RenesasCon

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Glider bvba

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Statistics

About Me (and Linux)

Hobbyist

1994 Linux/m68k on Amiga

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2013 Renesas ARM-based SoCs

RENESAS

Upstream Development Groups

Groups established at Kobe meeting (June 2015):

- Core
- I/O
- Multimedia
- Integration

Renesas Core Group Members

- Geert Uytterhoeven ← leader
- Kuninori Morimoto
- Laurent Pinchart
- Magnus Damm
- Simon Horman
- Ulrich Hecht
- Yoshihiro Shimoda

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- Yoshihiro Shimoda
- Khiem Nguyen
- Niklas Söderlund

Core Group Development Areas

- ARM CPU clusters including SMP, caches and CCI / AXI
- Power control, clocks and reset such as APMU, SYSC, CPG, MSTP, RST
- Interrupts including GIC and IRQC and Timers
- Debugging hardware such as ARM core sight
- DMA controllers and IOMMU devices
- Pincontrol PFC and GPIO

Core Group Achievements

R-Car Gen3

r8a7795 (R-Car H3)

- Add full (H)SCIF nodes to DT
- New CPG/MSSR driver
- Add gpio nodes to DT
- SYS-DMAC integration
- Cache topology
- INTC-EX support
- basic PFC support
- add r8a7795 drive-strength support

r8a7796 (R-Car M3-W)

- Upstream basic r8a7796 CPG/MSSR support

Core Group Achievements

Other

- Propose API to obtain mode pin values in a generic way
- Add support for valuable devices to multi-platform r8a7778 and r8a7779
- Remove legacy (non-DT) code
- Improve PFC documentation
- Fix earlycon support on R-Car Gen2 etc
- Start adding dmas pointing to all SYS-DMAC engines
- PFC 1.8v switching
- Fix atomic DMA memory pool exhaustion
- Discuss SMP DT bindings with ARM SoC maintainers
- R-Car SYSC PM Domain support

Core Group Schedule

https://osdr.renesas.com/projects/linux-kernel-development/wiki/Core-todo-list

Q2 Task List

Core Group Lead and Development

Task 16K1Q1.1 Core group development lead and upstream development (part 1)

- Task 2.1 Renesas-drivers git repository maintenance (part 1)
- Task 2.2 R-Car M3-W Clock Pulse Generator Upstream Development*
- Task 2.3 R-Car M3-W System Controller Power Area Upstream Development*

Q2 Task List

Core Group Lead and Development

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I/O Group Development

- Task 1.1 SCIF FIFO flushing*

* Patches queued for v4.8

Q2 Achievements

Task 16K1Q1.1: Core group development lead and upstream development (part 1)

Development lead

Upstream development

- R-Car H1/Gen2/Gen3 DT SYSC Power Domains
- R-Car Gen2/3 DT APMU SMP bringup
- SCIF hardware flow control
- Drop legacy `drivers/sh`
- dtc W=1
- ...

Q2 Achievements

Task 2.1: Renesas-drivers git repository maintenance (part 1)

- Includes:
  - Subsystem tree (*for-next branches*)
  - Branches with driver code (*Topic branches*)
  - Fixes
- One release per week/RC: on Tuesday
  (except during holidays)
- More frequent releases due to increased importancy for additional tasks
- `clk-renesas-for-*` and `sh-pfc-for-*` pull requests

Q3 Task List

Task 16K2Q1.2	Core group development lead and upstream development (part 2)
Task 1.1	R-Car H3 MSIOF Parent Clock Prototype
TBD	...

Most Active Developers

	By changesets			By lines		
v4.2	149	1.1%	5th	—	—	—
v4.3	115	0.9%	6th	7338	0.9%	15th
v4.4	105	0.8%	11th	—	—	—
v4.5	159	1.3%	5th	8325	1.2%	11th
v4.6	86	0.6%	12th	—	—	—

Source: `https://lwn.net/`