column. Then, an overlay message appears showing the quantity discrepancy. Apply this discrepancy to the Subordinate cost items. That way, the superior cost item will be the sum of the parts.

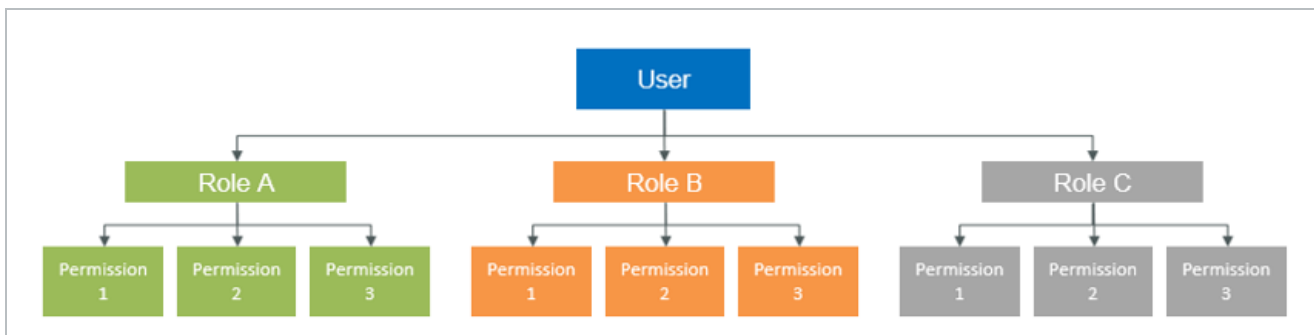
8. The remaining quantity is 16875.00 tons which does not warrant a fifth pour.

3.14 SECURITY IN ESTIMATE

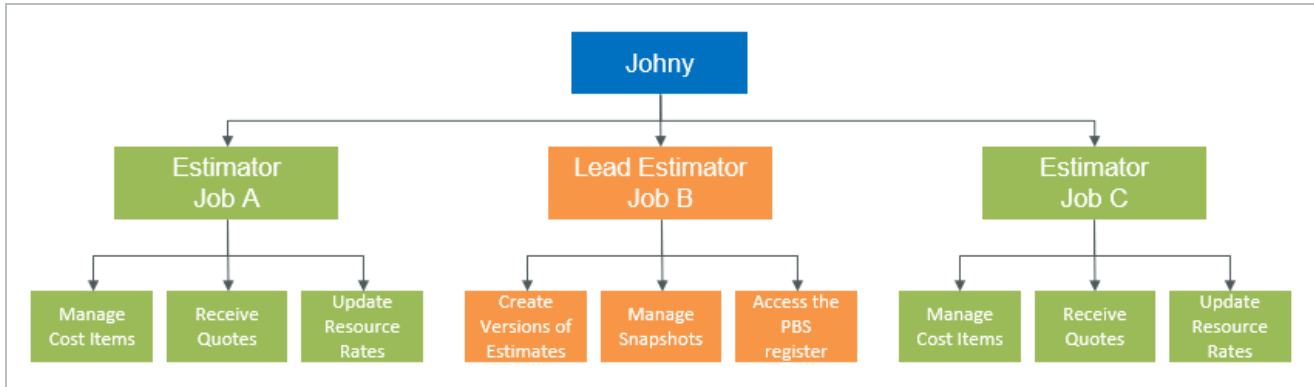
3.14.1 Role based permissions

Estimate uses a role-based security model, where users can be assigned to a role on a project or also a role in a node of the organization breakdown structure (OBS). A role identifies if a user has been granted access for various permissions to perform defined functions in Estimate. An advantage of using role-based permissions to manage security is that it is possible for users to have different roles on different projects where the role assigned to a user determines what they have permission to do within any given project.

A role is a collection of permissions that defines a user’s responsibilities on a project or in an organization.



As an example of using role-based permissions to have different roles on different projects, a Lead Estimators of the Utilities Division that gives them access to all estimates in that division, they are also the Superintendent on one of the company's Mining projects, which gives them access to that projects control budget and other applications used in project execution.



The role-based permissions for a project can be inherited from the OBS where the project is assigned. You can be assigned a role in a node of the OBS, giving you the permissions granted by that role for every project in that node of the OBS. This lets users have different roles on different projects, meaning that what a user has access to do in any specific estimate is based on the role they have been assigned for that project.

For example, in the following image, the user is the Lead Estimator of the Utilities Division.

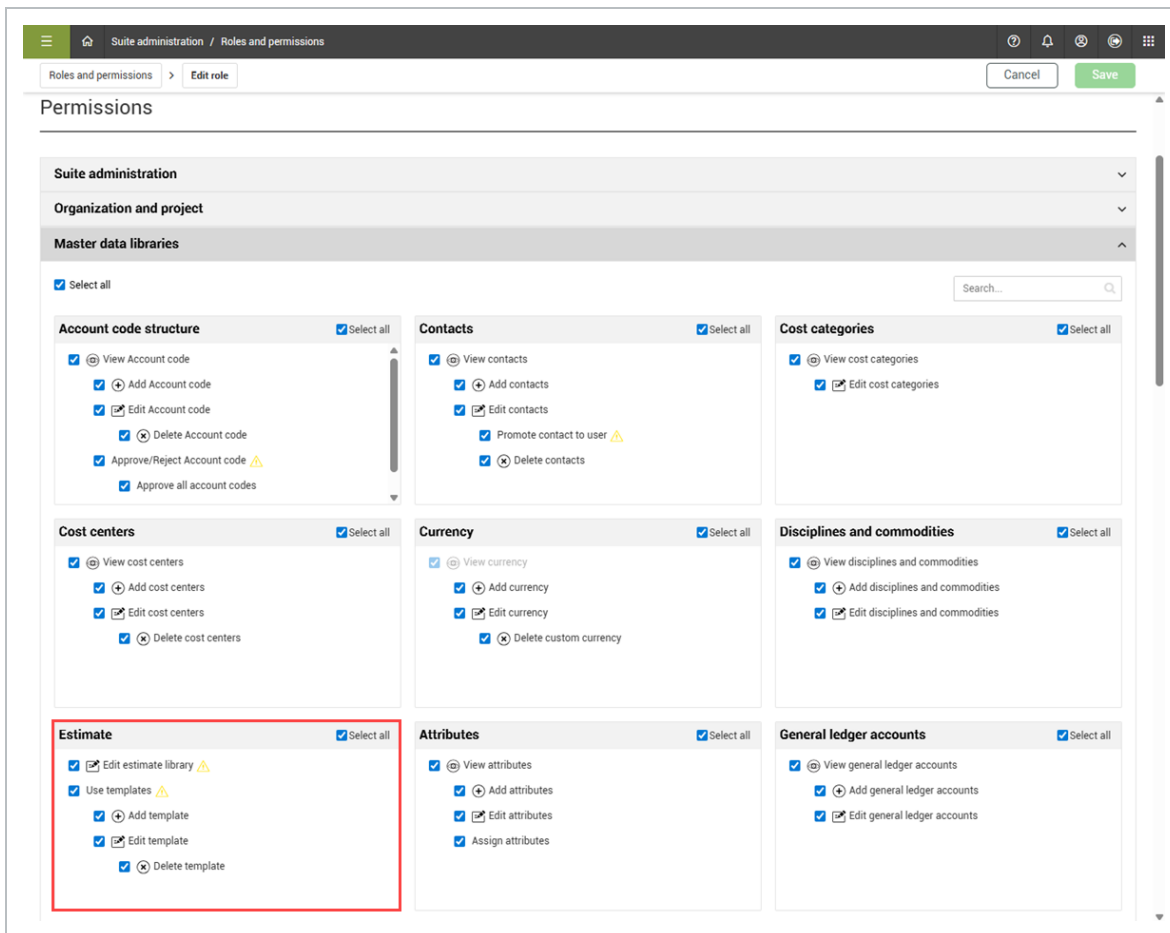
ID	Name	Organization	Pha...	Created by	Created on
4985362	2020 Clow Creek Shoreline Rest...	C-XYZ : Utilities Division	Pre-Exec...	Aaron Cohen	01/23/2023 9:28:59 AM
4985362-01	2020 Clow Creek Shoreline Rest...	C-XYZ : Utilities Division	Execution	InEight Service Account	02/16/2023 3:22:12 PM
4985362-02	2020 Clow Creek Shoreline Rest...	C-XYZ : Utilities Division	Execution	InEight Service Account	02/16/2023 3:27:29 PM
4985362-03	2020 Clow Creek Shoreline Rest...	C-XYZ : Utilities Division	Execution	InEight Service Account	02/16/2023 3:27:29 PM
4992404	2020 Concrete Repairs Program	C-XYZ : Utilities Division	Pre-Exec...	Aaron Cohen	01/23/2023 9:33:04 AM

Roles are created and managed in the Roles and Permissions page in InEight Platform Suite Administration > **Roles and permissions**.

The screenshot shows a web application interface with a table of administrator roles. The table has four columns: Name, Description, Administrator level, and Status. Each row represents a different role, such as 'Account Administrator', 'Default Role', 'Engineer', etc. The 'Status' column for all roles is 'Available'. The interface includes a search bar at the top right and a 'Hide unavailable' toggle.

Name ↑	Description	Administrator level	Status
<input type="checkbox"/> Account Administrator	Account Administrator	Level 3 - Account Admin	Available
<input type="checkbox"/> Account Administrator- All ...	Account Administrator	Level 3 - Account Admin	Available
<input type="checkbox"/> Default Role	Default Role	Level 0 - Base	Available
<input type="checkbox"/> Dev/Ops Administrator	Dev/Ops Administrator	Level 3 - Account Admin	Available
<input type="checkbox"/> Engineer	Engineer	Level 1 - Project Admin	Available
<input type="checkbox"/> Foreman	Foreman	Level 1 - Project Admin	Available
<input type="checkbox"/> Launch Time Center	Launch Time Center	Level 0 - Base	Available
<input type="checkbox"/> Luke - Admin most permissi...	Luke - Admin most permission	Level 3 - Account Admin	Available
<input type="checkbox"/> Permission Unlock	Permission Unlock	Level 3 - Account Admin	Available
<input type="checkbox"/> Safety Director		Level 3 - Account Admin	Available
<input type="checkbox"/> Superintendent	Superintendent	Level 1 - Project Admin	Available
<input type="checkbox"/> Time Center User	Time Center User	Level 2 - Organization Admin	Available

The following image shows the Platform permissions available for Estimate in the Master data libraries section.



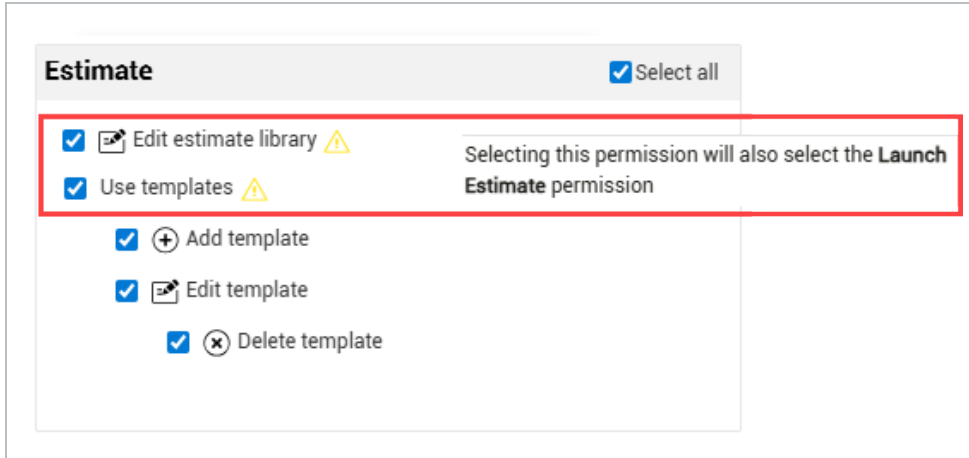
For more information on setting up roles in InEight Platform, see [Roles & Permissions](#).

3.14.2 Security in Estimate

The capacity to grant permissions in a job and what can be performed is accomplished with a combination of permissions that exist in both Platform and Estimate.

Generally, permissions managed in Platform determine which users can launch Estimate, manage the Estimate library, and manage job templates. Permissions managed in Estimate determine which users are granted permissions to specific commands and destinations solely in Estimate.

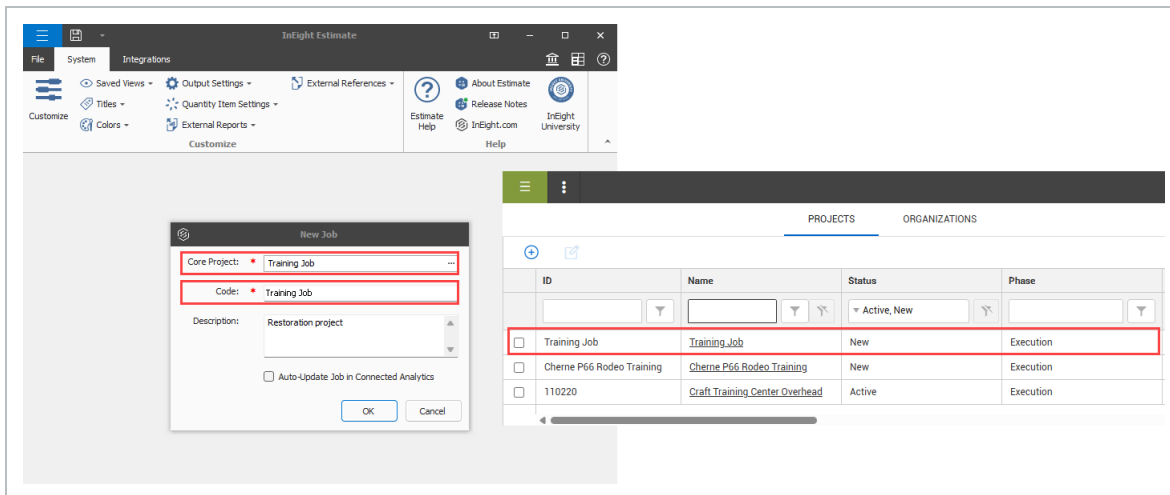
To use Estimate, you must have a role that includes the Edit estimate library or Use templates permission.



3.14.3 Granting permissions to access jobs and snapshots

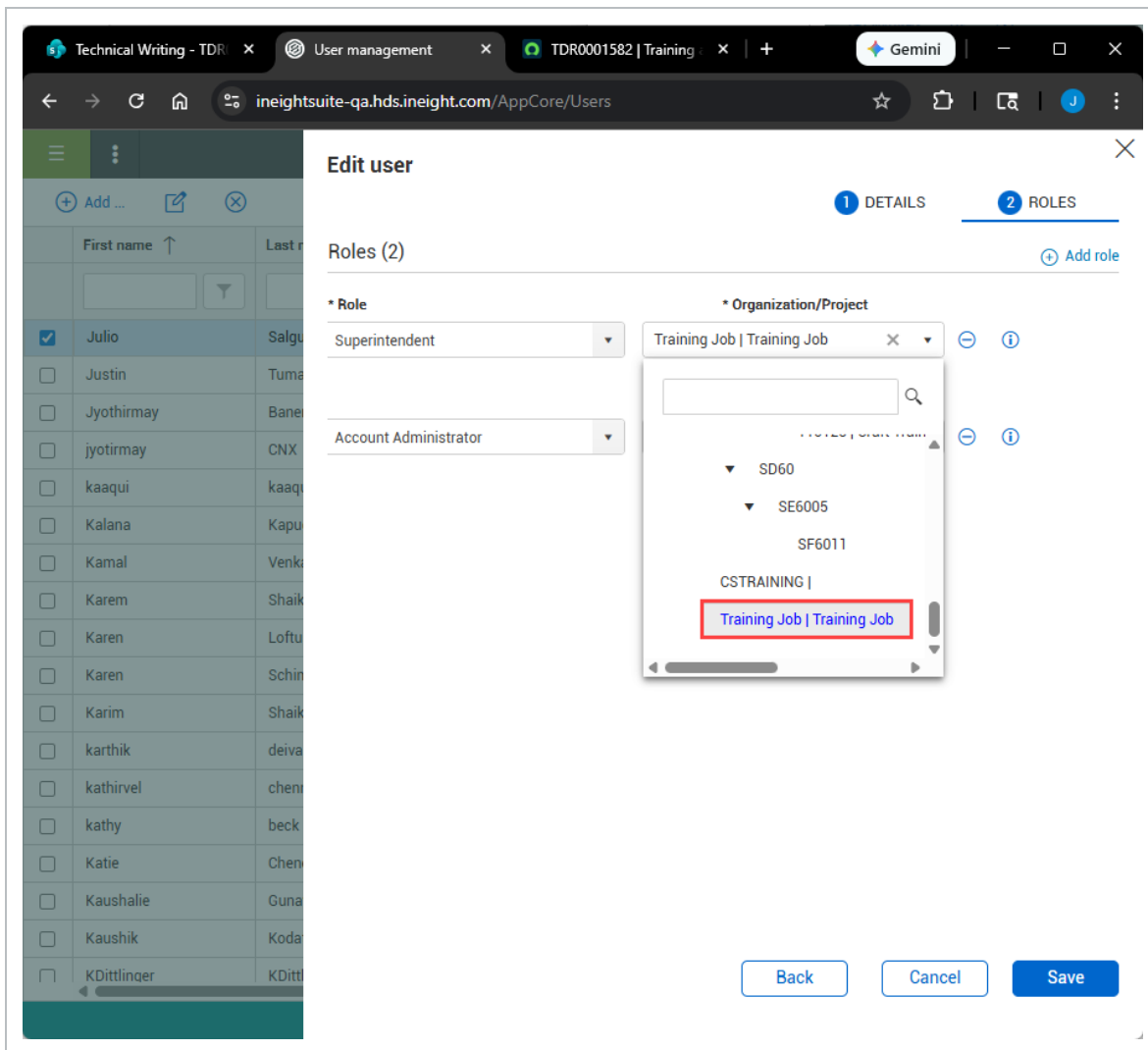
When creating jobs in Estimate, it is required to associate new estimates with existing Platform projects and all the related OBS contents.

Multiple estimates can be assigned to a single Platform project. In this case, permissions granted to users on a project will be the same permissions for all the estimates belonging to that project.



This Platform project is used to assign roles for the purposes of granting various permissions.

To grant permissions to a particular user on a Job, go to the User Management page in InEight Platform, edit the user, and then assign the user a role on a project on the Roles tab of the Add or Edit User slide-out panel.

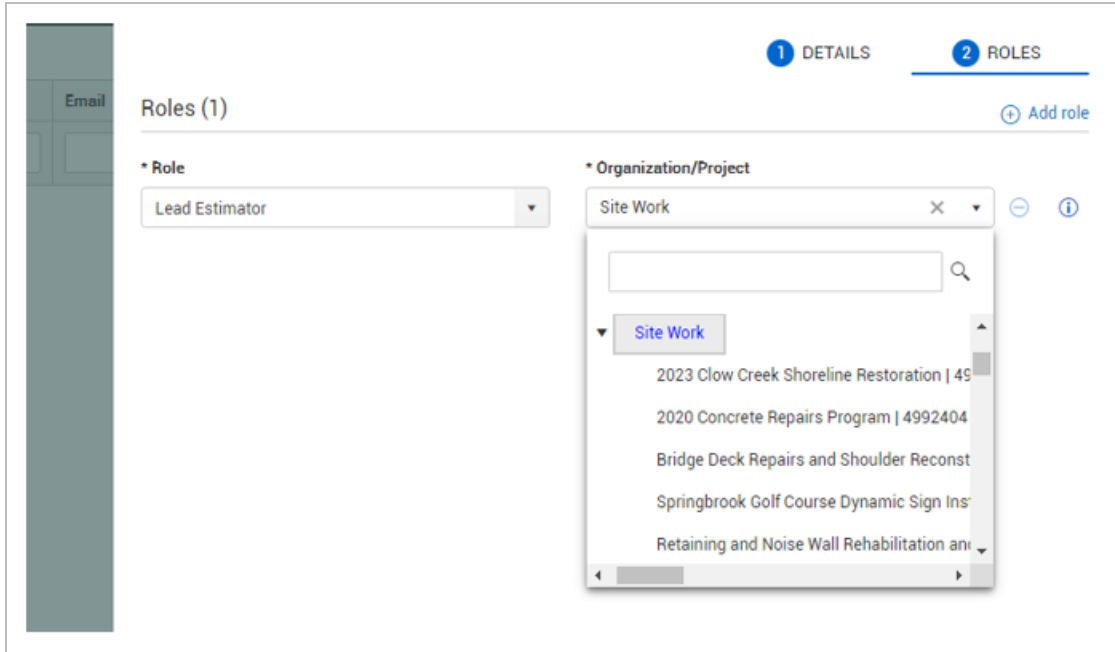


For more information on managing users, see the User Management section in [Roles & Permissions](#).

3.14.3.1 Organizational Breakdown Structure

Projects in Platform are required to have an Organizational Breakdown Structure (OBS) assignment. The OBS assignments can be utilized for assigning roles and granting permissions to all jobs belonging to a node in the OBS.

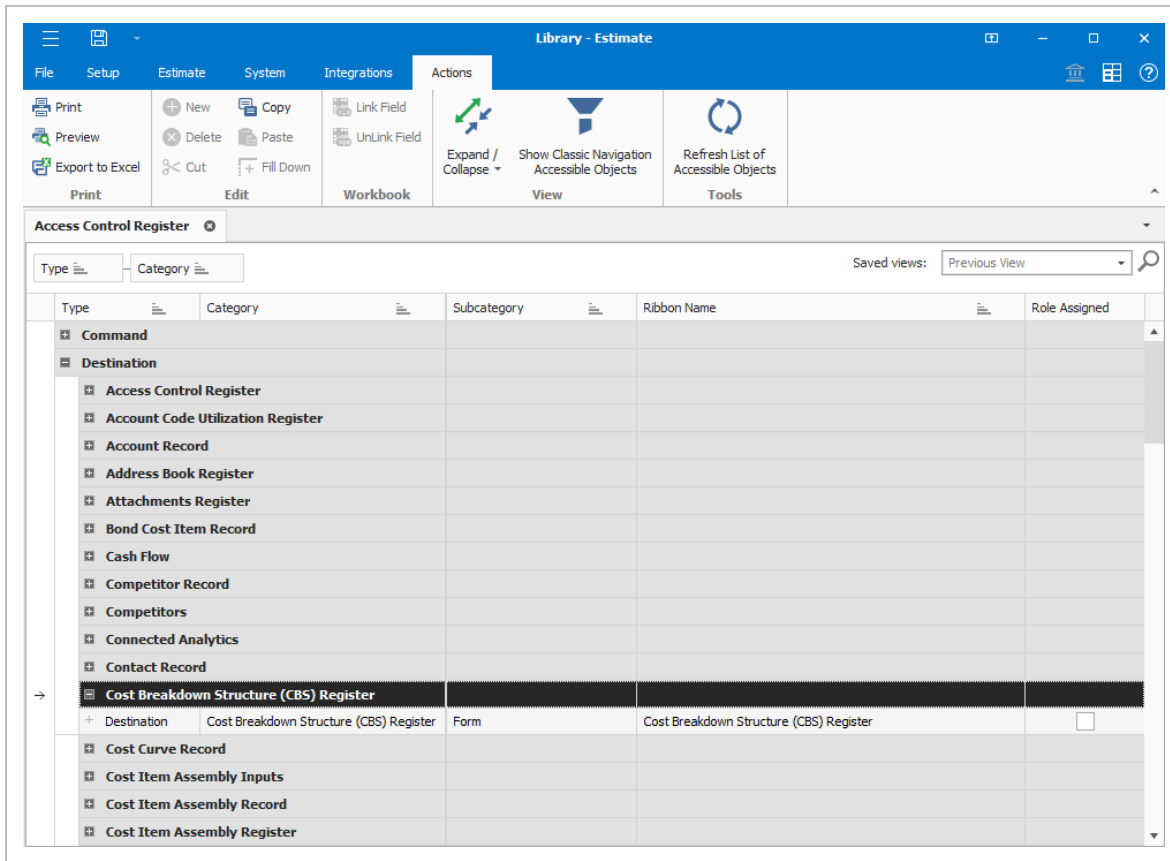
In the following example, Johny has been assigned as the Lead Estimator for the Site Work node of the OBS, which grants him the permissions assigned to the Lead Estimator role for every estimate created that belongs to the Site Work node in the OBS.



Permissions are cumulative, so if a user is assigned multiple roles on a single project, the role with the most permissions is applied when attempting to access various functions.

3.14.4 Granting permissions to destinations and commands

Estimate can grant permissions at a deep-rooted level by assigning which roles can access specific forms. You can also assign certain roles that can perform specific commands or actions that can be performed within those forms.



Permissions are managed in the Access Control Register in the Setup tab of the Library.

This register is a list of accessible objects, which can be used to grant or restrict permissions to various roles. By default, the register is organized by type, then by category. Removing the grouping lets you search for key words using the search capabilities of the register.

The screenshot shows the 'Library - Estimate' application window. The ribbon includes 'File', 'Setup', 'Estimate', 'System', 'Integrations', and 'Actions'. The 'Access Control Register' table is displayed with the following columns: Type, Category, Subcategory, Ribbon Name, and Role Assigned. The table contains 20 rows of data. Two rows, 'PBS Change Record' and 'PBS Changes Register', are highlighted in yellow. A red box highlights the 'PBS' filter in the table's header area.

Type	Category	Subcategory	Ribbon Name	Role Assigned
+ Destination	Job Status Register	Form	Job Status Register	<input type="checkbox"/>
+ Destination	Main Form	Form	Main Form	<input type="checkbox"/>
+ Destination	Microsoft Excel	Form	Microsoft Excel	<input type="checkbox"/>
+ Destination	Organizational Category Record	Form	Organizational Category Record	<input type="checkbox"/>
+ Destination	Pay Item & Proposal Register	Form	Pay Item & Proposal Register	<input type="checkbox"/>
+ Destination	Pay Item Record	Form	Pay Item Record	<input type="checkbox"/>
+ Destination	PBS Change Record	Form	PBS Change Record	<input type="checkbox"/>
+ Destination	PBS Changes Register	Form	PBS Changes Register	<input type="checkbox"/>
+ Destination	Period Resource Quantities	Form	Period Resource Quantities	<input type="checkbox"/>
+ Destination	Price % Add-On Record	Form	Price % Add-On Record	<input type="checkbox"/>
+ Destination	Price Breakdown Structure	Form	Price Breakdown Structure	<input type="checkbox"/>
+ Destination	Price Category Record	Form	Price Category Record	<input type="checkbox"/>
+ Destination	Quantity Item Employment Register	Form	Quantity Item Employment Register	<input type="checkbox"/>
+ Destination	Quantity Item Register	Form	Quantity Item Register	<input type="checkbox"/>
+ Destination	Quantity Item Sources Register	Form	Quantity Item Sources Register	<input type="checkbox"/>
+ Destination	Quantity Roll-Up Record	Form	Quantity Roll-Up Record	<input type="checkbox"/>
+ Destination	Quote Comparison & Award - Cost items	Form	Quote Comparison & Award - Cost items	<input type="checkbox"/>
+ Destination	Quote Comparison & Award - Resources	Form	Quote Comparison & Award - Resources	<input type="checkbox"/>
+ Destination	Quote Cost Item Record	Form	Quote Cost Item Record	<input type="checkbox"/>
+ Destination	Quote Group Tag Record	Form	Quote Group Tag Record	<input type="checkbox"/>

The Type of the accessible object is one of the following:

- **Command:** Actions that are in the main ribbon navigation.

Type	Category	Subcategory	Ribbon Name	Role Assigned
Command				
Unassigned				
Bond Cost Item Record				
Cash Flow				
Column Captions				
Connected Analytics				
Cost Item Assembly Inputs				
Command	Cost Item Assembly Inputs		Actions > View > Default Data Bl...	<input type="checkbox"/>
Command	Cost Item Assembly Inputs		Actions > View > Show Hidden I...	<input type="checkbox"/>
Cost Item Assembly Record				
Cost Item Record				
Dependent Cost Item Record				
Foundation Setup Data Register				
Job Snapshots				
Main Form				
Period Resource Quantities				
Price % Add-On Record				
Price Breakdown Structure				
Quote Comparison & Award - Cost items				
Quote Comparison & Award - Resources				
Quote Record				
Request for Quote (RFQ) Record				
Resource Employment Record				
Session Recap				
Shift / Rate Calculator Record				
Template Register				
Utilization Dependent Cost Item Record				
Work Breakdown Structure Record				
Destination				
Register Command				

- **Destination:** A form or location within the application. Restricting this type of permission means that all the actions that are available in the form are unavailable.

The screenshot displays the 'Access Control Register' window. At the top, there are filters for 'Type' and 'Category', and a 'Saved views' dropdown set to 'Previous View'. Below the filters is a table with the following columns: Type, Category, Subcategory, Ribbon Name, and Role Assigned. The table contains a list of commands, with 'Cost Item Assembly Inputs' highlighted in black. A red border highlights the entire table area.

Type	Category	Subcategory	Ribbon Name	Role Assigned
Command				
Destination				
Access Control Register				
Account Code Utilization Register				
Account Record				
Address Book Register				
Attachments Register				
Bond Cost Item Record				
Cash Flow				
Competitor Record				
Competitors				
Connected Analytics				
Contact Record				
Cost Breakdown Structure (CBS) Register				
Cost Curve Record				
Cost Item Assembly Inputs				
+	Destination	Cost Item Assembly Inputs	Form	Cost Item Assembly Inputs
Cost Item Assembly Record				
Cost Item Assembly Register				
Cost Item Record				
Custom Auto Price Record				
Customize				
Default Quote Record				
Dependent Cost Item Record				
Estimate Job Explorer				
Foundation Setup Data Register				
Fuel Cost Record				
Geographic Area Record				
Haul Calculator Record				
Job Properties				
Job Register				
Job Snapshots				
Job Status Register				
Main Form				
Microsoft Excel				
Organizational Category Record				
Pay Item & Proposal Register				

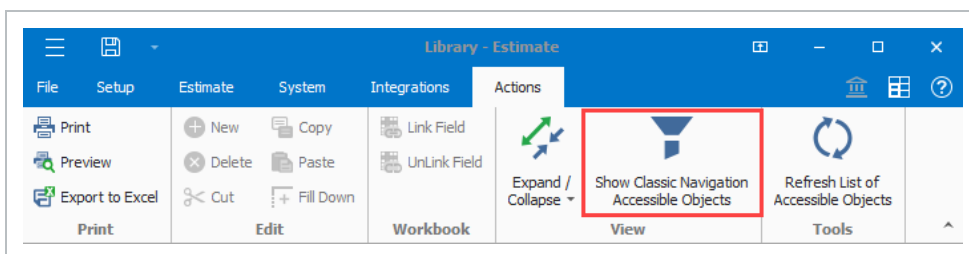
- Register Command:** These are the commands that appear for the specified register and are commonly accessed either by using the Actions menu in the navigation ribbon when the register is active or using the right-click context menu commands on the records in a register.

Type	Category	Subcategory	Ribbon Name	Role Assigned
Command				
Destination				
Register Command				
Account Code Utilization Register				
Account Codes				
Register Com...	Account Codes	Account Codes	Actions > Edit > Copy	<input type="checkbox"/>
Register Com...	Account Codes	Account Codes	Actions > Edit > Cut	<input type="checkbox"/>
Register Com...	Account Codes	Account Codes	Actions > Edit > Delete	<input type="checkbox"/>
Register Com...	Account Codes	Account Codes	Actions > Edit > Fill Down	<input type="checkbox"/>
Register Com...	Account Codes	Account Codes	Actions > Edit > New	<input type="checkbox"/>
Register Com...	Account Codes	Account Codes	Actions > Edit > Open	<input type="checkbox"/>
Register Com...	Account Codes	Account Codes	Actions > Edit > Paste	<input type="checkbox"/>
Address Book Register				
Alternate Scenario Assignments				
Alternate Scenario Pay Items				
Alternate Scenarios				
Alternates				
Attachments Register				
Competitor Pay Item				
Competitors				
Contact Types				
Cost Breakdown Structure (CBS) Register				
Cost Curves				
Cost Item Assembly Calculations				
Cost Item Assembly Register				
Job Register				
Job Status Register				
Languages				
Organizations				
Packages				
Pay Item & Proposal Register				
PBS Changes Register				
Projects				
Quantity Item Employment Register				
Quantity Item Register				
Quantity Item Sources Register				
Quantity Roll-Ups				

Categories and subcategories can be used to further group and identify various accessible objects.

The Ribbon Name column provides the navigation path and name of the object as it appears in the ribbon navigation.

The Show Classic Navigation Accessible Objects button on the Actions tab of the Access Control register can be used to identify accessible objects as they might have existed in the legacy version of Estimate, and are still available to assist users who may have set up Access Control prior to the newer ribbon navigation.

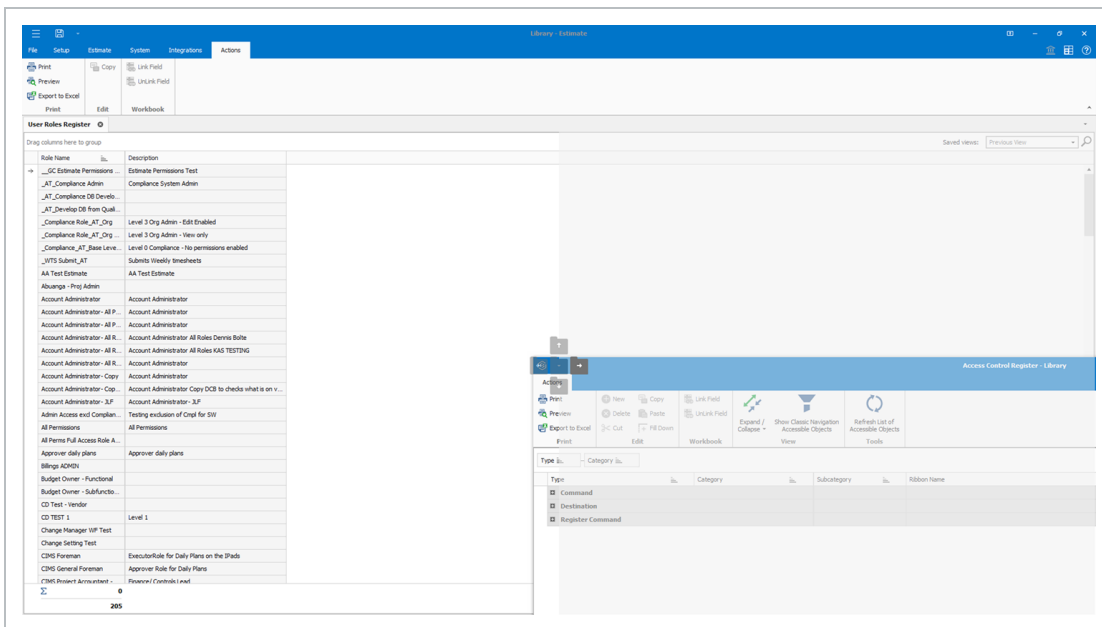


If no roles are assigned to an accessible object, no restrictions are applied to the accessible object, and anyone with access to the application is able to access that destination or command.

When setting up Access Control, be sure to identify the commands and destinations in Estimate that you want to restrict permissions to, and then assign the roles to explicitly grant permissions to those accessible objects.

Limit access control on an accessible object

1. From the Library > **Setup** tab, open both the User Roles Register and the Access Control Registers.
2. Drag one of the registers to the side of the other, so both are side-by-side.



3. Identify the role or roles in the User Roles register that only provides access to the Command, Destination or Register, then right-click to copy.

Engineer	Engineer
Engineer- Copy DCB	Engineer DCB
Estimate Role	
Estimate SAAS Roles Testing	Account Administrator
Estimate-Account Admin	Estimate-Account Admin
Estimate-Lead Estimator	Estimate-Super User
Estimate-Library Work	
Estimate-Standard Est	
Executor	
Executor daily plans	Executor daily plans
Executor- Test Copy	Productivity tab test

Copy

Link this field to Workbook

UnLink from Workbook

4. Select one or more accessible objects in the Access Control register, and then right-click to paste.

Microsoft Excel			
Organizational Category Record			
Pay Item & Proposal Register			
Destination	Pay Item & Proposal Register	Form	Pay Item & Proposal Register
Pay Item Record			
PBS Change Register			
PBS Changes Register			
Period Resource			
Price % Add-On			
Price Breakdown			
Price Category			
Quantity Item			
Quantity Item Register			

New

Delete

Cut

Copy

Paste

Fill Down

Link this field to Workbook

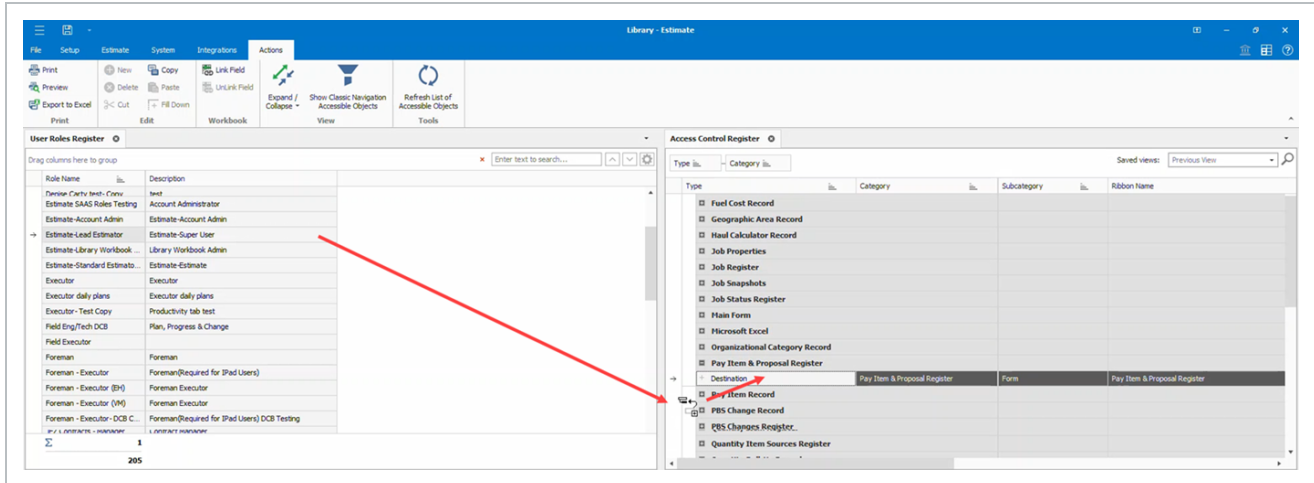
UnLink from Workbook

5. Expand the detail records of the accessible objects to verify the role assignments have been correctly made.

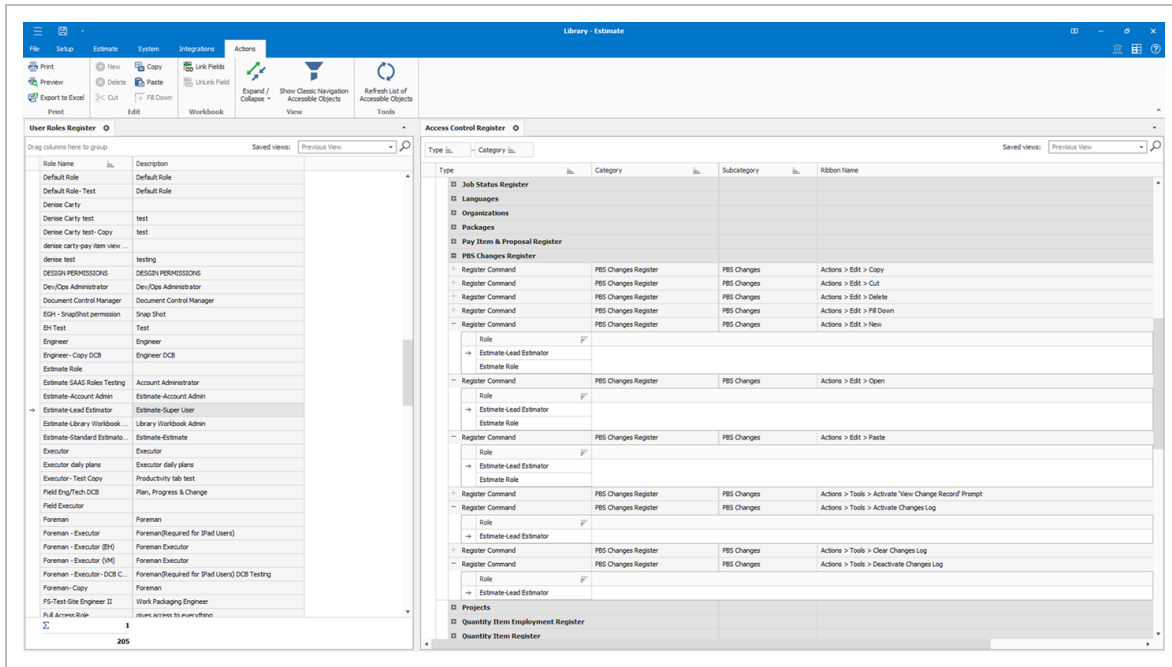
Role Name	Description
Perforin DCB	Perforin DCB
Estimate Role	
Estimate SAAS Roles Testing	Account Administrator
Estimate-Account Admin	Estimate-Account Admin
Estimate-Lead Estimator	Estimate-Super User
Estimate-Library Workbook	Library Workbook Admin
Estimate-Standard Estimate	Estimate-Estimate
Executor	Executor
Executor daily plans	Executor daily plans
Executor- Test Copy	Productivity tab test
Field Eng/Tech DCB	Plan, Progress & Change
Field Executor	
Foreman	Foreman
Foreman - Executor	Foreman(Required for iPad Users)
Foreman - Executor (BH)	Foreman-Executor

Type	Category	Subcategory	Ribbon Name
Job Properties			
Job Register			
Job Snapshots			
Job Status Register			
Main Form			
Microsoft Excel			
Organizational Category Record			
Pay Item & Proposal Register			
Destination	Pay Item & Proposal Register	Form	Pay Item & Proposal Register
Role			
Estimate-Lead Estimator			
Pay Item Record			
PBS Change Record			
PBS Changes Register			

Alternatively, you can drag and drop the Roles onto the accessible objects in these two registers.

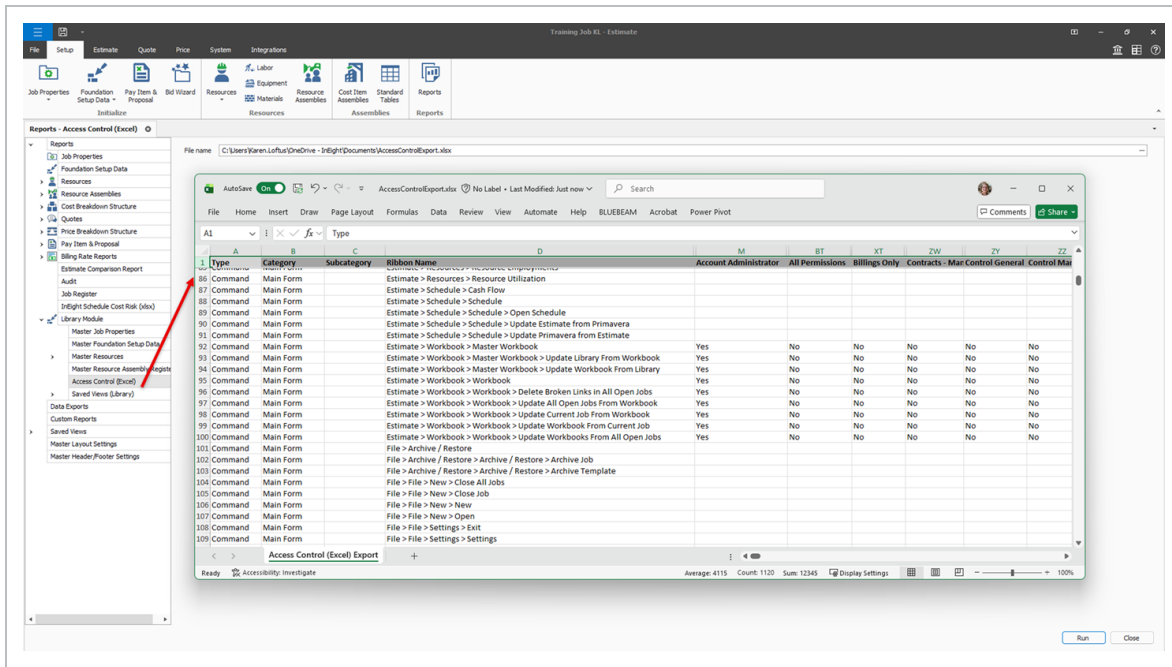


In the following example, both Estimators and Lead Estimators are permitted to invoke any of the actions on the records in the PBS Changes Register, but only the Lead Estimator is permitted to activate or deactivate the PBS Changes Log. Because no roles have been assigned to the *Activate View Change Record* prompt, anyone with access to the application will be able to perform that action.



3.14.4.2 Access Control report

You can use the Access Control report to audit user permissions, command access, and various restrictions without having to search through the Access Control register for this information.



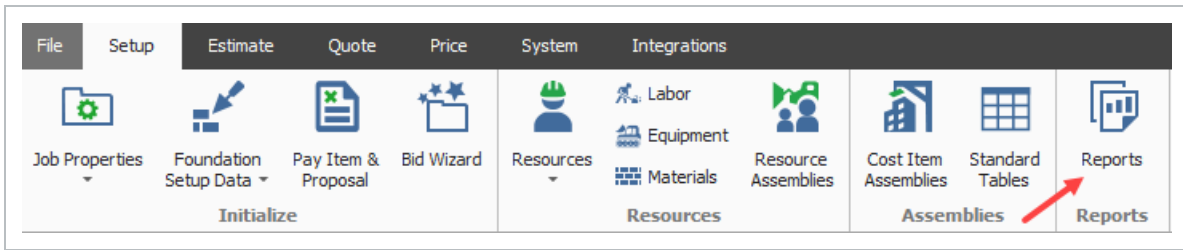
The report makes it easier to find the role names along with their associated Yes and No access permissions to each form in Estimate.

Type	Category	Subcategory	Ribbon Name	Account Administrator	All Permissions	Billings Only	Contracts - Man Control General	Control Ma
990 Destination	Job Snapshots	Form	Job Snapshots					
991 Destination	Job Status Register	Form	Job Status Register					
992 Destination	Main Form	Form	Main Form					
993 Destination	Microsoft Excel	Form	Microsoft Excel	Yes	No	No	No	No
994 Destination	Organizational Category Record	Form	Organizational Category Record					
995 Destination	Pay Item & Proposal Register	Form	Pay Item & Proposal Register					
996 Destination	Pay Item Record	Form	Pay Item Record					
997 Destination	PBS Change Record	Form	PBS Change Record					

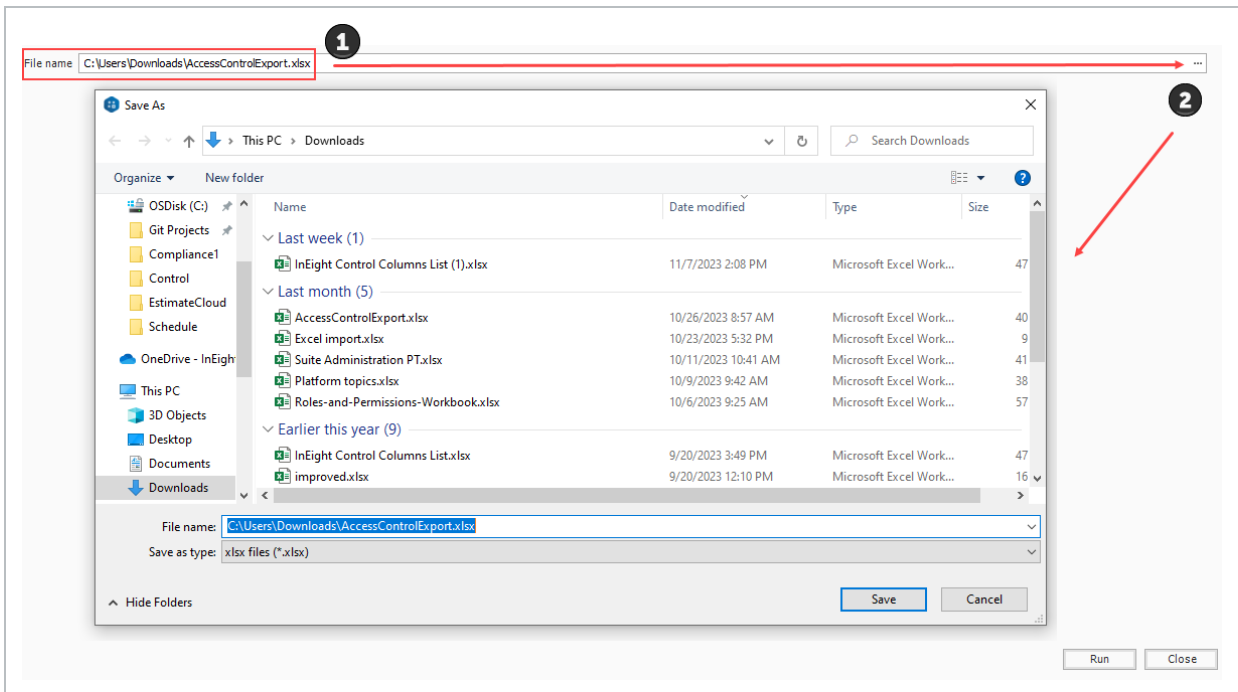
Navigate to Control report

1. Open a job, and then select the **Setup** tab.
2. Click the **Reports** icon.

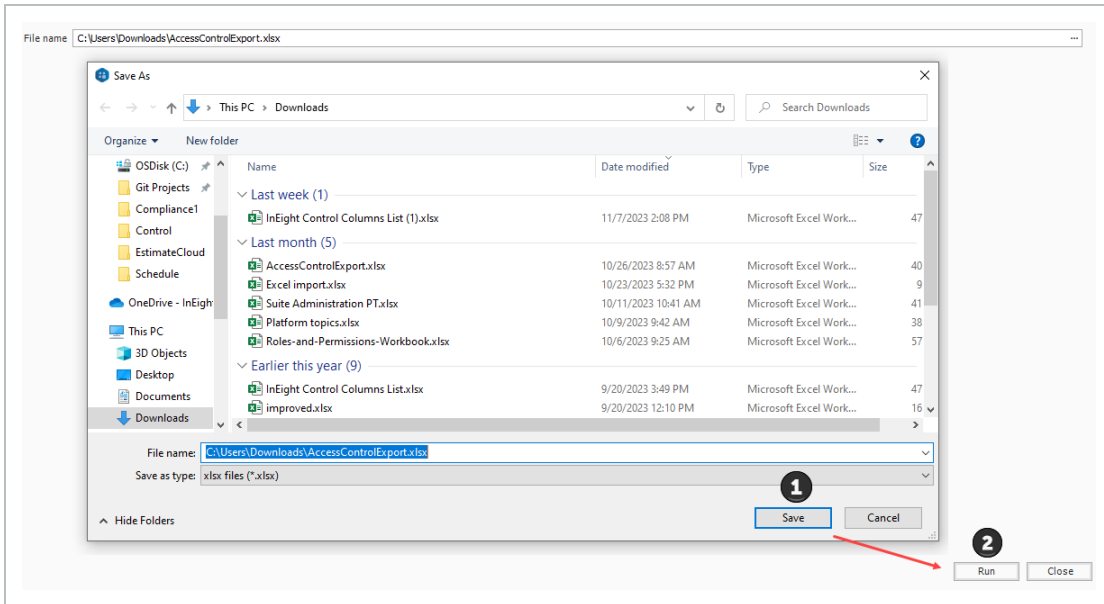
You can access the Reports menu from the Setup, Estimate, Quote, and Price tabs.



- 3. Expand Library Module, and then select **Access Control (Excel)**.
- 4. Select a file name, or choose another file name path.



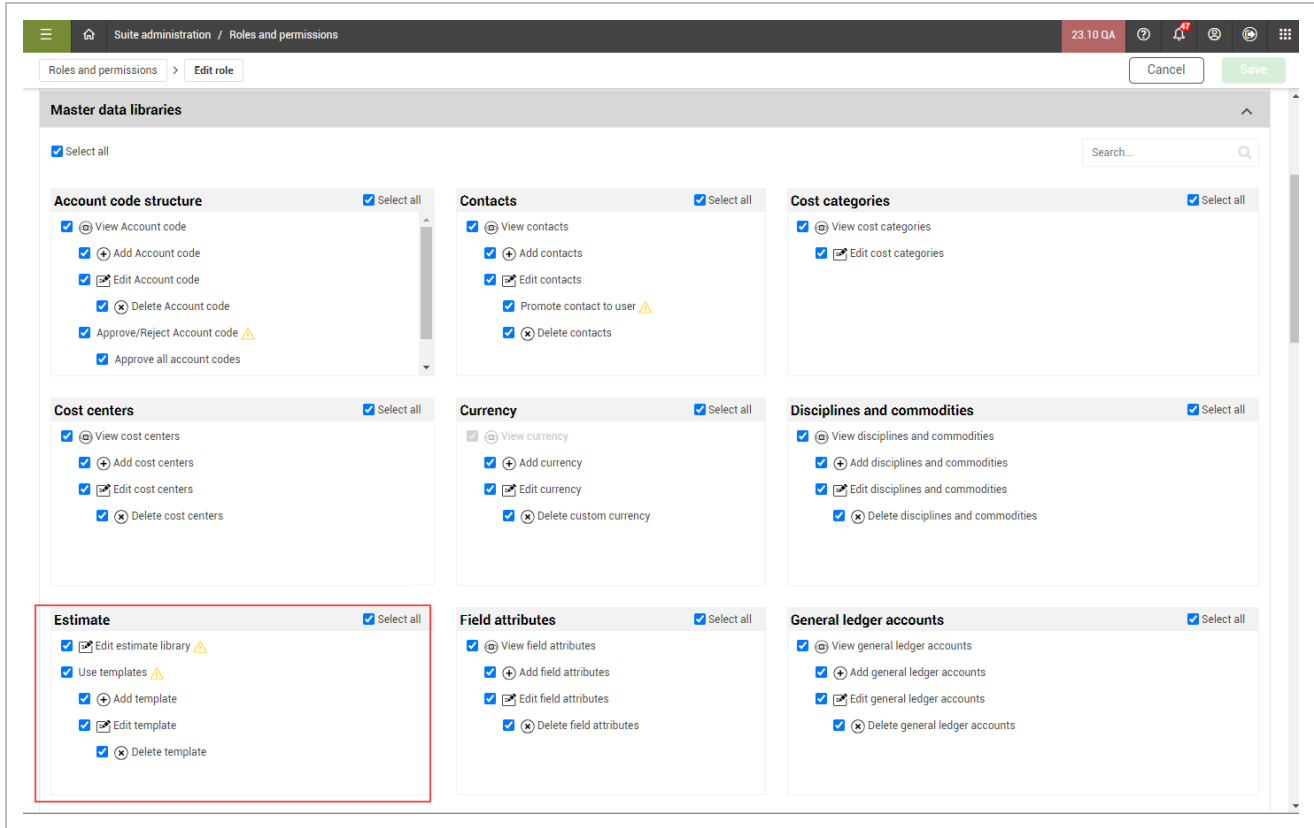
- 5. Click **Save**, and then click **Run**.



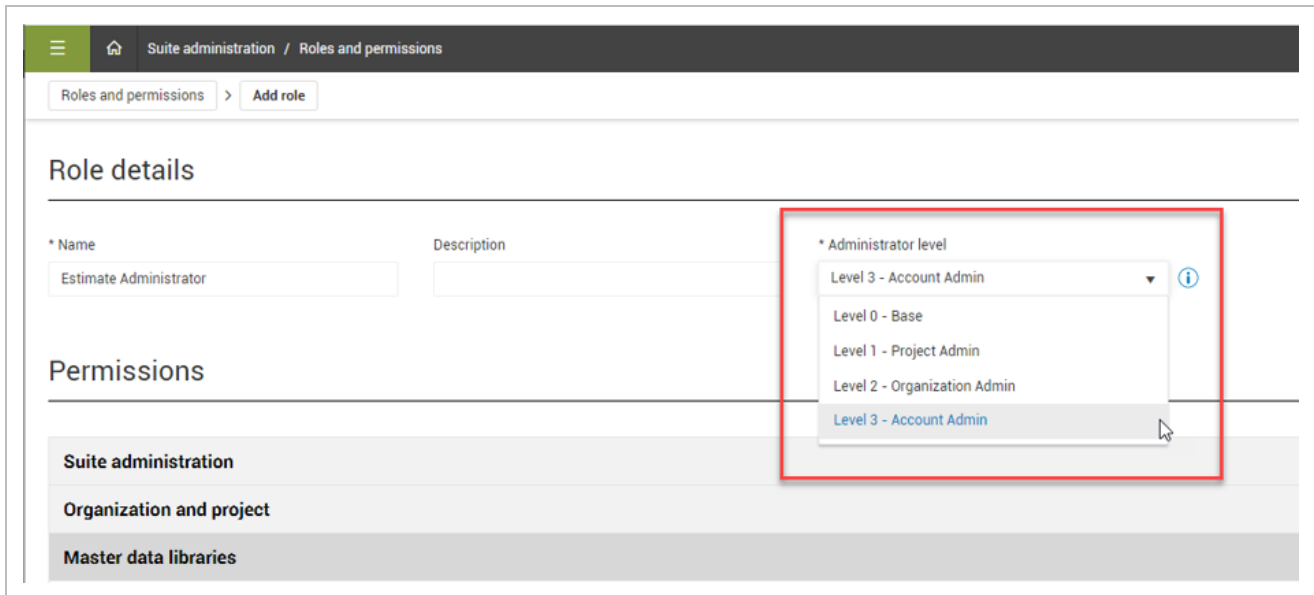
In the report, you can filter, sort, or perform any type of audit to help you determine user or role access.

