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Verification conditions are code. (English) Zbl 1106.68066
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Summary: This paper presents a new theoretical result concerning Hoare logic. It is shown here that the verification conditions that support a Hoare logic program derivation are themselves sufficient to construct a correct implementation of the given pre-, and post-condition specification. This property is mainly of theoretical interest, though it is possible that it may have some practical use, for example if predicative programming methodology is adopted. The result is shown to hold for both the original, partial correctness, Hoare logic, and also a variant for total correctness derivations.

MSC: 68Q60 Specification and verification (program logics, model checking, etc.)

Keywords: Hoare logic

Software: JML; Nuprl; Spec

Full Text: DOI Link

References:


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