

The Benefits of Integrated Estimating and Job Costing Software

You've got a slick cost estimating system that generates bids quickly and accurately, complete with line item quantities, costs, and "what-if" scenarios. Meanwhile, accounting upgraded from QuickBooks a couple years ago and is generating detailed job cost reports on demand. Sounds pretty efficient, huh? Not necessarily.

The only way to know for sure is to examine how well the two departments – estimating and accounting – are working together. And if you *are* still using spreadsheets and QuickBooks, the answer is probably, "not so good."

Unfortunately, a lot of contractors using "slick" systems still aren't getting the job done properly. Let's assume the bid coming from your estimating department looks great. But when it gets passed to accounting, how do they handle all the detail? You have one job cost code for "interior framing", but your bid contains 14 line items for lumber of different sizes, trusses, joists, and hangers. So what does your accounting department do? Someone probably goes through each line item, figures out its corresponding cost code, consolidates the data, and then manually enters it into the job costing module.

While this might be manageable for a handful of small jobs, increase the size and volume of your projects. Then start dealing with change orders. And what about tracking budgets throughout the project process? It becomes difficult and time consuming very quickly. All of this double-entry takes time, requires a lot of extra effort, and creates risks that your system should eliminate. Bid information easily gets allocated to the wrong cost code, a line item is overlooked, and the result is a final job cost that is not much more than a shot in the dark. So what's the solution? Integrating your two systems, or going with one system that does both.

Seamless Integration: Everybody's Doing It

"Integrated" certainly has become a buzzword in the construction software industry. Fact is, unless your estimating, job costing, and accounting systems are truly speaking the same language, your "integrated" system is nothing more than pipes of different sizes duct taped together. At some point it will start to leak. So let's take a look at how truly integrated systems work to increase efficiency in your estimating and accounting departments.

Letting Employees Do What You Hired Them to Do

Construction executives typically have employee efficiency at the top of their minds. Efficient employees who are focused on their tasks are well on their way to creating profitable projects. If they are instead spending lots of time on double entry, cutting and pasting data, and miscommunicating with other departments, that's money lost.

The solution is software that lets your different departments work the way they truly want to.

Estimators tend to require more flexibility, while accounting staff members are more roles-based. Software that allows one department to estimate in apples and the other to track costs in oranges would be best. An ideal system would also be able to make sense of the two different data types – essentially mapping which apples correspond to which oranges – without time-consuming and often error-prone human intervention in the middle.

Fortunately, this is exactly the level of flexibility and intelligence that truly integrated systems provide. Estimators can still create detailed bids, generate purchase orders, and send data over to the job costing module. During this exchange of information, the software automatically figures out which CSI code corresponds to which job cost code. This can be accomplished by integrating two stand-alone estimating and accounting systems, or by a single system that manages both.

The screenshot displays the 'Buyout - C:\Databases - [ABCO Construction Company - Worksheet]' application. The main window shows a 'Quote Summary' table with columns for Vendor/Sub, Status, Due Date, Received/ Sent, Estimated Amount, Bid Amount, and Variance. A secondary window, 'Quote Summary - Concrete: Selected', provides a detailed view of the selected items, including Description, Estimate Qty/Unit, Estimate Price, Estimate Amount, and Vendor information. A context menu is open over the 'Normon Concrete' vendor column, with 'Issue Purchase Order' highlighted.

Quote Summary	Vendor/Sub	Status	Due Date	Received/ Sent	Estimated Amount	Bid Amount	Variance
* Cellular Decking		Not Sent			73,508		
- Concrete		Selected		1 of 1	8,112		
	Normon Concrete	Selected			8,112	7,750	(362)
* Reinforcing In Place		Not Sent			65,587		
* Structural Steel		Sent	6 /16/2007	0 of 2	168,424		
* Thermal Insulation		Sent	6 /16/2007	0 of 2	11,220		