3.14.5 Granting permissions to the Estimate Library

In Platform, permissions relating to the Estimate library are found in the Master data libraries permission section.



To grant Estimate library permissions to a role, the role must be an Administrator Level 3 - Account Admin. If not, the permissions are not selectable on the Add/Edit Role setup page.



The Master data libraries permission section is also where the permissions controlling which roles can manage templates are found.

3.14.6 Common roles used when securing an Estimate

The process of creating an estimate for a bidding opportunity commonly requires unrestricted access to the capabilities of Estimate so that estimators can work efficiently. However, depending on the level of data governance within an organization, you might want to preclude certain users from accessing some of the more sensitive parts of Estimate. If changes were made, either accidentally or otherwise, it could impose detrimental impacts on the organization.

Estimate's security model is very detailed and robust. When designing a security model that restricts certain features and functionality of Estimate, each company must weigh the benefit of the protection of such restrictions which could bring unwanted or uncontrolled changes and negatively impact the productivity of the estimating process. While it is possible to create a very detailed and robust security model with many different roles for individuals within an organization, it is not necessary to set up and maintain roles for all of Estimate's accessible objects. It is likely a company can effectively secure their sensitive data with no more than a couple roles granting permissions to a few commands and destinations.

A common way to implement security on the Estimate application is to restrict access to certain system level settings, such as who can modify data in the library, or who can change any company specified custom column captions.

The following are some of the more common Roles a company may set up, describing the purpose of the role and typical permissions:

- **Lead Estimator:** Lead Estimators are commonly assigned to estimates based on their knowledge and experience. They may be precluded from creating or deleting estimates themselves or changing any system level settings, but commonly have full access to all the capabilities needed to create and maintain the estimates they are assigned to.
- **Estimate Manager:** Estimate Managers are commonly responsible for identifying bidding opportunities and determining which opportunities to pursue. Once it has been determined that the company will pursue an opportunity, the Estimate Manager creates the estimate and assigns it to a Lead Estimator based on resource availability relative to all the bidding opportunities the company will be pursuing. These roles manage the creation of estimates and assist in ensuring all the necessary supporting data is available, such as assigning appropriate project attributes or including needed resource libraries.
- **Administrator:** Administrators ensure accessibility and availability of the solutions utilized by estimators. Typically, they control system level settings and activities that would affect company

standards, such as changing column captions, ability to define corporate views, list of job statuses and ribbon settings. Other typical permissions restricted to only the Administrator level roles are the ability to access the User Roles register and the Access Control register.

Lesson 3 - Review

1. When you create a new job folder, all category labels defined in the Library Foundation Setup Data Register will be copied to the new job folder automatically.
 - a. True
 - b. False
2. This resource type is a catch-all and can be used for anything from dump fees and security to creating subcontractors as a resource.
 - a. Installed Materials
 - b. Unique
 - c. Labor
 - d. Construction Equipment
3. The Construction Equipment and Rented Construction Equipment Resource Rate Records include consumption rates that will factor with the fuel cost you define where?
 - a. Library Foundation Setup Data
 - b. Library Resource Rates
 - c. Job Properties
 - d. Cost Breakdown Structure

Lesson 3 - Summary

As a result of this lesson, you can use the following forms:

- Library Job Properties
- Library Foundation Setup Data Register
- Library Resource Rate Register
- Library Assembly Register

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LESSON 4 – PROJECT SETUP

Lesson Duration: 45 minutes

Lesson Objectives

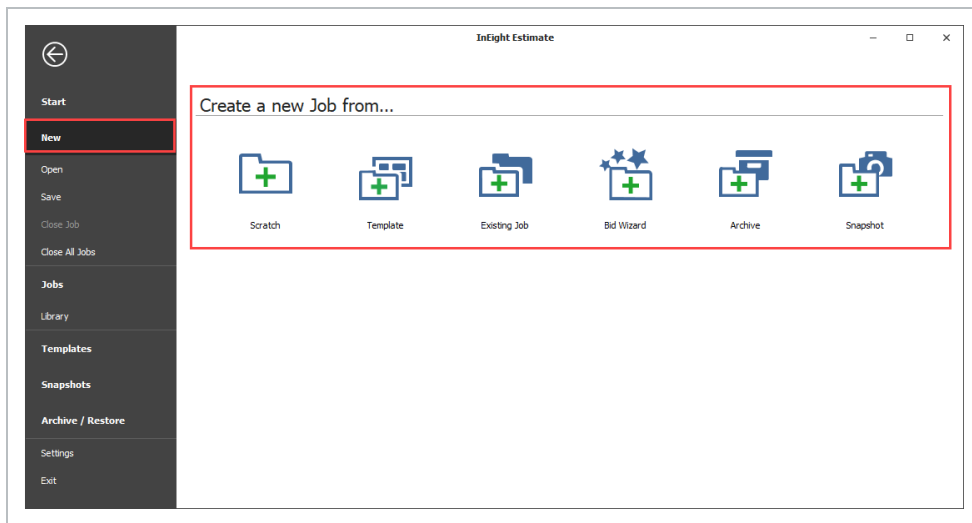
After completing this lesson, you will be able to:

- Create a new project
- Enter Job Properties
- Create pay items in the Pay Item & Proposal Register

4.1 JOB CREATION

In InEight Estimate, a job represents the *folder* containing your estimate (or version of your estimate), including its related bid items, cost breakdown structure, resources, quotes, and change logs. All the jobs in your organization are stored in the Job Register.

To create a new job, select **File** and then **New** in the InEight Estimate Backstage view. You can then choose from several job creation options. The image and table below show the available options.



Option	Description
Scratch	Creates a new job folder from scratch that is empty, containing no existing data.
Template	Creates a job from an existing template from the Template Register. For more information, see Templates .
Existing Job	Creates a job from an existing job from the Job Register. For more information, see Copy an Existing Job .
Bid Wizard	Uses a wizard tool to create a new job by selecting pay items and/or cost items from an existing source job. For more information, see Bid Wizard .
Archive	Creates a new job from an Estimate Job Archive (.est) File. For more information on creating and using job archives, see Archive and Restore Jobs .
Snapshot	Creates a new job from a register containing snapshots for all jobs. You can filter the register of snapshots to find the snapshot you need. For more information, see Snapshots .

4.1.1 Create a job from scratch

When you need a clean estimating environment that is not based on any past work, select **Scratch**. Creating a job from scratch gives you complete flexibility and ensures that no assumptions are carried forward from past estimates.

4.1.2 Platform project association to job

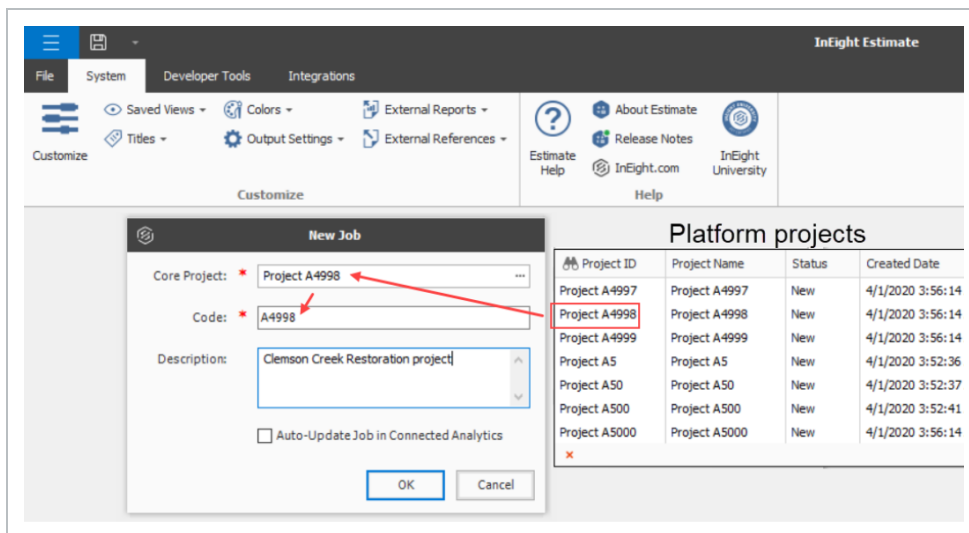
When you create a job, it must be associated with a project in InEight Platform. The Platform project represents the overall construction project being managed by your organization, from planning through execution and turnover.

The association to a project in Platform promotes data consistency, helps ensure that the data is being pulled from a single source of truth, and reduces duplicate entries.

Fields in Setup > Job Properties > **Overview** that are maintained in Platform and integrate into Estimate include Project ID, Organization, Project Name, and Project Notes. Fields on the **Cover Sheet** tab such as Location, City, State, Country, Latitude, Longitude, Forecast Start, Forecast Finish, and Duration can also be maintained from the associated Platform project.

When modifications are made to integrated fields in Platform and then saved, the changes automatically appear in Estimate. For example, if you change the project name in Platform to reflect a new year or phase, that update appears in the **Project Name** field in Job Properties.

When creating a new job, select a project in the **Core Project** field in the New Job window to associate the job with its Platform project.



4.1.3 Organization breakdown structure (OBS)

Associating Platform projects lets you organize estimates directly from Platform’s OBS. Because projects in Platform are organized in an OBS, associating your job (estimate) to a project in Platform allows your estimates to be included in that organizational structure.

The OBS represents the hierarchical structure a company uses to manage its business and can be broken down in multiple ways, such as Southwest or Northwest regions. Within those regions the hierarchy can be further broken down by divisions, such as Electrical, Paving, and Masonry. The organization can continue to be more refined to the level such as states, cities, districts.

Organization	Description
C-XYZ	Company XYZ
C-XYZ : Estimate Infrastructure : South West	South West
C-XYZ : Estimate Infrastructure : South West : Electrical	SW Electrical division
C-XYZ : Estimate Infrastructure : South West : Electrical : Electrical Arizona	AZ Electrical division
C-XYZ : Estimate Infrastructure : South West : Electrical : Electrical New Mexico	NM Electrical
C-XYZ : Estimate Infrastructure : South West : Paving	SW Paving division
C-XYZ : Estimate Infrastructure : North West	North West
C-XYZ : Estimate Infrastructure : North West : North West Paving	NW Paving division
C-XYZ : Estimate Infrastructure : North West : Electrical	NW Electrical division

After the job you create is associated to a Platform project, in the Job Register, you can view the job in the context of your OBS. In the example below, the job register is filtered to the Tantalum Group > Estimating > **Site Work** level of the organization. Under project ID number 5013592, you can see two jobs, the original estimate and a second version.

The screenshot shows the 'Job Register' interface. On the left is a tree view under 'Organization' with categories like 'Tantalum Group', 'Assets', 'East', 'Estimating', 'Industrial Sector', 'Paving', 'Renovation', 'Site Work', 'Program 1', 'Stam pede Ventures', and 'West'. On the right is a table with columns: Proj ID, Code, In Use, Description, Status, Project Name, and Organization.

Proj ID	Code	In Use	Description	Status	Project Name	Organization
4985362		1				
4985362	4985362	<input type="checkbox"/>	2020 Clow Creek Shoreline Restoration	Bidding	2020 Clow Cree...	Site Work
4992404		1				
5013592		2				
5013592	5013592	<input type="checkbox"/>	Springbrook Golf Course Dynamic Sign In...	Bidding	Springbrook Gol...	Site Work
5013592	5013592-v2	<input type="checkbox"/>	Springbrook Golf Course Dynamic Sign In...	Bidding	Springbrook Gol...	Site Work
5013787		1				

Your location assignment in the OBS determines the access you inherit and the visibility you have to other areas of the OBS.

For more information, see [Job register overview](#).

Create a new job from scratch

1. From the Backstage view, select to create a new job from **scratch**.
2. In the New Job dialog box, click in the **Core Project** field to select a Platform job from the list.
3. Modify the **Code** field as needed.
4. Enter a description of the job in the Description field.
5. Determine if you want to select the **Auto-Update Job in Connected Analytics** check box.
6. Click **OK** to create the new project.

4.2 PROJECT CREATION

You can create new projects in InEight Platform’s root and sub-organizations to which you can then associate Estimates jobs. For example, you can create new projects in a node of the organization dedicated to estimating, permitting estimators to create and manage projects for the opportunities they are pursuing while allowing the rest of the organization to maintain a higher level of security over active projects.

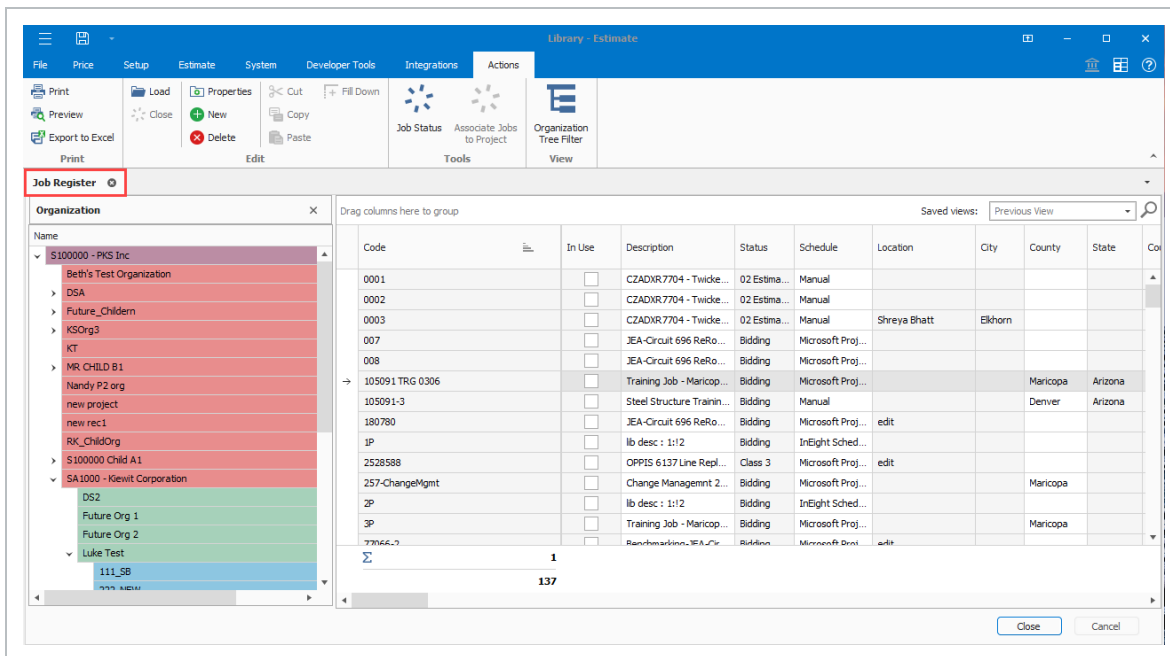
For more information about project creation, see [Project Initiation](#) in Platform.

4.2.1 Considerations

You must have a Level 3-Account Admin role or the Add projects permission in your role.

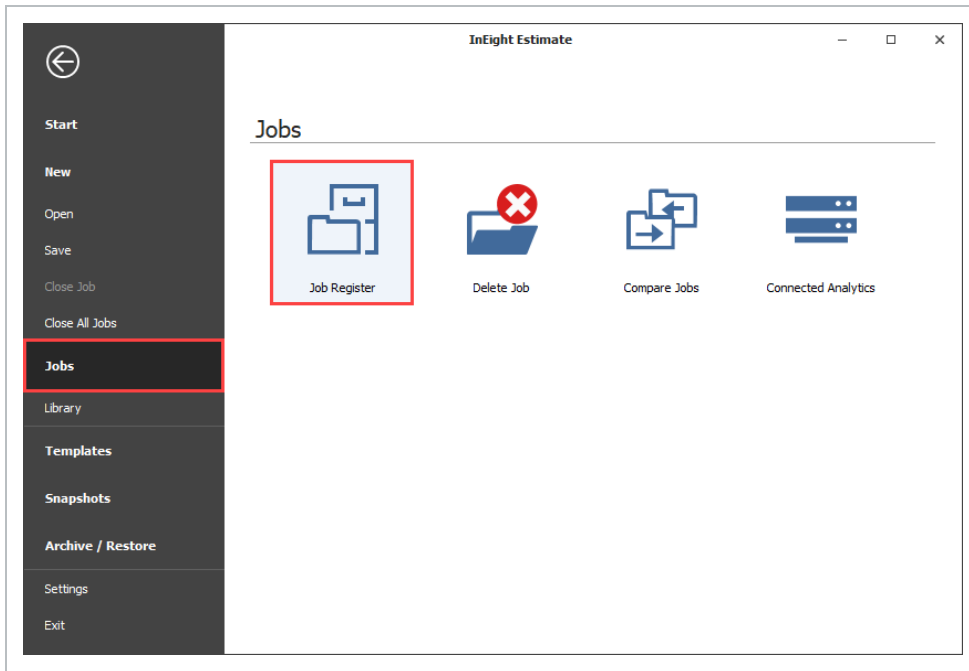
4.3 JOB REGISTER OVERVIEW

The Job Register contains all the jobs created by your organization and includes columns showing job properties and other job details to make it easy to view, group by, and filter job information for job management and reporting purposes.

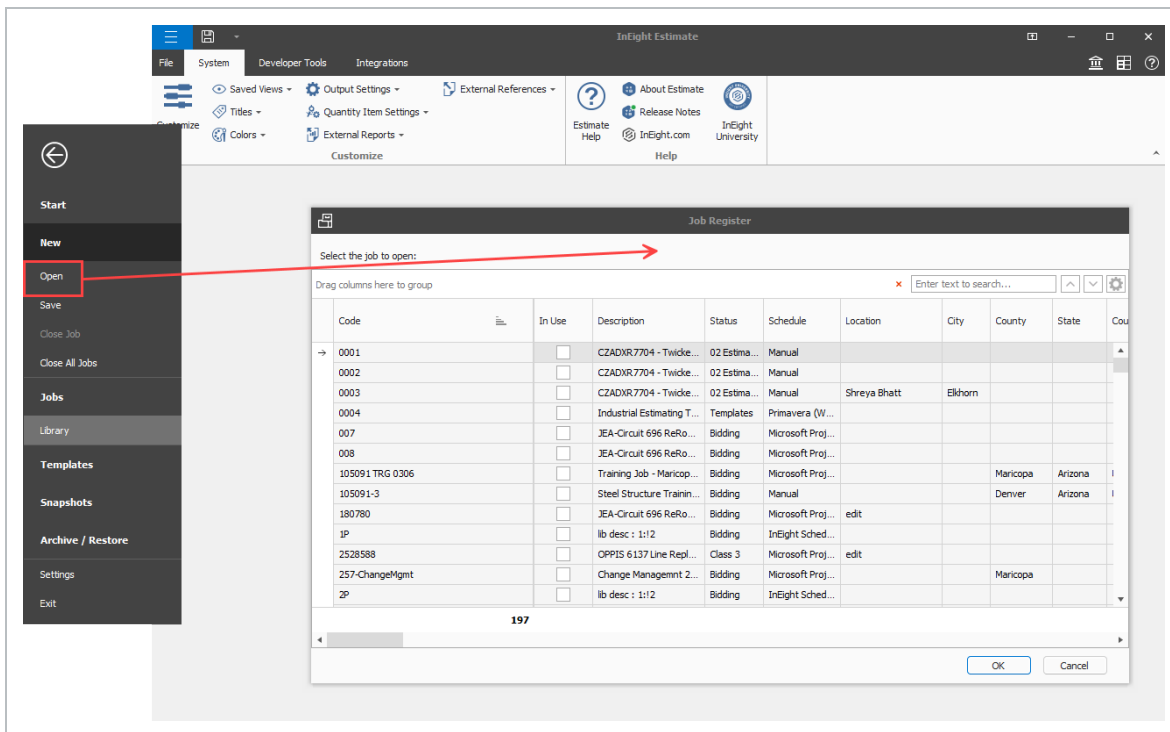


4.3.1 Open the Job Register

You can access the editable Job Register from the Backstage view by selecting File > Jobs > **Job Register**.



You can also open a non-editable version of the Job Register from File > **Open**. This version is used to locate and open a job without exposing the full editing features of the register.



4.4 MANAGE JOBS FROM THE JOB REGISTER

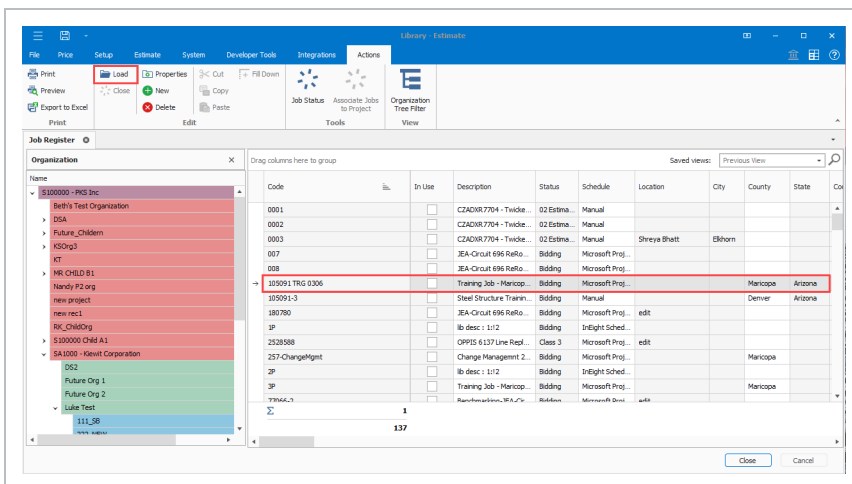
The Job Register lets you perform many tasks to manage your jobs. You can perform tasks such as:

- Load jobs.
- Edit job details
- Open and edit a job's properties.
- Use the columns to group jobs.
- View and upgrade data versions.

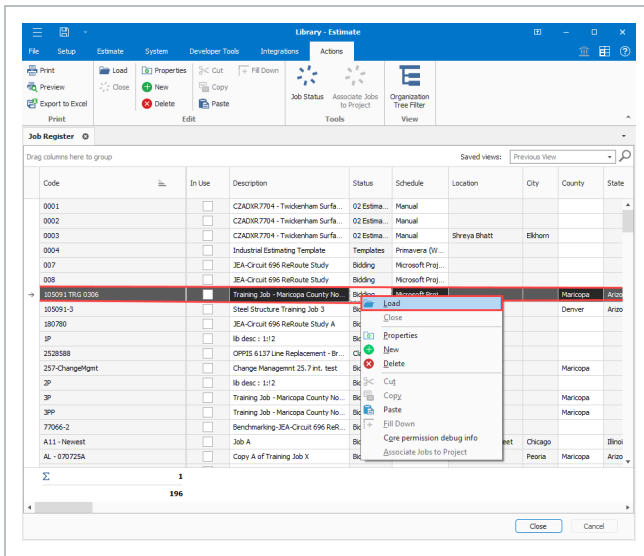
4.4.1 Load a job from the Job Register

You can load (open) a job from the Job Register by:

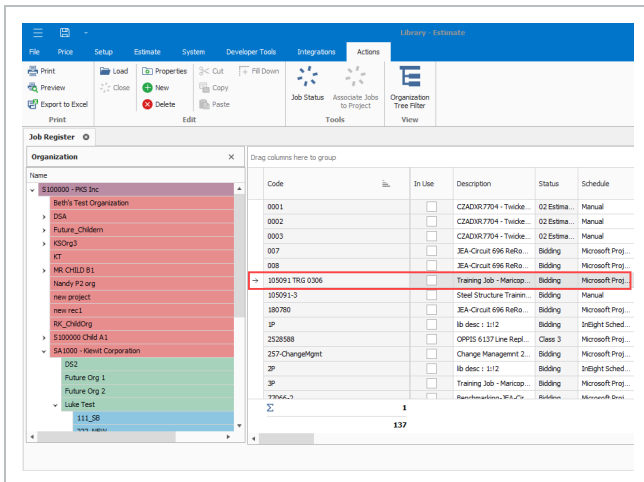
- Selecting a job, and then clicking **Load** from the **Actions** tab.



- Right-clicking a job's row header, and then selecting **Load**.



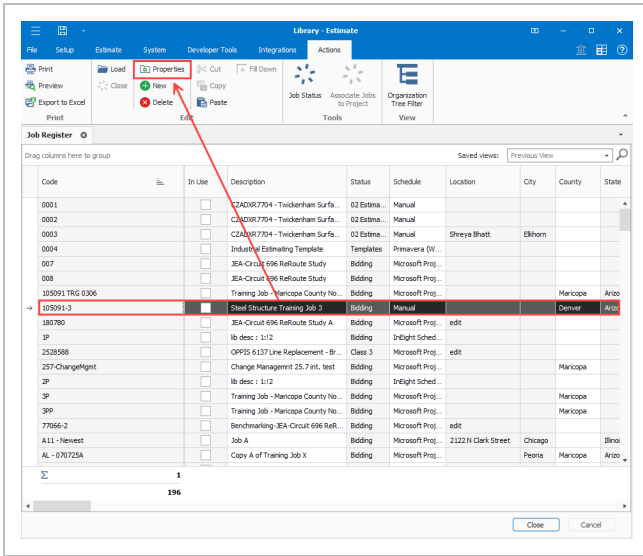
- Double-clicking the row header of a job.



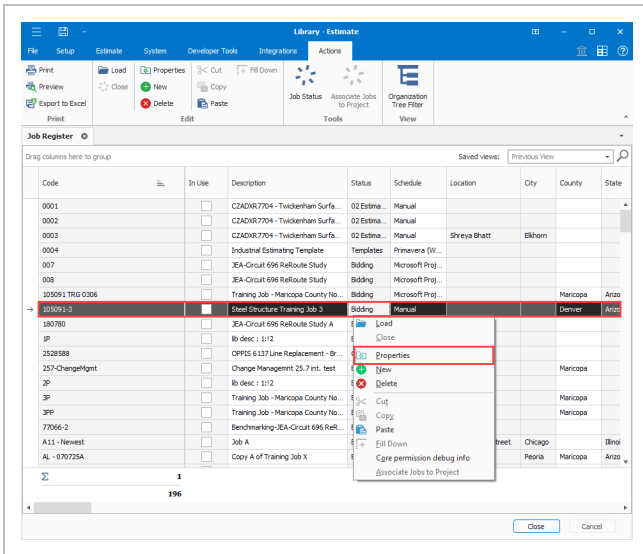
4.4.2 Open a job's properties from the Job Register

You can also open the Job Properties form of a job from the Job Register by:

- Selecting a job, and then clicking **Properties** from the **Actions** tab.



- Right-clicking a job's row header, and then selecting **Properties**.



4.4.3 Edit job details

Many fields in the Job Register are editable, so you can make changes to job details directly in the register without needing to open the job and its job properties.

The table below summarizes key columns available in the Job Register and indicates which of them are editable.

Columns	Description	Editable from Register
Job Properties Cover Sheet related columns	Columns such as job status, location, city, state, country, engineer, owner, architect, estimator, contract duration, forecast start and finish dates, and liquidated damages.	Yes, for fields that only exist in Estimate. No, for fields that come from the associated Platform project.
Quote Management	Quote information including Request for Quote (RFQ) contact and minority info.	Yes
Job Folder Tags	Custom tags defined by your organization for organizing and managing jobs.	Yes
Project/Organization	The Project ID, Project Name, and Organization level associated with each job.	No. The Project ID fields contain links that take you to the project's details within Platform.
Notes	General notes entered for the job.	Yes
Project Notes	Notes entered in the project's details in Platform.	No
Last Saved	The date and time the job was last saved.	No
Job Created By	The name of the user that created the job.	No
Source Job	The source job or template the job was created from (if it wasn't created from scratch).	No
Upgrade Required	The column check box is selected if the job was created in a previous release of Estimate and therefore needs to be upgraded to the latest release.	No

You can make changes in the register by clicking any editable field and editing the content. This includes free-form text fields and validated fields with drop-down lists.

When changes are made, the register's *Close* button changes to *Save Modified Jobs and Close*, which you can select to save the changes and close the register.

Code	In Use	Description	Status	Schedule	Location	City	County	State	Country	Latitude	Longitude	Type
0001	<input type="checkbox"/>	CZADXR7704 - Twicke...	02 Estima...	Manual						0.00000	0.00000	Feasibility
0002	<input type="checkbox"/>	CZADXR7704 - Twicke...	02 Estima...	Manual						0.00000	0.00000	Feasibility
0003	<input checked="" type="checkbox"/>	CZADXR7704 - Twicke...	02 Estima...	Manual	Shreya Bhatt	Elkhorn				0.00000	0.00000	Feasibility
0004	<input type="checkbox"/>	Industrial Estimating T...	Templates	Primavera (W...						0.00000	0.00000	
007	<input type="checkbox"/>	JEA-Circuit 696 ReRo...	Bidding	Microsoft Proj...						0.00000	0.00000	
008	<input type="checkbox"/>	JEA-Circuit 696 ReRo...	Bidding	Microsoft Proj...						0.00000	0.00000	
105091 TRG 0306	<input type="checkbox"/>	Training Job - Maricop...	Bidding	Microsoft Proj...			Maricopa	Arizona	United Stat...	0.00000	0.00000	Highway and Gener
105091-3	<input type="checkbox"/>	Steel Structure Trainin...	Bidding	Manual		Denver		Arizona	United Stat...	0.00000	0.00000	Highway and Gener
180780	<input type="checkbox"/>	JEA-Circuit 696 ReRo...	Bidding	Microsoft Proj...	edit					0.00000	0.00000	
1P	<input type="checkbox"/>	Lib description	Bidding	InEight Sched...						0.00000	0.00000	
2528588	<input type="checkbox"/>	OPPI5 6137 Line Repl...	Class 3	Microsoft Proj...	edit					0.00000	0.00000	
257-ChangeMgmt	<input type="checkbox"/>	Change Managemnt 2...	Bidding	Microsoft Proj...			Maricopa			0.00000	0.00000	Highway and Gener
2P	<input type="checkbox"/>	lb desc : 1:12	Bidding	InEight Sched...						0.00000	0.00000	
3P	<input type="checkbox"/>	Training Job - Maricop...	Bidding	Microsoft Proj...			Maricopa			0.00000	0.00000	Highway and Gener
3PP	<input type="checkbox"/>	Training Job - Maricop...	Bidding	Microsoft Proj...			Maricopa			0.00000	0.00000	Highway and Gener
77066-2	<input type="checkbox"/>	Benchmarking-JEA-Cir...	Bidding	Microsoft Proj...	edit					0.00000	0.00000	
A11 - Newest	<input type="checkbox"/>	Job A	Bidding	Microsoft Proj...		2122 N Clark Street	Chicago		Illinois	United Stat...	-41.92290	-87.64830
Σ	1											
	196											

4.4.4 Edit jobs in bulk

The Job Register includes functionality to edit the job properties of multiple jobs in bulk.

Edit job properties of multiple jobs

1. From the Job Register, select multiple jobs by selecting the row headers of multiple jobs while holding down the CTRL or Shift key.
2. Right-click the selection, and then select **Properties**. This opens the Multi-Edit Job Properties form. Fields that display **Varies** indicate different values across the selected jobs, and items shown in red can be edited.

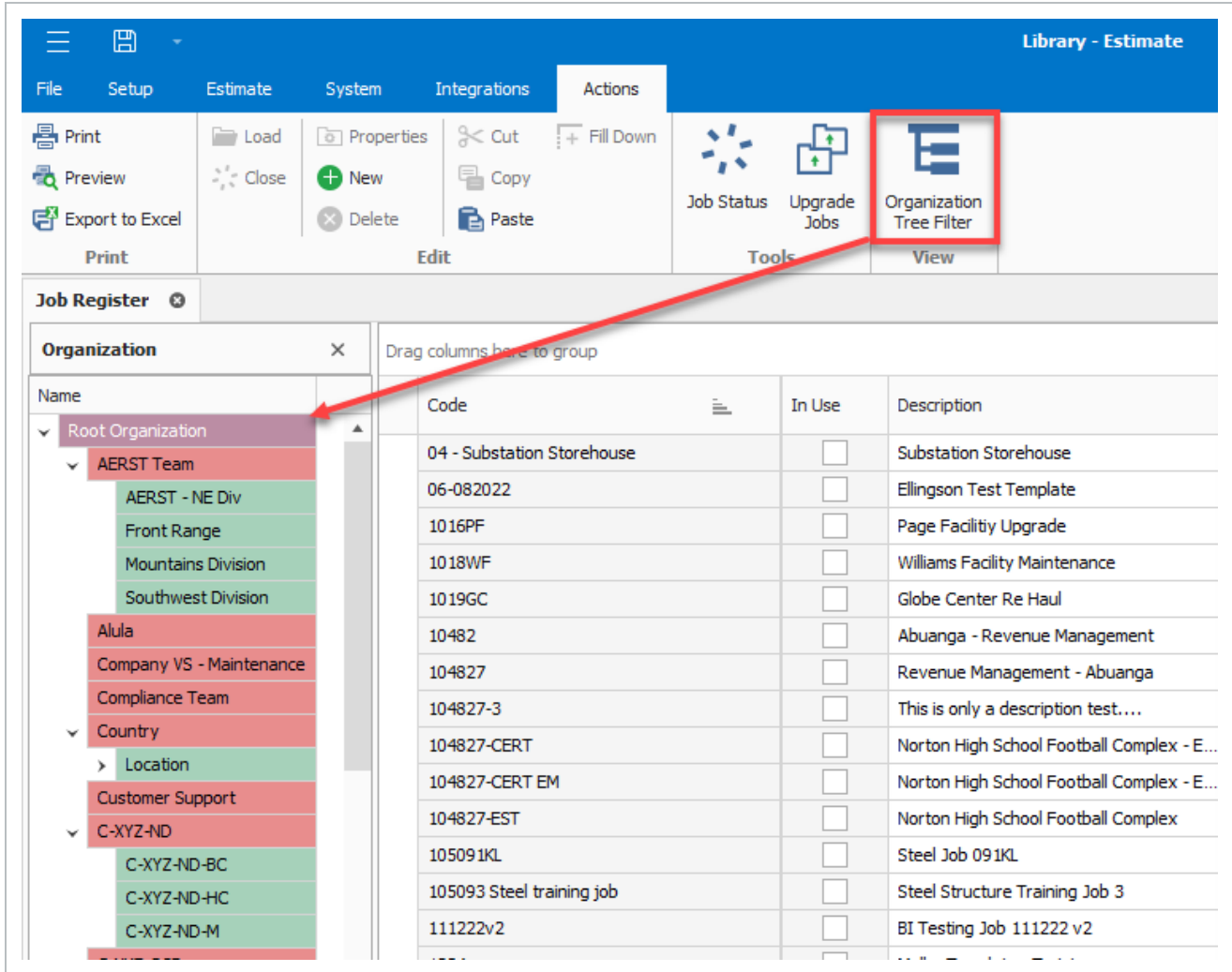
The screenshot shows the 'Multi-Edit Job Properties' dialog box within the 'Job Register' application. The dialog has a title bar with 'Job Register' and 'Multi-Edit Job Properties' (highlighted with a red box). Below the title bar are several tabs: Overview, Cover Sheet, Cost Basis, Minority Setup, Job Folder Tags, Pricing, Schedule, Cash Flow, Equipment Maintenance, and Benchmarking. The 'Overview' tab is active, showing two main sections: 'Identification' and 'Proposal'. The 'Identification' section contains fields for Location, City, County, Country (set to 'United States O...'), State (set to 'Arizona'), Latitude, Longitude, Type, Engineer, Owner, Architect, Contract Duration, Time Measure, Forecast Start, Forecast Finish, and Duration. The 'Proposal' section contains fields for Bid Date, Bid Time (set to '12:00 AM'), Estimator, Opening Type, Proposal Type, and Plan Holders. At the bottom right, there are 'Save' and 'Cancel' buttons.

3. Edit fields in Job Properties as needed, and then click **Save**. The changed properties are updated in the Job Register.

4.4.5 OBS filter tree

You can use the Organization Tree Filter to see where estimates are located in the OBS.

When the Organization Tree Filter is enabled, you can see the jobs that are associated with an organization tree node in the new OBS filter tree. This helps you to quickly locate and organize estimates inside of an organization hierarchy.



If you group by Project ID, and then select a node in the organization, you can see all the projects and their associated estimates belonging to that part of the organization. For example, there are three estimates associated with project 4985362 and one estimate associated with projects 4992404, 5013592 and 5013787. This view shows you the relationship between all the project and estimate associations.

Proj... ID	Code	Description
4985362		3
4985362	4985362	2020 Clow Creek Shoreline Restoration
4985362	4985362-v2	2020 Clow Creek Shoreline Restoration - revised per Addendum #1
4985362	4985362-v3	2020 Clow Creek Shoreline Restoration - revised per Addendum #2
4992404		1
4992404	4992404	2020 Concrete Repairs Program
5013592		1
5013592	5013592	Springbrook Golf Course Dynamic Sign Install
5013787		1

4.4.6 Data Version and Upgrade Required columns

There are two columns in the Job Register that help you identify a job’s current data version and whether an upgrade is required:

- **Data Version** - Identifies the current data version of the job, which might be different from the Estimate application version. This column is not part of the standard view and must be added.
- **Upgrade Required** - identifies jobs that require an upgrade to match the current database version before they can be used in the application. The jobs that require an upgrade have the check box selected.

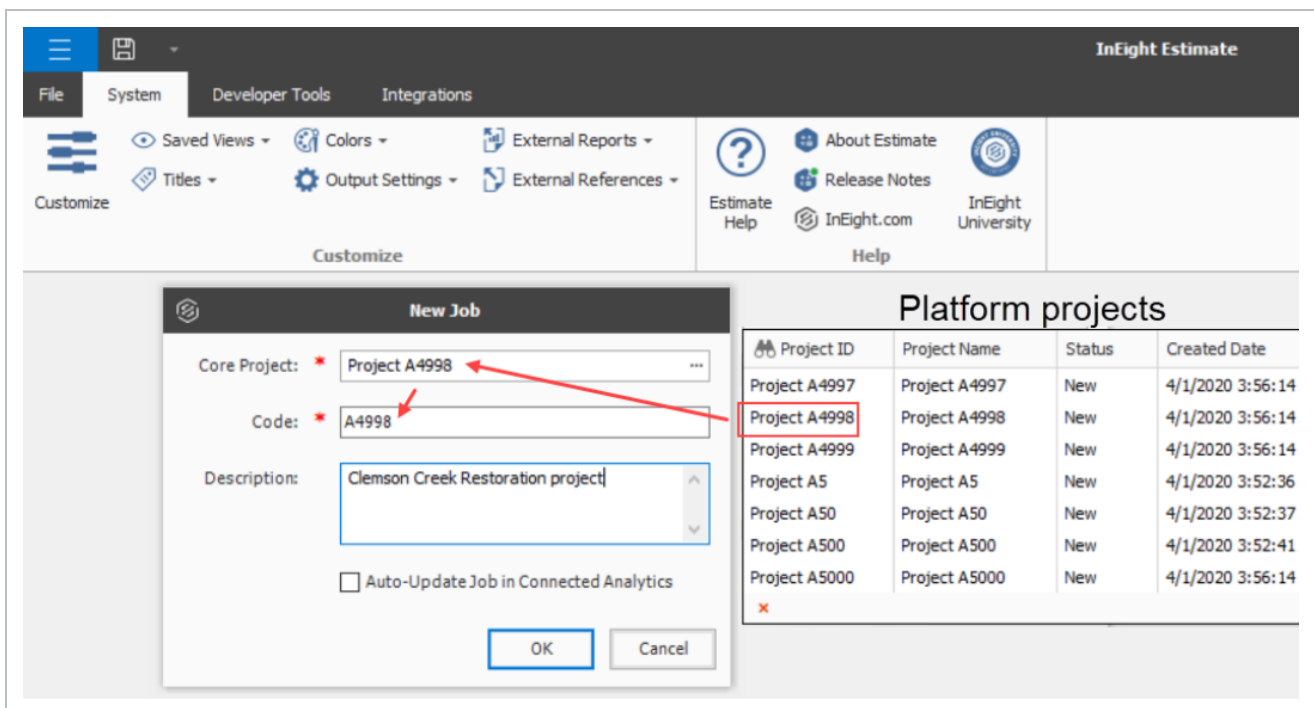
Code	Project ID	Data Version	Upgrade Required	In Use	Description
SJ- Project 1-SCE 1- 2nd restore	SJ-Project 1	24.7.0.3	<input type="checkbox"/>	<input type="checkbox"/>	Movie 66/16 - FAN De
ZZZ-OBFUSCATE	Training Job	24.5.0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Description
SR	AL - A11	24.5.0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	lib desc : 1:12
Obfuscate 20250625	105869	24.5.0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Description
DP-OnPrem	0002	24.7.0.3	<input type="checkbox"/>	<input type="checkbox"/>	Training Job - Maricop
new3	*25.5 - Estimate...	24.7.0.3	<input type="checkbox"/>	<input type="checkbox"/>	CZADXR7704 - Twicke

In the Job Register, you can modify attributes for non-upgraded jobs, such as tags prior to loading the job to force a job upgrade.

4.5 INEIGHT PLATFORM PROJECT ASSOCIATION

To create a job in Estimate, you must associate it to a project in Platform. Associating Platform projects lets you organize estimates directly from Platform’s Organizational Breakdown Structure (OBS). Your location assignment in the OBS determines the access you inherit and the visibility you have to other areas of the OBS. For more information about associating a job to Platform, see [Job creation](#).

Extracting Platform project master data directly into Estimate promotes data consistency and helps ensure that the data is being pulled from a single source of truth.



Platform project-specific master data is maintained in one place, and then flows directly into Estimate in the cloud. Certain project data such as location and forecast start and finish dates are maintained in Platform which helps to enforce data consistency and reduce duplicate entries.

The table below shows the fields maintained in Platform's Project details that integrate with the Estimate's Overview tab in Job Properties.

InEight Platform	InEight Estimate
Project ID	Project ID
Organization	Organization
Name	Project Name
Notes	Project Notes

The table below shows the fields maintained in Platform's Project details that integrate with Estimate's Cover Sheet tab in Job Properties.

InEight Platform	InEight Estimate
Address 1	Location
City	City
Country/Region	Country
State	State
Latitude	Latitude
Longitude	Longitude
Forecast start date	Forecast Start
Forecast finish date	Forecast Finish

In Estimate, the Project ID field is a hyperlink field. You can click the hyperlink to navigate directly to the project Details page in Platform.

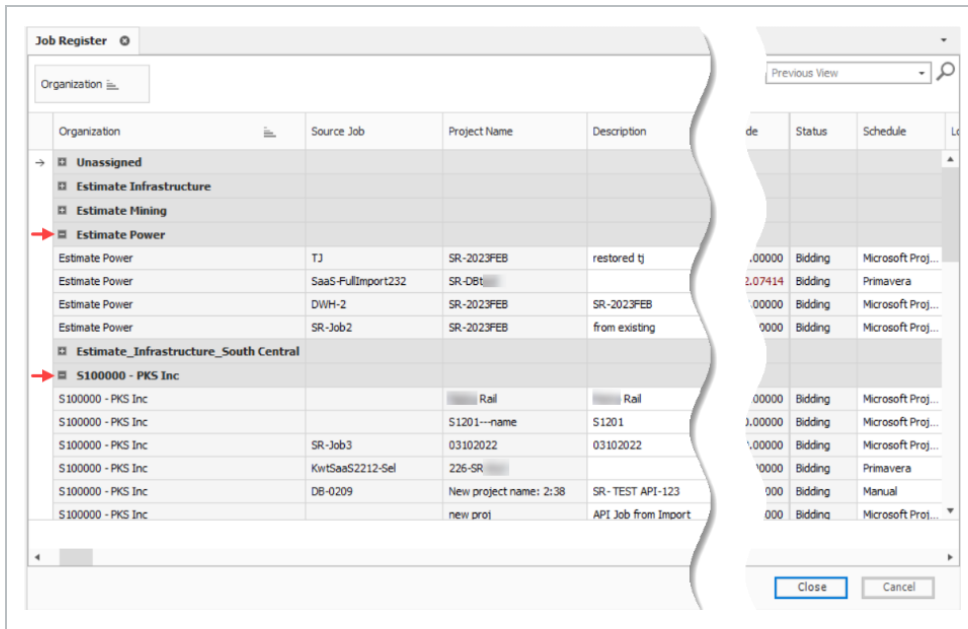
The screenshot shows the 'Job Register' window in the InEight software. The window title is 'Library - Estimate'. The interface includes a menu bar (File, Setup, Estimate, System, Developer Tools, Integrations, Actions) and a toolbar with icons for Print, Load, Properties, Cut, Fill Down, Preview, Close, New, Copy, Paste, Export to Excel, Delete, Job Status, Associate Jobs to Project, and Organization Tree Filter. Below the toolbar is a 'Job Register' section with a search bar and a 'Saved views' dropdown. The main area is a table with the following columns: Code, Project ID, In Use, Description, Status, Schedule, Location, City, County, State, Country, and Latitude. The 'Project ID' column is highlighted with a red box. The table contains 196 rows, with a summary row at the bottom showing a total of 196 rows. The 'Close' and 'Cancel' buttons are visible at the bottom right of the window.

Code	Project ID	In Use	Description	Status	Schedule	Location	City	County	State	Country	Latitude
Checking Allocation of DCI	Training Job	<input type="checkbox"/>	for those of you who ...	Bidding	Microsoft Proj...	edit					0.00
CRO WO Report for 902564690	105869	<input type="checkbox"/>	CRO WO Report for 9...	03 Peer ...	Manual		Fort S...	Rurals	Alberta	Canada	53.71
DP	*25.3 - AWP Re...	<input type="checkbox"/>	Hwy 17, Schreiber - R...	1 OUT O...	Microsoft Proj...			Thunder B...			0.00
DP-OnPrem	0002	<input type="checkbox"/>	Training Job - Maricop...	Bidding	Microsoft Proj...			Maricopa			0.00
KMP2-01-RDS-BLDG	KMP2-251	<input type="checkbox"/>	Restored after Genesi...	Bidding	Manual				Utah	United Stat...	0.00
KMP2-02-I15-LaytonXing	KMP2-251	<input type="checkbox"/>	I-15 Layton Crossing	11 Lost	Manual			Davis	Utah	United Stat...	0.00
KMP2-04-RDS-INFR-DOT-2	KMP2-251	<input type="checkbox"/>	RDS - Infrastructure - ...	Bidding	Manual			County	Utah	United Stat...	0.00
KMP2-11-Pay-Items-Import	KMP2-251	<input type="checkbox"/>	Pay Items import test...	Bidding	InEight Sched...				Utah	United Stat...	0.00
KMP2-20-TJ	KMP2-251	<input type="checkbox"/>	Training Job - KMP2	Bidding	InEight Sched...			Maricopa	Utah	United Stat...	0.00
KMP2-24-Currency-Test	KMP2-251	<input type="checkbox"/>	Currency test - Austr...	Bidding	InEight Sched...				Utah	United Stat...	0.00
KMP2-25-410-005-2	KMP2-251	<input type="checkbox"/>	InEight NOW: Health ...	Bidding	Manual				Utah	United Stat...	0.00
KMP2-31-Virachoca	KMP2-251	<input type="checkbox"/>	Renewable Energy	Bidding	Microsoft Proj...				Utah	United Stat...	0.00
KMP2-32-March-afb	KMP2-251	<input type="checkbox"/>	March AFB - KC-4618...	Bidding	Microsoft Proj...			Los Angeles	Utah	United Stat...	0.00
KMP2-SJ-SMP-Job	KMP2-251	<input type="checkbox"/>	SMP Data base	Bidding	Microsoft Proj...				Utah	United Stat...	0.00
KSPProject4	KSPProject4	<input type="checkbox"/>	lib desc : 1:12	Bidding	InEight Sched...						0.00
KSPProject4-New	KSPProject4	<input type="checkbox"/>	lib desc : 1:12	Bidding	InEight Sched...						0.00
Σ	0										
	196										

Modifications made to any of the integrated fields in Platform automatically show in Estimate. For example, when you change the project name in Platform to show the year 2025 instead of 2023, the change is reflected in the Project Name field in Estimate Job Properties.

4.5.1 Job register grouped by Platform project

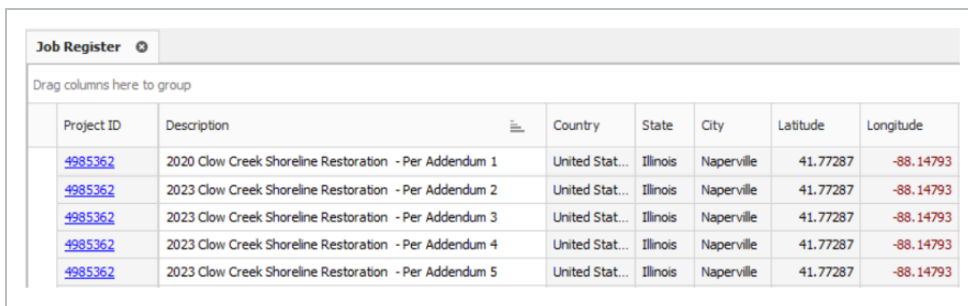
Grouping by organization lets you see projects batched at an organizational breakdown level and view Platform-derived projects in their organizational context.



4.5.2 Manage multiple Estimate versions in the Job Register

An advantage to associating Estimate with Platform project data is the ability to manage multiple versions of estimates from one source project.

For example, if you have multiple addendums issued for the same project, you can maintain a version of the estimate for each addendum you’ve received.



Grouping estimates together using a common project means there is no need to structure and enforce a job coding scheme in Estimate through Job Code, tag fields, or user-defined fields just to identify and manage different versions of the same project in the Job Register.

The screenshot shows a 'Job Register' interface with a table of project entries. A red box highlights the 'Project ID' column header. The table contains several rows of project data, including descriptions, countries, states, cities, and coordinates.

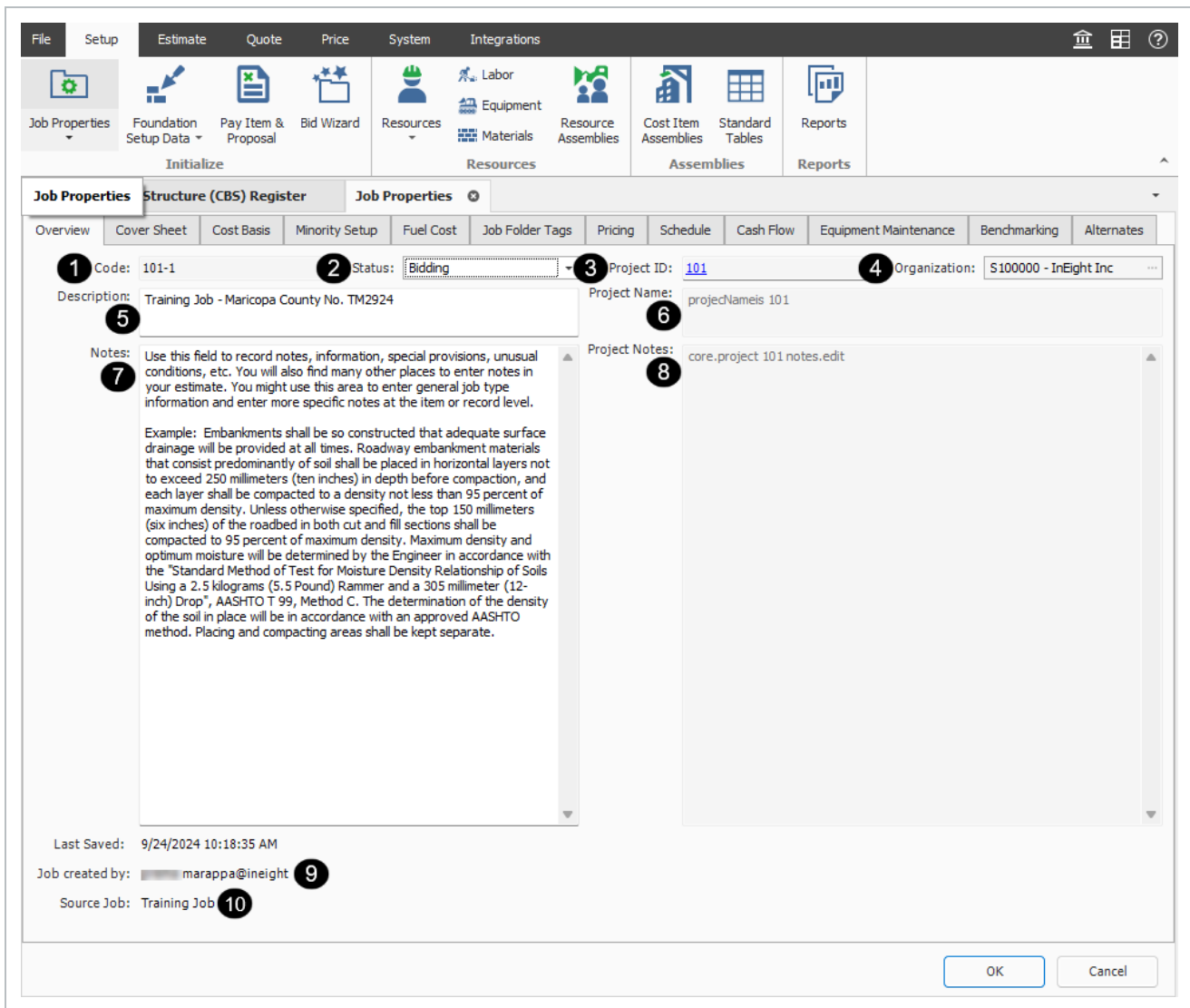
Proj... ID	Description	Country	State	City	Latitude	Longitude
Unassigned						
4985362						
4985362	2020 Clow Creek Shoreline Restoration - Per Addendum 1	United Stat...	Illinois	Naperville	41.77287	-88.14793
4985362	2020 Clow Creek Shoreline Restoration Project - Original Estimate	United Stat...	Illinois	Naperville	41.77287	-88.14793
4985362	2020 Clow Creek Shoreline Restoration Project - Per Addendum 1	United Stat...	Illinois	Naperville	41.77287	-88.14793
4985362	2023 Clow Creek Shoreline Restoration - Per Addendum 2	United Stat...	Illinois	Naperville	41.77287	-88.14793
4985362	2023 Clow Creek Shoreline Restoration - Per Addendum 3	United Stat...	Illinois	Naperville	41.77287	-88.14793
4985362	2023 Clow Creek Shoreline Restoration - Per Addendum 4	United Stat...	Illinois	Naperville	41.77287	-88.14793
4985362	2023 Clow Creek Shoreline Restoration - Per Addendum 5	United Stat...	Illinois	Naperville	41.77287	-88.14793
4985922						
4992404						
4996059						

4.6 JOB PROPERTIES

When you create a new job, the Job Properties form automatically opens. This is where you enter and maintain core job information. You can also open Job Properties from the **Setup** tab by selecting **Job Properties**.

4.6.1 Overview tab

The Job Properties form opens to the Overview tab. The image and table below show the Overview options:



Overview Tab

	Name	Description
1	Code	The unique code for the Estimate job.

- | | | |
|---|---------------|---|
| 2 | Status | <p>Current state of the job, such as Bidding, Awarded, or Completed.</p> <ul style="list-style-type: none"> When searching for jobs in the Job Folders list, you can filter and sort jobs by their status. |
|---|---------------|---|

Overview Tab (continued)

Name	Description
	<ul style="list-style-type: none"> You can set statuses for jobs to fit your company requirements in the Job Register > Actions > Tools > Job Status.
3	Project ID Information in this field originates from the Platform project the estimate is associated with and cannot be changed. You can click the Project ID link to navigate to the project in Platform.
4	Organization Information in this field originates from Platform.
5	Description You can enter an estimate-specific description for the job. You can edit the description at any time.
6	Project name Information in this field originates from the Platform project the estimate is associated with and cannot be changed.
7	Notes Add estimate-specific notes, such as when you are creating multiple estimate versions for the same Platform project. For example, you can enter <i>This version is per addendum #1</i> , <i>This version is per a specified design change</i> , or <i>This version incorporates last-minute scope changes</i> .
8	Project Notes Information in this field originates from the Platform project the

Overview Tab (continued)

Name	Description
	estimate is associated with. The notes can be added and edited at any time in Platform to document specific project-level details.
9	Job created by Indicates the user or entity that initially created the job.
10	Source job The name of the original job that the job was copied from.

When you copy a job, the new job shows the name of the person who created the copied job, and the name of the source job the job was copied from.

4.6.2 Cover Sheet tab

The Cover Sheet tab is where you define much of the general project information used to classify and report on the job. It includes fields for location, contacts, bid details, and schedule-related dates.

