



Realtek NAS SDK

Realtek Pstore





Introduction

- Write oops and panic logs to a persistent storage before the system crashes
- Need a particular MTD partition on SPI flash so that the logs can survive after a restart



Configuring the pstore

- To enable rtk_sfc_pstore, configure the kernel with these options
 - CONFIG_MTD_RTK_SFC_PSTORE=y
 - CONFIG_PSTORE=y



Specifying an MTD partition

- Set up an MTD partition with name “oops”
- The partition can be specified through kernel’s command-line parameter mtdparts
 - For example, set kernelargs variable in Image-Builder's feed/bootargs.conf.spi file
 - kernelargs=**mtdparts**=RtkSFC:1024k(U-Boot)ro,64k(FWtbl)ro,128k(Factory)ro,10944k(FW)ro,4096k(Free),128k(**oops**) ...
- It can also be specified via the device tree



Setting the parameters

- The record size for each log (default is 32 KB) must be a multiple of the erase block size and can be set through the kernel command line
- For example, set record size 32 KB for erasesize 4 KB
 - `rtk_sfc_pstore.record_size=32768`



Reading the logs

- The log data can be read from the pstore filesystem
 - `mount -t pstore pstore /sys/fs/pstore`
 - The format for these files is `dmesg-rtksf-N`, where N is the record number
- To delete a stored record from the persistent storage, simply unlink the respective pstore file
 - `rm /sys/fs/pstore/dmesg-rtksf-0`
- Note that save all files in `/sys/fs/pstore/` elsewhere after a system restart
 - New oops/panic logs will overwrite the existing ones