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Module 3.2 Assignment

CSD-380

**Version Control Guidelines: Comparative Analysis**

**Introduction**

Version Control is a crucial aspect of document and software management, ensuring that accuracy, accountability, and efficiency in tracking changes. This paper is going to explore version control guidelines from three sources, comparing their approach and identifying outdated practices.

**National Institutes of Health (NIH) Guidelines**

* NIH emphasizes document dates and version numbers for tracking changes.
* Draft versions start at 0.1, increasing until finalized at 1.0
* Revisions follow a structured number system.
* Substantive changes must be documented for transparency.

**PM Study Circle Best Practices**

* Focuses on audit trails, ensuring accountability for modifications.
* Highlights the importance of workflow management to prevent confusion.
* Stresses the necessity of tracking approvals to maintain document integrity.
* Advocates for software-based version control to streamline processes.

**Image API Best Practices for 2025**

* Emphasizes data integrity and minimizing errors.
* Encourages single-source truth to avoid duplication.
* Supports automated version tracking for efficiency.
* Highlights the importance of security measures in version control.

**Outdated Guidelines**

* NIH’s manual tracking of changes may be less relevant today, as automated systems can streamline this process.
* PM Study Circle’s workflow management approach may need adaptation for modern cloud-based collaboration tools.
* Image API’s security measures are increasingly relevant, but older guidelines might not account for AI driven document management.

**Essential Guidelines for Modern Version Control**

* Automated Version Tracking- Reduces human error and enhances efficiency.
* Clear Version Numbering System- Ensures consistency across revisions.
* Audit Trails and Change Logs- Maintains accountability and transparency.
* Single-Source Truth- Prevents duplication and confusion.
* Security and Access Control- Protects sensitive information from unauthorized changes.

**Conclusion**

Version control remains a vital practice in document and software management. While traditional guidelines provide a strong foundation, modern advancements necessitate automation, security, and streamlined workflows. The proposed guidelines ensure efficiency, accuracy, and adaptability in today’s digital landscape.

**Resources**

NIH. (N.D.) Version control Guidelines. NIH.

Retrieved from: [Version Control Guidelines](https://files.nccih.nih.gov/s3fs-public/CR-Toolbox/Version_Control_Guidelines_ver2_07-17-2015.pdf)

Usmani,F. (August,2023). Document Version Control: Examples and Best Practices. PM Study Circle.

Retrieved From: [Document Version Control: Examples and Best Practices | PM Study Circle](https://pmstudycircle.com/document-version-control/)

Korta,S.(August,2023). Mastering Document Version Control: A Comprehensive Guide for 2025. imageAPI.

Retrieved from: [5 Document Version Control Best Practices for 2025](https://www.imageapi.com/blog/version-control)