The following fields are available:

- Job Location
- City, County, Country, Province/State
- Job Type
- Engineer
- Owner
- Architect
- Forecast Start and Forecast Finish
- Bid Date and Bid Time
- Bid Location
- Estimator
- Opening Type and Proposal Type

- Liquidated Damages (if applicable)

The fields on this tab can be helpful for historical reference and job classification. It is good practice to complete as many of these fields as possible, so you can reference and find the project later. These fields can be updated as needed at any time.

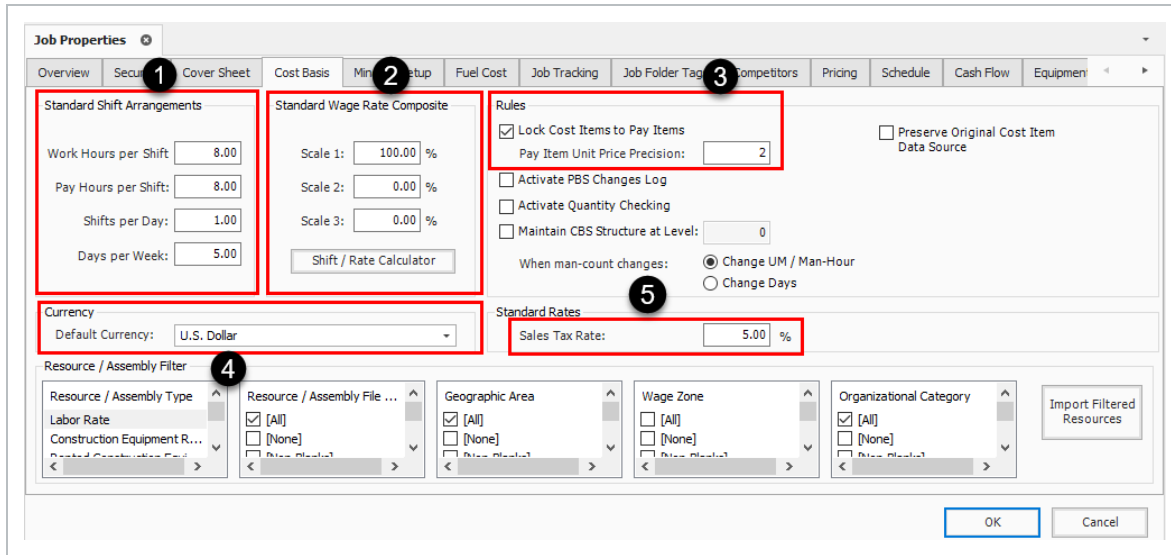
4.6.3 Cost Basis tab

The Cost Basis tab contains core settings that affect how costs are calculated in your estimate. The numbered areas shown below are the settings you typically review first.

Name		Description
1	Standard Shift Arrangements	The default standard shift arrangements are set up as 8 hours per shift, 1 shift per day, and 5 days per week; this can be changed if a project requires a different standard shift arrangement.
2	Standard Wage Rate Composite:	Allows you to indicate what percentage of your labor hours will be regular time (Scale 1), overtime (Scale 2) or double time (Scale 3). You can enter these percentages manually, or you can use the Shift Rate Calculator to obtain a more accurate figure.
3	Lock Cost Items to Pay Items:	When Cost Items are locked to Pay Items, your level 1 estimate structure is controlled by your list of pay items.
4	Default	The default will be set to U.S. Dollar, but this can be changed if

Name	Description
Currency:	needed.
5 Sales Tax Rate:	This field is not required but may be used to automatically apply a sales tax to all your material and rental items. The default is set to zero.

Cost Basis tab overview

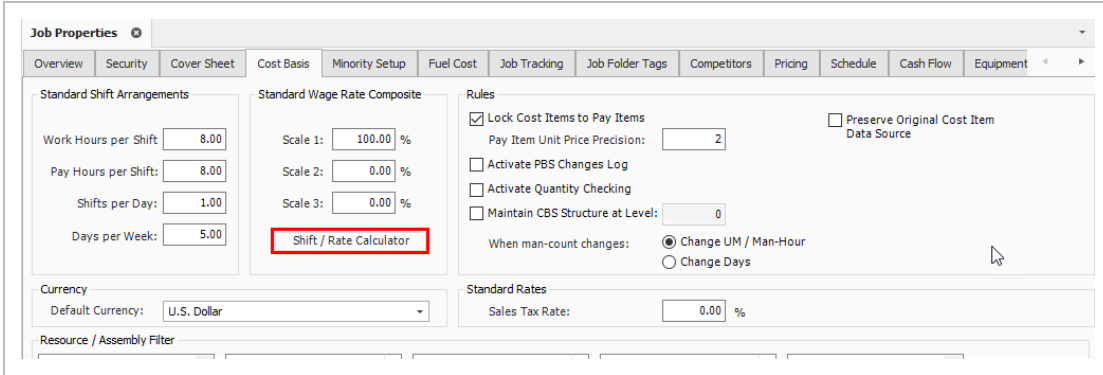


4.6.4 Shift Rate calculator

Use the Shift / Rate Calculator when you need to calculate a labor composite based on the actual shift pattern for the project instead of entering percentages manually.

Shift rate calculator

1. On the Job Properties > Cost Basis tab, select the **Shift Rate Calculator** button.

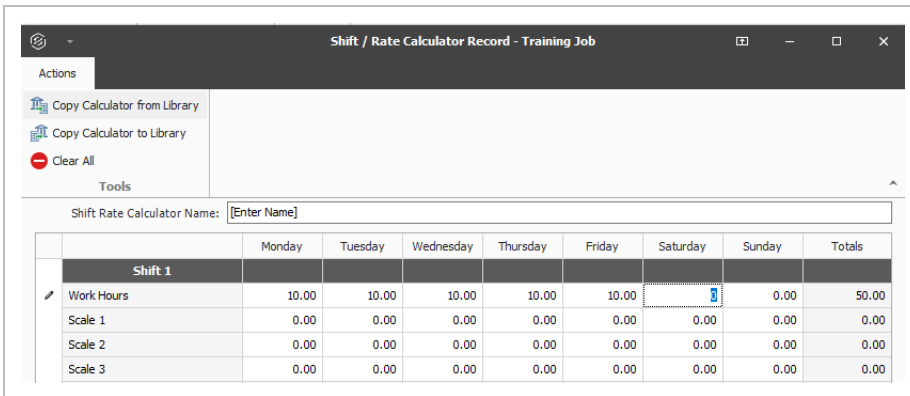


2. For Shift 1, type a **number value** of hours in the **Monday through Friday Work Hours** fields.

- You can enter up to three shifts for the project

3. For Shift 1, type a **number value** of hours in the **Scale 1** fields.

- Scale 1 will be your regular time and Scale 2 will be any overtime



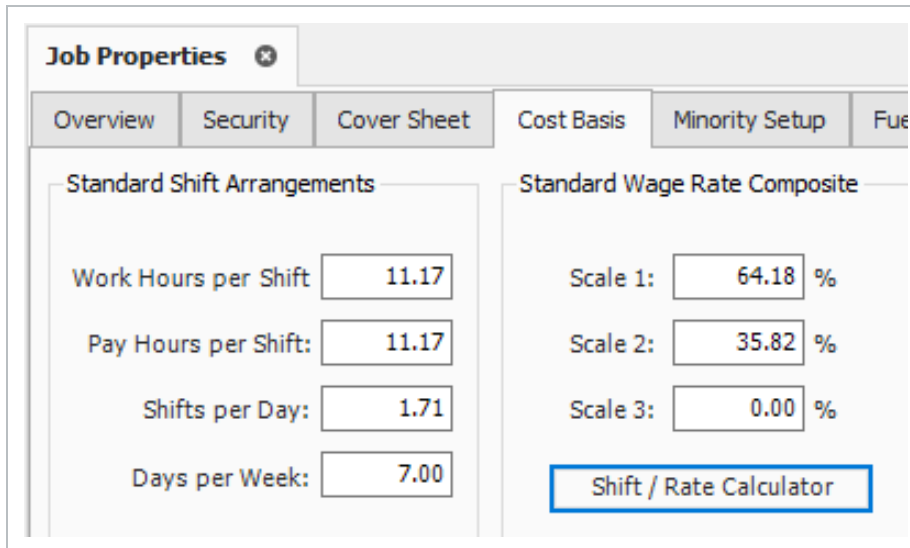
4. Enter a **number value** for hours in the **Scale 2** fields (just Monday through Friday).

5. For Shift 2, type a **number value** for hours as you did above in Step 3.

6. Click **OK**.

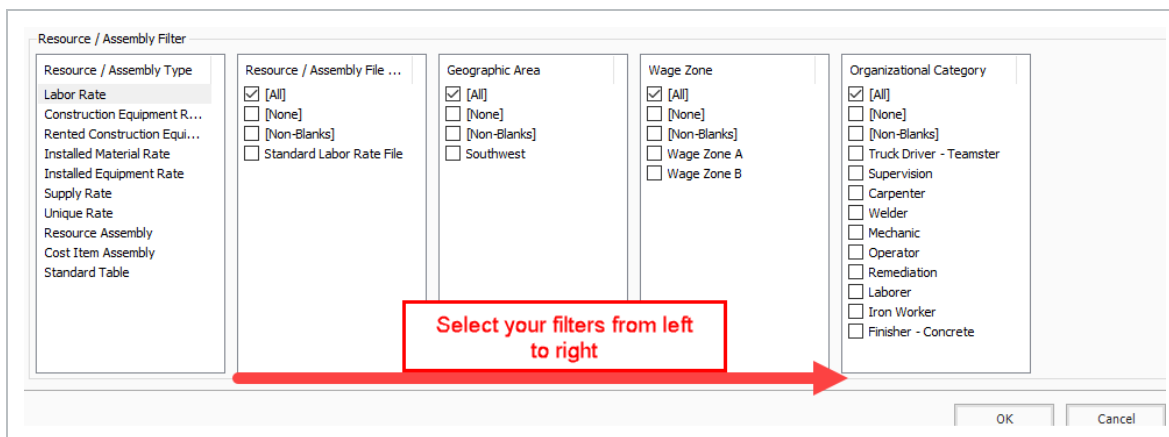
Shift 2								
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Totals
Work Hours	12.00	12.00	12.00	12.00	12.00	0.00	0.00	60.00
Scale 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Scale 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Scale 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

- Now you have a blended shift arrangement, and your labor rates are a blend of 64.18% straight-time and 35.82% overtime



4.6.5 Import filtered resources

You may have noticed the bottom portion of your Cost Basis tab called the Resource Filter.



The Resource Filter portion of the Cost Basis tab is the most important part of Job Properties. You use it to import your labor, equipment, and materials from the Library. Until you import filtered resources, you have no resources (labor, equipment, materials) in your project.

Updated resource rates can be imported into the Library on a regular basis. It is important to update and have the “Latest & Greatest” rates available to import into your estimates.

You will import the rates you need using a set of Resource / Assembly filters. Especially for labor rates, filtering by these attributes allows you to pare down the master list to only the resources you need.

Each of the resource filter categories are open for use as determined best by your business. The following are examples of common uses:

Resource Attribute Filters	
Name	Description
Resource File Description	This attribute can be used to designate the rate type or the year to which the rates pertain.
Geographic Area	This attribute is used to designate regions, cities, or provinces based on geographical location of a project.
Wage Zone	This attribute is typically used specifically for labor resources. For example, it may designate the trade and union agreements your labor resources belong to.
Organizational Category	This attribute can be used to designate what trade or work type your resources pertain to.

Resource filters become more specific from left to right, so start with the broader filters on the left and then move to the more specific filters on the right. The geographic area, wage zone, and organizational category attribute titles can be changed to meet your business needs for filtering resources.

When filtering resources, work from left to right through the filter lists to narrow the available options efficiently.

You can sort the filter lists by clicking the filter category titles.

The following steps walk through using the Resource Filter to import resources.

Import filtered resources

1. In your Job, go to the Job Properties > Cost Basis tab, select the **Labor Rate** resource type.
2. Under Resource File Description, select **Standard Labor Rate File**.

3. In the Geographic Area, select an **Area**.
4. For Wage Zone (Work Center), select a **Wage Zone**.
5. For Organizational Category, select **All**.
6. Follow the same steps for the remaining resource types.
7. Select the **Import Filtered Resources** button to bring your selected resources into the job.
 - For this example, we'll select the following filters for the Labor resource type:

The screenshot shows the 'Resource / Assembly Filter' dialog box with the following selections:

Resource / Assembly Type	Resource / Assembly File ...	Geographic Area	Wage Zone	Organizational Category
<input checked="" type="checkbox"/> Labor Rate	<input type="checkbox"/> [All]	<input type="checkbox"/> [All]	<input type="checkbox"/> [All]	<input checked="" type="checkbox"/> [All]
<input type="checkbox"/> Construction Equipment R...	<input type="checkbox"/> [None]	<input type="checkbox"/> [None]	<input type="checkbox"/> [None]	<input type="checkbox"/> [None]
<input type="checkbox"/> Rented Construction Equi...	<input type="checkbox"/> [Non-Blanks]	<input type="checkbox"/> [Non-Blanks]	<input type="checkbox"/> [Non-Blanks]	<input type="checkbox"/> [Non-Blanks]
<input type="checkbox"/> Installed Material Rate	<input checked="" type="checkbox"/> Standard Labor Rate File	<input checked="" type="checkbox"/> Southwest	<input checked="" type="checkbox"/> Wage Zone A	<input type="checkbox"/> Truck Driver - Teamster
<input type="checkbox"/> Installed Equipment Rate			<input type="checkbox"/> Wage Zone B	<input type="checkbox"/> Supervision
<input type="checkbox"/> Supply Rate				<input type="checkbox"/> Carpenter
<input type="checkbox"/> Material Rate				<input type="checkbox"/> Welder

You must select “Import Filtered Resources” to import your resources. Clicking **OK** on the Job Properties form will not import your resources.

4.6.6 Fuel Cost tab

On this tab, you can enter the cost for fuel or other energy sources. These unit costs are multiplied by the consumption rates entered on each equipment record to define the operating fuel cost of each piece of equipment. The Cost per UM fields default to \$0.00 until you enter values.

Enter fuel costs

1. In your job, open the **Job Properties > Fuel Cost** tab.
2. In Cost Per UM column, enter a **dollar amount** into the following:
 - Diesel
 - Gas & Gasoline

- Off Road Diesel

Fuel Type	Cost Per UM	Curre...	...	Account Code
Diesel	\$4.20	U.S. Dollar	Gallon	
Gas	\$3.90	U.S. Dollar	Gallon	
Gasoline	\$3.90	U.S. Dollar	Gallon	
Off Road Diesel	\$3.20	U.S. Dollar	Gallon	

3. Currency should read U.S. Dollar and UM should read Gallon.

4.6.7 Job Folder Tags tab

On this tab, you can enter tag fields to label your project, so you can reference it later.

Job Folder Tag Assignments

Tag 1: <input type="text"/>	Tag 13: <input type="text"/>
Tag 2: <input type="text"/>	Tag 14: <input type="text"/>
Tag 3: <input type="text"/>	Tag 15: <input type="text"/>
Tag 4: <input type="text"/>	Tag 16: <input type="text"/>
Tag 5: <input type="text"/>	Tag 17: <input type="text"/>
Tag 6: <input type="text"/>	Tag 18: <input type="text"/>
Tag 7: <input type="text"/>	Tag 19: <input type="text"/>
Tag 8: <input type="text"/>	Tag 20: <input type="text"/>
Tag 9: <input type="text"/>	Tag 21: <input type="text" value="0.00"/>
Tag 10: <input type="text"/>	Tag 22: <input type="text"/>
Tag 11: <input type="text"/>	Tag 23: <input type="text"/>
Tag 12: <input type="text"/>	Tag 24: <input type="text"/>

Many of these fields are validated fields, meaning you can choose from options in a drop-down list. The names of these tags and the drop-down values are defined at a master level within the Library Foundation Setup Data. Some job folder tags are setup to be date fields or numerical fields. These tags

are used to sort and filter the job register as well as for selecting which past estimates to utilize for benchmarking.

4.6.8 Schedule tab

The Schedule tab is used to define scheduling options for integrating Estimate with InEight Schedule, Microsoft Project, or Primavera. The settings you define determine what information is sent to your scheduling tool and how it is structured.

The screenshot shows the 'Job Properties' dialog box for the 'Cost Breakdown Structure (CBS) Register'. The 'Schedule' tab is selected and highlighted with a red border. The 'Integrated Schedule' dropdown menu is set to 'InEight Schedule'. The 'Schedule Currency' dropdown menu is set to 'U.S. Dollar'. There is an unchecked checkbox labeled 'Always use Plug Days when updating Estimate from the schedule'. Under the 'Cost Item Roll Up' section, there is a checked checkbox 'Automatically calculate Plug Days when rolling up cost items for scheduling purposes'. Below this, there are two radio buttons: 'Longest scheduled days among all rolled up cost items' (which is selected) and 'Total scheduled days for all rolled up cost items'. A note below the radio buttons states: 'Note: When rolling up cost items for scheduling purposes, the Plug Days of the superior cost item will be recalculated when a change is made to the scheduled days of a subordinate. To force immediate recalculation of Plug Days for superior cost items, use the 'Recalculate Plug Days' button or the 'Calculate Plug Days...' command on the 'Tools' menu in the CBS Register.' A 'Recalculate Plug Days' button is located below the note. At the bottom right of the dialog box are 'OK' and 'Cancel' buttons.

- **Integrated Schedule** – Select your integrated schedule from InEight Schedule, Microsoft Project, Primavera, or Manual.
- **Schedule Currency** – When you use Microsoft Project or Primavera, you can select the currency type used for the integration. The InEight Schedule and Manual option is set to U.S. Dollar by default.
- **Plug Days** - You can select **Always use Plug Days** when updating Estimate from schedule.
- **Cost Item Roll Up** – You can select to automatically calculate plug days when rolling up cost items for scheduling purposes.

4.6.9 Other Job Properties tabs

There are several additional tabs on the Job Properties form. The other tabs will not be discussed here because they are either used for project controls, or they will be covered at another time.

Other Job Properties Tabs	
Name	Function
Minority Setup	Used to set up minority participation goals (for example, DBE or MBE) and you want to track minority participation goal attainment status during the bid process,
Job Tracking	Used to select the code that will be used when tracking job progress, define the planned production calculation, define the percent complete calculation, define the forecast methods, and define markup rates for calculating earned revenue on Time and Expense pay items.
Pricing	Used to define how you want the Balanced Unit Price for each of the job's pay items to be calculated when using the AutoPrice feature. You can also choose from several options in determining how markup is defined.
Cash Flow	Defines the cash flow rules (payment terms) that are used in the calculation of Job Financing and cost/revenue realization to generate the curves that display on the Cash Flow form.
Equipment Maintenance	Used to define the calculation of maintenance labor man-hours based on equipment utilization, to capture the impact on total man-hours when changes are made that affect the job's total value.
Benchmarking	Used to establish the historical data to be used for benchmarking the current job, and to define the default benchmark graph display and calculations.
Alternates	Used to define Alternate Scenarios, to assess the impact of those scenarios.

Exercise 4.1 – Define Job Properties

In this exercise, you will continue to define your Job Properties from the job you have created in two parts. Complete the following steps:

1. On the Cover Sheet tab, fill out the following fields:

Field	Value
Job Location	I-10 MP 100 to MP 120
City	Phoenix
County	Maricopa
Country	United States
State	Arizona
Type	Highway and General Engineering
Engineer	Example Engineer -- Fred Jones
Owner	Example Owner -- Jerry Slate
Architect	Example Architect -- Robert Frost
Contract Duration	160
Time Measure	Contract Days
Forecast Start	1/6/2014
Forecast Finish	6/5/2014
Duration (days)	150
Bid Date and Bid Time	12/23/2013 10:00:00 PM
Estimator	Example Prime Contractor 1 -- Tom Cross
Opening Type	Public
Proposal Type	Unit Price
Plan Holders	5

In this part 2 of this exercise, you will continue to define your Job Properties from the Job you have created. Complete the following steps:

2. On the Cost Basis tab:

- Ensure the **Standard Shift Arrangements** are 8.00 work hours per shift, 8.00 pay hours per shift, 1.00 shift per day, and 5.00 days per week.
- Ensure the **Standard Wage Rate Composite** is set to 100.00% Scale 1, 0.00% Scale 2, and 0.00% Scale 3.
- Ensure the **Sales Tax Rate** is set to 0.00%.

You should end up with similar results

The following Cover Sheet properties are defined:

The screenshot shows the 'Job Properties' window with the following data:

Identification	
Location:	I-10 MP 100 to MP 120
City:	Phoenix
County:	Maricopa
Country:	United States
State:	Arizona
Latitude:	0.00000
Longitude:	0.00000
Type:	Highway and General Engineering
Engineer:	Example Engineer -- Fred Jones
Owner:	Example Owner -- Jerry Slate
Architect:	Example Architect -- Robert Frost
Contract Duration:	160
Time Measure:	Contract Days
Forecast Start:	1/6/2014
Forecast Finish:	6/5/2014
Duration:	150

Proposal	
Bid Date:	12/23/2013
Bid Time:	10:00:00 PM
Estimator:	Example Prime Contractor 1 -- Tom Cross
Opening Type:	Public
Proposal Type:	Unit Price
Plan Holders:	5

The following Cost Basis settings are defined:

The screenshot shows the 'Job Properties' dialog box with the following sections and callouts:

- 1**: 'Cover Sheet' tab selected in the top navigation bar.
- 2**: 'Standard Wage Rate Composite' section containing three scale input fields (Scale 1: 100.00%, Scale 2: 0.00%, Scale 3: 0.00%) and a 'Shift / Rate Calculator' button.
- 3**: 'Rules' section containing checkboxes for 'Lock Cost Items to Pay Items' (checked), 'Activate PBS Changes Log', 'Activate Quantity Checking', and 'Maintain CBS Structure at Level: 0'. It also includes a 'Pay Item Unit Price Precision' field set to 2 and a 'When man-count changes' section with radio buttons for 'Change UM / Man-Hour' (selected) and 'Change Days'.
- 4**: 'Resource / Assembly Filter' section containing five filter lists: 'Resource / Assembly Type', 'Resource / Assembly File ...', 'Geographic Area', 'Wage Zone', and 'Organizational Category'. Each list has 'All' and 'None' options.
- 5**: 'Standard Rates' section containing a 'Sales Tax Rate' field set to 5.00%.

Other visible fields include 'Standard Shift Arrangements' (Work Hours per Shift: 8.00, Pay Hours per Shift: 8.00, Shifts per Day: 1.00, Days per Week: 5.00) and 'Currency' (Default Currency: U.S. Dollar). Buttons for 'OK' and 'Cancel' are at the bottom right.

Congratulations, you have completed this exercise!

4.7 PAY ITEM CREATION

Pay items typically represent the owner-required deliverables a contractor must submit pricing for. Within InEight Estimate, pay items are used to distribute the cost calculated in the Cost Breakdown Structure and all markup, fees, or contingency calculated in the Price Breakdown Structure to a defined list of items. This allows the total estimate value to be distributed to a structure that is different than the CBS. Pay items are commonly used by contractors to prepare bid sheets, and owners may use them to identify funding sources or support reporting requirements.

Many bid forms are organized by grouping bid items for related scopes of work. Pay items in the Pay Item & Proposal Register can be grouped in a hierarchy by using the **Position Code** column.

You can create pay items in the Pay Item & Proposal Register. Access this form by selecting the **Setup** tab and then **Pay Item & Proposal**.



Name		Description
1	Proposal and Item Recaps	Related to pricing during bid close-out. You can disregard them at this time.
2	Pay Item Number	Represents the bid item number from the client, if one is provided, or a number that you define. This field is alphanumeric.
3	Position Code	Controls how pay items are grouped and gives you an efficient way to sort and build a hierarchy.
4	Description	You can enter a pay item description.
5	Pay Quantity and Forecast (T/O) Quantity	The Pay Quantity is the quantity provided by the client. The Forecast (T/O) Quantity is your measured quantity for the item.

4.7.1 Overview - Pay Item & Proposal Register

The screenshot displays the 'Pay Item & Proposal Register' window. At the top, there are two summary tables. The first table, titled 'Proposal Recap - Training Job', shows Current, Target, Forecast, and Variance values for Price, Markup, and Margin. The second table, titled 'Item Recap - 200 SITEWORK & ROADWAY', shows Unit Price, Total Price, and Unit Price for Price, Distribution, Markup, Profit, and Business Overhead. Below these is a detailed list of items with columns for Pay Item Number, Position Code, Lock Quantity, Lock Price, Description, Pay Quantity, Forecast (T/O) Quantity, Unit of Measure, Currency, Unit Price, Total Price, Unit Markup, Total Markup, Unit Distribution, Total Distribution, and Unit Price (current). Red boxes and numbers 1 through 5 highlight specific areas: 1 points to the summary tables, 2 to the Pay Item Number column, 3 to the Lock Quantity column, 4 to the Description column, and 5 to the Pay Quantity column.

Create a pay item

- Open your job and select **Setup** tab > **Pay Item & Proposal** from the InEight Estimate landing page.
 - The Pay Item & Proposal Register displays
- In the Pay Item Number column, in the first blank row, type a **number value**.
- Use the Tab key to move to the Description column and type a **description**.
- Leave the Pay Quantity at 1.00 and change the Unit of Measure to **LS (Lump Sum)**.
 - The Forecast (T/O) Quantity will auto populate to match your pay quantity, but can be changed later
 - You can tab to the next row to create additional pay items if needed

This close-up screenshot shows the 'Pay Item & Proposal Register' with a new item being added. The 'Pay Item Number' column has '1000' entered, and the 'Description' column has 'Mobilization' entered. The 'Pay Quantity' is '1.00' and the 'Unit of Measure' is 'LS'. Red boxes and numbers 2, 3, and 4 highlight the Pay Item Number, Description, and Unit of Measure columns respectively.

4.7.2 Pay item prices by category

Owners are increasingly requiring more information from contractors as part of their bid submissions. Many times, this is a further breakdown of a bid price such as separating the price of an item based on its labor cost, material cost or man-hours. Select columns in the Pay Item & Proposal register enable users to summarize their pay item prices by up to 10 price categories.

In addition to seeing the price by category, these additional columns also give users better visibility into how the price is established, including columns for the total cost, total distribution, total markup and markup percent. These new columns make it easier to verify that the distribution of unassigned cost and markup are calculated as intended by the estimator.

Pay Item Number	Position Code	Lock Quantity	Lock Price	Description	Pay Quantity	Forecast (T/O) Quantity	Unit of Measure	Currency	LABOR Cost	LABOR Cost Distribution	LABOR Markup	LABOR Price (balanced)	LABOR Price (current)	LABOR Markup %	Unit Price (current)
200	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	SITework & ROADWAY				U.S. Dollar	\$291,828.52	\$51,472.21	\$7,224.74	\$350,525.47	\$394,902.06	2.48	
+ 641 0100	1.1	<input type="checkbox"/>	<input type="checkbox"/>	Mobilization	1.00	1.00	Lump Sum	U.S. Dollar	\$2,449.51	\$386.80	\$60.85	\$2,897.16	\$81,365.80	2.48	\$395,600.00
+ 201 0102	1.2	<input type="checkbox"/>	<input type="checkbox"/>	Clearing & Grubbing	10.00	10.00	Acre	U.S. Dollar	\$14,880.57	\$7,301.27	\$344.82	\$22,526.66	\$22,405.37	2.32	\$5,900.00
+ 202 0183	1.3	<input type="checkbox"/>	<input type="checkbox"/>	Unclassified Excavation	50,000.00	50,000.00	Cubic Yard	U.S. Dollar	\$62,230.08	\$9,800.01	\$1,545.91	\$73,576.00	\$73,159.96	2.48	\$5.50
+ 303 5912	1.4	<input type="checkbox"/>	<input type="checkbox"/>	Aggregate Base	40,000.00	45,000.00	Ton	U.S. Dollar	\$99,794.93	\$15,809.26	\$2,479.10	\$118,083.29	\$171,742.65	2.48	\$26.50
+ 303 4263	1.5	<input type="checkbox"/>	<input type="checkbox"/>	Asphalt Concrete Hot Mix Type A	38,000.00	35,000.00	Ton	U.S. Dollar	\$112,473.43	\$18,174.87	\$2,794.06	\$133,442.35	\$112,437.69	2.48	\$42.45
400	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	WATER & SEWER				U.S. Dollar	\$128,895.90	\$20,324.84	\$3,202.02	\$152,422.76	\$167,735.34	2.48	
+ 413(B) 0464	2.1	<input type="checkbox"/>	<input type="checkbox"/>	36 Inch RCP Culvert Class III	1,000.00	1,024.00	Linear Feet	U.S. Dollar	\$19,602.99	\$3,084.69	\$486.98	\$23,174.66	\$28,284.74	2.48	\$97.45

4.7.3 Standard Proposal report

The Pay Item Standard Proposal report is located in Execution > Reports > Pay Item & Proposal > **Standard Proposal**. It is intended to be used as a bid form that can be distributed to clients, partners, and contractors. In the Details box below, you can determine which key fields are included in the report.

Reports - Standard Proposal

Settings: Default

Print Details Layout Header/Footer

Show the below Pay Item details:

- Line Number
- Pay Item Number
- Position Code
- Subtotals
- Running Totals
- Suspended Items

Filter by currency: No Filter

Show the below Proposal header items:

- Job Code
- Job Description
- Bid Date
- Bid Time
- Job Location
- Job City
- Job County
- Job State
- Job Country

Include Additional Proposal pages:

- Cover Sheet
- Preferences Sheet

Term for Document:

- Proposal/Bid
- Tender
- Custom

Unit Price precision:

- Truncate values based on decimal precision
- Do not truncate values (show decimal precision)

Certification Text: None Custom

Signature Block: Submitted By

Proposal
INRIGHT - PAUL TISPPH
Job Code: Training Job
Description: Training Job - Maricopa County No. TM2594

Job Code: Training Job
 Job Description: Training Job - Maricopa County No. TM2594
 Job City: Phoenix
 Job County: Maricopa
 Bid Date: 5-Jan-2020
 Bid Time: 3:00:00 PM

Position Code	Line No.	Pay Item No.	Description	Proposal	Quantity	Unit of Measure	Unit Price	Total Price
1	22	200	STEELWORK & ROADWAY					3,452,700.00
1.1	10	641 0100	Mobilization		1.00	Lump Sum	395,600	395,600.00
1.2	20	201 0102	Cleaning & Grubbing		10.00	Acre	5,900.00	59,000.00
1.3	30	202 0183	Unclassified Excavation		50.00	Cubic Yard	5.50	275,000.00
1.4	40	303 5812	Aggregate Base		40.00	Ton	26.50	1,060,000.00
1.5	50	303 4253	Asphalt Concrete HMA 1 1/2 Type A		38.00	Ton	42.46	1,613,100.00
2	18	400	WATER & SEWER					718,550.00
2.1	80	413(B) 0494	36 Inch RCP Culvert Class II		1,000.00	Linear Feet	97.45	97,450.00
2.2	70	800 0220	10 Inch PVC Force Main (SR20)		12,000.00	Linear Feet	29.50	354,000.00
2.3	80	800 0330	24 Inch PVC Gravity Sewer (SR3S)		3,000.00	Linear Feet	64.50	193,500.00
2.4	80	800 0400	4 Foot Diameter Manhole		18.00	Each	4,600.00	71,600.00
3	15	500	STRUCTURAL CONCRETE & BRIDGES					631,895.00
3.1	100	501(A) 1308	Structural Excavation & Earth		800.00	Cubic Yard	28.00	22,400.00
3.2	110	505(A) 1322	Steel Reinforcement		30,000.00	Pound	1.70	51,000.00

Exercise 4.2 – Create pay items

In this exercise, you will practice creating pay items in the Pay Item & Proposal Register. Complete the following steps using a job of your own, and use the Position Code column to create the parent and child hierarchy shown below.

Position Code	Pay Item Number	Description	Pay Quantity	Unit of Measure
1	200	SITWORK & ROADWAY		
1.1	641 0100	Mobilization	1.00	LS
1.2	201 0102	Clearing & Grubbing	10.00	Acre
1.3	202 0183	Excavation	50,000.00	CY
2	400	WATER & SEWER		
2.1	800 0220	10 PVC Pipe	1,000.00	LF

You should end up with the following results:

Position Code	Pay Item Number	Description	Pay Quantity	Forecast (T/O) Quantity	Unit of Measure
1	200	SITWORK & ROADWAY			
+ 1.1	641 0100	Mobilization	1.00	1.00	LS
+ 1.2	201 0102	Clearing & Grubbing	10.00	10.00	Acre
+ 1.3	202 0183	Excavation	50,000.00	50,000.00	CY
2	400	WATER & SEWER			
+ 2.1	800 0220	10 PVC Pipe	1,000.00	1,000.00	LF

Congratulations, you have completed this exercise!

Lesson 4 - Review

1. This is where you enter basic information about the job as well as define your cost basis.
 - a. Pay Item & Proposal
 - b. Job Properties
 - c. Library
 - d. Job Folder

2. On the Job Properties form, this tab is where you enter information such as the start date, bid date, job type and location.
 - a. Overview
 - b. Cover Sheet
 - c. Cost Basis
 - d. Foundation Setup Data

3. These are the project deliverables; anything the owner agrees to measure and pay for.
 - a. Cost Items
 - b. Resources
 - c. Target Price
 - d. Pay Items

Lesson 4 - Summary

As a result of this lesson, you can:

- Create a new job
- Enter Job Properties
- Create pay items in the Pay Item & Proposal Register

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LESSON 5 – DIRECT COSTS

Lesson Duration: 90 Minutes

Lesson Objectives

After completing this lesson, you will be able to use the following forms and explain their purpose:

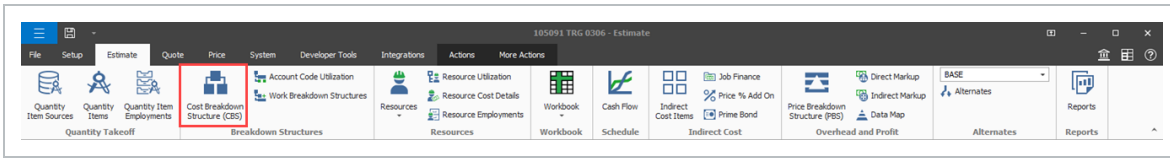
- Utilize the Cost Breakdown Structure
- Create cost items
- Add costs and production
- Manage cost item details

5.1 COST BREAKDOWN STRUCTURES

The Cost Breakdown Structure (CBS) is the main form where you do your cost estimating.

- It is the hierarchy of work activities that make up the estimate
- Each row in the CBS represents a work activity or organizing category and is called a cost item

To access the Cost Breakdown Structure from the InEight Estimate landing page, select the Estimate tab > **Cost Breakdown Structure (CBS)**.



The following image and table show an overview of the CBS.

CBS Position Code	Description	Optional Code	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Subject Cost	Subject Cost Rate	Allocated
	JOB		20.00	Mile	\$86,892,020...	\$1,737,840,40...			
	Prime Bond	PRIME BOND	1.00	Lump Sum	\$2,061,515...	\$2,061,515,19...			
	Price % Add-On	PRICE % ADD-ON	1.00	Lump Sum	\$92,768,169...	\$92,768,169,0...			
	CBS Equipment Hour Add-On		1.00	Lump Sum	\$986,092,79...	\$986,092,794...			
	CBS Man Hour Add-On		1.00	Lump Sum	\$916,04...	\$916,04...			
	Job Financing	FINANCE EXPENSE	1.00	Lump Sum	\$221,885,36...	\$221,885,361...			
	Indirect Cost Escalation	INDIRECT COST ESCALATION	1.00	Lump Sum	\$0.00	\$0.00			
	Direct Cost Escalation	DIRECT COST ESCALATION	1.00	Lump Sum	\$45,842,359...	\$45,842,359,99			
	Direct Cost Add-On	DIRECT COST ADD-ON	1.00	Lump Sum	\$644,085,49...	\$644,085,495...	\$32,204,274,7...	2.00	
	Direct Cost Add-On	DIRECT COST ADD-ON	1.00	Lump Sum	\$32,203,242...	\$32,203,242,8...	\$1,610,162,14...	2.00	
1	SITWORK & ROADWAY	200	1.00	Each	\$1,610,163...	\$1,610,163,12...			
1.1	Excel Import Test		1.00	Each	\$0.00	\$0.00			
1.2	Clearing & Grubbing		1.00	Each	\$0.00	\$0.00			
1.3	Unclassified Excavation	200	10.00	Acre	\$10.00	\$100.00			
1.4	Excavation		10.00	Acre	\$3,918.50	\$39,184.97			
1.5	Aggregate Base	201 0102	50,000.00	Cubic Yard	\$32,203,184...	\$1,610,159,24...			
1.5.1	Excavation	1.3.1	50,000.00	Cubic Yard	\$32,203,184...	\$1,610,159,24...			
1.6	Aggregate Base	303 5912	45,000.00	Ton	\$64,322.00	\$2,894,990.00			
1.6.1	Furnish & Haul Base Material	1.4.1	45,000.00	Ton	\$11.54	\$519,513.30			
1.6.2	Finegrade Subgrade	1.4.2	400,000.00	Square Yard	\$0.19	\$75,848.36			
1.6.3	after	1.4.3	45,000.00	Ton	\$38.11	\$1,715,050.76			
Σ	1		0.00			\$0.00			
	104					\$1,737,840,4...			

Name	Description
1 Actions Menu	Shortcut icons allow you manage cost items and import and export them from other sources such as Microsoft Excel. You can filter cost items and

Name		Description
		select to include the subordinate items when filtering.
2	CBS Tree Filter Mode	The CBS Tree filter shows the CBS hierarchy and is used to quickly help filter cost items, instead of scrolling the CBS to locate certain cost items. The CBS Tree Filter lets you choose between a filter mode or a new navigation mode. Both Filter and Navigation modes on the left side of the page gives you the visibility of your entire CBS structure, as well as the option to navigate and filter throughout the CBS estimate. The Cost Item record can also be tiled next to the tree to make navigating and filtering possible, while viewing all the cost item record details at the same time.
3	Left CBS register	This side of the register contains all of the estimate activities (cost items) that you create or import, organized into a superior-subordinate hierarchy.
4	Right CBS register	This side of the register contains numerous columns for cost detail, production values, and user-defined tags and fields.

5.1.1 Cost item terminology

The CBS contains both direct and indirect costs.

- **Direct Cost Items** contain costs that pertain directly to the deliverables of the project. Therefore, direct cost items are typically assigned to pay items
- **Indirect Cost Items** contain overhead costs that are not directly associated with particular deliverable items but contribute to the total cost of the project (e.g., supervision, site office, safety supplies, bid securities). Occasionally an indirect cost item may be assigned to a pay item (e.g., Mobilization costs that are indirect but assigned to a Mobilization pay item).

InEight Estimate uses various terms to describe the parent-child relationships of the multiple levels in the CBS:

Terms	Description
Superior	A Superior cost item has subordinate (child) items below it that determine hours and costs.
Subordinate	A Subordinate cost item is a child to a Superior cost item.

Terms	Description
Terminal	A Terminal cost item has no subordinate items. Resources, costs, and production can only be added at the terminal cost item level.

A Terminal cost item may or may not be a subordinate.

The levels of the CBS are referred to as Level 1, Level 2, etc., as you drill down in the structure. As costs are defined on the terminal items, the sum of the terminal cost items roll up to the superior cost items.

A superior cost item can have no costs of its own; its costs are strictly the rolled-up total from the subordinate cost items below it.

You can use superior cost items as buckets for organizing your work.

As hours and costs are defined on the terminal items, the sum of the terminal cost items roll up to the superior cost items.

5.1.2 Work breakdown structures

The Work Breakdown Structure (WBS) allows you to reorganize the estimate using different formats such as Construction Specifications Institute (CSI) MasterFormat or UniFormat. WBS formats are used when you need multiple variations and summary reports of an estimate. The WBS retains the same relationships between items as in the original estimate while only changing the view and items arrangement in the WBS hierarchy.

To view the Work Breakdown Structure View Register, in the Ribbon select the tab **Estimate > Work Breakdown Structures**.

Overview - Work Breakdown Structure (WBS) View Register

Name	Description
1 WBS Tree	Use the WBS Tree to filter to a particular WBS item.
2 WBS	When a specific WBS item is selected in the WBS

Overview - Work Breakdown Structure (WBS) View Register (continued)

Name	Description
Grid	Tree, all subordinate WBS items display in the WBS grid.
3	Cost Items The Cost Items associated with the WBS subordinate in the WBS Grid displays in this data block.

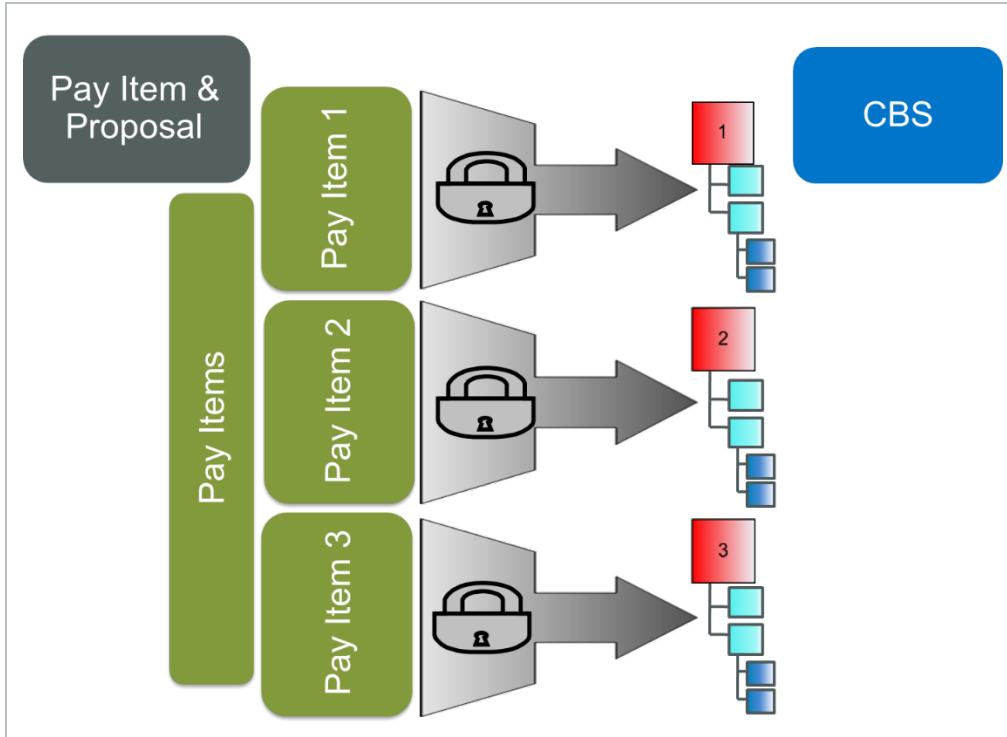
The screenshot displays three main components of the WBS View Register:

- 1. WBS Tree:** A hierarchical tree view showing the structure of the Work Breakdown Structure. The root is CEAS, which branches into 10 (GENERAL PROVISIONS), 11 (EARTH WORK), 12 (PAVEMENT WORK), 13 (BRIDGE WORK), 14 (CONCRETE STRUCTURES), and 17 (PIPE WORK).
- 2. WBS Grid:** A table listing WBS items with the following columns: Code, Description, Quantity, Unit of Measure, Currency, Unit Cost, and Total Cost (Forecast). The items include CEAS, 10 (GENERAL PROVISIONS), 10.10 (PROJECT SETUP), 10.10.100 (YARD), 10.10.200 (OFFICE FACILITIES), 10.10.500 (UTILITIES), 10.20 (EQUIPMENT SETUP), and 10.20.100 (MOBILIZATION).
- 3. Cost Items:** A table showing cost items associated with the WBS subordinates. It includes columns for CBS Position Code, Description, Optional Code, Forecast (T/O) Quantity, Unit of Measure, Unit Cost, Total Cost (Forecast), Allocated, Allocation Source, Currency, Cost Adjustment, and Resource Assembly Quantity. An example item is shown with CBS Position Code 23.1, Description Setup Yard, and a Total Cost (Forecast) of \$4,000.00.

5.1.3 Locked vs. Unlocked approach

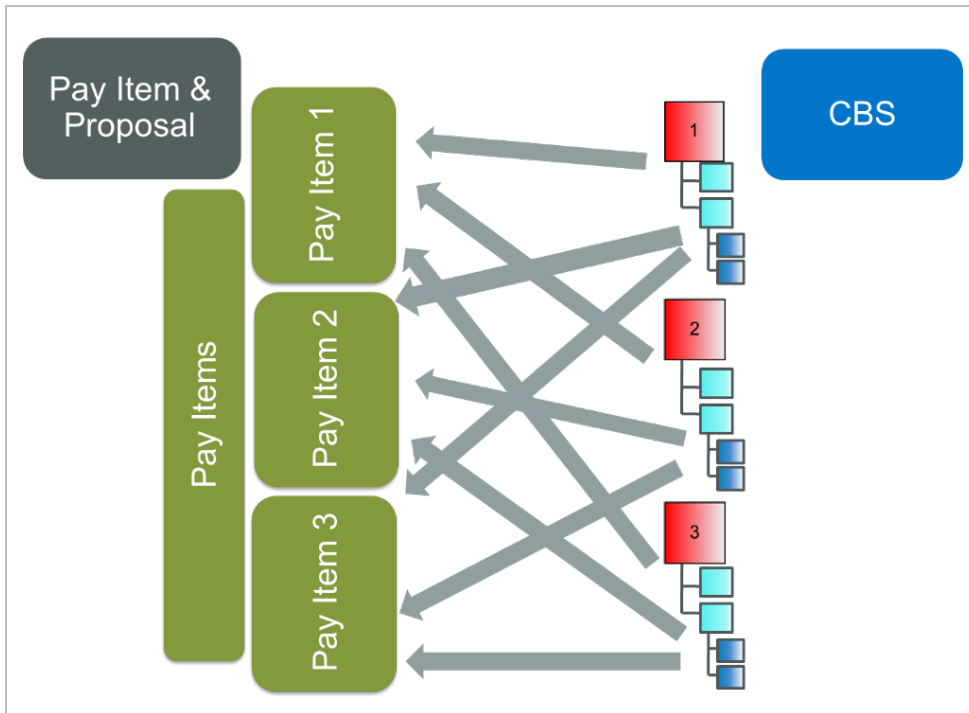
There are two basic approaches to structuring your cost items and pay items. You can choose to work in a “locked approach” or an “unlocked approach.”

In a locked approach, level one cost items are automatically created and assigned to pay items. This locked approach works well when pay items adequately represent the work plan. Subordinate cost items inherit the pay item assignment of superior cost items.

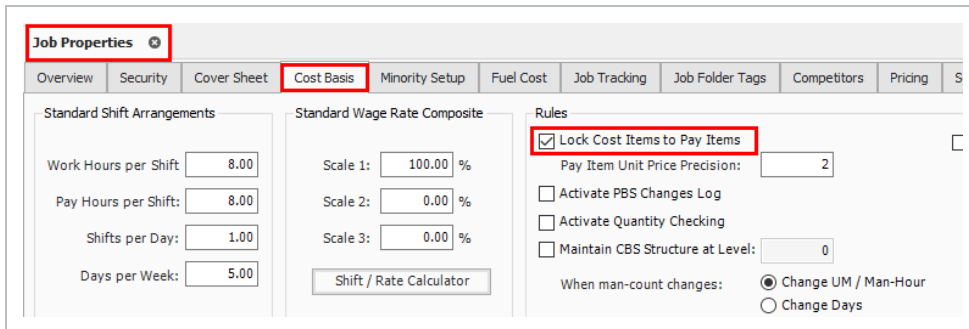


If the Lock Cost Items to Pay Item rule is checked in Job Properties, InEight Estimate will automatically create level 1 cost items in the CBS Register for each of your pay items.

The unlocked approach may work better when the pay items do not adequately represent the work plan. You can then assign your cost items to your pay items in any arrangement. Companies looking to standardize the way they estimate and use templates will want to use this approach as it allows you to dictate the cost breakdown structure. Owners will also typically use the unlocked approach since pay items are not necessary to their estimating process.



The option of working in a locked approach vs. an unlocked approach is available in the Job Properties Form, on the Cost Basis tab under the Rules section. By selecting the checkbox for Lock Cost items to Pay Item, you are choosing to work in a locked approach.



5.1.4 Take-off quantities

In the Cost Breakdown Structure, estimated quantities are entered into the Forecast (T/O) Quantity field with a corresponding unit of measure. The quantity will default to 1 each when you create a new cost item and should be updated to reflect the work being estimated.

CBS Position Code	Description	Forecast (T/O) Quantity
+ 1	Mobilization	1.00
+ 2	Clearing & Grubbing	10.00
- 3	Unclassified Excavation	50,000.00
+ 3.1	Excavation	50,000.00
+ 3.2	Embankment	50,000.00
- 4	Aggregate Base	45,000.00
+ 4.1	Furnish & Haul Base Material	45,000.00
+ 4.2	Finegrade Subgrade	400,000.00
- 4.3	Install Aggregate Base	45,000.00
+ 4.3.1	Place Aggregate Base	45,000.00
+ 4.3.2	Blue Top Aggregate Base	400,000.00

Forecast (T/O) Quantities are only used for your cost items in the CBS Register. Pay Quantities are used for final pricing in the PBS and Pay Item & Proposal forms.

Because the training project is a “locked” job, you already have level 1 cost items, and their default take-off quantities are populated from their corresponding pay item quantities.

The following step by step walks you through adjusting the default take-off quantities on a couple of your cost items.

Adjust take-off quantities

1. From the Estimate tab, select **Cost Breakdown Structure (CBS)**.
2. In the Forecast (T/O) Quantity column, the Forecast (T/O) Quantity is brought over from the Pay Item & Proposal Register, but here you can adjust it if needed. Practice adjusting the Forecast T/O quantity of one of your cost items.
 - For this example, we’ll change Clearing and Grubbing to **15.00 Acre** and Excavation to **40,000 CY**.

- 1	SITWORK & ROADWAY	1.00	Each
+ 1.1	Mobilization	1.00	LS
+ 1.2	Clearing & Grubbing	15.00	Acre
+ 1.3	Excavation	40,000.00	CY
- 2	WATER & SEWER	1.00	Each
+ 2.1	10 PVC Pipe	1,000.00	LF

5.2 COST ITEM CREATION

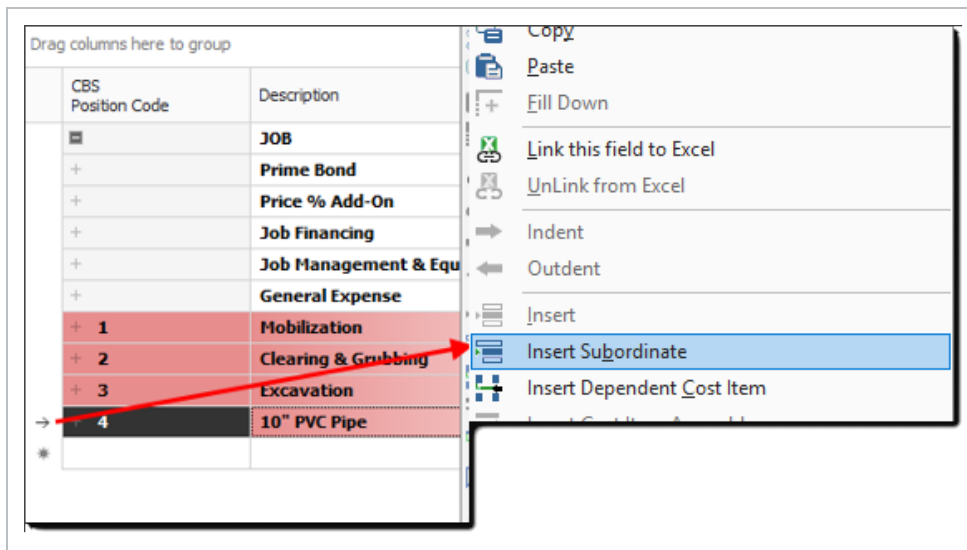
During estimate development, you will create new cost items to break down your work into specific activities. You can create superior and subordinate cost items as needed to organize your work.

5.2.1 Insert subordinate cost item

You can add subordinate cost items in two different ways:

Option 1

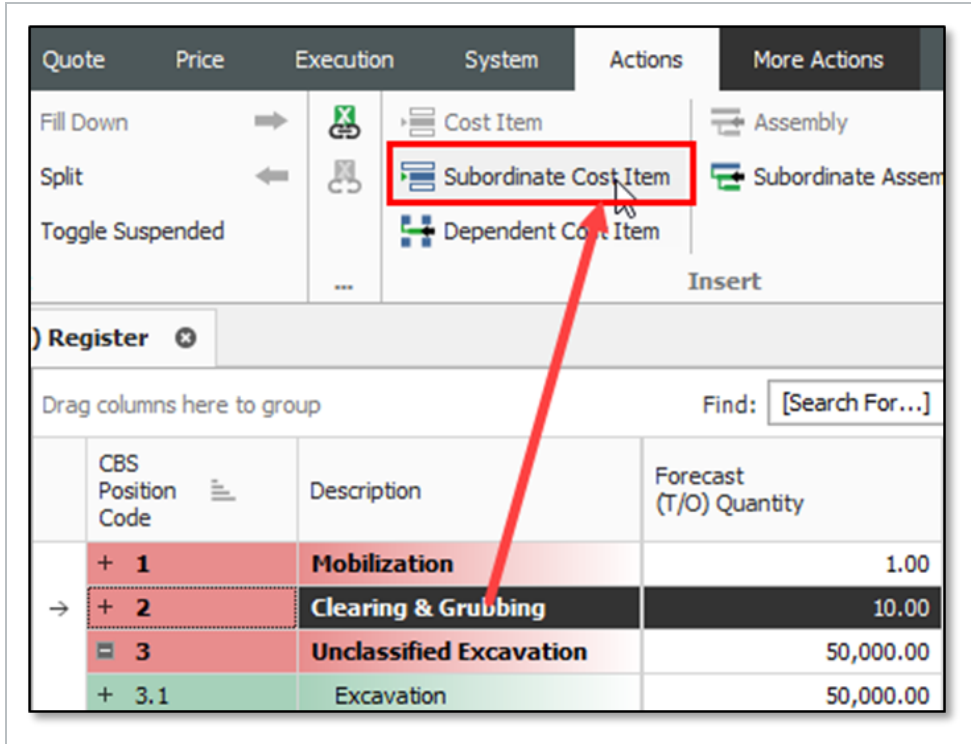
Right-click on the row header of the superior cost item and select **Insert Subordinate**.



The row header is considered the far left edge of the CBS row where the small arrow appears above. It is used to open records and perform actions on items instead of clicking on cells within the row which will allow you to directly type into the selected cell.

Option 2

Click on the **Subordinate Cost Item** icon on the Cost Breakdown Structure (CBS) Register toolbar.

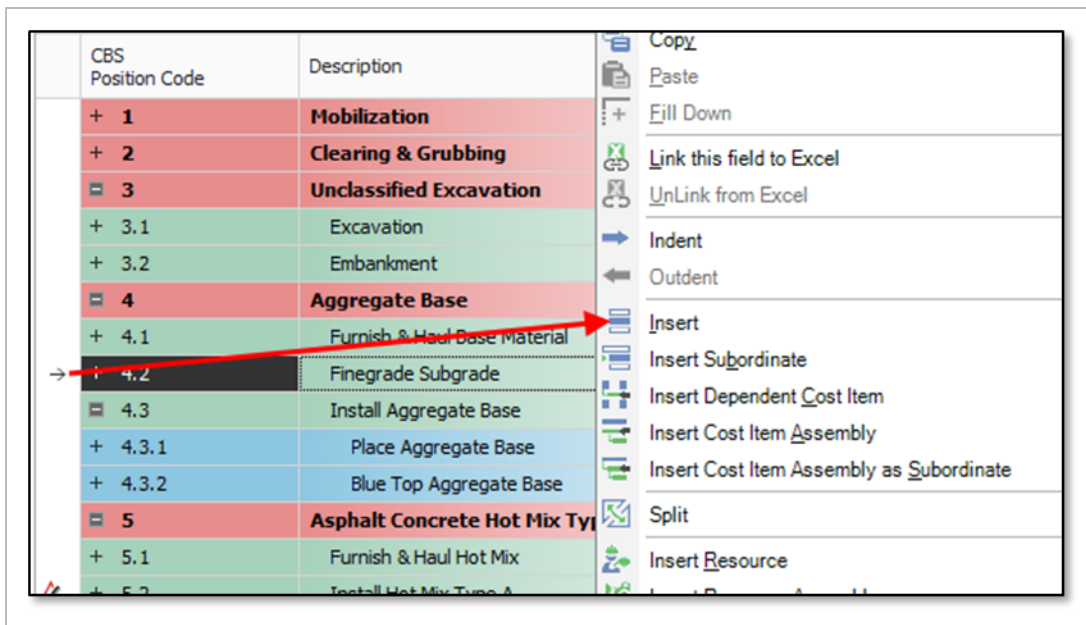


5.2.2 Insert cost item

You can add cost items at the same level in two different ways.

