DIFF : A Revision Control Editor Using the Differences of Document Information

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Software systems are always changing to fix bugs, improve performance and fit to the new environments. Such constant modifications produce a lot of versions. Software configuration management technique gave us an efficient means of storing source codes.

However, document information to understand source codes must be included in a revision control mechanism self-containedly.

This paper proposes a new approach to modification design and control method for detailed design and coding phases, which is implemented as a software tool: DIFF.

Following functional features are achieved.

(1) It can store the decision process of a designer (a hierarchical structure made in the process of stepwise refinement) with keeping clear correspondence to the source code.

(2) At modification design phase, other programmers can understand the design process of the program and they can redesign the program by changing parts of designers' decisions along this hierarchical structure.

(3) Programmers can recognize the differences of two versions as the differences of designers' decision at designing phase. And good effects on this feature are made sure by the experiments.

All of them are achieved efficiently. And this approach has extendability to preliminary design phase.