

Improving On-time Commitment Performance

*Luis A. Nunez Velez
Engineering Management
Dr. Hector J. Cruzado
Graduate School
Polytechnic University of Puerto Rico*

Abstract — *To improve the on-time commitment performance of organization XYZ, the current commitment process was evaluated. The methodology to improve the commitment process was broken down into five steps: (1) Assigning an engineer; (2) Engineer comes up with a schedule; (3) Completion of technical documentation and review cycle; (4) Technical submittal for approval; and (5) Commitment is closed. After implementing the commitment process improvements, the on-time commitment rate improved from 78% to 85%.*

Key Terms — *Commitment report, Process improvement, Submarine*

INTRODUCTION

XYZ is an organization that builds submarines. Building a submarine is a difficult and challenging process therefore this organization is divided into multiple departments. Within this organization, an engineering department verifies that the electrical components in the submarine work and operate properly. In an event a component malfunctions and requires to be redesigned, a commitment is opened to track that liability. The purpose of the commitment is to track the technical documentation that will be submitted for approval.

The current commitment process is not meeting the required metrics of 90% on-time commitment completion rate. To improve the current 78% completion rate, the commitment process was analyzed to provide improvements. The five steps were broken down individually to provide full assessment in an effort to comply with the required 90% on-time commitment completion rate.

ANALYSIS

To improve the on-time commitment completion rate, the current process was analyzed to determine which areas require improvements. There are five steps in which the commitments are carried out:

1. An engineer is assigned to the task.
2. The engineer comes up with a schedule.
3. The engineer completes the technical documentation and its placed in a review cycle.
4. The document is submitted for approval.
5. Commitment is closed.

Assigning an engineer

The current process in which the department assigns tasks to engineers is based on availability, depending on the workload of the engineer a specific task is assigned to him. The engineer cannot choose if he wants to work that assigned task. In the past this has created problems with the completion of the tasks, as the engineers lose focus and are not properly motivated.

When evaluating a candidate for a task, there are a few things that that are now being taken into consideration before assigning an engineer to the task. First, the engineer needs to possess the knowledge, skill, and position-specific ability to complete the task. To verify whether the candidate was right for the task, previous achievements were reviewed. Measuring previous achievements helped predict whether the candidate was the right fit for the task [1].

Second, the engineer did not only need to be skilled, but also have the desire to work on the task. Allowing the engineer to choose the tasks based on their knowledge and interest helped improve the task productivity. This change helped the engineer to complete the tasks more efficiently.

Engineer comes up with a schedule

After an engineer is assigned to work the task, he must come up with a schedule. The current process for coming up with a schedule is by using a fixed template in Excel for general tasks. Collected data has shown that previous schedules generally are not accurate and are almost never followed. Schedules are presented to the supervisor and manager of the department, but after that meeting, there are no follow up actions until the date that was agreed upon arrives. At this point, if the engineer has not completed the task, he must come up with a new schedule and the date is moved. If the NAVY does not agree with moving the date, that commitment is placed in a delinquent report. Not completing the commitment on time reduces the completion rate, costs the company money, and it can even postpone the delivery of the submarine on time, which could cause the organization to lose future contracts.

It was noted that before coming up with a good schedule, the engineer needs to understand the task and set up a plan. Planning was determined to be necessary to set goals, objectives, and identifying priorities for the task. Understanding that unforeseen events occur and tolerances for deviations need to be taken into consideration when coming up with the schedule [2].

To come up with a good schedule, the first thing done was to lay out all of the tasks that needed to complete within a time frame. A Gantt Chart was identified to be a good tool to use to identify items and their completion dates. Gantt Charts did an excellent job of showing the time required for various tasks and worked best for overall picture [3].

After creating the schedule and the engineer began to working the task, follow up meetings between the supervisor and engineer were implemented. During the meetings the engineer brought the Gantt Chart to give status of where the task was. This was useful for determining unforeseen events. Once deviations arose, the supervisor helped the engineer correct them.

Completion of technical documentation and review cycle.

Once the engineer has completed the written report containing the technical documentation, that report is placed in a review cycle. The review cycle consists of a peer, senior, supervisor, and manager review. The purpose of this review is to make sure that the technical aspects of the report are correct and that the written report is without error.

From previous data, here is where the schedule starts to deviate. Several factors attribute for the schedule to start to deviate in the review cycle. One major issue is that the written report is not complete enough to go into the review cycle. The peer reviewer finds a lot of errors and the report is sent back to the engineer for corrections. The second issue is that the engineers reviewing the technical document have their own projects and do not have enough time or urgency to review other engineer's work. Before completing the review cycle the engineer has to adjudicate all of the comments made to the technical submittal from peer, senior, supervisor, and manager that were assigned to review the document.

To improve on the first issue proper, training on how to write a technical documentation was assigned to the engineer [4]. Additional to assigning training, the supervisor assigned mentors to engineers that required more guidance.

To improve the second issue with the review cycle, this step was analyzed as a group process. The group members first held a meeting to understand the task and devised a plan on how they would manage their time on the task accordingly [5]. Working together to complete the task even though the commitment was assigned to only one engineer helped to speed up the review cycle and the completion of the technical documentation.

Technical submittal for approval.

To submit the technical documentation, all comments from peer, senior, supervisor, and manager have to be adjudicated. Once the document is complete, a letter number is created to track the routing of the document. After the document is submitted for approval, organization ABC reviews the document and replies back whether it's approved

or disapproved. In the past, once the technical documentation was submitted, the engineer moved on to the next project and did not follow up on the status of the review. This has lead commitments to be forgotten and not being processed correctly.

To improve this process, the engineer had to be in contact with the person that reviewed the technical document and answered questions that came up during the approval process. This helped maintain communication between both parties and the documentation was processed correctly.

Commitment is closed

Once the technical submittal is approved, the commitment can be closed. The current process to close out a commitment is to fill out the required paper work and add the document to a databank. Once the document is added to the databank, the commitment report is updated to close out the liability. Some issues with this step were with the engineers not filling out the paper work. This resulted in the commitment not being closed on time.

To improve this step, the engineer verified that all the pertinent paper work had been filled out correctly and that the document is added to the databank correctly.

CONCLUSION

After implementing these improvements to the commitment process, the technical submittals have been getting completed at a greater rate. As of now commitment completion rate has improved from 78% to 85%. Further improvements to the commitment process will be evaluated to help increase the completion percentage and get it to the 90% that is requested.

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