GSoC Cortex-R4F RTEMS portation

Přemysl Houdek   20.3.2014

RTEMS (Real-Time Executive for Multiprocessor Systems)

- Real-time operating system
- GNU General Public License version 2 or higher
- Long history (since 1980')
- Mailing lists, IRC channels
- Wide range of processors
- Space traveling

Cortex -R4F

- ARMv7-R architecture (Thumb-2 / ARM instructions)
- Harvard memory architecture
- Dual core (lock step mode)
- Fast interrupt response (LLIM)
- Floating Point Unit
- … and much much more

GSoC - My dream project

- Run RTEMS on Ti's TMS570LS3137

- Debugging support (serial port)

- Timer support

- Ethernet support

- Have a (one) free weekend

GSoC

- Registration

- Approved

- Blog pending

Thank you for attention.