Dynamic scheduling: If time is money, accuracy pays!

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Abstract

The topic of this presentation is on dynamic project scheduling principles to illustrate that project scheduling is a dynamic process that involves a continuous stream of changes and is a never ending process to support decisions that need to be made along the life of the project. The focus lies on three crucial dimensions of dynamic scheduling: (i) the construction of a baseline schedule, (ii) the analysis of the schedule's risk and (iii) the project measurement and control phase.

In this presentation, the importance and crucial role of the baseline scheduling dimension for the two other dynamic scheduling dimensions (project risk and control) will be highlighted, and the integration of the schedule risk and project control dimensions is discussed in order to support a better corrective action decision making when the project is in trouble.

Throughout the presentation, a strong focus will be set on the time aspect of projects, and on the accuracy of setting and measuring this crucial time focus along the three dimensions of dynamic scheduling. Traditional and novel concepts of Earned Value Management will be integrated with well-known sensitivity measures obtained by a Schedule Risk Analysis and the accuracy of measuring and forecasting time will be tested and compared for a wide range of projects and scenarios. A new commercial software tool will be used to illustrate the newly developed concepts and results that can be used for research, for teaching as well as for practical project management purposes.