

Towards a Standard Hardware API and a Standard Device Model

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Abstract content

To interface with the outside world, many devices provide some control registers which can be accessed via a field bus. Introducing a standardised set of registers will allow one to use the same software tools for many board. They can for instance have a common driver or user space library. The PICMG software working group is currently working on an implementation recommendation guideline called Standard Hardware API, with the goal to improve the interoperability and compatibility of boards from different labs and vendors.

On the higher software level devices often represent themselves either as random access devices to an address range or as streaming devices. A Standard Device Model will allow one to access these functionalities through a uniform interface, abstracting the access details of the actual hardware. The PICMG software working group is preparing an implementation recommendation guideline for such a model and will provide use case reference implementations.

The talk on behalf of the Software Working Group presents the ideas and design concepts of these PICMG recommendations.

Summary

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