CodePanorama: a language agnostic tool for visual code inspection

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The motivation behind this tool is the fact that software projects change developers often, therefore there is a need for tools that make understanding the code base easier. The approach of the paper makes use of visuals. The tool creates visual representations of the code base, more specifically each line of code becomes a line of pixels, and as a result you can see the whole code base in one shot. Moreover, the tool provides filters and overlays that can emphasize some metrics and statistics computed based on the code.

The main use-case for this tool is getting a first intuitive impression of a new project. A developer can quickly visualize an overview of the code base and get a feeling about the size and structure of the project. Developers are also interested in the quality of code which often is represented in metrics. Sometimes, these metrics are not enough to assess the quality or even hide some aspects of the code quality. The idea of a tool that can help you visualize the whole code is not new. Similar visualization tools had been attempted before. In terms of novelty, compared with other tools, CodePanorama is convenient(publicly available), applicable(not language specific), available(free to use), offers privacy(can be self-hosted), is scalable(can display more) and is extensible(makes use of overlays).

In terms of validation, studies suggest that the intuitive judgment based on the usage of the tool has some correlation with common software metrics. And, as a next step the paper mentions that it plans to investigate to what extent this claim is valid, encouraging the software engineering community to start using the tool and give feedback.

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