The article deals with parameterized cache coherence verification. Cache coherence protocols are mechanisms used in multiprocessors. Substantial amount of processor cores leads to the state explosion problem. Two approaches to combat this problem are model checking-based methods, aimed at automation, and theorem proving style methods, aimed at scalability. Information sources show that the most promising methods combine the advantages of both groups. The most successful method is probably the CMP method representing a combined approach. Authors propose a sequence of steps for verification of the industrial-strength Elbrus microprocessors cache coherence protocol.

**Keywords:** cache coherence protocol, verification, formal methods, model checking, theorem proving.

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