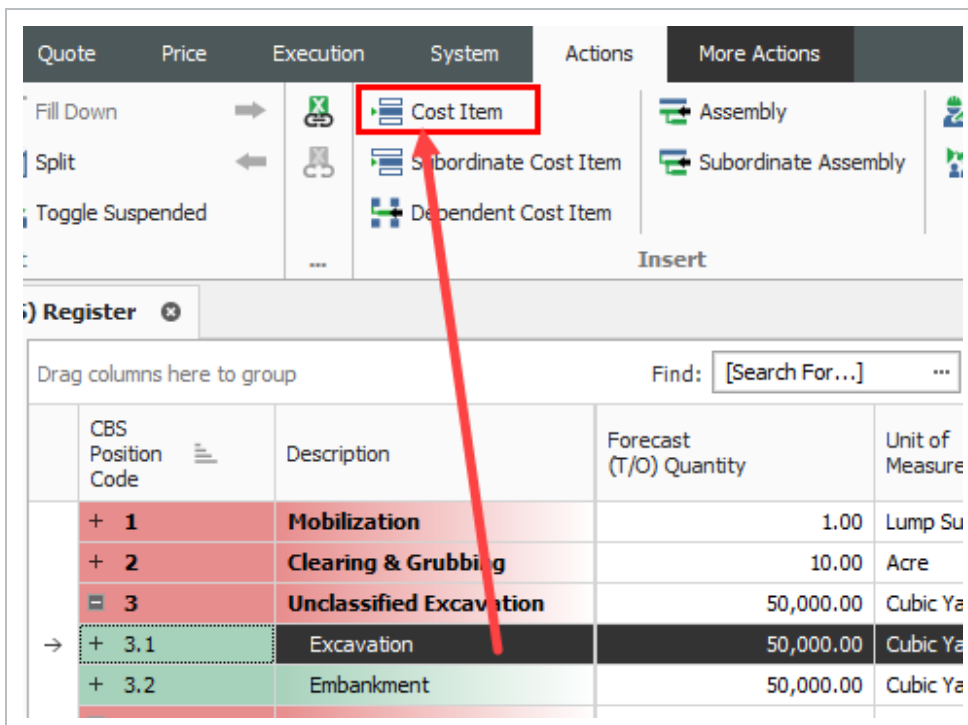
Option 1

Right click on the row header of the superior cost item and select **Insert**.



Option 2

Click on the **Cost Item** icon on the Cost Breakdown Structure (CBS) Register toolbar.



Because the project you are working in is a “locked” job (where cost items are locked to pay items), your CBS Register will already have level 1 cost items representing each of your pay items, and each cost item will be assigned to its corresponding pay item.

The following step by step walks you through creating a subordinate (child) cost item for one of your level-one cost items.

Create a subordinate cost item

1. From the Estimate tab, select **Cost Breakdown Structure (CBS)**.
2. Right-click on a cost item and select **Insert Subordinate**.
 - This creates a new subordinate cost item below your selected cost item
3. For the subordinate cost item, enter a description.
4. Add a quantity and select your Unit of Measure.
 - For this example, we’ll insert a subordinate under Clearing & Grubbing for Clearing

▣ 1	SITWORK & ROADWAY	1.00	Each
+ 1.1	Mobilization	1.00	LS
▣ 1.2	Clearing & Grubbing	15.00	Acre
+ 1.2.1	Clearing	15.00	Acre
+ 1.3	Excavation	40,000.00	CY
▣ 2	WATER & SEWER	1.00	Each
+ 2.1	10 PVC Pipe	1,000.00	LF

You can create a subordinate at the same level, by right clicking on an equal-level cost item and selecting **Insert**.

5.2.3 Move cost items

As you develop your estimate, you may need to move cost items around in the Cost Breakdown Structure. To move a cost item:

1. Select the row header of the cost item you wish to move. If you select a superior cost item, it will bring the subordinates along with it.
2. Drag and drop the cost item to the right place in your structure. Notice one of two cursor symbols appears:

The symbol with three equal bars will drop the cost item at the same level as the cost item you drop it on.



The symbol with a subordinate bar will make the cost item become a subordinate to the one you drop it on.



Exercise 5.1 – Create cost items

In this exercise, you will practice creating additional cost items. Create the following cost items, using your own job.

Code	Description	Forecast (T/O) Quantity	Unit of Measure
1.2.2	Grading	10	Acre
1.3.1	Excavate	40,000	CY
1.3.2	Haul	40,000	CY
4.1	Furnish Pipe Materials	1,000	LF
4.2	Excavate-Install-Backfill Pipe	1,000	LF

You should end up with similar results:

1	SITWORK & ROADWAY	1.00	Each
+ 1.1	Mobilization	1.00	LS
1.2	Clearing & Grubbing	15.00	Acre
+ 1.2.1	Clearing	15.00	Acre
+ 1.2.2	Grading	10.00	Acre
1.3	Excavation	40,000.00	CY
+ 1.3.1	Excavate	40,000.00	CY
+ 1.3.2	Haul	40,000.00	CY
2	WATER & SEWER	1.00	Each
2.1	10 PVC Pipe	1,000.00	LF
+ 2.1.1	Furnish Pipe Materials	1,000.00	LF
+ 2.1.2	Excavate-Install-Backfill Pipe	1,000.00	LF

Congratulations, you have completed this Exercise!

5.3 COSTS AND PRODUCTION

For the cost items you've created, you can now add their costs and production. All information for a cost item is contained in a Cost Item Record.

5.3.1 Cost item record

You can open the Cost Item Record by either double clicking on a cost item row header, or right clicking and selecting **Open**.

Cost Item Record Overview

Name		Description
1	Cost Item Header Information	<p>Provides general information about the cost item. It displays the cost item's take-off quantity, Unit of Measure, and Cost. It also indicates what Cost Source is being used.</p> <p>The Cost Segment drop-down is used to differentiate estimated costs in the Direct Costs, Job Overhead or Business overhead categories.</p>
2	Costing Area	<p>Section where costs are defined. There are three ways to enter costs: Detail, Plug, and Quote. The Cost Summary tab summarizes whatever costs are defined.</p> <p>Under the Cost Segment drop down, you can choose</p>
3	Data Blocks	<p>Contains a set of tabs for entering additional information including production, shift arrangements, man-hour factors, notes, and scheduling information.</p>

1 - Header fields: CBS Code, Optional Code, Description, Forecast (T/O) Qty, Unit of Measure, Unit Cost, Total Cost, Currency.

CBS Code	Optional Code	Description	Forecast (T/O) Qty	Unit of Measure	Unit Cost	Total Cost	Currency
3	202 0183	Unclassified Excavation	50,000.00	Cubic Yard	\$4.68	\$233,915.81	U.S. Dollar
3.1	3.1	Excavation	50,000.00	Cubic Yard	\$3.00	\$149,922.88	U.S. Dollar

PI Assignment: 202 0183 | PI Line Number: 30 | PI Description: Unclassified Excavation | Cost Segment: Direct Cost | Pay Quantity: 50,000.00 | Cost Source: Detail | Alternate: BASE

2 - Cost Item Summary Table:

Cost Category	Unit Cost	Total Cost	Unadjusted Total Cost	Cost Adjustment Percent	Cost Adjustment Amount	Billing Unit Rate	Total Billing Amount
Total	\$3.00	\$149,922.88	\$149,922.88	0.00	\$0.00	\$3.28	\$163,881.06
> Labor	\$0.66	\$33,170.48	\$33,170.48	0.00	\$0.00	\$0.93	\$46,438.66
> Owned Equipment	\$2.34	\$116,752.40	\$116,752.40	0.00	\$0.00	\$2.35	\$117,442.40
> Rented Equipment	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$0.00
> Supplies	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$0.00
> Materials	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$0.00
> Subcontract	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$0.00
> Fees	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$0.00
> Allowance	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$0.00
Custom Category1	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$0.00
Undefined	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$0.00

3 - Employment Setup Dialog:

Identification: Code: ETWT Type: Construction Equipment Rate
 Description: Water Truck
 Quantity (Less Waste): [] Waste % Add-on: []
 Quantity: 1.00 Productivity Factor: 1.
 Cost Driver: Schedule...
 Employment Cost: Unit Cost: \$29.60 Total Cost: \$1,302.40
 Maintenance Labor Cost: Unit Cost: \$0.00 Total Cost: \$0.00

5.3.2 Cost segments

The Direct Costs, Job Overhead, and Business Overhead cost segments helps to classify the scope of work so you can report on direct vs indirect costs, and accurately control how markup is spread throughout your bid. This differentiation is necessary to effectively price work based on the risk profile of each segment of cost.

CBS Code: 2 | Optional Code: 400 | Description: WATER & SEWER | Forecast (T/O) Qty: 1.00 | Unit of Measure: Each | Unit Cost: \$496,284.83

PI Assignment: 413(B) 0464 | PI Line Number: 60 | PI Description: 36 Inch RCP Culvert Class III

Cost Segment: [Dropdown Menu]

- Direct Cost
- Description
- Business Overhead
- Direct Cost
- Job Overhead

Cost Item Summary: Detail: \$67.54 | Plug: \$0.00 | Quote: \$0.00 | Allocation

This cost item has subordinate cost items. Click the Next button to move to a subordinate cost item and enter Details.

5.3.3 Cost sources

You can define costs on a cost item in one of three ways, called Cost Sources:

Tab	Description
Detail	This is the recommended costing method, where labor, equipment, and material resources are defined, along with productivity, to determine costs.
Plug	<p>This method allows you to enter a unit or total cost directly, without needing to enter resources or production. This should rarely be used, but does have a couple of use cases:</p> <ul style="list-style-type: none"> • Place holder value until you get more information (from subcontractors or designers) • For preliminary estimates when limited information is available
Quote	<p>The Quote cost source is for contractors, subcontractors or vendor quotes.</p> <ul style="list-style-type: none"> • Creating and managing quotes is covered in Lesson - Quote Management

Code	Description	Work Hours
ETWT	Water Truck	130.
ED8	Dozer D8	130.
ES623	Scraper 623	261.
ECDMP1	Compactor Smooth Drum	130.
ECDMP2	Compactor Sheeps Foot	130.
LL2	Laborer	130.

Detail

Crews,
Resources, &
Productivity

Cost Category	Unit Cost	Total Cost
Total	\$1,090.00	\$1,090.00
⊕ Labor	\$500.00	\$500.00
⊕ Owned Equipment	\$590.00	\$590.00
⊕ Rented Equipment	\$0.00	\$0.00

Plug

Directly
Entered Cost

Company:	Acme Guardrail
Contact:	Johnson, Joe
Phone:	555-555-5555
Unit Price:	\$31.00
Bond:	\$0.00
Conditions:	\$0.00
Taxes:	\$0.00
Total:	\$31.00

Quote

Subcontracts

On each Cost Item Record, InEight Estimate gives you the option to define both Plug and Detail values on each respective tab.

5.3.3.1 Plug tab

The Plug tab allows user to input unit or total cost to any of the listed cost categories which can be customized based on company requirements.

The screenshot shows the 'Cost Breakdown Structure (CBS) Register' interface. The 'Cost Item Record' tab is active. The main table lists items with columns for CBS Code, Optional Code, Description, Forecast (T/O) Qty, Unit of Measure, Unit Cost, Total Cost, and Currency. Two items are visible: '17' (Toll Booth) and '17.1' (Site Preparation). Below the table, the 'Cost Item Summary' shows 'Detail : \$3,664.55' and 'Plug : \$2,500.00'. The 'Plug' button is highlighted with a red box. The 'Cost Item Setup' dialog is open on the right, showing 'Default Pay Rules' (Composite Wage Scale: 100.00, 0.00, 0.00), 'Default Shift Arrangements' (Work Hours per Shift: 8.00, Shifts per Day: 1.00, Days per Week: 5.00), and 'Default Properties' (Account Code: 8000, Cost Curve: Linear).

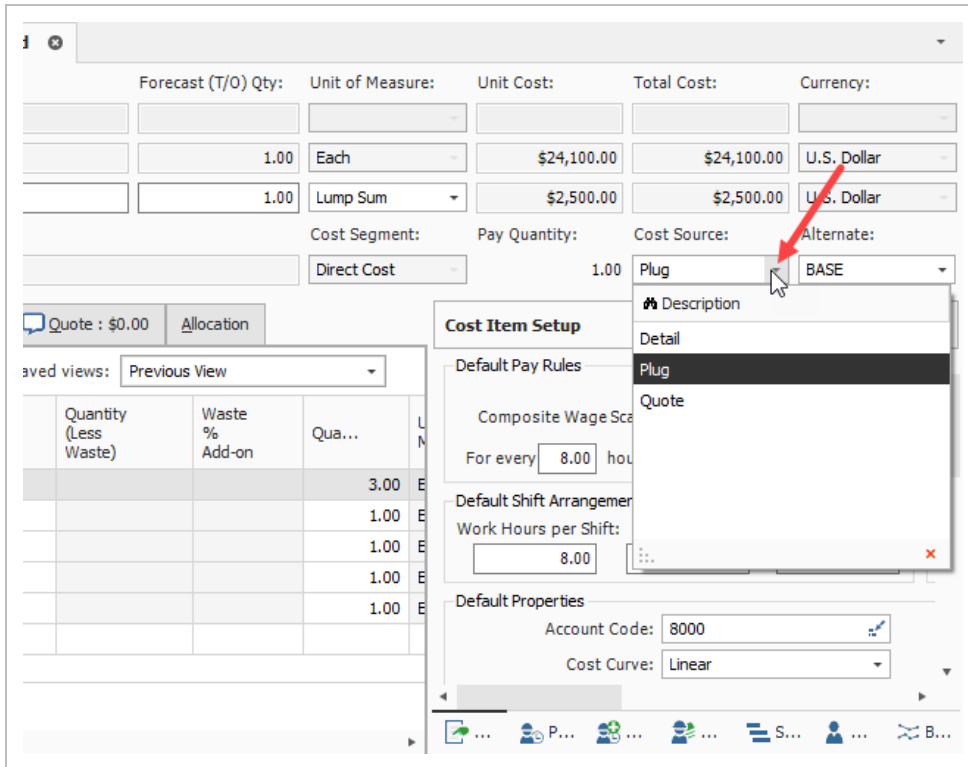
5.3.3.2 Detail tab

The screenshot shows the 'Cost Breakdown Structure (CBS) Register' interface. The 'Cost Item Record' tab is active. The main table is the same as in the previous screenshot. Below the table, the 'Cost Item Summary' shows 'Detail : \$3,664.55' and 'Plug : \$2,500.00'. The 'Detail' button is highlighted with a red box. The 'Cost Item Setup' dialog is open on the right, showing the same settings as in the previous screenshot. A detailed table of resources is visible below the summary, with columns for Row Number, Resource Assembly, Description, Quantity (Less Waste), Waste % Add-on, and Quantity. The table lists resources: Laborer (3.00), Operator Class 1 (1.00), Grader 14G (1.00), Water Truck (1.00), and Teamster (1.00).

Entering both a detailed and plug cost allows you to define costs at a higher summary level initially (Plug tab), and then define more detail as the estimating process progresses (Detail tab). You can

review and compare your plug and detail values by toggling between tabs, but your cost item will only contribute the total cost from one of the tabs based on which cost source is selected.

You control which cost is used by selecting **Detail** or **Plug** in the Cost Source field on the Cost Item Record.



The Quote Cost Source can only be selected from the Quote Comparison & Award form.

5.3.4 Plug costs

The following steps walk you through defining a plug cost on a cost item.

Define a plugged cost

1. From the Estimate tab, select **Cost Breakdown Structure (CBS)**.
2. Right-click on the **row header** for a cost item and select **Open**.

3. In the Cost Source drop-down field select **Plug**.
4. In the left section of the cost item, select the **Plug** tab.
5. Click in the Unit cost or Total cost field for a cost category and type in a **Numeric Value**.
 - For this example, on the Mobilization cost item, we'll add \$10,000 in the Total Cost field for both Labor and Owner Equipment.

1	200	SITEWORK & ROADWAY		
1.1	641 0100	Mobilization		
PI Assignment:	PI Line Number:	PI Description:		
641 0100	1.1	Mobilization		
Cost Item Summary	Detail : \$0.00	Plug : \$20,000.00	Quote : \$0.00	Allocation
Cost Category	Unit Cost	Total Cost		
▼ Total	\$20,000.00	\$20,000.00		
> Labor	\$10,000.00	\$10,000.00		
> Owned Equipment	\$10,000.00	\$10,000.00		
> Rented Equipment	\$0.00	\$0.00		

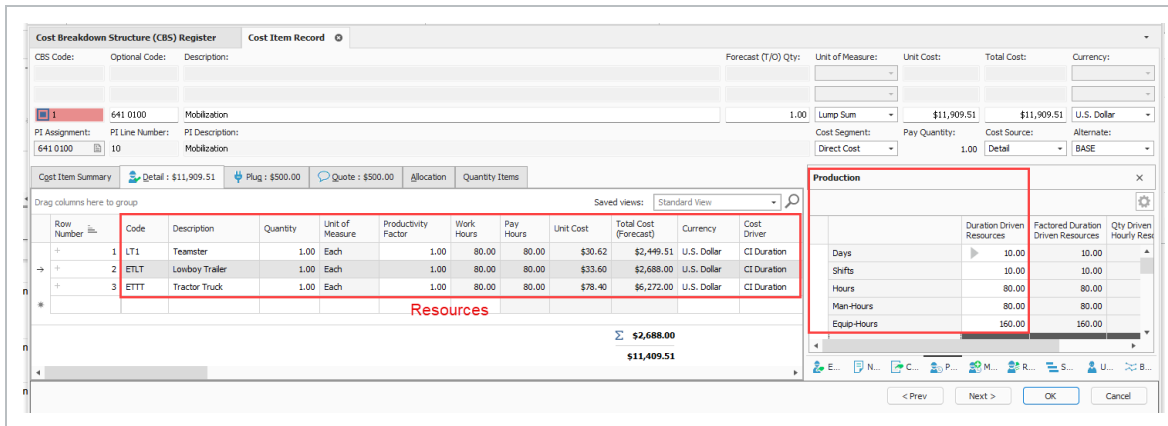
5.3.5 Detail costs

The **Detail** cost method is also defined on the Cost Item Record. On the Detail tab, you can add resources (labor, equipment, and material) and define production.

On the Production tab (right side of screen), define production by entering one of the following:

- A duration, or
- A unit per duration, or
- A duration per unit

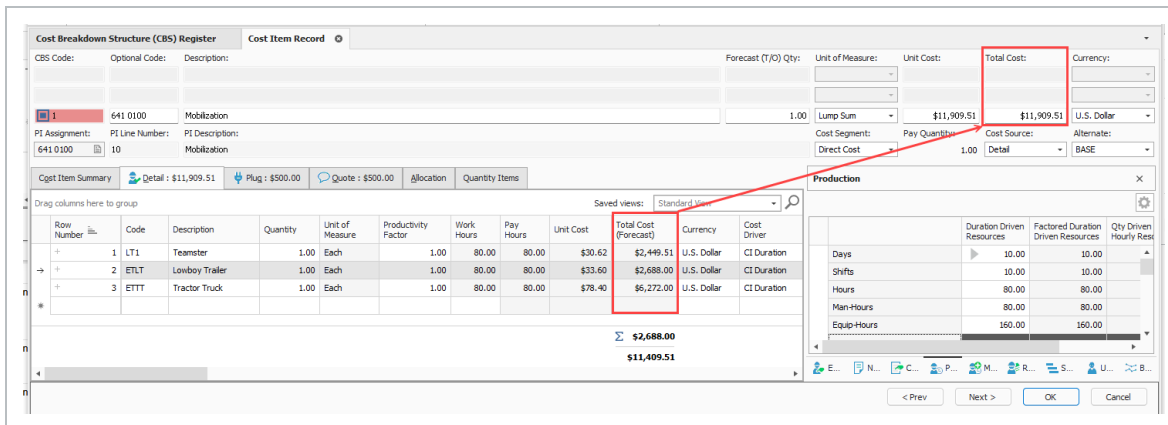
When you enter a production value, all the other production fields will auto-fill based on what you entered.



The hours defined on the Production tab drive the labor and equipment resources you employ on the left, multiplying their unit costs by the production hours.

When you employ material resources, their costs are driven by the quantity you enter into the quantity field.

The Total Cost of each resource is added together to give you the Total Cost for the cost item.



Detail costs

1. On the Detail tab, add resources (labor, equipment, and material).
2. On the Production tab, define production (duration, unit per duration, or duration per unit).
3. The hours defined on the Production tab drive the labor and equipment resources on the left, multiplying their unit costs by the production hours.

With material resources, their costs are driven by the quantity entered in the quantity field.

The screenshot displays two tables side-by-side. The left table, titled 'Resources', has columns: Row Number, Code, Resource Assembly, Description, Quantity Ratio, Quantity Ratio Units, Quantity (Less Waste), Waste % Add-on, Quantity, and Unit of Measure. It lists three resources: 1. LT1 Teamster, 2. ETLT Lowboy Trailer, and 3. ETTT Tractor Truck. The right table, titled 'Production', has columns: Days, Duration Driven Resources, Factored Duration Driven Resources, Qty Driven Hourly Resources, and Cost Item Summary. It lists various production metrics: Days (10.00), Shifts (10.00), Hours (80.00), Man-Hours (80.00), Equip-Hours (160.00), and several 'Lump Sum' rows for Day, SHR, Hour, Man-Hr, and Equip-Hr, all with values of 0.01. A 'DaysLump Sum' row at the bottom has values 10.00, 10.00, 0.00, and 10.00.

5.3.5.3 Add cost detail

The following steps walk you through adding resources and production on a cost item.

Add cost detail

1. From the Estimate tab, select **Cost Breakdown Structure (CBS)**.
2. Right-click on **row header** for a cost item and select **Open**.
3. Select the **Detail** tab.
4. A blank row is available to define your costs. With your cursor in the code field, click the **Resource Selection** icon to open the Resource Selection Register.
5. Select a resource tab (e.g., Labor).
6. Select a resource.
7. Select **OK**.
8. Repeat the steps to add additional resources as needed.
9. Click in each resource's quantity field to change their quantity as needed.
10. From the lower-right section of the form, select the **Production** tab.
11. Type a **numeric value** in the Days field, then press **Tab**.
12. Click **OK** to close the record.

- For example, we can add cost detail to the Clearing cost item, adding the following labor and equipment resources and production value:

Resource	Quantity
LL2 Laborer	2
LO1 Operator Class 1	1
EL988 Loader 988	1
Cost Item Production Value (in Days)	
	8

5.3.5.4 Add assembly

Define cost detail by adding an assembly

1. From the Estimate tab, select **Cost Breakdown Structure (CBS)**.
2. Right-click on the **row header** for one of the cost items and select **Open**.
3. Select the **Detail** tab.
4. With your cursor in the Resource Assembly field, click the **Resource Assembly Selection** icon to open the Resource Assembly Selection Register.
5. Select an assembly, then click **OK**.
6. Because this crew includes duration-based resources, you need to enter a Production value. Select the **Production** tab.
7. Type a **numeric value** in one of the production fields (e.g., Lump Sum/day), then press **Tab**.
For example, on the Grading cost item, you can add a Grading crew with a production value of 1 Lump Sum/Day.

Cost Breakdown Structure (CBS) Register **Cost Item Record**

CBS Code: Optional Code: Description:

Forecast (7/0) Qty: Unit of Measure: Unit Cost: Total Cost: Currency:

1 641 0100 Mobilization 1.00 Lump Sum \$30,871.60 \$30,871.60 U.S. Dollar

PI Assignment: PI Line Number: PI Description:

641 0100 10 Mobilization

Cost Segment: Pay Quantity: Cost Source: Alternate:

Direct Cost 1.00 Detail BASE

Cost Item Summary Detail : \$30,871.60 Plug : \$500.00 Quote : \$500.00 Allocation Quantity Items

Drag columns here to group Saved views: Previous View

Row Number	Code	Resource Assembly	Description	Quantity Ratio	Quantity Ratio Units	Quantity (Less Waste)	Waste % Add-on	Quantity	Unit of Measure	Prod Fact
+	2	ETLT	Lowboy Trailer					1.00	Each	
+	3	ETTT	Tractor Truck					1.00	Each	
→	4	CGRADE	Grading Crew					1.00	Hour	
→	1	ETWT	CGRADE Water Truck					0.50	Each	
→	2	LL2	CGRADE Laborer					1.00	Each	
→	3	LO3	CGRADE Operator Class 3					2.00	Each	
→	4	EG14G	CGRADE Grader 14G					1.00	Each	
→	5	ECOMP1	CGRADE Compactor Smooth Drum					1.00	Each	
→	6	LO4	CGRADE Operator Foreman					1.00	Each	

Production

	Duration Driven Resources	Factored Duration Driven Resources	Qty Driven Hourly Resources	Cost Item Summary
Days	10.00	10.00	0.00	10.0
Shifts	10.00	10.00	0.00	10.0
Hours	80.00	80.00	0.00	80.0
Man-Hours	400.00	400.00	0.00	400.0
Equip-Hours	360.00	360.00	0.00	360.0
Lump Sum/Day	3.00	0.10	0.00	0.3
Lump Sum/Shift	0.10	0.10	0.00	0.1
Lump Sum/Hour	0.01	0.01	0.00	0.0
Lump Sum/Man-Hr	0.00	0.00	0.00	0.0
Lump Sum/Equip-Hr	0.00	0.00	0.00	0.0
Days/Lump Sum	10.00	10.00	0.00	10.0

Emp... Notes Cos... Pro... Man... Res... Sch... Use... Ben...

< Prev Next > OK Cancel

Exercise 5.2 – Define cost detail

For cost items you create in InEight Estimate, you need to add resources, assemblies and production to define their costs. In this exercise, you will practice defining cost details. Complete the following steps, using your job:

Add the following or similar resources and production to your 1.3.1 Excavate cost item.

Code	Description	Quantity
LO1	Operator Class 1	1
LL2	Laborer	2
LL3	Labor Foreman	1
EX225	Excavator 225	1
CY/Hour	400	

Add the following resources and production to the 1.3.2 Haul cost item.

Code	Description	Quantity
LO1	Operator Class 1	1
LL2	Laborer	2
LL3	Labor Foreman	1
LT1	Teamster	1
EL950	Loader 950	1
ETDT	Dump Truck	1
EX225	Excavator 225	1
CY/Hour	400	

Add the following resource and quantity to the 2.1.1. Furnish Pipe Materials cost item.

Code	Description	Quantity
MPP10	Pipe 10" PVC SDR21	1,000 with 5% Waste % Add-on = 1,050 LF

Add the following assembly to the 2.1.2 Excavate-Install-Backfill Pipe cost item.

Code	Description	Quantity
CPIPE	Pipe Crew	1

Add the following production value to cost item.

Days	3
------	---

You should end up with the similar results:

1	SITWORK & ROADWAY	1.00	Each	\$87,021.21	\$87,021.21
+ 1.1	Mobilization	1.00	LS	\$20,000.00	\$20,000.00
1.2	Clearing & Grubbing	15.00	Acre	\$1,399.82	\$20,997.25
+ 1.2.1	Clearing	15.00	Acre	\$468.48	\$7,027.16
+ 1.2.2	Grading	10.00	Acre	\$1,397.01	\$13,970.09
1.3	Excavation	40,000.00	CY	\$1.15	\$46,023.96
+ 1.3.1	Excavate	40,000.00	CY	\$0.43	\$17,227.04
+ 1.3.2	Haul	40,000.00	CY	\$0.72	\$28,796.93
2	WATER & SEWER	1.00	Each	\$9,603.73	\$9,603.73
2.1	10 PVC Pipe	1,000.00	LF	\$9.60	\$9,603.73
+ 2.1.1	Furnish Pipe Materials	1,000.00	LF	\$3.54	\$3,538.08
+ 2.1.2	Excavate-Install-Backfill Pipe	1,000.00	LF	\$6.07	\$6,065.65

Congratulations, you have completed this exercise!

5.4 COST ITEM DETAILS

The Cost Item Record contains multiple data blocks you can select from to store and calculate information specific to that cost item.

Depending on the cost item circumstances, you can add to or edit the information on the data blocks as needed. The Notes, Cost Item Setup, Production, and Man-Hour Factors are the most commonly used data blocks.

5.5 NOTES

On the cost item record's Notes data block, you can enter any cost item-specific notes that provide instructions, parameters, or explanations such as in the following examples:

- **For a Hauling cost item** — *There should be very little waste. If so, we can spread it out in the right of way at MP 111*
- **For a Structural Excavation and Backfill item** — *The backfill cannot be the native material. Must use clean base rock*
- **For an Underground Pipe cost item** — *The average depth is close to 10 ft.*

You can also use the Notes data block to reference cost item changes (e.g., changing shift arrangements, changing a resource rate).

Cost Breakdown Structure (CBS) Register **Cost Item Record**

CBS Code: Optional Code: Description: Forecast (T/O) Qty: Unit of Measure: Unit Cost: Total Cost: Currency:

1	641 0100	Mobilization	1.00	Lump Sum	\$11,909.51	\$11,909.51	U.S. Dollar
---	----------	--------------	------	----------	-------------	-------------	-------------

PI Assignment: PI Line Number: PI Description: Cost Segment: Pay Quantity: Cost Source: Alternate:

641 0100 10 Mobilization Direct Cost 1.00 Detail BASE

Cost Item Summary Detail : \$11,909.51 Plu

Drag columns here Saved views: Previous View

Row Number	Code	Resource Assembly	Description
+	1	LT1	Teamster
+	2	ETLT	Lowboy Trailer
+	3	ETTT	Tractor Truck

Notes

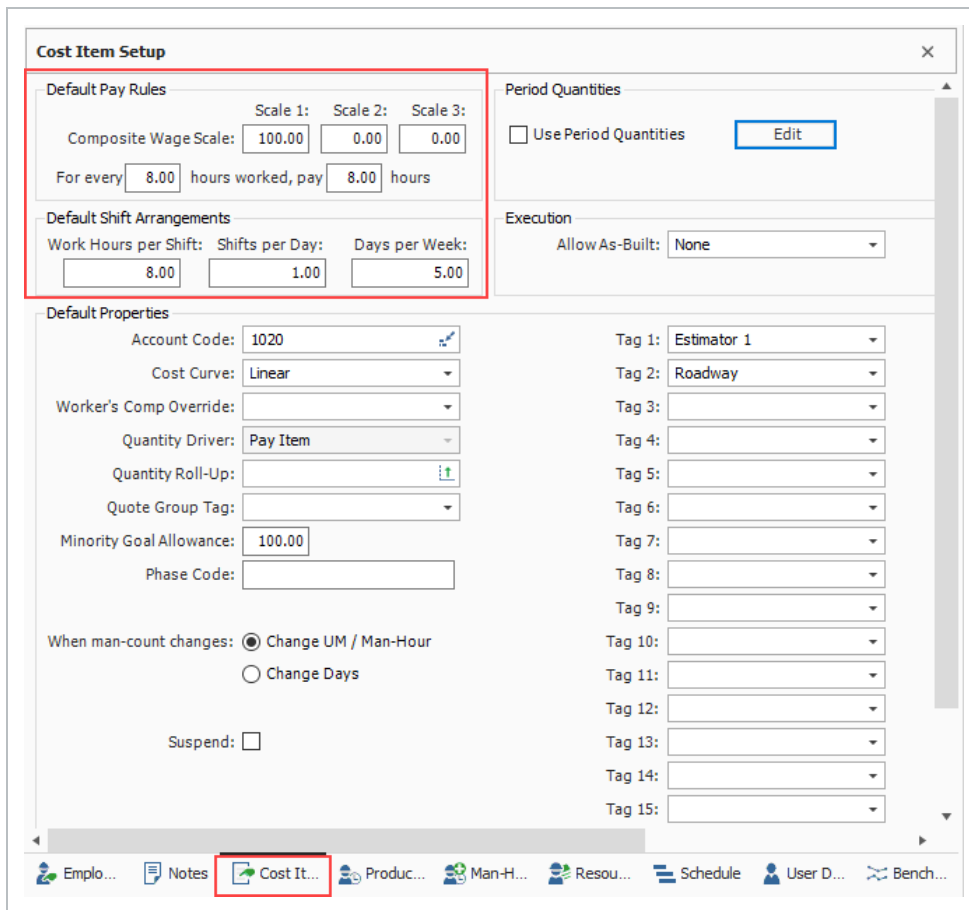
There are 10 loads. Figure Mob in only. The next job will pick up the Mob out.
Added \$500 Contingency Allowance in case extra permits are required

Em... **Notes** Cos... Pro... Ma... Res... Sch... Use... Ben...

< Prev Next > OK Cancel

5.6 COST ITEM SETUP

On the Cost Item Setup data block, you can adjust wage scale and shift arrangements for a specific cost item.



The composite wage scale and work and pay hours are used in the calculation of the cost of employed labor resources. The data reported on the Default Pay Rules tab is inherited from the composite wage scale and work and pay hours defined on the Job Properties > **Cost Basis** tab for the current job. These settings can be modified from the default on a cost item-by-cost item basis.

The Pay Rules for cost items can also be defined or modified on the Cost Breakdown Structure (CBS) Register in the Scale 1, Scale 2, Scale 3, Work Hours Rules, and/or Pay Hours Rules columns in the row of the subject cost item.

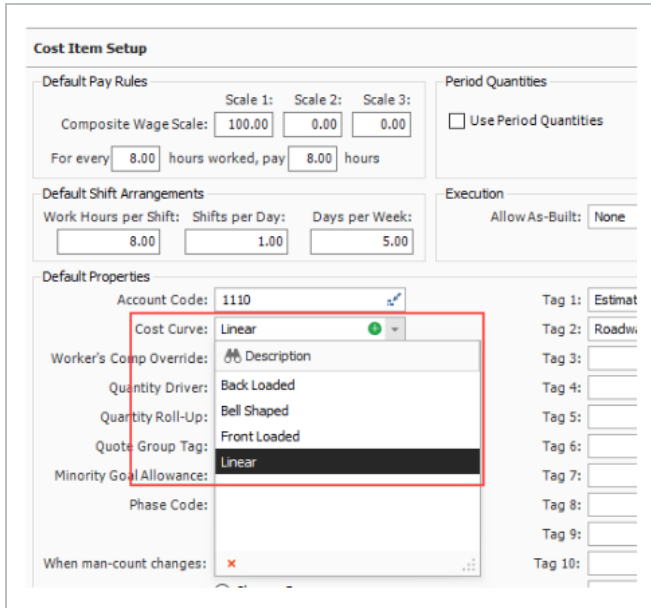
5.6.1 Cost curves

Cost curves are used to determine how the cost of a cost item is distributed over time. The main benefit of defining the cost curve for a cost item is to create a more accurate estimation of the cash flow over the life of a project.

The schedule dates entered on a cost item are used to define the periods across which a cost item incurs its costs. A cost item’s start and finish dates can be entered manually by the user or established using Schedule Integration, and the time periods (day, week, month, quarter, year) are determined in

the Cash Flow settings in Job Properties. For more information about scheduling, see [InEight Schedule Integration](#).

By default, cost items have a linear cost curve, which distributes the cost equally across all periods for the cost item. There are 5 different types of cost curves that can be selected from the Cost Item Record > **Cost Item Setup** page.



Cost curve type	Definition
Back Loaded	Costs are low for most of an activity's timeline but then increase towards the end. This curve type starts out with a lower slope and gradually becomes steeper as the work progresses. Most resources are assumed to be consumed later in the activity and may be more characteristic of subcontracted work where costs are incurred as the work nears completion.
Bell Shaped	Expenses are low at the start of an activity, increase during construction, and decrease as the project approaches completion. Bell-shaped cost curves incur most of their costs

(continued)

Cost curve type	Definition
	<p>towards the mid-point of the work and exponentially increase and decrease from the beginning to the end of the activity. This type of curve can be characteristic of larger portions of work that start with a few resources, ramp up to a peak, incurring more costs during the ramp up, then ramp back down as the work nears completion.</p>
<p>Front Loaded</p>	<p>A front-loaded cost curve is when costs are incurred early in an activity. This can happen for several reasons, such as early procurement of materials to take advantage of lower prices or to address long lead times.</p>
<p>Linear</p>	<p>Linear cost curves take the total cost of the activity and spreads it equally amongst the specified periods.</p>
<p>Cost Item Periods</p>	<p>Invoked by using the Period Quantities feature (described below). Cost Item Periods are used to customize cost curves based on the quantities consumed in various periods. In comparison to the other curves which spread the items total cost proportionally based the chosen cost curve, the Cost Item Periods option can generate a more precise distribution of costs to specific periods because the user can simply define how much quantity of work is getting completed in each specific period.</p>

You can also choose to create your own custom cost curve by clicking the **Add** button in the Cost Curve drop-down menu.

Custom cost curves let you define your own from and to durations along with their associated values, which need to add up to 100%.

From Duration %	To Duration %	Value %
0	50	5
50	50	5
50	50	10
50	50	10
50	100	30
100	100	10
100	100	10
100	100	20

100.00

5.6.1.1 Cash flow

All cost curves, regardless of type, impact the generation of the cash flow graph. The Cash Flow form provides a graphical representation of the cash flow and resource utilization of your project. For more information, see [Cash Flow Overview](#).

The Cash Flow options are used to define the cash flow rules (revenue timing, cost timing, cost of money, and quantities) needed to calculate the finance expense and cash flow for your project. For more information, see [Cash Flow Options](#).

You can control what information shows on the Cash Flow graph in the cash flow display settings. For more information, see [Cash Flow Display Settings](#).

5.6.1.2 Period quantities

Like the other four cost curves, Period Quantities are used to customize cost curves, which show you a graphical representation of the cash flow and resource utilization so you can assess the proper financing and resource project needs. When the Period Quantities check box is selected, the Cost Curve automatically changes to Cost Item Periods.

The screenshot shows the 'Cost Item Setup' dialog box. The 'Period Quantities' section is highlighted with a red box, containing a checked checkbox for 'Use Period Quantities' and an 'Edit' button. A red arrow points from this checkbox to the 'Cost Curve' dropdown menu in the 'Default Properties' section, which is currently set to 'Cost Item Periods'. Other sections include 'Default Pay Rules', 'Default Shift Arrangements', and 'Execution'.

The Period Quantity calculator uses the cost item quantity assigned to various periods to calculate the specific percentages attributable to each range of periods covered by the cost item. The purpose of using period quantities is to spread costs via the cost curve in the cash flow analysis. For example, if you have an item where 50% of the cost is incurred when you start the work because you have to buy all the material first, then you would want a customized cost curve to reflect that this is how the costs will be incurred over time when building that work.

In the example below, since 50% of the cost is incurred when the project starts, period one's quantity is 50% of 45,000 Forecast (T/O) Qty, which is 22,500. The remaining costs are then spread equally across the remaining three periods.

CBS Position Code	Description	Start	Finish	Forecast (T/O) Quantity
4.3	Install Aggregate Base	3/31/2014	5/26/2014	45,000.00

Period Quantities

Number of Period Quantities:

Period #	Schedule	Quantity	Value %
1	03-31-2014	22,500.00	50.00
2	04-01-2014	5,625.00	12.50
3	04-02-2014	5,625.00	12.50
4	04-03-2014	5,625.00	12.50
5	04-04-2014	5,625.00	12.50
		45,000.00	100.00

Forecast (T/O) Qty: 45000
Quantity left to spread: 0

You can also choose to select the **Re-spread quantities** button to spread the quantities equally among the periods entered in the Number of Period Quantities field.

Period Quantities

Number of Period Quantities:

Period #	Schedule	Quantity	Value %
→ 1		9,000.00	20.00
2		9,000.00	20.00
3		9,000.00	20.00
4		9,000.00	20.00
5		9,000.00	20.00
		45,000.00	100.00

Forecast (T/O) Qty: 45000
Quantity left to spread: 0

Adjust shift arrangements

1. From the Estimate tab, select **Cost Breakdown Structure (CBS)**.
2. Right-click the **row header** for a cost item and select **Open**.
3. Select the **Cost Item Setup** tab in the lower-right portion of the form (the tab name may be abbreviated).
4. In the Default Pay Rules data block, adjust your Composite Wage Scale as needed.

The screenshot shows the 'Cost Item Setup' dialog box. At the top, there are fields for '15.00 Acre', '\$1,079.93', '\$16,198.97', and 'U.S. Dollar'. Below these are 'Cost Segment: Direct Cost', 'Pay Quantity: 10.00', 'Cost Source: Detail', and 'Alternate: BASE'. The 'Default Pay Rules' section is highlighted with a red box, showing 'Composite Wage Scale' with input fields for Scale 1 (80.00), Scale 2 (20), and Scale 3 (0.00). Below it, the text reads 'For every 8.00 hours worked, pay 8.00 hours'. The 'Default Shift Arrangements' section shows 'Work Hours per Shift: 8.00', 'Shifts per Day: 1.00', and 'Days per Week: 5.00'.

5. Under the Composite Wage Scale, adjust the number of hours and paid as needed

This is a close-up of the 'Default Pay Rules' section from the previous screenshot. It shows the 'Composite Wage Scale' with input fields for Scale 1 (80.00), Scale 2 (20.00), and Scale 3 (0.00). Below it, the text reads 'For every 10.00 hours worked, pay 10.00 hours', which is also highlighted with a red box.

6. In the Default Shift Arrangements data block, make changes as needed.

Cost Item Setup

Default Pay Rules

Scale 1: Scale 2: Scale 3:

Composite Wage Scale: 80.00 20.00 0.00

For every 10.00 hours worked, pay 10.00 hours

Default Shift Arrangements

Work Hours per Shift: 10.00 Shifts per Day: Days per Week: 5.00

- For this example, we'll make the following changes on the Clearing cost item:
 - Composite Wage Scale – 80% Scale 1, 20% Scale 2.
 - For every 10 hours worked, pay 10 hours.
 - Default Shift Arrangements – Change Work Hours per Shift to 10.

Cost Item Setup

Default Pay Rules

Scale 1: Scale 2: Scale 3:

Composite Wage Scale: 100.00 0.00 0.00

For every 8.00 hours worked, pay 8.00 hours

Default Shift Arrangements

Work Hours per Shift: 8.00 Shifts per Day: 1.00 Days per Week: 5.00

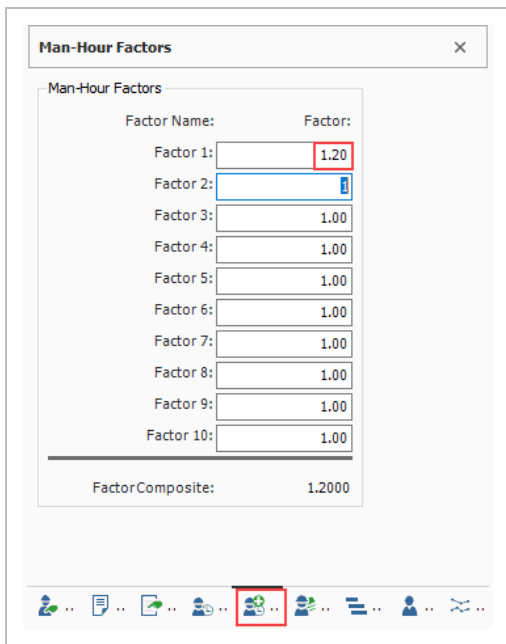
5.7 MAN-HOUR FACTORS

For items that have known risks or potential resource concerns, you can apply a man-hour factor to take those risks into consideration.

Man-hour factors are applied on the Man-Hour Factors data block on the Cost Item Record. Factors are applied in relation to 1, where slower production is greater than 1 and faster production is less than 1.

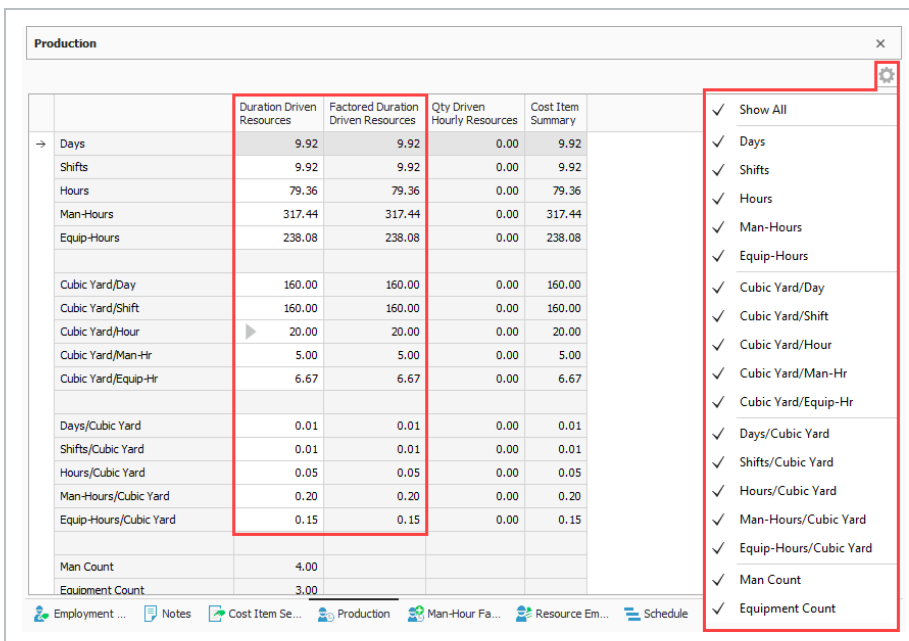
Man-hour factors affect both Labor and Equipment Hours.

For example, if you predict production to be 20% slower due to weather concerns, you would type 1.2 in the weather factor field.



Even after defining a man-hour factor, the Production data block still shows the original Production values.

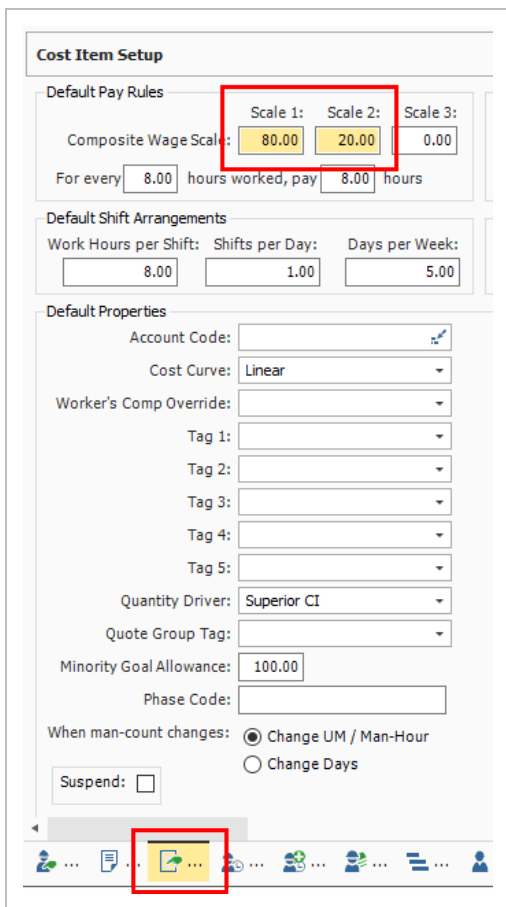
- Both original and factored production are then shown on the Production data block.
- Use the **Customize** icon to add or remove fields from the Production view.



You can apply man-hour factors to multiple cost items at once by multi-editing selected cost items on the CBS Register.

5.8 UNIQUE IDENTIFIER

You may have noticed that when you make changes to the Cost Item Setup data block, the fields you changed and the Cost Item Setup data block are highlighted, indicating that they were altered from their original state.



On the CBS Register, the cost item you edited now has a Unique identifier icon in the row header indicating the cost item has been altered from the default values set in the project job properties or in the project library of resources rates.

+		Indirect Cost Add-On	1.00	Lump
+		Job Management & Equipment	1.00	Lump
+		General Expense	1.00	Lump
+		Direct Cost Add-On	1.00	Lump
+	1	Mobilization	1.00	Lump
+	2	Clearing & Grubbing	10.00	Acre
+	3	Unclassified Excavation	50,000.00	Cubic
+	4	Aggregate Base	40,000.00	Ton
+	4.1	Finegrade Subgrade	355,555.56	Squa
+	4.2	Install Aggregate Base	40,000.00	Ton
+	4.2.1	Place Aggregate Base	40,000.00	Ton
+	4.2.2	Blue Top Aggregate Base	355,555.56	Squa

When you hover over the identifier, a message shows indicating what data points were changed.

+	1	Mobilization	1.00	Lun
+	2	Clearing & Grubbing	10.00	Ac
+	3	Unclassified Excavation	50,000.00	Cut
+	4	Aggregate Base	40,000.00	Tor
+	4.1	Finegrade Subgrade	355,555.56	Sq
+	4.2	Install Aggregate Base	40,000.00	Tor
+	4.2.1	Place Aggregate Base	40,000.00	Tor

Work Hours Per Shift
 Work Hours Rules
 Scale 1
 Scale 2
 Pay Hours Rules

The unique identifier is also shown for resources when you make changes to the employed resource cost to be different than the original resource rate imported from the Resource Rate Register.

Cost Item Summary Detail : \$4,847.76 Plug : \$0.00 Quote : \$0.00 Allocation

Drag columns here to group

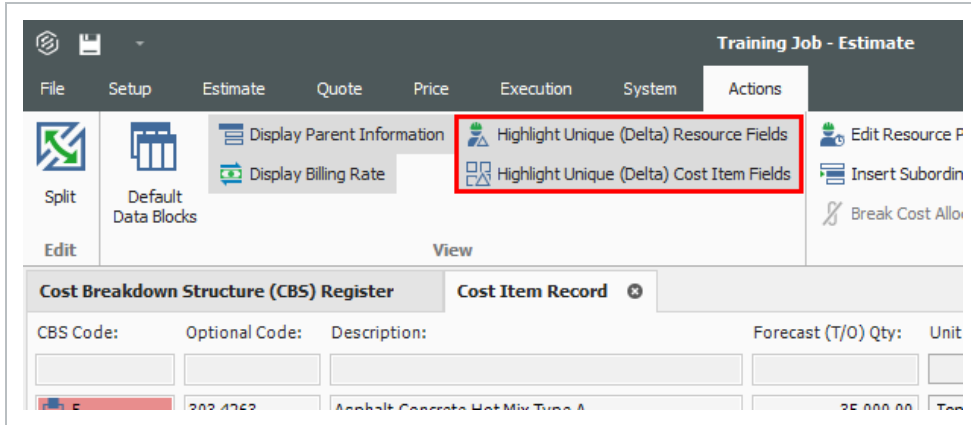
Row Number	Code	Resource Assembly	Description	Quantity Ratio	Quantity Ratio Units
1	LL2		Laborer		
2	LO4		Operator Foreman		
3	LT1		Teamster		
4	LO1		Operator Class 1		
5	ED6		Dozer D6		
6	ETFT		Flatbed Truck		
7	ETDT		Dump Truck		
8	EL950		Loader 950		
9	UDUMP		Dump Fees	1	Load/Acre

Resource Employment Breakdown

Cost Category	Scale 1	Scale 2	Scale 3
Total	\$26.37	\$39.55	\$52.73
Labor	\$26.37	\$39.55	\$52.73
Owned Equipment	\$0.00	\$0.00	\$0.00
Rented Equipment	\$0.00	\$0.00	\$0.00
Supplies	\$0.00	\$0.00	\$0.00
Materials	\$0.00	\$0.00	\$0.00
Subcontract	\$0.00	\$0.00	\$0.00
Fees	\$0.00	\$0.00	\$0.00
Allowance	\$0.00	\$0.00	\$0.00
Custom Category1	\$0.00	\$0.00	\$0.00
Undefined	\$0.00	\$0.00	\$0.00
Billing Rate	\$43.00	\$63.28	\$84.37
Billing Rate Markup	\$16.63	\$23.73	\$31.64
Billing Rate Markup %	63.09	60.00	60.00

5.8.1 Highlight unique (delta) toggle

You can turn the highlighting of unique resource and cost item fields off and on from the Actions menu of the Cost Item Record, under the View section.



5.9 COST DRIVERS

Each type of resource has a default cost driver. For example, Labor resources are duration driven, so the cost driver is CI Duration, meaning their costs are driven by the duration of the cost item. If you want an Operator to only be assigned to a specific cost item or work activity for half the time, you can change its quantity to .5 and it will be driven by half of the cost item’s hours.

Row Number	Code	Resource Assembly	Description	Quantity	Unit of Mea...	Unit Cost	Waste % Add-on	Quai (Les: Was
+	1 LL2		Laborer	0.50	Each	\$29.00		
+	2 LO1		Operator Clas...	1.00	Each	\$29.94		
+	3 EL988		Loader 988	1.00	Each	\$73.75		

To enter work hours manually for the employed resource, you can change the Cost Driver option to CI Quantity or Fixed.

Drag columns here to group Find: [Search For...] Saved views: Previous View

Row Number	Code	Resource Assembly	Description	Quantity	Unit of Mea...	Unit Cost	Cost Driver	Waste % Add-on	Quantity (Less Waste)
1	LL2		Laborer	0.50	Each	\$29.00	CI Duration		
2	LO1		Operator Clas...	1.00	Each	\$29.94	CI Duration		
3	EL988		Loader 988	1.00	Each	\$73.75	CI Duration		

CI Quantity dropdown menu options: Description, CI Duration, CI Quantity, Fixed, Scheduled Periods

With CI Quantity as your cost driver for the Operator, you can adjust the Work Hours manually, where previously that column was read-only.

Let us say you want your Operator to work specifically 80 hours.

Drag columns here to group Find: [Search For...] Saved views: Previc

Row Number	Code	Resource Assembly	Description	Quantity	Unit of Mea...	Unit Cost	Work Hours	Pay Hours	Waste % Add-on	Cost Driver
1	LL2		Laborer	0.50	Each	\$29.00	80	60.00		CI Quantity
2	LO1		Operator Clas...	1.00	Each	\$29.94	120.00	120.00		CI Duration
3	EL988		Loader 988	1.00	Each	\$73.75	120.00	120.00		CI Duration

However, since the resource is now quantity driven, if you change the Forecast (T/O) Quantity to 50 you will see that the work hours will still adjust from 12 to 40.

Cost Breakdown Structure (CBS) Register Cost Item Record Cost Item Record

CBS Code: 22 Optional Code: Clearing Description: Forecast (T/O) Qty: 50.00 Unit of Measure: Cubic Yard Unit Cost: \$1,156.70 Total Cost: \$57,835.17 Currency: U.S. Dollar

PI Assignment: 201 0102 PI Line Number: 20 PI Description: Clearing & Grubbing Cost Segment: Direct Cost Pay Quantity: 50.00 Cost Source: Detail Alternate: BASE

Cost Item Summary Detail: \$1,156.70 Plkg: \$0.00 Quote: \$0.00 Allocation

Production

Row Number	Code	Resource Assembly	Description	Quantity	Unit of Mea...	Unit Cost	Work Hours	Pay Hours	Waste % Add-on	Cost Driver
1	LL2		Laborer	0.50	Each	\$29.00	240.00	240.00		CI Duration
2	LO1		Operator Clas...	1.00	Each	\$29.94	480.00	480.00		CI Duration
3	EL988		Loader 988	1.00	Each	\$73.75	480.00	480.00		CI Duration

Production Summary: Duration Drives Resources Factored Duration Driven Resources Qty Driv Hour Resour

- Days: 40.00 48.00 48.00
- Shifts: 40.00 48.00 48.00
- Hours: 400.00 480.00 480.00
- Man-Hours: 400.00 480.00 240.00
- Equip-Hours: 400.00 480.00 0.00

If you want to set it at 80 hours no matter what changes you make to your quantity, you can change the cost driver to Fixed. Then when you change the Forecast Quantity to 500, the work hours for the Operator will not change and will remain at 80 hours as shown below.

CBS Code:	Optional Code:	Description:	Forecast (T/O) Qty:	Unit of Measure								
2.2		Clearing	500.00	Cubic Yard								
PI Assignment:	PI Line Number:	PI Description:	Cost Segment:									
201 0102	20	Clearing & Grubbing	Direct Cost									
Cgst Item Summary												
Detail : \$106.39												
Plug : \$0.00												
Quote : \$0.00												
Allocation												
Drag columns here to group												
Find: [Search For...]												
Saved views: Previous View												
Code	Resource Assembly	Description	Quantity	Unit of Mea...	Unit Cost	Work Hours	Pay Hours	Waste % Add-on	Cost Driver	Quantity (Less Waste)	Pr	Fa
1	LL2	Laborer	0.50	Each	\$29.00	80.00	80.00		Fixed			
2	LO1	Operator Clas...	1.00	Each	\$29.94	480.00	480.00		CI Duration			
3	EL988	Loader 988	1.00	Each	\$73.75	480.00	480.00		CI Duration			

If you followed along and made any adjustments to cost item 2.1 Clearing, change the Cost Driver for the Operator resource back to *CI Duration* and the Work Hours back to 100.

5.10 SUSPEND COST ITEMS

The Suspend feature lets you turn cost items on and off to perform *What-if* analysis or evaluate alternative approaches to the work.

