



PP03 Progress Updating and Reviews.

Progress updating

Lack of a formal progress updating procedure can cause failure because, without it, problems and delays will not be recognized until too late.

Even a "perfect" programme becomes outdated unless it is updated on a regular basis. On most projects, programmes are updated monthly, but it is not uncommon to update programmes weekly or even daily.

Some of the most significant purposes to update a project programme are to:

- Record progress,
- Provide a plan for remaining work to be completed,
- Provide a forecast for completion of the project and contract milestones,
- Provide progress status for the project team,
- Comply with contract requirements.

Maintaining accurate project records through a project control system is an important aspect of updating the programme. Information for the 'update' can come from recording progress data whilst walking the job-site, site diaries and the like kept by project supervisory staff, and status reports from sub-contractors.

An important part of a progress update submission is a narrative. As well as saying what delayed progress during the reporting period, a good narrative should also explain any revisions that have been made to the programme. If a contractor states the revisions contemporaneously then the contract administrator can not complain at a later date that he was not aware of changes to the contractor's plan.

From a contract administrator's perspective it is important to obtain a copy of the updated planning software files on disk. Important because, not only are you saving a tree!, but how do you know the contractor hasn't made a mistake and accidentally forgot to include in the 'paper' reports some of the critical or embarrassing activities. Or for that matter, are you really going to spot a change in a logic link to an activity in a paper report? If you were an auditor, would you accept hand-written summaries of the month's transactions or would you want to see the real books?

Programme revisions

Regular revisions of a programme are important because the initial baseline programme is merely a plan with regards to what needs to be accomplished in order to achieve completion of the project on-time. How the project actually reaches completion will most likely vary greatly from the original baseline programme, which is why regular programme revisions are crucial.

A revised programme not only records progress at the time of the revision, but should also review and introduce if necessary activity logic revisions to reflect current intent. These logic revisions may result in changes to the original baseline critical path.

Detailed review of a progress update or revised programme

A progress update or revised programme submission for review should consist of a full copy of the computer files necessary to recreate the programme, and not just the paper print-outs and listings.

The following checks should also be carried out on a progress update or revised programme submittal.



PP03 Progress Updating and Reviews.(Cont'd)

Check 1: System checks; most of the recognised planning software packages allow the user to determine the CPM calculation rules. For example, total float in Primavera software can be set to be computed using one of three different formulas; and mismatched dual activity predecessor links can automatically stretch-out activity durations and the project completion date.

Check 2: Activity checks; this involves three sub-checks,

- (i) **Missing 'status' information:** Most planning software packages allow you to status an activity without supplying actual start and finish dates. Whilst the lack of actual dates will not affect the progress update calculations as long as the percentage progress achieved is correctly recorded against the activity, actual start and finish dates provide a good record of work already accomplished.
- (ii) **Deleted activities:** In progress update submissions, activities that are finished should not be deleted as they form a record of when the work was achieved. However, in a revised programme submission it is acceptable that the programme include only works, and their detailed programme activities, still to be carried out on the project.
One last word on deleted activities: You should never re-use the activity ID from the deleted activity as an activity ID for a new, added activity. This not only confuses the 'checker' software, it makes statistic-keeping and forensic investigation of the project very difficult. When you deleted activities, also retire the activity ID.
- (iii) **Added activities:** Adding activities should be encouraged if they are done in a way to communicate the change in the work plan. It does no good for the contract administrator or employer to insist on 'sticking to the baseline programme,' i.e. updating or statusing the activities as they are completed even though the work is no longer being packaged in the manner that was originally planned. Very little useful information can be obtained from actual start and finish dates if the activity did not describe the way the work was accomplished. Activities by their nature imply that work was being prosecuted continuously. If the work no longer proceeds in the manner envisioned, the starts and stops of work within an illdefined work activity will make that activity no more informative than a hammock activity.
- (iv) **Modified activities:** If an activity was neither deleted nor added, it still may have been modified. It is not 'wrong' that activities are modified. After all, the employer expects progress to be made and that involves modification of activities. The key for the reviewer of the programme is to note those modifications to activities that are other than expected progress. After spotting these types of modifications, the next step is to analyze the modifications.

Check 3: Actual Dates; any modification to an existing actual date should be accompanied with an explanation for the change. The obvious reason for this is that there is only one 'correct' date. The contractor earlier reported that the first actual date was correct. Now he or she is revising that certification. Or are they? If you fail to unambiguously affirm which is the 'correct' date, the original one or then new one, then in the event of a delay or extension of time submission, the contractor can claim that either of the dates is the correct one. Was the first date correct and a new one inadvertently changed. In other words, which of the two dates works best in the contractor's favour?

In addition to modified actual dates, you should also look for newly added actual dates that do not fall within the update period. You should not accept new dates that just happen to fall in the future. You would think that the planning software would prevent this from occurring, but it occurs surprising often. Much more subtle are newly added actual dates that fall before the start of the last progress update period. The previously reviewed progress update showed this activity was incomplete. Now you are looking at a progress update that says that you reviewed the wrong programme the previous time. Has the actual critical path for previous progress update moved?



PP03 Progress Updating and Reviews.(Cont'd)

Check 4: Network logic and activity links;

- (i) Where the predecessor and successor activities still exist in both the current update and previous progress update but the activity link is new, it is assumed that the contractor intended to add this relationship. These will have to be reviewed and traced individually.
- (ii) Similarly, for deleted logic links, where the predecessor and successor activities still exist in both the current update and previous progress update, it is assumed that the contractor intended to delete this relationship.
These will have to be reviewed and traced individually.
- (iii) Modified logic links. For extensively modified activity links, the ramifications of changing an existing logic relationship from one type to another type is very difficult to predict without looking at each change on a case-by-case basis. Where activity link 'lags' have been modified, usually results in the programme being 'stretched' or 'shortened' in a way that is very difficult to notice. This is especially true if a lot of small changes have been made to several activity link 'lags'. Many small changes can add-up to one large change. You will only note this trend if you record all of these changes together in one list.

Check 5: Activity Constraints; these are invisible on a plotted network, and unless you check the activity database you will not see them at all. They are very powerful and override the logic of the CPM network. Quite simply put, one constraint can completely revise an entire CRM programme.

Constraints are usually start or finish dates imposed dates on an activity such as 'start no earlier than' or 'start no later than'. These are more acceptable than other date constraints such as 'mandatory start'.

A careful check has to be made of the data associated with each activity to identify the constraints and a more detailed review to identify their purpose. Remember, good programme reviews don't just happen, they take a lot of work!