Description	Estimate Qty/Unit	Estimate Price	Estimate Amount	Normon Concrete
Cp cnc frm,slb grad,edge,wood,6"hg,4 use,inc,erct,brn,stp and dng	750.00 lf	0.31	230	
Cp cnc frm,slb grd,blk wth kyw,w/d,6"h,1 use,inc,erct,brn,stp and dng	500.00 lf	0.92	460	
Cp cnc frm,slb grd,curb,wood,6"12",2 use,inc,erct,brn,stp and dng	37.50 sfca	1.14	43	
Cp cnc frm,sup for dsl,plnt tmlp,12"12" and erct,brn,stp and dng	40.00 ea	28.01	1,120	
Cp cnc frm,wal,job bit,ply,blw grd,8"h,2 use,inc,erct,brn,stp and dng	1,536.00 sfca	1.67	2,565	
Expansion joint, cold, keyed, 24 ga. X 7-1/2" high, includes stakes	1,333.00 lf	1.14	1,522	
Sawcut control joints, elevated decks	1,815.00 lf	0.47	844	
Sawcut control joints, slab on grade	1,833.00 lf	0.47	852	
Shores, metal decking	2,500.00 sf	0.19	475	
Totals			8,112	

The Buyout module of [Sage Timberline Office](#) and [Sage Master Builder](#) allows estimators to issue purchase orders directly from an estimate. The system automatically figures out which line item corresponds to which cost code, preventing employees from manually looking up cost codes and doing double entry.

Since the software does all the heavy lifting in the middle, nobody has to consolidate data or enter it twice. The information that the estimator enters is tracked all the way through the system, eliminating back-and-forth behavior between departments. This saves time, prevents headaches, and ultimately protects your bottom line.

Making Sure Your Data Counts

Knowing your bottom line is a top priority. So why do you look at reports with skepticism? Why do you have to assume at least a 5% to 10% level of uncertainty? Most likely because your accounting department doesn't have access to "up-to-the-minute" data. In addition, what about data loss and accuracy between estimating, project management and accounting? When data comes in from the field, labor costs tend to get consolidated to conform to cost codes. It becomes increasingly difficult to sort through the hours spent on punch out, clean up, and other miscellaneous tasks.

The solution is a system that can handle different data sources and make sense of them without human intervention. An integrated system or two systems that “speak” the same language will provide this flexibility. With technology that receives data from multiple sources, brings it together coherently, and then displays it in easily accessible reports, integrated systems protect your financial information throughout all phases of the process.

