



IPT Discussion Memo

I. INTRODUCTION – ENHANCED PMCS – TRIAD PROJECT MANAGEMENT

The JAO has begun the formal design process for the enhanced "ALMA Project Management Control System" (PMCS). This will result in an improved ability to manage the budget and schedule for ALMA. For the next few months, we will be working with Triad Project Management to design the ALMA PMCS and begin data collection.

Triad's first step will be to have a telecom interview with the IPT leads to get your feedback on what you need to have in order to manage your IPT successfully, and to anticipate as early as possible any changes to added work scope or delays occurring in other parts of the project that will affect you.

Triad has provided the information below as a first step to stimulate your thinking in preparation for the IPT interviews. I think we will find that the benefits of an integrated project control system will greatly support the IPTs as they accomplish their efforts.

II. INTEGRATED ALMA PROJECT SCHEDULE

A detailed, dependency-driven, schedule that is implemented in a modern web-based scheduling software should:

- a. more accurately plan for work and staffing needs
- b. identify the impacts from new requirements on the IPTs schedules
- c. provide for the strategic planning of major procurement efforts
- d. identify the critical path(s) and potential for work-arounds
- e. identify which parts of the schedule have a large float (slack)
- f. identify interdependencies between IPTs which may cause "bottle-necks" and can be addressed early or work-arounds developed
- g. allow for ease of periodic updating to the schedule
- h. be able to filter and sort schedule information for IPT and mgmt needs by many different views such as by work element, responsible individual, etc.
- i. provide for the ability to link the time-phased schedule data to the budget to develop an overall integrated project baseline

Sample Schedule Reports

- a. Projected Schedule for Near Term Milestones
- b. Projected Schedule for IPT external interface milestone dates (inputs)
- c. Projected Schedule for IPT external interface milestone dates (outputs)
- d. Projected Schedule for current Critical Path activities
- e. Informal weekly schedule status at IPT level
- f. Formal monthly schedule status at IPT & JAO level



Examples of Scheduling Reports by Filters

- a. Only ESO or NRAO activities
- b. Only a Specified IPTs activities
- c. Only Specified Work Package related activities
- d. Only Specified Work Element related activities
- e. Only Schedules by Institute or Sub-contractor
- f. Only IPT Critical Path activities or Project Critical Path activities
- g. Schedules by Location (Site Schedule)
- h. Report on Interface Milestone status (Cross IPT linkages)
- i. Reports on status of different Milestone Levels

What do the IPTs need and want from such a scheduling system?

1. What do the IPTs and their teams need (want) from the scheduling system?
2. What types of reporting would you want to get on a periodic basis? Above are samples of what can be provided.
3. What types of reports help you to accurately project your current work load?

III. BUDGET AND COST TRACKING SYSTEM

Time-phased budgets developed in modern cost software that is linked to the Integrated Project Schedule (IPS) and fed by the Executives accounting systems should:

- a. be able to see budget impacts due to schedule changes
- b. measure expenditures against the work element budgets
- c. allow for customized profiling of the budget per work element
- d. track the commitments profile in additions to the expenditures profile
- e. allocate proportions of the work element budgets to interim milestones
- f. calculate variances between budget and expenditures through a specific date
- g. allow for changes to work scope or cost changes to be reflected in the budget
- h. be able to maintain a change control log and carry multiple budget baselines in the budget and cost tracking system

FINANCIAL REPORTS

- a. Monthly financial accounting reports at the work element level for the IPTs
- b. Monthly, Quarterly, and Annual reporting to the funding agencies
- c. Monthly earned value reporting and variance analysis
- d. Variance reports for the work element level comparing budget to expenditures and to “monetized” schedule accomplishment
- e. Forecasts of future budget needs and Estimates-To-Complete (ETC) based on schedule accomplishment

What do the IPT needs from such a budget and cost system?

What do the IPTs and their teams need from the Budget and Cost Tracking system?
What types of reporting would you want to get on a periodic basis? Above are samples of what can be provided.