

Title	ハードウェアモデルを用いたモデル駆動型ソフトウェアプロダクトライン
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論文の内容の要旨

In recent years, embedded systems is subject to increasing demand. Embedded systems is computer systems embedded instrument of some kind and control it. One of aspect of embedded system, systems has various kind product. Products composed by many hardware and software variability.

Software product line development is one of software development methodology manage software variability and reusability. Therefore, software product line development manage only software variability. System product line development manage software variability and additionally hardware variability.

Embedded software is software that control hardware system. Embedded software developments needs many kind of hardware information. In the past, developments is by hand work that is based on engineer's implicit knowledge.

We propose software development architecture that manage hardware and software variability, and embedded software derivation by modeled hardware information.

キーワード： 組込みソフトウェア開発, システムプロダクトライン開発, モデル駆動開発

論文審査の結果の要旨

The candidate presented his work on a methodology and development tools to describe hardware components in a way compatible with UML-based development frameworks. The approach makes it easier to use data sheets of electronic components (e.g., sensors, microcontrollers, etc) and describe their

behavior in such a way that the component and its functionality can be used in traditional software development methods. The candidate has developed several developers tools to support the methodology. The approach is very much motivated by practice and immensely useful.

The candidate made great efforts to present his work, and answered questions adequately. The contribution of the work, modest on a purely academic level, is very pragmatic and well-grounded in practice. It carries tremendous potential for having a very large impact in industry.

This is an excellent dissertation and we approve awarding a doctoral degree to Mr. HOSOAI, Shintaro.