To: Dr. Hayes

From: Benjamin Tonges

Subject: Github Memo

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Configuration Management is the process by which a series of documents, usually pertaining to a developing product, are managed, organized, and controlled during the development process. Software Configuration Management (SCM) is useful because it allows those with access to the management software, be it Git or some other method, the ability to view, download, and otherwise access the software at various states of production. By managing the configuration of the project, it is documented and controlled to allow for maximum productivity.

SCM can be useful to projects in several ways, 3 of which are by creating a baseline project, acting as an archive, and by allowing for efficient review of changes. A baseline project is useful to a team because it allows a group or individual to branch off from the baseline ‘master’ state of the project so that each group can update different parts of the project without interfering with each other’s work. This leads to the project having multiple versions of code, many of which are historical, that are managed. This will allow the team working on a project the ability to, in the event of changed requirements or regulations, revert the code to a previous working state without needing to painstakingly backtrack each changed file manually. The SCM allows for efficient review by allowing the team to see what files were changed from which version, or branch, allowing whomever audits the code to review and test just the specific lines that were changed rather than needing to comb through the entire project.