## New I2C Slave Framework (plus Runtime IP Core Switching)

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### What is demonstrated

- Two I2C controllers, both simultaneously master & slave on the same bus. The slave devices show:
  - a) register based access (like EEPROM, data via sysfs)
  - b) byte read only access (like sensor, counts seconds)

### What was improved

- Linux could previously not be an I2C slave device. The I2C core has been extended to pass slave events from a driver to a HW independent backend. RCar driver support, EEPROM like backend, and documentation were mainlined.

- Now it is possible to chose at runtime the proper I2C core depending on current needs (e.g. DMA vs. slave). i2c-gpio can be used as fallback in case of unexpected problems.

### Switching at runtime between:

- a) I2C (*i2c-rcar* driver)
- b) IIC (*i2c-sh_mobile* driver)
- c)_GPIO (*i2c-gpio* driver)

IP cores are muxed to the same pins and keep stable bus numbers.

### Hardware Information

- Renesas Lager board (RCar H2 SoC), two I2C busses wired together

### Source code or detail technical information availability

- I2C Slave: all upstream (needs driver support!)
- IP core switch: RFC sent to mailing lists