VERSION CONTROL GUIDELINES

Assignment: Module 3.2

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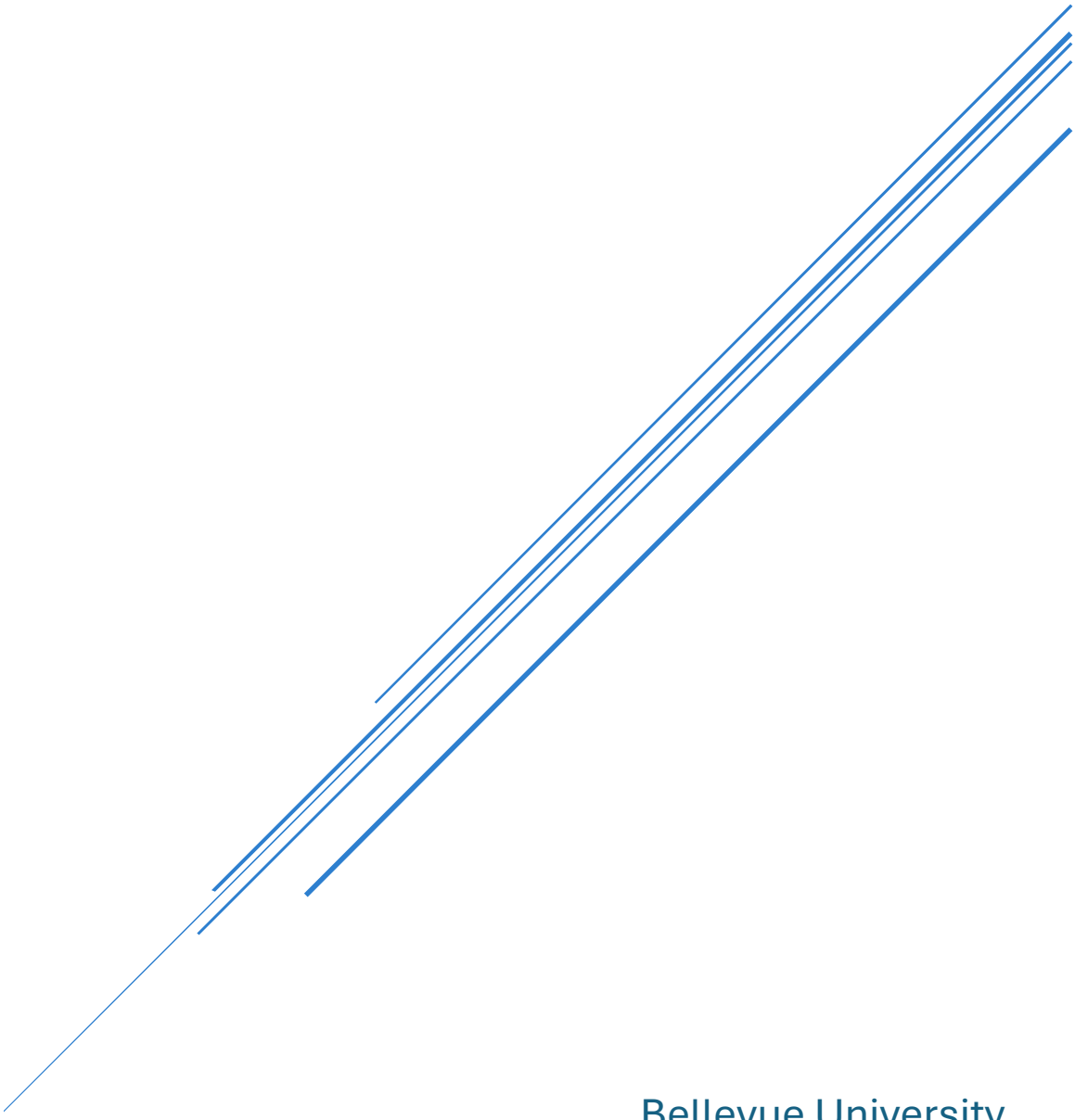

