SPEAr ARM Linux Overview

Introduction

SPEAr (Structured Processor Enhanced Architecture).
weblink : http://www.st.com/spear

The ST Microelectronics SPEAr range of ARM9/CortexA9 System-on-Chip CPUs are supported by the 'spear' platform of ARM Linux. Currently SPEAr300, SPEAr310, SPEAr320 and SPEAr600 SOCs are supported. Support for the SPEAr13XX series is in progress.

Hierarchy in SPEAr is as follows:

SPEAr (Platform)
- SPEAr3XX (3XX SOC series, based on ARM9)
  - SPEAr300 (SOC)
    - SPEAr300_EVB (Evaluation Board)
  - SPEAr310 (SOC)
    - SPEAr310_EVB (Evaluation Board)
  - SPEAr320 (SOC)
    - SPEAr320_EVB (Evaluation Board)
- SPEAr6XX (6XX SOC series, based on ARM9)
  - SPEAr600 (SOC)
    - SPEAr600_EVB (Evaluation Board)
- SPEAr13XX (13XX SOC series, based on ARM CORTEXA9)
  - SPEAr1300 (SOC)

Configuration

A generic configuration is provided for each machine, and can be used as the default by

```
make spear600_defconfig
make spear300_defconfig
make spear310_defconfig
make spear320_defconfig
```

Layout

The common files for multiple machine families (SPEAr3XX, SPEAr6XX and SPEAr13XX) are located in the platform code contained in arch/arm/plat-spear with headers in plat/.

Each machine series have a directory with name arch/arm/mach-spear followed by series name. Like mach-spear3xx, mach-spear6xx and mach-spear13xx.

Common file for machines of spear3xx family is mach-spear3xx/spear3xx.c and for spear6xx is mach-spear6xx/spear6xx.c. mach-spear* also contain soc/machine specific files, like spear300.c, spear310.c, spear320.c and spear600.c. mach-spear* also contains board specific files for each machine type.

Document Author

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