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ファームウェアの更新

本体ファームウェアの更新

Linux から更新

MA-E3xx シリーズと同様、ファームウェアのファイルは ZIP 形式となっています。
sftp などファームウェアを実機に転送し、root 権限で "firmup" コマンドを実行してファームウェア更新を行います。

```
root@gemini:~# firmup /tmp/mas1xx_focal_v5_0_0rc5.img
### MA-S1xx series firmware update utility (for 2-area firmware).
* checking firmware file integrity... OK.
* custom firmup-pre script found.
* AT91Bootstrap file found.
  writing "at91bootstrap.bin" image to /dev/mtd0 ... succeeded.
Updating Area: 0 ...
* image file for kernel found, writing... succeeded.
* image file for kmod found, writing... succeeded.
* image file for initramfs found, writing... succeeded.
* image file for rootfs found, writing... succeeded.
* DTB file(s) found.
  writing at91-centurysys-gemini-00.dtb... succeeded.
  writing at91-centurysys-gemini-01.dtb... succeeded.
  writing at91-centurysys-gemini-01.dtb0... succeeded.
  writing at91-centurysys-gemini-02.dtb0... succeeded.
  writing at91-centurysys-gemini.dtb... succeeded.
* Bootloader file found.
  writing "barebox.bin" image to /dev/mtd2 ... succeeded.
  erasing bootloader environments (/dev/mtd1)... done.
* updating default firmware area: 0
Succeeded.
```

SDカードブート から本体ファームウェアの更新

本体ファームで起動出来なくなった際、SDカードブートで起動してから、本体ファームを再書き込みする事で復旧する場合があります。

1 SDカードブート

下記URLを参考に、SDカードイメージを作成し、SDカードブートで起動させます。

[MA-X3xx シリーズ SD Card から起動する \(bootloader 含む\)](#)

[MA-S1xx シリーズ SDカードからのブート](#)

2 /dev/mmcblk0p1 をマウント

ディレクトリ /ro/.host を作成し、/dev/mmcblk0p1¹⁾ をマウントさせます。

```
root@metis:~# mkdir /ro/
root@metis:~# mkdir /ro/.host
root@metis:~# mount -t ext4 /dev/mmcblk0p1 /ro/.host
```

3 firmup コマンドの実行

USBメモリやsftpなどでファームウェアを実機に転送し、root 権限で“firmup” コマンドを実行してファームウェア更新を行います。

```
root@metis:~# firmup /tmp/max3xx_jammy_v6_2_0.img
### MA-X3xx series firmware update utility (for 2-area firmware).
* checking firmware file integrity... OK.
* custom firmup-pre script found.
* device type: GP
* u-boot (1st stage) file found.
  writing "tiboot3_GP.bin" image to /dev/mtd0 ... succeeded.
* u-boot (2nd stage) file found.
  writing "tispl.bin" image to /dev/mtd1 ... succeeded.
MSP430 is not need to update firmware.
* Update XIO MSP430(1) firmware.
MSP430 firmware updater
* Load firmware from file: /tmp/.firmware/msp430dio.txt ...done.
* Invoke MSP430 BSL...done.
* Wait for BSL booting...done.
* Mass-erase device...done.
* Unlock device succeeded.
* Writing segment No. 1 ..... OK.
* Writing segment No. 2 . OK.
* Writing segment No. 3 . OK.
* Writing segment No. 4 . OK.
* Writing segment No. 5 . OK.
* Verify segment No. 1 ... OK.
* Verify segment No. 2 ... OK.
* Verify segment No. 3 ... OK.
* Verify segment No. 4 ... OK.
* Verify segment No. 5 ... OK.
* Update XIO MSP430(2) firmware.
MSP430 firmware updater
* Load firmware from file: /tmp/.firmware/msp430dio.txt ...done.
* Invoke MSP430 BSL...done.
* Wait for BSL booting...done.
* Mass-erase device...done.
* Unlock device succeeded.
* Writing segment No. 1 ..... OK.
```

```
* Writing segment No. 2 . OK.
* Writing segment No. 3 . OK.
* Writing segment No. 4 . OK.
* Writing segment No. 5 . OK.
* Verify segment No. 1 ... OK.
* Verify segment No. 2 ... OK.
* Verify segment No. 3 ... OK.
* Verify segment No. 4 ... OK.
* Verify segment No. 5 ... OK.
Updating Area: 1 ...
* image file for kernel found, writing... succeeded.
* image file for kmod found, writing... succeeded.
* image file for initramfs found, writing... succeeded.
* image file for rootfs found, writing... succeeded.
* DTB file(s) found.
  writing k3-am642-centurysys-metis-00.dtb... succeeded.
  writing k3-am642-centurysys-metis-01.dtb... succeeded.
  writing k3-am642-centurysys-metis-02.dtb... succeeded.
  writing k3-am642-centurysys-metis-03.dtb... succeeded.
  writing k3-am642-centurysys-metis-20.dtb... succeeded.
  writing k3-am642-centurysys-metis-ext-01.dtbo... succeeded.
  writing k3-am642-centurysys-metis-ext-02.dtbo... succeeded.
  writing k3-am642-centurysys-metis-mod-01.dtbo... succeeded.
  writing k3-am642-centurysys-metis-mod-02.dtbo... succeeded.
  writing k3-am642-centurysys-metis-mod-03.dtbo... succeeded.
* Bootloader file found.
  writing "u-boot" image to /dev/mtd2 ... succeeded.
* Bootloader script found.
  writing "boot.scr" image to /dev/mtd5 ... succeeded.
* custom firmup-post script found.
* generating SUM file...
  MD5: f29ef9a970f0b257030130900f91f63c
  SHA1: 0f90dbd8ecef12fdd56e72bff5a4129d5b98b1ef
  done.
* updating default firmware area: 1
Succeeded.
```

1)

参照: [e.MMC の構成](#)

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