

Model-Based IV&V for an Operation Procedure

*Tsutomu Matsumoto (JAXA); Masakazu Takase (Mitsubishi Space Software Co.,Ltd.); Yuko Miyamoto (JAXA);
Masa Katahira (JAXA)*

JAXA is now developing new model-based method to validate an Operation Procedure from early development phase. Models of the system and its environment are built and implemented in the simulation environment to verify the consistency between system design and operation design. The system model is built with specific level of abstraction based on the system specification. The environmental model (e.g. pressure change) related with

the target system function is virtually built. The interactional behaviour between the system and the environment can be analyzed by investigating

the history of command and telemetry through the operation procedure.

In this presentation, application methodology of Model-Based Independent Verification and Validation (IV&V) for an operational procedure and its effectiveness of the proposed methodology are shown.