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Subcontractor management is an integral element of contemporary programs. Indeed, for some programs subcontractor effort represents the majority of the endeavor. This presents a number of challenges for the prime contractor and the analysts who are responsible for integrating information from the subcontractors while ensuring its timeliness and integrity.

Some of the more significant issues include:

- Differences in financial calendars
- Sophistication of subcontractor systems
- Sensitivity of rates
- Consistency of data
- Timeliness of the information
- Integration of Cost and Schedule

Although the ANSI-ASC X12 standard for electronic data interchange is an effective way for a prime or sub to report status, it does not provide sufficient information to support the integration of cost and schedule. Because X12 focuses on cumulative reporting, it limits the availability of information and complicates the process of achieving an integrated environment for customer reporting, earned value analysis and earned value management. Further, this method of exchanging information does not facilitate the application of additional overheads (G&A, fee, etc.) that a prime often must add to the expenses planned for and accrued by the subs.

For the prime to integrate data from the Subs effectively, the information provided must be at the reporting level of the Work Breakdown Structure (WBS) and contain schedules, time phased budgets (in hours and dollars) and status. With this information, the prime can develop control accounts within its earned value system and use them to analyze the project, manage the schedule, apply additional burdens and generate a holistic data set for analysis and customer reporting.

To accomplish these goals, the prime requires three elements from the subs to facilitate the acquisition of time phased budgets, timely earned value and actual costs, while overcoming the differences between the subs' and prime's financial calendars:

- Schedules with consistent line items at the reporting level of the WBS
- Time phased Budget Planning Sheet
- Subcontractor Status Report

In order to integrate data from a subcontractor effectively, the prime contractor (or lead system integrator) must define for the subs the reportable line items of the schedule, thus creating a one to one relationship to the reporting level of the WBS. These summary activities must remain consistent from one reporting period to the next and summarize the timelines and status for the tasks that fall below them in the schedule. For each summary task in the schedule, the prime must acquire from the subs time-phased budget data in hours and dollars. This information must be aligned to the WBS reporting level and further detail by element of cost (i.e. equipment, labor, material and other direct costs) and time phased by month and aligned to the subs' financial calendars.

With this information, the prime can establish control accounts in its earned value system based upon the time phasing of the data provided by the subs. With the WBS linked to the control account number or activity in the prime's schedule, the element of cost will provide sufficient detail to support the application of burdens, particularly when non labor costs do not carry all of the overhead line items defined for subcontractors. However, when burden definitions are simple or straightforward, the need to break down the data by element of cost can be avoided.

The Budget Planning Sheet also provides the prime with baseline updates from the sub as change notices are processed and planning packages are defined. This information can be placed on-line in a secure environment. Each sub can access and update its baseline plan through Dekker iPortfolio™ (iPortfolio). Once complete, this information can be loaded directly into Dekker TRAKKER® (TRAKKER) to complete the budget planning for the prime.

Once planning is complete and the effort begins, the prime must address the challenge of ensuring timely status from the subs for actual costs and earned value. This aspect of integrating status is further complicated by the differing financial close dates of the prime and the subs. Many contracts require the prime to provide customer reporting some number of days after the accounting period close. Since the subs will have a similar commitment to the prime, the prime's ability to integrate information in a timely manner is complicated by the certain eventuality that one or more of the subs will have close dates that occur 5 to 10 days after the accounting close of the prime.