Group	Phase	Description	Takeoff Quantity	Labor Cost/Unit	Labor Amount	Material Amount	Equip. Amount	Total Cost/Unit	Total Amount
015400.00		CONSTRUCTION AIDS							
	015433.00	1.7 in. hls. eng. rls. with opt.	3.00 day	-	-	-	3,100	3,100.00	3,100
	015436.00	Modular form (16' wide)	4.00 ea	60.70 ea	242.80	-	450	124.25 ea	497
030500.00		COMM WORK RSLY FOR CONCR							
	030513.00	Appr. work (needed for concrete based on it includes material only)	114.52 sq	-	-	3,241	-	21.00 sq	3,241
	030513.00	Aggregate, stone, 3/4" to 1 1/2" (includes material only)	208.44 cu yd	-	-	7,745	-	28.00 cu yd	7,745
	030513.00	Waterproof and damp-proofing	25,000.00 sq ft	0.08 sq ft	2,047	-	1,528	0.16 sq ft	3,575
031100.00		CONCRETE FORMING							
	031113.00	Formwork in Place, Footings	40.00 ea	60.74 ea	2,430	1,100	-	90.74 ea	3,670
	031113.00	Formwork in Place, Walls	100.00 sq ft	2.25 sq ft	2,250	400	-	3.25 sq ft	2,650
	031113.00	Formwork in Place, Slabs	700.00 sq ft	1.95 sq ft	1,365	250	-	2.90 sq ft	1,615
031500.00		CONCRETE ACCESSORIES							
	031505.00	Expansion joint, cast, 24 ga. 9" x 10" high, includes staples	1,333.00 ft	1.43 ft	1,906	1,522	-	3.71 ft	3,428
	031505.00	Severed control joints, steel, 24 ga.	1,015.00 ft	0.34 ft	345	824	363	1.01 ft	1,533
	031505.00	Shores	2,000.00 sq ft	0.44 sq ft	880	475	-	0.63 sq ft	1,355
032100.00		REINFORCING STEEL							
	032110.00	Reinforcing in Place	4.00 ton	440.70 ton	1,762.80	4,747	-	1,483.50 ton	6,510
	032110.00	Reinforcing in Place, 1/2" dia. #4	100.00 sq ft	0.10 sq ft	10	1,000	-	1.10 sq ft	1,010
	032110.00	Reinforcing in Place, 3/4" dia. #5	200.00 sq ft	0.20 sq ft	40	2,000	-	2.20 sq ft	2,040
	032110.00	Reinforcing in Place, 1" dia. #6	400.00 sq ft	0.40 sq ft	80	4,000	-	4.40 sq ft	4,080
	032110.00	Reinforcing in Place, 1 1/4" dia. #7	800.00 sq ft	0.80 sq ft	160	8,000	-	8.80 sq ft	8,160
	032110.00	Reinforcing in Place, 1 3/4" dia. #8	1,600.00 sq ft	1.60 sq ft	320	16,000	-	17.60 sq ft	16,320
	032110.00	Reinforcing in Place, 2" dia. #9	3,200.00 sq ft	3.20 sq ft	640	32,000	-	35.20 sq ft	32,640
	032110.00	Reinforcing in Place, 2 1/2" dia. #10	6,400.00 sq ft	6.40 sq ft	1,280	64,000	-	70.40 sq ft	65,120
	032110.00	Reinforcing in Place, 3" dia. #11	12,800.00 sq ft	12.80 sq ft	2,560	128,000	-	140.80 sq ft	130,360
	032110.00	Reinforcing in Place, 3 1/2" dia. #12	25,600.00 sq ft	25.60 sq ft	5,120	256,000	-	281.60 sq ft	261,720
	032110.00	Reinforcing in Place, 4" dia. #14	51,200.00 sq ft	51.20 sq ft	10,240	512,000	-	563.20 sq ft	523,240
	032110.00	Reinforcing in Place, 4 1/2" dia. #16	102,400.00 sq ft	102.40 sq ft	20,480	1,024,000	-	1,126.40 sq ft	1,046,680
	032110.00	Reinforcing in Place, 5" dia. #18	204,800.00 sq ft	204.80 sq ft	40,960	2,048,000	-	2,252.80 sq ft	2,088,840
	032110.00	Reinforcing in Place, 5 1/2" dia. #20	409,600.00 sq ft	409.60 sq ft	81,920	4,096,000	-	4,505.60 sq ft	4,187,920
	032110.00	Reinforcing in Place, 6" dia. #22	819,200.00 sq ft	819.20 sq ft	163,840	8,192,000	-	8,924.80 sq ft	8,285,840
	032110.00	Reinforcing in Place, 6 1/2" dia. #24	1,638,400.00 sq ft	1,638.40 sq ft	327,680	16,384,000	-	18,063.20 sq ft	16,591,680
	032110.00	Reinforcing in Place, 7" dia. #28	3,276,800.00 sq ft	3,276.80 sq ft	655,360	32,768,000	-	36,129.60 sq ft	33,383,680
	032110.00	Reinforcing in Place, 8" dia. #32	6,553,600.00 sq ft	6,553.60 sq ft	1,310,720	65,536,000	-	72,259.20 sq ft	66,246,720
	032110.00	Reinforcing in Place, 9" dia. #36	13,107,200.00 sq ft	13,107.20 sq ft	2,621,440	131,072,000	-	144,518.40 sq ft	133,693,440