A cost item can be suspended in InEight Estimate for multiple reasons including the following:

- Manually suspended cost items
- Suspended parent
- Parent with cost source that is not Detail (plugged or quoted)
- Parent cost item with a zero quantity
- Pay item is suspended
- Allocated cost items
- Alternate scenarios:
 - Overridden by another alternate
 - Alternative is not active

Suspended cost items do not contribute any cost to the job's total value. Suspended items can be unsuspended at any time to be included in the total project value.

Suspend a cost item

1. On the **Cost Breakdown Structure (CBS) Register**, select a **cost item**.
2. Right-click the selection and select **Toggle Suspended** from the menu.
 - You can also select **Toggle Suspended** under the Edit section of the Actions tab at the top of the register.
 - You can also suspend cost items by checking the **Suspend** check box on the Cost Item Setup data block of a cost item record.

Drag columns here to group

CBS Position Code	Description	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Currency
+ 1	Direct Cost Add-On	1.00	Lump Sum	\$104,958.33	\$104,958.33	U.S. Dollar
+ 2	Mobilization	1.00	Lump Sum	\$11,909.51	\$11,909.51	U.S. Dollar
+ 3	Clearing & Grubbing	10.00	Acre	\$3,918.50	\$39,184.97	U.S. Dollar
+ 3.1	Unclassified Excavation	50,000.00	Cubic Yard	\$4.68	\$233,915.81	U.S. Dollar
+ 3.1	Excavation	50,000.00	Cubic Yard	\$3.00	\$149,922.88	U.S. Dollar
+ 3.2	Embankment	50,000.00	Cubic Yard	\$1.68	\$83,992.94	U.S. Dollar
+ 4	Aggregate Base			\$15.40	\$692,928.99	U.S. Dollar
+ 4.1	Furnish & Haul Base Material			\$11.54	\$519,513.30	U.S. Dollar
+ 4.2	Finegrade Subgrade			\$0.19	\$75,848.36	U.S. Dollar
+ 4.3	Install Aggregate Base			\$2.17	\$97,567.33	U.S. Dollar
+ 4.3.1	Place Aggregate Base			\$1.63	\$73,460.92	U.S. Dollar
+ 4.3.2	Blue Top Aggregate Base			\$0.06	\$24,106.42	U.S. Dollar
+ 5	Asphalt Concrete Hot Mix			\$48.56	\$1,699,709.08	U.S. Dollar
+ 5.1	Furnish & Haul Hot Mix			\$45.22	\$1,582,691.03	U.S. Dollar
+ 5.2	Install Hot Mix Type A			\$3.34	\$117,018.05	U.S. Dollar
+ 6	36 Inch RCP Culvert Class			\$69.11	\$70,772.29	U.S. Dollar
+ 6.1	Furnish RCP Materials			\$35.06	\$35,899.50	U.S. Dollar
+ 6.2	Excavate RCP Trench			\$4.51	\$8,379.59	U.S. Dollar
+ 6.3	Install RCP Pipe			\$11.74	\$12,017.60	U.S. Dollar
+ 6.4	Backfill RCP Pipe			\$9.12	\$14,475.59	U.S. Dollar
+ 7	10 Inch PVC Force Main			\$12.72	\$152,680.97	U.S. Dollar
+ 7.1	Furnish 10 Inch PVC Material			\$3.44	\$41,277.60	U.S. Dollar
+ 7.2	Excavate-Install-Backfill 10			\$9.28	\$111,403.37	U.S. Dollar
+ 8	24 Inch PVC Gravity Sewer			\$48.30	\$144,910.07	U.S. Dollar
+ 8.1	Excavate 24 Inch PVC			\$3.00	\$9,005.49	U.S. Dollar
+ 8.1.1	Excavate 24 Inch PVC 0-			\$1.95	\$2,712.05	U.S. Dollar
+ 8.1.2	Excavate 24 Inch PVC 6-			\$1.74	\$6,293.44	U.S. Dollar
+ 8.2	Furnish & Install 24 Inch PVC			\$31.56	\$94,681.24	U.S. Dollar
+ 8.3	Backfill 24 Inch PVC			\$9.12	\$41,223.34	U.S. Dollar
+ 9	4 Foot Diameter Manhole			\$3,594.03	\$57,504.47	U.S. Dollar
+ 9.1	Furnish 4 ft. Manhole Material			\$2,001.50	\$32,024.00	U.S. Dollar
+ 9.2	Excavate-Install-Backfill Ma			\$1,592.53	\$25,480.47	U.S. Dollar
+ 10	Structural Excavation & B			\$23.21	\$18,569.14	U.S. Dollar
+ 10.1	Structure Excavation			\$2.32	\$1,859.56	U.S. Dollar
+ 10.2	Backfill & Furnish Materials			\$20.89	\$16,709.58	U.S. Dollar
+ 11	Steel Reinforcement			\$1.48	\$44,408.30	U.S. Dollar
+ 11.1	Furnish Lifting Crane for Re			\$0.08	\$2,408.30	U.S. Dollar
+ 11.2	Subcontract Rebar			\$1.40	\$42,000.00	U.S. Dollar

- If a superior cost item is suspended, its subordinate cost items are automatically suspended as well.

+ 3.1	Excavate		40,000.00	LT
+ 3.2	Haul		40,000.00	CY
4	10" PVC Pipe		1,000.00	LF
+ 4.1	Furnish Pipe Materials		1,000.00	LF
+ 4.2	Excavate-Install-Backfill		1,000.00	LF

- The costs associated with these cost items no longer contribute to the estimate.

4	Aggregate Base		40,000.00	Unit	\$12.50	\$500,000.00	U.S. Dollar
5	Asphalt Concrete Hot Mix Type A		35,000.00	Ton	\$33.43	\$1,172,322.50	U.S. Dollar
6	36 Inch RCP Culvert Class III		1,024.00	Linear Feet	\$67.54	\$69,159.49	U.S. Dollar
7	10 Inch PVC Force Main (SDR21)		12,000.00	Linear Feet			
+ 7.1	Furnish 10 Inch PVC Materials		12,000.00	Linear Feet			
+ 7.2	Excavate-Install-Backfill 10 Inch PVC		12,000.00	Linear Feet			
8	24 Inch PVC Gravity Sewer (SDR35)		3,000.00	Linear Feet			
9	4 Foot Diameter Manhole		16.00	Each			
10	Structural Excavation & Backfill		800.00	Cu Yd			
11	Steel Reinforcement		30,000.00	Pc			
12	Retaining Wall		850.00	Cu Yd			
13	Paint Existing Steel Bridge Structure		1.00	Lb			
14	Process Equipment		1.00	Each	\$1,599,889.33	\$1,599,889.33	U.S. Dollar

Attention

You are ordering a scheduled cost item to be suspended. If you continue, this cost item and any subordinates will be removed from the schedule. If you later decide to un-suspend the cost item, it will return to the schedule beginning on the project start date, and any scheduling logic will be lost. Do you want to continue?

Never ask me this question again

5.10.1 Editable man-hour factors in suspended cost items

You can edit man-hour factors for a suspended cost item by creating and maintaining cost items, including man-hour factors. This can be accomplished in a suspended state while having the scope of work included in your estimate. The cost to contribute is excluded from the scope of work until you are ready to make it part of your estimate.

Cost Breakdown Structure (CBS) Register Job Properties Cost Item Record

CBS Code: Optional Code: Description: Forecast (F/D) Qty: Unit of Measure: Unit Cost: Total Cost: Currency:

641 0100 Mobilization 1.00 Lump Sum \$11,909.51 \$11,909.51 U.S. Dollar

PI Assignment: PI Line Number: PI Description: Cost Segment: Pay Quantity: Cost Source: Alternate:

641 0100 10 Mobilization Direct Cost 1.00 Detail BASE

Cgst Item Summary Detail : \$11,909.51 Plug : \$500.00 Quote : \$500.00 Allocation Quantity Items

Drag columns here to group Saved views: Previous View

Row Number	Code	Resource Assembly	Description	Quantity Ratio	Quantity Ratio Units	Quantity (Less Waste)	Waste % Add-on	Quantity	Unit of Measure	Productivity Factor	Work Hours	Pay Hours
1	LT1		Teamster					1.00	Each	1.00	80.00	80.00
2	ETLT		Lowboy Trailer					1.00	Each	1.00	80.00	80.00
3	ETTT		Tractor Truck					1.00	Each	1.00	80.00	80.00

Man-Hour Factors

Factor Name: Factor:

Factor 1: 5.00

Factor 2: 1.00

Factor 3: 1.00

Factor 4: 1.00

Factor 5: 1.00

Factor 6: 1.00

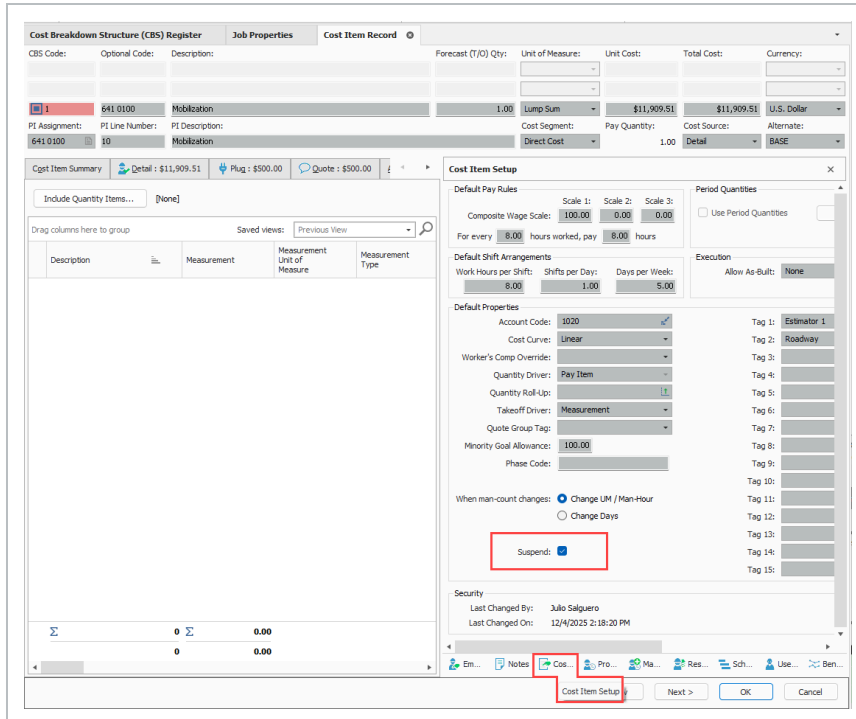
Factor 7: 1.00

Factor 8: 1.00

Factor 9: 1.00

Unsuspend a cost item

1. On the Cost Breakdown Structure (CBS) Register, select a **cost item**.
2. Right-click the selection and choose **Toggle Suspended**.
 - You can also select Toggle Suspended from the Edit section of the Actions tab
 - You can also unsuspend cost items by unchecking the Suspend check box on the Cost Item Setup tab of a cost item record.



5.10.2 Suspend column

In the CBS Register, the Suspend column indicates which cost items are suspended.

CBS Position Code	Description	Suspend	Forecast (T/O) Qu:
+ 1	Mobilization	<input type="checkbox"/>	
[-] 2	Clearing & Grubbing	<input type="checkbox"/>	
+ 2.1	Clearing	<input type="checkbox"/>	
+ 2.2	Grading	<input type="checkbox"/>	
[-] 3	Excavation	<input type="checkbox"/>	
+ 3.1	Excavate	<input type="checkbox"/>	
+ 3.2	Haul	<input type="checkbox"/>	
[-] 4	10" PVC Pipe	<input checked="" type="checkbox"/>	
+ 4.1	Furnish Pipe Materials	<input checked="" type="checkbox"/>	
+ 4.2	Excavate-Install-Backfill	<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	

- Hover over the check mark boxes to see why the cost item is suspended.

+ 3.2	HAUL	<input type="checkbox"/>	
[-] 4	10" PVC Pipe	<input checked="" type="checkbox"/>	
+ 4.1	Furnish Pipe Materials	<input checked="" type="checkbox"/>	
+ 4.2	Excavate-Install-Backfill	<input checked="" type="checkbox"/>	

Parent is Suspended

- You can suspend and unsuspend cost items by checking and unchecking the check boxes.

5.11 COST ADJUSTMENTS

Total cost and billing adjustments can be made in the CBS register which can be viewed from the Cost Items Adjustment view, or a saved view affiliated with change.

CBS Position Code	Description	Forecast (T/O) Quantity	Unit of Measure	Total Cost (Forecast)	Cost Adjustment	Total Cost Adjustment Amount	Total Cost Adjustment Percent	Labor Cost Adjustment Amount	Labor Cost Adjustment Percent	Owned Equipment Cost Adjustment Amount	Owned Adjuster
	JOB	20.00	Mile	\$5,863,741.50	<input type="checkbox"/>						
+ 1	Prime Bond	1.00	Lump Sum	\$47,227.04	<input type="checkbox"/>						
+ 1	Price % Add-On	1.00	Lump Sum	\$296,343.32	<input type="checkbox"/>						
+ 1	Job Financing	1.00	Lump Sum	\$0.00	<input type="checkbox"/>						
+ 1	Indirect Cost Escalation	1.00	Lump Sum	\$0.00	<input type="checkbox"/>						
+ 1	Direct Cost Escalation	1.00	Lump Sum	\$0.00	<input type="checkbox"/>						
+ 1	Indirect Cost Add-On	1.00	Lump Sum	\$0.00	<input type="checkbox"/>						
+ 1	Job Management & Equipment	1.00	Lump Sum	\$157,096.28	<input type="checkbox"/>	\$0.00		\$0.00	0.00	\$0.00	\$0.00
+ 1	General Expense	1.00	Lump Sum	\$4,200.00	<input type="checkbox"/>	\$0.00		\$0.00	0.00	\$0.00	\$0.00
+ 1	Direct Cost Add-On	1.00	Lump Sum	\$104,958.33	<input type="checkbox"/>						
+ 1	Mobilization	1.00	Lump Sum	\$11,909.51	<input checked="" type="checkbox"/>	\$500.00	4.38	\$0.00	0.00	\$0.00	\$0.00
[-] 2	Clearing & Grubbing	10.00	Acre	\$39,184.97	<input type="checkbox"/>	\$0.00	0.00	\$0.00	0.00	\$0.00	\$0.00
+ 3	Unclassified Excavation	50,000.00	Cubic Yard	\$233,915.81	<input type="checkbox"/>						
+ 3.1	Excavation	50,000.00	Cubic Yard	\$149,922.88	<input type="checkbox"/>	\$0.00	0.00	\$0.00	0.00	\$0.00	\$0.00
+ 3.2	Embankment	50,000.00	Cubic Yard	\$83,992.94	<input type="checkbox"/>	\$0.00	0.00	\$0.00	0.00	\$0.00	\$0.00
[-] 4	Aggregate Base	45,000.00	Ton	\$692,928.99	<input type="checkbox"/>						
+ 4.1	Furnish & Haul Base Material	45,000.00	Ton	\$519,513.30	<input type="checkbox"/>	\$0.00	0.00	\$0.00	0.00	\$0.00	\$0.00
+ 4.2	Finergrade Subgrade	400,000.00	Square Yard	\$75,846.36	<input type="checkbox"/>	\$0.00	0.00	\$0.00	0.00	\$0.00	\$0.00
[-] 4.3	Install Aggregate Base	45,000.00	Ton	\$97,567.33	<input type="checkbox"/>						
+ 4.3.1	Place Aggregate Base	45,000.00	Ton	\$73,460.92	<input type="checkbox"/>	\$0.00	0.00	\$0.00	0.00	\$0.00	\$0.00
Σ 1		Σ 10.00		Σ \$39,184.97		Σ \$0.00		Σ \$0.00		Σ \$0.00	
98				\$5,863,741.50		\$500.00		\$0.00		\$0.00	

In the Cost Item Adjustment view, you can view and modify the adjustment amount and adjustment percent without going into each individual cost item.

Any adjustment made to the Adjustment Amount fields on the CBS register has the Adjustment Percent field automatically calculated. Changes made to those fields are highlighted in yellow, signifying that an adjustment has been made.

Other adjustments fields in the CBS register include the many adjustments fields added to the Billing Rates view.

Exercise 5.3 – Manage cost item details

In this exercise, practice adjusting your cost item details. Complete the following steps, using your Job:

1. Open the Cost Item record for cost item **2.2 Grading**.

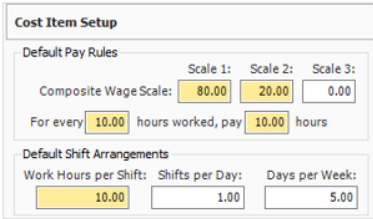
2. From the **Cost Item Setup** tab, change the Composite Wage Scale to **80% Scale 1, 20% Scale 2**. Also adjust for every **10** hours worked, pay **10** hours.

3. Change the Default Shift Arrangements to **10** Work Hours per Shift, **1** Shift per Day, **5** Days per Week.

4. From the Man-Hour Factors tab, apply a Man-Hour Factor of **1.1** to the same cost item.

5. On the Notes tab, type **Added man-hour factor due to hard soil conditions**.

You should end up with similar results.



Cost Item Setup

Default Pay Rules

Scale 1: 80.00 Scale 2: 20.00 Scale 3: 0.00

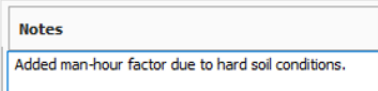
Composite Wage Scale: 80.00 20.00 0.00

For every 10.00 hours worked, pay 10.00 hours

Default Shift Arrangements

Work Hours per Shift: 10.00 Shifts per Day: 1.00 Days per Week: 5.00

Production		
	Duration Driven Resources	Factored Duration Driven Resources
→ Days	8.00	8.80
Shifts	8.00	8.80
Hours	80.00	88.00
Man-Hours	320.00	352.00
Equip-Hours	200.00	220.00
Acre/Day	1.25	1.14
Acre/Shift	1.25	1.14
Acre/Hour	0.13	0.11
Acre/Man-Hr	0.03	0.03
Acre/Equip-Hr	0.05	0.05



Notes

Added man-hour factor due to hard soil conditions.

Congratulations, you have completed this exercise!

Lesson 5 - Review

1. Resources, costs, and production can only be added to what type of cost item?
 - a. Superior
 - b. Terminal
 - c. Parent

2. What Cost Source is used for defining resources and production?
 - a. Plug
 - b. Detail
 - c. Quote

3. On the Cost Item Record, what tab is used for changing the cost item's Default Shift Arrangements?
 - a. Cost Item Setup
 - b. Production
 - c. Man-Hour Factors
 - d. Notes

Lesson 5 - Summary

As a result of this lesson, you can:

- Utilize the Cost Breakdown Structure
- Create cost items
- Add costs and production
- Manage cost item details

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LESSON 6 – INDIRECT COSTS

Lesson Duration: 45 Minutes

Lesson Objectives

After completing this lesson, you will be able to:

- Explain how indirect costs are defined in InEight Estimate
- Estimate default indirect cost items
- Estimate user-defined indirect cost items

6.1 INDIRECT COSTS OVERVIEW

Indirect costs such as the cost of prime bond, mobilization, or site supplies are typically overhead costs that are not directly associated with a particular project deliverable but contribute to the total cost of the project. However, indirect costs can be assigned to a pay items. This gives you the flexibility to more accurately control the cost basis of bid items and strategically price the work to maximize cost recovery and profit.

Once your direct costs are defined, you can add indirect project costs. Estimate provides two ways you can create indirect costs:

1. **Default Indirect Cost Items:** These are pre-built cost items created by InEight Estimate, located at the top of the CBS Register.

CBS Position Code	Description
[-]	JOB
+	Prime Bond
+	Price % Add-On
+	Job Financing
+	Indirect Cost Escalation
+	Direct Cost Escalation
+	Indirect Cost Add-On
+	Job Management & Equip...
+	General Expense
+	Direct Cost Add-On

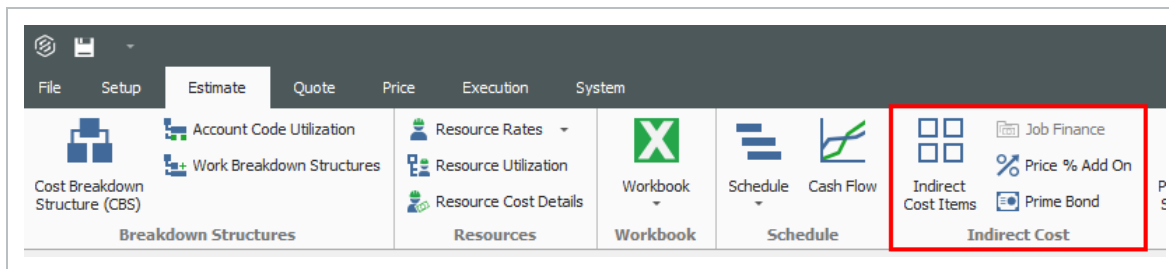
2. **User-Defined Indirect Cost Items:** Any cost item you create in the CBS Register that is not assigned to a pay item is considered indirect cost.

[-]	23	Job Overhead - Indirect ...	
+	23.1	Setup Yard	
+	23.2	Trailer Rent	
+	23.3	Utilities	

The Cost Breakdown Structure (CBS) located in the Library under the Estimate tab, Master Breakdown Structures section, controls which of the default indirect cost items to copy into new job folders.

6.1.1 Navigation to Indirect Costs

From the Estimate tab of the InEight Estimate landing page, you can quickly access indirect costs from the Indirect Cost section.



- Select Indirect Cost Items to open the Cost Breakdown Structure Register filtered to only your indirect costs
- You can select Prime Bond, Price % Add On, and Job Financing to access those indirects

The following section takes a closer look at the default indirect cost items.

6.2 DEFAULT INDIRECT COST ITEMS

InEight Estimate contains various default cost items to help you calculate your indirect costs.

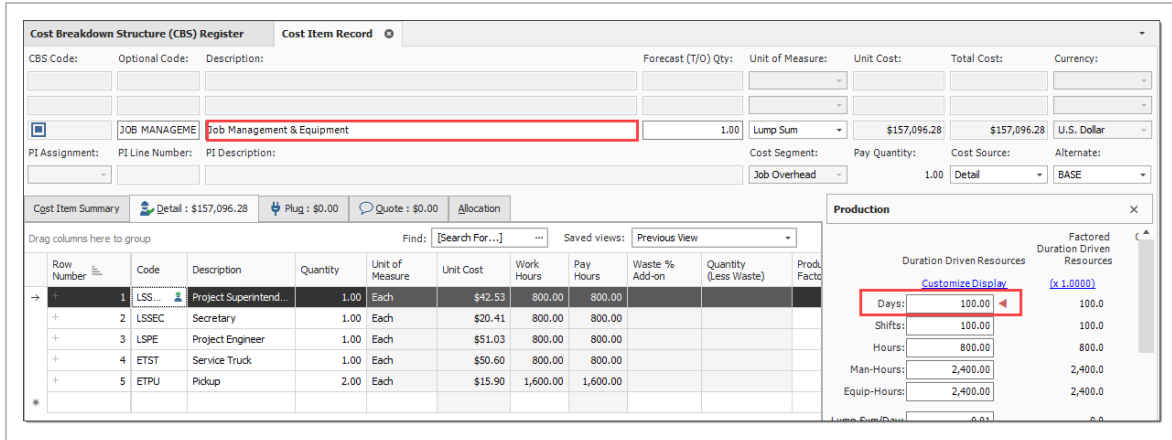
6.2.1 Independent indirect cost items

Independent indirect cost items function very much like the direct cost items you defined previously:

- Job Management & Equipment
- General Expense

6.2.1.1 Job Management & Equipment

The sample Job Management & Equipment Record below shows that you can add resources and production just like in your direct cost items. Supervisory staff resources were added, and the production duration is set to 100 days.



The following Step by Step walks you through defining resources and costs for your Job Management & Equipment indirect cost item.

Add job management & equipment costs

1. In your job, from the Estimate landing page, select the **Cost Breakdown Structure (CBS)**.
2. Double-click on the row header of the **Job Management & Equipment** indirect cost item.
3. Add resources by clicking in the Code column and selecting the **Icon**.
4. Select the **Production** tab.
5. Enter a production value.
6. Click **OK** to close the record.

- For this example, we'll add the following resources and production:

Resource	Quantity
LSSEC Secretary	1
LSSUPT Project Superintendent	1
Cost Item Production Value (in Days)	
	70

Add general expense costs

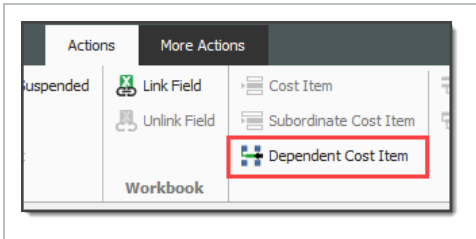
1. From the Estimate tab, select the **Cost Breakdown Structure (CBS)**.
2. Right-click the row header of the **General Expense** row header and select **Open**.
 - You could add existing resources here, but in this case, you will create an ad hoc resource.
3. In the first blank row, enter a description, quantity and unit of measure.
4. Click on (highlight) that row, and then click the **Resource Employment Breakdown** tab.
5. Type a **numeric value** in the Undefined Supplies cost category.
6. Click **OK** to close the record.
 - For this example, we'll add General Office Supplies, 1 Lump Sum, \$1,000 in the Supplies category.

The screenshot shows a software interface for adding general expense costs. At the top, there's a header for 'GENERAL EXPE' with a description 'General Expense', a quantity of '1.00', and a unit of 'Lump Sum'. Below this is a table with columns: Row Number, Code, Resource Assembly, Description, Quantity (Less Waste), Waste % Add-on, Quantity, and Unit of Measure. The first row contains '1', a blank code, a blank resource assembly, 'General Office Supp...', '1.00', '0.00', '1.00', and 'Lump Sum'. To the right of the table is a 'Resource Employment Breakdown' sidebar with a tree view of cost categories: Total (\$1,000.00), Labor (\$0.00), Owned Equipment (\$0.00), Rented Equipment (\$0.00), and Supplies (\$1,000.00). Under 'Supplies', 'Undefined Supplies' is selected with a value of '1000'.

6.2.2 Dependent indirect cost items

The other default indirect cost items are **dependent indirect cost items**, meaning their costs depend on other costs, prices or hours. They include:

- Direct and Indirect Cost Add-On
- Direct and Indirect Cost Escalation
- Prime Bond
- Price % Add-On
- Job Financing
- Man-Hour Add-On



It's possible to assign any assigned or dependent cost item to any of the 3 cost segments which provides greater control over where costs exist in the Price Breakdown Structure (PBS).

Cost Breakdown Structure (CBS) Register		Pay Item & Proposal Register		
CBS Position Code	Description	Cost Segment	Pay Item Assignment	Pay Item Position Code
	JOB			
	Prime Bond	Business Over...		
	Price % Add-On	Description		
	Job Financing	Business Overhead		
	Indirect Cost Escalation	Direct Cost		
	Direct Cost Escalation	Job Overhead		
	Indirect Cost Add-On			
	Mobilization			
1	SITWORK & ROADWAY			
+ 1.1	Mobilization			
+ 1.2	Clearing & Grubbing	Direct Cost	201 0102	1.2
+ 1.3	Unclassified Excavation	Direct Cost	202 0183	1.3
+ 1.3.1	Excavation	Direct Cost	202 0183	1.3

6.2.2.2 Default dependent cost item deletion

If you need to use additional dependent cost items, you can create your own, but you must delete all the existing default dependent cost items first.

The following steps walk you through deleting your existing default indirect costs so you can create your own.

Delete existing default dependent cost items

1. From the Estimate tab, select **Cost Breakdown Structure (CBS)**.
2. Select an **Indirect Cost Item** by clicking on its row header.
3. Press and hold the Ctrl or Shift key to select multiple indirect cost items.
4. Right-click on the selection, and then select **Delete**.
5. Select **Yes** to confirm you want to delete the selected cost items.

6.2.2.3 Prime Bond

The following steps walk you through adding and defining your prime bond for the job.

Define prime bond

1. From the Estimate tab, select **Cost Breakdown Structure (CBS)**.
2. Right-click on the **row header** for any cost item and select **Insert Dependent cost Item**.
3. On the resulting Attention prompt, select based on **Bond Rate Table**.
4. Click **OK**.
5. Right-click the **Prime Bond** row header, and then select **Open**.
6. Use the Table Name drop-down to choose a table (e.g., Example: General Construction).
7. Click **OK** to close the record.

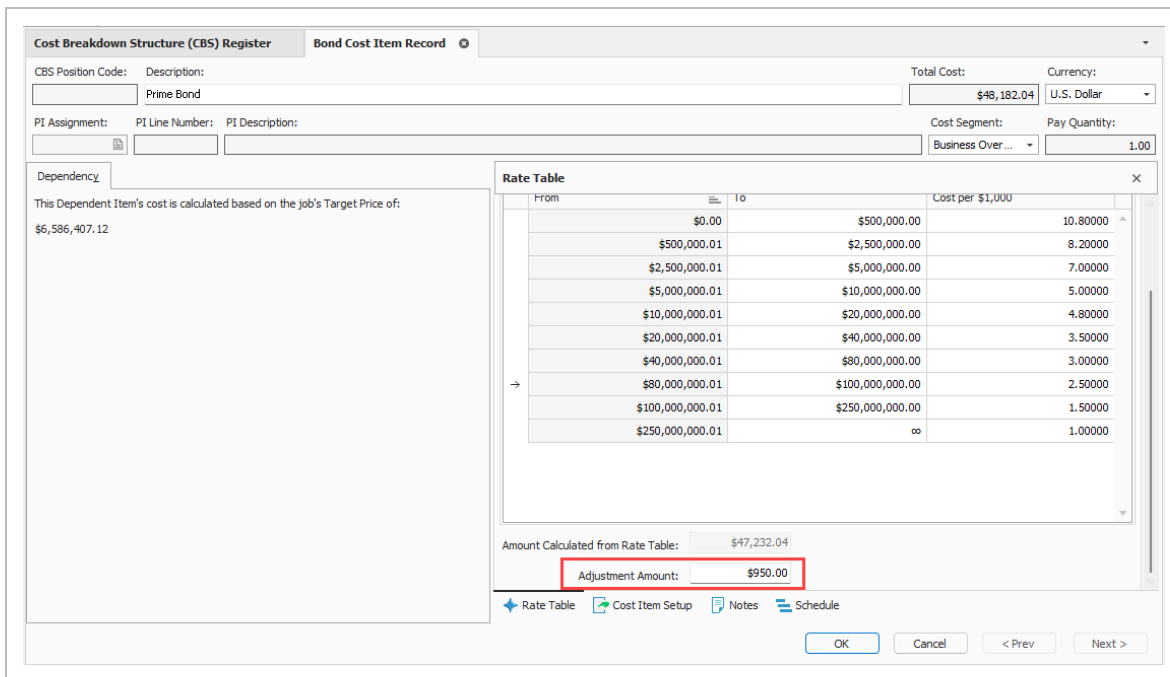
Multiple bond rate dependent items

For certain projects, you may want to calculate costs for bond or insurance premiums based upon multiple different rate tables. You can add multiple bond/rate table based dependent items in the CBS.

For example, in addition to having a prime bond, the job may also require insurance coverage where the premium is calculated using a rate table-based approach. This can be accomplished by adding another Bond/Rate table-based dependent cost item to the job.

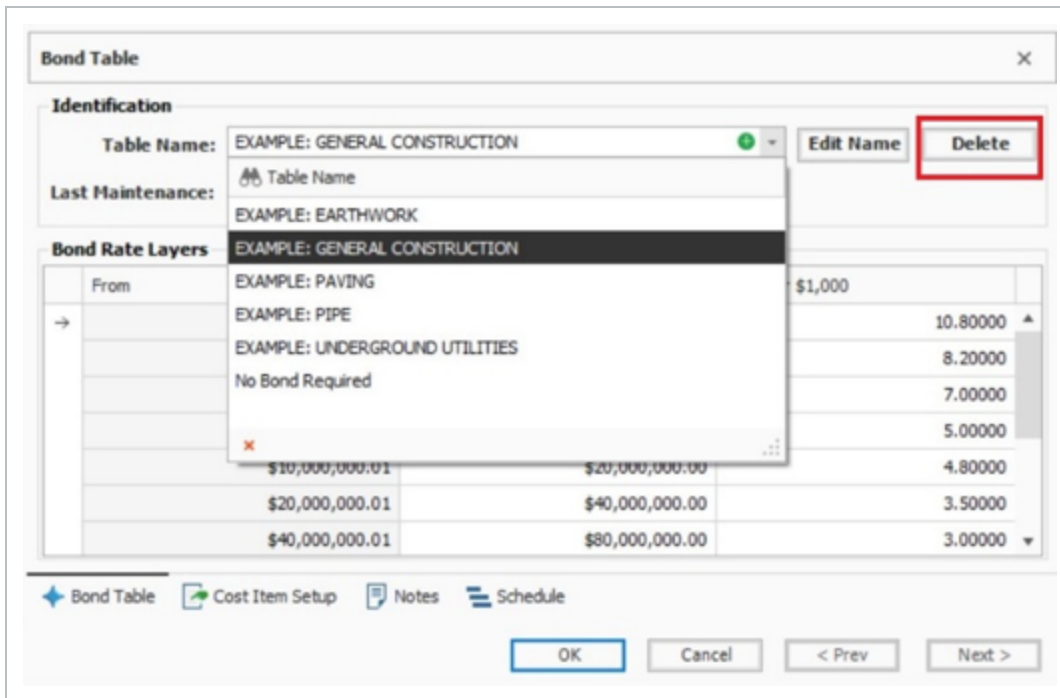
Cost Breakdown Structure (CBS) Register									
Drag columns here to group									
CBS Position Code	Description	Optional Code	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (@Forecast)	Allocated	Currency	Hours (Duration driven)
▣	JOB		20.00	Mile	\$277,636.11	\$5,552,322.14	<input checked="" type="checkbox"/>	U.S. Dollar	5,492.23
+ 1	Prime Bond	PRIME BOND	1.00	Lump Sum	\$42,305.50	\$42,305.50	<input type="checkbox"/>	U.S. Dollar	
+ 2	Insurance	INSURANCE	1.00	Lump Sum	\$140,027.49	\$140,027.49	<input type="checkbox"/>	U.S. Dollar	
+ 3	Job Financing	FINANCE EXPENSE	1.00	Lump Sum	\$29,842.32	\$29,842.32	<input type="checkbox"/>	U.S. Dollar	
+ 4	Indirect Cost Escalation	INDIRECT COST ESCALATION	1.00	Lump Sum	\$2,131.11	\$2,131.11	<input type="checkbox"/>	U.S. Dollar	
+ 5	Direct Cost Escalation	DIRECT COST ESCALATION	1.00	Lump Sum	\$15,048.80	\$15,048.80	<input type="checkbox"/>	U.S. Dollar	
+ 6	Indirect Cost Add-On		1.00	Lump Sum	\$5,823.31	\$5,823.31	<input type="checkbox"/>	U.S. Dollar	
+ 7	Direct Cost Add-On	DIRECT COST ADD-ON	1.00	Lump Sum	\$100,820.54	\$100,820.54	<input type="checkbox"/>	U.S. Dollar	
▣ 1	SITework & ROADWAY	200	1.00	Each	\$2,464,161.56	\$2,464,161.56	<input type="checkbox"/>	U.S. Dollar	2,158.33
+ 1.1	Mobilization	641 0100	1.00	Lump Sum	\$11,909.51	\$11,909.51	<input type="checkbox"/>	U.S. Dollar	80.00
+ 1.2	Clearing & Grubbing	201 0102	10.00	Acre	\$3,918.50	\$39,184.97	<input type="checkbox"/>	U.S. Dollar	80.00
▣ 1.3	Unclassified Excavation	202 0183	50,000.00	Cubic Yard	\$4.68	\$233,915.81	<input type="checkbox"/>	U.S. Dollar	291.67

Additionally, bond premiums can be adjusted by a single amount. This is common when certain requirements are imposed by the contract, such as extended warranty periods. It is common for the bond premium to be established using a standard rate table, you can then add additional charges to the total bond premium amount.



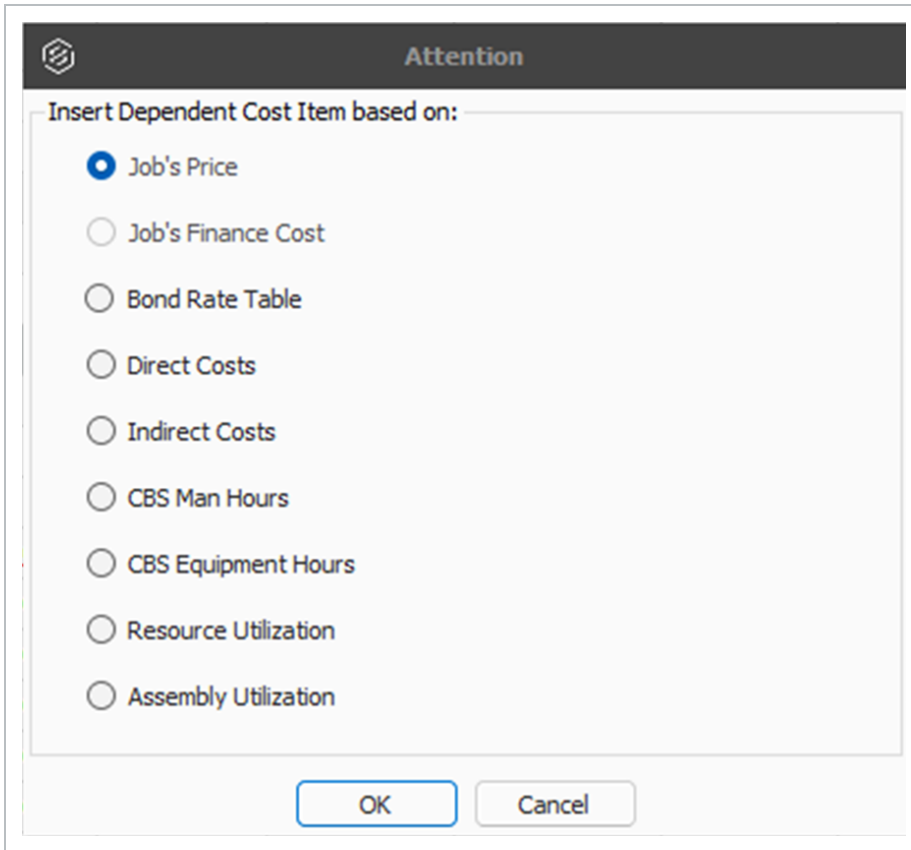
Deleting bond tables

Delete bond tables that are not applicable to your estimate by selecting them and then clicking the **Delete** button. You can customize the Bond Table window to only view the tables that are relevant to your estimate from the Table Name drop-down list.



Define a price % add-on

1. From the Cost Breakdown Structure (CBS) Register, right-click the row header for any cost item, and then select **Insert Dependent Cost Item**.
2. On the Attention dialog box, select **Job's Price**.



3. Click **OK**.
4. Double-click on the **Price % Add On** row header to open the record.

CBS Position Code	Description	Optional Code
	JOB	
+	Job Management & Equipment	JOB MANAGEMENT & E...
+	General Expense	GENERAL EXPENSE
+	Prime Bond	PRIME BOND
→ +	Price % Add-On	PRICE % ADD-ON
+ 1	Mobilization	1000

- The Price % Add-on Record opens to the **Description** tab. Enter a description and a numeric value for rate.

For this example, we'll enter a description of Office Overhead and a rate of 4%.

The screenshot shows a dialog box titled "Cost Breakdown Structure (CBS) Register" with a sub-tab "Price % Add-On Record". It contains a form with the following fields:

- CBS Code: _____
- Description: _____
- Price % Add-On: _____

Below the form are two tabs: "Description" (selected) and "Dependency". A message says "Drag columns here to group".

	Description	Rate	Account Code
✎	Office Overhead	4.00	
*			

- Click **OK** to close the record.

Create a direct cost add-on

- From the Cost Breakdown Structure (CBS) Register, right-click on the row header for any cost item, and then select **Insert Dependent Cost Item**.
- On the Attention dialog box, select **Direct Costs**.
- Click **OK**.
- Double-click the **Direct Cost Add-On** row header.
- On the Description tab, type a description in the Description column.

6. Press the tab key on your keyboard. You can then define additional rows for other add-on costs as needed.
7. Click the **Dependency** tab to see what contributes to your subject cost.
8. For this activity, leave the default (lower) button selected.

9. On the Cost Breakdown tab on the right, add an add-on rate (percentage) or cost at any of the cost category levels you need. This updates the Total Cost (Forecast) of your item on the Description tab
10. Click **OK** to close the record.

For this example, we'll create a new Direct Cost Add-On, giving it a description of Small Tools with a rate of 10% on the Labor cost category

CBS Position Code: Description: Total Cost: Currency: Alternate:

Direct Cost Add-On \$5,701.36 U.S. Dollar BASE

PI Assignment: PI Line Number: PI Description: Cost Segment: Pay Quantity:

Job Overhead 1.00

Description Dependency Cost Categorization Allocation

Drag columns here to group Saved views: Standard View

Description	Currency	Total Cost (Forecast)
Small Tools	U.S. Dollar	\$5,701.36

Cost Breakdown

Cost Category	Subject Cost	Rate	Cost
Total	\$99,107.22	5.75	\$5,701.36
Labor	\$57,013.62	10.00	\$5,701.36
Owned Equipment	\$38,555.52	0.00	\$0.00
Rented Equipment	\$0.00	0.00	\$0.00
Supplies	\$0.00	0.00	\$0.00
Materials	\$3,276.00	0.00	\$0.00
Subcontract	\$0.00	0.00	\$0.00
Fees	\$262.08	0.00	\$0.00
Allowance	\$0.00	0.00	\$0.00
Custom Category1	\$0.00	0.00	\$0.00
Undefined	\$0.00	0.00	\$0.00

6.2.2.4 Repositioning dependent cost items

Repositioning dependent cost items creates a simpler way to manage the hierarchy of your project by placing items of more importance ahead of other line items.

When you move a dependent cost item from its default location to a new position in the CBS, it's assigned a CBS position code based on its new location. The cost item fields listed below are exposed in the CBS register so you can easily see the various percentages used in dependent items.

- Subject Cost
- Subject Cost Rate
- Subject Billing Amount
- Subject Billing Rate

These columns can also be found in the Bid Review view in Saved views.

CBS Position Code	Description	Optional Code
[-]	JOB	
+ 1	Prime Bond	PRIME BOND
+ 2	Price % Add-On	PRICE % ADD-ON
+ 3	Job Financing	FINANCE EXPENSE
+ 4	Indirect Cost Escalation	INDIRECT COST ESCALATION
+ 5	Direct Cost Escalation	DIRECT COST ESCALATION
+ 6	Indirect Cost Add-On	INDIRECT COST ADD-ON
+ 7	Job Management & Equipment	JOB MANAGEMENT & EQUIPMENT
+ 8	General Expense	GENERAL EXPENSE
+ 9	Direct Cost Add-On	DIRECT COST ADD-ON
+ 1	Mobilization	641 0100
+ 24.1.2	Day Two	
+ 25	Prime Bond	PRIME BOND
+ 26	Price % Add-On	PRICE % ADD-ON
+ 27	Job Financing	FINANCE EXPENSE
+ 28	Indirect Cost Escalation	INDIRECT COST ESCALATION
+ 29	Direct Cost Escalation	DIRECT COST ESCALATION
+ 30	Indirect Cost Add-On	INDIRECT COST ADD-ON
+ 31	Job Management & Equipment	JOB MANAGEMENT & EQUIPMENT
+ 32	General Expense	GENERAL EXPENSE
+ 33	Direct Cost Add-On	DIRECT COST ADD-ON

6.3 USER-DEFINED INDIRECT COST ITEMS

You may prefer to create your own indirect cost items. You create user-defined indirect cost items the same way you create direct cost items. The only difference is that your indirect cost items will not be assigned to pay items. One advantage of creating your own indirect cost items is the ability to create a parent-child structure for your indirect costs.

Here is an example of user-defined indirect cost items, expanded to show their employed resources:

CBS Position Code	Description	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)																																
5	Indirect Cost	1.00	Each	\$10,584.36	\$10,584.36																																
- 5.1	Head Office	1.00	Each	\$370.32	\$370.32																																
	<table border="1"> <thead> <tr> <th>...</th> <th>Description</th> <th>Quantity</th> <th>Unit of Measure</th> <th>Work Hours</th> <th>Pay Hours</th> <th>Unit Cost</th> <th>Total Cost (Forecast)</th> </tr> </thead> <tbody> <tr> <td>→ + 1</td> <td>Head Office Project ...</td> <td>1.00</td> <td>Each</td> <td>8.00</td> <td>8.00</td> <td>\$46.29</td> <td>\$370.32</td> </tr> </tbody> </table>	...	Description	Quantity	Unit of Measure	Work Hours	Pay Hours	Unit Cost	Total Cost (Forecast)	→ + 1	Head Office Project ...	1.00	Each	8.00	8.00	\$46.29	\$370.32																				
...	Description	Quantity	Unit of Measure	Work Hours	Pay Hours	Unit Cost	Total Cost (Forecast)																														
→ + 1	Head Office Project ...	1.00	Each	8.00	8.00	\$46.29	\$370.32																														
- 5.2	Field Office	1.00	Each	\$1,775.04	\$1,775.04																																
	<table border="1"> <thead> <tr> <th>...</th> <th>Description</th> <th>Quantity</th> <th>Unit of Measure</th> <th>Work Hours</th> <th>Pay Hours</th> <th>Unit Cost</th> <th>Total Cost (Forecast)</th> </tr> </thead> <tbody> <tr> <td>+ 1</td> <td>Field Office Clerk</td> <td>1.00</td> <td>Each</td> <td>4.00</td> <td>4.00</td> <td>\$38.00</td> <td>\$152.00</td> </tr> <tr> <td>+ 2</td> <td>Field Office Safety M...</td> <td>1.00</td> <td>Each</td> <td>8.00</td> <td>8.00</td> <td>\$62.38</td> <td>\$499.04</td> </tr> <tr> <td>+ 3</td> <td>Field Office Site Supe...</td> <td>1.00</td> <td>Each</td> <td>16.00</td> <td>16.00</td> <td>\$70.25</td> <td>\$1,124.00</td> </tr> </tbody> </table>	...	Description	Quantity	Unit of Measure	Work Hours	Pay Hours	Unit Cost	Total Cost (Forecast)	+ 1	Field Office Clerk	1.00	Each	4.00	4.00	\$38.00	\$152.00	+ 2	Field Office Safety M...	1.00	Each	8.00	8.00	\$62.38	\$499.04	+ 3	Field Office Site Supe...	1.00	Each	16.00	16.00	\$70.25	\$1,124.00				
...	Description	Quantity	Unit of Measure	Work Hours	Pay Hours	Unit Cost	Total Cost (Forecast)																														
+ 1	Field Office Clerk	1.00	Each	4.00	4.00	\$38.00	\$152.00																														
+ 2	Field Office Safety M...	1.00	Each	8.00	8.00	\$62.38	\$499.04																														
+ 3	Field Office Site Supe...	1.00	Each	16.00	16.00	\$70.25	\$1,124.00																														
- 5.3	Site Facilities	1.00	Each	\$905.00	\$905.00																																
	<table border="1"> <thead> <tr> <th>...</th> <th>Description</th> <th>Quantity</th> <th>Unit of Measure</th> <th>Work Hours</th> <th>Pay Hours</th> <th>Unit Cost</th> <th>Total Cost (Forecast)</th> </tr> </thead> <tbody> <tr> <td>→ + 1</td> <td>Field Office Telephone</td> <td>0.50</td> <td>Month</td> <td></td> <td></td> <td>\$250.00</td> <td>\$125.00</td> </tr> <tr> <td>+ 2</td> <td>Field Office Trailer</td> <td>1.00</td> <td>Each</td> <td>0.00</td> <td>0.00</td> <td>\$5.94</td> <td>\$0.00</td> </tr> <tr> <td>+ 3</td> <td>Pick Up Truck</td> <td>1.00</td> <td>Each</td> <td>80.00</td> <td>80.00</td> <td>\$9.75</td> <td>\$780.00</td> </tr> </tbody> </table>	...	Description	Quantity	Unit of Measure	Work Hours	Pay Hours	Unit Cost	Total Cost (Forecast)	→ + 1	Field Office Telephone	0.50	Month			\$250.00	\$125.00	+ 2	Field Office Trailer	1.00	Each	0.00	0.00	\$5.94	\$0.00	+ 3	Pick Up Truck	1.00	Each	80.00	80.00	\$9.75	\$780.00				
...	Description	Quantity	Unit of Measure	Work Hours	Pay Hours	Unit Cost	Total Cost (Forecast)																														
→ + 1	Field Office Telephone	0.50	Month			\$250.00	\$125.00																														
+ 2	Field Office Trailer	1.00	Each	0.00	0.00	\$5.94	\$0.00																														
+ 3	Pick Up Truck	1.00	Each	80.00	80.00	\$9.75	\$780.00																														
+ 5.4	Misc. Expenses	1.00	Each	\$2,765.00	\$2,765.00																																
+ 5.5	Supervision	1.00	Each	\$4,769.00	\$4,769.00																																

Add user-defined indirect cost items

Let's walk through a specific scenario for this step by step.

- At the bottom of your CBS, create an indirect cost item called Job Overhead with a Forecast (T/O) Quantity of **1** and Unit of Measure of **Each**.
- Add two **subordinates** under the new cost item named Job Trailer and Utilities. Job Trailer is **1 Each** but change Utilities to **1 Lump Sum**.
- Open the Job Trailer cost item by double-clicking on the row header.
 - Assuming there is no Job Trailer in our Resource Rate Register, you will create this resource "on the fly".
- In the Detail grid, click on the **Resource Register** icon in the Code field as if you were going to select from the Resource Rate Register.
- On the Resource Rate Register, click the **Rented Construction Equipment** tab.
- Right-click on one of the **Line Items** and select **New** to add a new resource.

7. Enter a Resource Code of **RJT** and description of **Job Trailer**.
8. In the Amount column enter **25** for the Rented Equipment category.
9. Click **OK** to close the Resource Rate Record.
10. Select the **new resource** you created, then click **OK** to return to the cost item record.
11. On the cost item record, adjust the Job Trailer quantity to **2**.
12. On the Production tab, enter **70** days.
13. Click **OK** to close the record.
14. On the CBS register, select the **Utilities** cost item by double-clicking on the row header.
15. Create an ad hoc resource on this cost item called **Electricity**, which will be 1 Lump Sum.
16. Finally, go to the Resource Employment Breakdown tab and enter **1500** in the Custom Category1 row.
17. Click **OK** to close the record.

3		Job Overhead				1.00	Each	\$31,740.00	\$31,740.00		
- 3.1		Job Trailer				1.00	Each	\$30,240.00	\$30,240.00		
Row Number	Code	Resource Assembly	Description	Quantity (Less Waste)	Waste % Add-on	Quantity	Unit of Measure	Work Hours	Pay Hours	Unit Cost	Total Cost (Forecast)
→ + 1	RJT		Job Trailer			2.00	Each	1,1...	1,1...	\$27.00	\$30,240...
- 3.2		Utilities				1.00	Lump Sum	\$1,500.00	\$1,500.00		
Row Number	Code	Resource Assembly	Description	Quantity (Less Waste)	Waste % Add-on	Quantity	Unit of Measure	Work Hours	Pay Hours	Unit Cost	Total Cost (Forecast)
→ + 1			Electricity	1.00	0.00	1.00	Lump ...			\$1,500...	\$1,500.00

6.4 COST ALLOCATION

The **Cost Item Record - Allocation** tab lets you to spread costs from a single Cost Item Record to one or more other cost items in the Cost Breakdown Structure (CBS) Register.

- **Allocation Item** - The cost item to be allocated, where you define the quantities, resource employments and the logic that determines how to allocate the item throughout the bid.
- **Allocation Target** - A cost item to be the recipient of allocated cost, as defined within the Allocation Item. There may be one or many Allocation Targets for one Allocation Item.
- **Distribution** - A read-only cost item in the CBS representing an Allocation Target's proportional share of the Allocation Item.

You can choose from several methods to determine specifically where and how much cost to spread:

- **Quantity** - Specify the amount of the Allocation Item to be spread to each Allocation Target.
- **Proportionately based on another field** - Allocate proportionately by one of many available cost item values, usually based on time or cost.
- **Percentage** - Specify the percentage of the Allocation Item to spread to each Allocation Target.
- **Unit Cost** - Use the unit cost from the Allocation Item and the quantity of each Allocation Target to drive the Forecast (T/O) Quantity of the Allocation Item.

Cost Item Allocation is a good means of spreading costs throughout a bid for the purpose of determining appropriate bid prices.

Only Level 1 cost items can be allocated, including Add-On and Escalation dependent cost items. A subordinate cost item cannot be allocated, and a cost item that is assigned to a pay item cannot be allocated.

6.4.1 Cost allocation

With Cost Item Allocation, you can track the cost of one broad cost item by distributing the cost of that item to other cost items, so that the cost can be tracked on a more detailed level. This gives better visibility into the cost that makes up an item. For example, you can spread ST&S from one cost item to multiple cost items that will use ST&S.

Imagine that a large portion of your scope of work for the job you are bidding has concrete. You face the options of batching your own raw materials or purchasing the materials from a supplier. You can use cost allocation to create the cost of a batch plant and allocate it to different items, and then compare this unit cost to the unit cost of purchasing the materials from a supplier.

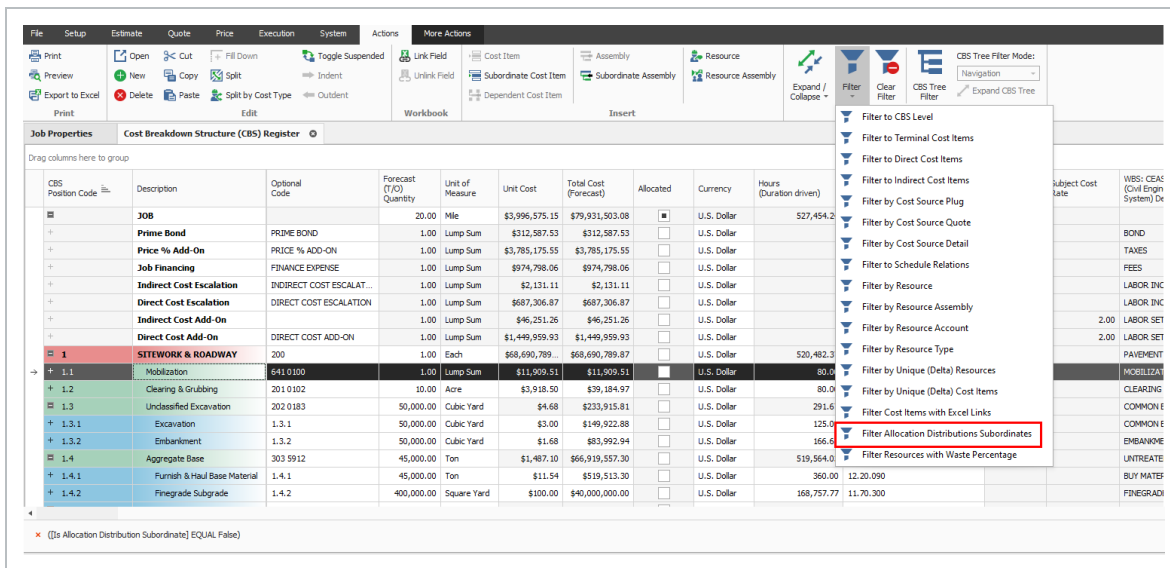
The Allocation tab allows you to spread costs from an Allocation Item to one or more Allocation Target (s).

In the Allocation Target list, the **[Unit of Measure] Quantity** column caption displays the Unit of Measure of the Allocation Item. For instance, if the Allocation Item's Unit of Measure is **Cubic Yards (CY)**, then the caption displayed for this column is **CY Quantity**.

A Distribution cost item is created as a read-only subordinate cost item under each Allocation Target. It is copied proportionally with the quantity/cost defined to each different item in CBS.

6.4.2 View filter excludes cost Item allocation details

A View Filter option is added to show only the level 1 cost item distribution in the allocation destinations to provide you with a clear and comprehensive view of the CBS register, especially when there are many allocations. When you are allocating cost items, the allocations are created in the destination cost item by creating a copy of the entire allocated cost items structure. This filter allows you to simplify the view by displaying only the parent level allocation cost item.



6.4.3 Cost allocation to by Unit Cost

Having an under allocation or over allocation is ok, but it can be fixed by updating the Forecast (T/O) Quantity of the **Concrete Batch Plant**. To do this, change the cost allocation to **by Unit Cost**.

6.5 DEPENDENT COST ITEM ALLOCATION

When allocating cost for a dependent cost item, the calculation of the cost item’s subject cost aligns with the allocation target values (such as values based on quantity, percentage, or unit cost). The target values are the owner’s target values. This allows you to better manage allocation values.

When you allocate costs for a dependent cost item that defines its subject costs from other cost items that include allocation from other cost items and select the option *Use owner's quantities to calculate cost*, the subject cost calculation is based on how the cost items are currently allocated. In other words, it includes the distributed costs from the allocated cost item.

