

Application of Sub-health Diagnosis and Reasoning Method for Avionics

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Abstract : Health management has become one of the design goals in the research and development of new generation avionics systems, and is an important complement and development for the testability and fault diagnosis technology. Currently, the research and application for avionics system health dividing and diagnosis technology is still at the starting stage, lack of related technologies and methods reserve. In this paper, based on the health three-state dividing of avionics products, state lateral transfer coupling modeling and diagnosis reasoning method considering sub-health are researched. With the study of typical case application, the feasibility and correctness of the method and the software are verified.

Keywords : sub-health, diagnosis reasoning, three-valued coupled logic, extended dependency model, avionics

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