PROJECT CONTROL

ASSIGNMNETS – SOLUTIONS
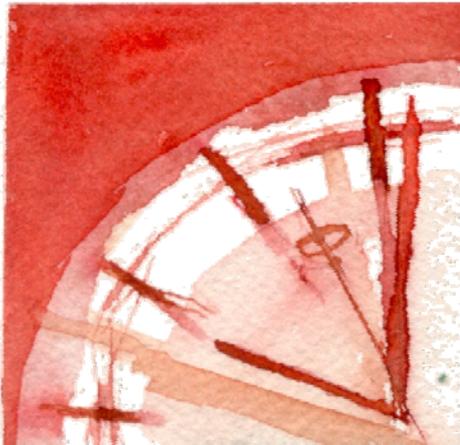
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GENERAL COMMENTS

In this document, the solutions to the assignments proposed are presented. It should be noticed that the numerical results are only provided and no interpretation of them is given. In order to analyse the status of the project in the proposed exercises, the common rules should be followed:

CV < 0 and CPI < 1: cost overrun

SV < 0 and SPI < 1: delayed

Theme 5. Practical Exercises

EXERCISE 1

Variable	Value	Variable	Value
CV	-50	EAC (CPI)	1.160,69
CPI	0.86	EAC (CPIxSPI)	1.211,16
SV	-20	TCPI (BAC)	1.079
SPI	0.94	TCPI (EAC-CPI)	0.89

EXERCISE 2

Variable	Value	Variable	Value
BAC	300.000 €	CV	-82.500 €
PV	150.000 €	SV	-37.500 €
EV	112.500 €	CPI	0.57
AC	195.000 €	SPI	0.75

ETC (CPI) = 32.8947,36 €

ETC (CPIxSPI) = 438.596,49 €

EXERCISE 3

Variable	Value	Variable	Value
PV	4.000 €	CV	-1.000 €
EV	3.200 €	CPI	0.76
AC	4.200 €	SV	-800 €
BAC	8.000 €	SPI	0.8
EAC (CPI)	10.515,75 €	EAC (CPI x SPI)	12.094,73 €
TCPI (BAC)	1.26	TCPI (EAC-CPI)	0.76

EXERCISE 4

Variable	Value	Variable	Value
PV	130.000 €	CV	-5.000 €
EV	115.000 €	CPI	0.95
AC	120.000 €	SV	-15.000 €
BAC	150.000 €	SPI	0.88
EAC (CPI)	156.842,1 €	EAC (CPI x SPI)	161.866,03 €
ETC (CPI)	36.842,1 €	ETC (CPI x SPI)	41.866,03 €

Theme 6. Computer-based exercises

EXERCISE 1

Variable	Value	Variable	Value
PV	32.000 €	CV (50/50)	2.250 €
EV (50/50)	19.000 €	CV (inform)	2.250 €
EV (uniform)	19.000 €	SV (50/50)	-13.000 €
AC	16.750 €	SV (uniform)	-13.000 €

Variable	Value	Variable	Value
CPI (50/50)	1.1343	SPI (50/50)	0.5937
CPI (uniform)	1.1341	SPI (uniform)	0.5937

Variable	Value	Variable	Value
EAC (CPI 50/50)	32.618,42 €	EAC (CPIxSPI 50/50)	43.475,76 €
EAC (CPI uniform)	32.618,24 €	EAC (CPIxSPI uniform)	43.475,76 €

EXERCISE 2

Variable	Value	Variable	Value
BAC	2.500.000 €	CV	-391.728 €
PV	2.427.950 €	CPI	0.8597
EV	2.401.357 €	SV	-26.593 €
AC	2.793.085 €	SPI	0.9890

Variable	Value	Variable	Value
EAC (CPI)	2.907.819,41 €	EAC (CPIxSPI)	2.909.090 €
ES	4.3832 months	EAC (t − PF=1)	10.6167 months
SV (t)	-0.6167 months	EAC (t − PF=SPI(t))	11.4070 months
SPI (t)	0.8766		