The screenshot displays the 'Cost Breakdown Structure (CBS) Register' window. At the top, it shows 'Direct Cost Add-On Record'. Below this, there are fields for 'CBS Position Code', 'Description', 'Total Cost' (\$0.00), 'Currency' (U.S. Dollar), and 'Alternate' (BASE). A table lists various cost items such as 'JOB', 'Indirect Cost Markup', 'Direct Cost Markup', 'Prime Bond', 'Price % Add-On', 'Job Financing', 'Indirect Cost Escalation', 'Direct Cost Escalation', 'Indirect Cost Add-On', 'Job Management & Equip...', 'General Expense', 'Direct Cost Add-On', '1 Mobilization', '2 Clearing & Grubbing', '3 Unclassified Excavation', '3.1 Excavation', and '3.2 Embankment'. Each row includes columns for 'Pay Quantity', 'Include', 'Currency', 'Forecast (T/C) Quantity', 'Unit of Measure', and 'Unit Cost'. On the right, the 'Cost Item Setup' dialog is open, showing 'Properties' (Account Code, Cost Curve: Linear, Tag 1-3, Phase Code, Suspend) and 'Execution' (Allow As-Built: None). The 'Detail Method' section has 'Use owner's quantities to calculate cost' selected. The 'Security' section shows 'Last Changed By: Julio Salguero' and 'Last Changed On: 7/29/2025 1:28:58 PM'. At the bottom, there are 'OK', 'Cancel', '< Prev', and 'Next >' buttons.

6.5.1 Turning off cost allocation

If determined that you no longer want to spread the cost of an allocated item, you can turn off cost allocation for that cost item. To turn off cost allocation, in the cost item record's Allocation tab, deselect the **Allocate this Item's Cost** check box. The logic that you created to spread the costs are retained, so you can easily select it again later.

Distributions cannot exist in the CBS when a job is published for Job Tracking. To remove distributions, either break the Cost Allocation link or deselect the **Allocate this Item's Cost** check box on the **Cost Item Record - Allocation** tab.

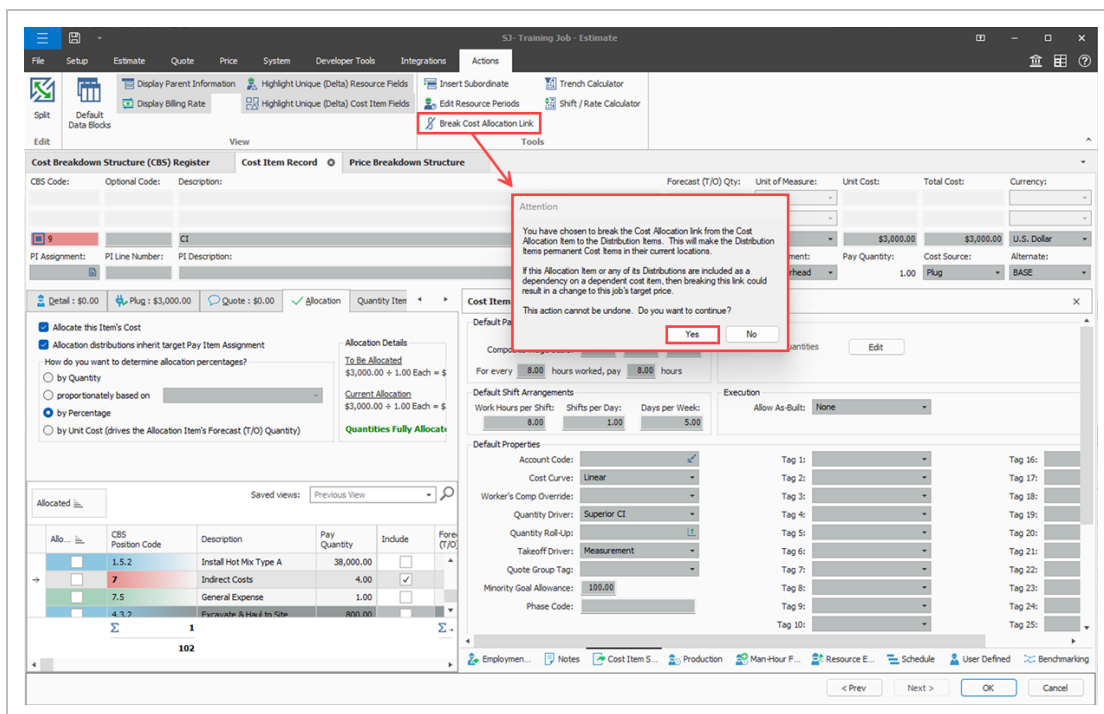
6.5.2 Break cost allocation link

You can break a cost allocation link and make a distribution be a permanent part of the CBS and permit its costs and quantities to be directly editable under the cost items to which it has been distributed.

Breaking the cost allocation link breaks the link from the cost allocation item to the distribution items, making the distribution items permanent cost items in their current locations. If the allocation item or any of its distributions are included as a dependency on a dependent cost item, then breaking the link could result in a change to the job's target price. The action cannot be undone.

Breaking a cost allocation link

1. In the CBS, open the cost item record.
2. In the Actions tab of the record, click **Break Cost Item Allocation Link**.
3. In the Attention dialog box, click **Yes**.



6.5.3 Pay item assignment for allocation distribution

In locked jobs, the *Allocation distributions inherit target Pay Item Assignment* option is automatically selected and cannot be changed. This is normal Estimate behavior for locked jobs.

In a job that is unlocked, you have the option to select the **Allocation distributions inherit target Pay Item Assignment** check box to use the same allocation distribution for the cost item's costs anytime the cost item is copied and added to a job.

The screenshot displays the 'Cost Breakdown Structure (CBS) Register' and 'Cost Item Setup' windows. The 'Allocate this Item's Cost' section is active, with the checkbox 'Allocation distributions inherit target Pay Item Assignment' highlighted in red. Below this, there are radio button options for allocation methods: 'by Quantity', 'proportionately based on', 'by Percentage' (selected), and 'by Unit Cost'. The 'Allocation Details' panel shows 'To Be Allocated' as '\$3,000.00 + 1.00 Each = \$3,000.00/Each' and 'Current Allocation' as '\$3,000.00 + 1.00 Each = \$3,000.00/Each', with a status of 'Quantities Fully Allocated'. The 'Cost Item Setup' panel on the right includes sections for 'Default Pay Rules', 'Default Shift Arrangements', 'Default Properties', and 'Security'. The 'CBS Register' table at the bottom lists various cost items with their respective quantities and forecasts.

Allo	CBS Position Code	Description	Pay Quantity	Include	Forecast (T/O) Quantity
	3.4.5	Paint Top Coat	25,000.00	<input type="checkbox"/>	25,000.00
	1.4.3.3	Place Aggregate Base	40,888.89	<input type="checkbox"/>	46,000.00
	4.1.3.1	Install Recovery System	1.00	<input type="checkbox"/>	1.00
	1.5.2	Install Hot Mix Type A	38,000.00	<input type="checkbox"/>	35,000.00
	7	Indirect Costs	4.00	<input checked="" type="checkbox"/>	4.00
	7.5	General Expense	1.00	<input type="checkbox"/>	1.00
	4.3.2	Excavate & Haul to Site	800.00	<input type="checkbox"/>	800.00
	3.3.1.3	Retaining Wall Wall	400.00	<input type="checkbox"/>	400.00
	5.1	Toll Booth	1.00	<input type="checkbox"/>	1.00
	7.1	Setup Yard	1.00	<input type="checkbox"/>	1.00
	5.1.4	Concrete Masonry Units	1.00	<input type="checkbox"/>	1.00
			102		102

Exercise 6.1 – Define indirect costs

In this exercise, you will practice entering Indirect Costs. Complete the following steps, using your Job:

1. Double click on the **Price % Add On** row header.

2. You already have Office Overhead as your first line item. In the next blank row type **Corporate Insurance** in the Description field and enter a rate of **.10**.

3. Click **OK** to close the record.

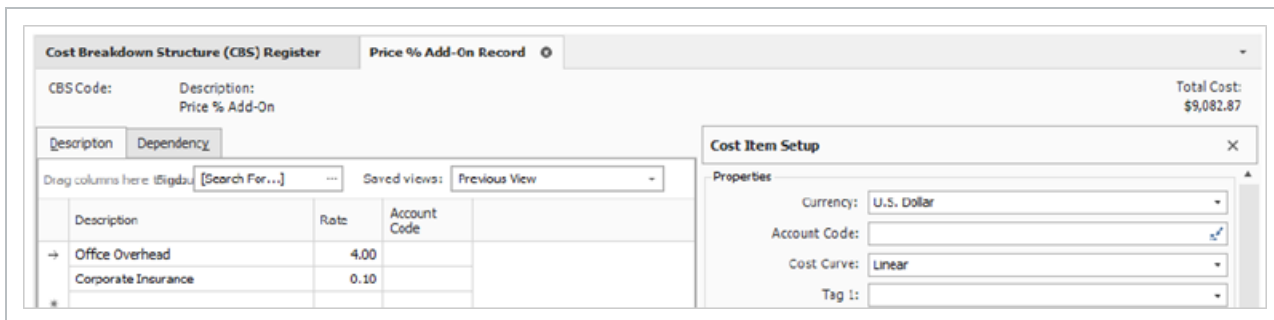
4. Double click on the **Direct Cost Add-On** row header.

5. You already have Small Tools as your first line item. On the Description tab, type **Safety & Training** in the next blank row’s Description field, then press **Tab**.

6. The Dependency Cost Breakdown appears on the right. Enter a rate of **5** for Labor Costs only.

7. Click **OK** to close the record.

You should end up with similar results like below:



Cost Breakdown Structure (CBS) Register
Direct Cost Add-On Record

CBS Position Code:

Description:

Total Cost: **\$8,845.47**

Alt: **BASE**

Description	Dependency	Cost Categorization	Allocation
Drag & Drop: <input type="text" value="Search For..."/> Saved views: Previous View			
Description		Curre...	Total Cost (Forecast)
Small Tools		U.S. Dollar	\$5,896.98
→ Safety & Training		U.S. Dollar	\$2,948.49
* <input type="text"/>			

Cost Category	Subject Cost	Rate	Cost
▼ Total	\$130,759.83	2.25	\$2,948.49
> Labor	\$58,969.83	5.00	\$2,948.49
> Owned Equipment	\$68,251.92	0.00	\$0.00
> Rented Equipment	\$0.00	0.00	\$0.00
> Supplies	\$0.00	0.00	\$0.00
> Materials	\$3,276.00	0.00	\$0.00
> Subcontract	\$0.00	0.00	\$0.00
> Fees	\$262.08	0.00	\$0.00
> Allowance	\$0.00	0.00	\$0.00
Custom Category1	\$0.00	0.00	→ \$0.00
Undefined	\$0.00	0.00	→ \$0.00

Congratulations, you have completed this exercise!

Lesson 6 - Review

1. Default indirect costs are pre-built _____ created by InEight Estimate, located within the CBS Register.
 - a. billing rates
 - b. cost items
 - c. pay items

2. By default, any cost item you create in the CBS Register that is not assigned to a pay item is considered indirect cost.
 - a. True
 - b. False

3. The cost segment field in the CBS is used to indicate:
 - a. Whether your costs will be considered job overhead, business overhead, or direct cost.
 - b. The source of your costs (Detail, Plug or Quote).
 - c. What pay item your cost item is assigned to.

Lesson 6 - Summary

As a result of this lesson, you can:

- Explain how indirect costs are defined in InEight Estimate
- Estimate default indirect cost items
- Estimate user-defined indirect cost items

LESSON 7 – QUOTE MANAGEMENT

Lesson Duration: 60 Minutes

Lesson Objectives

After completing this lesson, you will be able to:

- Create and publish RFQs
- Define quote pricing
- Compare and award quotes
- Create and analyze scope items

7.1 QUOTE MANAGEMENT OVERVIEW

7.1.1 Quote management workflow

When you make the decision to send out RFQs (Requests for Quote), as the estimator you will outline the specifications for the request, select the vendors you wish to contact, and issue the request for quotes.

When you receive quotes back from vendors, you can enter their pricing into InEight Estimate, where you can compare them, award them, and update your CBS costs in one fluid process without the need to re-enter data in multiple locations. InEight Estimate lets you enter multiple vendor quotes to enable price comparison.

Awarding a quote in InEight Estimate does not mean the vendor is awarded the contract, but rather that their price is selected as the carrying cost in the bid.

InEight Estimate provides a built-in workflow for managing your quotes, consisting of three steps:

1. Creating and publishing Requests for Quote (RFQs)
2. Updating quotes with vendor/subcontractor pricing
3. Comparing and awarding quotes

InEight Estimate has a separate form to manage each step:

1. Request for Quote (RFQ) Register
2. Quote Register
3. Quote Comparison & Award



7.1.2 Quotes and Quote groups

Typically, an estimate contains two types of quotes:

1. Quotes for resources (materials, equipment) purchased or rented from suppliers.
2. Quotes for subcontracted work.

In InEight Estimate, quotes from suppliers are managed at the resource level. In other words, you can use material resources to represent the items purchased from the supplier.


For the cost items in your project that you plan to subcontract, you can manage quotes at the cost item level, using the cost items themselves as the descriptions on the quote request.

You can use Quote Groups to group together multiple resources or cost items that will be sent in an RFQ package. Using quote group tags can save a great deal of time generating packages of items to request quotes for.

7.1.2.1 Resource level quote groups

When sending out quotes, you may want to organize your resources into groups based on the type of material, such as pipe, aggregate, or concrete. When creating Requests for Quote, you will be able to select your pre-defined quote group and it will bring all the related resources along with it. You can assign quote groups using a pre-defined tag called a Quote Group in the Resource Rate Register.

Below is an example of resources with a quote group assigned:

Resource Rate Register 

All	Labor	Construction Equipment	Rented Construction Equipment	Installed Material	Installed Equipment	Supplies	Unique
-----	-------	------------------------	-------------------------------	--------------------	---------------------	----------	--------

Drag columns here to group

Resource Code	Description	Quote Group	Resource File Description	Unit of Measure
+ IECT	Cooling Towers	Process Equipment Install	Standard Installed Equipment Rate...	Each
+ IEFC	Feeder Controls	Landscaping Work	Standard Installed Equipment Rate...	Each
+ IEHS	Heating System	Process Equipment Install	Standard Installed Equipment Rate...	Each
+ IEPHP	Pump High Pressure	Commercial Work	Standard Installed Equipment Rate...	Each
+ IERMT	Raw Material Tank	Concrete Materials	Standard Installed Equipment Rate...	Each
+ IERS	Recovery System	Process Materials	Standard Installed Equipment Rate...	Each
+ IEST	Separator Tank	Process Materials	Standard Installed Equipment Rate...	Each

7.1.2.2 CBS level quote groups

For your subcontracted items, you can assign quote groups at the cost item level to group together subcontractor work, such as Commercial Work or Landscaping Work. These labels are assigned using a pre-defined tag called Quote Group in the Cost Breakdown Structure register.

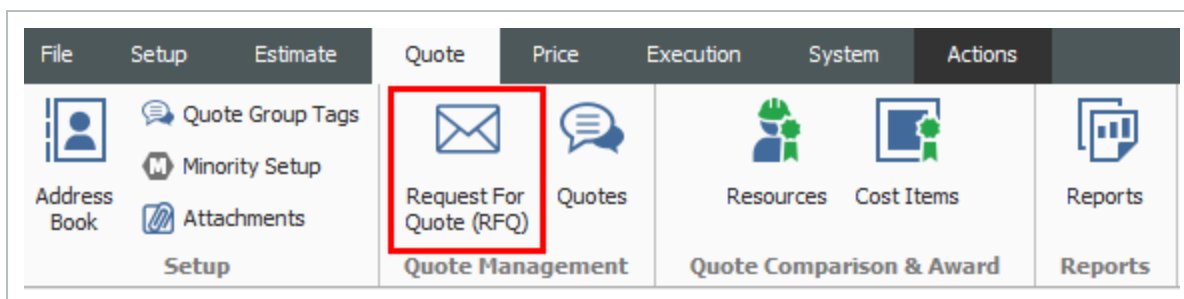
CBS Position Code	Description	Forecast (T/O) Quantity	Unit of Measure	Quote Group
13	Paint Existing Steel Bridge Structure	1.00	Lump Sum	Structural Painting
14	Process Equipment	1.00	Each	Process Equipment Install
17	Toll Booth	1.00	Each	Commercial Work
18	Guardrail Type 2	1,000.00	Linear Feet	Guardrail Work
19	Guardrail Type 3A	200.00	Linear Feet	Guardrail Work
20	Type 4 Signs	1,000.00	Square Feet	Sign Work

7.2 REQUESTS FOR QUOTE

Requests for Quote (RFQs) are invitations to sellers that include a requested list of items or services/pricing and terms. When you create an RFQ in InEight Estimate, you are able to indicate the line items you want to include in the quote, and the vendor(s) to whom you want to send it.

7.2.1 Request for quote (RFQ) Register overview

To access the Request for Quote (RFQ) Register, from the InEight Estimate landing page, select the Quote tab, then click on Request for Quote (RFQ).

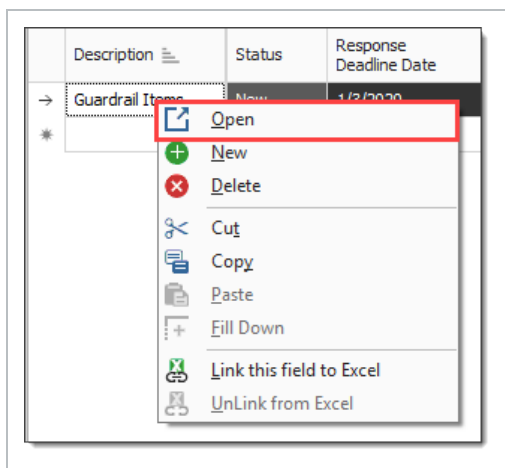


- The RFQ register lists all of the RFQs you've created, with a Description, a Status, and a Response Deadline Date

Cost Breakdown Structure (CBS) Register		Resource Rate Register		Request for Quote (RFQ) Register						
Drag columns here to group										
Description	Status	Response Deadline Date	Response Deadline Time	Published Date	RFQ Instructions	Buyer's Special Terms	Tag 1	Tag 2	Tag 3	Notes
Guardrail Items	New	1/3/2020	11:00 AM							
→										

7.2.2 Request for quote (RFQ) record

You can double-click on the row header, or right-click on any request for quote in the Request for Quote Register and choose **Open** to access an existing RFQ record.



Overview - Request for Quote (RFQ) Record

	Name	Definition
1	RFQ Description	Each record contains a Description, Deadline Date and Deadline Time fields to identify the RFQ and indicate when a response is due.
2	RFQ Tabs	The record is organized into tabs where you can define the items for the quote, terms & conditions, and the seller companies to receive the RFQ.
3	Status and Published Data	The Status and Published Date let you know if it is new or published (sent out), and when it was published.

Request for Quote (RFQ) Record

Description
Guardrail Items

Status
New

Published Date

Response Deadline Date: 7/29/2009 Response Deadline Time: 11:00 AM

Line Items Terms & Conditions Vendor Companies Attachments Setup

Resources Cost Items

Drag columns here to group Saved views: Standard View

CBS Position Code	RFQ ID	Quote Group Tag	Optional Code	Description	Quantity
→ 6.1	6.1	Guardrail Work	1500 0100	Guardrail Typ...	1,000.00
6.2	6.2	Guardrail Work	1500 0200	Guardrail Typ...	200.00
*					

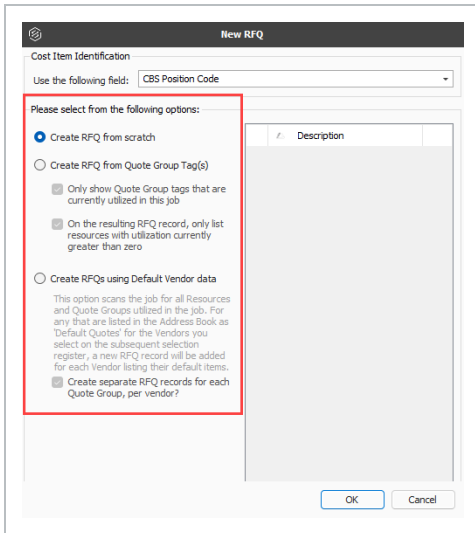
OK Cancel New... < Prev Next >

7.2.3 Create an RFQ

When putting together your RFQs, you will be able to select the appropriate material resources and cost items for which you need quotes in your estimate. To create a new RFQ, you have a few options:

- **Create RFQ from scratch:** This creates an empty RFQ Record for you to define.
- **Create RFQ from Quote Group Tag(s):** This option lets you create an RFQ from a quote group so you can add multiple materials or subcontract items at once.
- **Create RFQ using Default Seller data:** In your address book you can store vendors with a list of their default materials. This option lets you select the vendor and have it automatically find their

materials in the job.



The rest of this section walks through each tab on the RFQ Record in more detail.

7.2.3.1 Line items

The Line Items tab lists the resources or cost items selected for the RFQ, including the Description, Quantity, Quote Group, Currency and other user-defined tags.

Response Deadline Date: 7/29/2009 Response Deadline Time: 11:00 AM

Line Items Terms & Conditions Vendor Companies Attachments Setup

Resources Cost Items

Drag columns here to group

	CBS Position Code		RFQ ID	Quote Group Tag	Optional Code	Description	Quantity	Unit of Measure
→	6.1		6.1	Guardrail Work	1500 0100	Guardrail Typ...	1,000.00	Linear Feet
	6.2		6.2	Guardrail Work	1500 0200	Guardrail Typ...	200.00	Linear Feet
*								

7.2.3.2 Terms & Conditions

This tab provides ample space for you to enter terms, conditions and instructions that need to be included on the RFQ.

Response Deadline Date: 7/29/2009 Response Deadline Time: 11:00 AM

Line Items **Terms & Conditions** Vendor Companies Attachments Setup

Buyer's Special Terms & Conditions
Any penalties assessed by the owner due to quality control compliance deviations by the supplier will be deducted from the supplier's payment.

RFQ Instructions
Please contact site super John Smith @ 623-555-6982 for delivery instructions.

OK Cancel New... < Prev Next >

7.2.3.3 Vendor companies

You will use the Vendor Companies tab to select the suppliers or subcontractors that will be receiving the RFQ. This is done by selecting them from the Estimate Library Address Book. This tab will store all of the pertinent contact information for each seller, including their email address so that you can send them the RFQ.

Description
Guardrail Work

Status
Published

Published Date
1/13/2026 1:36:49 PM

Response Deadline Date: 1/15/2026 Response Deadline Time: 11:00 AM

Line Items **Vendor Companies** Attachments Setup

Drag columns here to group

Saved views: Previous View

Vendor	Contact	Status	Publish Item Quantities	Vendor Phone	Vendor Fax	Publish To File	Publish by Email	Primary Email	Include Attachments	Email Subject	RFQ File Name	Publication Date	License
Sub-Technical Inc -- 0010030045		Published	<input checked="" type="checkbox"/>	724-625-0008	724-625-0009	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	RFQ from https:...	Sub-Technical Inc...	1/13/2026 1:...	
Subsurface Solutions -- 0010020543		New	<input checked="" type="checkbox"/>	402-577-0227	530-364-9274	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	RFQ from https:...	Subsurface Solu...		
Venable LLP -- 0010094348		New	<input checked="" type="checkbox"/>	410-244-7400	410-244-7742	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	RFQ from https:...	Venable LLP RFQ ...		

OK Cancel New... < Prev Next >

The following options are particularly noteworthy:

- **Publish Item Quantities:** If you want the RFQ to specify your take-off quantities, select this checkbox. If you want to keep that information to yourself and let the vendors or contractors determine their own quantities, deselect this checkbox
- **Publish To File:** If you choose to Publish To File, Estimate creates a Microsoft Word document with a template filled out. It is ready to print and send, but you have the opportunity to double-check the information before emailing the RFQ

When RFQs are generated for multiple vendors using the Publish To File option, be sure to separate the Microsoft Word document pages and send only the correct pages to each vendor.

- **Publish by Email:** If you choose to publish by email, the Word document is created, the template is filled out, it is attached to an email, and automatically sent to the email address listed for that vendor in the Address Book

When using the Publish by Email option, the process is automatic and it does not give you the opportunity to double check your information before the RFQ is emailed. For this reason, it is recommended to Publish To File, review the information, and then email the RFQ manually.

7.2.4 Attachments

This tab allows you to specify any electronic files that need to be attached to the RFQ, such as drawings or specifications for the work.

Response Deadline Date: Response Deadline Time:

Line Items | Terms & Conditions | Vendor Companies | **Attachments** | Setup

Drag columns here to group Saved views: 🔍

File Name	Description	Location	File Type	File Size	Attached By	Date Attached
plumber quote.pdf	plumber quote	Job Folder	Adobe Acrob...	166875	Paul Trippi@ine...	7/31/2023 11:08:21 AM
→						

7.2.5 Setup

The Setup tab lets you indicate what information will display on the published RFQ template, including custom tags. In addition to selecting tags and adding notes on the Setup tab, you can also specify your RFQ Publication Settings and can choose whether you want to include the instructions, special terms and conditions, notes and attachments.

The screenshot shows the 'Setup' tab of an RFQ record. At the top, the 'Description' field contains 'Guardrail Items'. Below this, the 'Response Deadline Date' is set to '7/29/2009' and the 'Response Deadline Time' is '11:00 AM'. A navigation bar includes tabs for 'Line Items', 'Terms & Conditions', 'Vendor Companies', 'Attachments', and 'Setup', with 'Setup' highlighted in red. The main area contains three 'Tag' dropdown menus (Tag 1, Tag 2, Tag 3), a 'Notes' text area, and an 'RFQ Publication Settings' section. This section includes a 'Cost Item Identifier' dropdown set to 'CBS Position Code' and a list of checkboxes: 'Include RFQ Instructions' (checked), 'Include Buyer's Special Terms & Conditions' (checked), 'Include Notes' (checked), 'Include Attachments' (unchecked), 'Publish Item Quantities' (checked), 'Publish To File' (checked), and 'Publish By Email' (checked).

7.2.6 Publish an RFQ

Once created, Estimate allows you to generate a Microsoft Word RFQ template that can be faxed or manually sent via email to the supplier or subcontractor.

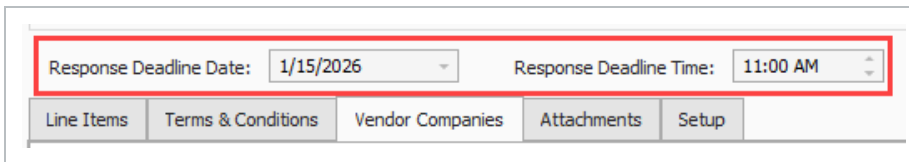
When you complete all of the fields that are required for this RFQ, you are ready to publish the RFQ. To do so, select all of the vendors that you want to receive the RFQ and click **Actions > Publish** on the RFQ Record ribbon.

Create and publish an RFQ

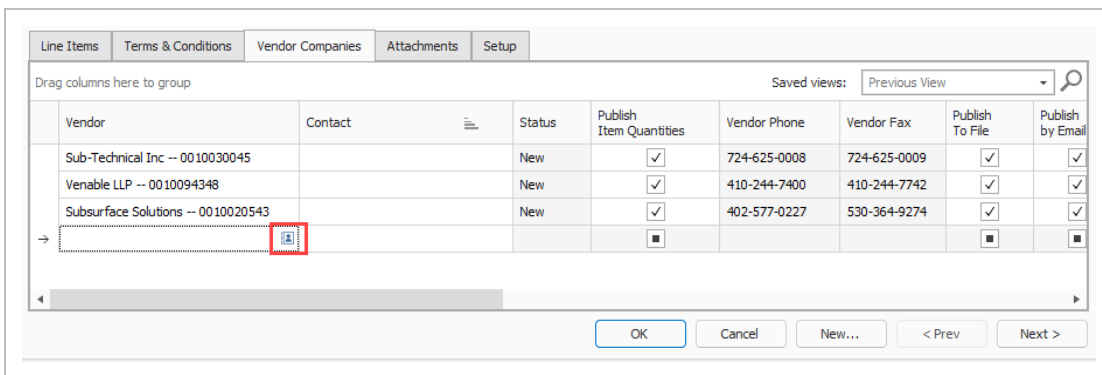
This exercise walks through a specific example using the Training Job.


1. From the Estimate landing page, select the **Quote** tab.
2. Select **Request for Quote (RFQ)**.

3. From the Actions tab, click on the **New** icon to create a new RFQ.
4. Select **Create RFQ from Quote Group Tag(s)**, leaving the checkboxes checked to only show quote groups and resources that are being used.
5. Select the **Aggregates** quote group from the right panel.
6. Click **OK**.
7. In the Response Deadline Date field, select a **date** two weeks from today, and for the Response Deadline Time, type a **time stamp** (e.g. 11:00 am).



8. Select the **Terms & Conditions** tab.
9. Create and type **Prices are good for the duration of the contract** in the Buyer’s Special Terms & Conditions field.
10. Type in **All items to be delivered to jobsite by supplier’s trucks** in the RFQ Instructions field.
11. Select the **Vendor Companies** tab and click in the **first blank row** in the Company Name column.



12. Click on the **Address book**  icon, and then select vendors from the Address Book Register. Alternatively, you can type the vendor name in the Vendor field to enter a known vendor.
13. Click **OK**.
14. Make sure **Publish to File** is checked for all vendors.
15. You can uncheck **Publish by email** for each vendor.
16. Select the **sellors** to whom you want to send the RFQ.

- The file automatically opens for you to review. You can either print it or send it in an email as an attachment.

REQUEST FOR QUOTATION

Job: 105091-3 Steel Structure Training Job 3

<p>TO:</p> <p><input type="checkbox"/></p> <p>Name: Sub-Technical Inc Company: 1015 Foggy Hollow Rd Gibsonia, Pennsylvania 15044 United States Of America</p> <p>Phone: Mobile Phone: Fax: Email:</p>	<p>FROM:</p> <p>Name: Tom Cross Company: Example Prime Contractor 1 400 First Street Suite 4000 Hometown, AZ 889004</p> <p>Phone: 111-122-1111 Mobile Phone: Fax: 222-112-2211 Email:</p>
--	--

Job Information: 105091-3
Steel Structure Training Job 3

Owner:	Example Owner
Job Type:	Highway and General Engineering
Job Location:	
City:	
County:	Denver
State / Province:	Arizona
Country:	United States Of America
Bid Location:	Engineer's Office
Bid Date:	1/6/2020
Bid Time:	11:00 AM

Request for Quote (RFQ) Information:

Publication Date: 1/13/2026 1:36 PM

Response Deadline Date: 1/15/2026 11:00 AM

Description: Guardrail Work

RFQ Instructions: Please contact site super John Smith@ 623-555-6982 for delivery instructions.

Buyer's Special Terms & Conditions: Any penalties assessed by the owner due to quality control compliance deviations by the supplier will be deducted from the supplier's payment.

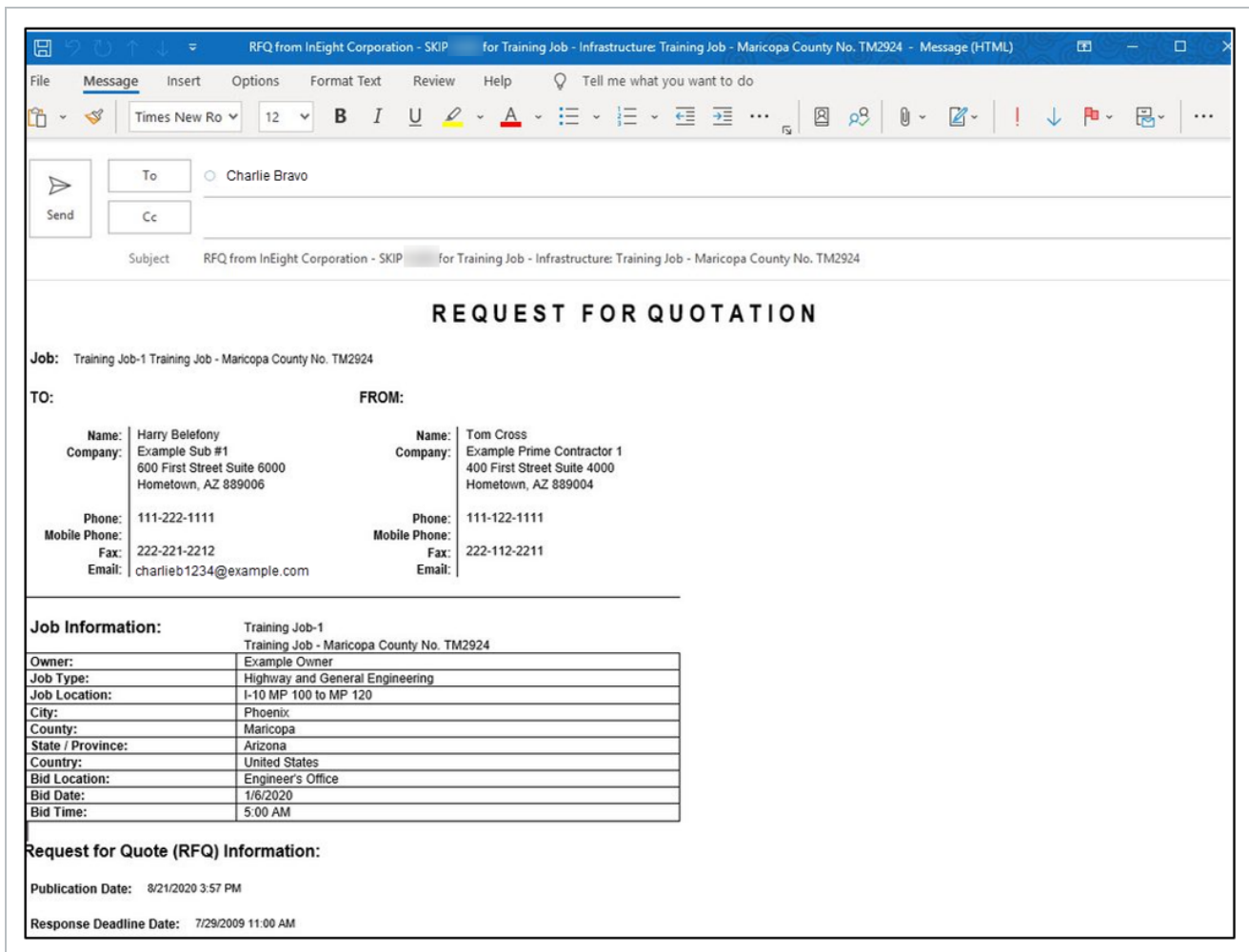
Notes: None Specified

Note to Vendor:

17. On the Actions tab of the record, select **Publish** to create your RFQ document.
18. Select the folder to publish to.
19. Click **OK** to save the RFQ Record.

7.2.7 RFQ email draft

When sending out Requests for Quotes (RFQ) on a bid, it is essential to be able to effectively communicate the project requirements to potential sub-contractors or suppliers to ensure you have good quote coverage in your estimate. Email RFQs open as a draft email message, giving the sender, the opportunity to control specifically what is sent and customize the message before sending it out to subs and suppliers.



7.3 QUOTES

When you receive responses to your RFQ, the next step is to enter their pricing in the Quote Register. The Quote Register stores all of the quotes you have for that job. Each quote has a Description and a Quote Status, and each quote displays seller contact information.

In this case, an estimator in charge of receiving quotes would need to determine how best to input these quotes within the Quote register.

7.3.1 Sample received quote scope sheet

Overview - Received Quote Scope Sheet

Name		Description
1	Section one	Scope item one includes 4 items the subcontractor has considered as work to be done onsite. You may want to consider adding all 4 items as individual quotes. Then creating a package identifying these quotes as on-site work, totaling \$203,000.
2	Section two	Scope item two includes 3 items the subcontractor has considered as work to be done offsite. You may want to consider adding all 3 items as individual quotes. Then creating a package identifying these quotes as offsite work, totaling \$24,650.
3	Exclusions	The subcontractor is showing 9 items they excluded from their scope of responsibility.
4	Qualifications	The subcontractor has included 3 stipulations pertaining to this bid. If selected all 3 are considered accepted terms.

Received Quote Scope Sheet

DATE: 12/19/2019
PROJECT: TRAINING JOB TRAINING JOB - MARICOPA COUNTY NO. TM2924
LOCATION: PHOENIX, AZ

SITE CONCRETE: FORM, SUPPLY AND INSTALL

- 1** **ONISITE IMPROVEMENTS**
1. Vertical Curb; Curb and Gutter; Valley Gutter w/ rebar
 2. 4" thick broom finish walk with wire mesh; ramp w/ domes
 3. Flow-Through planer slab and walls
 4. 8" thick crosswalk paving with rebar 36" x 36" pattern broom finish and 18" x 36" pattern colored aggregate finish (1 location only @ 16th street entrance)

Price: \$203,300

- 2** **OFFSITE IMPROVEMENTS**
1. Curb and Gutter
 2. HC Ramps w/ domes; planter w/ rebar
 3. 36" x 36" patterned finish walk w/ wire mesh

Price: \$24,650

- 3** **EXCLUSIONS:**
1. Layout of lines and grades
 2. Site grading
 3. Aggregate base and/or compaction; sand cushion
 4. Sealants, caulking and waterproofing; precast items
 5. Misc post footings and masonry wall footings
 6. Supply of embedded iron or metal
 7. Demolition
 8. Traffic control and pedestrian protection

- 4** **QUALIFICATIONS:**
1. Price valid for 60 days
 2. GC will provide a concrete pump washout area
 3. 5% retention will be released 45 days after completion of our work

Alternate Price to furnish and install 4" aggregate base under parking structure lab. Sand by others. Price based on rock being placed prior to piles, pilecaps and grade beams.
\$24,100

This proposal is good for thirty (30) days from the data herein, after which time Summit Construction reserves the right to review the proposal for any changes in price. Please call me if you need any further information.

Rick
Estimator

7.3.2 Quote register overview

To access the Quote Register, choose **Quote > Quotes** on the main InEight Estimate menu or click the **Quotes** icon on the toolbar.

Description	RFQ Description	Quote Status	Vendor	Vendor Name	Contact	Quote Total	Awarded Total	Currency
Guardrail Work	Guardrail Work	Incomplete	Sub-Technical Inc -- 001...	Sub-Technical Inc	<Ad-Hoc Contact>	\$0.00	\$0.00	U.S. Dollar
Pipe Materials		Received	Example Vendor 3	Example Vendor 3	Example Vendor 3 -- Tony Apple	\$259,056.00	\$0.00	U.S. Dollar
Pipe Materials		Received	Example Vendor 4 DBE	Example Vendor ...	Example Vendor 4 DBE -- Leste...	\$263,281.20	\$263,281.20	U.S. Dollar
Process Equipment Instal...	Process Equipment Install; Sign Work; Structural P	Received	ABC Concrete Services - ...	ABC Concrete S...	ABC Constructors -- Jimmy Neu...	\$2,255.00	\$663.33	U.S. Dollar
Process Equipment Instal...	Process Equipment Install; Sign Work; Structural P	Received	BA Blacktop. -- 20100203	BA Blacktop.	BA Blacktop -- BA Baracus	\$2,373.00	\$1,449.00	U.S. Dollar

7.3.3 Quote record overview

The quote record establishes who the vendor is, along with quoted prices and all terms and conditions. After a requested quote returns, you can either create the quote in InEight Estimate from scratch or convert the original RFQ to a quote and enter the supplier or subcontractor pricing. Each quote record contains additional fields and options for managing the quote.

Quote records utilize data blocks allowing you to reposition tabs, detach tabs into individual windows, and redock tabs in new locations. Using the data blocks layout, you can input and maintain important quote data like Vendor Qualifications and Special Terms & Conditions.

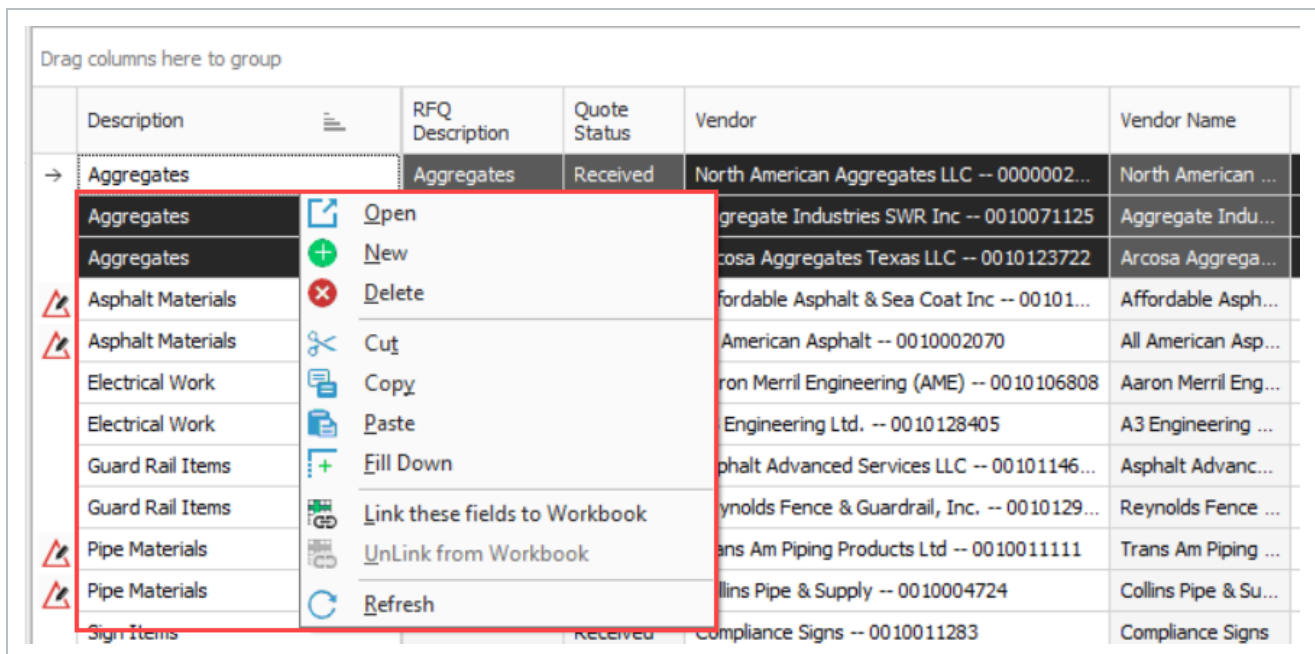
The image and table show the available blocks and descriptions.

Name	Description
1 Header	You can include detailed contact information about the supplier or

Name	Description
block	subcontractor. The detailed contact information automatically fills when you select the seller from the Address Book. The External Ref field can be used to access information specific to the bid/quote.
2 Price block	The Price data block contains a breakdown of pricing information for the quote, including taxes, item conditions, and special conditions.
3 Quote tabs	The tabs at the bottom of the page hold detailed information regarding the quote.
4 Default Data Blocks	Data blocks include Special Terms & Conditions, Qualifications, Packages, Taxes, Vendor's Profile, Setup, and Minority.

You can right-click any existing quote in the Quote Register, and then click **Open** to access the Quote Record Register.

In the Quote Record Register, you can select multiple vendors by holding the *CTRL* key, and then selecting two or more vendors. After selecting multiple vendors, right-click a selected vendor, and then select an option from the context menu as shown in the image below.



7.3.4 Header block

The Header block portion of the page is where you enter in description information pertaining to the quote, along with vendor/contractor information.

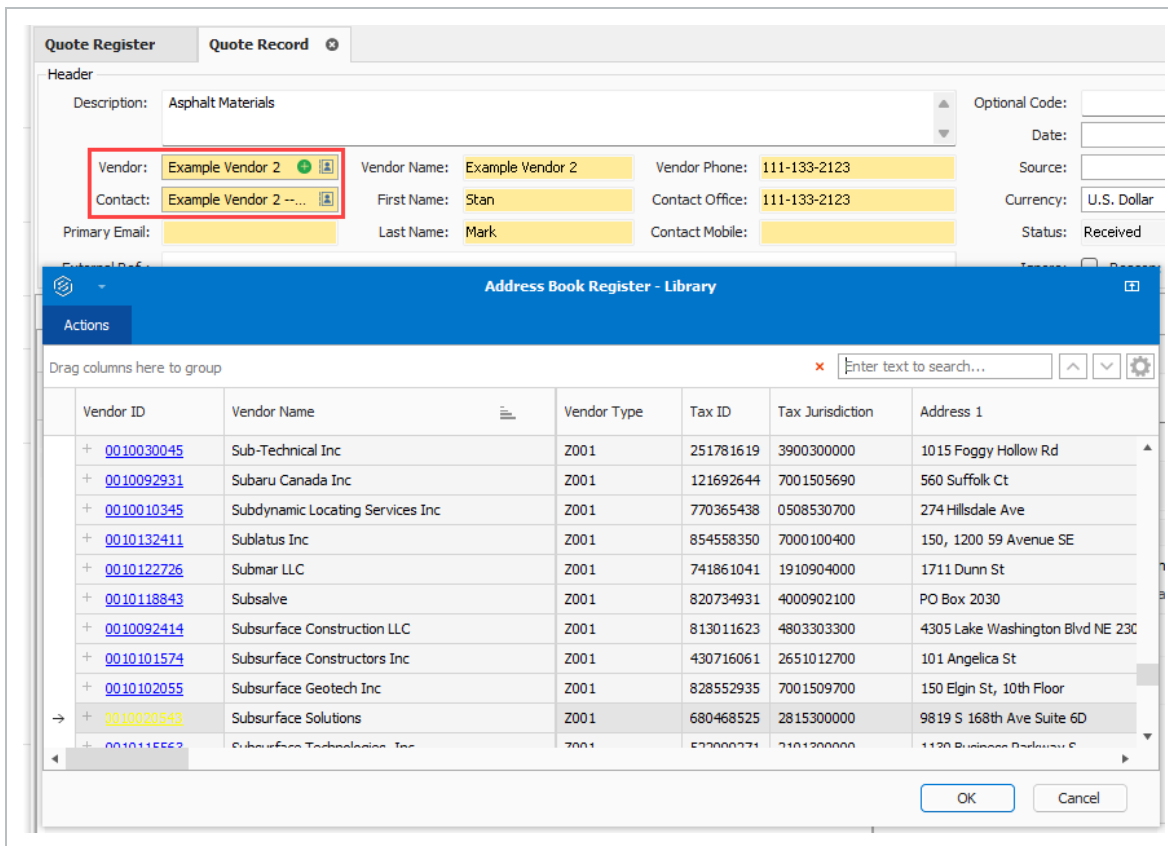
There is an **External Ref** field you can use as a hyperlink for attaching any supporting bid quote attachments from the vendor/contractor.

On the right portion of the header block is where you enter optional information related to:

- **Optional Code** – A code used to reference the received quote.
- **Date** – The date the quote is received.
- **Source** – This is the method by which the quote was received. The options are Email, Fax, Hard Copy, Phone, and Other.
- **Currency** – System of money in general use for a particular country..
- **Ignore** – By ignoring the quote, and providing a reason, the quote will turn grey in the Quote Comparison & Award page.

7.3.4.1 Quote records

The Quote record header block includes a vendor field with a searchable address book library register drop-down list. You can select shared vendor data to populate your quote header record with Platform's shared master data.



Using Platform’s shared data also reinforces accurate Estimate quote reporting. For example, you can report on which vendors and contacts have been awarded quotes or run a report on how many RFQs have been sent to select vendors and how many RFQs were returned for certain jobs. Additionally, using Platform shared vendors makes it possible to report on all activity related to a particular vendor. Examples include seeing how many subcontract agreements have been executed in InEight Contract, or how many claims/issues a vendor has been involved with in InEight Change. The predominant value for Estimate using Platform vendors, along with other InEight applications, ensures that the same vendors are being used by all applications.

7.3.5 Price block

The Price block includes the quotes extended price, along with any additional taxes, bonds, item conditions, and special conditions.

7.3.6 Quote record tabs

7.3.6.2 Resources and cost items

The Resources & Cost Items tab displays the resources or cost items quoted, along with their estimated quantities and units of measure.

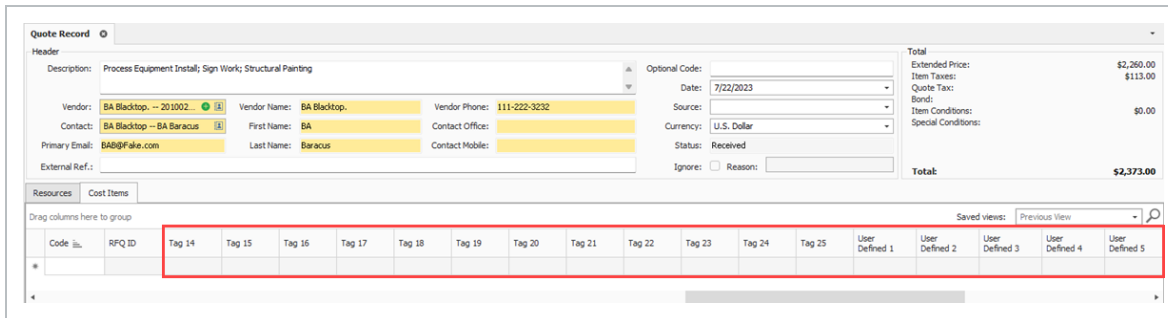
- A Unit Price column is included on this tab for entering the quoted pricing from the seller, either manually or by pasting from an electronic format
- If a Package code is entered, the Unit Price field is greyed out, and the Package code amount is used
- Additional columns are provided for making conditional amount or percentage adjustments to the quote to manage last-minute changes
- A note field is included for explanation changes
- A No Split option indicates that the seller will only provide the quoted goods or services if they are selected to provide all listed items. They will not provide one quoted item without you procuring all others from them as well.
- You can check an item as Free for circumstances where the vendor will include the price of one item with another. Marking the included item(s) as free reminds you there is no quoted price for that item

Resources		Cost Items												
Drag columns here to group				Find: [Search For...]						Saved views: Previous View				
Package	Code	RFQ ID	Quote Group	Optional Code	Description	No Split	Free	Awarded	Du...	Quantity	Unit of Measure	Unit Price	Extended Price	
	3.1	3.1		3.1	Excavation, scrapers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1	50,000.00	Cubic Yard	\$0.00	\$0.00
P1	3.2	3.2		3.1	Excavation, trucks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1	50,000.00	Cubic Yard	P1 P1	\$200,000.00
P1	3.3	3.3		3.2	Embankment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1	50,000.00	Cubic Yard	P1 P1	
P1	3.4	3.4			Rock Excavation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1	3,000.00	Cubic Yard	P1 P1	

Cost item tags and user defined fields

There are 25 tag fields in the Quote Record register cost items tab. There are also 15 user defined fields that let you sort, filter, and group on selected quote records more efficiently.

For example, you can use tags and user-defined fields to isolate certain cost items, or group cost items together.



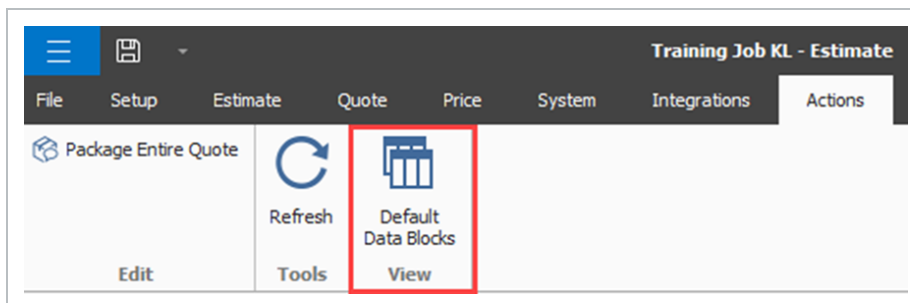
In the Library foundation setup register, you can use three user defined fields (UDF) in the Quote Groups tag register to enter certain key information such as responsible party or certain other attributes for better visibility. If preferred, these UDF fields can be viewed in Quote Compare and Award forms and Session Recap register. For more information, see [Quote group tags user defined fields](#).

7.3.7 Data blocks

In the Quote Record item, you can use data blocks that let you customize the layout to focus on data block tabs that matter most to you. You can select the Default Data Blocks action in the ribbon to revert to the default setting, which shows all six data blocks. Default data block tabs include:

Default data block tabs include:

- Special Terms & Conditions
- Qualifications
- Packages
- Taxes
- Vendor's Profile
- Setup
- Minority



The seven data blocks show at the bottom right of the page.

Special Terms & Conditions
×

Buyer's Special Terms & Conditions

Vendor's Special Terms & Conditions

Special Conditions Adjustments:

Distribute Special Conditions: Evenly Using Weighted Average

Include Special Conditions costs for unawarded quotes in Comparable Totals

Drag columns here to group Saved views:

Row Number	Scope Item	Quote Group	Included	Amount
				Σ \$0.0
				\$0.0

Special Terms & Conditions
Qualifications
Packages
Taxes
Vendor's Profile
Setup
Minority

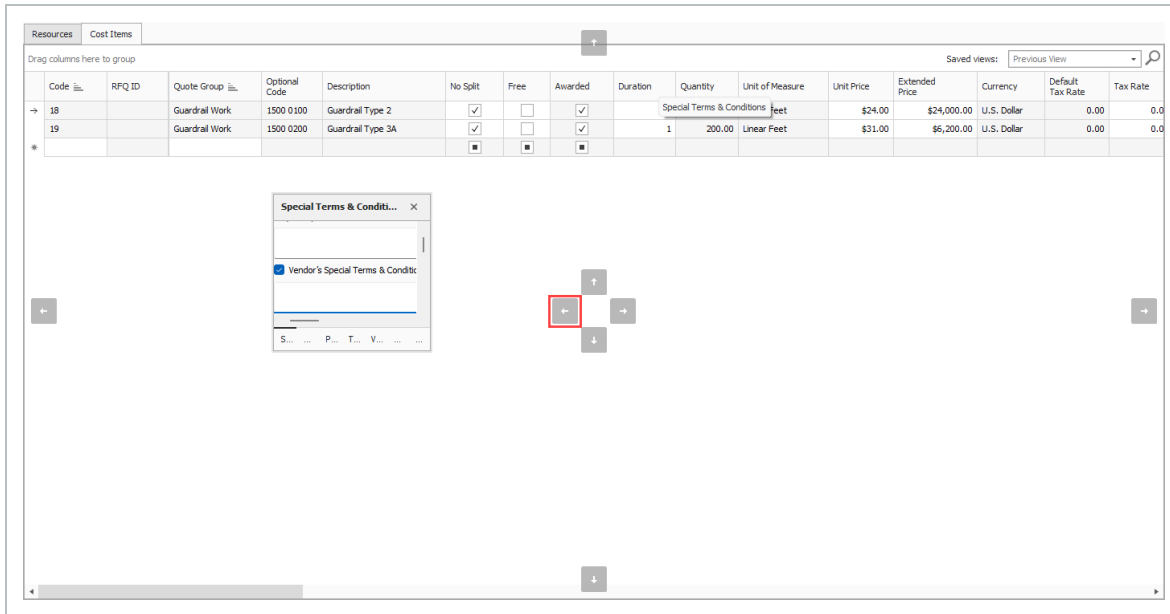
You can move the entire data block, or individual data blocks to other parts of the page. For example, select the **Special Terms & Conditions** header row, and then drag the pane to any part of the page.

Special Terms & Conditions
×

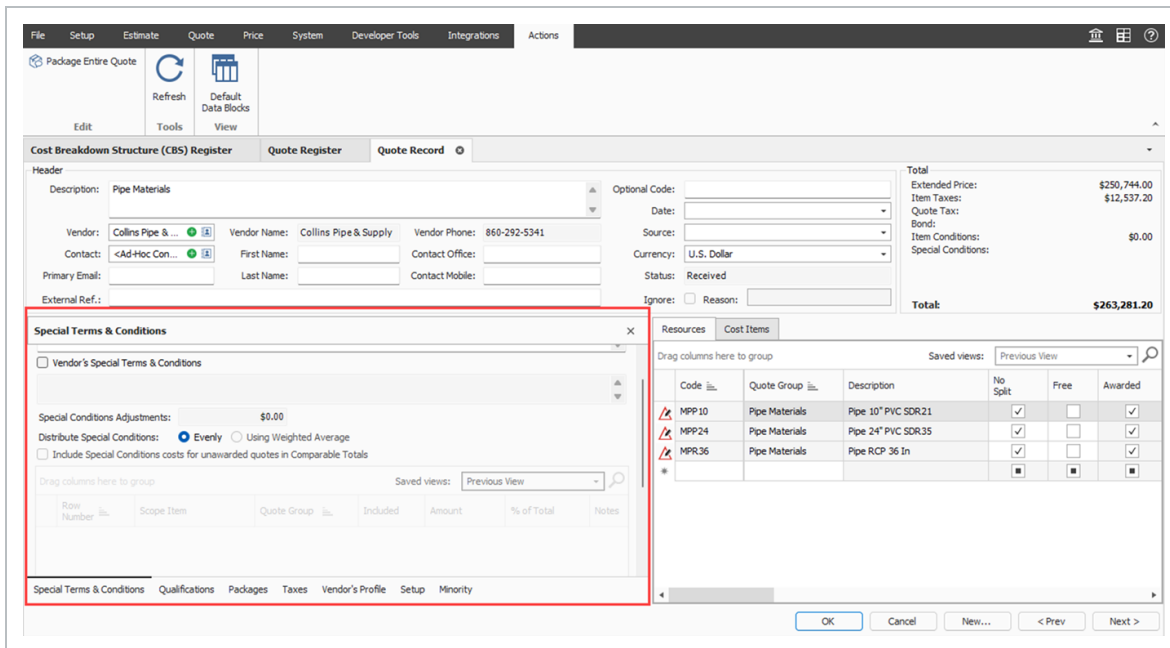
Buyer's Special Terms & Conditions

Vendor's Special Terms & Conditions

You can drop the data block on top of an arrow where you want to land the data block, such as the left arrow.