	032110.00	Reinforcing in Place, 10" dia. #40	26,214,400.00 sq ft	26,214.40 sq ft	5,242,880	262,144,000	-	289,036.80 sq ft	267,386,080
	032110.00	Reinforcing in Place, 11" dia. #44	52,428,800.00 sq ft	52,428.80 sq ft	10,485,760	524,288,000	-	578,073.60 sq ft	534,773,440
	032110.00	Reinforcing in Place, 12" dia. #48	104,857,600.00 sq ft	104,857.60 sq ft	20,971,520	1,048,576,000	-	1,156,147.20 sq ft	1,069,543,680
	032110.00	Reinforcing in Place, 14" dia. #56	209,715,200.00 sq ft	209,715.20 sq ft	41,943,040	2,097,152,000	-	2,312,294.40 sq ft	2,139,087,040
	032110.00	Reinforcing in Place, 16" dia. #64	419,430,400.00 sq ft	419,430.40 sq ft	83,886,080	4,194,304,000	-	4,624,588.80 sq ft	4,278,173,120
	032110.00	Reinforcing in Place, 18" dia. #72	838,860,800.00 sq ft	838,860.80 sq ft	167,772,160	8,388,608,000	-	9,249,177.60 sq ft	8,496,380,160
	032110.00	Reinforcing in Place, 20" dia. #80	1,677,721,600.00 sq ft	1,677,721.60 sq ft	335,544,320	16,777,216,000	-	18,498,355.20 sq ft	17,012,760,320
	032110.00	Reinforcing in Place, 22" dia. #88	3,355,443,200.00 sq ft	3,355,443.20 sq ft	671,088,640	33,554,432,000	-	37,016,710.40 sq ft	34,271,150,720
	032110.00	Reinforcing in Place, 24" dia. #96	6,710,886,400.00 sq ft	6,710,886.40 sq ft	1,342,177,280	67,108,864,000	-	74,033,420.80 sq ft	67,850,994,080
	032110.00	Reinforcing in Place, 26" dia. #104	13,421,772,800.00 sq ft	13,421,772.80 sq ft	2,684,354,560	134,217,728,000	-	148,066,841.60 sq ft	136,901,985,680
	032110.00	Reinforcing in Place, 28" dia. #112	26,843,545,600.00 sq ft	26,843,545.60 sq ft	5,368,709,120	268,435,456,000	-	296,133,683.20 sq ft	271,803,971,200
	032110.00	Reinforcing in Place, 30" dia. #120	53,687,091,200.00 sq ft	53,687,091.20 sq ft	10,737,418,240	536,870,912,000	-	592,267,366.40 sq ft	547,601,337,600
	032110.00	Reinforcing in Place, 32" dia. #128	107,374,182,400.00 sq ft	107,374,182.40 sq ft	21,474,836,480	1,073,741,824,000	-	1,184,534,732.80 sq ft	1,095,216,570,240
	032110.00	Reinforcing in Place, 34" dia. #136	214,748,364,800.00 sq ft	214,748,364.80 sq ft	42,949,672,960	2,147,483,648,000	-	2,369,069,465.60 sq ft	2,190,453,140,800
	032110.00	Reinforcing in Place, 36" dia. #144	429,496,729,600.00 sq ft	429,496,729.60 sq ft	85,899,345,920	4,294,967,296,000	-	4,738,138,931.20 sq ft	4,380,102,272,000
	032110.00	Reinforcing in Place, 38" dia. #152	858,993,459,200.00 sq ft	858,993,459.20 sq ft	171,798,691,840	8,589,934,592,000	-	9,476,277,862.40 sq ft	8,681,710,864,000
	032110.00	Reinforcing in Place, 40" dia. #160	1,717,986,918,400.00 sq ft	1,717,986,918.40 sq ft	343,597,383,680	17,179,869,184,000	-	18,952,555,724.80 sq ft	17,363,421,728,000
	032110.00	Reinforcing in Place, 42" dia. #168	3,435,973,836,800.00 sq ft	3,435,973,836.80 sq ft	687,194,767,360	34,359,738,368,000	-	37,905,111,449.60 sq ft	35,168,833,152,000
	032110.00	Reinforcing in Place, 44" dia. #176	6,871,947,673,600.00 sq ft	6,871,947,673.60 sq ft	1,374,389,534,720	68,719,476,736,000	-	75,810,222,899.20 sq ft	69,490,056,000,000
	032110.00	Reinforcing in Place, 46" dia. #184	13,743,895,347,200.00 sq ft	13,743,895,347.20 sq ft	2,748,779,069,440	137,438,953,472,000	-	151,620,445,798.40 sq ft	138,188,112,000,000
	032110.00	Reinforcing in Place, 48" dia. #192	27,487,790,694,400.00 sq ft	27,487,790,694.40 sq ft	5,497,558,138,880	274,877,906,944,000	-	303,240,891,596.80 sq ft	277,375,424,000,000
