

**“Project Management Using Earned Value”
Case Study Solution 32.1**



32.1

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**Automated Interdiction System
(AIS) Workstation Program**

SOLUTION

Exercise #1:

Thad has spent the last year immersed in Interface Processor design problems. He has spent very little time attending to his CAM responsibilities. Consequently, results reported for his control accounts have been ambiguous. Karen decides to sit down with Thad and review the actual performance in the light of control account status. The following Control Account Plan (CAP) on the next page shows the solution to Exercise 1 and includes the updated status of milestones for this part of the CAP. Previously reported performance, if any, has been omitted to avoid confusion.

Exercise #2:

Review Thad’s control account and, based on the status as shown on the next page Control Account Plan (CAP), enter the appropriate values for BCWP by month, by work task, on the CAP. After entering the monthly hours and dollars of BCWP for each work package, enter the total dollars and hours of BCWP for each month at the bottom of the CAP through month-end June. The solution for Exercise #2 is shown on the last page.

CONTROL ACCOUNT PLAN				PROGRAM: Automated Workstation	DATE: 7/15/Yr1	REV NO. Orig.	CONTROL ACCOUNT TITLE NO.: 1040ADC PRE-SRR SYSTEM SOFTWARE DEVELOPMENT						PAGE: 1 OF 1					
WBS REFERENCE: 1010501 SCHEDULE REFERENCE: ADA LVL1 001 R0				YEAR 01				YEAR 02				TOTAL 12 MOS.						
Element of Cost (EOC): L-Labor M-Mat1 S-SubKtr O-ODC				REFERENCE MILESTONES: System Requirements Review				Integrated Baseline Review				Engineering Prototype Available		System Software Review				
WORK TASK NO./EOC	WORK TASK DESCRIPTION	EV METHOD	CWA NO.	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL 12 MOS.		
1	Management/administration of developing system software	1	A3G01															
		LOE																
		BCWS-HRS			23	30	35	20	20	20	20	20	20	20	20	20	35	283
		BCWS-\$			\$1,650	\$2,153	\$2,511	\$1,435	\$1,435	\$1,435	\$1,435	\$1,435	\$1,435	\$1,435	\$1,435	\$1,435	\$2,511	\$20,305
2	Requirements Definition & Analysis to support SRR	5	A3G01															
		% Complete			31%	43%	26%											
		BCWS-HRS			57	80	50											187
		BCWS-\$			\$4,090	\$5,740	\$3,588											\$13,418
3	Support Risk identification & Assessment	2	A3G01															
		Milestone																
		BCWS-HRS			20	40	40	10	10	10	10							140
		BCWS-\$			\$1,435	\$2,870	\$2,870	\$718	\$718	\$718	\$718							\$10,047
4	Software Integration Testing & Software/Hardware Interface Testing	5	A3G01															
		% Complete											7%	22%	35%	36%		
		BCWS-HRS												50	160	250	260	720
		BCWS-\$												\$3,588	\$11,480	\$17,938	\$18,655	\$51,661
5	Test Planning 180 Requirements (5 hrs per requirement)	6	A3G01															
		Units																
		BCWS-HRS																750
		BCWS-\$																\$53,814
6	Design, Code & Unit Test	5	A3G01															
		% Complete																
		BCWS-HRS																4800
		BCWS-\$																\$344,401
7	Software input - Preliminary Documentation & Release	3	A3G01															
		50/50																
		BCWS-HRS																140
		BCWS-\$																\$10,046
8	Interpret, analyze & coordinate system software design with System Engineering & Other Subsystems (10% of WP #6)	7	A3G01															
		Apportioned																
		BCWS-HRS																480
		BCWS-\$																\$34,442
9	Purchase of compilers, research materials, DNA specialists, etc. supporting design	5	A3G01															
		% Complete																
		BCWS-HRS																0
		BCWS-\$																\$20,500
PAGE TOTALS	MONTHLY BCWS	HOURS		100	150	200	300	500	500	1000	950	900	1000	1000	900	7500		
		DOLLARS		\$7,175	\$10,763	\$14,351	\$21,526	\$38,376	\$40,876	\$76,751	\$73,163	\$67,576	\$71,751	\$71,751	\$64,575	\$558,634		
	CUM BCWS	HOURS		100	250	450	750	1,250	1,750	2,750	3,700	4,600	5,600	6,600	7,500			
		DOLLARS		\$7,175	\$17,938	\$32,289	\$53,815	\$92,191	\$133,067	\$209,818	\$282,981	\$350,557	\$422,308	\$494,059	\$558,634			
	MONTHLY BCWP	HOURS																
		DOLLARS																
	CUM BCWP	HOURS																
		DOLLARS																
MONTHLY ACWP	HOURS																	
	DOLLARS																	

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	CUM BCWS	HOURS		100	250	450	750	1,250	1,750	2,750	3,700	4,600	5,600	6,600	7,500		
		DOLLARS		\$7,175	\$17,938	\$32,289	\$53,815	\$92,191	\$133,067	\$209,818	\$282,981	\$350,557	\$422,308	\$494,059	\$558,634		
	MONTHLY BCWP	HOURS		100	150	190	185	369	457	748	885	886	978	722	777	6447	
		DOLLARS		\$7,175	\$10,763	\$13,633	\$13,275	\$28,976	\$37,776	\$58,669	\$68,500	\$66,571	\$70,173	\$51,804	\$55,750	\$483,065	
	CUM BCWP	HOURS		100	250	440	625	994	1,451	2,199	3,084	3,970	4,948	5,670	6,447		
		DOLLARS		\$7,175	\$17,938	\$31,571	\$44,846	\$73,822	\$111,598	\$170,267	\$238,767	\$305,338	\$375,511	\$427,315	\$483,065		
	MONTHLY ACWP	HOURS		117	160	215	197	380	500	730	900	915	1,000	700	750	6564	
		DOLLARS		\$9,360	\$13,600	\$17,200	\$15,760	\$32,900	\$45,000	\$63,400	\$77,000	\$76,200	\$80,000	\$56,000	\$60,000	\$546,420	