Subcontractor Planning Sheet															
WBS Reporting Level	Element of Cost	Total	Fiscal 2002									Fiscal 2003			
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1.1	Labor Hours	960	80	80	80	80	80	80	80	80	80	80	80	80	80
	Labor Dollars	\$192,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000
	Material	\$0													
	ODC	\$6,000	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500
	Total	\$198,000	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500
1.2	Labor Hours	2880				320	320	320	320	320	320	320	320	320	320
	Labor Dollars	\$230,400				\$25,600	\$25,600	\$25,600	\$25,600	\$25,600	\$25,600	\$25,600	\$25,600	\$25,600	\$25,600
	Material	\$900,000				\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
	ODC	\$90,000				\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
	Total	\$1,220,400				\$135,600	\$135,600	\$135,600	\$135,600	\$135,600	\$135,600	\$135,600	\$135,600	\$135,600	\$135,600
1.3	Labor Hours	800	160	160	160	160	160								
	Labor Dollars	\$96,000	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200								
	Material	\$100,000													
	ODC	\$5,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000								
	Total	\$201,000	\$120,200	\$20,200	\$20,200	\$20,200	\$20,200								
1.4	Labor Hours	2160	240	240	240	240	240	240	160	160	160	80	80	80	
	Labor Dollars	\$259,200	\$28,800	\$28,800	\$28,800	\$28,800	\$28,800	\$28,800	\$19,200	\$19,200	\$19,200	\$9,600	\$9,600	\$9,600	
	Material	\$4,000,000	\$1,000,000			\$1,000,000			\$1,000,000			\$1,000,000			
	ODC	\$16,500	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$1,000	\$1,000	\$1,000	\$500	\$500		
	Total	\$4,275,700	\$1,030,800	\$30,800	\$30,800	\$1,030,800	\$30,800	\$30,800	\$1,020,200	\$20,200	\$20,200	\$1,010,100	\$10,100	\$10,100	
Program	Labor	\$777,600	\$64,000	\$64,000	\$64,000	\$89,600	\$89,600	\$70,400	\$60,800	\$60,800	\$60,800	\$51,200	\$51,200	\$51,200	
	Material	\$5,000,000	\$1,100,000	\$0	\$0	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000		
	ODC	\$117,500	\$3,500	\$3,500	\$3,500	\$13,500	\$13,500	\$12,500	\$11,500	\$11,500	\$11,500	\$11,000	\$11,000		
	Program	\$5,895,100	\$1,167,500	\$67,500	\$67,500	\$1,203,100	\$203,100	\$182,900	\$172,300	\$172,300	\$172,300	\$11,162,200	\$162,200		

Subcontractor Status				
Control Account				
WBS	Type	Budget	Earned	Actual
1.1	Labor Hours	960	80	80
	Labor Dollars	\$192,000	\$16,000	\$16,000
	Material	\$0		
	ODC	\$6,000	\$500	\$500
	Total	\$198,000	\$16,500	\$16,500
1.2	Labor Hours	2880	288	259.2
	Labor Dollars	\$230,400	23040	20736
	Material	\$900,000	90000	81000
	ODC	\$90,000	9000	8100
	Total	\$1,220,400	\$122,040	\$109,836
1.3	Labor Hours	800	80	96
	Labor Dollars	\$96,000	9600	11520
	Material	\$100,000	10000	12000
	ODC	\$5,000	500	600
	Total	\$201,000	\$20,100	\$24,120
1.4	Labor Hours	2160	240	240
	Labor Dollars	\$259,200	\$28,800	\$28,800
	Material	\$4,000,000	\$1,000,000	
	ODC	\$16,500	\$2,000	\$2,000
	Total	\$4,275,700	\$1,030,800	\$30,800
Program	Labor	\$547,200	\$54,400	\$56,320
	Material	\$5,000,000	\$1,100,000	\$93,000
	ODC	\$117,500	\$12,000	\$11,200
	Program	\$5,664,700	\$1,166,400	\$160,520

ID	Outline Num	Task Name	2001						
			Jan	Feb	Mar	Apr	May	Jun	Jul
1	1	Development Program	[Progress bar]						
2	1.1	Program Management	[Progress bar]						
3	1.2	Engineering	[Progress bar] 100%						
11	1.3	Design	[Progress bar]						
12	1.3.1	Architecture Design	[Progress bar] 100%						
13	1.3.2	Detail Design	[Progress bar]						
14	1.3.3	Order Pilot Equipment	[Progress bar] 100%						
15	1.3.4	Comms Planning	[Progress bar] 100%						
16	1.3.5	Develop Pilot Training &	[Progress bar]						
17	1.3.6	End of Design Phase	[Progress bar]						

To compensate for the accounting period differential and to ensure that information reported for the subs is not delayed a full reporting cycle, the prime can use the Subcontractor Status Report to collect financial information and earned value from the subs before they submit a formal CPR or C/SSR to the prime for the reporting period.

This information will be utilized to close out the CPR report of the prime. Once the CPR or C/SSR has been received from each sub, it will be reconciled with the Subcontractor Status Report during the next reporting cycle. Any differences between these reports should be minimal and easily reconciled.

Although this approach to collecting status does generate an additional data requirement for the subs, it significantly reduces the risk to the prime that results from delayed information. The benefits are more timely data, better insight into the status of each sub, and more time to analyze the overall program. In addition, by enabling the prime to add additional burdens to the data reported by the subs, the approach facilitates the direct output of a complete prime CPR from TRAKKER. This further ensures data integrity and streamlines the process of generating customer reporting.

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