EPICS 2015
EPICS Collaboration Meeting, Spring 2015
East Lansing, Michigan, USA
May 18-22, 2015

Contribution ID: **68** Type: **5 minute contribution**

Development Plan for Reliable Card-size IOC

Wednesday, 20 May 2015 11:15 (5 minutes)

Recent card-size PCs, such as Raspberry Pi or BBB (Beagle bone black), have enough performance to use as EPICS IOCs. In ERL in KEK-Tsukuba, a few pieces of BBB IOCs with serial lines were developed to monitor radiation-monitoring instruments [1]. However, due to lack of long-term reliability and hardness, mass introduction to accelerator controls is not realistic.
We have started study to develop a customized card-size PC. It will: 1) use long-term guaranteed parts, 2) has simple IOs (1 LAN, 2 serials, 8bit io), 3) be used with a hard metal-chassis, and 4) be not low-cost but ...
We hope to develop a prototype by the end of FY2015. After 2016, it will be used for newly introduced devices. In addition, part of legacy VME-bus IOCs in J-PARC MR will be replaced by them.

[1] T.Obina, "Development of Compact Device Server with EPICS", PASJ2014-MOOL08, 11th Annual Meeting of Particle Accelerator Society of Japan, 2014

Primary author: Dr KAMIKUBOTA, Norihiko (J-PARC/KEK)

Presenter: Dr KAMIKUBOTA, Norihiko (J-PARC/KEK)

Session Classification: Five Minute Talks