	Logics and translations for inconsistency-tolerant model checking
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	In this study, we develop logics and translations for inconsistency-tolerant (or paraconsistent) model checking that can be used to verify systems with inconsistencies. Paraconsistent linear-time temporal logic (pLTL) and paraconsistent computation tree logic (pCTL) are introduced, and these are extensions of standard linear-time temporal logic (LTL) and standard computation tree logic (CTL), respectively. These novel logics can be applied when handling inconsistency-tolerant temporal reasoning. These logics are also regarded as four-valued temporal logics that extend the four-valued logic of Belnap and Dunn. Translations from pLTL into LTL and pCTL into CTL are defined, and these are used to prove the theorems for embedding pLTL into LTL and pCTL into CTL. These embedding theorems allow the standard LTL- and CTL-based model checking algorithms to be used for verifying inconsistent systems that are modeled and specified by pLTL and pCTL. A new illustrative example for inconsistency-tolerant model checking is also presented on the basis of the proposed logics and translations.