

CASE STUDY

Cost Forecasting

DRMcNatty helped the client automate monthly project forecast procedures using P6 resource-loading to fit a tight reporting deadline and increase forecast accuracy.

PROJECT AT A GLANCE

PROGRAM

Major Utility and Infrastructure

LOCATION

West Coast

SERVICES PROVIDED

Consulting
Portfolio Management
Documentation
Cost Schedule Integration
Reporting

TECHNOLOGIES USED

P6 Portfolio Management
Integration with
Accounting Software

Overview

This is a review of a successful cost and schedule integration which utilized the accounting system of record and P6 schedules to produce a cost forecast each month. The portfolio was over \$400 million annually and the requirement was to forecast monthly expected expenditures for more than 700 projects. The forecast encompassed the entire life cycle of the projects. The previous method required the project managers and analysts to utilize their own method and side spreadsheets for forecasting the remaining costs for the year. However, forecasts did not usually align with schedules and the reporting deadline was an issue.

Challenges

The timing requirement of the company forecasting was an important consideration that drove this solution. The accounting actual cost data was available on the second business day each month and then the complete forecast needed to be reviewed and entered into the accounting system within 3 days. The company P6 application was used for scheduling only, and the usual resource-loading via P6 input was not practical. Other systems were being utilized for cost management. In addition, there was the usual cost and schedule integration issue: separating the project cost to match the specific scope of the P6 activity. The cost accounting needed to align with the tasks in the schedules.

Solution

The solution was to automate the input of costs in the individual P6 schedules. The existing project cost details were formed from rates and contracts. A summarization of the line items on the cost form was then applied to the scope of the P6 major activities with a standard methodology. From there, programming was developed with actual and remaining costs at the activity level. An algorithm was used to account for costs that occurred after the dates of the P6 activity. This was necessary due to small follow-on activities and lag on the recording of costs. The monthly P6 cost loading to 700+ projects was done with programming directly into the P6 database.

Results

After automating the P6 cost loading, all 700+ schedules could be opened and the remaining costs could be spread over the major activities in P6. The project managers were able to review and make time period adjustments based on project knowledge. The adjustments were effective for the managers because the actuals had been applied in the P6 cost forecasts and they were in the correct time frame. Then they could fine tune to account for projected monthly variations in expenditures. Overall, the method provided a consistent approach to cost forecasting using the current P6 schedule dates and was integrated into the accounting system.

Cost Task	Task Description	Days Left	Start	Finish	Budget	Expended	Estimate at Compl	Cost Status	Forecast	
									Dec	Jan
Total Cost Report by Project		4360	01-Jan-01	29-Dec-17	\$1,570,409	\$656,400	\$1,657,365		\$893	\$19,643
OCW GPRP CARMEL DRIVE		174	30-Dec-16	30-Aug-17	\$585,896	\$300,000	\$602,346		\$893	\$19,643
0217-ES	ENGINEERING	56	30-Dec-16*	17-Mar-17	\$140,000	\$115,000	\$165,000	⊗	\$893	\$19,643
0217-CN	FACILITY CONSTRUCTION	117	03-Jan-17*	14-Jun-17	\$193,550	\$185,000	\$185,000	★		
0217-FO	FOLLOW ON COSTS	51	05-May-17*	14-Jul-17	\$134,915	\$0	\$134,915	⊙		
0217-TS	TESTING	83	08-May-17*	30-Aug-17	\$117,431	\$0	\$117,431	⊙		
ALDY-A RPL FERN WAY		230	13-Feb-17	29-Dec-17	\$280,135	\$79,000	\$281,717			
0219-ES	ENGINEERING	40	13-Feb-17*	07-Apr-17	\$54,004	\$25,000	\$52,002	⊙		
0219-CN	FACILITY CONSTRUCTION	48	27-Feb-17*	03-May-17	\$90,416	\$54,000	\$94,000	⚠		
0219-FO	FOLLOW ON COSTS	154	30-May-17*	29-Dec-17	\$75,715	\$0	\$75,715	⊙		
0219-TS	TESTING	94	01-Jun-17*	10-Oct-17	\$60,000	\$0	\$60,000	⊙		
OCW MARY AVE STOOK		145	06-Mar-17	22-Sep-17	\$434,298	\$265,000	\$503,222			
0220-ES	ENGINEERING	145	06-Mar-17*	22-Sep-17	\$52,901	\$20,000	\$55,000	⚠		
0220-CN	FACILITY CONSTRUCTION	57	06-Mar-17*	23-May-17	\$115,808	\$130,000	\$165,808	⊗		
0220-FO	FOLLOW ON COSTS	115	03-Apr-17*	08-Sep-17	\$102,414	\$15,000	\$102,414	⊙		
0220-TS	TESTING	118	10-Apr-17*	20-Sep-17	\$163,175	\$100,000	\$180,000	⚠		
ALDYL-A RPL BUMBOLD RD		4340	01-Jan-01	01-Dec-17	\$270,080	\$12,400	\$270,080			
0225-ES	ENGINEERING	114	27-Jun-17*	01-Dec-17	\$61,193	\$0	\$61,193	⊙		
0225-CN	FACILITY CONSTRUCTION	111	30-Jun-17*	01-Dec-17	\$20,184	\$0	\$20,184	⊙		
0225-FO	FOLLOW ON COSTS	38	11-Jul-17*	31-Aug-17	\$140,303	\$0	\$140,303	⊙		
0225-TS	TESTING	10	11-Sep-17*	22-Sep-17	\$48,400	\$12,400	\$48,400	⊙		



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