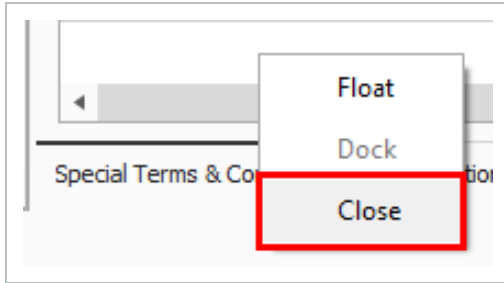


Selecting the left arrow places the data block on the left side of the page.



You can also close a specific tab if it's not commonly used. For example, you can right-click a tab, such as the Special Terms & Conditions tab, and then select **Close**.

When selecting Float, the tab remains visible, but unattached to other tabs or data blocks.



To close a tab and revert to the default tabs, select **Default Data Blocks**.

7.3.8 Data block tabs

7.3.8.3 Special Terms & Conditions

Special Terms & Conditions is where you can include buyers and sellers special terms, add fixed cost to the quote, and include/exclude scope items.

Special Terms & Conditions ×

Buyer's Special Terms & Conditions

Vendor's Special Terms & Conditions

Special Conditions Adjustments:

Distribute Special Conditions: Evenly Using Weighted Average

Include Special Conditions costs for unawarded quotes in Comparable Totals

Drag columns here to group Saved views: 🔍

Row Number	Scope Item	Quote Group	Included	Amount	% of Total	Notes
					\$0.00	

Special Terms & Conditions
Qualifications
Packages
Taxes
Vendor's Profile
Setup
Minority

7.3.8.4 Qualifications

This tab allows you to include bond. You can enter the bond rate and the system will calculate the total Bond Cost or vice versa. This tab also allows you to enter insurance contact information and seller

license information. If the vendor in the address book already had this information, then this information will get pre-filled when the seller is assigned to the Quote.

Qualifications

Bond

Vendor can provide a BOND for all work quoted

Bonding Company:

Bonding Agent:

Bonding Phone:

Add Bond Cost to the Quote

Cost of BOND to be added to quoted price :

Rate/\$1,000:

Bond Cost:

Insurance

Vendor is INSURED as required by applicable law

Insurance Company:

Insurance Agent:

Insurance Phone:

License

Vendor is LICENSED to perform all work quoted

Licensor:

Class:

ID:

Special Terms & Conditions Qualifications Packages Taxes Vendor's Profile Setup Minority

7.3.8.5 Packages

Using the Packages feature lets you logically organize quotes into an arranged collection of like grouped packaged quotes. You can determine how to enter quotes from subcontractors and classify them into a package grouping. When you create a package within the Packages block, and give it a monetary value, you can then assign that package code to one or more quote records. The package code is limited to three characters.

When comparing various vendor quotes in the Quote Comparison and Award form, with each quote containing its own scope of work, you can easily distinguish which items belong to each package. This helps to identify which quotes to award in your decision-making process.

As an example, the following Civic Center Parking Structure quote has three packages defined in it. The P1, P2, and P3 on the left represent the grouped package numbers that will be used to determine the package structure in the quote record. The vendor that submitted this quote shows detailed estimates defined for each of the three packaged items, but there is no breakdown provided in the quote of how much each line item is worth. Rather, this quote is showing a package price for each collection of items (scope of work).

Civilworks Inc.
125 Maple St
Scottsdale, AZ
85260

Phone (758) 555-9854

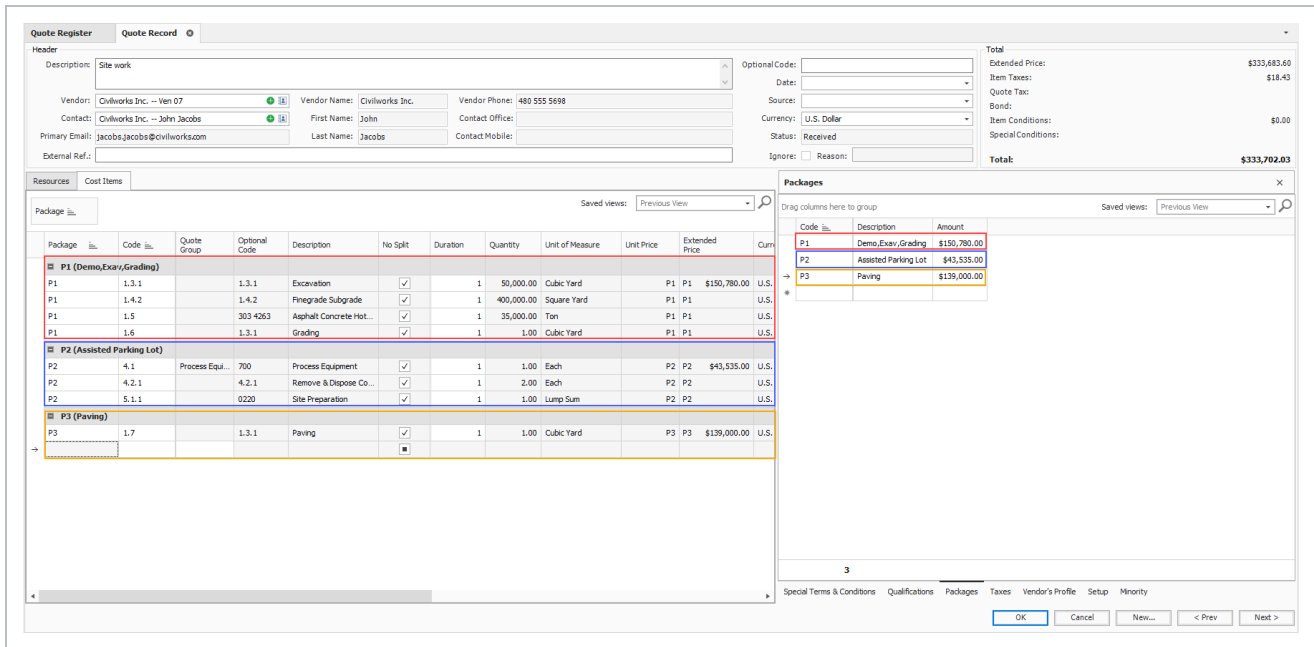
Civic Center Parking Structure

December 4, 2009

Addendum 1-6

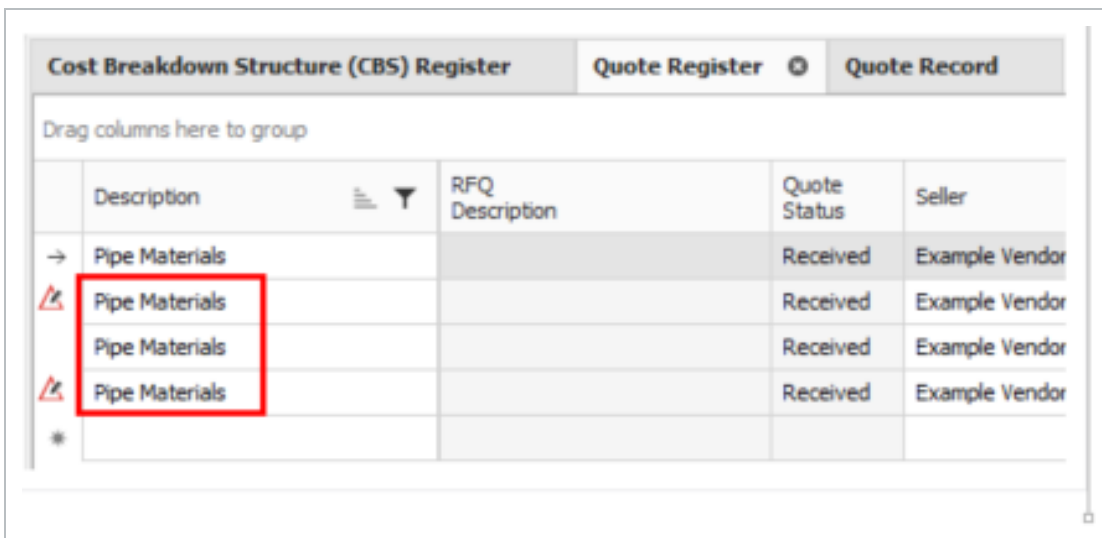
	<i>Description of Work</i>	<i>Price</i>
P1	DEMOLITION, EXCAVATION AND GRADING (PARTIAL)	\$150,780.00
	Site Clearing of trees and bushes	
	Demo of AC Paving, Concrete Curbs and Walks	
	Sawcut AC Paving and Concrete	
	Remove storm drain, SS, CB's, MH & pole bases	
	Rough grade parking structure pad, commerical pad	
	Place 12" non-expansive fill	
	Fine grade pads	
	Demo and remove 16th street curbs and paving	
	Grade for new roadway	
Grade for exterior concrete sidewalks		
2 mobilizations		
P2	ASSISTED PARKING LOT (PARTIAL)	\$43,535.00
	Site Clearing of trees and bushes	
	Demo curbs, excavate for paving	
	Demo median on 16th Street, place temporary paving section	
	Patch pave parking lot with 3" AC over 6" AB	
<i>Key Exclusions: slurry seal, striping, fencing, concrete work, lighting</i>		
P3	PAVING (PARTIAL)	\$139,900.00
	Place aggregate base for AC Paving, curbs and walks	
	Place 5" asphalt concrete section	
<i>Key Exclusions: slurry seal, striping, fencing, concrete work</i>		
OTHER ITEMS		
	Load out stockpiled clean spoils	\$26.00/CY
	Grade, fabric, place 4" AB for contractor parking (63,000 SF)	\$0.85/SF
	Excavate Duct Bank	\$5,900.00
	Patch pave AC outside pave area (500 SF)	\$8.00/SF
STANDARD EXCLUSIONS:		
	1. Any permits, fees, inspections, plans, bond premiums, soil testing, etc.	
	2. Any hard rock excavation. (Hard rock is defined as unable to be removed by CAT D6 or CAT 325 Excavator)	
	3. Any trenching for footings of building or masonry structures.	
	4. Any temporary fencing or trench plating.	
	5. Any export of materials other than specifically included offhauls.	
	6. Spoils over 12" in diameter will be offhauled at an additional agreed to cost.	
	7. Any structure demolition or removal. (Concrete, asphalt, fencing, trees, buildings, signs, masonry)	
	8. Any and all landscape repair, installation, or removal	
	9. Any storm water pollution prevention or erosion control unless specifically mentioned.	
	10. Base rock under concrete walkways or building slab areas unless specifically mentioned	

Estimate's Package feature lets you pick all the cost items that belong to a particular package, then assign the price to that collection of packages. It then proportionally distributes the total package price across all of the corresponding cost items when comparing and awarding.



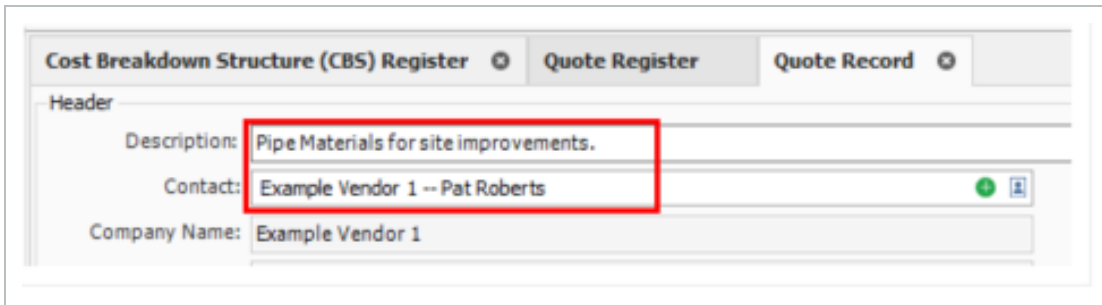
Create a multi-packaged quote

1. From the InEight Estimate landing page, select the **Quote** tab.
2. Click on the **Quotes** icon under Quote Management.
3. Double-click an item (e.g. **Pipe Materials**).



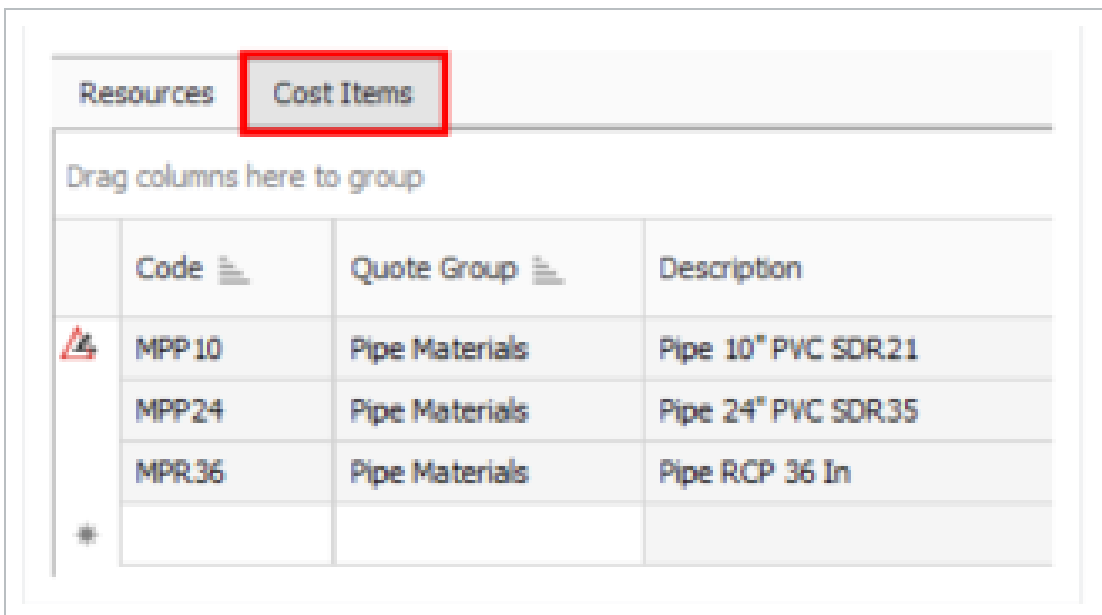
4. In the Description field, type in or replace the **description**.

5. In the Contact field, select a **contact**.



6. Click **OK**

7. Select the **Cost Items** tab on the left side of the page.



8. Add a **cost item** under Cost Items.

9. Then, add another **cost item** under Cost Items.

10. On the Packages tab, enter the following 2 new records:

- Code: **P1**
- Description: **On Site**
- Amount: **\$200,000**
- Code: **P2**

- Description: **Off Site**
- Amount: **\$300,000**

Packages			
Drag columns here to group			
	Code	Description	Amount
	P1	On Site	\$200,000.00
→	P2	Off Site	\$300,000.00

11. Type in **P1** under Package for cost item 7.
12. Type in **P2** under Package for cost item 8.

Resources		Cost Items		Packages		
Drag columns here to group: [Search For...]				Saved views: Previous View		
Package	Code	RFQ ID	Quote Group	Optional Code	Description	No
P1	7		Pipe Materials	800 0220	10 Inch PVC Force Main...	
P2	8		Pipe Materials	800 0330	24 Inch PVC Gravity Se...	

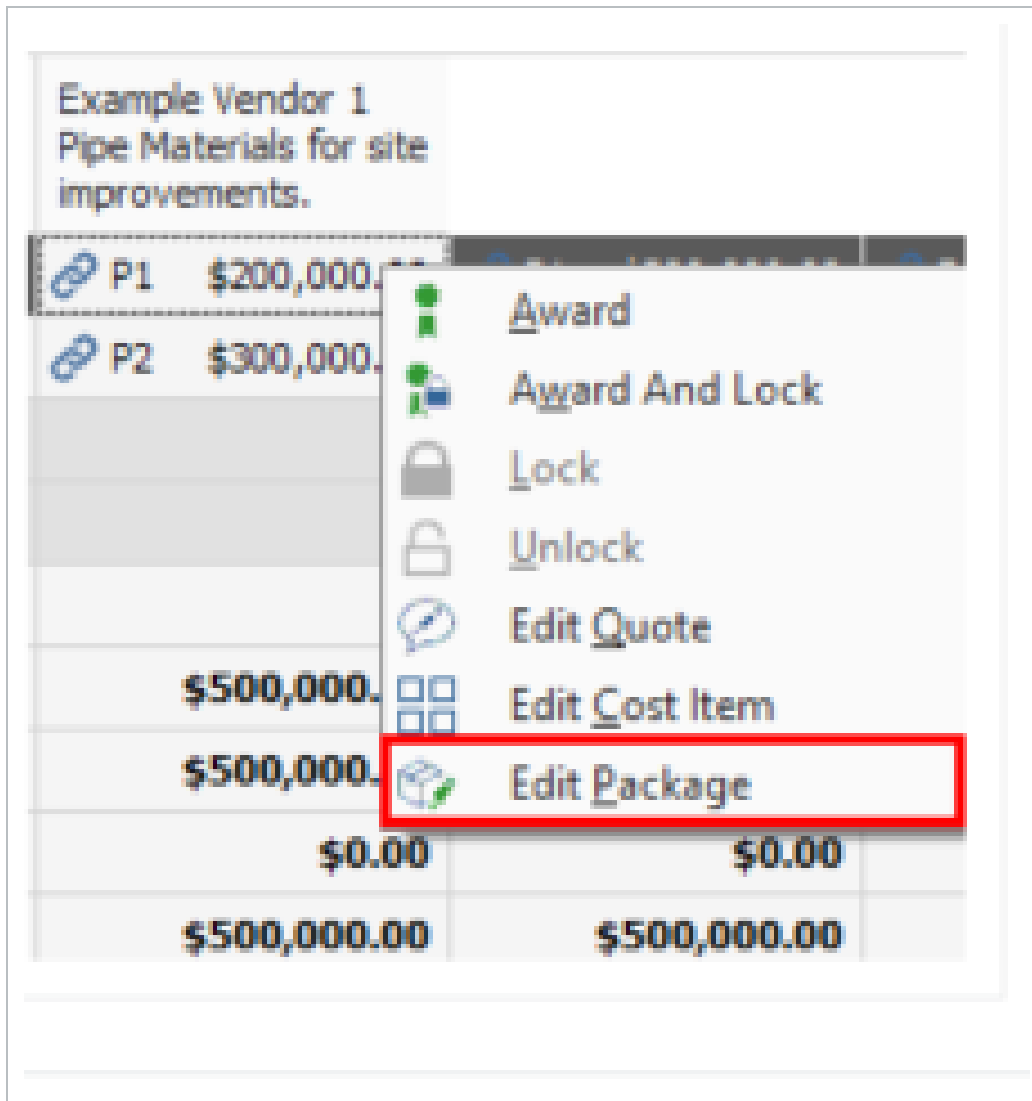
Code	Description	Amount
P1	OnSite	\$200,000.00
P2	Off Site	\$300,000.00

13. Select **OK**.
14. Under the Quote Comparison and Award ribbon, select **Cost Items**.
15. Under Quote Groups, select **Pipe Materials**.
 - Quote Comparison and Award shows the newly created quote with the associated package quotes.

Detail	Example Vendor 1 Pipe Materials	Example Vendor 6 WBE Pipe Materials	Example Vendor 1 Pipe Materials for site improvements
\$22.51	P1 \$290,000.00	P1 \$300,000.00	P1 \$200,000.00
\$52.84	P2 \$126,000.00	P2 \$125,000.00	P2 \$300,000.00
\$428,694...	\$416,000.00	\$425,000.00	\$500,000.00
\$428,694...	\$416,000.00	\$425,000.00	\$500,000.00
\$428,694...	\$0.00	\$0.00	\$0.00
\$428,694...	\$416,000.00	\$425,000.00	\$500,000.00
\$0.00	\$0.00	\$0.00	\$0.00
	11/13/2019 4:1...	11/13/2019 4:4...	11/13/2019 4:3...

- The Package Price can quickly be modified in the Quote Comparison and Award form by selecting the Edit Package action in the Actions tab or by using the right-click context

menu.



Example Vendor 1
Pipe Materials for site improvements.

P1	\$200,000.		
P2	\$300,000.		
	\$500,000.		
	\$500,000.		
	\$0.00	\$0.00	
	\$500,000.00	\$500,000.00	

- Award
- Award And Lock
- Lock
- Unlock
- Edit Quote
- Edit Cost Item
- Edit Package**

7.3.8.6 Taxes

Item Tax and Quote Tax have been combined to display on a single data block called Taxes. Using the taxes feature allows you to add item taxes to each item's price. You can also add taxes to the quote.

Taxes

Item Tax

Add Item Taxes to each Item's Price

Quote Tax

Add Taxes to the Quote

Taxes to be added to Awarded Total as a Percentage of Total:

Tax Rate:

Total Tax:

Special Terms & Conditions Qualifications Packages **Taxes** Vendor's Profile Setup Minority

7.3.8.7 Seller's profile

The Seller's Profile tab populates with address book notes and alternate contact information.

Vendor's Profile

Address Book Notes

Example....save for training as needed.

Alternate Contact Information

Name:

Email:

Phone:

Fax:

Mobile:

Special Terms & Conditions Qualifications Packages Taxes **Vendor's Profile** Setup Minority

7.3.8.8 Setup

This tab provides extra space for any additional notes and tags to be assigned to the quote.

Setup [X]

Current Status

RFQ Status:

Last Update: 5/5/2020 7:05:03 PM

Quote Origin: WMFarr

Tags

Tag 1: Pipe

Tag 2:

Tag 3:

Notes

Special Terms & Conditions Qualifications Packages Taxes Vendor's Profile **Setup** Minority

7.3.8.9 Minority

This tab allows you to determine if the seller qualifies for any type of minority business, and the ability to apply a certification number.

Minority

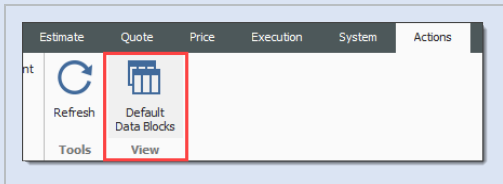
Minority Business Enterprise

Vendor qualifies as the following type of MINORITY BUSINESS ENTERPRISE on this job:

- DBE DBE Certification:
- MBE MBE Certification:
- WBE WBE Certification:
- OBE1 OBE1 Certification:
- OBE2 OBE2 Certification:
- OBE3 OBE3 Certification:
- OBE4 OBE4 Certification:
- OBE5 OBE5 Certification:
- OBE6 OBE6 Certification:
- OBE7 OBE7 Certification:

Special Terms & Conditions Qualifications Packages Taxes Vendor's Profile Setup **Minority**

If any of your Data Blocks become deleted on a Quote Record, simply click the **Default Data Block** icon.



7.3.9 Create a quote from RFQ

Walk through the steps of creating a quote from an RFQ.

To create a quote from scratch, click the **New** icon on the Quote Register and fill in the quote details and seller fields manually.

Create a quote from RFQ

This exercise walks through a specific example using the Training Job.

1. From the Estimate landing page, select the **Quote** tab.
2. Select **Request for Quote (RFQ)**.
3. Open the RFQ record for which you've received quotes.
4. Select the **Vendor Companies** tab, and then select the vendors for whom you need to create quotes. In this case, select all the vendors.
5. From the Actions menu, select **Create Quote**.
6. Click **OK** on the Quotes created prompt.
7. Close the RFQ record and the RFQ register.

7.3.10 Enter quote details

Now that you have quotes created, you can enter pricing.

Enter quote details

This exercise walks through a specific example using the Training Job.

1. To open the Quote Register, select **Quote** from the Estimate landing page.
2. Select **Quotes** from the Quote Management section.
3. Open the Aggregates Quote Record for Vendor 1 – Pat Roberts.
4. On the Resources tab, make sure No Split is unchecked for all items.
5. Also on the Resources tab, enter the following unit prices:

Resource code	Description	Unit price
MBR	Aggregate Base Rock	\$8.00
MDIRTB	Dirt Class B	\$6.00

6. Click **OK** to close the Quote Record.

Create a multi-packaged quote

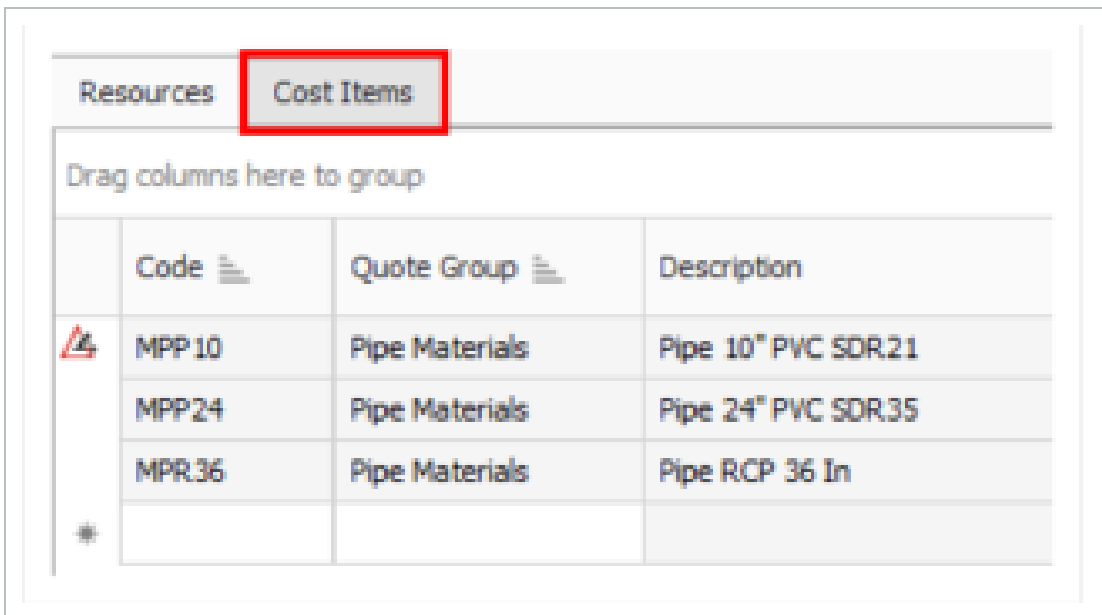
1. From the InEight Estimate landing page, select the **Quote** tab.
2. Click on the **Quotes** icon under Quote Management.
3. Double-click an item (e.g. **Pipe Materials**).

Cost Breakdown Structure (CBS) Register		Quote Register	Quote Record
Drag columns here to group			
	Description	RFQ Description	Quote Status
→	Pipe Materials		Received
⚠	Pipe Materials		Received
	Pipe Materials		Received
⚠	Pipe Materials		Received
*			

4. In the Description field, type in or replace the **description**.
5. In the Contact field, select a **contact**.

Cost Breakdown Structure (CBS) Register		Quote Register	Quote Record
Header			
Descriptions:	Pipe Materials for site improvements.		
Contact:	Example Vendor 1 -- Pat Roberts		
Company Name:	Example Vendor 1		

6. Click **OK**
7. Select the **Cost Items** tab on the left side of the page.



	Code	Quote Group	Description
▲	MPP10	Pipe Materials	Pipe 10" PVC SDR21
	MPP24	Pipe Materials	Pipe 24" PVC SDR35
	MPP36	Pipe Materials	Pipe RCP 36 In
*			

8. Add a **cost item** under Cost Items.
9. Then, add another **cost item** under Cost Items.
10. On the Packages tab, enter the following 2 new records:
 - Code: **P1**
 - Description: **On Site**
 - Amount: **\$200,000**
 - Code: **P2**
 - Description: **Off Site**
 - Amount: **\$300,000**

Packages			
Drag columns here to group			
	Code	Description	Amount
	P1	On Site	\$200,000.00
→	P2	Off Site	\$300,000.00

11. Type in **P1** under Package for cost item 7.
12. Type in **P2** under Package for cost item 8.

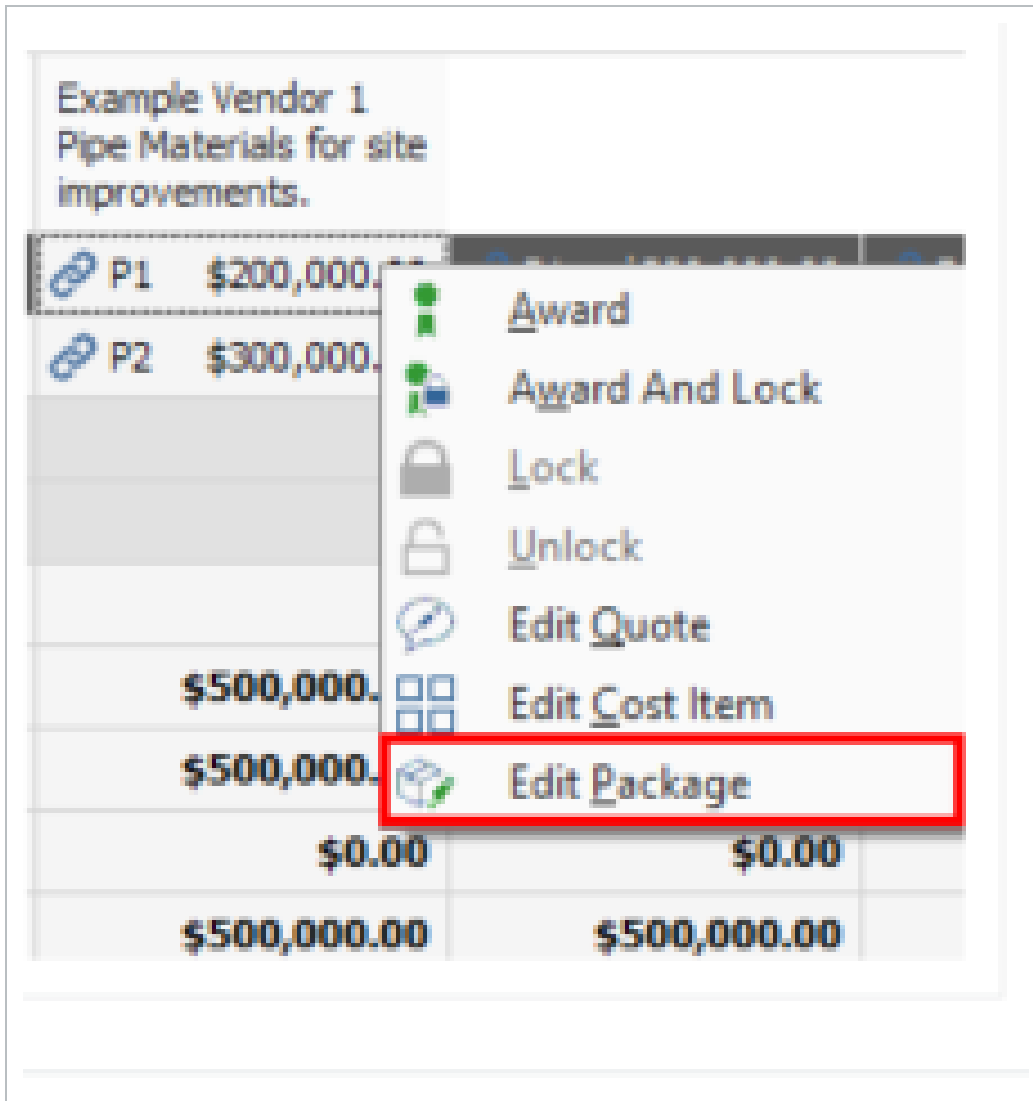
Resources							Cost Items			Packages		
Drag columns here to group:							[Search For...]			Saved views: Previous View		
Package	Code	RFQ ID	Quote Group	Optional Code	Description	No	Code	Description	Amount			
P1	7		Pipe Materials	800 0220	10 Inch PVC Force Main...		P1	OnSite	\$200,000.00			
P2	8		Pipe Materials	800 0330	24 Inch PVC Gravity Se...		P2	Off Site	\$300,000.00			

13. Select **OK**.
14. Under the Quote Comparison and Award ribbon, select **Cost Items**.
15. Under Quote Groups, select **Pipe Materials**.
 - Quote Comparison and Award shows the newly created quote with the associated package quotes.

Detail	Example Vendor 1 Pipe Materials	Example Vendor 6 WBE Pipe Materials	Example Vendor 1 Pipe Materials for site improvements
\$22.51	P1 \$290,000.00	P1 \$300,000.00	P1 \$200,000.00
\$52.84	P2 \$126,000.00	P2 \$125,000.00	P2 \$300,000.00
\$428,694...	\$416,000.00	\$425,000.00	\$500,000.00
\$428,694...	\$416,000.00	\$425,000.00	\$500,000.00
\$428,694...	\$0.00	\$0.00	\$0.00
\$428,694...	\$416,000.00	\$425,000.00	\$500,000.00
\$0.00	\$0.00	\$0.00	\$0.00
	11/13/2019 4:1...	11/13/2019 4:4...	11/13/2019 4:3...

- The Package Price can quickly be modified in the Quote Comparison and Award form by selecting the Edit Package action in the Actions tab or by using the right-click context

menu.



7.3.11 Use unit price or extended price on quote record item

It's possible to enter the Extended Price for a Quote Item, and the Unit Price is then calculated, which makes entering quotes more efficient and results in less errors.

Quote Record

Header

Description: Asphalt Materials

Contact: Example Vendor 2 - Stan Mark Phone: 111-133-2123

Company Name: Example Vendor 2 Mobile: Date:

First Name: Stan Fax: 222-123-2134 Currency: U.S. Dollar

Last Name: Mark Email: Status: Received

External Ref.: Ignore: Reason:

Resources Cost Items

Drag columns here to group

Code	Quote Group	Description	No Split	Free	Awarded	Duration	Quantity	Unit of Measure	Unit Price	Extended Price	Currency	Default Tax Rate
MAAM	Asphalt Materials	Asphalt Mx (Finish)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	35,000.00	Ton	\$34.00	\$1,190,000.00	U.S. Dollar	
MAFA	Asphalt Materials	Fine Aggregate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	1,860.00	Ton	\$7.00	\$13,020.00	U.S. Dollar	

Special Terms & Conditions

Buyer's Special Terms & Conditions

Seller's Special Terms & Conditions

Special Conditions Adjustments:

Distribute Special Conditions: Evenly Use

Include Special Conditions costs for unawarded c

7.3.12 Duplicating an existing quote

You can create a new quote by duplicating an existing quote from the Quote Compare & Award form. Duplicate Quotes will contain the same scope as the quote that you previously copied.

Duplicate an existing quote

1. From the InEight Estimate landing page, select the **Quote** tab.
2. Select the **Resources** icon under Quote Comparison & Award.
3. Highlight any row under the Quote column you want to duplicate.

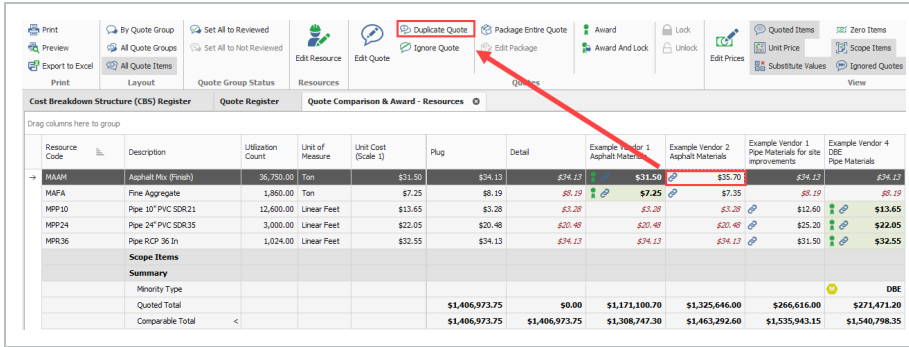
Cost Breakdown Structure (CBS) Register Quote Register Quote Comparison & Award - Resources

Drag columns here to group

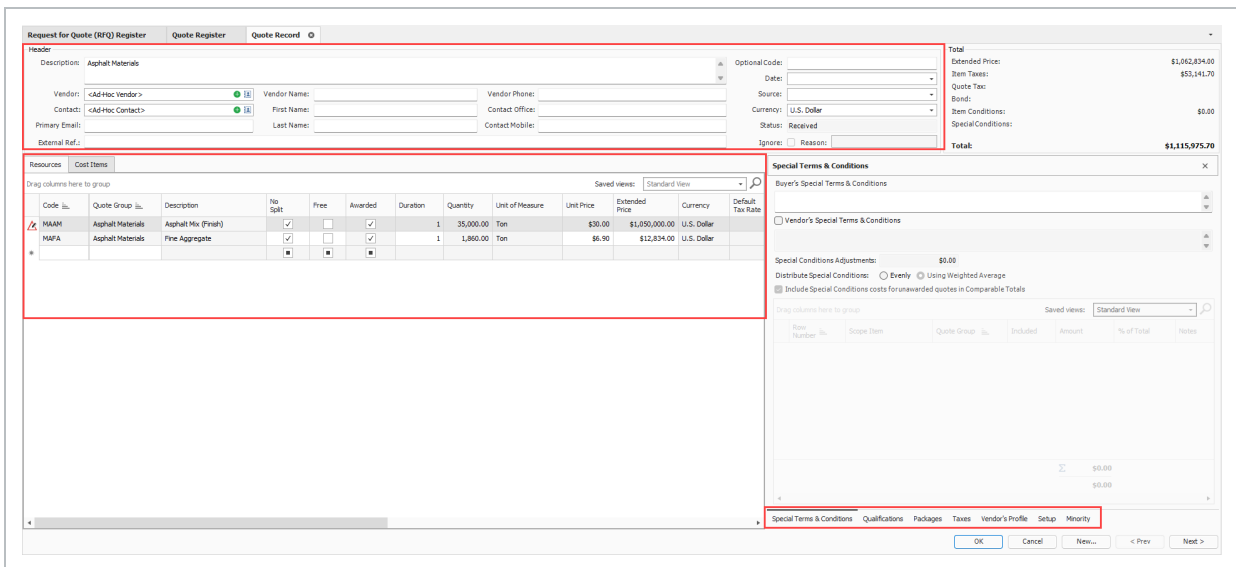
Find: [Search For...] Saved views: Standard View

Resource Code	Description	Utilization Count	Unit of Measure	Unit Cost (Scale 1)	Plug	Detail	Example Vendor 1 Asphalt Materials	Example Vendor 2 Asphalt Materials	Example Vendor 3 Pipe Materials	Example Vendor 4 DBE Pipe Materials	
MAAM	Asphalt Mx (Finish)	36,750.00	Ton	\$31.50		\$34.13	\$34.13	\$35.70	\$34.13	\$34.13	
MAFA	Fine Aggregate	1,860.00	Ton	\$7.25		\$8.19	\$8.19	\$7.35	\$8.19	\$8.19	
MPP10	Pipe 10" PVC SDR21	12,600.00	Linear Feet	\$13.65		\$3.28	\$3.28	\$3.28	\$12.60	\$13.65	
MPP24	Pipe 24" PVC SDR35	3,000.00	Linear Feet	\$22.05		\$20.48	\$20.48	\$20.48	\$25.20	\$22.05	
MPP36	Pipe RCP 36 In	1,024.00	Linear Feet	\$32.55		\$34.13	\$34.13	\$34.13	\$31.50	\$32.55	
Scope Items											
Summary											
Minority Type										DBE	
Quoted Total						\$1,406,973.75	\$0.00	\$1,171,100.70	\$1,325,646.00	\$266,616.00	\$271,471.20
Comparable Total						\$1,406,973.75	\$1,406,973.75	\$1,308,747.30	\$1,463,292.60	\$1,535,943.15	\$1,540,798.35

4. Select the **Actions** tab.
5. Under the Quotes section, select the **Duplicate Quote** icon.



- The resources and prices from the quote you previously selected have been copied into a new Quote Record.
- From the Header block, enter in any missing information.
 - The information listed in the Header block will not copy over to the duplicated quote.
 - Enter additional Cost Items in the Quote tabs data block.
 - Check the default data blocks for any information you want to add to your duplicate quote.



- When completed, click **OK**.

Exercise 7.1 – Quote management

When you receive quotes from vendors, you will need to record their pricing and conditions in their Estimate quote records. In this exercise, you will practice entering quote details. Enter the following quote record details, using the Training Job:

Quote Name: Aggregates **Seller Name:** Example Vendor 2 - Stan Mark

Resource Code	Description	Unit Price
MBR	Aggregate Base Rock	\$7.45
MDIRTB	Dirt Class B	Not Quoted (delete)

Special Instructions Seller is NOT willing to split items.

Quote Name: Aggregates **Seller Name:** Example Vendor 4 - Lester Slim

Resource Code	Description	Unit Price
MBR	Aggregate Base Rock	\$8.15
MDIRTB	Dirt Class B	FREE

Special Instructions Seller is NOT willing to split items.

You should end up with similar results like below:

Description	RFQ Description	Seller	Contact Name	Quote Total
Aggregates	Aggregates	Example Vendor 4 DBE -- Lester Slim	Slim, Lester	\$408,834.56
Aggregates	Aggregates	Example Vendor 2 -- Stan Mark	Mark, Stan	\$373,719.94
Aggregates	Aggregates	Example Vendor 1 -- Pat Roberts	Roberts, Pat	\$402,192.00

Congratulations, you have completed this exercise!

7.4 SCOPE ITEMS

During the bidding process, it's common for subcontractors and suppliers to provide a quote(s) for work during the tail end of the bidding process. These last-minute offers make it extremely difficult for you to evaluate and compare the various quotes and your ability to award them. With **scope items**, you can create and evaluate checklists and quote group exclusions, and account for them within the Quote Comparison and Award form.

You can view scope items as a checklist of items that break down the quote's scope of work into individual tasks to aid in the process of evaluating subcontractor and supplier quotes in greater detail. This can be used to ensure that certain items of work are included or excluded. If excluded, the scope items need to be properly accounted for by contractor awarding the quote.

Overview - Quote Record - Scope Items

Section	Description
Seller's Special Terms & Conditions	By default, all scope items are considered included in the quote, and the Special Conditions amount is \$0.00. On the quote record, by selecting the checkbox, you can indicate scope items and uncheck items that are not included. The amount associated with these items will then total up in the Special Conditions subtotal. The person responsible for awarding quotes needs to update the Inclusions field to correspond with what the subcontractor has agreed to include in the quote.

Special Terms & Conditions ✕

Quote Tax

Add Taxes to the Quote: Yes No

TAXES to be added to awarded TOTAL as a % of total :

Tax Rate:

Total Tax:

Item Tax

Add Item Taxes to each item's price

Buyer's Special Terms & Conditions

Seller's Special Terms & Conditions

FIXED COST to be added to Seller's awarded total (any combination of items) :

Distribute Special Conditions: Evenly Using weighted average

Include Special Conditions costs for unawarded quotes in Comparable Totals

Drag columns here to group Find: ... Saved views:

Row Number	Scope Item	Quote Group	Included	Amount	% of Total	Notes
→ 1	Permits	Electrical Work	<input checked="" type="checkbox"/>			
2	Surveying and Layout	Electrical Work	<input type="checkbox"/>	▶ \$500.00	14.29	
3	Temporary Traffic Control Devices	Electrical Work	<input checked="" type="checkbox"/>			
4	Trench and Backfill for Electrical W...	Electrical Work	<input checked="" type="checkbox"/>			
				\$950.00		

Special Terms & Conditions Qualifications Packages Seller's Profile Setup Minority

Overview - Quote Comparison and Award - Scope Items

Section	Description
1	Scope Items
2	Scope Item Inclusions
3	Scope Item

Quote Comparison and Award checklist items for your quote that help with evaluating subcontractor and supplier quotes in greater detail. This is used to ensure certain items are either included (inclusion) or excluded (exclusion) in the quote and accounted for by the entity awarding the quote.

Maintained in Quote Record form. These are the Seller's Special Terms & Conditions scope items that the subcontractor is including in their quote price. When the scope item contains a value, the subcontractor is agreeing to perform the work.

Maintained in Quote record form. These are the Seller's Special Terms &

Overview - Quote Comparison and Award - Scope Items (continued)

Section		Description
	Exclusions	Conditions scope items price. If the Inclusions checkbox is blank, the subcontractor is NOT agreeing to perform the scope items.
4	Scope Item value	An entered value means that the subcontractor is excluding this scope of work. However, you may add an amount because this scope could incur a cost. Once the bid is awarded, you may find another subcontractor to perform the work. You are simply accounting for a cost for this scope of work. In the example below, HD Engineering is not going to paint the electrical equipment, but you know the cost is \$150.00. You are showing this cost to account the cost for this scope of work that needs to happen.
5	Vendor's Special Terms & Conditions	By default, all scope items are considered included in the quote, and the Special Conditions amount is \$0.00. On the quote record, by selecting this checkbox, you can indicate scope items and uncheck items that are not included. The amount associated with these items will then total up in the Special Conditions subtotal. The person responsible for awarding quotes needs to update the Inclusions field to correspond with what the subcontractor has agreed to include in the quote.

Cost Breakdown Structure (CBS) Register			Quote Register	Quote Comparison & Award - Cost items								
Quote Group(s)			Drag columns here to group									
<input type="checkbox"/>	Description	Reviewed	CBS Position Code	Description	Forecast (T/O) Quantity	Unit of Me...	Unit Cost	Total Cost (Forecast)	Plug	Detail	Architectural Designs, Inc. Electrical Work	HD Engineering Group Electrical Work
<input checked="" type="checkbox"/>	Electrical Work	<input type="checkbox"/>	27.1	Electrical Work	1.00	Each	\$4,200.00	\$4,200.00	\$5,000.00	\$4,200.00	\$4,200.00	\$4,450.00
1 Scope Items												
<input type="checkbox"/>	Permits	<input type="checkbox"/>									<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Surveying and Layout	<input type="checkbox"/>									\$500.00	\$500.00
<input type="checkbox"/>	Temporary Traffic Control Devices	<input type="checkbox"/>									<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Trench and Backfill for Electrical Work	<input type="checkbox"/>									<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Painting Electrical Equipment	<input type="checkbox"/>									<input type="checkbox"/>	\$150.00
<input type="checkbox"/>	Temporary Power and Lighting	<input type="checkbox"/>									<input type="checkbox"/>	\$300.00
3												
Summary												
	Minority Type											
	Quoted Total								\$5,000.00	\$0.00	\$4,200.00	\$4,450.00
	Comparable Total								\$5,000.00	\$4,200.00	\$4,200.00	\$4,450.00
	Awarded Total								\$0.00	\$0.00	\$4,200.00	\$0.00
	Quoted Items Total								\$5,000.00	\$0.00	\$3,700.00	\$3,500.00
	Special Conditions								\$0.00	\$0.00	\$500.00	\$950.00
	Last Update										11/13/2019 1:0...	11/13/2019 3:5...
5												

The example below in the Quote Register form shows quotes from two subcontractors, both with different quote prices. It is important to understand all scope of work the subs are quoting. By just viewing these quotes alone, it's difficult to understand which quote will provide you with the best value. In other words, just because Example Sub #3 is the lowest priced quote, does not mean it is the best quote to go with.

Quote Register										
Drag columns here to group										
Description	RFQ Description	Quote Status	Seller	Company	Quote Total	Awarded Total	Currency	Awarded	Awarded Status	
Electrical Work	Electrical Work	Accepted	Example Sub #5 MBE -- Chr...	Example Sub #5 MBE	\$4,450.00	\$0.00	U.S. Dollar	<input type="checkbox"/>	None	
Electrical Work	Electrical Work	Accepted	Example Sub #3 -- Frank M...	Example Sub #3	\$4,200.00	\$0.00	U.S. Dollar	<input type="checkbox"/>	None	

The example below in Quote Comparison and Award shows that HD Engineering Group is excluding 3 scope items in their quote that totals \$950. This provides a more granular picture for what is being included within each subcontractor’s scope of work. It also displays how much each scope of work costs, so you have the option to find another subcontractor to perform this scope work.

Quote Comparison & Award - Cost items											
g columns here to group											
CBS Position Code	Description	Forecast (T/O) Quantity	Unit of Me...	Unit Cost	Total Cost (Forecast)	Plug	Detail	Architectural Designs, Inc. Electrical Work	HD Engineering Group Electrical Work		
27.1	Electrical Work	1.00	Each	\$4,200.00	\$4,200.00	\$5,000.00	\$4,200.00	\$4,200.00	\$4,450.00		
Scope Items											
	Permits							<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Surveying and Layout							\$500.00	\$500.00		
	Temporary Traffic Control Devices							<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Trench and Backfill for Electrical Work							<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Painting Electrical Equipment							<input type="checkbox"/>	\$150.00		
	Temporary Power and Lighting							<input type="checkbox"/>	\$300.00		
Summary											
	Minority Type										
	Quoted Total					\$5,000.00	\$0.00	\$4,200.00	\$4,450.00		
	Comparable Total	<				\$5,000.00	\$4,200.00	\$4,200.00	\$4,450.00		
	Awarded Total					\$0.00	\$0.00	\$4,200.00	\$0.00		
	Quoted Items Total					\$5,000.00	\$0.00	\$3,700.00	\$3,500.00		
	Special Conditions					\$0.00	\$0.00	\$500.00	\$950.00		
	Last Update							11/13/2019 1:0...	11/13/2019 3:5...		

Utilizing Scope Items enables you to more effectively compare quotes from subcontractors and suppliers by providing a deeper comparison of quotes. Moreover, it provides clearer visibility of what a proposal may or may not be including at the time you are attempting to make an award.

You can make a more informed decision on whom to award the quote to, now that the vendor quotes and associated scope items are all visible on one screen.

7.4.1 Scope item setup

Scope items are stored within each quote group tag in the Foundation Setup Data form. On each Quote Group Tag Record, you can list out scope items that break down the work into smaller scopes of work, along with the estimated cost amount associated with each scope item.

Set up scope items

This exercise walks through a specific example using the Training Job.

1. Open your job.
2. Select the **Setup** tab.
3. Click on **Foundation Data Setup** in the Initialize section.
4. Select the **Quote group tags** tab to set up scope items within a quote group.
5. Create a new Quote Group Tag called **Electrical Work** and click **Ok**.
6. Open **Electrical Work** and add the following scope items:
 - Permits
 - Surveying and Layout
 - Temporary Traffic Control Devices
 - Trench and Backfill for Electrical Work
 - Painting Electrical Equipment
 - Temporary Power and Lighting
7. Enter **500** in the Amount field for Survey and Layout, and a **300** for Temporary Power and Lighting.

8. Click **Ok**.

Foundation Setup Data Register | Quote Group Tag Record

Description: * Electrical Work

Award Status: Complete | User Defined 1:

Reviewed: | User Defined 2:

Last Reviewed: | User Defined 3:

Quote Last Changed:

Drag columns here to group | Saved views: Previous View

Row Number	Scope Item	Default Included	Default Amount	Default % of Total
1	Permits	<input checked="" type="checkbox"/>	\$0.00	
2	Surveying and layout	<input checked="" type="checkbox"/>	\$500.00	
3	Temporary traffic control devices	<input checked="" type="checkbox"/>	\$0.00	
4	Trench and backfill for electrical work	<input checked="" type="checkbox"/>	\$0.00	
5	Painting electrical equipment	<input checked="" type="checkbox"/>	\$0.00	
6	Temporary power and lighting	<input checked="" type="checkbox"/>	\$300.00	
*		<input type="checkbox"/>		

OK | Cancel | New...

Set up quotes for scope items

This exercise walks through a specific example using the Training Job.

1. From the **Estimate** tab, click on **Cost Breakdown Structure (CBS)**.
2. Change your saved views to **Quote Group Setup view**.
3. Create a cost item **Entry Gate** with a subordinate **Electrical Work**.
4. Assign the **Electrical Work** quote group to the Electrical work cost item.
5. From the Quote tab, click **Request for Quote (RFQ)** to open the RFQ register.
6. Create an RFQ by selecting the **New** icon on the Actions tab.
7. Select **Create RFQ from Quote Group Tag(s)** and select **Electrical Work**.
8. Click **Ok**.
9. Click on the **Vendor Companies** tab and select the following company names:
 - Architectural Designs
 - HD Engineering Group

10. Highlight both companies and select **Publish**.
11. Assuming you've already received quotes back from both companies, create a quote from this RFQ for both companies by selecting the companies and selecting **Create Quote**.
12. Click **Ok** to close the RFQ record.

Description	RFQ Description	Quote Status	Vendor	Vendor Name	Contact
Asphalt Materials		Received	Les Entreprises Canbec ...	Les Entreprises ...	
Asphalt Materials		Received	Example Vendor 2	Example Vendor 2	Ei
Electrical Work	Electrical Work	Incomplete	Architectural Designs In...	Architectural De...	
Electrical Work	Electrical Work	Incomplete	HD Engineering Group --...	HD Engineering ...	
Guard Rail Items		Received	Example Sub #2	Example Sub #2	Ei
Guard Rail Items		Received	Example Sub #1	Example Sub #1	Ei

7.4.2 Scope item creation and award

The following Step by Step assumes you are putting out an advertisement for bids for some electrical work on a project. You will add scope items with some fixed costs as a special condition, then will compare quotes in order to decide which vendor quote is the best deal.

Manage and award scope items

This exercise walks through a specific example using the Training Job.

1. Click the **Quote** tab and then click the **Quotes** icon to open the Quote register.
2. Open the Quote Record for HD Engineering Group and enter a Unit Price of **3,500** which is based on the quote you received.
3. Select the **Special Terms & Conditions** tab and select the **Seller's Special Terms & Conditions** radio button.
4. Assuming the HD Engineering is excluding certain scope items from this quote, click on the **Included** checkbox to exclude (uncheck) the following scope items:
 - Surveying and Layout
 - Painting Electrical Equipment

- Temporary Power and Lighting
5. Type **150** in the Amount field for Electrical Equipment.
 - Notice how the 3 scope items you just excluded are now added to the Special Conditions total for the quote.
 6. Click **Next** to move to the other Quote record for Architectural Designs.
 7. Enter a Unit Price of **3,700**.
 8. Press **Tab** to move to the **Special Terms & Conditions** tab and select the **Seller's Special Terms & Conditions** (at right) radio button.
 9. Uncheck the inclusions checkbox for **Surveying and Layout**.
 10. Add the amount **500**.
 11. Click **Ok**.
 12. Select the **Quote** tab.
 13. Open the **Quote Comparison and Award** form, and select the **Cost Items** tab.
 14. Under Quote Groups, select **Electrical work**.
 15. Right-click on the quoted amount for Architectural Design and select **Award** to award the work to them.
 16. Click **Yes** on the resulting prompt to mark the quote group as reviewed.

7.5 QUOTE ITEM ADJUSTMENT

Quote items can be adjusted even after a quote has been awarded. This could happen on closing day when a vendor sends in a last minute discount. For example, vendor 3 has sent in a 10% discount on piping materials. This percentage discount is applied to the vendor 3 quote by entering the 10% in the Condition Adjustment column.

Quote item adjustment

From the Ribbon, select the **Quote** tab.

1. Under the Quote Comparison and Award section, select **Resources**.
2. Locate a **Vendor** column.

3. Select the quote you want to edit under the vendor column. In the Ribbon, select the **Actions** tab.
4. Under the Quotes section, select **Edit Quote**. You can also right-click and select **Edit Quote**. This launches the Quote Record.
5. You can make Condition Adjustments by a percentage or an amount. Select the field to adjust the percentage or amount of the **Condition Adjustments**.
6. Items adjustments can be applied individually or by using the multi-edit function. Select multiple resources in the Quote Record, then right-click and select **Open**. This opens the Quote Resource Item Record.
7. If you populate a 10% discount adjustment to all of the items selected using the multi-edit tool, the amount value changes to “Varies”. This is because of the variance in the unit rates for each selected item.
8. Click **Ok** to save the changes to the line items in the Quote record and to save the Quote.

Lesson 7 - Review

1. When you receive responses to your RFQ, the next step is to enter their pricing in the _____.
 - a. CBS Register
 - b. PBS
 - c. Quote Register
 - d. RFQ Register

2. On a Quote Record, No Split means
 - a. The quote must be combined with other quotes from the same vendor
 - b. All items on the quote must be purchased from that seller
 - c. You can't split the quote into multiple quotes

3. When a quote group is highlighted in gray on the Quote Comparison & Award form, it signifies that
 - a. The quote group has changed since it was last marked as Reviewed
 - b. No quotes have been awarded for that quote group
 - c. There are some quotes in the quote group that contain substitute values

Lesson 7 - Summary

As a result of this lesson, you can:

- Create and publish RFQs
- Define quote pricing
- Compare and award quotes
- Create and analyze scope items

LESSON 8 – FINALIZE THE ESTIMATE

This lesson is primarily suited towards contractors who must add profit or markup to their total estimated cost, which will be submitted in the form of a bid or proposal. Most owners can divert from this lesson as it's more geared towards adding profit and markup. There are a few use cases in which an owner may wish to use the price breakdown structure. For example: to add risk, contingency, or reserves if it is preferred, these are not shown directly in the budget line items. The price breakdown structure also provides a summary level review of the total estimate and is a great reference during estimate reviews.


