Portable Resource Management

Till Straumann, SSRL/SLAC
<strauman@slac.stanford.edu>

Overview

- Introduction
- Currently Available Techniques
- Discussion Status
- Future

Introduction

- Lowlevel EPICS software (drivers, devSup) need lowlevel resources (interrupts, bus access, address translation, ...)

- Operating system independent management of such resources needed

- Yet another problem: hardware platform independent device support

Currently Available Techniques

- Allocation of VME resources (IRQs, addresses) via "devLib"
- No PCI support at all
- Driver / device support "learns" about hardware configuration by a "xxxSetup()" routine, called from startup script

Discussion Status

- Make VMELib (AKA devLib) OSI; provide RTEMS implementation
- Encourage developers to use devLib
- PCILib would be desirable; currently no plans however

Utopia

recSup

Configuration

OS / HW

resource manager

driver

devLib

pciLib