

Embedded Linux Porting (C3)

Primary Bootloader

(Atmel Bootstrap)

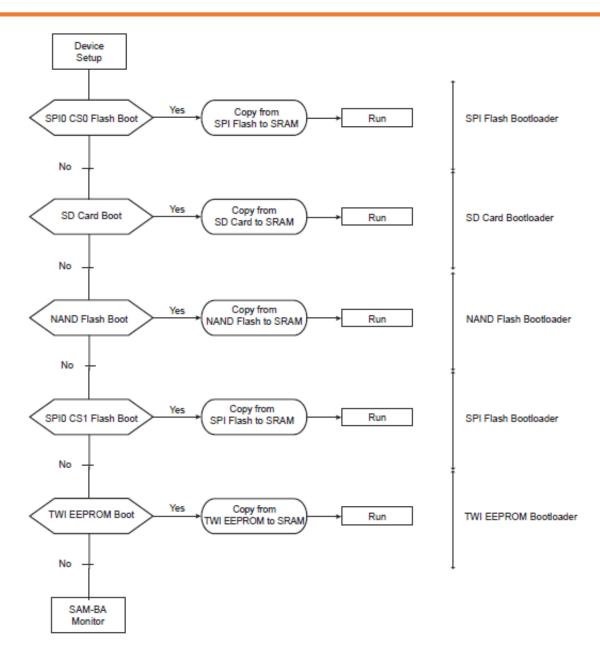
Agenda



- Introduction to Bootloader & PBL
- Atmel Bootstrap directory structure
- Atmel Bootstrap code flow
- Compile and Testing Atmel Bootstrap code on RB-A5D2x
- How to add new Board to the Atmel Bootstrap

ROM Code boot Sequence





Bootloader



- Why Bootloader
- Functions of Bootloader
- Why Primary Bootloader required

Bootstrap Dir Structure



binaries	Config.in.none	driver	KNOWN_ISSUES	README.txt
poard	Config.in.secure	elf32-littlearm.lds	lib	scripts
config	Config.in.u-boot	elf32-littlearm-tz.lds	main.c	tags
Config.in	contrib	fs	main.o	toplevel_cpp.mk
Config.in.app-image	crt0_gnu.o	host-utilities	Makefile	uEnv.txt
Config.in.kernel	crt0_gnu.S	include	README.md	
Config.in.kernel phytec:at91bootstrap		include	README.md	





bootstrap_code_flow.pdf

Bootstrap Compilation & Testing



```
# Make sure you have set the toolchain path & environment
```

Clean the source dir

\$ make mrproper

Configure the Atmel Bootstrap for Ruggedboard-A5D2x

\$ make rugged_board_a5d2x_defconfig

Do addition Configuration if required using menuconfig

\$ make menuconfig

Compile the source

\$ make

Bootstrap Porting on New Board



- Create a new directory to hold your board specific code board/ directory.
- Add Files in board/<board_name>
 "board.mk", a ".c", ".h", "Config.in.board", and "Config.in.boardname"
- Create the necessary default configuration files such as "<board_name__defconfig" in your new board directory.
- Add(source) your board's "Config.in.board" in "board/Config.in.board" file.
- Add(source) your board's "Config.in.boardname" in the "board/Config.in.boardname" file.
- Add your board's ".h" in the "include/contrib_board.h" file.



Open Discussions











Developer Wiki







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