# Improving micromanagement methods used in a software engineering organization

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Abstract — Management groups within businesses are constantly striving to implement new methods of tracking tasks. Micromanagement has become a popular method in modern times because of the level of detail that this method can manage. In a software engineering organization, micromanagement methods are being used to track tasks. The current method being used fails in the reporting process and negatively affects the purpose of implementing a task tracking method. A scrum methodology was implemented to evaluate and introduce a change in the system in place. To mitigate this issue, a survey was held to understand the effectiveness and overall sentiment of being micromanaged. After understanding the issue and considering alternatives, the proposed reporting method increased overall task tracking, maximizing the effectiveness of micromanagement reporting.

*Key Terms* — *efficiency, micromanagement, oversight, productivity* 

### INTRODUCTION

In a software engineering organization, micromanagement techniques are in place to track deliverables and better understand the workload across the organization, measure efficiency and overall productivity. An area of opportunity was found in this organization because of the lack of consistent data provided by the employees towards supervisors and managers to better determine the overall effectiveness of the organization and how well the group is performing relative to the amount of work available.

Employees are asked to log their work hours daily. At times, employees are working multiple projects for multiple customers and must log their hours properly and accordingly. Upper management has implemented a type of micromanagement system called "short texts". Short texts are used to label the hours logged, to classify these worked hours based on defined codes for their use. Management then takes these short text classifications and organizes the data to execute productivity analyses to have a better understanding of the organization and how well it executes their job duties and responsibilities.

There are some problems with this micromanagement process. First, if there are many projects and many tasks that fall under the same organization, it is possible to have too many labels, or "short texts", for workers to put on their logged hours. Having so many labels can cause confusion and eventually cause discrepancies with the accuracy of how hours are logged and labeled. If the labeling process is not done correctly or is inaccurate, then the productivity and efficiency of the workforce cannot be computed correctly and will yield results which are not in accordance with the organization. Management uses these productivity and effectiveness values to better determine and allocate resources and budgets to different work programs and if these values are not correct, then that will downstream affect how budgeting is reserved for projects and the workforce.

#### **Objectives**

The objective of this project is to increase the reporting rate of worked hours within the organization by improving the existing micromanagement process.

# BACKGROUND

Every manager or business leader has their own style of managing their teams. While some

managers believe in empowering their subordinates with autonomy, others like to keep the discretion to themselves [1]. A popular but mildly controversial style of management is called micromanaging. Micromanagement is known as the practice of managing all aspects, be it small or large. The term "micro" refers to the level of detail that this type of management method can reach.

Although micromanagement is intended to be a positive approach to managing people, unfortunately the general sentiment to this management method is negative. There is a significant gray area between what one person sees as interference and another sees as support and interaction [2]. One of the main issues with being the micromanager is the possibility of overloading your subordinates with unnecessary or excessive oversight on tasks to the detail in which is not entirely necessary. Employee morale, attitude, productivity, and overall effectiveness in executing work and realizing tasks can be affected by excessive management and their methods.

Not all micromanagement methods are negative. There have been positive and successful businesses which have implemented micromanagement techniques and systems within their work structure and have achieved overall positive sentiment and a more efficient workforce. Micromanagement can add to the efficiency of every team member by guiding them, allowing the manager to keep an eye on their mistakes, foresee the failures, and work to potentially prevent them. In this way, micromanagement seems a bright style of business management [1].

#### APPROACH

For the project to continue, data must be collected and analyzed accordingly. A survey was handed out to 30 employees who currently fall under the current micromanagement process. Five questions were included in this survey, with simple Yes or No answers to each one. Once the survey was completed, the data was tabulated and organized. Table 1 shows the questions provided along with the recorded answers.

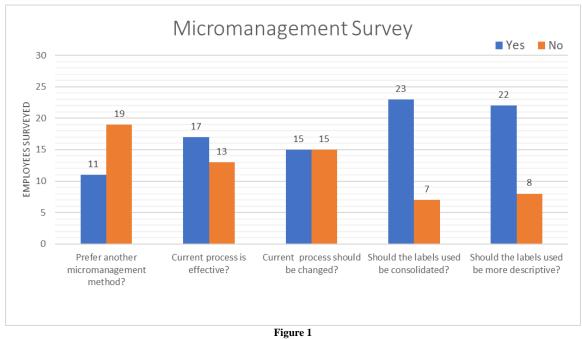
Table 1Data collected from short survey

	Answers				
Questions	YES	NO			
Prefer another management method?	11	19			
Current processis effective?	17	13			
Current process should be changed?	15	15			
Should the labels be consolidated?	23	7			
Should the labels be more descriptive?	22	8			

## ANALYSIS

To visually understand the data collected, a bar chart was generated with the results of the survey. Figure 1 depicts the bar chart of the survey results.

The overall sentiment of the micromanagement process in place is positive, meaning employees are accepting of the current process in place. The overall sentiment regarding the labels used to identify the hours worked per employee is negative. The negativity on these questions show that the employees would much prefer to have consolidated labels and better and more accurate descriptions of said labels. Having lesser labels with better descriptions and examples of the deliverables assigned to that label would prove to be more effective that what currently is in place.



Bar chart of survey results

### **Change and Results**

With the feedback received from the data collected and after it was analyzed, a brainstorming session was held. During the session, various ideas were discussed that would align with the expected results from the survey held. This means that the management method is not to change but improve. The improvement would be with the consolidation of labels being used. Also, more descriptive phrases and examples of deliverable and tangible tasks to be used under each label are to also be included. Table 2 shows how the old format in which employees were using to log their hours based on a weekly basis.

Table 2Weekly hour log									
	Month # _ Week # _								
	MON	TUE	WED	THU	FRI	SAT	SUN	Total hours	
Label 1									
Label 2									
Label 3									
Label 4									

From the survey results, it was understood that many of the persons interviewed do not prefer another management method. They also believe that the current process is effective. Apart from that, they also chose that the current system in place should be improved, by the consolidation of labels and the addition of descriptions per label. Taking this feedback, changes were made to the existing process. Table 3 shows the improved weekly hour log.

Table 3 Improved weekly hour log

	Month # _ Week # _							
	MON	TUE	WED	THU	FRI	SAT	SUN	Total hours
Label 1								
Description of								
label and								
examples of								
deliverables.								
Label 2								
Description of								
label and								
examples of								
deliverables.								
Label 3 & 4								
Description of								
label and								
examples of								
deliverables.								

The changes were applied, and the improved weekly hour log was given to the interviewees. Many of those who had expressed content with the previous system had a positive reaction to the change. The focus for these interviewees was to not change essentially the system and the format, but to improve on it. Those interviewees who voted with a negative sentiment applauded the efforts and showed contempt.

# CONCLUSION

The software engineering organization decided to implement micromanagement methods and tools to track and monitor workforce efficiency and productivity. The task tracking tool that was in place did not yield positive results due to being largely time consuming and ambiguous. This tool was improved by consolidating the number of labels and adding descriptions and examples of the deliverables to be made under each label. The reporting rate of daily hours saw a significant increase, which in turn improved the productivity and workforce efficiency analyses. Micromanagement is successful when its tools and methods are developed specific to the organization which improves overall company management.

## **FUTURE WORKS**

Continuous development is crucial. As a company grows and more tasks are created and assigned, improving on existing methods and tools is a must. For this task tracking tool, it is suggested that the number of labels to be used be increased as new tasks are defined. Automation is an excellent way to improve on the task tracking and hour reporting exercises and should be considered for future works and improvements.

#### REFERENCES

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