AACE INTERNATIONAL RECOMMENDED PRACTICE

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DEVELOPING ACTIVITY LOGIC

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TCM Framework: 7.2 – Schedule Planning and Development

Rev. March 26, 2004

Note: As AACE International Recommended Practices evolve over time, please refer to www.aacei.org for the latest revisions.

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Disclaimer: The opinions expressed by the authors and contributors to this recommended practice are their own and do not necessarily reflect those of their employers, unless otherwise stated.

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PURPOSE

This recommended practice is intended to provide a guideline, not establish a standard. This is not a how-to on any particular methodology.

As a recommended practice of AACE International, development of activity logic (also called network logic) in planning and scheduling provides guidelines for the sequencing of activities in a logical way generally before duration estimating can be performed. Logic is generally determined before durations are considered. Logic development methods include precedence diagramming, or arrow diagramming methods. Logic is the set of activities and dependency relationships between them. Logic dictates the planned sequencing of activities. A network diagram is often used to illustrate the logic.

Planning and scheduling are not the same. Planning is determining how the work will be done, while scheduling is the analysis and calculation of start and finish dates.

Logic enables the combination of activities to be arranged in one of the aforementioned formats so that a completion date can be established. Logic also enables backward passes to arrive at optimal overall schedule duration.

This recommended practice is for use by project team members involved in planning process, a continuation of activity identification process (reference TCM Framework section 7.2). As in identification of activities, many individuals contribute to the development of activity logic. Having an experienced planner coordinate the process improves final quality, and adds value to the planning process.

RECOMMENDED PRACTICE

Who Develops Logic

Better planning results from the involvement of key team members facilitated by the project planner. For example, on a large construction project key members involved in this process might include a project manager, construction manager, estimator, procurement manager, design manager, owner representative, operations representative, and scheduler.

A planner has strong working knowledge of how the work is performed (i.e., how the activities inter-relate). A scheduler takes the plan, and performs analytical functions to create the actual project schedule such as estimation of time durations. One individual may serve as both the planner and scheduler, or at other times may be different people.

A team meeting or workshop is an excellent means to develop activity logic. This may be combined with the workshop to identify activities.

When Should You Develop Logic

Logic development is an iterative planning process. Initial logic development is begun after identification of activities, and before the scheduling process step occurs. This process is further refined during schedule development and optimization.