	032110.00	Reinforcing in Place, 50" dia. #200	54,975,581,388,800.00 sq ft	54,975,581,388.80 sq ft	10,995,116,277,760	549,755,813,888,000	-	606,481,783,193.60 sq ft	555,751,145,600,000
	032110.00	Reinforcing in Place, 52" dia. #208	109,951,162,777,600.00 sq ft	109,951,162,777.60 sq ft	21,990,232,555,520	1,099,511,627,776,000	-	1,212,963,566,387.20 sq ft	1,111,502,301,200,000
	032110.00	Reinforcing in Place, 54" dia. #216	219,902,325,555,200.00 sq ft	219,902,325,555.20 sq ft	43,980,465,111,040	2,199,023,255,552,000	-	2,425,927,132,774.40 sq ft	2,223,004,602,400,000
	032110.00	Reinforcing in Place, 56" dia. #224	439,804,651,110,400.00 sq ft	439,804,651,110.40 sq ft	87,960,930,222,080	4,398,046,511,104,000	-	4,851,854,265,548.80 sq ft	4,410,915,504,800,000
	032110.00	Reinforcing in Place, 58" dia. #232	879,609,302,220,800.00 sq ft	879,609,302,220.80 sq ft	175,921,860,444,160	8,796,093,022,208,000	-	9,703,708,531,097.60 sq ft	8,881,627,009,600,000
	032110.00	Reinforcing in Place, 60" dia. #240	1,759,218,604,441,600.00 sq ft	1,759,218,604,441.60 sq ft	351,843,720,888,320	17,592,186,044,416,000	-	19,407,417,062,195.20 sq ft	17,743,941,019,200,000
	032110.00	Reinforcing in Place, 62" dia. #248	3,518,437,208,883,200.00 sq ft	3,518,437,208,883.20 sq ft	703,687,441,776,640	35,184,372,088,832,000	-	38,814,834,124,390.40 sq ft	35,588,182,038,400,000
	032110.00	Reinforcing in Place, 64" dia. #256	7,036,874,417,766,400.00 sq ft	7,036,874,417,766.40 sq ft	1,407,374,883,553,280	70,368,744,177,664,000	-	77,629,668,248,780.80 sq ft	71,195,367,276,800,000
	032110.00	Reinforcing in Place, 66" dia. #264	14,073,748,835,532,800.00 sq ft	14,073,748,835,532.80 sq ft	2,814,749,767,106,560	140,737,488,355,328,000	-	155,259,336,497,561.60 sq ft	142,550,734,553,600,000
	032110.00	Reinforcing in Place, 68" dia. #272	28,147,497,671,065,600.00 sq ft	28,147,497,671,065.60 sq ft	5,629,499,534,213,120	281,474,976,710,656,000	-	310,518,672,995,123.20 sq ft	284,100,945,107,200,000
	032110.00	Reinforcing in Place, 70" dia. #280	56,294,995,342,131,200.00 sq ft	56,294,995,342,131.20 sq ft	11,258,999,068,426,240	562,949,953,421,312,000	-	621,037,345,990,246.40 sq ft	568,201,890,214,400,000
	032110.00	Reinforcing in Place, 72" dia. #288	112,589,990,684,262,400.00 sq ft	112,589,990,684,262.40 sq ft	22,517,988,136,852,480	1,125,899,906,842,624,000	-	1,242,074,691,980,492.80 sq ft	1,139,413,781,428,800,000
	032110.00	Reinforcing in Place, 74" dia. #296	225,179,981,368,524,800.00 sq ft	225,179,981,368,524.80 sq ft	45,035,976,273,704,960	22,517,998,136,852,480,000	-	2,484,149,383,960,985.60 sq ft	226,663,967,691,200,000
	032110.00	Reinforcing in Place, 76" dia. #304	450,359,962,737,049,600.00 sq ft	450,359,962,737,049.60 sq ft	90,071,952,547,409,920	450,359,962,737,049,600,000	-	4,968,298,767,921,971.20 sq ft	455,325,930,138,400,000
	032110.00	Reinforcing in Place, 78" dia. #312	900,719,925,474,099,200.00 sq ft	900,719,925,474,099.20 sq ft	180,143,905,094,819,840	9,007,199,254,740,992,000	-	9,936,597,535,843,942.40 sq ft	9,097,307,382,800,000
	032110.00	Reinforcing in Place, 80" dia. #320	1,801,439,850,948,198,400.00 sq ft	1,801,439,850,948,198.40 sq ft	360,287,810,189,639,680	18,014,398,509,481,984,000	-	19,873,195,071,687,884.80 sq ft	18,359,614,765,600,000
	032110.00	Reinforcing in Place, 82" dia. #328	3,602,879,701,896,396,800.00 sq ft	3,602,879,701,896,396.80 sq ft	720,575,620,379,279,360	36,028,797,018,963,968,000	-	39,746,390,143,375,769.60 sq ft	36,780,229,