# μClinux Based on kernel 2.6.x for ADI BF533/561 Processores

## Porting & Developing Drivers for HHBF561 Board

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# Outline

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# Features of the ADSP-BF561

## Characteristics

- Dual Blackfin cores with each core capable of 756 MHz/1512 MMACs (3024 MMACs total).
- Large On-Chip Memory of 328 KBytes arranged as individual L1 memory systems for each core plus a shared L2 memory space.
- High data throughput tailored for the needs of imaging and consumer multimedia applications.
- Application Tuned Peripherals provide glueless connectivity to a variety of audio/video converters and general-purpose ADCs/DACs.

# Features of the ADSP-BF561

## Applications

- Digital Still Cameras
- Digital Video Cameras
- Portable Media Players
- Digital Video Recorders
- Set Top Boxes
- Consumer Multimedia
- Automotive Vision Systems
- Broadband Wireless Systems

# Features of the ADSP-BF561

## Peripheral Resource

- 2 Parallel Peripheral Interface (PPIs)
- 2 Serial Ports (SPORTs)
- Serial Peripheral Interface (SPI)
- 12 General-Purpose 32 bits Timers
- Universal Asynchronous Receiver Transmitter
- Watchdog Timer
- 48 General Purpose I/O (Programmable Flags)

# Features of the ADSP-BF561

## Development Environment

- Visual DSP
- GNU Toolchain + μClinux

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- Board/chip level configuration
- FLASH driver
- DM9000 ethernet driver
- second stage loader for BF561
- combine RAM and ROM version for easily debugging

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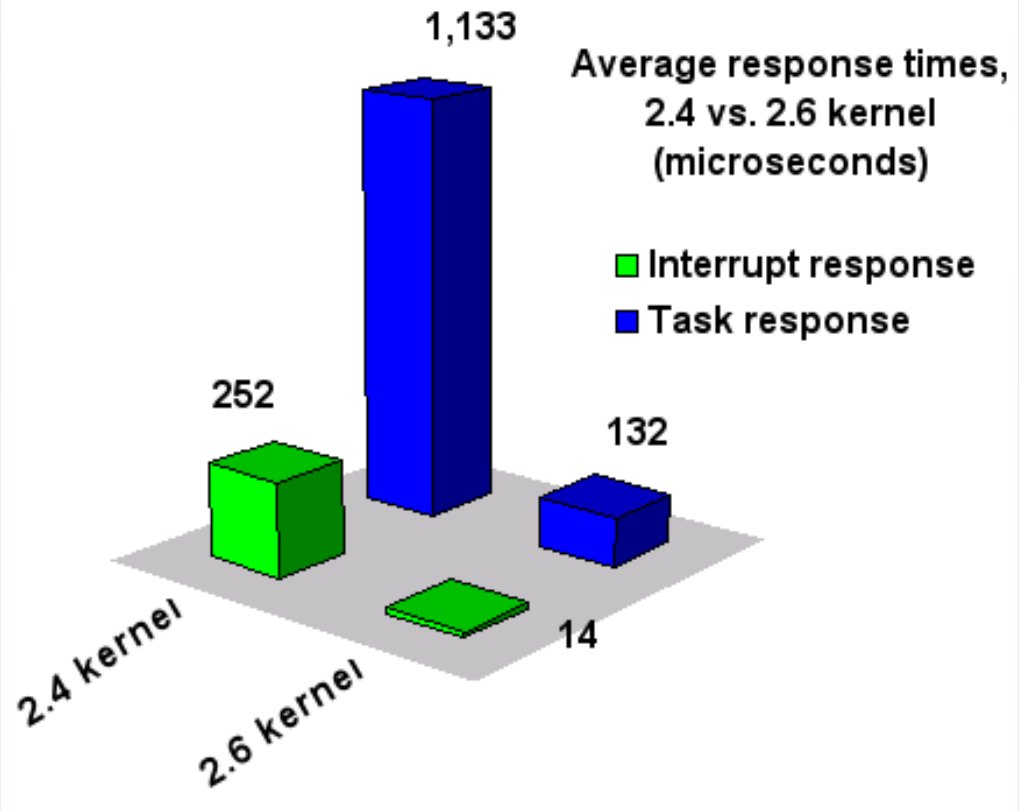
# Linux kernel 2.6

## Realtime Performance

- Improved Efficient Scheduler
- Preemptive?



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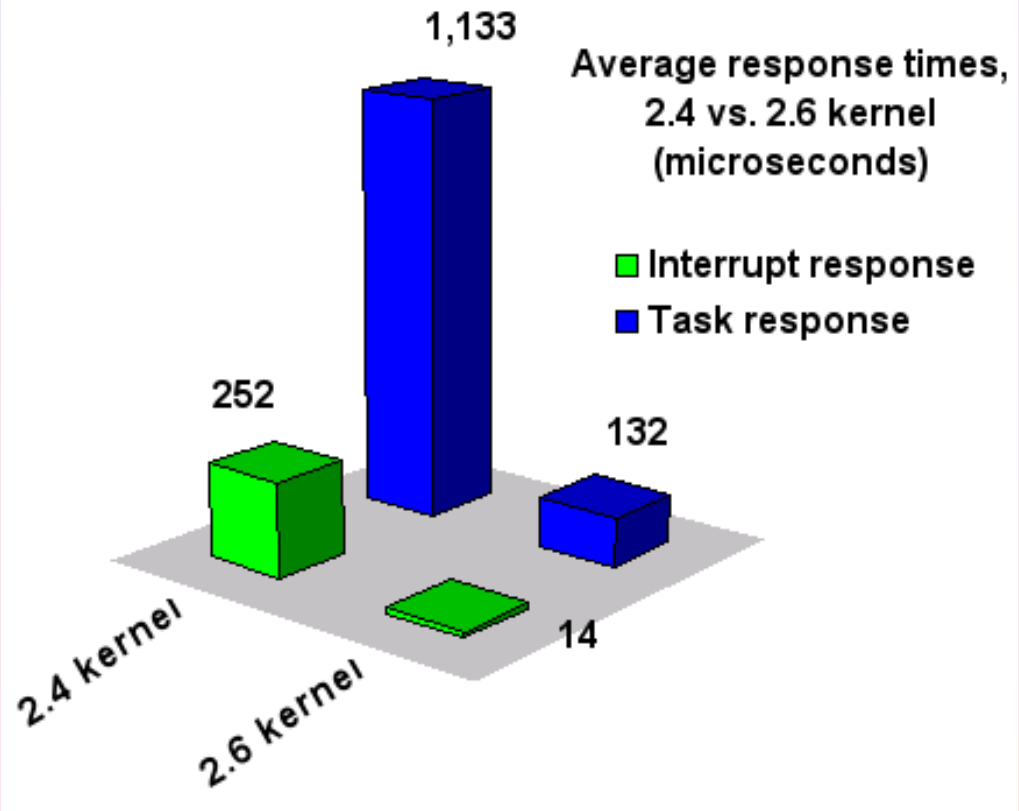

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- Version 1.25 released for linux kernel 2.4
- IO base address & Interrupt resource
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- SAA7113H video decoder chip
- emulated I2C bus for programming
- two PPI channels with DMA channels for data transfer

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