Colin Hawkins

DevOps

Module 8.2 Assignment

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Change Control is an essential tool in a software development team’s arsenal. Proper change control procedures help to minimize the introduction of bugs into software, provide a method for tracking exactly what changes are being introduced into the software, and grant the ability to track which developer implemented which changes. Change control clearly comes with a number of benefits that can be of use to any development team. However, it also brings with it some risks and problems that need to be considered when setting up change control policies.

Change control approval methods can have a significant impact on a project, and if those processes are overly complicated or outdated, it can lead to noticeable decreases in efficiency. It is important to have these approval processes, but it will not be necessary in many cases for all changes to pass through multiple levels of approval or large committees, both of which can severely slow down the process. Similarly, not all changes need to be submitted to such rigorous approval processes. Change requests should be categorized by vectors such as risk level and priority, so that changes that are very low-risk could be reviewed by a different, less-complex process than high-priority, high-risk changes.

Other problems appear when change control processes are not adjusted or improved as the project and it’s requirements change. Early in a project, change control processes may be very lax, as developers work to get a baseline version completed. Problems may arise, however, when later in the development cycle, the change control processes are still very lax. At this point bugs are frequently being added in and are difficult to revert or fix, and nobody knows with certainty which developer’s code introduced the bug in the first place. Approval processes should be reviewed periodically to determine if they are still sufficient for the requirements of the project.

In summary, while change control processes are incredibly important for development teams to manage, there are a variety of problems that can arise from not carefully creating these processes. Changes come with varying levels of risk, and following the same process for low-risk changes as high-risk ones can slow down delivery of updates and bug fixes. At the same time, approval processes do not need to be overly complex. In most cases, designating a handful of people to approve changes is more than enough, and large committees or multiple layers of approvals is often overkill. Finally, change control processes should not be created just once and left as-is. Just like with any other process, it is important that change control processes should evolve and adapt to fit the needs of a project or team.

References:

<https://www.myndbend.com/guide-to-the-it-change-requests-approval-process/>

<https://dzone.com/articles/change-management-is-broken-heres-how-to-fix-it>

<https://dora.dev/capabilities/streamlining-change-approval/>