Earned Schedule Contributions to EVM

Following is a list of the enhancements to project control from the incorporation of Earned Schedule into EVM practice.

1. Reliable alternative to EVM schedule indicators, overcoming its failure for late performing projects
2. Concept for measuring ES and its naming.
3. Calculation method for ES: ES = C + I
4. Time-based schedule performance indicators definitions and formulas:
   SPI(t) = ES/AT and SV(t) = ES – AT
5. Development of forecasting formulas:
   IEAC(t) = PD / SPI(t) and IEAC(t) = AT + (PD – ES)/PF(t)
6. Creation of the to complete schedule performance index:
   TSPI = (PD – ES)/(TD – AT)
7. Concept of schedule adherence and its indicator, the P-factor
8. Schedule analysis derived from the concept of schedule adherence: identification of tasks having potential for impediments/constraints and rework
9. Effective Earned Value, the concept, the term, and calculation method
10. Schedule Adherence Index, the term and calculation method
11. Formula and methods for forecasting rework from out of sequence schedule performance
12. Formulas and methods for computing the impact to schedule performance from rework
13. Application of ES forecasting to the planned Critical Path and analysis interpretation
14. Creation of ES analysis and forecasting methods for projects having Stop Work and/or Down Time
15. Research showing that periodic values of CPI and SPI(t), are likely distributed lognormally
16. Finite population adjustment factors needed for applying statistical methods to CPI and SPI(t)
17. Statistical calculation method for computing confidence limits for cost and schedule forecasts
18. Creation of the Longest Path concept and forecasting method, including statistical forecasting

19. Performance management and project control methods: calculation methods for adjusting staffing and overtime; cost-schedule interpretation chart; decision process leading to management action
20. Statistical calculation method for planning cost and schedule reserves
21. Research establishing the threshold value of 1.10 for the TCPI and TSPI as an irrecoverable project status
22. Calculation method for probability of recovery using established threshold (1.10) for TCPI and TSPI
23. Method for selecting between two deterministic project duration forecasting formulas: IEAC(t) = PD/SPI(t) or IEAC(t) = AT + (PD – ES)