

Reviewer Report

Title: Twelve years of SAMtools and BCFtools

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Reviewer name: Fan Zhang

Reviewer Comments to Author:

Danecek et al. summarized the status, new features, and improvements in the SAMtools and BCFtools. They described the details in performance optimization, the new design of the separation of IO and CPU intensive tasks, and the separation of HTSlib from the tools. They also discussed the benefit of adopting software engineering techniques into SAMtools and BCFtools development. The paper is well written in clear language. The software is widely used and well documented.

I only have a few minor observations regarding the manuscript.

1. It would be clearer to rephrase or explain the problem these tools addressed in the Abstract section. Although the tools themselves speak a lot, it would still be friendly to a broader audience.
2. The transition of the first paragraph of the BCFtools section is not smooth. Consider moving the second sentence to the next paragraph.
3. As the authors pointed out, there might be suboptimal usages among third-party tutorials or home-brewed pipelines. It would be helpful to provide flowcharts with "best practices" for typical scenarios.

Level of Interest

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Quality of Written English

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