

Auto-Expand Root Partition and Filesystem

Tuesday, 7 July 2020 5:12 pm

1. Shrink the 'rootfs' Partition with Linux (QParted)
2. Replace 'cmdline.txt' with content of 'cmdline-initresize.txt' in /boot partition (Windows)
3. Copy 'resize2fs_once' to rootfs/etc/init.d
4. Change file permission to 777
5. Create symbolic link 'S01resize2fs_once' at folder rootfs/etc/rc3.d
6. **NOTE: The system shall reboot once after partition-resized.**

Win32DiskImager Note:

Enable 'Read Only Allocated Partition' option to take advantage of the smaller partition size.

Background Information

- Last Partition Expand to SD Card is initiated by the changes in cmdline.txt
 - a. Runs the init_resize.sh to resize the partition with 'parted'
 - b. The script will edit itself out of the cmdline.txt
 - c. The script will reboot the Pi.
- FileSystem Resize to fit the expanded partition
 - a. The 'resize2fs_once' is from github
https://github.com/RPi-Distro/pi-gen/blob/4d689a25fdd2309e1c6c1b01d12523b3cd401461/stage2/01-sys-tweaks/files/resize2fs_once
 - b. It is started by the system boot up and it removes itself and associated rc.d symbolic-links after execution.