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Version control is an essential tool for keeping track of changes in software development and document management. Whether working on a group project or coding an application; version control ensures that everyone knows which version is the most up-to-date and this helps prevent errors. Without a system for tracking updates, it is easy to accidentally overwrite critical changes or lose previous versions. Furthermore, not having a system like this makes it much more difficult to work at any scale beyond just one developer, due to the constant need for communication. Several sources provide guidelines on version control, and after reviewing three different ones, I noticed some similarities and differences in their recommendations. This paper will compare their approaches, discuss any outdated advice, and will present a refined list of the most important guidelines.

The National Institutes of Health (NIH) provides structured version control guidelines focused on numbering systems for documents (NIH, 2015). They recommend starting drafts at version 0.1 and increasing the number with every update until the final version is set as 1.0. This numbering system helps track edits and makes it clear which version is the most current. For example, if a research team collaborates on an official report, labeling different versions helps to avoid confusion about whether everyone is working from the same version.

PM Study Circle emphasizes the importance of tracking who made changes and when they were made (PM Study Circle, 2023). Their guidelines suggest keeping detailed records, including timestamps and author names, to ensure accountability and clarity in collaborative work. This audit trail prevents confusion, especially in projects involving multiple contributors. In software development, knowing which team member wrote a specific function can help when debugging or updating the code later.

Ohio State University Libraries focuses on file naming conventions and cloud-based collaboration (Ohio State University Libraries, n.d.). Their guidelines suggest using structured file names that include dates and version numbers. They also recommend using cloud storage services like Google Drive or SharePoint to allow multiple users to edit files in real time and avoid duplication. I imagine any networked version of file storage would work, but they specifically call out “cloud” storage. This method could be especially helpful for a case like students working on a group project. It ensures everyone is accessing the latest version rather than working on outdated copies.

While most of these guidelines are still useful today, some recommendations may be outdated. NIH suggests manually keeping a list of all changes, but modern version control systems like Git and Google Docs automatically track modifications (NIH, 2015). It is interesting that they are discussing doing that manually as recently as 2015, in my opinion. Similarly, strict file naming rules may not be necessary because cloud platforms now offer built-in version tracking (Ohio State University Libraries, n.d.). Depending on the context, naming conventions can be very important, or not at all important. As technology improves, many manual tracking methods have become unnecessary, reducing the time required for project organization.

Based on my research, I propose the following essential version control guidelines: First, teams should use automated version tracking systems like Git or SharePoint to reduce manual effort and improve accuracy. Second, structured version numbers should be maintained so it is clear which updates are major or minor (for example: 1.0 for final versions, 1.1 for small edits). Third, audit trails should be established so changes are documented with timestamps and contributors’ names (PM Study Circle, 2023). This helps teams know exactly who made a

change, when it happened, and why. Fourth, cloud (or any network-based) storage should be used for collaborative work to ensure teams can edit files efficiently (Ohio State University Libraries, n.d.). Lastly, “A list of changes from the previous draft or final documents [should] be kept” (NIH, 2015). Storing backups or a list of changes prevents irreversible mistakes and helps teams recover lost work.

These guidelines help keep projects organized and make teamwork easier by reducing confusion. Version control may not always seem exciting, but it is incredibly useful, especially when multiple people are working on the same project or when mistakes need to be corrected. Having a structured approach to version control not only makes work smoother but also helps prevent frustrating errors.

References

National Institutes of Health. (2015). Version control guidelines. Retrieved from https://files.nccih.nih.gov/s3fs-public/CR-Toolbox/Version_Control_Guidelines_ver2_07-17-2015.pdf.

Ohio State University Libraries. (n.d.). Version control guidelines. Retrieved from https://library.osu.edu/version-control-guidelines.

PM Study Circle. (2023). Document version control: Examples and best practices. Retrieved from https://pmstudycircle.com/document-version-control/.