

## **Building Linux Kernel for MINI2440**

- Configure kernel for target board \$ make ARCH=arm mini2440 defconfig Note: Default configuration files resides in \$(linux\_source)/arch/\$(arch)/configs/ - Customizing linux kernel for mini2440 \$ make ARCH=arm menuconfig - Building kernel with **initramfs/initrd** support **General setup** ---> [\*] Initial RAM filesystem and RAM disk (initramfs/initrd) support **Device Drivers** ---> [\*] Block devices ---> <\*> RAM block device support - Building kernel with **hot-plug**gable devices support **General setup --->** [\*] Configure standard kernel features (expert users) ---> **Device Drivers** ---> **Generic Driver Options --->** [\*] Maintain a devtmpfs filesystem to mount at /dev [\*] Automount devtmpfs at /dev, after the kernel mounted the rootfs - Building kernel with NFS support [\*] Networking support ---> **Networking options --->** [\*] TCP/IP networking [\*] IP: kernel level autoconfiguration [\*] IP: DHCP support [\*] IP: BOOTP support

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[*] IP: RARP support
       File systems --->
              [*] Network File Systems --->
- Building kernel with flash file-system support
       File systems --->
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[*] Miscellaneous filesystems --->
      <*> Journalling Flash File System v2 (JFFS2) support
ubifs support :(optional)
Device Drivers --->
      <*> Memory Technology Device (MTD) support --->
             <*> Enable UBI - Unsorted block images --->
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## **File systems** ---> [\*] Miscellaneous filesystems ---> <\*> UBIFS file system support

- Export Cross-compiler path

  \$ PATH=\$PATH:/usr/local/bin/at91
- Save and exit from configuration tab.
- Building kernel for target

\$ make ARCH=arm CROSS\_COMPILE=arm-linux- uImage
Note: Creates bootable kernel images in \$(linux\_source)/arch/\$(arch)/boot/

Image - uncompressed kernl imagezImage - compressed kernel image

**uImage** - u-boot compatable kernel Image