Lesson Duration: 45 Minutes

Lesson Objectives

After completing this lesson, you will be able to:

- Add job markup (profit)
- Use tools on the PBS form to review your estimate
- Spread Target Price over pay items
- Make bid adjustments

8.1 JOB MARKUP (PROFIT)

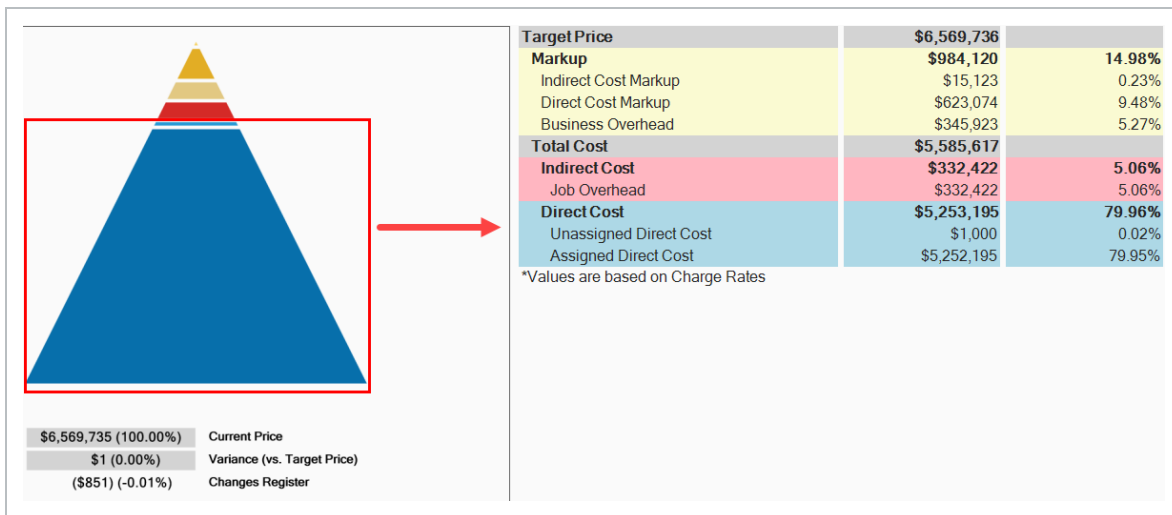
On the Data Map  notice how the different segments within the pyramid coincide with the percentage amounts that make up Direct Costs, Indirect Costs and Target Profit. Illustrations below show how the Data Map values correspond to the values that make up the cost and profit.

To open the Data Map, select the Price tab, then Data Map from the Overhead and Profit section.

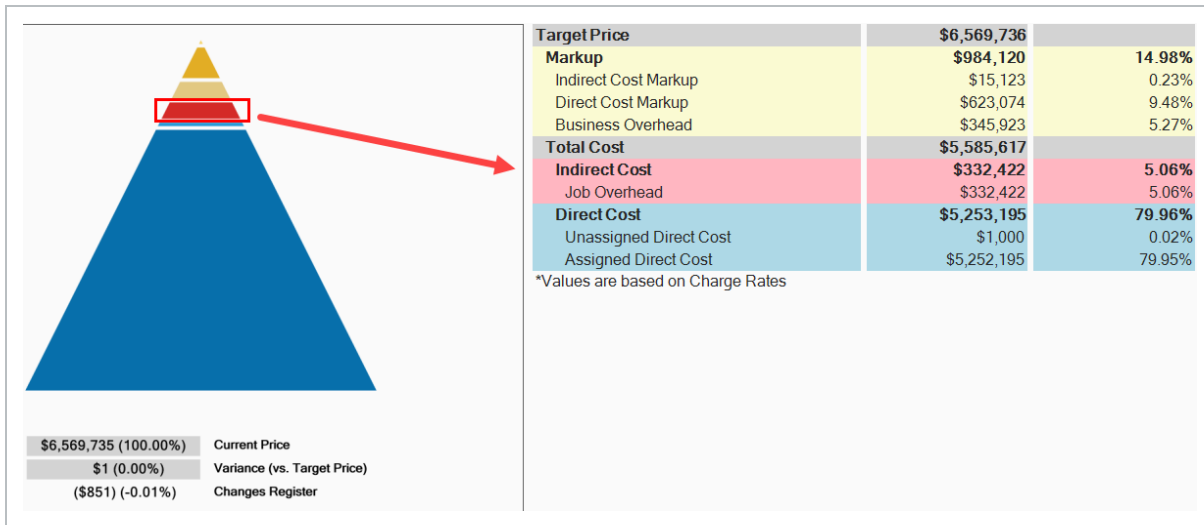
8.1.1 Target price

For contractors building the price of your project is like building a pyramid. The foundation of your price consists of the direct costs of the job.

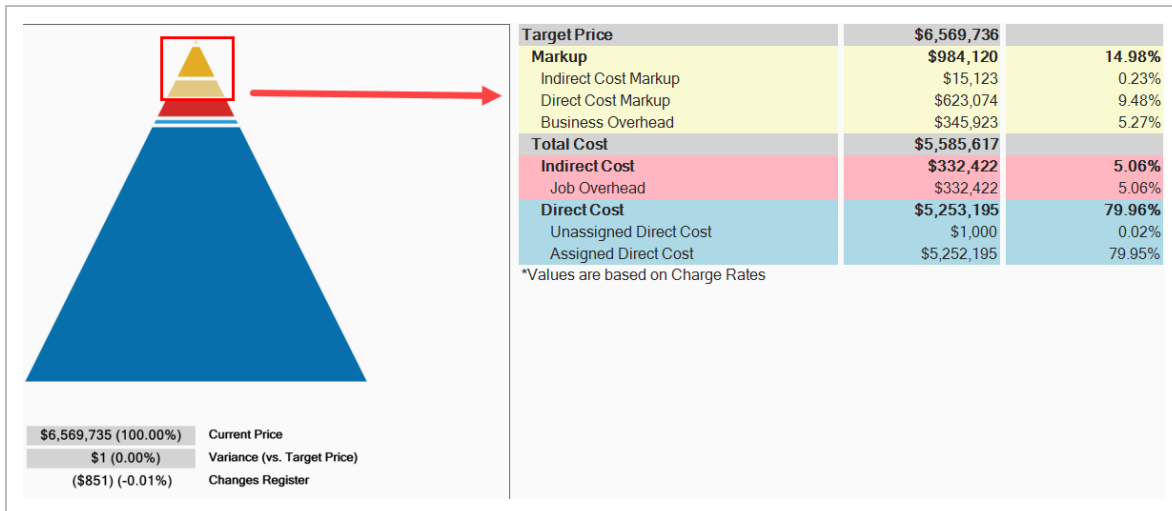
The images below represent a default examples.



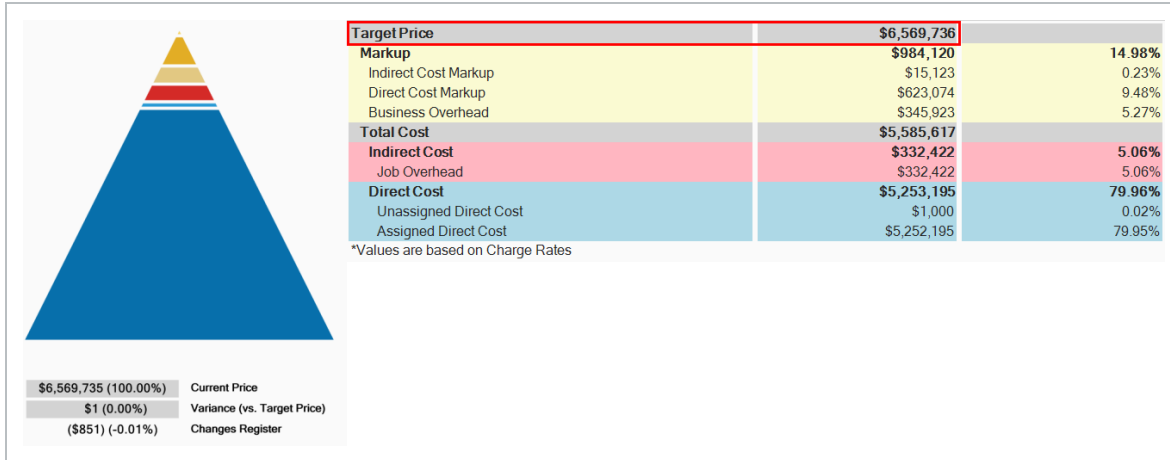
On top of your direct costs, you can decide if costs with a cost segment of business overhead should be indirect costs or markup. You estimate your direct and indirect costs in the CBS Register.



At the top of the pyramid you add an amount for profit. You add profit in the Price Breakdown Structure (PBS) form. There is a very small block at the top of the Data Map, which comprises 0.22% of Indirect Cost Markup.



The total of the direct cost, indirect cost, and profit in the project is referred to in InEight Estimate as the Target Price. This is the final price that you want to submit as your proposal.



8.1.2 Price breakdown structure

As you already practiced, your direct and indirect costs are estimated in the CBS. Your project’s profit needs to be defined in the Price Breakdown Structure (PBS) form.

The main purpose of the Price Breakdown Structure (PBS) is to add markup (profit) to the estimate. The Price Breakdown Structure is a visual run-down of the costs and profit that make up your Target Price. It helps you analyze how your costs contribute to the price you are targeting, including the amount of profit you would like to include.

You can open the PBS from the InEight Estimate landing page by selecting the **Price** tab, then **Price Breakdown Structure (PBS)** from the Overhead and Profit section.

Overview - Price Breakdown Structure

Name		Definition
1	PBS Description	The left side of the screen displays several cost classifications: <ul style="list-style-type: none"> • Target Profit • Business Overhead • Job Overhead • Direct Cost
2	Various Columns	The Assigned and Unassigned columns show which costs are either assigned or not assigned to pay items. Unassigned costs are spread back to pay items based on the distribution logic set in Job Properties > Pricing. The Total columns represents a summation of both columns.

Overview - Price Breakdown Structure (continued)

Name	Definition
------	------------

Each layer displays with an amount, and the percentage of the Target Price that this amount represents.

3	PBS Menu	The right side of the screen holds several tabbed pages of information. This information is useful in analyzing the job at a summary level.
---	----------	---

4	Refresh Data	To ensure that you are always reviewing the most up-to-date factors and ratios, click the Refresh Summary Data button whenever you are reviewing the data.
---	--------------	--

Description	Assigned	Unassigned	Total	% of Target
Price Breakdown Structure	\$5,252.19	\$1,317.54	\$6,569.73	100.00
Target Price			\$984,119.62	14.98
Markup	\$638,196.32	\$638,196.32	\$1,276,392.64	9.71
Target Profit	\$15,122.66	\$15,122.66	\$15,122.66	0.23
Indirect Cost Markup	\$623,073.66	\$623,073.66	\$1,246,147.32	9.48
Direct Cost Markup	\$15,122.66	\$15,122.66	\$15,122.66	0.23
Business Overhead	\$0.00	\$345,923.30	\$345,923.30	5.27
Price % Add-On	\$0.00	\$295,638.13	\$295,638.13	4.50
Job Financing	\$0.00	\$33,105.26	\$33,105.26	0.50
Indirect Cost Escala	\$0.00	\$2,131.11	\$2,131.11	0.03
Direct Cost Escalator	\$0.00	\$15,048.80	\$15,048.80	0.23
Business Overhead	\$0.00	\$0.00	\$0.00	0.00
Total Cost	\$5,252.19	\$333,421.97	\$5,585.61	85.02
Indirect Cost	\$0.00	\$332,421.97	\$332,421.97	5.06
Job Overhead	\$0.00	\$332,421.97	\$332,421.97	5.06
Prime Bond	\$0.00	\$47,148.68	\$47,148.68	0.72
Indirect Cost A.	\$0.00	\$5,888.67	\$5,888.67	0.09
Direct Cost Add.	\$0.00	\$104,088.34	\$104,088.34	1.58
Job Overhead L.	\$0.00	\$175,296.28	\$175,296.28	2.67
Direct Cost	\$5,252.19	\$1,000.00	\$5,253.19	79.96
Direct Cost Items	\$5,252.19	\$1,000.00	\$5,253.19	79.96

All costs in the Price Breakdown Structure are based on pay quantities (not forecast take-off quantities).

8.1.3 Markup vs. Margin

Let's look at the difference between Markup and Margin.

- Markup is a function of cost, while margin is a function of price
- Markup indicates how much you are marking up the cost
- Margin indicates what percentage of your price the markup represents

The percentages on the main PBS screen are margin, so you can see what percentage each category in the PBS represents compared to the total price. If you enter 10% in the Target Profit field, your profit will be 10% margin of your total price.

Description	Assigned	Unassigned	Total	% of Target
▼ ▲ Price Breakdown Structure				
▼ ▲ Target Price	\$5,252,19...	\$1,317,54...	\$6,569,73...	100.00
▼ ▲ Markup	\$0.00	\$984,119.62	\$984,119.62	14.98
▶ ▲ Target Profit		\$638,196.32	\$638,196.32	9.71
▶ ▲ Business Overhead	\$0.00	\$345,923.30	\$345,923.30	5.27
▼ ▲ Total Cost	\$5,252,19...	\$333,421.97	\$5,585,61...	85.02

When you open the Direct or Indirect Markup Records, the Rate percentage there indicates markup of the cost. If you enter 10% markup on \$100, the markup will be \$10.

Within Job Properties, you can choose if costs with a cost segment of business overhead should be indirect costs or markup. If selecting markup, then Business Overhead will be spread within the Markup category of the Price Breakdown Structure. The Total Markup will be the sum of Target Profit and all Items categorized as Business Overhead.

The screenshot shows the 'Job Properties' dialog box with the 'Pricing' tab selected. Under the 'Categorize Business Overhead as:' section, the 'Markup' radio button is selected and highlighted with a red box.

This lets you see the true total cost of the job, including the total markup inclusive of the business overhead. You can also create cost items and categorize them as business overhead, then possibly include overhead costs such as estimating or home office expenses. This provides you with added flexibility in marking up your job.

8.1.4 Define profit

Before you define profit, review the PBS. You estimated your direct cost items, and you also estimated some indirect cost items in the CBS. You can view your direct and indirect cost totals on the Price Breakdown Structure. Notice you have not defined profit yet.

Description	Assigned	Unassigned	Total	% of Target
Price Breakdown Structure				
Target Price	\$5,252,19...	\$645,755.99	\$5,897,950.68	100.00
Markup	\$0.00	\$315,692.95	\$315,692.95	5.35
Target Profit		\$0.00	\$0.00	0.00
Indirect Cost Markup		\$0.00	\$0.00	0.00
Direct Cost Markup		\$0.00	\$0.00	0.00
Business Overhead	\$0.00	\$315,692.95	\$315,692.95	5.35
Price % Add-On	\$0.00	\$265,407.78	\$265,407.78	4.50
Job Financing	\$0.00	\$33,105.26	\$33,105.26	0.56
Indirect Cost Escala...	\$0.00	\$2,131.11	\$2,131.11	0.04
Direct Cost Escalation	\$0.00	\$15,048.80	\$15,048.80	0.26
Business Overhead ...	\$0.00	\$0.00	\$0.00	0.00
Total Cost	\$5,252,19...	\$330,063.05	\$5,582,257.73	94.65
Indirect Cost	\$0.00	\$329,063.05	\$329,063.05	5.58
Job Overhead	\$0.00	\$329,063.05	\$329,063.05	5.58
Prime Bond	\$0.00	\$43,789.75	\$43,789.75	0.74
Indirect Cost A...	\$0.00	\$5,888.67	\$5,888.67	0.10
Direct Cost Add...	\$0.00	\$104,088.34	\$104,088.34	1.76
Job Overhead I...	\$0.00	\$175,296.28	\$175,296.28	2.97
Direct Cost	\$5,252,19...	\$1,000.00	\$5,253,194.68	89.07
Direct Cost Items	\$5,252,19...	\$1,000.00	\$5,253,194.68	89.07

You can define profit by entering a profit percentage directly on the PBS, or by modifying the Direct or Indirect Cost Markup Records.

The following steps walk you through plugging a Target Profit percentage directly on the PBS form.

8.1.4.1 Profit as a percentage of target price

Add profit as a percentage of target price

1. Open your job.
2. Select the **Price** tab.

3. Select **Price Breakdown Structure** (PBS) from the Overhead and Profit section.
4. On the Target Profit row, enter a **numeric value** in the % of Target Price column; press **Tab**.
 - For this example, we'll add 10% for the Target Profit.

8.1.4.2 Profit through direct cost markup record

The following steps walk you through how to add profit as markup on the Direct Cost Markup record.

Modify the direct cost markup record

1. On the **PBS** form, double-click on the **Direct Cost Markup** row.
2. In the record, overwrite the Default entry with **Direct Cost Markup** in the description field.
3. In the Rate column on the Dependency Cost Breakdown, add a **numeric value** in Labor, Owned Equipment, Materials and Fees categories. Then reset other categories back to **0**.
4. Click **Ok** to save your changes and return to the PBS.
5. Click the **Refresh Summary Data** button to see the changes reflected.
 - For this example, we'll add a rate of 15 for Labor, 10 for Owned Equipment, 8 for Materials, and 2 for Fees, then zero out all other categories.

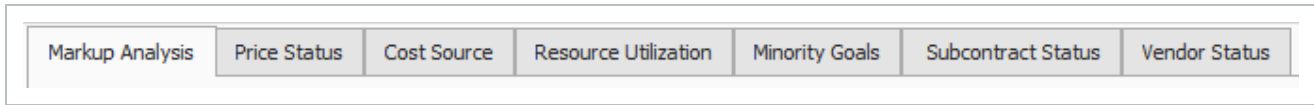
Description			Dependency	Allocation																																																				
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8.2 COST ESTIMATE AUDIT/REVIEW

InEight Estimate offers built-in reports to double check your estimate and review different aspects of your project, including material costs, quotes, man-hours and production.

8.2.1 Price breakdown structure tabs

The purpose of the tabs on the Price Breakdown Structure is to assist with estimate reviews.



8.2.1.1 Markup analysis

On this tab, you can compare your profit to your costs for labor, subcontract and other cost groupings. By seeing the ratios of your markup compared to your different cost categories, you can gauge if you have the right balance of costs in your estimate.

Markup Analysis (based on Bid quantities)		
Markup as % of	All Costs (Target Price - Target Profit)	11.11
Markup as % of	All Labor Costs	79.42
Markup as % of	All Direct Labor Costs	94.07
Markup as % of	All Indirect Labor Costs	510.05

For example, if your markup is more than 100% of your Labor cost, it may indicate that you don't have enough labor cost in your estimate to cover the work, which could indicate labor cost overruns during execution that would eat into your profit margin.

8.2.1.2 Cost source

The Cost Source tab shows the breakdown of Detail, Plug and Quote cost sources, as well as the amounts and percentages of each that are attributable to Direct and Indirect cost. Your Plug cost source should be the lowest percentage.

Markup Analysis	Price Status	Cost Source	Resource Utilization	Minority Goals	Subcontract Status	Vendor Status	
-----------------	--------------	--------------------	----------------------	----------------	--------------------	---------------	--

Cost Source Analysis (based on Bid quantities)

	Detail		Plug *		Quote		Total	
	Amount	%	Amount	%	Amount	%	Amount	%
Direct Cost	\$5,156,491.67	97.95	\$64,600.00	1.23	\$43,200.00	0.82	\$5,264,291.67	100.00
Indirect Cost	\$638,694.52	98.62	\$5,338.76	0.82	\$3,570.19	0.55	\$647,603.46	100.00
Total	\$5,795,186.19	98.03	\$69,938.76	1.18	\$46,770.19	0.79	\$5,911,895.14	100.00

* Includes values entered as flat amounts (not percentages) on dependent cost items.

8.2.1.3 Resource utilization

The Resource Utilization tab shows a breakdown of the man-hours and equipment hours utilized on the job, based on take-off quantities.

Markup Analysis	Price Status	Cost Source	Resource Utilization
-----------------	--------------	-------------	-----------------------------

Resource Utilization Analysis (based on T/O quantities)

Total Manhours	26,838.86
Total Equipment Hours	15,961.51
Total Shift Hours	5,508.23
Total Days *	682.70
Total Schedule Days	168.00

* shift hours divided by (hours per shift times shift per day)

8.2.1.4 Subcontract status

The Subcontract Status tab displays a breakdown of subcontractor amounts, costs, and percentages for quoted cost items. This is a good place to review how much of your estimate is subcontracted.

8.2.1.5 Vendor status

The Vendor Status tab displays a breakdown of vendor information, including amounts and percentages of the Target Price represented by vendors. This is a good place to review how much of

your estimate costs come from vendor quotes.

Markup Analysis	Price Status	Cost Source	Resource Utilization	Minority Goals	Subcontract Status	Vendor Status
Vendor Analysis (based on Bid quantities)						
Number of Vendors	2					
Total Vendor Amount	\$1,442,571.90					
% of Target Price	21.96					
Company Name	Contact	Phone	Amount	Currency	Percent	Street Address
Example Vendor 4 DBE	Slim, Lester	111-122-1321	\$271,471.20	U.S. Dollar	4.13	400 Fourth Street
Example Vendor 1	Roberts, Pat	111-123-2134	\$1,171,100.70	U.S. Dollar	17.83	100 Tenth Street

8.3 SPREAD TARGET PRICE OVER PAY ITEMS

In the Cost Breakdown Structure you generated your direct and indirect costs, and in the Price Breakdown Structure you added profit to come up with a Target Price for the bid, but you still haven't decided how to spread the Target Price over your pay items.

In Lesson 4 you created pay items for the project in the Pay Item & Proposal Register. You can now go back to the Pay Item & Proposal Register to distribute your Target Price over those pay items.

8.3.1 Current price vs. Target price

In InEight Estimate, Current Price means the total price that is currently assigned on your pay items. Open the Pay Item & Proposal Register to see what the Current Price is for your pay items (Price > Pay Item & Proposal).

At this point there is no pricing on your pay items, so your Current Price is \$0.00. This is because you have not yet spread your Target Price (the total of your cost and profit) over your pay items.

Description	Pay Quantity	Forecast (T/O) Quantity	Unit of Meas...	Unit Price (cu...)	Total Price (current)
+ Mobiliation	1.00	1.00	Each	\$0.00	\$0.00
+ Clearing and Grubbing	10.00	15.00	Acre	\$0.00	\$0.00
+ Excavation	50,000.00	40,000.00	CY	\$0.00	\$0.00
+ 10" PVC Pipe	1,000.00	1,000.00	LF	\$0.00	\$0.00

8.3.2 Proposal recap

On the Pay Item & Proposal Register, there is a Proposal Recap table where you can compare your Current Price to your Target Price to see if there is any variance.

Proposal Recap - Training Job					
	Current	Target	Forecast	Variance	
Price:	\$6,455,450.00	\$6,506,904.35	\$6,462,850.00	\$51,454.35	ADD
Profit:	\$599,221.88	\$650,676.22	\$655,858.61	\$5,182.39	CUT
Margin%:	9.28	10.00	10.15	\$10,653.01	CUT

Ideally, you want to add pricing to your pay items until your Current Price equals your Target Price, so that your Variance equals zero. That way you know you are covering all your costs and getting the profit you want.

Notice the Variance column will indicate if you need to ADD or CUT pricing on your pay items to hit your Target Price.

8.3.3 Spread the target price

For lump sum contracts, spreading the Target Price may be as simple as spreading it to a single pay item that represents the entire project. However, most jobs will have at least a few pay items defined by the owner, and Unit Price contracts will have many pay items.

There are two main ways to distribute pricing onto your pay items:

1. Define pay item prices manually, by entering a unit or total price, or a margin percentage.
2. Use InEight Estimate's AutoPrice feature to distribute pricing automatically.

8.3.4 Define pricing for pay items manually

First, you will walk through the process of defining pricing manually. This method requires filling in each item's price based solely on your own judgment.

Define pricing manually

1. From the Estimate landing page, select the **Price** tab.
2. Select **Pay Item & Proposal** from the Pay Items section.
3. Select a **Pay Item** row.
4. In either the Unit Price (current), Total Price (current), or % Margin field of a pay item, type a **numeric value**.

For this example, we'll do the following:

- Mobilization pay item – change Total Price (current) to \$20,000.
- Clearing & Grubbing pay item – change % Margin to 5%.

Position Code	Pay Item Number	Description	Pay Quantity	Forecast (T/O) Quantity	Unit of Measure	Unit Price (current)	Total Price (current)	% Margin
1	200	SITWORK & ROADWAY					\$51,369.60	
+ 1.1	641 0100	Mobilization	1.00	1.00	LS	\$20,000.00	\$20,000.00	-34.67
+ 1.2	201 0102	Clearing & Grubbing	10.00	15.00	Acre	\$3,136.96	\$31,369.60	5.00

8.3.5 Use AutoPrice to balance and hit the target total

Perhaps you want to get a head start and have InEight Estimate spread your Target Price proportionately over your pay items for you. This can be done using the InEight Estimate AutoPrice feature.

Once distributed, you will still have the ability to adjust your pricing on pay items manually as needed.

Look at how you can use the AutoPrice feature.

Use AutoPrice to balance and hit the target total

1. Open your job in Estimate.
2. From the Estimate landing page, select the **Price** tab.
3. Click on **Pay Item & Proposal** to open the Pay Item & Proposal Register.

- On the Pay Item & Proposal Register menu, choose **Actions > Balanced Bid > Hit Target Total**.
- Review the Proposal Recap and see that the Variance is now \$0.00. Now that the job is balanced, you can see that the Current Price and the Target Price are the same, indicating that the costs and profit are spread proportionately over your pay items.

8.3.6 Use AutoPrice to unbalance and hit the target total

The Autoprice to Unbalance feature in InEight Estimate can automatically distribute profit to account for your over- and underrun items.

InEight Estimate will take profit from your underrun and put it on your overrun by using the Actions > Unbalanced > Hit Target Total feature. The purpose is to maximize your profit by spreading it strategically between these items.

Unbalance bid

- You may encounter overrun and/or underrun items in the Pay Item & Proposal Register of your job.

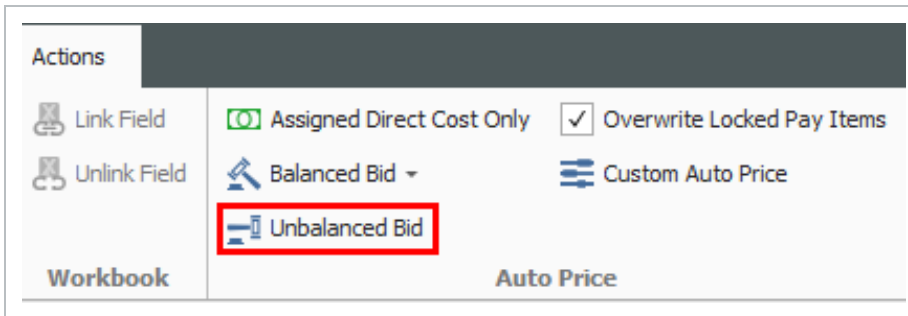
Description	Pay Quantity	Forecast (T/O) Quantity	Unit of Meas...	Curre...
Excavation	10.00	15.00	Cubic Yard	U.S. Dollar
Clearing & Grubbing	50,000.00	40,000.00	Acre	U.S. Dollar

- If you do, highlight the row for each item to view it's current balanced item recap.

Item Recap - 2000 Clearing & Grubbing			
	Balanced Unit	Current Unit	
	Price:	\$4,985.70	\$4,994.91
	Profit:	\$515.91	\$525.12
	Total Cost:	\$4,469.79	\$4,469.79
	Business Overhead:	\$245.35	
	Job Overhead:	\$1,681.60	
	Unassigned Direct Cost:	\$0.00	
	Assigned Direct Cost:	\$2,542.84	

Item Recap - 3000 Excavation			
	Balanced Unit	Current Unit	
	Price:	\$2.86	\$2.86
	Profit:	\$0.29	\$0.29
	Total Cost:	\$2.57	\$2.57
	Business Overhead:	\$0.15	
	Job Overhead:	\$0.91	
	Unassigned Direct Cost:	\$0.00	
	Assigned Direct Cost:	\$1.52	

3. On the Pay Item & Proposal Register menu, choose **Actions > Unbalanced Bid**.



- You will see the changes reflected and how the profit was spread to your overrun and underrun items

Unit Price (current)	Total Price (current)	% Margin
\$3,000.00	\$150,000,000.00	-9.26
\$4,871.84	\$48,718.40	97.68
\$91,100.00	\$91,100.00	10.05

- In the example shown, highlighting each item will show that all your overhead and profit from Excavation was put onto Clearing & Grubbing.

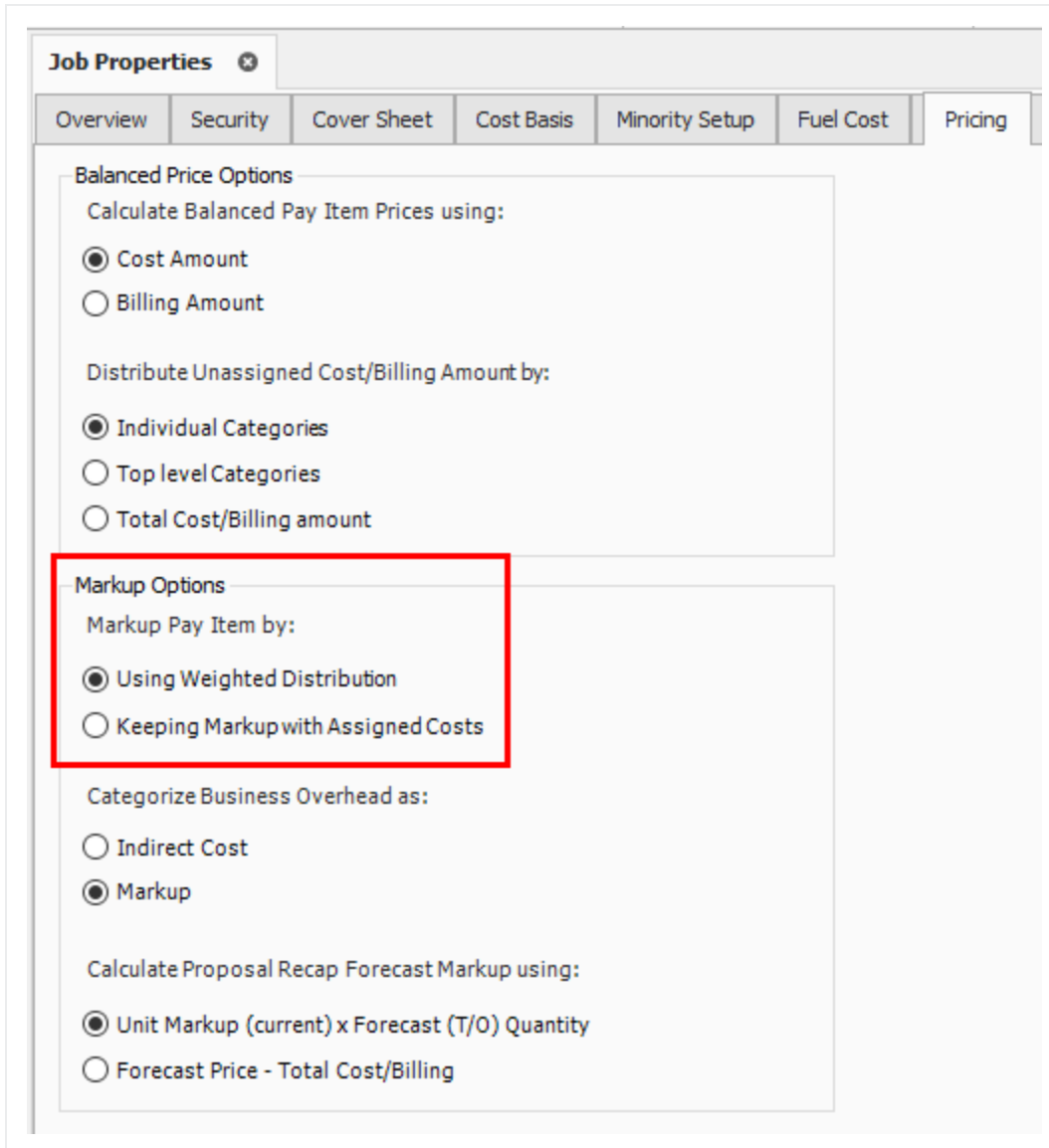
Item Recap - 2000 Clearing & Grubbing			Item Recap - 3000 Excavation		
	Balanced Unit	Current Unit		Balanced Unit	Current Unit
▲ Price:	\$4,985.70	\$11,706.11	▲ Price:	\$2.86	\$1.52
▲ Profit:	\$515.91	\$7,236.32	▲ Profit:	\$0.29	(\$1.05)
Total Cost:	\$4,469.79	\$4,469.79	Total Cost:	\$2.57	\$2.57
▲ Business Overhead:	\$245.35		▲ Business Overhead:	\$0.15	
▲ Job Overhead:	\$1,681.60		▲ Job Overhead:	\$0.91	
▲ Unassigned Direct Cost:	\$0.00		▲ Unassigned Direct Cost:	\$0.00	
▲ Assigned Direct Cost:	\$2,542.84		▲ Assigned Direct Cost:	\$1.52	

8.4 SELECTIVE PAY ITEM MARKUP

Estimate has a streamlined process to estimate the cost of a project and price the work to ensure all unassigned costs and markup are included in the final price of the project. For markup to be spread to pay items, a weighted distribution method is used as determined in the Job Properties, Pricing tab. It

might be desirable for markup percentages to not be distributed, but rather directly applied to the costs assigned to any particular pay item.

This option can be set to keep markup with assigned costs for establishing a pay item price.



The screenshot shows the 'Job Properties' dialog box with the 'Pricing' tab selected. The 'Markup Options' section is highlighted with a red box. It contains the following options:

- Markup Pay Item by:
 - Using Weighted Distribution
 - Keeping Markup with Assigned Costs

Other sections visible in the dialog include:

- Balanced Price Options:
 - Calculate Balanced Pay Item Prices using:
 - Cost Amount
 - Billing Amount
 - Distribute Unassigned Cost/Billing Amount by:
 - Individual Categories
 - Top level Categories
 - Total Cost/Billing amount
- Categorize Business Overhead as:
 - Indirect Cost
 - Markup
- Calculate Proposal Recap Forecast Markup using:
 - Unit Markup (current) x Forecast (T/O) Quantity
 - Forecast Price - Total Cost/Billing

Additionally, this option can be used to isolate the markup and apply it only to specific pay items. The following is an example of a dependent cost item being used to mark up the labor of select site work pay items by 25%.

Pay Item Number	Lock Quantity	Lock Price	Description	Pay Quantity	Forecast (T/O) Quantity	Unit of Measure	Currency	LABOR Cost	LABOR Cost Distribution	LABOR Markup	LABOR Markup %	LABOR Price (balanced)	LABOR Price (current)	Unit Price (current)	Total Price (current)
→ 1	<input type="checkbox"/>	<input type="checkbox"/>	EARTHWORK AND UTILITIES	1.00	1.00	Lump Sum	U.S. Dollar	\$62,401.68	\$0.00	\$15,600.42	25.00	\$78,002.09	\$72,664.97	\$170,700.00	\$170,700.00
→ 2	<input type="checkbox"/>	<input type="checkbox"/>	AC PAVING	1.00	1.00	Lump Sum	U.S. Dollar	\$29,711.17	\$0.00	\$7,427.79	25.00	\$37,138.96	\$34,430.26	\$97,253.00	\$97,253.00
→ 3	<input type="checkbox"/>	<input type="checkbox"/>	PAYMENT MARKINGS	1.00	1.00	Lump Sum	U.S. Dollar	\$14,545.57	\$0.00	\$3,636.39	25.00	\$18,181.96	\$16,940.94	\$44,200.00	\$44,200.00
→ 4	<input type="checkbox"/>	<input type="checkbox"/>	SITE CONCRETE	1.00	1.00	Lump Sum	U.S. Dollar	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$216,300.00	\$216,300.00
→ 5	<input type="checkbox"/>	<input type="checkbox"/>	FENCING	1.00	1.00	Lump Sum	U.S. Dollar	\$7,163.88	\$0.00	\$1,790.97	25.00	\$8,954.84	\$8,099.23	\$42,300.00	\$42,300.00
→ 6	<input type="checkbox"/>	<input type="checkbox"/>	LANDSCAPING	1.00	1.00	Lump Sum	U.S. Dollar	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$39,900.00	\$39,900.00
→ 7	<input type="checkbox"/>	<input type="checkbox"/>	PILES AND PIERS	1.00	1.00	Lump Sum	U.S. Dollar	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$1,625,000.00	\$1,625,000.00
→ 8	<input type="checkbox"/>	<input type="checkbox"/>	CONCRETE	1.00	1.00	Lump Sum	U.S. Dollar	\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	\$5,370,940.00	\$5,370,940.00

8.5 BID ADJUSTMENTS

Often you will want to continue adjusting certain pay items and then rebalance to hit the target total.

8.5.1 Lock price

You can lock down a pay item price and it will not factor in future rebalancing.

Lock price

1. Select the **Lock Price** checkbox on an item's row.

Pay Item Number	Description	Lock Price	Pay Quantity	Forecast (T/O) Quantity
+ 202 0183	Unclassified Excavation	<input type="checkbox"/>	50,000.00	50,000.00
+ 641 0100	Mobilization	<input checked="" type="checkbox"/>	1.00	1.00
+ 201 0102	Clearing & Grubbing	<input type="checkbox"/>	10.00	10.00

2. After making further adjustments in the next step by step, you will return to the Pay Item & Proposal to rebalance.
 - You can continue to adjust at previous levels aside from solely in the Pay Item & Proposal Register
 - For example, you could make a last-minute adjustment in the PBS or CBS. You can make adjustments anywhere, but for this example an adjustment will be made in the Direct Cost Add-On record at the CBS level

Make last minute bid adjustments

1. With your job open, select the **Estimate** tab.
2. Click on **Cost Breakdown Structure** to open the CBS.
3. Double click on the row header to open the **Direct Cost Add-On** dependent cost item record.

4. Under the Description tab on the left, click in the blank row under the **Description column**.
5. Type in a **description**.
6. Make the adjustment by typing a **numeric value** in the **Cost column** of the Materials Cost category under the Cost Breakdown section on the right.

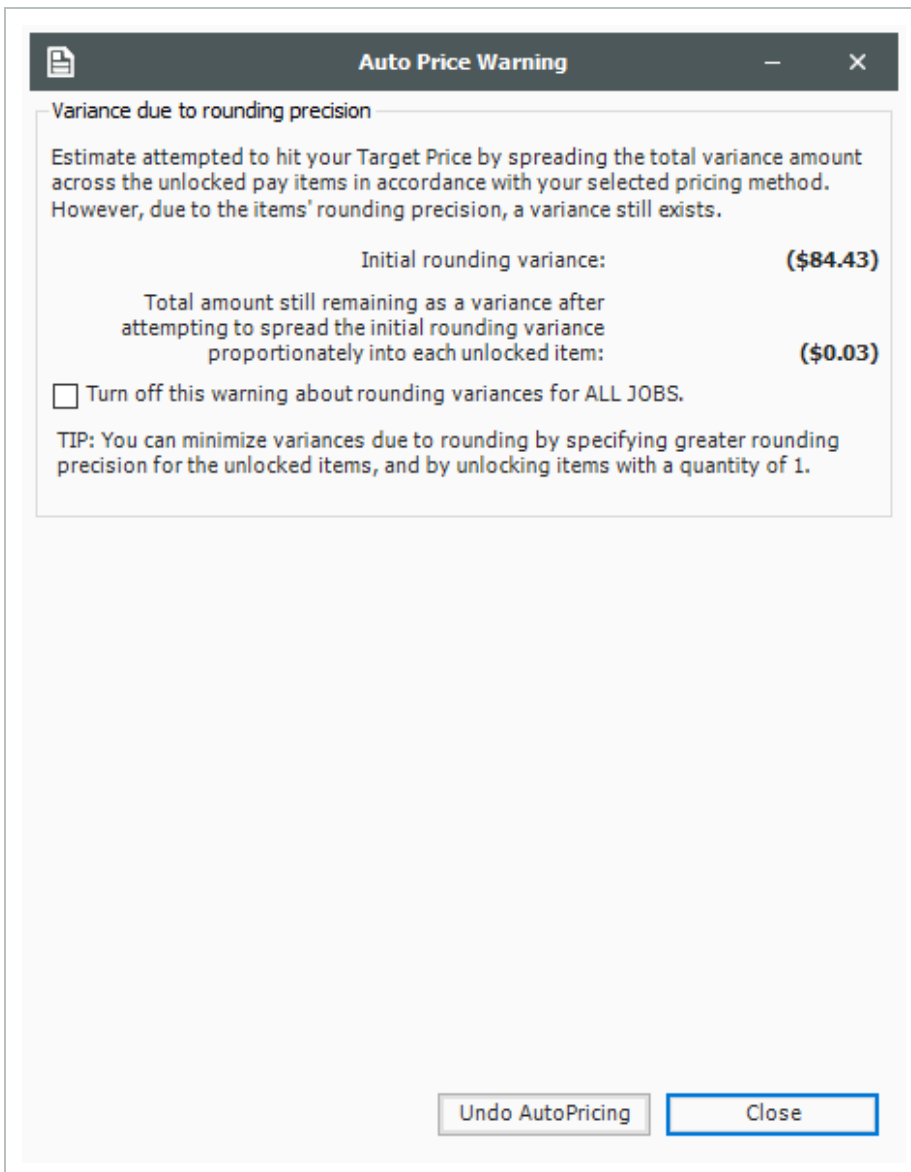
Cost Breakdown				
Cost Category	Subject Cost	Rate		Cost
▼ Total	\$130,759.83	-0.76		(\$1,000.00)
▶ Labor	\$58,969.83	0.00		\$0.00
▶ Owned Equipment	\$68,251.92	0.00		\$0.00
▶ Rented Equipment	\$0.00	0.00		\$0.00
▶ Supplies	\$0.00	0.00		\$0.00
▶ Materials	\$3,276.00	-30...		(\$1,000.00)
▶ Subcontract	\$0.00	0.00		\$0.00
▶ Fees	\$262.08	0.00		\$0.00
▶ Allowance	\$0.00	0.00		\$0.00
Custom Category 1	\$0.00	0.00	→	\$0.00
Undefined	\$0.00	0.00	→	\$0.00

- To make a cut, enter a negative value, i.e. -1000

7. Press the **Tab** key, and your adjustment will be reflected on the left-hand side.

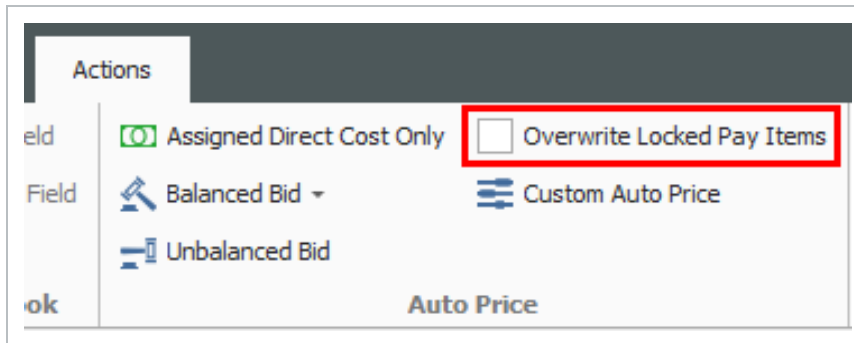
Description	Dependency	Cost Categorization	Allocation	
Drag columns here to group				
Description		Curre...	Total Cost (Forecast)	Ac Co
Small Tools		U.S. Dollar	\$5,896.98	
Safety & Training		U.S. Dollar	\$2,948.49	
→ Cut		U.S. Dollar	(\$1,000.00)	

8. Finally, return to the **Pay Item & Proposal**.
9. On the **Actions** menu, select **Balanced Bid > Hit Target Total**.
10. An Auto Price Warning may display, informing you of rounding variances. After reading the details, click the **Close** button.



- Note on the proposal recap that a variance may still exist because there are a limited number of pay items to spread the rounding error over
- Note that the locked item did not adjust, but the other pay items were updated
- Note that you can overwrite locked items for spreading your price by checking the

Overwrite Locked Pay Items option on the Actions menu



8.5.2 Suspend pay items

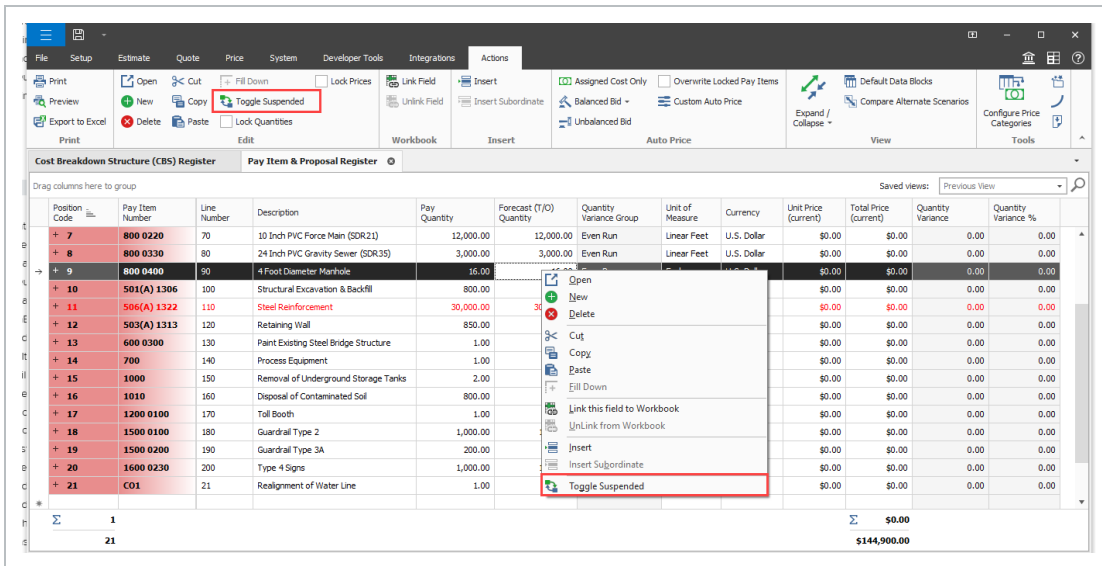
Like suspending cost items in the CBS Register, you can suspend pay items in the Pay Item & Proposal Register. Suspending a pay item causes it to no longer contribute quantities and pricing to the estimate.

This can be helpful when considering alternate items on a bid submission. Should the client decide to not require a pay item, you can suspend it, causing the pay item and any of its assigned cost items to no longer contribute any cost or price. It will no longer show up on your bid and no longer contribute to the overall total price.

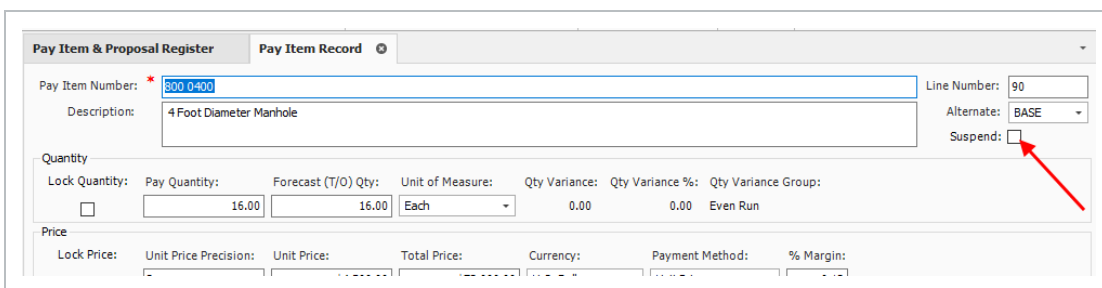
You can suspend or unsuspend pay items in one of three ways:

- Right-click on the pay item, and then select Toggle Suspended.

- Select the pay item and click Toggle Suspended under the Edit section of the Actions Tab.



- Open the pay item record, and then select or deselect the Suspend check box.



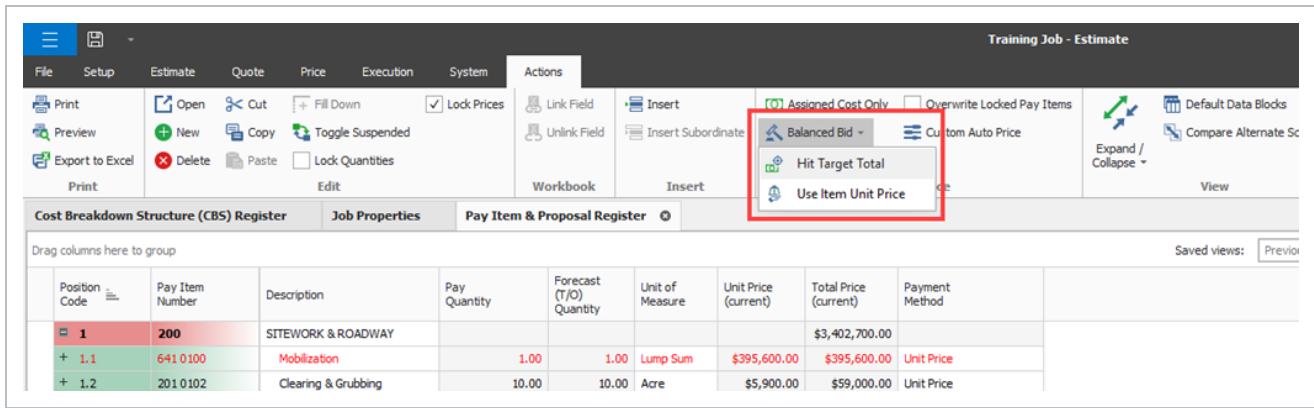
8.6 AUTO PRICE BALANCED BID OPTIONS

To determine the final pricing of your pay items on the job, you can use one of the following two options in Auto Price > **Balanced Bid**:

- Hit Target Total
- Use Item Unit Price

These Balanced Bid options are a simple way to have the Estimate automatically balance the bid, spreading your cost, overhead, and profit proportionately across your pay items. This can be a great starting point for finalizing your bid, with the understanding that, once balanced, you can still make your own adjustments to pay items manually.

You access the Balanced Bid options from the Actions menu of the Pay Item & Proposal Register.



8.6.1 Considerations

- **Pricing Options** - Prior to using the Auto Price feature, pricing options should be considered. These can be configured as a default for all jobs from Library > **Job Properties**, or for an individual job in its own Job Properties.

See [Library Job Properties Pricing](#) for more information.

- **Rounding Precision** - The Rounding Precision option is an important factor to consider when using Auto Price to balance your bid, as it can influence how pricing is or is not spread to a pay item based on what decimal the item’s unit price is rounded to.

In the Pay Item & Proposal Register, you can define the rounding precision at the pay item level using the Rounding Precision column. For more information, see [Rounding Precision](#).

8.6.2 Hit target total

The Hit Target Total option is the same as the Use Item Unit Price option, though it goes the extra step and tries to spread the variance (if there is any) back over your pay items.

In most cases, selecting Balance Bid > **Hit Target Total** results in all the rounding variance being spread over your pay items successfully. The following use cases explore situations where some variance might remain.

8.6.2.1 Large quantity pay items

When adjusting the pricing of pay items to absorb rounding variance, even minor adjustments to the unit price can result in a large change to the pay item’s total price if it has a large pay quantity. For

example, cutting \$.01 from a lump sum pay item has very little effect when compared to a pay item with a pay quantity of 50,000.

Pay Item	Pay Quantity	Unit of Measure	Unit Price Adjustment Amount	Total Price Adjustment Amount	Rounding Precision
Mobilization	1	Lump Sum	\$0.01	\$0.01	2
Excavation	50,000	Cubic Yards	\$0.01	\$500.00	2

Depending on the amount of variance that needs to be spread and the pay quantities of your unlocked pay items, Estimate might not be able to spread all your remaining variance.

For example, if your remaining rounding variance is \$200.00 and Estimate only has high quantity pay items to spread to like the Excavation pay item in the above example, it would not be able to adjust the pay item by only \$200.00.

8.6.2.2 High rounding pay items

When balancing the bid, the higher the rounding precision of your pay items, the less variance there will be, and the more likely Estimate will be able to spread the variance back over your pay items.

For example, a bid that has a rounding precision of 2 (two to the right of the decimal or *to the penny*) for all the pay items in the bid will typically have no remaining variance when using Balance Bid > **Hit Target Total**, because any rounding variance from the initial balancing can be absorbed by making minor adjustments to the pay items' unit prices.

If the bid includes a pay item that has a lower rounding precision, that pay item might not be able to absorb variance because of the rounding precision assigned to it.

In the below example, the pay item's rounding precision is set to -2 (two to the left of the decimal or *to a hundred*). If the Estimate needs to add \$49 to this pay item to balance the bid, it will not be able to since its precision is set to round back down to \$18,500.

Position Code	Pay Item Number	Lock Price	Description	Pay Quantity	Unit of Measure	Unit Price (current)	Total Price (current)	Rounding Precision
1	200	<input checked="" type="checkbox"/>	SITWORK & ROADWAY				\$3,112,772.20	
+ 1.1	641 0100	<input type="checkbox"/>	Mobilization	1.00	Lump Sum	\$18,500.00	\$18,500.00	-2

8.6.2.3 Low number of available pay items

If your bid has a low number of pay items to spread variance to, either due to a low number of deliverables, or to a small number of unlocked pay items, this leaves less opportunity for Estimate to spread the remaining variance successfully.

8.6.3 Use item unit price

The option **Balanced Bid > Use Item Unit Price** can best be thought of as *use the item's balanced unit price* for balancing the bid. When this option is selected, the following takes place:

- All assigned costs are distributed to pay items based on the cost items assigned to them.
- All unassigned costs are distributed to pay items proportionally according to the weight of the pay items' assigned costs and the level selected for distributing unassigned costs on the Job Properties > **Pricing tab** (Individual Categories, Top level Categories, or Total Cost/Billing amount).
- Markup is applied to pay items according to the markup options selected on the Job Properties > **Pricing tab**.

See **Balanced Price Options** in [Library Job Properties Pricing](#) for more information.

After balancing, when you select a pay item, on the Item Recap section you can see the Unit Price (current) now matches the Unit Price (balanced), indicating the pay item is using the balanced unit price.

Item Recap - 201 0102 Clearing & Grubbing				
Description	Unit Price (balanced)	Total Price (balanced)	Unit Price (current)	Total Price (current)
▼ ▲ Price	\$5,895.22	\$58,952.20	\$5,895.22	\$58,952.20
▼ Distribution	\$1,976.72	\$19,767.23	\$1,976.72	\$19,767.23
▼ ▲ Markup	\$979.64	\$9,796.43	\$979.64	\$9,796.45
▲ Profit (Markup records)	\$696.49	\$6,964.91	\$696.49	\$6,964.92
▲ Business Overhead	\$283.15	\$2,831.52	\$283.15	\$2,831.52
▼ Unassigned Cost	\$997.08	\$9,970.78	\$997.08	\$9,970.78
▲ Job Overhead	\$996.33	\$9,963.26		
▲ Direct Cost	\$0.75	\$7.52		
▼ Assigned	\$3,918.50	\$39,184.97	\$3,918.50	\$39,184.97
▼ ▲ Markup	\$0.00	\$0.00	\$0.00	\$0.00
▲ Business Overhead	\$0.00	\$0.00		
▼ Cost	\$3,918.50	\$39,184.97	\$3,918.50	\$39,184.97
▲ Job Overhead	\$0.00	\$0.00		
▲ Direct Cost	\$3,918.50	\$39,184.97		

As Estimate calculates the balanced unit price for each pay item, it follows the rounding precision defined for each pay item. As it rounds pricing up or down based on this precision, a variance from the Target Price might occur. You can see this variance on the Proposal Recap section, with an indication of whether you need to cut or add money to reach the Target price.

Proposal Recap - Training Job					
	Current	Target	Forecast	Variance	
Price:	\$6,520,896.49	\$6,521,125.58	\$6,456,826.25	\$229.09	ADD
Markup:	\$981,209.50	\$981,438.59	\$972,839.35	\$8,599.24	ADD
Margin%:	15.05	15.05	15.07	\$1,268.87	CUT

Lesson 8 - Review

1. Markup is a function of cost, while margin is a function of _____.
 - a. billing
 - b. price
 - c. job overhead
 - d. indirect costs

2. When adding profit, it must be the same amount for direct and indirect costs.
 - a. True
 - b. False

3. What options do you have to enter profit on the PBS?
 - a. % Mark-Up, % Margin, and Fixed Dollar Amount
 - b. % Mark-Up or % Margin
 - c. Fixed Dollar Amount Only

4. Once distributed, you still can adjust your pricing on pay items manually as needed.
 - a. True
 - b. False

Lesson 8 - Summary

As a result of this lesson, you can:

- Add job markup (profit)
- Use tools on the PBS form to review your estimate
- Spread Target Price over pay items
- Make bid adjustments